CAMDEN GOODS YARD

ENVIRONMENTAL STATEMENT

Volume 3b

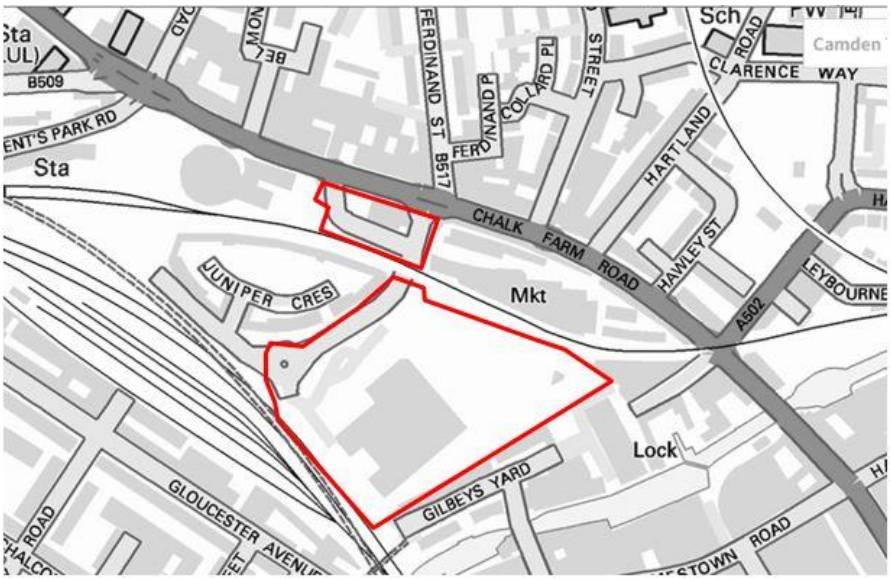
Transport Assessment

30 June 2017

ARDENT | CONSULTING ENGINEERS

SAFEWAY STORES LIMITED & BDW TRADING LIMITED

PROPOSED RESIDENTIAL / RETAIL DEVELOPMENT: MORRISONS, CHALK FARM ROAD, CAMDEN



TRANSPORT ASSESSMENT

REPORT REFERENCE NO. 160630-06A
PROJECT NO. 160630
JULY 2017

PROPOSED RESIDENTIAL/RETAIL DEVELOPMENT: MORRISONS, CHALK FARM ROAD, CAMDEN

TRANSPORT ASSESSMENT

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REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
-	Draft for Client Comments	ATB	Working Draft	-	JUNE 2017
-	Final Issue for Planning	ATB	DH	SJH	30/06/17
A	Revised Final Issue for Planning	ATB	DH	SJH	03/07/17

DH SJH

1.0 INTRODUCTION

1.1 Ardent Consulting Engineers (ACE) has been appointed by Safeway Stores Limited & BDW Trading Limited to advise on the transport and infrastructure aspects of a proposed residential and retail development at the existing Morrisons Foodstore at Chalk Farm Road, Camden, NW1 8AA.

1.2 The proposals comprise a mixed use development including 573 residential dwellings, offices/workspace, and the redevelopment of the existing Morrisons store and associated access/parking arrangements.

1.3 This Transport Assessment (TA) has been prepared to support a full planning application to the local planning authority, the London Borough of Camden (LBC). LBC is also the local highway authority, with Transport for London (TfL) as a statutory consultee given the site location and development size. TfL is also the highway authority for the A400 and A4200 which both form part of the Transport for London Road Network (TLRN).

1.4 As per the requirements set out in the National Planning Policy Framework (NPPF), all developments that generate significant movements should be accompanied by a Transport Assessment (TA) or Transport Statement (TS). This requirement is also reflected in the Planning Practice Guidance document '*Travel Plans, transport assessments and statements in decision-taking'*, which provides further details on what information these documents should include. Furthermore, TfL's own Transport Assessment Guidance confirms that a TA is required for this scale of development proposals. Hence, this TA has therefore been produced to support the upcoming application.

1.5 Prior to this TA being produced, extensive pre-application discussions have taken place with both TfL and LBC, to agree the scope for the TA. This included the submission of a detailed Transport Scoping Note (TSN, **ACE Ref: 160630-03**), a copy of which is included at **Appendix A**. Detailed Technical Notes covering the issue of retail

parking provision were also issued to LBC as part of the pre-application discussions, copies of which are included at **Appendix B**.

1.6 The pre-application discussions with LBC and TfL have included attendance at several pre-application meetings with LBC, as well as two formal pre-application meetings with TfL, which took place on 9 2016 and 24 May 2017. **Appendix C** contains TfL's formal pre-application response letters following both meetings, the details of which have been taken into account within this TA.

1.7 Following this introduction, the remainder of this TA is structured as follows: -

- **Section 2.0** provides details of the existing site including its location, usage, access and parking arrangements, as well as the surrounding highway network and accessibility by various modes;
- **Section 3.0** provides a review of current local and national planning policy relating to transport, along with a review of current assessment and design guidance;
- **Section 4.0** provides a detailed description of the development proposals, including confirmation of site access, parking and servicing arrangements and how these comply with current design standards and planning policy;
- **Section 5.0** confirms the proposed trip generation for the site by all modes, based on details initially presented in the TSN and subsequent correspondence with the local authorities;
- **Section 6.0** considers the impact of additional vehicle trips on the highway network to identify whether any mitigating improvements are required, including junction capacity modelling and a review of recent accident records;
- **Section 7.0** considers opportunities for access to the site by sustainable modes, including details of a PERS audit, to identify any necessary infrastructure improvements beyond the site; and
- **Section 8.0** provides the summary and conclusions of this TA.

2.0 EXISTING SITUATION

Site Location

2.1 The site comprises the existing Morrisons Camden Foodstore, which is located to the south-west of Chalk Farm Road, towards the north-western end of Camden Town Centre. The site area includes the Morrisons store and associated car park, which are located to the south-west of the Northern Line underground rail line, as well as the Morrisons Petrol Filling Station (PFS), which is situated in between Chalk Farm Road and the Northern Line. The main part of the site (foodstore) is bound by the site access road to the north-west, the Northern Line to the north-east, residential properties to the south-east, and national rail lines to the south-west. **Plate 1** below shows the indicative site boundaries:

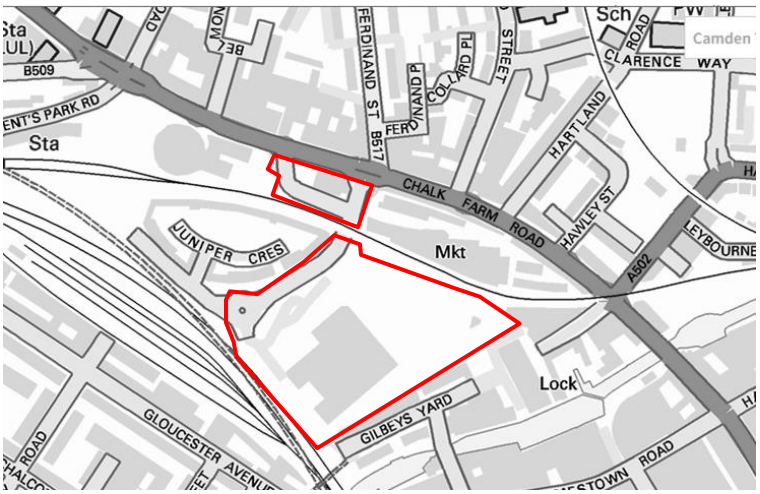


Plate 1: Site boundaries (image © OS Open Data)

2.2 **Figure 1** shows the site location and nearby local facilities. Given its location within Camden Town Centre, the surrounding area includes a wide range of commercial, retail and leisure uses, along with residential development.

Existing Use

2.3 The existing Morrisons Foodstore measures 7,203sqm gross floor area, of which 5,018sqm is retail store floor area. As well as retailing food and groceries the store also includes other services such as an

in-store café, dry-cleaning, and a pharmacy. The store's current opening hours are 0800 to 2300 hours Monday to Friday, 0700 to 2300 hours on Saturday, and 1000 to 1600 hours on Sundays. The Morrisons store has been operating since 2005, prior to which it was a Safeway store.

Access and Parking Arrangements

2.4 The foodstore is currently served by a surface level car park at the north-eastern edge of the store, which currently provides a total of approximately 425 parking spaces, including 21 disabled bays adjacent to the store entrance. This car park is currently subject to a maximum 2-hour stay for customers only, which is controlled by Automatic Number Plate Recognition cameras with associated fines. This is managed by a private company on behalf of Morrisons.

2.5 The TSN provided details of car parking accumulation surveys that took place at the existing store car park on Thursday 19 May 2016 and Saturday 21 May 2016, between 0600 and 2300 hours. The TSN at **Appendix A** includes a detailed summary of the survey findings, along with the full results. The key findings of the parking surveys were as follows:

- The maximum weekday parking accumulation at the store was **262 vehicles** between 1200 and 1215 hours, meaning the 425-space car park was at 62% occupancy.
- The maximum weekend parking accumulation at the store was **287 vehicles** between 1400 and 1415 hours, meaning the car park was at 68% occupancy.
- Up to 13% of vehicles parking at the site comprised people visiting locations other than the store, although the survey did not record whether these people visited the store afterwards, and so the actual percentage on parking completely unrelated to the store is likely to be much lower.

2.6 The parking Technical Notes (see **Appendix B**) submitted as part of pre-application discussions with LBC provide further detailed analysis

of the parking survey results. These findings are reviewed at **Section 5.0** of this TA.

2.7 The foodstore is served by a single point of vehicular access extending from signal-controlled junctions at Chalk Farm Road (separate entry and exit junctions), further details of which are given below. This access road extends south from Chalk Farm Road through an underpass below the Northern Line underground railway lines, and then leads to a roundabout that provides access to the store to the south-east and residential properties to the north-west (at Juniper Crescent). The arm extending towards the store serves a bus turning/waiting area before leading to the on-site car park. The existing servicing/loading area for the store is located at the south-western edge of the building, served by a spur road to the south of the bus waiting area.

2.8 The PFS at Chalk Farm Road, which also forms part of the site, is served by a one-way access road arrangement extending from the signal-controlled arrangements at this location.

2.9 Service vehicles associated with the existing foodstore, including delivery vehicles and refuse collections, currently utilise an access road along the southern store boundary, north of the railway lines. This access is controlled by gates, and leads to a service yard including loading bays at the southern edge of the building.

2.10 Vehicles currently serve the existing uses directly on the site by making use of the existing access and egress points. These vehicles are therefore able to be accommodated off the carriageway and are able to enter and exit the site in forward gear. Due to the nature of the current site use, these arrangements are managed by a private company.

Surrounding Highway Network

2.11 As described above, the foodstore is served by an existing roundabout located at the southern end of the access road leading from Chalk

Farm Road. This roundabout includes 3-arms and has an Inscribed Circle Diameter (ICD) of approximately 30 metres. The north-western arm forms a cul-de-sac serving residential properties at Juniper Crescent, whilst the south-eastern arm leads directly into the site and the north-eastern arm extends towards Chalk Farm Road. The carriageway measures approximately 7.3 metres wide as it extends between the roundabout and Chalk Farm Road, with a single lane in each direction and footways on both sides.

2.12 The access road connects to Chalk Farm Road via two linked signal-controlled junction arrangements. Directly north of the access road is a four arm staggered signal-controlled junction where the southern arm is forms a one-way link leading to the site. The Chalk Farm Road arms both include two approach lanes and cater for all movements, whilst the Ferdinand Street arm to the north permits left turns to Chalk Farm Road only. The junction incorporates signal-controlled crossings at all arms except for Chalk Farm Road (east).

2.13 Immediately to the south of the above signal junction the access road comprises two lanes, one of which leads south to the store, the other of which leads to a give-way line that extends into a loop road circulating the PFS, which connects back to Chalk Farm Road further west. The PFS is served direct from this loop road via separate access/egress points. The loop road then extends to a three-arm signal-controlled arrangement with Chalk Farm Road that accommodates all traffic departing the site via separate left and right-turn lanes, with no inbound movements permitted at this junction. In combination these two-signal junctions accommodate all arrivals and departures at the site (except for any originating from the properties at Juniper Crescent).

2.14 Chalk Farm Road is a classified 'A' road (A502) that extends in a north-west/south-east direction. It forms a strategic road link between Camden Town to the south and Hampstead to the north, and further south it connects to part of the 'North Central Area' of Transport for London Road Network (TLRN), including the A400 and

A4200. In the vicinity of the site, the A502 passes through other nearby signal-controlled junctions, including a signal junction with the B509 to the north-west and a signal junction with Castlehaven Road to the south-east.

2.15 The access road leading south from Chalk Farm Road falls within the red line boundary of the site, with the exception of a section passing below the railway bridge (controlled by Network Rail). Highway boundary data supplied by LBC is contained at **Appendix D**, which confirms that Chalk Farm Road is part of the adopted public highway, but the site access road is not.

2.16 The TSN presented the results of weekday and weekend traffic surveys undertaken within the surrounding highway network, which took place on Thursday 19 May 2016 and Saturday 21 May 2016, between 0700 and 1900 hours. The TSN at **Appendix A** includes the full results of these surveys, whilst **Appendix E** incudes traffic flow diagrams showing the Weekday AM and PM peak hour and weekend peak hour flows, respectively. The following junctions were included in the surveys:

- Junction 1: Chalk Farm Road/Ferdinand Street/Site Access signal junction
- Junction 2: Chalk Farm Road/Site Egress signal junction
- Junction 3: Site Access/Site Egress junction
- Junction 4: Site Egress/PFS entrance/exit
- Junction 5: Site Access/Juniper Crescent roundabout
- Junction 6: Morrisons service road/car park access junction
- Junction 7: Morrisons car park access/bus terminus junction

Plate 2 below shows the location of these junctions:

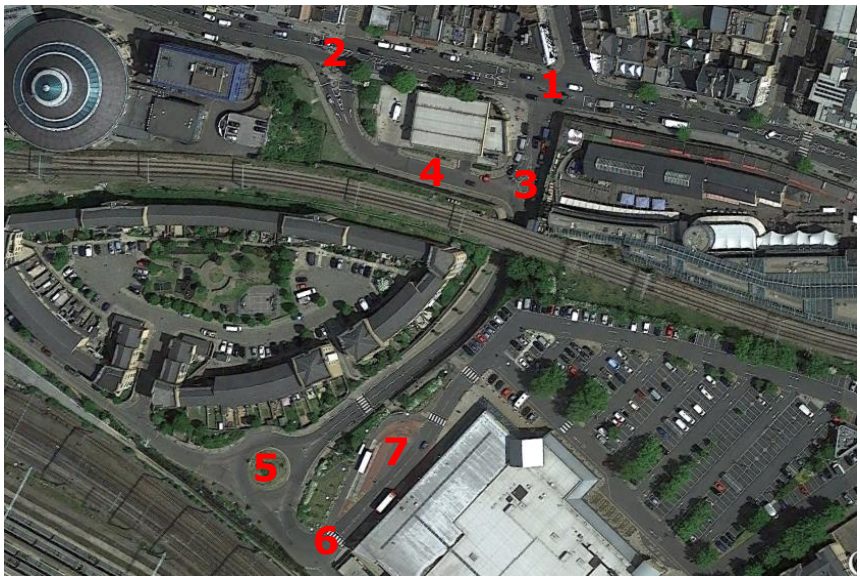


Plate 2: Junction locations (image © Google Earth)

Accident Data Review

2.17 As per current local and national guidance, a review of Personal Injury Accident data covering a five-year study period in the vicinity of the site has been undertaken as part of this TA. This assessment covers a study area extending along Chalk Farm Road between Regent's Park Road and Castlehaven Road, as well as Oval Road and Jamestown Road.

