

## **APPENDIX 4**

### **Pre-RMA Conditions**

#### **Condition 1.9 Construction Consolidation Centre Feasibility Study**

This is the review of the Construction Consolidation Centre provision and / or alternative logistics facilities to provide a management method for enabling the safe and efficient flow of construction materials and equipment from suppliers to relevant development sites within the Northern Development and / or Southern Development.

The key objective of the study is to reduce the number of construction vehicles on the surrounding highway network of the development by identifying measures to provide a managed flow and distribution of construction vehicles onto the strategic highway network.

The review includes potential use of existing facilities and any new facilities which may be required to reduce the impact on the local infrastructure and the environment, through reduced vehicle movements during Phase 1, especially in the peak periods.

Eleven sites were reviewed as a potential Logistics Centre (a vehicle holding facility enabling the flow of vehicles to a site to be controlled.) The highest scoring sites and associated distances from the site were:

- London Gateway Services Plot (M1 Junction 3, southbound: 5 miles)
- Wembley Industrial Park (Great Central Way, Wembley: 4 miles)

The same eleven sites were also reviewed as a potential a warehousing / storage site. The highest scoring sites and associated distances from the site were:

- Wembley Industrial Park (Great Central Way, Wembley: 4 miles)
- Park Royal Industrial Estate (Abbey Road, Park Royal: 4.5miles)

Nine sites were assessed as facilities / locations to support Phase 1. The highest scoring sites and associated distances from the site were:

- London Concrete and Yeoman Asphalt Great Central Way, Wembley: 3.5 miles)
- Aggregate Industries (Horn Lane, Acton: 7 miles)

The key findings from the study are:

- A Construction Consolidation Centre is unlikely to be required and certainly not for Phase 1 as it is envisaged that very few of the vehicles attending site prior to the final stages of fit-out arrive less than 90% full.
- A potential rail based solution is problematic as there is minimal storage land adjacent to Hendon Rail Transfer Station, whilst the Euro Storage Site (The Goods Yard, Railway Sidings, 400 Edgware Road: 1.5 miles.) would require all vehicles to travel through the already congested Staples Corner and A5.
- A number of locations for a new logistics centre and off site supporting facilities (warehousing / storage / existing commodities and batching) have

been identified indicating a number of feasible options, which will be reviewed in more detail as the development progresses.

The full logistics plan for the construction of Phase 1 will form part of the Construction Transport Management Plan which will be produced by the developer and submitted for approval under Condition 12.1 prior to the commencement of works on site.

### **Condition 1.20 Area Wide Walking and Cycling Study (AWWCS) and Condition 2.8 Pedestrian and Cycle Strategy for Phase 1A (North)**

The Area Wide Walking and Cycling Study reviews the pedestrian and cycle connections between the development site, key destinations and local residential areas. The study forms the basis of a delivery programme of potential schemes for improvements to pedestrian and cycle facilities adjacent to or beyond the site boundary, both to and from the Brent Cross site.

The objectives of the Area Wide Walking and Cycling Study are to:

- Define the study area in agreement with the London Borough of Barnet and Transport for London in relation to key destinations
- Examine specific pedestrian and cycle routes connecting the site with key destinations, transport hubs and local residential areas to identify shortfalls in provision and areas for improvement on these routes
- Identify a set of identified improvements which could be provided along the above
- Identify for delivery a programme of potential schemes, to be funded by the BXC development partners (BXCDP) for improvements to pedestrian and cycle facilities adjacent to or beyond the site boundary, providing improved access to and/ or from the BXC site. The potential schemes are to be 'fairly and reasonably related in scale and kind to the Development' and will 'ensure that the Development is fully accessible by walkers and cyclists and that it is fully integrated with the surrounding pedestrian and cycle network in the interests of encouraging sustainable non-car modes of transport.'

In addition, the study has provided a baseline framework for the local boroughs and Transport for London to advise on any future improvements outside of the scope of the BXC development. The measures that are to be funded by the Development will be discussed within the Transport Advisory Group (TAG) and recommendations made to the Transport Strategy Group (TSG) for expenditure of the Consolidated Transport Fund (CTF).

As part of the scoping process a total of 14 key origins/destinations were identified as directly relevant to the Brent Cross development location. These are:

- Cricklewood Town Centre and First Capital Connect station
- Brent Cross London Underground station
- Hendon Central London Underground station
- West Hendon/Hendon First Capital Connect station
- Willesden Green Town Centre and London Underground station

- Golders Green Town Centre and London Underground station
- Dollis Hill Town Centre and London Underground station
- Childs Hill Town Centre
- Hendon Town Centre
- Colindale Town Centre and London Underground station
- Kilburn Town Centre and Kilburn High Road London Overground station
- Neasden Town Centre and London Underground station
- Temple Fortune Town Centre
- West Hampstead

A total of 16 walking and 17 cycling routes were identified, plus links alongside the A41 and A406. The A5 corridor and associated pedestrian and cycle facilities were audited as part of the A5 Corridor Study.