2.18 Details of Personal Injury accidents for the available period between 2011 and 2015 were obtained from LBC's 'opendata' website and the results are included at **Appendix F**, whilst Plate 3 below shows the locations of clusters where 3 or more accidents were recorded, which could suggest ongoing safety issues. These clusters were therefore examined in further detail.

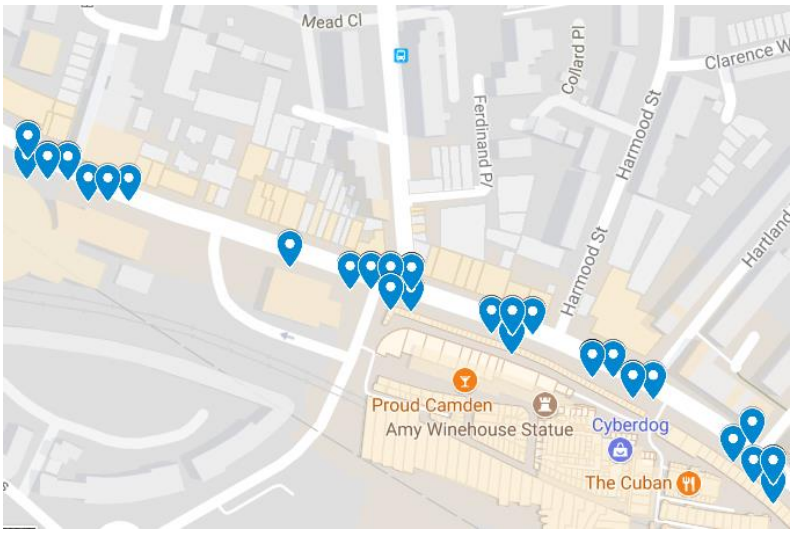


Plate 3: Accident Locations (image © Google Maps)

2.19 **Plate 3** shows five clusters of three or more accidents along Chalk Farm Road identified as part of the accident study. The following details provide an overview of each cluster:

- *Cluster A – Chalk Farm Road/Belmont Street T-junction*
    - A total of 9 accidents occurred in the vicinity of this junction, all of which were classed as slight. Two incidents involved pedestrians, whilst one involved a cyclist. This equates to an average of less than 2 slight incidents per year, which does not suggest any significant ongoing safety issues given the strategic nature of Chalk Farm Road.
- *Cluster B – Chalk Farm Road/Ferdinand Street/Juniper Crescent signal-controlled junction*
    - A total of 14 accidents were recorded at this junction over the five-year period, including one serious accident and 13 slight accidents. Four accidents involved pedestrians whilst none involved cyclists. This junction will be significantly reconfigured as part of the proposals, which has been subject to a Road Safety Audit and as a result it is considered that no further analysis of these accidents is necessary.

- *Cluster C – Chalk Farm Road/Harmood Street T-junction*
    - 5 slight accidents were recorded at this location, including one pedestrian accident and one pedal cyclist accident. No more than two accidents occurred in any particular year, and it is considered that this indicates there are no significant ongoing safety issues that would be notably exacerbated.
- *Cluster D – Chalk Farm Road/Hartland Road T-junction*
    - 8 accidents were recorded at this location, all of which were slight. One accident involved a pedestrian, whilst two involved pedal cyclists. This equates to an average of less than 2 slight incidents per year, which does not suggest any significant ongoing safety issues given the strategic nature of Chalk Farm Road.
- *Cluster E – Chalk Farm Road/Hawley Street T-junction*
    - 5 accidents were recorded at this junction, including one serious accident and four slight accidents. Two of the accidents involved pedals cyclists (including the serious accident), whilst two also involved pedestrians. Whilst any serious accident is regrettable, there has only been an average of one accident per year at this junction during the study period, all but one of which were slight. As such it is considered that there are no specific ongoing issues at this location.

2.20 On balance, it is considered that whilst every accident is regrettable, there is not a significant safety concern in the vicinity of the site and it is therefore considered that the existing patterns of accidents in the vicinity would not be significantly exacerbated as a result of the proposals.

Access by Sustainable Non-Car Modes

Public Transport Accessibility

Bus

2.21 **Figure 2** shows the bus stops and routes in the vicinity of the site. It demonstrates that there are a number of bus stops situated within close proximity of the site, most notably the bus stops/waiting area adjacent to the store, which forms part of the access into the car park. These stops immediately outside the store serve Route Numbers 27 and 393. Route Number 27 operates between the store and Chiswick Business Park, with a weekday service frequency of one service in each direction every 5 to 9 minutes between 0700 and 1900 hours. Route Number 393 operates between the store and Clapton Pond, with a weekday service frequency of one service every 8 to 12 minutes between 0700 and 2000 hours.

2.22 Beyond the site **Figure 2** shows that there are a number of bus stops on the surrounding roads, including stops on Chalk Farm Road to the southeast of the signal-controlled site access/egress junctions. These stops serve additional routes, providing opportunities to travel to a wider range of areas.

2.23 **Table 2.1** below provides a summary of the bus routes and service frequencies in the surrounding area, whilst **Table 2.2**. summarises the nearby night services.

	Service and Route	Frequency (Services each way per hour)			
		Weekdays		***Saturday***	***Sunday***
		08:00	***17:00***		
29	Lordship Lane – Trafalgar Square / Charing Cross Station	20	20	15	15
31	White City Bus Station – Camden Town Station	12	12	10	10
46	St. Bartholomew's Hospital – Lancaster Gate Station	6	8	6	4
168	Royal Free Hospital – Dunton Road	10	10	7	5

253	Hackney Central Station – Euston Bus Station	12	12	15	10
274	Angel Islington – Lancaster Gate Station	8	8	8	12
393	Chalk Farm Morrisons – Clapton Pond	8	8	6	6
24*	South End Green – Grosvenor Road	12	12	12	7
27*	Chalk Farm / Morrisons - Chiswick Business Park	10	10	8	5
88*	Camden Gardens – Omnibus Clapham	7	7	8	8
134*	Tottenham Court Road Station - Tally Ho Corner	12	12	8	8
214*	Finsbury Square – Highgate School	8	8	8	6
C2*	Grosvenor Gardens - Parliament Hill Fields	10	10	8	7

Table 2.1: Summary of day-time bus routes

	Service and Route (Night services)	**Frequency (Services each way per hour)**			
		Mon - Thurs Sunday	***Friday***	***Saturday***	
N5	Edgware Bus Station – Whitehall / Trafalgar Square	4	6	6	4
N20	Barnet High Street / Barnet Church– Whitehall / Trafalgar Square	2	6	6	2
N28	Mapleton Road – Camden Town Station	2	2	2	2
N29	Little Park Gardens – Trafalgar Square / Charing Cross Station	8	20	20	8
N31	Clapham Junction Station – Camden Town Station	2	2	2	2
N253	Aldgate Bus Station – New Oxford Street	4	5	5	4
N279	Waltham Cross Bus Station – Trafalgar Square / Charing Cross Station	3	5	5	3

Table 2.2: Summary of night-time bus routes

Rail

2.24 The site is located approximately between two stations on the Northern Line underground line, with Camden Town Station approximately 600 metres to the southeast and Chalk Farm

approximately 350 metres to the northwest. The Northern Line extends into Central London to the south of the site, providing access to several key interchange stations including Euston and King's Cross St Pancras, allowing access to other underground lines and national rail services. Services from these stations run every 3 minutes on average in each direction during the weekday daytime, which comprises services on both the Bank and Charring Cross branches. **Table 2.3** below summarises the service frequencies.

Service and Route		Frequency (Services each way per hour)			
		Weekdays		*Saturday*	*Sunday*
		08:00	*17:00*		
Underground (Northern Line)	Chalk Farm Underground Station – Camden Town Underground Station	25	25	20	20
Overground	Highbury & Islington – Clapham Junction and Richmond	8	8	6	5

Table 2.3: Summary of underground and rail services

2.25 The nearest rail station accessible on foot is Kentish Town West, which is located approximately 800 metres walking distance from the site to the north. This station provides access to regular Overground rail services to destinations including Stratford, Richmond and Clapham Junction, with service frequencies summarised in **Table 2.3** above.

2.26 Other nearby rail stations include Kentish Town approximately 1 kilometre to the north, which provides access to regular Thameslink rail services, and Camden Road approximately 800 metres to the east, which accommodates Overground services.

Public Transport Accessibility Level (PTAL)

2.27 The PTAL rating for the site has been derived using the TfL Web-based Connectivity Assessment Toolkit (WebCAT). The PTAL provides an indication of the level of connectivity of a site to the public transport network. It is based on the weekday morning peak period service frequency of all bus services accessible from stops within a 640m walk distance as well as rail services accessible from stations within a 960m walk distance. The tool allows review of three scenarios: a "Base"

2015 year; a "Forecast" 2021 year; and a Forecast 2031 year. A PTAL of 1b represents a "Poor" level of accessibility, with the scale ranging from 1 (lowest) to 6b (highest).

2.28 **Appendix G** includes the full PTAL calculation from WebCAT. The WebCAT output indicates the PTAL rating in the 2021 forecast year varies across the site from between 2 and 6. The 2021 scenario has been considered since it is likely to better represent the accessibility of the site when occupied than during the Base scenario. The location of the current store entrance is rated 6a ("Excellent"), whilst the majority of the site as a 4 or above. It is therefore considered that when the average PTAL across the site is considered, the site has a PTAL rating of 5 ("Very Good").

Walking

2.29 There are two main pedestrian routes connecting the site within the surrounding routes. The first is via footways located on both sides of the site access road extending from Chalk Farm Road, which measure between approximately 2 and 4 metres wide. The south-eastern footway provides direct access to the site via two footpath links, and a Zebra crossing is located outside one of these links on the access road, providing a convenient crossing opportunity for pedestrians using the opposite footway.

2.30 The other route into the site is via a footpath link at the south-eastern edge of the store car park, which links to footways on Oval Road. The footways on Oval Road provide direct access to a public footpath that extends along the Grand Union Canal, which provides a traffic free walking route to some of the surrounding areas.

2.31 Further afield, the surrounding area includes a comprehensive network of footways and crossings along key routes, including footways on both sides of Chalk Farm Road and signal-controlled crossings in the vicinity of the site access junction on this road.

2.32 A more comprehensive review of pedestrian routes in the vicinity of the site has been undertaken as part of a PERS audit, further details of which are included at **Section 9.0** of this report.

Cycling

2.33 TfL's 'Local Cycling Guides' identify several recommended and signed cycle routes in the vicinity of the site, which are shown in **Figure 3**. These include a variety of local roads recommended for cycling, including parts of Chalk Farm Road. There are also some off-road cycle routes near the site, including the canal towpath as it extends to the south.

2.34 There are existing cycle parking facilities at the Morrisons Store, with a total of 24 Sheffield cycle stands spread across three areas around the store's perimeter (all of which are undercover), resulting in a total provision of 48 spaces. These stand provide capacity for up to 48 cycles to park (2 bikes per stand).

3.0 POLICY CONTEXT

National Planning Policy Framework [NPPF] (DCLG, March 2012) and Planning Practice Guidance documents

3.1 The National Planning Policy Framework (NPPF) places a key emphasis on the need for sustainable development. In respect of highways and transportation issues, paragraph 32 of the NPPF sets out the following requirements:

"All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- *the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
- *safe and suitable access to the site can be achieved for all people; and*
- *improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."*

3.2 With respect to the impact of developments on capacity/safety within the existing road network, paragraph 32 confirms that developments should only be refused where the residual cumulative transport impacts can be defined as 'severe'. Hence, there should not be a presumption that developments must achieve a 'nil detriment' scenario in terms of impact, when compared to background conditions. The current approach is to consider the *severity* of any impacts, on the basis that developments should only be refused where the residual impacts are severe (as per paragraph 32 of the NPPF quoted above).

3.3 Aside from the issue of off-site impact, another key requirement of paragraph 32 is that safe and suitable access is provided for new developments. Paragraph 32 also confirms that developments are required to make reasonable use of existing opportunities for travel by sustainable non-car modes. The NPPF places heavy emphasis on a considered approach to the issue of sustainability, where paragraph 34 sets out *that "Plans and decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised. However, this needs to take account of policies set out elsewhere in this Framework, particularly in rural areas"*.

3.4 In addition to the above, paragraph 29 of the NPPF confirms that *"The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas"*. Paragraph 35 also states that *"Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods and people"*. It goes on to set out a list of preferred criteria for the location and design of developments in respect of sustainable travel, such as safe and secure layouts to minimise conflict between traffic and cyclists or pedestrians.

3.5 With respect to parking provision, paragraph 39 of the NPPF provides advice for local authorities in setting parking standards for various development types. It notes that the following factors should be taken into account:

- *the accessibility of the development;*
- *the type, mix and use of development;*
- *the availability of and opportunities for public transport;*
- *local car ownership levels; and*
- *an overall need to reduce the use of high-emission vehicles.*

3.6 The NPPF is supported by a range of associated National Planning Practice Guidance (NPPG) documentation. This includes advice on *'Transport evidence bases in plan making and decision taking'* (updated March 2015), which provides guidance to assist local planning authorities to assess strategic transport needs and identify suitable mitigation within Local Plans. The NPPG documentation also includes *'Travel Plans, transport assessments and statements in decision taking'* (updated March 2014). This document provides general advice on the scope of Transport Assessments and where they might be required, taking into account paragraph 32 of the NPPF, although it does not include any specific prescriptive guidance for assessments (see below for further details).

3.7 With respect to parking, the *'Travel Plans, transport assessments and statements in decision taking'* PPG document states that *"While Travel Plans are intended to promote the most sustainable forms of transport, such as active travel, they should not be used to justify penalising motorists – for instance through higher parking charges, tougher enforcement or reduced parking provision (which can simply lead to more on street parking)"*. It then goes on to state that *"Maximum parking standards can lead to poor quality development and congested streets, local planning authorities should seek to ensure parking provision is appropriate to the needs of the development and not reduced below a level that could be considered reasonable"* (Paragraph 008).

Local Policy

The London Plan (2016)

3.8 The London Plan forms the spatial development strategy for London and has been consolidated with alterations since the version adopted in 2011. The Plan sets out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years. The document includes recent updates to

parking and housing standards policies which were formalised into the document in 2016.

3.9 The overview and introduction section of the London Plan confirms that its policies are consistent with the NPPF. The following provides a summary of Chapter 6 of the London Plan, which sets out policies in relation to 'London's transport'.

3.10 **Policy 6.1 Strategic Approach** states that *"The Mayor will work with all relevant partners to encourage the closer integration of transport and development through the schemes and proposals shown in Table 6.1 and by:*

- *Encouraging patterns and nodes of development that reduce the need to travel, especially by car;*
- *Seeking to improve the capacity and accessibility of public transport, walking and cycling, particularly in areas of greatest demand; and*
- *Supporting development that generates high levels of trips at locations with high public transport accessibility and/or capacity."*

3.11 **Policy 6.3 Assessing Effects of Development on Transport Capacity** states that:

- *"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."

3.12 **Policy 6.13 Parking** states that: *"The Mayor wishes to see an appropriate balance being struck between promoting new development and preventing excessive car parking provision that can undermine cycling, walking and public transport use."* It goes on to state that *"The maximum standards set out in Table 6.2 in the Parking Addendum to this chapter should be the basis for considering planning applications (also see Policy 2.8), informed by policy and guidance below on their application for housing in parts of Outer London with low public transport accessibility (generally PTALs 0-1)."*

3.13 Policy 6.13 also states that *"In addition, developments must:*

- *Ensure that 1 in 5 spaces (both active and passive) provide an electrical charging point to encourage the uptake of electric vehicles*
- *Provide parking for disabled people in line with Table 6.2*
- *Meet the minimum cycle parking standards set out in Table 6.3*
- *Provide for the needs of businesses for delivery and servicing."*

3.14 Paragraph 6.42 states that: *"TAs and travel plans for major developments should give details of proposed measures to improve non-car based access, reduce parking and mitigate adverse transport impacts. They will be a key factor in helping boroughs assess development proposals and resultant levels of car parking."*

3.15 Paragraph 6.43 states that: *"PTALs are used by TfL to produce a consistent London wide public transport access mapping facility to help boroughs with locational planning and assessment of appropriate parking provision by measuring broad public transport accessibility levels. There is evidence that car use reduces as access to public transport (as measured by PTALs) increases. Given the need to avoid over-provision, car parking should reduce as public transport*

accessibility increases. TfL may refine how PTALs operate and will consult on any proposed changes to the methodology."

3.16 Section 5.0 of this TA reviews the London Plan parking standards in further detail in terms of the compliance of the proposed development parking strategy.

Mayor of London's SPG: Accessible London: Achieving an Inclusive Environment (October 2014)

3.17 This Supplementary Planning Guidance expands on the application of policies contained within the London Plan regarding the creation and promotion of an accessible and inclusive environment. This includes reference to the requirement for providing blue badge parking bays as detailed within Paragraph 6.44 of the London Plan.

Camden Local Development Framework [Core Strategy and Development Policies] (2010 to 2025)

3.18 The current Local Development Framework for LBC covers the period from 2010 to 2025, and comprises the Core Strategy and Development Policies documents, which were both adopted by LBC in 2010. These documents set out LBC's vision for the future of the borough, including a variety of policies to guide new development.

3.19 Policy CS 11 of the Core Strategy focusses on 'Promoting sustainable and efficient travel' within the borough. Included within Policy CS11 are the following requirements:

> *"As part of its approach to minimising congestion and addressing the environmental impacts of travel, the Council will:*
>
> *j) expand the availability of car clubs and pool cars as an alternative to the private car;*
>
> *k) minimise provision for private parking in new developments, in particular through: – car free developments*

in the borough's most accessible locations and – car capped developments;

l) restrict new public parking and promote the re-use of existing car parks, where appropriate;

m) promote the use of low emission vehicles, including through the provision of electric charging points; and

n) ensure that growth and development has regard to Camden's road hierarchy and does not cause harm"

3.20 With respect to LBC's Development Policies document, polices DP16 to DP21 relate to 'Promoting sustainable and efficient transport'. The following details provide a brief overview of some of the most relevant polices to this TA:

- *Policy DP16 – The transport implications of development:* This policy confirms that LBC will resist development that fails to address the need for appropriate connections for movement to and from the site, or that fails to assess transport capacity of the highway network. It also notes that proposals would need to identify safe pick-up, drop-off and waiting areas for taxis, private cars and coaches, where this is likely.
- *Policy DP17 – Walking, cycling and public transport:* This policy requires that development should make suitable provision for these modes, including interchanging between these modes where appropriate. Where relevant this should include convenient routes, safe crossings, cycle parking and suitable bus stops.
- *Policy DP18 – Parking standards and limiting the availability of car parking:* This policy confirms that LBC *"will seek to ensure that developments provide the minimum necessary car parking prevision"*. It refers to detailed parking standards contained within Appendix 2 of the Development Policies document, which are referred to in further detail in **Section 5.0** of this TA. Appendix 2 also includes minimum cycle parking standards. Policy DP18 stresses that LBC will expect development to be car free in the Central London Area and borough town centres.

- *Policy DP19 – Managing the impact of parking:* This policy seeks to ensure that the creation of additional car parking would not have a negative impact on parking, highways or the environment, as well as encouraging the removal of surplus parking spaces. Amongst other criteria, the policy notes that development would be resisted if it creates a shortfall of public car parking, operational business parking, or residents' parking.
- *Policy DP20 – Movement of goods and materials*: This policy seeks to minimise the movement of goods and materials by road, and also minimise the impact of these movements.
- *Policy DP21 – Development connecting to the highway network:* This policy seeks to ensure that developments utilise the most appropriate roads for each form of transport generated by the development.

Camden Planning Guidance 7 [CPG7] – Transport (2001)

3.21 LBC has published a range of 'Camden Planning Guidance' (CPG) documents that supports the policies set out in their LDF, confirming how these should be followed in practical terms. CPG7 relates to transport and includes advice various issues including transport capacity, parking, and vehicle access. This TA therefore takes the requirements of this guidance document into account when reviewing the various transport elements of the proposals.

Camden Local Plan (Submission Draft 2016)

3.22 The emerging Local Plan for Camden will cover the period from 2016 to 2031 is currently in draft and is due to be adopted in Summer 2017. This document will replace the existing Core Strategy and Development Polices. As such, whilst this does not yet represent adopted planning policy, the draft policy requirements have been taken into account within this TA.

3.23 Chapter 10 of the emerging Local Plan relates to transport and includes four policies (T1 to T4). The following details provide a brief overview of each policy:

- *Policy T1 – Prioritising walking, cycling and public transport:* This reflects current policy DP17 and describes how LBC will promote transport by these modes.
- *Policy T2 – Car-free development and limiting the availability of parking:* Policy T2 confirms that LBC will require all new developments to be car-free except for wheelchair accessible parking. However, it does note that off-street parking for operational or servicing needs will be permitted. Furthermore, paragraph 10.20 of the supporting text with this policy states that *"In redevelopment schemes, the Council will consider retaining or reproviding existing parking provision where it can be demonstrated that the existing occupiers are to return to the address when the development is completed"*. Paragraph 10.18 also states that "*Parking will only be considered for new non-residential developments where it can be demonstrated that the parking provided is essential to the use or operation of the development".*
- *Policy T3 – Improving strategic transport infrastructure:* This policy confirms that LBC will seek to protect existing and proposed strategic transport infrastructure, and will resist development proposals that are contrary to the safeguarding of strategic infrastructure improvements.
- *Policy T4 – Promoting the sustainable movement of goods and materials*: This policy mirrors current policy DP20 and seeks to minimise the movement of goods by road, as well as minimising the impacts of such movements that are necessary.

Assessment Guidance

3.24 The now-archived document 'Guidance on Transport Assessment' (DfT, March 2007) confirmed that percentage increase traffic flow thresholds were no longer an acceptable mechanism for determining

impact, as they incentivise locating development in areas where background traffic levels are already high. It therefore suggested an alternative threshold of 30 peak hour movements, as starting points for determining where a significant impact could occur.

3.25 'Guidance on Transport Assessment' was archived in October 2014, and superseded by the Department for Communities and Local Government (DCLG) Planning Practice Guidance (PPG) documents. The PPG document *'Travel plans, transport assessments and statements in decision-taking'* (updated March 2014) now provides advice on when transport assessments should be produced and what they should contain. The key principles of 'Guidance on Transport Assessment' have been retained in the PPG document however it does not provide the same level of detailed guidance. Instead, and in line with paragraph 32 of the NPPF the key consideration with respect to impact on the highway network is now whether the residual cumulative impacts would be severe, noting that only developments that result in a severe off-site impact should be refused.

3.26 In light of the above, the approach adopted in any assessment should include a rounded view on impact that considers traffic increases in the context of existing conditions at particular junctions and links, such as whether there are any current capacity or highway safety issues. This all-encompassing approach to assessment helps to address the specific question of whether or not an impact could be defined as severe. To assist with this process, this report continues to adopt the previous advice on thresholds for determining where a significant impact could occur that was included in 'Guidance on Transport Assessment'. However, it is noted that the starting threshold of 30 peak hour movements is relatively low, particularly for more strategic locations, and so this figure is only used as a starting point,

Design Guidance

3.27 This TA takes into account current best practice guidance contained in the document 'Manual for Streets' (DfT, March 2007) and its more recent companion document 'Manual for Streets 2 – Wider Application of the Principles' (CIHT, September 2010). It pays due regard to guidance set out in the Camden Streetscape Design Manual (March 2005), and also where relevant the design criteria set out in the Design Manual for Roads and Bridges (DMRB).

4.0 PROPOSED DEVELOPMENT

Introduction

4.1 A full description of the proposed development is contained in the supporting documents accompanying the planning application. The following description is pertinent in terms of highways and transportation.

4.2 The proposals for the PFS site and main site are described as follows:

Demolition of existing buildings (Class A1 foodstore and Sui Generis petrol filling station) and associated highways and site works including removal of existing surface level car parking and retaining walls along with road junction alterations.

Redevelopment of petrol filling station site to include the erection of a new building of up to six storeys and up to 11,243 sq m GEA floorspace to accommodate a petrol filling station (Sui Generis), flexible Class A1, A3 and A4 floorspace, Class B1 floorspace and a winter garden; associated cycle parking; public green space; public toilets and other associated works and highways works. For a temporary period of up to thirty months part of the ground and all of the 1st floor of the building will be used for a Class A1 foodstore with associated car parking

.

Redevelopment of the main supermarket site to include the erection of buildings (Blocks A to F, including Blocks E1 and E2) of up to 14 storeys accommodating up to 573 homes and up to 60,568 sq m GEA of residential floorspace together with up to 28,333 sq m GEA non-residential floorspace within Class A1 (foodstore), flexible Class A1 and A3, Class B1a and B1c, Class D2 community centre, Sui Generis use at roof level of 'Block B' for food and plant growing/production facility (including small scale brewing and distilling) with associated ancillary office, storage, education, training, café and restaurant activities; together with associated new streets and squares; hard and

soft landscaping and play space; lifts; public cycle parking and cycle hire facility; and other associated works, including highways works.

4.3 Based on the details set out above, the proposals effectively comprise two main stages, which are as follows:

1) Demolish PFS and provide temporary Morrisons store measuring 1439sqm gross floor area, with offices above. During this period demolition and construction at the main site will take place.
2) Once the new foodstore is completed, the temporary store will be removed and the PFS reinstated.

4.4 For the purposes of this TA, the main elements of the proposals can be broken down as follows:

Main Site

- Replacement Morrisons foodstore – the gross floor area will be circa 6300sqm excluding parking and service bays. This is a slight reduction compared with the current store, however there will be the same full food offer owing to more efficient use of space within the store.
- 573 residential flats comprising:
    - 271 studio/1-bed units
    - 211 2-bed units
    - 83 3-bed units
    - 8 4-bed units
- 5406sqm offices/workspace

PFS site

- Temporary Store
    - 1439sqm foodstore
    - 7145sqm offices
- Final PFS
    - Reinstated PFS with 8 pumps
    - 7145sqm offices

4.5 The proposed residential units would include 184 affordable units (32%), whilst 10% of all units (57) would be wheelchair accessible.

4.6 The proposals also include other ancillary uses such as small retail units, urban farm, and residential sports facilities. Given that trips associated with these uses would predominantly be linked with the other main uses at the site, no specific analysis of trips for these uses is included in this TA.

4.7 It is anticipated that the temporary store will be in place for no more than 30 months whist the new store is being built, and the whole development including reinstated PFS will be completed by 2024.

Details of Temporary Store

4.8 As confirmed in the development description given above, during the demolition and construction phase for the new foodstore a temporary foodstore will be erected at the PFS site (in place of the existing PFS), so that there is a temporary replacement store for use by existing customers. The store would have a gross floor area of 1439sqm, and would include car parking at the ground floor level with the store on the first floor above. There would also be 7145sqm of new office space on the floors above the store. Details of the access, parking and servicing arrangements for the temporary store are included in the sections below, whilst **Appendix H** shows the proposed ground floor layout.

Site Access Strategy

4.9 **Drawing Number 160630-006B** shows the proposed internal road layout serving the main site. It confirms that the proposed buildings would replace the existing surface level car park and bus interchange at the existing store. As a result, the existing roundabout at Juniper Crescent would be reconfigured to provide access to both the surface-level parking and turning areas, and also the basement car parking levels for the replacement store.

4.10 The reconfigured roundabout comprises a 25 metres inscribed circle diameter and incorporates an annular marked cycle lane around its

perimeter to make emerging vehicles more aware of cyclists manoeuvring through the junction. It would serve a 1:10 ramp to the basement parking areas, and also a surface level shared surface access leading to the disabled parking bays and loading bays within the main site. The roundabout would also continue to serve Juniper Court. Swept path analysis has been undertaken to confirm that the reduced roundabout size would be suitable to accommodate typical manoeuvres, including refuse vehicles and buses.

4.11 The proposed development would utilise land currently occupied by the bus terminus and turning area for route numbers 27 and 393 adjacent to the existing store. As such, the highway layout shown in **Drawing Number 160630-006B** shows how replacement bus stops and stands would be provided in the form of laybys on Juniper Crescent. This would comprise laybys with space for 2 buses on either side of the carriageway, plus a fifth bay on the northbound exit from the roundabout to act as an overflow waiting area when required.

4.12 The proposed replacement bus stops have been designed in consultation with both TfL and LBC, and are understood to be acceptable 'in principle'. To minimise the extent of time buses wait in the laybys on the site side, both stops would be provided on the opposite side of the carriageway, and these stops would double-up as stands whilst buses wait, with the other three available bays used for waiting only until such time the stop becomes free.

4.13 As part of recent consultation feedback, TfL have also advised that the existing curtailment bus stop adjacent to the PFS access would need to be reprovided as part of the proposals. This stop serves rail replacement services, and based on data provided by TfL space for 2 buses standing at one time is required, based on data of rail replacement services using this stop since April 2014. It is considered that the fifth 'overflow' bus layby shown just north of the reconfigured roundabout would be suitable to accommodate rail replacement buses picking up passengers, whilst these buses could wait within the layby

on the site side, noting that this can accommodate up to three waiting buses on the rare occasions this is required.

4.14 A Stage 1 Road Safety Audit of the proposed roundabout and bus stops was commissioned as part of the this TA, and the full audit report is included at **Appendix I**. The findings of this audit have been taken into account in the final preliminary design, and **Table 4.1** below sets out the Design Team Response to each item raised.

Item	Location	Description	Response
3.1.1	Proposed roundabout	Insufficient details could compromise road safety	Will be addressed at detailed design stage
3.1.2	Northeastbound approaches to proposed raised features on Juniper Crescent	Ponding of surface water could compromise road safety	Will be addressed at detailed design stage
3.1.3	Proposed roundabout	Ponding of surface water could compromise road safety	Will be addressed at detailed design stage
3.1.4	Approaches to the zebra crossing and the southwest arm of the roundabout	Inappropriate surfacing could compromise road safety	Will be addressed at detailed design stage
3.1.5	Carriageway of roundabout	Poor carriageway surface could compromise road safety	Will be addressed at detailed design stage

3.2.1	Proposed bus stops on Juniper Crescent	Insufficient spacing between raised features could compromise pedestrian safety	The raised table crossings have been relocated to ensure buses could straighten up when departing the bus laybys
3.3.1	Proposed roundabout, access from basement level	Insufficient visibility could lead to side impact accidents	Whilst the splay passes through the layby, this would only be used by refuse collection vehicles and so obstructions would be infrequent. The tree would not obstruct the while splay, and so no changes are proposed.
3.3.2	Proposed roundabout, access from basement level	Insufficient spacing between arms could lead to side impact accidents	The spacing between the arms is inherent in the design owing to the level of available space. However, flows on the access to the internal site would be sufficiently low that the risk of collisions is not significant. Nevertheless, some minor amendments have been included to increase separation.
3.3.3	Proposed roundabout	Insufficient turning space could compromise road safety	Additional tracking has been provided to confirm that refuse vehicles could successfully manoeuvre into the surface level site access
3.4.1	Proposed Zebra crossing	Insufficient traffic/pedestrian intervisibility could compromise road safety	The crossings have been slightly relocated and 25 metres visibility between pedestrians and vehicles is shown, in accordance with a 20mph design speed.