Following agreement of the routes, each was assessed using the street audit Pedestrian Environment Review System (PERS) and Cycling Environment Review System (CERS) guidance and software.

The resulting information was then examined to identify improvements which could be put forward for each route. These included a range of infrastructure improvements as well as measures to address maintenance and enforcement issues. For the cycle routes, improvements were considered between the Brent Cross red line boundary and the destination of each route. As the walking routes become very dispersed at distances greater than about 1km away from the site, improvement measures were only considered within 1km of the site boundary.

The development of the Area Wide Walking and Cycling Study has been conducted in close liaison with the London Borough of Barnet and Transport for London, as advised in Schedule 17. The proposed AWWCS improvement measures were presented and discussed at a consultation workshop held on Thursday 6th November 2014 with representatives of the London Borough of Brent, the Barnet Cycle Group and the Brent Cycle Group. Representatives from the London Borough of Camden; the London Cyclists Campaign and Touring Club; the Mayor's Cycling Commissioner; Living Streets and the Ramblers Association were invited to the workshop but did not attend.

The Area Wide Walking and Cycling Study has been reviewed by the London Borough of Barnet, Transport for London and the London Borough of Brent. Each local authority responded with suggested comments, amendments and additions. As well as improvements, minor route additions and diversions suggested by the local authorities were also included where considered relevant.

The final route improvements plan differentiates between 'proposed improvements to integrate the development into the existing networks' and 'potential improvements for consideration by local authorities'. The proposed 'potential improvements for consideration by local authorities' have then been graded in order to identify the forecast need for the implementation of the improvement measures in order to enable prioritisation in the future where necessary.

The indicative series of proposed improvements to integrate the development into the existing network have been secured via a contribution of £1,250,000. As the detail design progresses, the exact nature of the pedestrian and cycle improvements will evolve.

The Phase 1A North Pedestrian and Cycle strategy sets out the quantum and details of pedestrian and cycle links and facilities to be provided within this phase of the development.

The proposals have been based on an iterative design review process, based on consultation with Transport for London and officers of the London Borough of Barnet.

The strategy has been based on the version of the London Cycling Design Standards that were current at the time of the study. Segregated off-road pedestrian/cycle facilities have been proposed where feasible (where space and land allows). Shared off road facilities have been provided where width constraints do not allow for segregated off road facilities or where the quality of the environment consideration prevails, such as long the river route corridor.

At the Staples Corner/M1/A406 Junction, a 4m wide shared pedestrian/cycle bridge will be provided to form a key north/south link across the A406, to the east of the railway line. To the west of the railway line, 1.83m wide pedestrian bridges on both sides of the A5 will be provided.

The A406 will also be crossed via:

- The Living Bridge: A 15m wide bridge for shared use by pedestrians and cyclists. The minimum effective width (useable space for pedestrian/cycle movement) will be 7m.
- A406 Tempelhof Bridge: A segregated footway/cycleway will be provided alongside the northbound carriageway. This will consist of a 2.5m – 3m wide cycle lane and a 2-2.5m wide pedestrian element. Adjacent to the southbound carriageway, a 2.5-4m wide pedestrian only footway will be provided. A cycle ramp will provide access from New Tempelhof Avenue to the River Brent Corridor.
- A41/A406 Junction: The existing pedestrian bridge across the A406 at this location will remain and cyclists will have to dismount. Improved links to Brent Cross Underground Station from Brent Cross Shopping Centre will be provided for pedestrians and cyclists.

A 5m wide shared footway/cycleway facility with step free access will be provided on the River Brent Corridor providing a traffic free east-west connection.

A segregated footway/cycleway will be provided linking the proposed Cycle Superhighway 11 to Brent Cross Shopping Centre through Clitterhouse Playing Fields.

Proposed improvements to underpasses on the A41 and the M1/MML underpass will be undertaken, including general maintenance.

The proposed pedestrian and cycle links have been appraised using principles from the Pedestrian Environment Review System and the Cycling Environment Review System.

Although forecasts of pedestrian and cycle movements have not been calculated due to the lack of appropriate modelling tools, comfortable pedestrian flows for each footway width have been determined. These flows indicate that demand can be accommodated.

The London Borough of Brent objected to the AWWCS, key concerns being that the measures proposed were too limited to provide a sufficient incentive for people to walk or cycle and that the measures did not mesh with LB Brent's own cycle route plans and proposals. However, officers consider that the agreed measures arising out of the AWWCS does provide sufficient proposals to comprehensively improve key local walk and cycle routes in the vicinity of the BXC development opportunity. The £1,250,000 mentioned above includes a £300,000 contribution towards a separate cycle route requested by LB Brent between BXC and Wembley.