3.4.2	Proposed Zebra crossing	Inappropriate pedestrian facilities could lead to pedestrian accidents	Will be addressed at detailed design stage
3.4.3	Proposed annular cycle lane on roundabout	Annular cycle lane could lead to cyclists side impact accidents	Whilst the auditors' concerns are noted, the annular lane has been identified in consultation with LBC to make clear the presence of cyclists on this route. It is considered that these markings would help to make drivers aware of cyclists from the outset, and the junction is sufficiently tight to minimise the risk of left-hook accidents.
3.5.1	Proposed zebra crossing	Position of Belisha beacons could compromise road safety	Will be addressed at detailed design stage
3.5.2	Proposed Zebra crossing	Insufficient road markings could compromise road safety	Will be addressed at detailed design stage

Table 4.1: Juniper Crescent Stage 1 Road Safety Audit Design Team Response

4.15 Leading north to the PFS site, **Drawing Number 160630-009** confirms how the existing footway at the eastern edge of the carriageway passing below the railway bridge would be widened to 3 metres, to improve conditions for pedestrians using this route. This would result in the carriageway reducing to 6.5 metres wide, and TfL have confirmed in pre-application discussions that this width would be sufficient to continue to accommodate the existing bus services.

4.16 At the PFS site, the proposals would involve a significant reconfiguration of the existing separate signal-controlled access/egress junction to provide a single 'all movements' signal-controlled arrangement at the Chalk Farm Road/Ferdinand Street/Juniper Crescent junction. The proposals to consolidate to a single junction would remove an existing junction from Chalk Farm Road, to the benefit of pedestrians and cyclists and this location, and would also ensure that a suitable redevelopment of the PFS site can be achieved. The proposed junction arrangement is shown in **Drawing Number 160630-009**, whilst **Drawing Number 160630-010** shows associated swept path analysis of HGVs manoeuvring through the junction.

4.17 The proposed signal junction layout follows ongoing discussions with both LBC and TfL, with a view to incorporating their preferred requirements, in particular the need to prioritise the needs of pedestrians and cyclists over vehicular traffic. Most notably, the design takes into account LBC's desire to see cycle movements between Ferdinand Street and Juniper Crescent accommodated, noting that cyclists can currently only turn left from Ferdinand Street onto Chalk Farm Road.

4.18 The proposed junction layout maintains two approach lanes on Chalk Farm Road east and west, albeit with the proposed removal of the existing parking bays on the eastbound approach. Ferdinand Street would be reconfigured to accommodate a dedicated cycle lane with its own signal phase, whilst the existing pedestrian crossings on Ferdinand Street, Chalk Farm Road (west) and Juniper Crescent would be retained (no crossing would be provided at Chalk Farm Road (east), as per the current arrangement).

4.19 The Juniper Crescent arm would be reconfigured to provide two new outbound lanes, one for left-turns and one for ahead/right movements. An internal marked waiting area for right turners from the arm would also be provided in the junction. A dedicated cycle

lane with its own traffic phase would also be provided on this arm. The width of the eastern footway adjacent to the Stables Market on this arm would be kept at a minimum of 5 metres, to provide a pleasant environment for pedestrians travelling to and from the site at this point.

4.20 Full details of capacity modelling results for the junction are contained in **Section 6.0** of this TA. In summary, the junction would operate with four stages per 96 seconds cycle, which would include an all-red stage for pedestrian crossings, and a cycle-only stage where cyclists would emerge unopposed from Ferdinand Street and Juniper Crescent.

4.21 The proposed signal junction would be delivered at the outset of the development. During the initial temporary store phase at the PFS site, the proposed cycle lane on Juniper Crescent would not be provided, to allow space for a loading bay for the store at this location. Following completion of the main site replacement store this loading bay would be removed and replaced with the proposed cycle lane.

4.22 To the south of the proposed signals on Juniper Crescent, the temporary foodstore and then replacement PFS would be served by a new T-junction arrangement. This arrangement would include one inbound and one outbound lane, separated by an internal structural wall within the site. **Drawing Number 160630-009** shows how 'keep clear' markings would be provided at the junction, to ensure queuing from the traffic signals would not obstruct the junction. Visibility splays measuring 2.4 x 25 metres are shown from the access, in accordance with assumed 20mph 85th percentile approach speeds and the requirements set out in Manual for Streets.

4.23 As per the request of TfL during pre-application discussions, a Stage 1 Road Safety Audit was commissioned for the proposed signal junction, and the audit report is included at **Appendix I**. The findings of this audit have been taken into account in the final preliminary

design, and **Table 4.2** below sets out the Design Team Response to each item raised. The audit reviewed two slightly differing options, however this audit response focusses on the first option, which is the one that has been taken forward and presented as part of the application.

Item	Location	Description	Response
3.1.1	Proposed raised table	Steepness of ramps may lead to discomfort or injury	Suitable ramp transitions will be identified at the detailed design stage
3.1.2	Approaches to raised table	Ponding of surface water could compromise road safety	Will be addressed at detailed design stage
3.3.1	Proposed signalised junction	Insufficient visibility could lead to side impact accidents	Standard junction intervisibility (2.5 metres back from stopline) cannot be achieved on all arms owing to the urban nature of the junction and buildings adjacent to the highway. However, this is also inherent with the existing junction, and so it is considered that no further design changes are required in this respect.
3.3.2	Proposed signalised junction	Movements of larger vehicles could compromise road safety	Swept path information has now been included to confirm that large vehicles could safely manoeuvre through the junction
3.3.3	Proposed vehicle crossover	Movements of larger vehicles could compromise road safety	The swept path of the right turn from the service egress has now been included.

3.4.1	Proposed vehicle crossover	Egress layout may compromise road safety	Clear delineation between the crossover and footway will be identified at the detailed design stage
3.4.2	Proposed signalised junction	Inappropriate pedestrian facilities could compromise road safety	A crossing cannot be provided at the eastern arm as this would have significant impact on the layout and capacity (noting that there is currently no crossing here). At the detailed design stage consideration will be given to physical measures to dissuade pedestrians from crossing at this point.
3.4.3	Proposed signalised junction - northern arm	Insufficient cycle lane width could compromise cycle safety	The cycle lane has been widened to 1.5 metres as recommended.
3.4.4	Proposed signalised junction	Inappropriate pedestrian facilities could lead to pedestrian accidents	Details of tactile paving will be provided at the detailed design stage.
3.5.1	Proposed signalised junction	Position of signal heads could compromise road safety	The position of signal heads is now shown on the proposed junction layout, and this can be commented on further at the future Stage 2 audit.

Table 4.2: Chalk Farm Road signal junction Stage 1 Road Safety Audit Design Team Response

4.24 The provision of the potential north/south cycle connection between Ferdinand Street and Juniper Crescent would facilitate part of a wider cycle route through the site, connecting Chalk Farm Road to the north with Oval Road to the east, via the existing pedestrian/cyclists link

through Gilbey's Yard. This route would follow Juniper Crescent and the surface level access road within the site, which would provide a slow-speed shared surface environment suitable for cyclists.

Car Parking Provision

Temporary Foodstore

4.25 The temporary foodstore at the PFS site will include 61 parking spaces served from the new Juniper Crescent access, including 4 disabled spaces. The standard maximum provision in the London Plan for foodstores up to 2500sqm is one space per 45-30sqm in PTAL 5/6 locations, which equates to a standard maximum of 48 spaces. The proposals slightly exceed this maximum by 13 spaces, however this would be a temporary situation, and the excess parking is proposed to ensure that Morrisons can maximise parking for customers in this interim period, so as to avoid existing customers having to use other competing stores, thereby ensure future custom for the replacement store once completed. TfL have confirmed (see **Appendix C**) that this level of parking would be acceptable for the temporary store. The four proposed disabled bays equates to 6% of the total capacity, as per the requirements of the London Plan.

Replacement Foodstore

4.26 The emerging policies in LBC's Draft Local Plan, in particular Policy T2, indicate that new development in the borough should be car-free. However, these proposals are for a replacement foodstore, and given that the existing foodstore provides 425 parking spaces, a car-free store would not be a viable option to retain existing customers.

4.27 Further to the above, two detailed Technical Notes were produced during early consultation with LBC, and were subsequently included with the TSN (see **Appendix A**). These reports provided a detailed review of the parking survey results for the existing store, along with

comparisons with other recent consented developments and TRICS sites, and a review of policy.

4.28 Further to the findings of the Technical Notes, a total of 300 parking spaces (including 15 disabled bays) are proposed for the replacement store, split over two basement levels. Ten of the 300 bays will be available for use by Morrisons delivery vehicles, although these will also be available for customers to use as well. This level of provision just exceeds the observed maximum existing demand of 287 spaces, whilst still providing a significant reduction of 125 spaces compared with the existing provision of 425. Whilst this does not accord with emerging local policy for brand new developments, the proposals to provide a marked reduction in parking for an existing store still help towards the overarching NPPF policies of promoting sustainable travel.

4.29 The above approach has been supported by TfL in their most recent pre-application consultation response (see **Appendix C**).

Other uses

4.30 All of the other uses at the site would be 'car-free', in accordance with Policy T2 of the draft LBC Local Plan. The proposed residential development would include 57 wheelchair accessible units (10% of all units), and in accordance with the Local Plan each unit would normally require a designated disabled parking bay. However, it has been agreed with the Greater London Authority (GLA) during pre-application discussions that this standard can be relaxed, and so a total of 20 residential disabled parking bays are proposed, comprising a mixture of 10 on-street bays within the site, and 10 bays below Block F.

Cycle Parking Provision

Long-stay Parking

4.31 The London Plan requires a minimum of 1 cycle parking space per studio/1-bed dwelling, and 2 spaces per 2+ bed dwelling. The proposed development schedule and layout plans confirm that a total of 912 internal residential cycle storage spaces will be provided in several secure areas across the site, which exceeds the minimum requirement of 875 for the proposed development mix. This includes 414 two tier stands and 42 accessible stands.

4.32 As for the other main uses at the site, the London Plan confirms that the foodstore should provide 1 space per 175sqm gross floor area, with 1 space per 90sqm for the office/workspace uses. The proposed layout for the main site includes a total of 73 internal long-stay spaces for the non-residential uses in line with these requirements, whilst the PFS site also includes 46 internal cycle parking spaces for the offices.

Short-stay/Visitor Parking

4.33 With respect to short-stay visitor parking, the London Plan sets out the following minimum requirements:

- Office/Workspace: 1 short-stay space per 500sqm for first 5000sqm, and 1 space per 5000sqm thereafter = 11 spaces main site and 11 spaces PFS site
- Foodstore: 1 short-stay space per 40sqm for first 750sqm and 1 per 300sqm thereafter = 38 spaces
- Residential: 1 space per 40 units = 14 spaces

4.34 The proposed layout plans include 32 external short-stay cycle parking stands within the main site (to be either Sheffield stands or 'caMden' stands) providing space for up to 64 bikes, as well as 8

stands (16 spaces) externally at the PFS site. This exceeds the minimum requirements set out above.

4.35 Within their formal pre-application advice, TfL have requested that a new cycle hire docking station is provided within the proposed development site, providing capacity for 32 cycles. The proposed layout plans include two areas within the public realm adjacent to Juniper Crescent each providing space for 16 docks, thereby satisfying this requirement. As per TfL requirements, the land required for these bays will be provided to TfL and there will be unrestricted access for the day to day management of these bays. A Section 106 contribution of £220,000 will also be provided to deliver these bays.

Servicing Strategy

4.36 A detailed Servicing Management Plan (SMP) has been produced for the proposed development and will be submitted as part of the planning application (**ACE Report Ref: 160630-12**). This document provides a detailed description of the servicing strategies for the various aspects of the development, along with suitable management measures to ensure efficient and sustainable practices. The following details therefore provide only a brief overview of the proposed servicing strategies for the development.

Temporary Foodstore/Offices at PFS Site

4.37 Owing to the need to maximise on-site parking at the temporary store (as described above), servicing from the temporary store and offices above will take place from the carriageway at the eastern edge of the site, adjacent to the reconfigured signal junction, in the location of the proposed cycle lane that would be delivered following completion of the main site replacement store. **Drawing Number 160630-008** demonstrates that a 12m long rigid truck could successfully manoeuvre in and out of this temporary bay, without obstructing the

traffic signals. Whilst servicing from the carriageway in this manner would not be appropriate in the long-term, it is considered that this arrangement should be acceptable to ensure sufficient parking for the temporary store.

Replacement PFS/Offices

4.38 Once the PFS is reinstated, servicing for the PFS and associated uses (e.g. offices and retail) would take place within the site. All service vehicles would be required to enter from the new T-junction at the eastern edge of the site. **Drawing Number 160630-010** includes the swept path of a petrol tanker entering this arrangement, which is the largest anticipated vehicle type. Within the site, the drawing shows how the petrol tanker would park at the inlets at the western edge of the site, before departing via a service-only dropped kerb vehicle crossover egress direct on to Chalk Farm Road, which would be controlled by gates and managed to prevent unauthorised use. Petrol deliveries would occur outside of opening hours of the PFS to ensure that the parked tanker does not obstruct other vehicles.

4.39 As for other deliveries and refuse collections, **Drawing Number 160630-010** shows how vehicles would reverse into the northern edge of the forecourt, before departing via the gated dropped kerb arrangement onto Chalk Farm Road. Based on this proposed arrangement, the SMP confirms that the maximum delivery vehicle size used at the PFS site (other than petrol tankers) would be a 12 metres long rigid vehicle. The SMP confirms how deliveries will be managed by on-site staff to ensure that the norther two pumps are coned off during these periods, to prevent any obstructions.

Main site

4.40 As for the main site, **Drawing Number 160630-006B** includes a number of swept path manoeuvres demonstrating how the site would

be served in terms of deliveries and refuse collections. The key aspects of the servicing strategy for the main site are as follows:

- The main site would include a number of refuse storage areas, however to avoid refuse vehicles having to enter the entirety of the site a managed strategy will be adopted whereby the on-site management company/concierge will be responsible for transferring waste to a holding area at Block F on collection days, such that a refuse vehicle could park in an adjacent loading bay to collect waste, before turning adjacent to Block E2, as shown in **Drawing Number 160630-006B**. A loading bay adjacent to Block A will also be utilised for collections from this block.
- The site concierge will be located at Block E1, and would include a delivery bay at this part of the internal shared surface access road to accommodate deliveries, with turning space adjacent to this block.
- Access for fire tenders will be provided at suitable locations throughout the layout, to ensure that this type of vehicle can manoeuvre to within 18 metres of dry/wet riser inlets.

5.0 TRIP GENERATION

Overview

5.1 The TSN presented details of suitable trip rates to estimate the increase in person trios by all modes that could be generated by the development proposals. Since the TSN was produced, the quantum of development and mix of uses has changed, and TfL have also commented on the methodologies used. As a result, the details presented in the TSN have been updated to reflect these changed/comments.

5.2 The following details set out the overall approach to calculated person trips at the site that has been adopted in this TA:

- For the completed development, it is assumed that the foodstore and PFS will generate a comparable level of trips to the existing situation.
- TRICS and Census data has been used to estimate person trips for the proposed residential and office/workspace uses, with adjustments to reflect the 'car-free' nature of the scheme. Details of all TRICS searches are included at **Appendix J**.
- Person trips have not been calculated for the other ancillary uses (e.g. urban farm, small retail units), on the basis that the majority of these trips would be likely to be linked with the other uses.

5.3 With respect to the temporary foodstore, as per the TSN vehicle trips have been estimated using TRICS data. Full person trips by all modes have not been calculated, as there would be an overall reduction in person trips during this phase, and so the main assessment of trips by all modes focusses on the completed development scenario.

Weekday Trips

Phase 1 – Temporary Foodstore

Foodstore

5.4 The TSN identified that the TRICS category 'Retail – Discount Food Stores' within the TRICS database provides the most appropriate comparison for the temporary foodstore based on its size and parking provision. The search highlighted one comparable weekday survey from a site in Greater London. **Table 5.1** below confirms the resulting vehicle trip rates (per 100sqm) and peak hour vehicle trip generation.

	AM Peak			PM Peak			Daily		
	In	***Out***	***Total***	***In***	***Out***	***Total***	***In***	***Out***	***Total***
Vehicle trip rates (per 100sqm gfa)	1.467	0.800	-	5.933	5.067	-	61.732	61.733	-
1439sqm store	21	12	33	85	73	158	888	888	1776

Table 5.1: Temporary Foodstore Vehicle Trip Generation

Offices

5.5 For the proposed offices located above the temporary store, the TRICS category 'Employment – Office' was searched, specifying weekday survey sites in Greater London with a gross floor area of between 2500sqm and 15000sqm. This search returned two sites, one of which was excluded as it is a data centre. The other site is in a PTAL 6b location with no on-site parking, and so was considered to be a suitable comparison. **Table 5.2** below confirms the resulting person trip rates and person trip generation for the 7145sqm offices at the PFS site.

Office Person Trip Rates/Generation	Weekday am peak hour (08:00-09:00)			Weekday pm peak hour (17:00-18:00)		
	In	Out	2-Way	In	Out	2-Way
Person trip rates (per 100sqm)	2.749	0.093	-	0.212	2.511	-
Person trip generation (7145sqm)	196	7	203	15	179	194

Table 5.2: PFS Site Offices Person Trip Generation

5.6 The likely travel patterns for the person trips associated with the offices has been determined by examining 'Method of Travel to Work' data obtained from the 2011 Census. Daytime population data for the 'Camden 018' Middle Super Output Area (MSOA), which includes the site and its surrounding area, was obtained and is contained at **Appendix K**. This data has been used to calculate the modal split for the offices, which are likely to be representative of peak hour trips. Given the 'car-free' nature of the proposals, these percentages were subsequently adjusted to reflect the lack of car parking for the offices, The figures were therefore adjusted to reduce vehicle drivers to a small percentage that reflects the lack of on-site parking, with the other non-car modal shares increased proportionately. **Table 5.3** below summarises these calculations.

Method of Travel to Work	Base Modal Split	Adjustments to reflect 'car-free' proposals	Adjusted Modal Split
Vehicle Driver	23.18%	-21.18%*	2.00%
Vehicle Passenger	1.47%	-	1.47%
Pedal Cycle	3.88%	+1.10%	4.98%
Train	15.51%	+4.39%	19.91%
Underground	32.34%	+9.16%	41.49%
Bus	10.11%	+2.86%	12.97%
Motorcycle	1.74%	+0.49%	2.24%
Taxi/Minicab	0.65%	+0.19%	0.84%
Walk	10.56%	+2.99%	13.55%
Other	0.55%	-	0.55%

Table 5.3: Proposed Offices Modal Split

5.7 Based on the above person trip calculations and modal split, **Table 5.4** below confirms the resulting peak hour person trip generation by each mode for the offices at the PFS site.

Proposed Offices at PFS Site	**Weekday am peak hour**			**Weekday pm peak hour**		
	In	***Out***	***Total***	***In***	***Out***	***Total***
Person trip rates (per 100sqm)	**2.749**	**0.093**	**-**	**0.212**	**2.511**	**-**
Person trips (7145sqm)	**196**	**7**	**203**	**15**	**179**	**194**
Vehicle Driver (2.00%)	4	0	4	0	4	4
Vehicle Passenger (1.47%)	3	0	3	0	3	3
Pedal Cycle (4.98%)	10	0	10	1	9	10
Train (19.91%)	39	1	40	3	36	39
Underground (41.49%)	81	3	84	6	74	80
Bus (12.97%	25	1	26	2	23	25
Motorcycle (2.24%)	4	0	4	0	4	4
Taxi or Minicab (0.84%)	2	0	2	0	2	2
Walk (13.55%)	27	1	28	2	24	26
Other (0.55%)	1	0	1	0	1	1

Table 5.4: PFS Site Offices Person Trip Generation by Mode

Phase 2 – Completed Development

Replacement Foodstore

5.8 As set out above, whilst the floor areas at the replacement foodstore will be slightly different to the existing store, it will provide the same full food offer and parking provision will be sufficient to accommodate current levels of demand. As such, it is considered that the level of trip generation for the replacement store will be consistent with existing conditions. The observed vehicle arrivals/departures to the existing store have therefore been adopted for the replacement store. As for non-car trips, the surveys did not record trips by walking, cycling and public transport. Hence, the TRICS database was reviewed to identify an appropriate modal split to apply to the recorded vehicle movements to estimate non-car trips.

5.9 The TRICS category 'Retail – Food Superstore' was selected, specifying all sites in Greater London with surveys from 2001 (to maximise survey sample). For the purposes of sample size both weekday and weekend surveys were selected, and this resulted in a total of six surveys from six sites (excluding resurveys). Four of these sites were deselected due to lack of parking, and a suitable modal split was calculated from the remaining 2 sites. This modal split was then applied to the observed vehicle movements to calculate the following weekday peak hour trips in **Table 5.5**.

Replacement Foodstore	Weekday am peak hour			Weekday pm peak hour		
	In	*Out*	*Total*	*In*	*Out*	*Total*
Vehicle Driver (67.5%)	110	51	161	162	189	351
Walk (22.8%)	37	17	54	55	64	119
Pedal Cycle (0.5%)	1	1	2	1	1	2
Public Transport* (9.2%)	15	7	22	22	26	48

*data does not define specific public transport types so 50/50 split of bus/underground is assumed

Table 5.5: Replacement Foodstore Person Trip Generation

Replacement PFS

5.10 Based on the traffic count surveys for the current PFS, it is anticipated that the replacement PFS will generate the same level of weekday peak hour traffic movements, which are shown in **Table 5.6** below.

Replacement Foodstore	Weekday am peak hour			Weekday pm peak hour		
	In	*Out*	*Total*	*In*	*Out*	*Total*
Vehicle Driver	89	89	178	96	96	192

Table 5.6: Replacement PFS Vehicle Trip Generation

Residential Dwellings

5.11 For the proposed residential flats, the TRICS category 'Residential – Mixed Private/Affordable Housing' was selected, which reflects that fact that there would be less than 75% of either private or affordable housing. Weekdays surveys for sites in Greater London were selected

and average person trip rates (per dwelling) calculated, with the resulting person trips shown in **Table 5.7** below.

Residential Person Trip Rates/Generation	Weekday am peak hour (08:00-09:00)			Weekday pm peak hour (17:00-18:00)		
	In	Out	2-Way	In	Out	2-Way
Person trip rates (per dwelling)	0.113	0.476	-	0.259	0.167	-
Person trip generation (573 dwellings)	65	273	338	148	96	244

Table 5.7: Proposed Residential Flats Person Trip Generation

5.12 The likely travel patterns of residents has been determined by examining 'Method of Travel to Work' data (resident population) obtained from the 2011 Census. Data for the 'Camden 018' MSOA, which includes the site and its surrounding area, was used and is contained at **Appendix K,** and has been used to calculate the modal split for travel to work trips in this area, which are likely to be representative of peak hour trips. Given the 'car-free' nature of the proposals, these percentages were subsequently adjusted to reflect the limited accessibility by car for the flats, with the current proposals including 20 disabled parking bays only. The figures were therefore adjusted to reduce vehicle drivers to a percentage that reflects this parking provision, assuming half of the spaces would generate peak hour trips (i.e. 10/700 = circa 1.8%), with the other non-car modal shares increased proportionately. **Table 5.8** below summarises these calculations.

Method of Travel to Work	Base Modal Split	Adjustments to reflect 'car-free' proposals	Adjusted Modal Split
Vehicle Driver	12.4%	-10.60%*	1.80%
Vehicle Passenger	0.91%	-	0.91%
Pedal Cycle	10.67%	+1.33%	12.00%
Train	4.11%	+0.51%	4.62%
Underground	32.56%	+4.06%	36.62%
Bus	14.21%	+1.77%	15.99%
Motorcycle	1.92%	+0.24%	2.16%
Taxi/Minicab	2.40%	+0.30%	2.70%
Walk	19.09%	+2.38%	21.48%
Other	1.73%	-	1.73%

Table 5.8: Residential Flats Modal Split

5.13 Based on the above person trip calculations and modal split, **Table 5.9** below confirms the resulting peak hour person trip generation by each mode for the proposed residential units.

Proposed Residential	Weekday am peak hour			Weekday pm peak hour		
	In	*Out*	*Total*	*In*	*Out*	*Total*
Person trip rates (per unit)	**0.113**	**0.476**	**-**	**0.259**	**0.167**	**-**
Person trips (573 units)	**65**	**273**	**338**	**148**	**96**	**244**
Vehicle Driver (1.80%)	1	5	6	3	2	5
Vehicle Passenger (0.91%)	1	2	3	1	1	2
Pedal Cycle (12.00%)	8	33	41	18	12	30
Train (4.62%)	3	13	16	7	4	11
Underground (36.62%)	24	100	124	54	35	89
Bus (15.99%)	10	44	54	24	15	39
Motorcycle (2.16%)	1	6	7	3	2	5
Taxi or Minicab (2.70%)	2	7	9	4	3	7
Walk (21.48%)	14	59	73	32	21	53
Other (1.73%)	1	5	6	3	2	5

Table 5.9: Residential Flats Person Trip Generation by Mode

Main Site Offices/Workspace

5.14 For the proposed offices/workspace at the main site, the same TRICS and Census- based office trip rates were adopted. The resulting person trips by all modes are shown in **Table 5.10** below.

Proposed Offices at Main Site	Weekday am peak hour			Weekday pm peak hour		
	In	*Out*	*Total*	*In*	*Out*	*Total*
Person trip rates (per 100sqm)	**2.749**	**0.093**	**-**	**0.212**	**2.511**	**-**
Person trips (5406sqm)	**149**	**5**	**154**	**11**	**136**	**147**
Vehicle Driver (2.00%)	3	0	3	0	3	3
Vehicle Passenger (1.47%)	2	0	2	0	2	2
Pedal Cycle (4.98%)	7	0	7	1	7	8
Train (19.91%)	30	1	31	2	27	29
Underground (41.49%)	62	2	64	5	56	61
Bus (12.97%)	19	1	20	1	18	19
Motorcycle (2.24%)	3	0	3	0	3	3
Taxi or Minicab (0.84%)	1	0	1	0	1	1
Walk (13.55%)	20	1	21	1	18	19
Other (0.55%)	1	0	1	0	1	1

Table 5.10: Main Site Offices Person Trip Generation by Mode

Weekend Trips

5.15 Further to the request from TfL during pre-application consultation, weekend trips for the proposed development have also been quantified, specifically to identify the number of public transport trips generated during the weekend peak period (1300 to 1400 hours). Given that the replacement foodstore would result in no change in trips compared to the existing situation, these trips are no taken in to account. Similarly, office/workspace trips are not taken into account, as there is limited weekend survey data available for these uses, and in general demand would be insignificant. As such, the assessment of weekend trip increases focusses on the residential element of the proposals. It also focusses on a Saturday, noting that TRICS data is

more readily available for this day, and Saturdays typically have a busier peak period than Sundays.

5.16 The TRICS database includes limited weekend survey data for residential sites, and as a result the category 'Residential – Flats Privately Owned' was selected, searching all sites in England and Wales to obtain a suitable sample of sites. This search returned 3 weekend surveys (all Saturdays), and the resulting Saturday interpeak (1300 to 1400 hours) person trip rates and trip generation are shown in **Table 5. 11** below.

Saturday Residential Person Trip Rates/Generation	**Saturday peak hour (13:00-14:00)**		
	In	**Out**	**2-Way**
Person trip rates (per dwelling)	0.209	0.383	-
Person trip generation (573 dwellings)	120	219	339

Table 5.11: Proposed Residential Flats Weekend Interpeak Person Trip Generation

5.17 The above person trips were applied to the adjusted modal split shown in **Table 5.8**, and the resulting weekend interpeak person trips by each mode are shown in **Table 5.12** below.

Proposed Residential	**Saturday interpeak hour**		
	In	***Out***	***Total***
Person trip rates (per unit)	**0.209**	**0.383**	**-**
Person trips (573 units)	**120**	**219**	**339**
Vehicle Driver (1.80%)	2	4	6
Vehicle Passenger (0.91%)	1	2	3
Pedal Cycle (12.00%)	14	26	40
Train (4.62%)	6	10	16
Underground (36.62%)	44	80	124
Bus (15.99%)	19	35	54
Motorcycle (2.16%)	3	5	8
Taxi or Minicab (2.70%)	3	6	9

Walk (21.48%)	26	47	73
Other (1.73%)	2	4	6

Table 5.12: Residential Flats Person Trip Generation by Mode

Total Net Increase in Person Trips

5.18 Based on the above calculations, **Table 5.13** below confirms the net increase in person trips by each mode resulting from the overall development proposals.

Proposed Development Net Increase	**Weekday am peak hour**			**Weekday pm peak hour**		
	In	***Out***	***Total***	***In***	***Out***	***Total***
Person trips	**410**	**285**	**695**	**174**	**411**	**585**
Vehicle Driver	8	5	13	3	9	12
Vehicle Passenger	6	2	8	1	6	7
Pedal Cycle	25	33	58	20	28	48
Train	72	15	87	12	67	79
Underground	167	105	272	65	165	230
Bus	54	46	100	27	56	83
Motorcycle	8	6	14	3	9	12
Taxi or Minicab	5	7	12	4	6	10
Walk	61	61	122	35	63	98
Other	3	5	8	3	4	7

Table 5.13: Net Increase in Person Trips by Mode

Service Vehicle Trips

5.19 This section confirms the number of large service vehicle movements generated by the various uses at the site, based on the existing surveys results and available TRICS data. These details are identified for the purposes of the SMP (**ACE Report Ref: 160630-12**).

5.20 For the temporary foodstore, the TRICS data confirms the following peak hour and daily trips by OGV1 and OGV2 vehicles (i.e. HGVs) set

out in **Table 5.14**, assuming that any other deliveries would be by smaller vehicles.

Temporary Foodstore OGV Trip Rates/Generation	Weekday am peak hour (08:00-09:00)			Weekday Daily		
	In	Out	2-Way	In	Out	2-Way
OGV trip rates (per 100sqm)	0.000	0.067	-	0.801	0.801	-
OGV trip generation (1439sqm)	0	1	1	12	12	24

Table 5.14: Temporary Store OGV Trip Generation

5.21 Service vehicle movements for the replacement store have been identified based on the weekday traffic count survey results. All vehicle trips to and from the loading area of the store have been extracted. The resulting service vehicle trips for the replacement foodstore are shown in **Tables 5.15** below.