### **Condition 1.21 Framework Servicing and Delivery Strategy and Condition 1.22 Phase 1A North Servicing and Delivery Strategy**

The Framework Servicing and Delivery Strategy provides a structure for the consideration of servicing and delivery issues at subsequent stages in the planning consents process and during construction and operation of the development.

Each phase or sub-phase of development requires the preparation of a Servicing and Delivery Strategy and will be in operation from first occupation until all elements of the phase or sub-phase are fully developed.

The implementation and overall success of the Servicing and Delivery Strategy for each phase or sub phase will be dependent on the end users of the development. Each end user will be required to prepare a Delivery Service Plan for their development as part of the reserved matters planning application. This will ensure individual plots work effectively under the Framework Servicing and Delivery Strategy and Servicing and Delivery Strategy for that phase.

The uses which have potential to generate a large number of servicing and delivery movements is split between:

- The Brent Cross Shopping Centre;
- The Rail Freight Facility;
- The Waste Handling Facility; and
- Other retail, notably High Street South, office, hotel, community, leisure, residential and industrial uses.

The overarching aim of the Framework Servicing and Delivery Strategy (and the Servicing and Delivery Strategies prepared for each phase or sub phase of development), is to reduce the impact of delivery and servicing activity generated by the development during the operation of the site on the human and physical

environment. This will be pursued through seeking to influence delivery and servicing activities to achieve the following objectives and targets:

- Objective 1: A reduction in the volume of delivery and servicing trips
  - Target - Achieve a 15% reduction in baseline site-wide delivery and servicing trips by year 5.
- Objective 2: A change in the pattern of delivery and servicing trips to avoid peak hours
  - Target - Achieve a 30% reduction in baseline peak hour delivery and servicing trips by year 5.
- Objective 3: A shift of mode from road to rail and other more sustainable modes in so far as is reasonably practicable
  - Target - Identify and implement mode shift from road to rail and other more sustainable modes through monitoring of mode split for delivery of goods.
- Objective 4: An improvement to delivery and servicing vehicles, equipment and technology.
  - Target - Promote improvements to vehicles, equipment and technology through use of registered logistics companies, benchmarking on fuel use, benchmarking on accidents, driver training schemes and emissions monitoring.

Proposed servicing and delivery management measures at Brent Cross Shopping Centre include a Vehicle Booking and Management System. This system will help manage deliveries away from peak hours, minimising congestion on site and ensuring deliveries can be managed according to the capacity of the loading facilities available. Working with tenants suppliers the aim is also to reduce the level of deliveries to the site by consolidating deliveries further up the supply chain.

Measures at the Rail Freight and Waste Handling Facilities are expected to include:

- Joining a Freight Quality Partnership;
- Moving deliveries outside of road network peak hours; and
- Minimising night time noise through the development of a noise abatement strategy.

As regards the Phase 1A (North) servicing and delivery strategy there are only very limited servicing and delivery issues. In the residential proposals on Plots 53 and 54 there are 48 homes. Within the open space proposals a small kiosk style café and the park maintenance depot will require some deliveries / servicing.

### **Condition 7.1 Estate Management Framework**

The Estate Management Framework submitted in respect of Phase 1A (North) anticipates a structure for Estate Management Companies to be established for each phase of this development and sets out some general principles.

The longer term ownership of the northern element of the project will remain with the Brent Cross Partners whilst the southern part of the development will be largely

owned and managed by the LB Barnet and another development partner – likely to be Argent Related.

Adopted roads and structures (such as bridges) will remain the responsibility of the relevant highway authority. The report includes a plan which illustrates ownership assumptions at the time of preparing the report. It is anticipated that the final agreement and apportionment of responsibilities will form part of the detail S38 and S278 highways agreements and any such agreement is likely to include a commuted sum for future maintenance purposes.

An exception to this will be the management and maintenance of the surface of the Living Bridge which will be maintained by the Brent Cross Development Partners as it forms one of the principal entrances to the expanded shopping centre.

Different categories of open space are likely to have different management responsibilities although open spaces currently in the LB Barnet's ownership are likely to remain in council ownership such as the improved Clitterhouse and Claremont Open Spaces where the BX Development Partners will remain responsible for the costs of management and maintenance of the hard and soft landscape (including park furniture) for a period of two years with a longer period of 5 years agreed for maintenance of trees within the parks.

The Brent Riverside Park – the central section of which will be established in the RMA application for Phase 1A (North) - will be managed and maintained by the Brent Cross Development Partners in perpetuity whilst the river channel itself will remain the responsibility of the Environment Agency.