Replacement Foodstore Service Vehicle Trip Generation	Weekday am peak hour (08:00-09:00)			Weekday Daily		
	In	Out	2-Way	In	Out	2-Way
Service Vehicle trip generation	1	2	3	11	15	26

Table 5.15: Replacement Foodstore Service Vehicle Trip Generation

5.22 As for the replacement PFS, the survey results show a number of OGV1 vehicles entering and departing the PFS over the course of the day, however many of these may be refuelling rather than delivering goods. As such, it is estimated that the PFC could generate up to 2 OGV movements per day for servicing (4 two-way trips), comprising a petrol tanker (out of opening hours) and a delivery for the convenient store.

5.23 For the proposed office/workspace and residential uses, the weekday TRICS data for both uses was examined to estimate service vehicle

trips by OGVS. **Tables 5.16 and 5.17** below show the resulting peak hour and daily OGV trips for the office/workspace uses and the PFS and main site, respectively, whilst **Table 5.18** shows the OGV trips for the proposed residential use.

PFS Site Offices OGV Trip Rates/Generation	Weekday am peak hour (08:00-09:00)			Weekday Daily		
	In	Out	2-Way	In	Out	2-Way
OGV trip rates (per 100sqm)	0.013	0.013	-	0.013	0.013	-
OGV trip generation (7145sqm)	1	1	2	1	1	2

Table 5.16: PFS Site Offices OGV Trip Generation

Main Site Offices/Workspace OGV Trip Rates/Generation	Weekday am peak hour (08:00-09:00)			Weekday Daily		
	In	Out	2-Way	In	Out	2-Way
OGV trip rates (per 100sqm)	0.013	0.013	-	0.013	0.013	-
OGV trip generation (5406sqm)	1	1	2	1	1	2

Table 5.17: Main Site Offices/Workspace OGV Trip Generation

Proposed Residential OGV Trip Rates/Generation	Weekday am peak hour (08:00-09:00)			Weekday Daily		
	In	Out	2-Way	In	Out	2-Way
OGV trip rates (per dwelling)	0.003	0.003	-	0.017	0.017	-
OGV trip generation (573 dwellings)	2	2	4	10	10	20

Table 5.18: Residential OGV Trip Generation

5.24 Other deliveries to these uses would occur by smaller vehicles such as LGVs and cars/motorbikes.

6.0 HIGHWAY IMPACT

Study Area

6.1 'Guidance on Transport Assessment' suggested that developments could have a significant impact on the highway network at locations where peak hour increases of 30 or more two-way traffic movements would occur, although it noted that this is only the starting point for assessment and higher increases can be accommodated without significant impacts in many circumstances.

6.2 The proposed traffic increases set out in **Section 5.0** have been assigned to the proposed Chalk Farm Road/Ferdinand Street/Juniper Crescent signal junction based on the existing split of observed inbound and outbound movements, where the approximate split of traffic is 50/50 east and west along Chalk Farm Road. The resulting traffic increases are including in traffic flow figures contained at **Appendix E**, and confirm that there would be a peak hour increase of up to 39 two-way movements at this junction. This junction has therefore been included in the study area for further detailed assessment, noting that the proposed reconfiguration also warrants detailed modelling.

6.3 Beyond the proposed signal junction, the maximum peak hour increase in two-way vehicle movements would be 20, which falls below the 30-movements threshold described above. Hence, no further detailed assessment of the traffic increases beyond the signal junction is considered necessary.

Future Year Assessment

6.4 'Guidance on Transport Assessment' confirmed that the minimum Design Year to be considered within the TA should be at least 5 years after the date of the planning application. The proposed opening year for the completed development is 2024, and so this has been adopted as the Design Year for assessment.

6.5 The traffic flow figures at **Appendix E** confirm that the interim development phase, with the temporary store at the PFS site and

demolition/construction at the main site, would result in a net reduction in traffic flows. Hence, it is considered that the modelling of the proposed Chalk Farm Road signal junction can focus solely on the completed development scenario at 2024.

6.6 It has been agreed in pre-application consultation with TfL that no growth should be applied to 2016 baseline traffic flows to reflect the 2024 Design Year, as it is considered unlikely that traffic growth would occur in this area. Hence, the 2016 baseline flows are deemed to be representative of 2024 Design Year flows.

6.7 With respect to committed developments, based on a review of recent planning applications in the surrounding area and their supporting Transport Assessments/Statements, it is considered that additional committed development traffic need not be taken into account. Many of the nearby committed developments are car-free or comprise the redevelopment of existing uses with minimal net changes in peak hour traffic movements. On balance, the fact that some of the schemes result in minor increases is offset by the fact that some result in net reductions, and so to avoid unnecessary additional flow scenarios no committed development traffic has been taken into account.

Impact at the proposed Chalk Farm Road/Ferdinand Street/Juniper Crescent signal junction

6.8 A base LinSig model for the existing traffic signals at Chalk Farm Road has been provided by LBC to utilise in this assessment, which has been validated by TfL. This model includes pcu (passenger car unit) flow data taken from traffic counts in May 2016 (same month as the counts undertaken for this TA). These pcu flows inevitably differ to those included in the counts undertaken for this TA, and it has been agreed with LBC that their flows should be used as the baseline in any junction modelling. The pcu data in LBC's base LinSig model does not specify movements to and from the PFS and existing store, and so where necessary these flows have been merged with the TA traffic counts, as shown in the traffic flow diagrams at **Appendix E**.

6.9 Based on the model provided by LBC, **Table 6.1** below summarises the key LinSig results for the existing Chalk Farm Road/Ferdinand

Street/Juniper Crescent junction, with full results included at **Appendix L**.

	2016 AM Peak (PRC = 39.3%)			2016 PM Peak (PRC =9.8%)		
Lane(s)	**D of S**	**MMQ (pcu)**	**Delay (s/pcu)**	**D of S**	**MMQ (pcu)**	**Delay (s/pcu)**
Chalk Farm Road (west) – left/ahead	62.6%	8.2	19.1	65.4%	5.7	13.9
Chalk Farm Road (west) - right	48.4%	3.6	36.3	61.5%	3.9	55.3
Ferdinand Street	54.4%	3.9	36.2	58.9%	2.8	53.0
Chalk Farm Road (east)	64.6%	11.4	24.4	77.9%	16.7	36.2
Juniper Crescent*	n/a	n/a	n/a	n/a	n/a	n/a

Note: 'D of S' = Degree of Saturation, 'MMQ' = Mean Maximum Queue, PRC = Practical Reserve Capacity

* Entry link only

Table 6.1: Existing Chalk Farm Road/Ferdinand Street/Juniper Crescent LinSig Results

6.10 The base model supplied by LBC was subsequently modified to reflect the proposed junction layout. This model has been subject to an initial review by TfL, and has been updated to reflect their initial feedback wherever possible. The model includes the following key assumptions:

- The junction would operate with a 96 seconds cycletime, as per the maximum permitted by TfL.
- Each cycle would comprise four stages, which are as follows:
    1. Chalk Farm Road east and west – all movements
    2. Ferdinand Street (left turn) and Juniper Crescent
    3. Cycle-only stage for Ferdinand Street and Juniper Crescent

4. All-red pedestrian crossing phase

- Specific cycle flows have not been separated out in the pcu flows, as the model uses LBC's baseline pcu flow data and to date specific cycle movements have not been made available.
- The model does not include the PFS access T-junction as the base model does not include specific details of flows to and from the PFS within the wider routes included in the model. Nevertheless, the proposed 'keep clear' markings should ensure that queues extending from the signal would nit block arriving/departing traffic.

6.11 The 2024 'with development' flows for the proposed development were tested using this amended LinSig model and the results are summarised in **Table 6.2** below, with the full results included at **Appendix L**.

	2024 AM Peak (PRC = 29.4%)			**2024 PM Peak (PRC = -7.6%)**		
Lane(s)	**D of S**	**MMQ (pcu)**	**Delay (s/pcu)**	**D of S**	**MMQ (pcu)**	**Delay (s/pcu)**
Chalk Farm Road (west)	67.2%	8.7	20.7	71.1%	8.3	27.8
Ferdinand Street	53.8%	3.5	79.4	34.6%	2.2	45.8
Chalk Farm Road (east)	68.5%	11.7	25.5	96.8%	24.7	73.6
Juniper Crescent	69.6%	4.4	60.9	93.5%	10.3	96.8

Note: 'D of S' = Degree of Saturation, 'MMQ' = Mean Maximum Queue

Table 6.2: Proposed Chalk Farm Road/Ferdinand Street/Juniper Crescent LinSig Results

6.12 The above results confirm that the proposed signal junction would operate with spare Practical Reserve Capacity in the morning peak hour, with the arm closest to capacity being Juniper Crescent, with a Degree of Saturation of 69.6%. This would result in a maximum

queue of 4.4 vehicles. The queues on Chalk Farm Road would be closely comparable with those modelled for the existing junction layout.

6.13 In the evening peak hour, the results confirm that the junction would operate with negative Practical Reserve Capacity (PRC) of -7.6%. Looking at specific arms of the junction, both Chalk Farm Road (west) and Ferdinand Street would operate below a 90% Degree of Saturation, and so the negative PRC relates to minor congestion on the other two arms, where the Degree of Saturation would be above 90%. This would result in maximum queues of 24.7 pcus on Chalk Farm Road (east), and the average delay increasing by 37.4 seconds. However, these queues would not block back to any other signal junctions, and this is offset by the fact that queues to the west on Chalk Farm Road would no longer risk blocking an adjacent signal junction (i.e. existing exit onto Chalk Farm Road).

6.14 On Juniper Crescent, the results show a maximum queue of 10.3 pcus in the evening peak hour. On the basis that flows are relatively evenly distributed between left and right turns, this results in a potential maximum queue of 5 pcus per lane, of 29 metres (5.75m per pcu). This would extend just past the proposed PFS access, and so during peak periods the queue would then extend to the existing railway bridge, noting that the 'keep clear' markings would ensure the PFS access is not blocked.

6.15 Overall, whilst the results show some minor delays in the evening peak hour resulting from the proposals, this would be offset by the significant improvement for cyclists that the junction would deliver, particularly for movements between Ferdinand Street and Juniper Crescent. Current LBC and TfL policies emphasis the need to prioritise pedestrian and cyclist movements before traffic, and so in this context it is considered that the proposed layout should be acceptable. The proposed junction would also remove an another existing signal junction from Chalk Farm Road to the west, again providing betterment for pedestrians and cyclists at this location.

6.16 Further to the above, during recent discussions with TfL at the pre-application meeting on 24 May 2017, it was also agreed that consideration could be given to the potential reduction in traffic using the junction resulting from measures introduced as part of the Travel Plan for the site. Assuming that the Travel Plan achieves a 10% reduction in movements on Juniper Crescent, which equates to up to 55 two-way peak hour movements, the actual queues and delays at the junction would most likely be reduced.

6.17 Based on the modelling results set out in this section, it is considered that the proposed 'all movements' signal junction would be suitable to serve the proposed development, especially given the significant benefits it would offer for pedestrians and cyclists.

Impacts at Gilbey's Yard/Oval Road

6.17 During pre-application consultation, residents at Gilbey's Yard to the east of the site have expressed concerns over the potential increase in taxi pick-up drop-off trips being made via Oval Road, noting that this allows taxis to follow a shorter route for journeys to the east and south.

6.18 The proposed traffic generation calculations confirm that the development could generate up to 12 additional peak hour two-way taxi trips (noting that foodstore taxi trips would remain as at present), which equates to 6 additional taxis. Gilbey's Yard is a private road and so strictly speaking taxis cannot wait and pick-up from this location, however it is understood that in practice this does occur (whilst taxis may also wait on Oval Road further east).

6.19 Given that Gilbey's Yard and Oval Road are outside of the site boundary, and noting that taxis cannot be specifically instructed to use certain routes, there is little in the way of physical measures that could be implemented to prevent these taxis using this route. Nevertheless, the Framework Travel Plan that has been produced for the application includes measures to dissuade residents, staff and customers from arranging to be picked up and dropped off at this location. These measures include the Travel Plan Coordinator (TPC) liaising with local taxi companies to request that they enter the site

via Juniper Crescent, and notices for residents/customers encouraging them to arrange taxi drop-offs within the site. The TPC will also stay in regular contact with residents of Gilbey's Yard to ensure that ongoing efforts are made to minimise the number of taxis associated with the site using this route.

6.20 Research has also been undertaken using popular online route planning tools such as Google Maps to ensure that satellite navigation does not direct trips along Oval Road to the site. This has confirmed that entry of the site postcode (NW1 8AA) only routes traffic via Juniper Crescent, and so no changes can be made to existing route planning services to further reduce the chances of taxi trips using Oval Road.

7.0 CAR PARKING MANAGEMENT

7.1 The 'car-free' nature of the new uses at the site will help to ensure that the number of vehicle trips associated with the site is minimised. However, this will be reliant on appropriate management of the available car parking areas on-site, to ensure that these are not miss-used. As a result, rigorous parking management policies will be adopted at the proposed development, to ensure all on-site spaces are available to the intended users and are used in an efficient manner. The details below set out an initial framework for parking management policies to be adopted at the site. Further details of parking management will be set out once the site management company is identified, who will work in conjunction with Morrisons to manage the use of on-site parking.

7.2 The site management company and Morrisons will follow the BPA Approved Operator Scheme Code of Practice (2012) which provides guidance on managing car parks and includes information on legislative requirements for the control and enforcement of parking.

Foodstore Parking

7.3 At present the Morrisons car park is subject to a 2-hour maximum stay, and this is monitored by a private company on behalf of Morrisons through Automatic Number Plate Recognition technology. The proposed basement car park will be subject to the same monitoring procedures, and fines will be issued to any vehicles exceeding the maximum stay. This will help to prevent staff at the proposed offices/workspace from using these parking areas. Morrisons staff will also not be permitted to use the car park unless otherwise agreed with management, and will be required to use alternative modes.

7.4 Signage will be provided on the access to the Morrisons car parks, and within car parks themselves, to make all users aware of the maximum waiting times.

Surface-level parking

7.5 The site management company will be responsible for the management of the 20 disabled parking bays within the site (10 below Block F and 10 on-street spaces at surface level). These spaces will be permitted for use by blue badge permit holding residents only. Residents within the wheelchair units will be eligible to apply to the site management company for a permit to use a specific bay. As there are 20 spaces for 57 wheelchair units, permits will be allocated on a first-come, first-served basis. Any resident provided with a permit will be required to clearly display this in their vehicle.

7.6 The site management company will be responsible for carrying out regular checks of the on-site parking spaces on foot early in the morning or later in the evening to check that vehicles are displaying correct permits and have parked in an authorised location and manner.

7.7 Warnings, followed by fines, will be issued to vehicles: -

- Parked in a marked parking space and not clearly displaying an appropriate permit in the windscreen;
- Parked across or obstructing more than one marked parking space; and
- Parked outside of a marked parking space.

7.8 For the safety of residents and other users of the site (such as maintenance vehicles), a vehicle will be removed when it meets one or more of the following criteria: -

- It has been parked inappropriately/dangerously;
- It has been parked such that it causes an obstruction; and
- It has been parked such that it is blocking the car park access/egress.

7.9 Details of fines and related procedures will be detailed on signage located within the car park, according to the BPA Code of Practice.

7.10 A plan will be followed to help prevent fraud and to detect its occurrence. This would include checking to make sure that the permits on display are valid and to determine whether maintenance vehicles are parked for an appropriate length of time.

7.11 As part of the letting of commercial units, occupiers will be informed that no parking will be available on-site for use by staff or visitors.