An acoustic barrier is required to ensure that the Brent Riverside Park is protected from the noise of the adjacent A406 (north circular) and can meet suitable standards expected for a publically accessible open space. It is anticipated that this noise barrier may be within the public highway and it is expected that the Highways Authority will either give a license to the Brent Cross Cricklewood development partners to allow them to maintain the structure or else will require a commuted sum to cover any maintenance costs should the structure be adopted as part of the public highway by the relevant highway authority.

In addition to the acoustic barrier, the proposed scheme includes for some areas of grass, landscape planting, trees and possibly other private apparatus within the public highway.

These will be either installed and maintained by the Developer under license granted by the Highways Authority or if appropriate, adopted by the relevant Highway Authority on provision of relevant commuted sum to cover future maintenance.

### **Condition 11.1 Car Parking Management Strategy and Condition 11.2 Phase 1 Parking Standards and Strategy**

The Car Parking Management Strategy provides an overarching framework to ensure the effective management of car parking across the scheme so as to assist in

encouraging modal shift away from private transport to minimise environmental impacts.

#### Parking Standards approved through the Section 73 application

Parking standards set out in the S73 Permission may lead to 6,330 car parking spaces for residential use with an additional 11,565 spaces intended for non-residential uses.

7,600 spaces are allocated for retail and related uses with the BX East zone. The majority of residential spaces and spaces for office, industrial and community use are proposed south of the A406. The vast majority of parking proposed is on plot with only a small proportion located on street

#### Proposed car parking management strategy

A fundamental principle of the strategy for the control of travel to and from the area is the discouragement of those who have a reasonable alternative to travel by car. It is recognised that the availability of parking spaces both at the beginning and end of a journey has a considerable influence on mode choice. The car parking management strategy seeks to manage parking at a level where reasonable car use is accepted but unnecessary car travel becomes unattractive.

The key principles of car parking management within the strategy are:

- The introduction of car parking charges across the whole development including Brent Cross Shopping Centre;
- Shared use of parking provision;
- The non-allocation of parking spaces so that residents and businesses can “lease” parking to suit their needs;
- Parking provision, management and charges used to manage demand going forward;
- Potential for an evidence based, progressive reduction in residential parking standards from the London Borough of Barnet policy standards to those of the London Plan as the level of public transport accessibility increases;
- Use of travel plans/car clubs/cycle club to ensure the availability of alternatives to private car use and the need for parking provision;
- Protection of nearby residential areas from the impacts of parking displacement; and
- Restraint at Brent Cross Shopping Centre, with no additional retail or leisure spaces being provided through the proposals.

The following initial parking charges are proposed within the shopping centre, as set out in paragraph 2.1 of Schedule 16 of the S106 Agreement:

Less than 1 hour: £1

1-2 hours: £1

2-3 hours: £2

3-4 hours: £2.50

4-5 hours: £3.50

5-6 hours: £6.00  
6-7 hours: £12.00  
7-8 hours: £14.00  
8 hours plus: £30.00

The expectation is that blue badge holders will be able to park for an unlimited time and free of charge. There is a requirement to review these parking charges with the local planning authority every three years.

The public off-street parking areas serving the town, neighbourhood and community centres will be managed by the use of parking charges in such a way as to dissuade all day commuter parking.

There will be no increase in the number of parking spaces serving the Brent Cross Shopping Centre; therefore there will effectively be a reduction in the ratio of floor area to parking spaces. In total there will be:

- 11,565 spaces intended for the non residential uses (including operational spaces) of which 7,600 are for retail (as per existing). The retail spaces will be with leisure uses as in general the peak demand for these land uses will occur at different times of the day.
- 6,330 residential car parking spaces

For the residential areas, 1 space per residential unit for Phase 1 of the development is proposed, with an aspiration for a progressive reduction in provision towards 0.7 spaces per residential unit via review and monitoring.

At present the number of disabled spaces in the shopping centre car parks is approximately 3% of the total. A survey of existing usage indicates that the current provision is more than adequate to accommodate demand. An increase to 5% is proposed (similar to Westfield) with an additional 5% of spaces (380 bays) provided as enlarged standard bays that could be converted at a later date. As the London Plan requires six per cent of the spaces to be designated blue badge parking bays, there is a commitment to monitor and review the number of disabled parking spaces. This will help to ensure that the correct number of spaces is being provided.

Staff parking will be managed by the Individual Travel Plans that will be prepared as each plot comes forward. The expectation is that staff will pay for parking.

Parent and Child Parking will be developed through dialogue with the major retailers. These demarcated spaces will be evenly distributed across all car parks and their usage will be monitored to ensure that the appropriate number of spaces has been provided.

The number of parking spaces with electric vehicle charging points will be provided in accordance with the discharge of Condition 39.7. For retail use, the London Plan identifies a need for 10% active provision and 10% passive provision.