8.0 CONSTRUCTION TRAFFIC MANAGEMENT

8.1 A detailed Construction Management Plan (CMP) has been produced by Barratt London for the site and will be included with the planning application.

8.2 The CMP includes details of traffic management measures that will be implemented during the various demolition and construction phases. This includes specific vehicle routes to be adopted by construction traffic (via Chalk Farm Road west), and limits on the hours for construction traffic (0930 to 1630 hours on weekdays and 0800 to 13000 hours on Saturdays). It also includes various management practices to minimise impacts on the highway and other users, particularly pedestrians and cyclists.

8.3 The CMP does not includes details on the swept path implications of construction vehicles entering and departing the site. Consequently, the swept paths of the largest anticipated vehicles (large mobile crane and large tipper) are shown in **Drawing Number 160630-011**, which confirm that these vehicles could be satisfactorily accommodated at the new signal junction arrangement.

9.0 ACCESS BY NON-CAR MODES

9.1 Section 4.0 of this TA has already set out the key infrastructure improvements that would be included as part of the proposed site masterplan to facilitate travel by non-car modes, including details of cycle parking and new bus stops. The following section provides a more focussed review of access by walking, cycling and public transport, with a view to confirming that the proposals follow current local and national policy with respect to encouraging access by sustainable non-car modes of travel.

Walking

9.2 Based on the calculations included in **Section 5.0**, the development proposals would generate a total increase of up to 122 peak hour walking trips to and from the site. In addition, the development would generate a total of up to 459 additional walking trips associated with public transport journeys (bus, underground, rail).

9.3 In terms of how these trips are distributed on the surrounding network, the following assumptions have been made:

- *PFS site*
    - Walking trips spit equally to east and west along Chalk Farm Road
    - Underground-related walking trips split equally between Chalk Farm and Camden Town stations
    - Bus-related walking trips use nearby stops to east and west on Chalk Farm Road
    - Train-related walking trips occur via Chalk Farm Road (east) and subsequent routes leading north and east.
- *Main site*
    - Half of walking trips occur via Oval Road to the east, with the other half using to the route to the north via Juniper Crescent and then splitting equally to the east and west along Chalk Farm Road.
    - Underground-related walking trips split equally between Chalk Farm and Camden Town stations, with the route to

Chalk Farm via Juniper Crescent and Chalk Farm Road, and the route to Camden Town being via Oval Road.

- Bus-related walking trips use the proposed on-site stops (so no increase in walking trips further afield).
- Half of train-related walking trips occur via Chalk Farm Road (east) and subsequent routes leading north and east, with the other half travelling via Oval Road.

9.4 Based on the above assumptions, the details below confirm the resulting increase in weekday morning peak hour two-way walking trips along key routes to and from the site.

- Chalk Farm Road (west) – 186 two-way trips
- Chalk Farm Road (east) – 156 tow-way trips
- Oval Road – 165 two-way trips

9.5 To determine the suitability of the surrounding pedestrian routes to accommodate these increases, and as per TfL's request, a PERS Audit (Pedestrian Environment Review System) has been undertaken. The study area for this audit included Juniper Crescent, sections of Chalk Farm Road to the east and west, and a section of Oval Road to the east. The PERS Audit is included at **Appendix M** and reviews the current pedestrian environment as observed during a site visit.

9.6 The PERS Audit concludes that all of the links, crossings and public transport waiting areas are rated as green on a RAG (Red Amber Green) rating system, meaning that the surrounding pedestrian environment is classed as good. The audit does not allow for proposed changes to the pedestrian environment, such as the new public realm within the site and widened footway at the eastern edge of Juniper Crescent below the railway bridge. Hence, with these improvements in place there would continue to be a good pedestrian environment and no further mitigating improvements are deemed to be necessary to accommodate the increases set out above.

9.7 Aside from the existing infrastructure to accommodate pedestrian trips, it is considered that the proposed development would be well located to encourage trips by this mode. The document 'Guidelines

for Providing for Journeys on Foot' (IHT, 2000) suggests that 800 metres (10 minutes) is a recommended maximum walk distance for shopping and leisure trips, and the mixed-use nature of the site would help to ensure that many such trips could occur solely within the confines of the site (e.g. shopping trips to Morrisons). Beyond the site, there are also wide range of shopping and leisure opportunities within Camden that can be accessed via the routes described above.

9.8 The IHT document also suggests a maximum walking distance of 2 kilometres (25 minutes) for commuting and school trips. This places the site within a catchment area that includes a wide range of employment opportunities within areas including Camden Town, Kentish Town and King's Cross. There are also a number of schools within this walking catchment.

9.9 Based on the above details, and subject to the significant improvements to the pedestrian environment that would be delivered as part of the proposals, it is considered that the predicted increases in walking trips would be satisfactorily accommodated.

Cycling

9.10 Based on the calculations in **Section 5.0**, The proposed development would generate an increase of up to 58 peak hour cycling movements associated with the site (in addition to existing cycling trips associated with the foodstore). It is assumed for the purposes of this TA that half of these trips would travel via Oval Road to the east, with the remaining half cycling along Juniper Crescent and then along Chalk Farm Road and Ferdinand Street. This results in a maximum increase of 29 two-way cycle movements on any given route, or just under one cyclist ever two minutes on average.

9.11 To accommodate these cycling trips, the proposed development includes the following cycle-friendly features:

- Shared surface route within the site linking Juniper Crescent with Oval Road.

- Annular cycle lane markings at the proposed site access roundabout, to provide a clear route for cyclists within the carriageway and make drivers aware of cyclists.
- Dedicated cycle lanes with associated green signals at the proposed Chalk Farm Road/Ferdinand Street/Juniper Crescent junction.

9.12 It is considered that these measures would help to safely accommodate the predicted increase in cycling trips within the site. Furthermore, these measures would effectively create a more attractive route through the site, helping to form part of a wider cycling route between Ferdinand Street and Oval Road for existing trips, thereby allowing cyclists to avoid the more heavily trafficked route via Chalk Farm Road.

9.13 The proposed 32-bike cycle hire docking station within the proposed masterplan would also help to encourage cycling by users of the site. Furthermore, this would expand TfL's existing cycle hire network, which stops at Castlehaven Road to the east, and would present the opportunity for linked trips with cycling by existing users of Chalk Farm Underground Station to the west.

9.14 As set out in TfL's most recent pre-application advice letter (see **Appendix C**), their supplementary advice note *'Assessment of cycle infrastructure for planning applications'* has been reviewed in the process of producing this TA. The document suggests various methods for analysing cycling conditions, including a 'broad brush' audit of streets suitable for cycling, and local area analysis within a 2 kilometres study area.

9.15 **Figure 3** shows the available cycle routes within this 2 kilometres catchment and confirms that there are a wide variety of formal and informal cycle routes in the vicinity of the site. These include Chalk Farm Road (east), Ferdinand Street and Oval Road as roads recommended for cycling within the carriageway. The figure also shows several off-road routes slightly further afield.

9.16 In considering the suitability of these surrounding routes, it is considered that an average of one additional cyclists every 2 minutes on any particular route should be safely accommodated. Furthermore, the site layout should help to encourage the route through the site for existing cyclists elsewhere on the network, along the wider strategic route between Ferdinand Street and Oval Road, which the proposals would help to facilitate.

Public Transport

9.17 **Section 5.0** confirms the increases in morning peak hour public transport trips that would be generated by the proposed development, whilst the details in the walking section above provide assumptions as to which stops/stations are likely to be used by the additional passengers (including the new bus stops within the site).

9.18 TfL have commented that the TA should provide details of predicted increases per bus/underground/rail service, following which TfL will comment on available capacity on these routes as part of their consultation response on the application.

Bus

9.19 With respect to bus travel, **Table 9.1** below confirms the predicted increases in passengers per service. Passenger numbers have been assigned to each route in proportion with the frequency of each service.

Route	Combined (two-way) Bus trips								
	Weekday AM peak hour			Weekday PM peak hour			Weekend interpeak (1300 to 1400 hours)		
	Buses in AM Peak Hour	Predicted Bus Passenger Trips	Additional passengers Per Bus	Buses in PM Peak Hour	Predicted Bus Passenger Trips	Additional Passengers Per Bus	Buses in Interpeak	Predicted Bus Passenger Bus Trips	Additional passengers Per Bus
Juniper Crescent									
27	10	41	4.10	10	32	3.2	8	31	3.88
393	8	33	4.13	8	26	3.25	6	23	3.83
Total	**18**	**74**	**4.11**	**18**	**58**	**3.22**	**14**	**54**	**3.86**
Chalk Farm Road									
24	12	9	0.75	12	9	0.75	12	0	0
31	12	9	0.75	12	9	0.75	10	0	0
168	10	8	0.80	10	7	0.70	7	0	0
Total	**34**	**26**	**0.76**	**34**	**25**	**0.74**	**29**	**0**	**0**
Grand Total	**52**	**100**	**1.92**	**52**	**83**	**1.60**	**43**	**54**	**1.26**

Table 9.1: Increase in bus passenger trips per route

9.20 The above details confirm that the largest increases in bus patronage would be an average of four additional passengers on route numbers 27 and 393 during the weekday and weekend peak periods. It is considered likely that the existing services should have spare capacity to accommodate these increases.

Underground

9.21 For underground services, **Table 9.2** below confirms the predicted increases in passengers per station per service. Again, the passengers have been assigned to each route in proportion with the service frequencies.

Route/Station	Combined (two-way) Underground								
	Trains in AM Peak Hour	Predicted rail Trips	Trip increases per tube/train	Trains in PM Peak Hour	Predicted rail Trips	Trip increases per train	Trains in Saturday Interpeak	Predicted Train Trips	Trip increases per train
Northern Line (Chalk Farm)									
Towards north (Edgware)	25	26	1.04	25	41	1.64	20	20	1.00
From north (Edgware)	25	41	1.64	25	16	0.64	20	11	0.55
Towards south (Mordon)	25	27	1.08	25	42	1.68	20	20	1.00
From south (Mordon)	25	42	1.68	25	17	0.68	20	11	0.55
Total	**100**	**136**	**1.36**	**100**	**116**	**1.16**	**80**	**66**	**0.83**
Northern Line (Camden Town)									
Towards north (Edgware)	25	26	1.04	25	41	1.64	20	20	1.00
From north (Edgware)	25	41	1.64	25	16	0.64	20	11	0.55
Towards south (Mordon)	25	27	1.08	25	42	1.68	20	20	1.00
From south (Mordon)	25	42	1.68	25	17	0.68	20	11	0.55
Total	**100**	**136**	**1.36**	**100**	**116**	**1.16**	**80**	**66**	**0.83**

Table 9.2: Increase in underground passenger trips per route

9.22 The above details confirm that there would be less than 2 additional passengers per tube service, or up to four when taking into account both stations. It is considered likely that the existing underground services would have spare capacity to accommodate these increases.

Train

9.23 In practice train trips would be likely to occur at several difference nearby stations including Kentish Town Wes and Camden Road. However, for robustness, the following calculations in **Table 9.3** assume all rail passengers would use Kentish Town West overground rail services, to provide a worst-case assessment of the potential impact on capacity.

Route	Combined (two-way) Rail Services								
	Trains in AM Peak Hour	Predicted rail Trips	Trip increases per tube/train	Trains in PM Peak Hour	Predicted rail Trips	Trip increases per train	Trains in Saturday Interpeak	Predicted Train Trips	Trip increases per train
Northern Line (Chalk Farm)									
Towards Highbury and Islington	8	8	1.00	8	34	4.25	6	5	0.83
From Highbury and Islington	8	36	4.50	8	6	0.75	6	3	0.50
Towards Clapham Junction	8	7	0.88	8	33	4.13	6	5	0.83
From Clapham Junction	8	36	4.50	8	6	0.75	6	3	0.50
Total	**32**	**87**	**2.72**	**32**	**79**	**2.47**	**24**	**16**	**0.67**

Table 9.3: Increase in rail passenger trips per route

9.24 The above details confirm that there would be an overall average of up to 3 additional passengers per train service. It is considered likely that the existing rail services would have spare capacity to accommodate these increases.

Framework Travel Plan

9.25 As per the requirements for the planning application set out by TfL and LBC in pre-application discussions, a Framework Travel Plan (FTP) has been produced in support of the scheme (**ACE Report Ref: 160630-11**). This FTP sets out the framework for the implementation of use-specific Travel Plans prior to occupation, including the incorporation of any existing Travel Plan measures adopted by Morrisons at the current store. The FTP sets out a range of measures and SMART targets to ensure that single-occupancy car travel is minimised at the site, and that the use of sustainable modes is taken up by all users wherever possible.

10.0 SUMMARY AND CONCLUSIONS

10.1 Ardent Consulting Engineers (ACE) has been appointed by Safeway Stores Limited and BDW Trading Limited to advise on the transport and infrastructure aspects of a proposed residential and retail development at the existing Morrisons Foodstore at Chalk Farm Road, Camden, NW1 8AA.

10.2 The proposals comprise a mixed use development including 573 residential dwellings, offices/workspace, and the redevelopment of the existing Morrisons store and associated access/parking arrangements. During construction, the Petrol Filling Station (PFS) at Chalk Farm Road would be demolished and converted to a temporary foodstore for up to 30 months, with offices above, following which the PFS would be reinstated once the new replacement store is open.

10.3 With respect to trip generation, the replacement foodstore would be likely to generate a similar level of trips to the current store, as whilst there would be a slight variation in floor area the same full food offer would be provided. Hence, the new residential and commercial uses at the site would generate the following net increase in peak hour person trips set out in **Table 10.1**.

Proposed Development Net Increase	**Weekday am peak hour**			**Weekday pm peak hour**		
	In	***Out***	***Total***	***In***	***Out***	***Total***
Person trips	**410**	**285**	**695**	**174**	**411**	**585**
Vehicle Driver	8	5	13	3	9	12
Vehicle Passenger	6	2	8	1	6	7
Pedal Cycle	25	33	58	20	28	48
Train	72	15	87	12	67	79
Underground	167	105	272	65	165	230
Bus	54	46	100	27	56	83
Motorcycle	8	6	14	3	9	12
Taxi or Minicab	5	7	12	4	6	10
Walk	61	61	122	35	63	98
Other	3	5	8	3	4	7

Table 10.1: Net Increase in Person Trips by Mode

10.4 This TA details the proposed access strategy for the site, which includes an internal shared surface road and reconfigured roundabout at Juniper Crescent to serve a new basement car parking area for the foodstore. The proposals also include the reconfiguration of the existing traffic signals at Chalk Farm Road, with consolidation to a single all movements junction in place of the existing separate access/egress arrangements. The proposes layout has been subjected to a Stage 1 Road Safety Audit and includes dedicated traffic signals for cyclists emerging from Juniper Crescent and Ferdinand Street.

10.5 With respect to car parking, the proposed replacement foodstore would provide a total of 300 customer spaces split over two basement levels, including 10 bays that can be used by either delivery vehicles or customers. Whilst this slightly exceeds that standard maximum requirement permitted by the London Plan, this has been agreed by TfL given that it still represents a significant reduction from the current provision of 425 spaces. The remaining proposed uses would be car-free, with the exception of 20 residential disabled bays within the site. Long and short-stay cycle parking would also be provided in excess of minimum London Plan requirements.

10.6 The proposed foodstore would be provided with a dedicated basement service yard for all deliveries and refuse collections. As for the remaining uses, small delivery vehicles will be able to enter the main site layout and turn adjacent to a loading area. A managed refuse strategy will also be adopted to prevent refuse vehicles having to travel through the whole site. At the PFS site, a dedicated service vehicle egress would be provided onto Chalk Farm Road at the western end of the site frontage, to prevent the need for turning within the site.