Within each car park, there will be dedicated motorcycle parking areas. Parking within these areas will initially be free of charge. The expectation is that the

proportion of motorcycle parking spaces will at least match the current level of provision.

Computer controlled variable message signs, linked to the parking management system, will direct drivers to car parks where spaces are still available. Signs will be provided on the main approach routes to the Shopping Centre and on the internal circulation road within the Shopping Centre. Where a car park is full, this will help to discourage queues extending onto the internal access road and blocking the access to other car parks that have capacity. These signs will also be utilised to manage the exit arrangements from the car parks.

All the car parks at Brent Cross will meet the criteria to achieve The Safer Parking Scheme "Park Mark" award.

There are 80 car parking spaces proposed at the new Cricklewood Railway Station of which 42 will be "kiss and ride" with a maximum waiting time of 20 minutes. There will be provision made for approximately 40 taxis at the new station.

The developers will be required to ensure the early establishment of a Car Club. The site-wide Car Club will be established prior to occupation of 200 dwellings. The Travel Plan process will monitor the use of the car club and the level of car ownership to ensure that appropriate provisions are in place to accommodate the growing car club demand.

It is recognised that the stringent off-street parking controls within the area could increase parking in the surrounding residential and commercial areas. It is therefore proposed that the BXC site is included as a designated Controlled Parking Zone and that all residents and visitors within the area be given the opportunity to be issued with resident/visitor parking permits. Where new residents are provided with the opportunity for dedicated off-road parking, they will normally be excluded from applying for on-street residents parking permits.

On street parking surveys have been undertaken to identify areas that may be vulnerable to additional parking pressures as the redevelopment of the Regeneration Area progresses and parking charges at Brent Cross Shopping are introduced. Further parking beat surveys will be undertaken prior to the start of construction and then at intervals of 12 months to collect occupancy and length of stay in areas vulnerable to overspill parking. These surveys would continue for a period of three years after completion of the development to establish the final parking demand.

The decision to introduce new Controlled Parking Zones or extensions to existing ones will need careful consideration and will be subject to comprehensive monitoring. Under schedule 3 of the Section 106 (paragraph 11.3) the Developers are obliged to fund the reasonable costs of the council in assessing the need for new or modified CPZs in the vicinity of the site in Barnet in order to provide parking controls for the construction and / or operation of each phase or sub-phase.

In addition to the measures set out in the Car Parking Management Strategy submitted to discharge this condition, there are additional planning conditions to deal

with construction worker parking through the phase specific Construction Worker Travel Plans required under Condition 12.2.

The parking demand associated with sub-phase 1A North relates to the occupancy of Plots 53/54, the open space area at Clitterhouse Playing Fields and the temporary demand generated by construction workers.

For the residential areas, 1 space per residential unit for Phase 1 of the development is proposed, with an aspiration for a progressive reduction in provision towards 0.7 spaces per residential unit via review and monitoring.

For the 48 dwellings in Plots 53/54, a total of 48 parking spaces will be provided of which 5 will be for blue badge holders.

At Clitterhouse Playing Fields, 22 parking spaces and four for blue badge holders are proposed within a car park accessed via Claremont Road.

Following clarification, the location and size of the car park for construction workers has yet to be identified and will be confirmed within the Construction Workers Travel Plan (Condition 12.2) that will be submitted before work on the phase commences. The details of the location of any construction worker car parking and the detail of other measures to minimise construction worker parking are not known at this stage of the development process. As required by Condition 12.2 they must be confirmed before any work on Phase 1A North commences.

Initial indications are that at its peak the car park will provide approximately 500 spaces for construction workers during the development of Phase 1AN but this will be subject to consideration under the Condition.

It is anticipated that any construction worker car park will be served by a shuttle bus and the amount of available parking will be reviewed annually. Parking demand for construction workers will be managed via the Construction Workers Travel Plan, within which sustainable transport options will be promoted.

An initial outline of the Construction Workers Travel Plan Framework is contained in Paragraph 20 of Schedule 3 to the S106 agreement, with an example of best practice, being the Olympics Construction Workers Travel Plan Framework, being provided.

Schedule 12 of the s106 requires the Development Partners to consider, in liaison with the adjoining boroughs, whether Controlled Parking Zones should be extended around the site. It is proposed that the Controlled Parking Zone review will commence in early 2016, in order that any measures that are agreed are implemented pre-commencement.

In terms of cycle parking, each dwelling in Plots 53/54 will have access to covered and secure cycle storage facilities whilst within Clitterhouse Playing Fields a minimum of 30 cycle stands will be provided.

Condition 39 (2) confirms that the establishment of the site wide car club is not required as part of Sub-phase 1AN as this is triggered by occupation of the 201<sup>st</sup> residential unit.

Condition 39(7) of the 2014 permission confirms that electrical charging points are not required in sub-phase 1AN except within critical infrastructure.

### **Condition 2.7 A5 Corridor Study**

The objectives of the A5 Corridor Study are to:

1. Ensure any local traffic impacts are identified in the adjacent boroughs of Brent and Camden, as well as any further impacts in the London Borough of Barnet by ensuring the traffic modelling for the design stage is sufficiently detailed in areas of interest.
2. Assess any identified impacts using appropriate junction modelling tools and produce outline designs of any mitigation measures where appropriate.
3. Develop an A5 VISSIM design model, in conjunction with supporting local area models using complementary modelling packages TRANSYT and LinSig to assist with the following:
4. The development of detailed designs for the new and improved junctions.
5. The testing of any temporary traffic management measures during the construction period on highway operations.
6. Define any new or improved facilities required in regard to multi-modal user requirements, e.g. walking and cycling and bus priority and setting out the identified interventions in line with the indicative phasing.

The microsimulation VISSIM traffic model (explained in section 5.4) has been extended from the A5 corridor to include the A406 corridor between Staples Corner and the A406/A41 junction. The model enables the interaction of differing junctions to be assessed and journey times for different modes, including buses, to be reviewed.

Where required, proposed improvements at junctions have been suggested within the study area. Analysis has been undertaken to identify the capacity, with development, at the following key junctions:

1. Staples Corner (Phase 1 and end state): A gateway junction with a previously approved junction design.
2. A5 / Humber Road / Geron Way (Phase 1 and end state): Creation of a four stage set of traffic signals with advanced cycle stop lines and a pedestrian controlled crossing on the southern arm of the A5.
3. A5 / Oxgate Gardens / A5 Link Road (end state): Creation of a 4-arm traffic signal controlled junction with Oxgate Gardens being one-way westbound.

4. A5 / Dollis Hill Lane / Residential Development (Phase 1 and end state): Conversion of this 3-arm traffic signal controlled junction to a 4-arm traffic signal controlled junction.
5. A5 /Ashford Road / Depot Approach (Phase 1 and end state): No changes proposed.
6. A407 Chichele Road / A5 Cricklewood Broadway (Phase 1 and end state): A gateway junction with a previously approved junction design. Compulsory purchase of the plot of land on the south east corner of the junction enables the arms of the A407 to be aligned and to operate together to improve capacity.
7. A407 Chichele Road / Anson Road (Phase 1 and end state): Linkage to the adjacent A5 Urban Traffic Control group is proposed, enabling improved co-ordination.
8. A407 Cricklewood Lane / Claremont Road / Litchfield Road (Phase 1 and end state): A gateway junction with a previously approved junction design. A flared approach on the A407 western arm and an additional southbound lane on Claremont Road increase capacity.

The results indicate at Staples Corner in 2021 the AM peak is within capacity but that three movements in the PM and Saturday peaks are overcapacity. In 2031 overcapacity is forecast for four movements. To reduce these queues, there is potential to adjust the signal times at the junction.

The A407 Cricklewood Lane / Claremont Road / Lichfield Road junction is forecast to be overcapacity in 2021 and 2031. However, deployment of a bespoke traffic signal control system at the junction will assist in mitigating the impact of additional traffic. Based on data collected by TfL, the deployment of such a system provides an average 12% reduction in delay.

The A407 Chichele Road / A5 Cricklewood Broadway is reaching capacity in 2031, with the A5 northbound movement predicted to be close to saturation in the PM peak period.

With regards to local roads, use of the BXCDDM has enabled changes in traffic flow to be assessed. The most significant increases in flow are predicted to be on the roads in Barnet, Brent and Camden tabulated below:

Link	Section	Direction	AM Peak	PM Peak	Sat Peak
A5	Layfield Road-Station Road	Northbound	*	*	
Highfield Avenue	A41-The Drive	Eastbound	*		*
Humber	A5-Coles Green Road	Westbound	*	*	*

Road					
Parsifal Road	A41–Fortune Green Road	N/Eastbound	*		
Chichele Road	Anson Road-Walm Lane	S/westbound	*	*	
A41	A406 NCR - A598 Finchley Road	Northbound		*	
Claremont Road	Somerton Road-Pennine Drive	Southbound		*	*
Cricklewood Lane	Farm Avenue – A41	Eastbound			*
Fordwych Road	Maygrove Road-Mill Lane	Northbound			*
Walm Lane	Lydford Road-A5	Eastbound			*

Analysis of the traffic on these local roads indicates the majority of the increases are not BXC development related trips, with changes in the performance of links and junctions leading to re-routing of existing trips which in turn is the main contributor to increased flows on these roads.

There are some links with increased traffic flow which is related to the BXC development, such as Claremont Road, where changes to the layout and the strategic junctions mean these routes, being in such close proximity to the development, inevitably attract development related trips. However, the infrastructure improvements to these routes are designed to account for this increased demand.

Overall, total flows within the BXCDDM model of the areas that fall within Camden and Brent increase with the approved BXC development. The total increase (based on passenger car units where a cyclist = 0.5, a car = 1 and a HGV/Bus = 3) in each peak period is summarised in the following table:

Time Period	Camden Total Link Differences	Brent Total Link Differences
	Peak hour PCUs	Peak hour PCUs
AM 2021	2,946	4,724
AM 2031	8,282	7,072
PM 2021	5,173	4,390
PM 2031	7,331	8,461
Sat 2021	7,601	6,347
Sat 2031	10,046	12,347

The results indicate that with the development, there is an increase in traffic in all peak periods across the highway network in the neighbouring boroughs. However, it is generally predicted that the increases on the non-strategic local roads is due to rerouting of non-development related traffic, rather than due directly to development related traffic. Despite this if monitoring of traffic flows shows noticeable increases in traffic flows on local roads in Brent or Camden due to the development, an additional

capped contribution of £300,000 towards future Supplementary Transport Measures has been secured.

It should be noted that the LB Brent and LB Camden both objected to the A5 Corridor Study (although this was prior to the funding of the study proposals being agreed with the Developers). LB Brent expressed concerns about a lack of mitigation measures along the A5 and in Brent itself, and parking pressures in the Dollis Hill area. LB Camden are also concerned about the identification of traffic and parking impacts in Camden. The full objections and detailed responses are contained in the separate report before Members, which explains how concerns about traffic and parking impacts, both predicted and potential, are proposed to be dealt with.

Officers are satisfied that the study has been carried out in accordance with the agreed and approved scope, and that the key impacts have been correctly identified and assessed. A package of supplementary mitigation measures and additional contributions has been agreed which is considered to adequately address expected impacts, as well as providing additional safeguards should additional supplementary mitigation be needed in future phases.

### **Condition 37.3 Phase 1 Transport Report**

A Phase Transport Report has to be provided for each phase of the development and this one examines the end state of Phase 1 (2021) based on the preliminary design of the approved transport works for the phase. Further detail is to be provided within the reserved matters transport reports which will subsequently be produced for each sub-phase (1A North, 1A South, 1B North, 1B South and 1C).

The scope of this phase report has been discussed and agreed with the Highways England, the London Borough of Barnet and Transport for London. The numerous studies that form the basis of the Phase Transport Report have each been reviewed by officers of the London Borough of Barnet and Transport for London.

The specific objectives set within the Phase Transport Report for Phase 1 are:

- Safe operation of the local and strategic road network
- Safe operation of the bus network that serves the site
- Improved reliability of the buses that serve the site
- Improved pedestrian and cycle links to the site
- Mode shift from car use to public transport use, walking and cycling
- Improved accessibility of the Phase 1 development for public transport users
- Transport measures approved at Phase 1 to enable subsequent phases of development to come forward

The Phase Transport Report for Phase 1 details:

- Existing site information in relation to public transport, pedestrians and cyclists.
- Baseline transport data for buses, coaches, rail and London Underground, as well as a review of accident statistics.

A tabulated modal split breakdown of accidents within the study area has been provided for the A41, A406, A407 link and Claremont Road. Numbers and associated causes of accidents are reviewed across the study area, with on-going monitoring of accidents recommended on the A5, Staples Corner junction and the A41/A406 junction.

- A review of relevant national, regional and local policies.
- The Phase 1 proposals, which are split over five sub-phases and consist of:
  - Retail uses: 100,851 sqm
  - Office: 10,970 sqm
  - Hotel and Conference: 31,722 sqm
  - Community Uses: 9,338 sqm
  - Leisure Uses: 20,411 sqm
  - Residential: 171,150 sqm
  - Waste Handling: 24,700 sqm
  - Rail and Bus Station: 117 sqm
  - Total: 369,259 sqm**

The majority of the infrastructure improvements associated with the scheme will be delivered in Phase 1 so that they provide additional capacity and new routes early on. Junction improvements are proposed at:

- M1/A406 and A5/A406 Staples Corner
- A41/A406 junction
- A5/Diverted Geron Way
- A5/A407 Cricklewood Lane
- A407 Cricklewood Lane / Claremont Road
- A406 Brent Cross Access / Egress junction

Other infrastructure improvements include:

- Amended A406 North Circular Road Coach Stops
  - A41 Southbound On-Slip
  - Living Bridge
  - Realignment of the River Brent
  - Brent Cross Bus Station relocation
- Proposals in Phase 1 for improvements for cyclists, pedestrians and users of public transport.

This includes the provision of two new pedestrian bridges across the A406 and a segregated cycle route from Cycle Superhighway 11, through Clitterhouse Playing Fields to Brent Cross Shopping Centre. A pedestrian and cycle route network will be established both within the development red line area and outside, providing links into the London Boroughs of Brent and Camden as well as destinations such as Hendon, Colindale and Golders Green. A cycle hub will also be provided to make cycling a more attractive mode of transport for the area.

Improved pedestrian and cycle routes outside the red line boundary have been developed via the Area Wide Walking and Cycling Strategy, which has

been developed in consultation with Transport for London and the London Boroughs of Barnet and Brent. The strategy was based on the Cycle Environment Review System and Pedestrian Environment Review System analysis, carried out by trained members of staff.

The Area Wide Walking and Cycling Strategy has been submitted as a separate report and has been reviewed and revised based on comment from both Transport for London and the London Borough of Barnet. Specific proposals for cycle links within the London Borough of Brent have been submitted by the authority and included within the strategy at their request. The AWWCS proposals provide comprehensive walk and cycle connections to the areas surrounding the BXC site.

Based on a review of the existing site accessibility, the Phase 1 proposals are shown to provide improved pedestrian and cycle connectivity in the area.

The new bus station located north of Prince Charles Drive will provide 17 bus stands with 12 bus stops, the parameters and principles of which have been agreed with Transport for London. New bus stops and bus lanes are proposed across the network. Bus journey times will be monitored via TfL (iBus) data. The new stops will be utilised by existing services and will enable additional and more frequent services to be delivered during future phases. The provision of bus priority, such as on Tempelhof Bridge, and the delivery of new infrastructure, including a new junction on the A41 and improvements to the underpass under Tilling Road, will also benefit the existing bus services operating within the vicinity of the development during Phase 1.

- The Phase 1 proposals are designed to encourage visitors to travel to and from the shopping centre on foot, by bicycle or by public transport, with no increase in associated car parking. There is provision for motorcyclists, mobility impaired users and residents as well as the provision of Electric Vehicle Charging Points, in accordance with the relevant policies.

Car parking charging at Brent Cross Shopping Centre will be introduced at the following minimum gate rate tariff:

Time	Tariff	Time	Tariff
0-2 hours	£1.00	5-6 hours	£6.00
2-3 hours	£2.00	6-7 hours	£12.00
3-4 hours	£2.50	7-8 hours	£14.00
4-5 hours	£3.50	8 hours +	£30.00

The Phase 1 Transport Report identifies the requirement to protect nearby residential areas from the impacts of parking displacement. Further review is provided within the Car Parking Management Strategy and the Car Parking Standards and Strategy: Sub-Phase 1A North. A Construction Travel Management Plan is also required to be approved prior to commencement of construction. Controlled Parking Zones are proposed, with on-going

monitoring and associated reporting mechanisms in place to ensure further provision, should it be required, is provided.

- Servicing and delivery, with reference to the Framework Servicing and Delivery Strategy for the development and the Servicing and Delivery Strategy for each sub-phase.
- The Phase 1 transport assessment work included checks that show that the overall development quanta and resulting trips do not exceed the boundaries presented in the 2014 S106 Agreement and that the transportation impact and mitigation proposed is as forecast in the S73 Consent. This was undertaken through a review of the controlling Transport assessment Matrix, which is the agreed process to assess whether each phase falls within its predicted impact and that the overall impacts are within that forecast in the overall scheme Transport Assessment (BXC05).

As Phase 1 is the first phase, it represents the starting point for the whole development and therefore no cumulative impacts have been assessed. As no monitoring has been undertaken, just the predicted impact of Phase 1 is tabulated. Demand management measures and triggers are also identified.

- Additional highway modelling has been undertaken utilising the Brent Cross Cricklewood Transport Model to inform the Phase Transport Report for Phase 1 and to robustly identify the impacts of the Phase 1 proposals, the proposed benefits of the mitigation proposed for Phase 1 and to compare journey times and delays for the combined traffic impacts of phases 1 to 4. A number of tests have been undertaken as set out below to understand how Phase 1 fits in relation to the wider scheme:
  1. Sub-phases 1AN, 1BN and 2N highway network, with background traffic plus growth to 2021, and traffic flows generated by the development in sub-phases 1AN, 1BN and 2N.
  2. Phase 1 highway network with background traffic plus growth to 2021 and traffic flows generated by the development in Phase 1.
  3. Phase 1-4 highway network with background traffic plus growth to 2021 and traffic flows generated by the development in Phase 1-4.
  4. Phase 1-5 highway network with background traffic plus growth to 2021 and traffic flows generated by the development in Phase 1-5

The results show that the Phase 1 highway network will perform as well as or better than the existing network in the majority of cases as a result of the new infrastructure which will be delivered. The results also identify that the combined highway and junction improvements associated with each phase, or combination of phases, will mitigate the impact of the development.

- The integrated transport strategy for the development with regards to highways, public transport, walking and cycling with associated management measures.