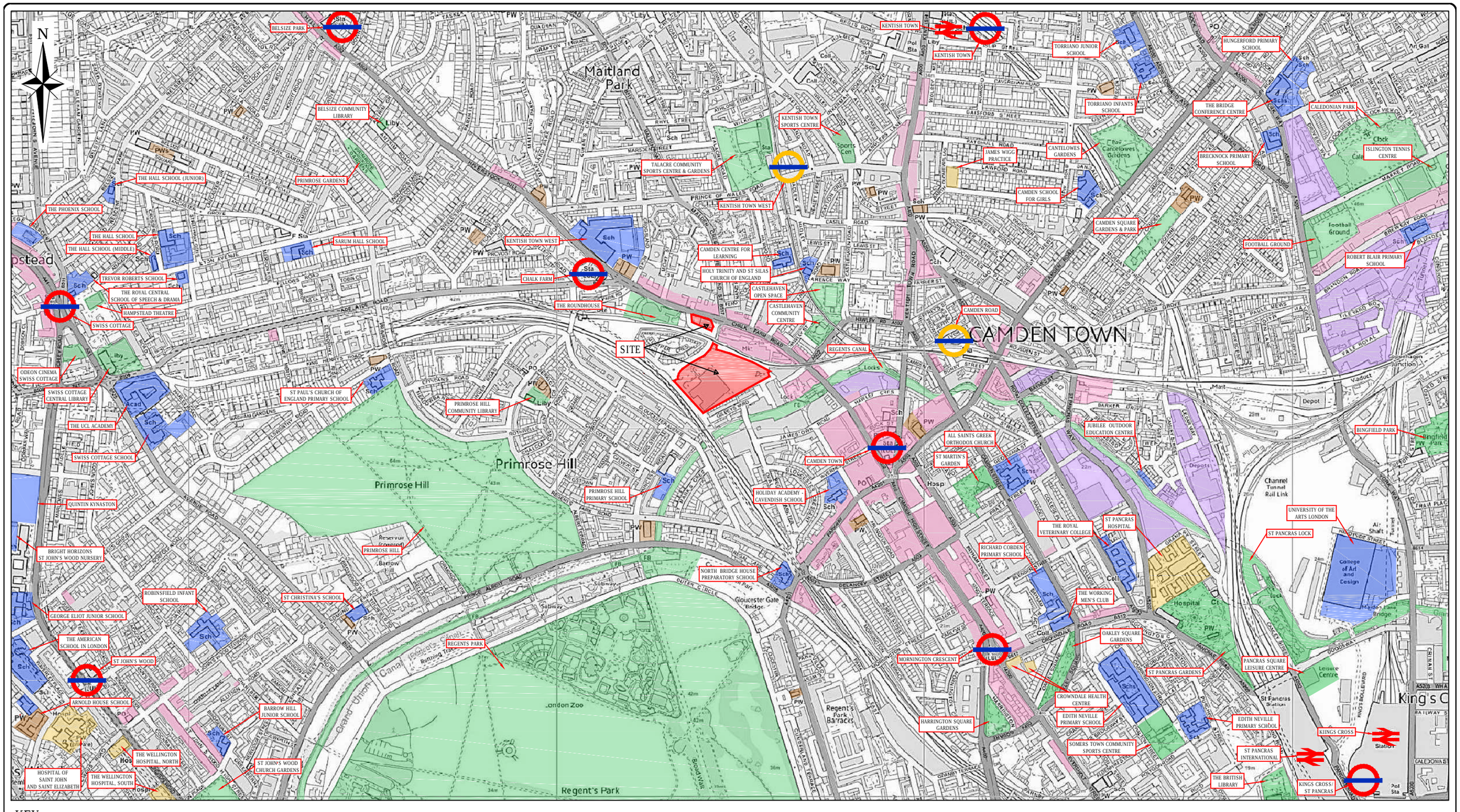
10.7 The minimal traffic increases set out in **Table 10.1** confirm that the proposals should have no significant impacts on the surrounding highway network. As for the proposed reconfiguration of the Chalk Farm Road/Ferdinand Street/Juniper Crescent signal-controlled junction, a detailed LinSig assessment has been undertaken. This confirms that the junction would operate without any congestion in

the morning peak hour. In the evening peak there would be some slight delays on Juniper Crescent and Chalk Farm Road (east), however spare capacity would still exist and these slight delays would ensure that both pedestrians and cyclists are provided with their own dedicated stages within the operation of the signals. As such, it is considered that the proposed layout should be acceptable, noting that it prioritises pedestrians and cyclists over motor vehicle traffic.

10.8 A detailed review of opportunities for access by non-car modes confirms that the site is in a highly sustainable location and the predicted increases in walking, cycling and public transport trips should be satisfactorily accommodated. With respect to bus travel, the proposals include the relocation of the existing stops within the site to new laybys along Juniper Crescent, which TfL have indicated should be acceptable in principle.

10.9 In conclusion, this TA demonstrates that the proposed development would be compliant with current and emerging local and national transport policies. The development would not generate significant traffic increases and so would have no severe impacts on the local highway network. It would also provide safe and suitable access, with the proposed reconfiguration of the signal junction at Chalk Farm Road helping to improve conditions for cyclists. The site is also in a highly sustainable location in terms of opportunities for non-car travel, which would be maximised by the proposed on-site infrastructure.

Figures



KEY

- SITE LOCATION
- EMPLOYMENT
- RETAIL
- LEISURE
- EDUCATION
- LONDON UNDERGROUND STATION
- LONDON OVERGROUND STATION
- RAIL STATION
- PLACE OF WORSHIP

ISO 9001 BUREAU VERITAS Certification

REV.	AMENDMENTS	DRN	CHK	APP	DATE

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w www.ardent-ce.co.uk e enquiries@ardent-ce.co.uk

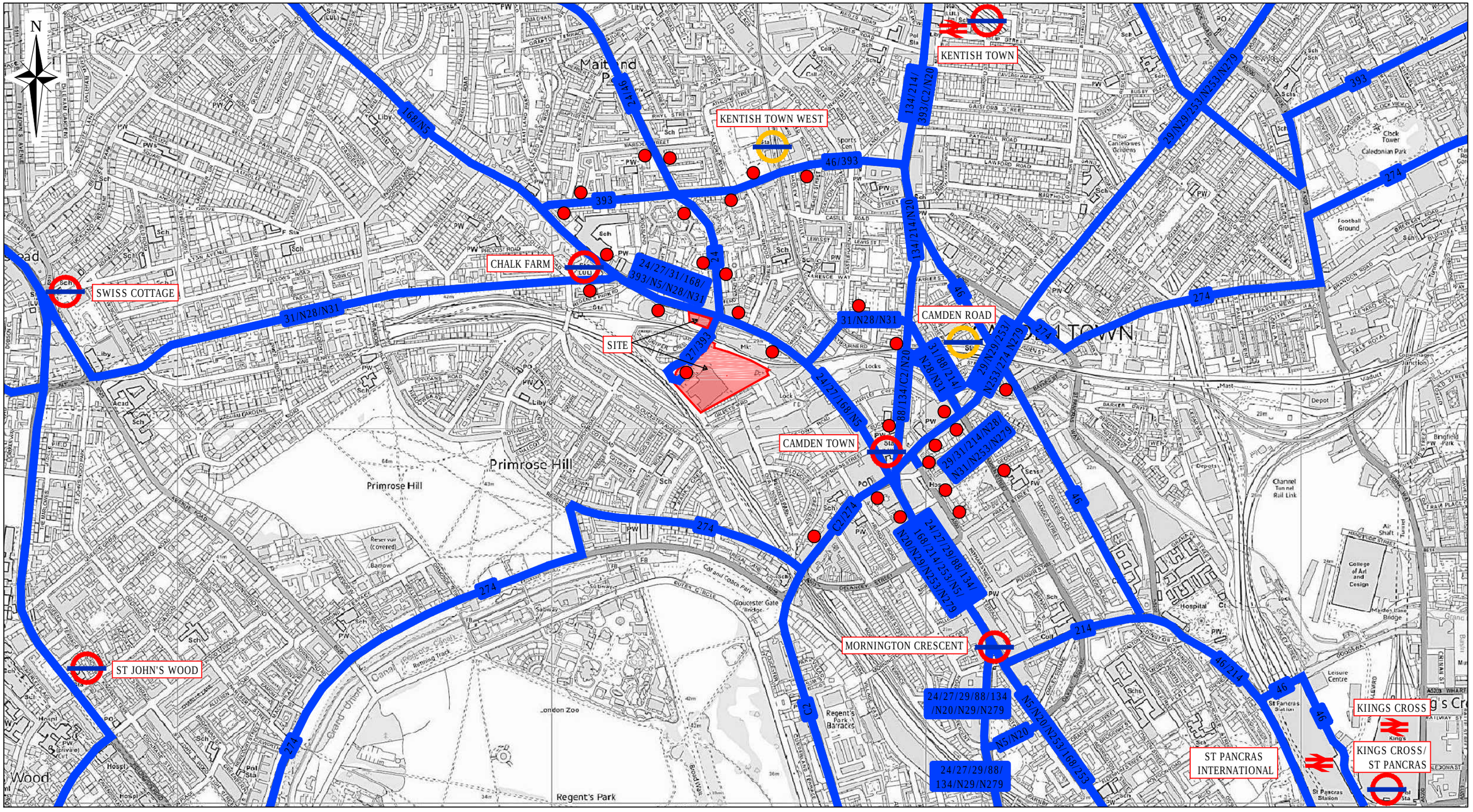
PROJECT TITLE: CAMDEN GOODS YARD

DRAWING TITLE: SITE LOCATION & LOCAL FACILITIES

CLIENT: SAFEWAY STORES LIMITED & BDW TRADING LIMITED

SCALE:	DATE:	DESIGNED:
N.T.S.	JUNE 2017	ADS
DRAWN:	CHECKED:	APPROVED:
ADS	DH	SJH

DRAWING NO. 160630 - FIGURE 1 REV:



REV.	AMENDMENTS	DRN	CHK	APP	DATE

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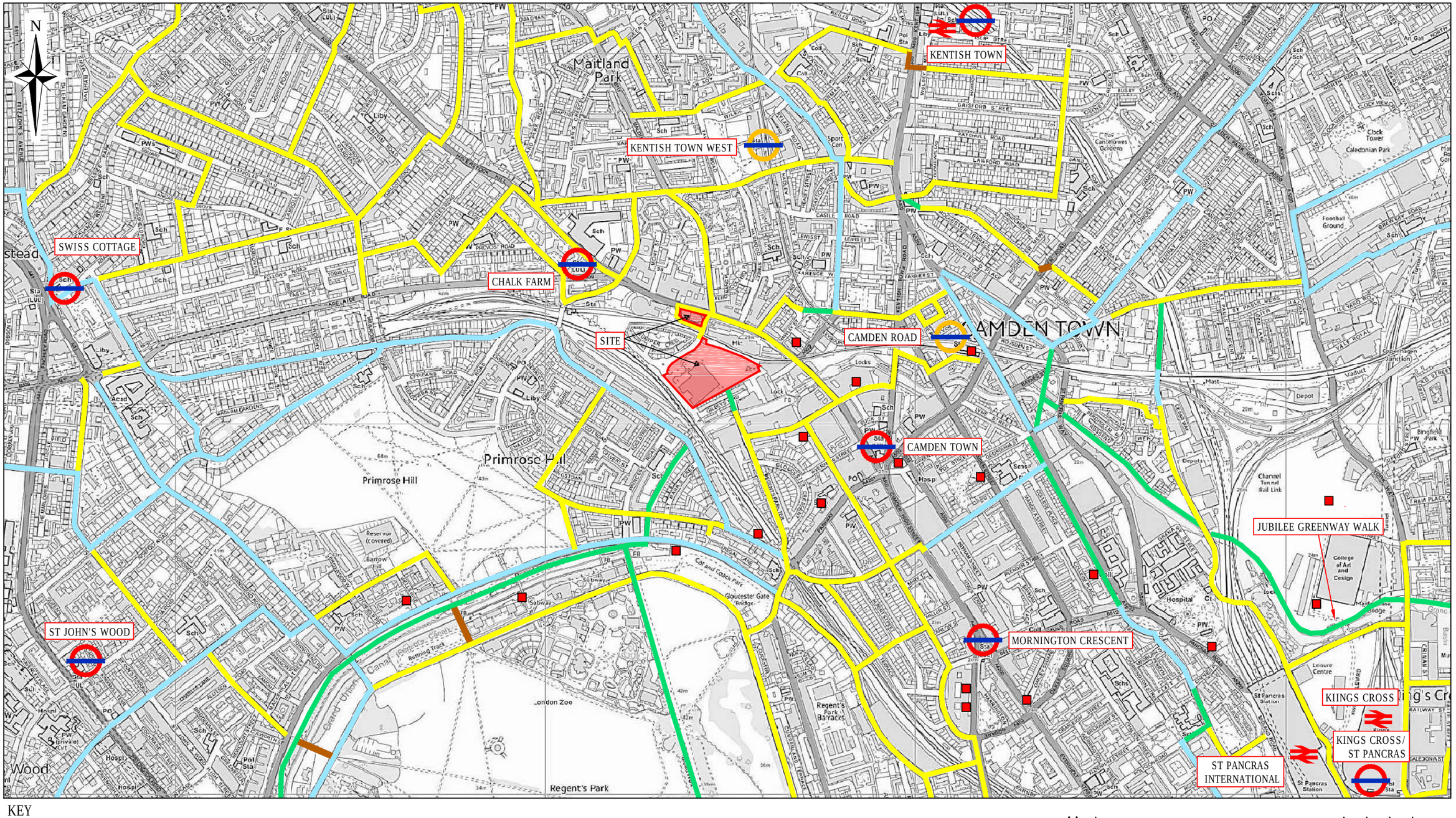
PROJECT TITLE:
CAMDEN
GOODS YARD

DRAWING TITLE:
LOCAL BUS SERVICES &
ROUTES

CLIENT:
SAFEWAY STORES LIMITED &
BDW TRADING LIMITED

SCALE:	DATE:	DESIGNED:
N.T.S.	JUNE 2017	SJR
DRAWN:	CHECKED:	APPROVED:
ADS	DH	SJH

DRAWING NO.: 160630 - FIGURE 2
REV:



KEY

- SITE LOCATION
- ROUTES SIGNED OR MARKED FOR USE BY CYCLISTS ON A MIX OF QUIET AND BUSY ROADS
- OTHER ROADS RECOMMENDED BY CYCLISTS, MAY CONNECT TO OTHER ROUTE SECTIONS.
- OFF ROAD CYCLE ROUTES.
- PEDESTRIAN ROUTE (CONNECTS CYCLE SECTIONS)
- CYCLE HIRE DOCKING STATIONS
- LONDON OVERGROUND STATION
- LONDON UNDERGROUND STATION
- MAIN LINE RAIL STATION

ISO 9001 BUREAU VERITAS Certification

REV.	AMENDMENTS	DRN	CHK	APP	DATE

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PROJECT TITLE: CAMDEN GOODS YARD

DRAWING TITLE: CYCLE ROUTES

CLIENT: SAFEWAY STORES LIMITED & BDW TRADING LIMITED

SCALE:	DATE:	DESIGNED:
N.T.S.	JUNE 2017	SJR
DRAWN:	CHECKED:	APPROVED:
ADS	DH	SJH

DRAWING NO. 160630 - FIGURE 3 REV: