

# Citroen Site, Brentford

**Transport Statement Addendum** 

On behalf of

L&Q

Project Ref: 38397/5501| Rev: Final V1.5 | Date: April 2018





#### **Document Control Sheet**

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### 1 Introduction

#### 1.1 Overview

- 1.1.1 Peter Brett Associates LLP (PBA) was commissioned by L&Q (the Applicant) to prepare a Transport Statement (TS) to support the planning application for the redevelopment of the Citroen Site on Capital Interchange Way, Brentford, TW8 0EX.
- 1.1.2 An application for the redevelopment of the Citroen Site to provide 427 residential units including 40% affordable housing, with ancillary facilities, flexible uses (within classes A1, A2, A3 and B1) and a nursery comprising buildings of 12, 13, 15, 16 and 18 storeys was submitted in November 2017 (ref. 01508/A/P6).
- 1.1.3 Since the application was submitted, the Applicant has amended the scheme to provide a mixed use development of 441 residential units (Class C3) including 50% affordable housing with ancillary facilities, flexible uses (within Classes A1, A2, A3 and B1) and a nursery (Class D1), comprising buildings of 12, 13, 16, 17 and 18 storeys in height, with associated cycle parking, car parking, playspace, landscaping and public real improvements.
- 1.1.4 This TS Addendum should be read alongside the original TS and sets out the predicted changes to the level of trips generated by the development proposals and also responds to TS related comments received by the GLA dated 26th February.



# 2 Development Proposals

#### 2.1 Overview

- 2.1.1 The proposed mixed-use development will provide 441 residential units (Class C3) including 50% affordable housing with ancillary facilities, flexible uses within classes (A1, A2, A3 and B1) and a nursery (Class D1), with associated cycle parking, car parking, play space and public realm improvements.
- 2.1.2 The planning application proposes a number of flexible use units (A1, A2, A3 and B1) and at this stage the end users are unknown. For the purposes of the original TS and this TS Addendum it is necessary to allocate a land use to the units to determine a realistic potential trip generation. It will be unlikely that all units would be food retail which would generate the highest levels of trips for the different land uses. To ensure that this TS provides a reasonable and robust assessment, the development is assumed to consist of the following mix of uses:
  - 441 residential units;
  - 255 sqm of café/ restaurant;
  - 85 sqm of food retail;
  - 139 sqm office use
  - 250 sqm. Nursery; and
  - 147 sqm. residents' gym.
- 2.1.3 Vehicular access to the development is unaltered and will be gained from Capital Interchange Way on the western side of the site. This will be a one-way route into the site leading to an internal road along the southern boundary of the site, which will provide limited surface parking of 15 spaces including three disabled bays and a ground floor car park that is accessed on the eastern side of the site from the internal access road which contains 48 spaces including 5 disabled bays. The vehicle egress will be left out of the car park onto Capital Interchange Way north of the site.
- 2.1.4 The revised ground floor layout is shown on **Figure 2.1**, with the first floor layout shown on **Figure 2.2**.



Figure 2.1: Proposed Ground Floor Layout





Figure 2.2 Proposed First Floor Layout





#### 2.2 Residential Car Parking

- 2.2.1 The development will provide a reduced number of internal car parking spaces from the original 54 now down to 48 spaces with 15 external parking spaces. This constitutes a car parking ratio of approximately 0.14 spaces per unit compared to the original ratio of 0.16 per unit and has been considered in the context of the high level of public transport accessibility surrounding the site and in acknowledgement of the Mayor's Transport Strategy, 2018, which seeks to reduce car travel in the capital. The proposed level of car parking is also in line with Hounslow Local Plan Policy EC2 'Developing a sustainable local transport network' and the current London Plan and Draft New London Plan standards.
- 2.2.2 In line with the Draft New London Plan, 2017, 20 percent of the car parking spaces will have 'active' electric charging points, and the remaining 80 percent will have 'passive' provision for future electric charging points.
- 2.2.3 A car swept path analysis has been undertaken on the layout which is shown on **PBA Drawings** 38397/5501/02 rev A, which demonstrates that the proposed car park provides appropriate manoeuvring space.

#### 2.3 Cycle Parking

2.3.1 Cycle parking is to conform to the proposed Draft New London Plan, with the standards and required spaces set out in **Table 2.1**.

Table 2.1: Draft New London Plan, 2017: Cycle Parking Standards (Minimum)

		Minir	num Standard	Minimum	Provision
Land Use	Schedule	Long Stay	Short Stay	Long Stay	Short Stay
	14 x studio	1 space	1 per 40 units	14	1*
C3-C4	176 x 1 bed	1.5 spaces	1 per 40 units	264	5
Residential	224 x 2 bed	2 spaces	1 per 40 units	448	6
	27 x 3 bed	2 spaces	1 per 40 units	54	1*
			Residential total	780	13
D1 Nursery	12 staff/35 children	1 per 8 staff	1 per 8 students	2	5
A3 Café / Restaurant	255 sqm	From a threshold of 100 sqm: 1 per 175 sqm	From a threshold of 100 sqm: First 750 sqm:1 per 20 sqm	2	1
A1 Food Retail	85 sqm	From a threshold of 100 sqm: 1 per 175 sqm	From a threshold of 100 sqm: First 750 sqm:1 per 20 sqm; thereafter: 1 per 150 sqm	1*	1*
B1 Workspace / Office	139 sqm	1 per 75 sqm	First 5,000 sqm: 1 per 500 sqm; thereafter:1 per 5,000 sqm	2	2*
			Nursery and flexible use total	7	9
			Overall Total	787	22

Note: \* Where number of homes or the size of flexible unit is below the short stay threshold, a minimum of 1 space is identified for robustness, with the exception of the potential B1 workspace/ office, which in accordance with the Draft New London Plan, 2017 Policy T5 Cycling: Part F, requires a minimum of two short-stay and two long-stay cycle parking spaces



2.3.2 The proposed development will provide cycle parking above the requirements of the Draft New London Plan with a total of 881 cycle parking spaces consisting of 816 long stay spaces and 65 short stay spaces. This is broken down by the following land uses in **Table 2.2**.

Table 2.2: Long and Short Stay Cycle Parking

Use	Long Stay	Short Stay
C3 Residential	806	29
A1, A2, A3 Retail / B1 office	8	12
D1 Nursery	2	20
D1 Nursery (large bike/ trailer)	0	4
Total	816	65

2.3.3 The long stay residential cycle parking provision is provided in a mixture of enclosed cycle stores within the ground floor car park and at first floor podium level, which are specific to each residential block for additional security. **Table 2.3** sets out the proposed residential cycle parking provision by location throughout the development

Table 2.3: Residential Cycle Parking Provision and Location

	Long Stay		Short Stay	,	
Residential Parking	Ground	First	Ground	First	
Core 1	0	180	0	3	
Core 2	112	0	2	0	
Core 3	0	160	0	0	
Core 4	0	116	0	2	
Core 5	38	134	0	3	
Combined Long Stay Store	66	0	0	0	
Central Store	0	0	9	0	
External	0	0	10	0	
Total	806		806 29		29

- 2.3.4 Within the cycle store, the long stay spaces and some of the short stay spaces are made up of a mixture of 'Sheffield' type stands and two-tier stands for space saving efficiency.
- 2.3.5 **Figure 2.1** and **Figure 2.2** illustrate the location of the internal residential cycle parking at ground and first floor level respectively.
- 2.3.6 There are 10 external residential short stay spaces. These are unallocated, but are within a total external provision of 56 spaces. The external cycle parking areas are illustrated in **Figure 2.2** and are distributed in 7 separate areas on the western, northern and eastern sides of the site. Each of these areas contains 4 no. 'Sheffield' type cycle stands thereby providing capacity for 8 cycles.
- 2.3.7 The long and short stay commercial/retail, nursery and nursery larger bike/ trailer spaces are all unallocated and are located externally within the provision of 56 spaces.



#### 2.4 Delivery, Servicing and Waste Strategy

- 2.4.1 The development contains two on-site servicing and delivery bays that are located near the core internal refuse storage areas and servicing access points on the south and east of the site. The access road has been designed to accommodate a Hounslow Council Refuse vehicle and a removals vehicle.
- 2.4.2 Following the initial meeting with LBH on the 7<sup>th</sup> July 2017, it is proposed that the on-site loading bays will be supported by three on-street servicing and delivery bays to the north of the site rather than new on-street lay-bys. This follows comments in the meeting provided by the LBH Highways Officer.
- 2.4.3 A vehicle swept path analysis of a pantechnican as the largest anticipated servicing and delivery vehicles of the internal road link has been undertaken, and is shown on **PBA Drawing** 38397/5501/04 Rev A.
- 2.4.4 As part of the L&Q management on Brentford FC match days, deliveries will be on site only, as all parking and loading bays on Capital Interchange Way will be suspended by LBH. **PBA Drawing 38397/5501/05 Rev A** shows the proposed temporary match day coach parking requirements as part of the Brentford FC match day and how access to the site is still achieved for servicing and delivery requirements.
- 2.4.5 An updated Delivery and Servicing Plan (DSP) has separately been prepared to support the changes to the development proposals.



# 3 Trip Generation

#### 3.1 Introduction

- 3.1.1 This chapter highlights the revised multi-modal trip generation that the proposed development is likely to generate based upon the increased number of 441 residential units. It is noted that the gym has reduced in size to 147 sqm, however this is for residents only and generates no external trips. All other land use elements of the development remain the same as the original November application and supporting TS.
- 3.1.2 The methodology for calculating the residential trip rate is set out in the Cole Easdon Consultants Transport Assessment for The Curve development which used TRICS data for flats within London to determine the person trips. It was agreed with LBH and TfL that the Census Journey to Work (JtW) data would be applied to the 'Person' trips to derive the multi-modal trips. The TRICS data consisted of residential flats, with the surveys dated 3/9/14, 25/6/14, 11/5/12 and 12/11/08.
- 3.1.3 The agreed TRICS person trip rates are contained in **Table 3.1**, together with the total trips for the Citroen site based upon 441 units.

Table 3.1: Residential Development Trip Rates (441 Units)

	AM Peak Hour (8:00 – 9:00)			PM Peak Hour (17:00-18:00)		
Trip Rate	Arrival	Depart	Total	Arrival	Depart	Total
Person (trip rate)	0.083	0.347	0.430	0.299	0.131	0.430
Person trips (441 units)	37	153	190	132	58	190

Source: CEC The Curve TA

3.1.4 Multimodal trip generation has been obtained from the 2011 Census Journey to Work (JtW) data for the Hounslow 029C Lower Level Super Output Area. The proposed multimodal trip generation is set out in **Table 3.2**.

Table 3.2: Method of Travel to Work

Method of Travel to Work	Percentage
Underground, Metro, Light Rail, Tram	39%
Train	6%
Bus, Minibus or Coach	9%
Taxi/Other	2%
Driving a Car or Van	23%
Passenger in a Car or Van	1%
Bicycle	6%
On Foot	14%
Total	100%

Source: CEC The Curve TA/Census 2011



3.1.5 These percentages have been applied to the person trip rates shown in **Table 3.1**, with the trip generation for each method of travel summarised within **Table 3.3**.

Table 3.3: Residential Multimodal Trip Generation (441 units)

	AM Peak Hour (8:00 - 9:00)			PM Peak Hour (17:00-18:00)		
Mode	Arrival	Depart	Total	Arrival	Depart	Total
Underground, Metro, Light Rail, Tram	14	60	74	52	23	74
Train	2	9	11	8	4	12
Bus	3	14	18	12	5	17
Taxi/Other	0	2	2	1	1	2
Car/ Van	8	35	44	30	13	43
Car/ Van Passenger	0	2	2	1	1	2
Cycle	2	9	12	8	3	11
Walk	5	22	27	19	8	26
Total	36	152	189	131	58	189

Note: Trip generation subject to rounding

Original AM cycle departure number corrected and reflected in table against increase no. of units

#### 3.2 Total Development Trips

3.2.1 The predicted total multimodal trip generation is contained in **Table 3.4.** 

Table 3.4: Total Development Trips

	AM Peak Hour (8:00 - 9:00)			PM Peak Hour (17:00-18:00)		
Trip Rate	Arrival	Depart	Total	Arrival	Depart	Total
Underground, Metro, Light Rail, Tram	14	60	74	51	23	74
Train	4	9	13	11	8	19
Bus	5	14	18	13	7	20
Taxi/Other	1	2	3	2	1	3
Car/ Van	16	41	57	39	20	58
Car/ Van Passenger	10	8	18	6	8	14
OGV	0	0	0	0	0	0
Cycle	2	9	11	8	4	12
Walk	33	39	72	46	33	79
Total	85	182	266	175	104	277

Note: Trip generation subject to rounding



#### 3.3 Net Difference

3.3.1 The predicted net difference of multimodal trip generation between the existing Citroen car dealership and the proposed development is contained in **Table 3.5**.

Table 3.5: Net Difference in Trips

	AM Peak Hour (8:00 – 9:00)			PM Peak Hour (17:00-18:00)		
Trip Rate	Arrival	Depart	Total	Arrival	Depart	Total
Underground, Metro, Light Rail, Tram	14	60	74	51	23	74
Train	4	9	13	11	8	19
Bus	5	14	19	13	7	21
Taxi/Other	1	2	3	2	1	3
Car/ Van	-6	36	31	37	2	37
Car/ Van Passenger	10	8	18	6	8	14
OGV	0	0	0	0	0	0
Cycle	2	8	10	8	4	12
Walk	30	35	65	39	25	64
Total	60	171	232	166	78	242

Note: Trip generation subject to rounding

- 3.3.2 Between 08:00-09:00 the proposals are predicted to result in 6 less arrivals by car and 36 additional departures, which is a two-way increase of 30 cars. This is 1 vehicle more than the original submitted proposals. Between 17:00-18:00 there are predicted to be 36 additional car arrivals and an additional 2 departures, which is a two-way increase of 38 cars. There is no increase in PM peak trips a part of the current development proposals.
- 3.3.3 It is noted that the Underground, Metro, Light Rail, Tram, Train and Bus net impact is a very conservative prediction as the baseline surveys for the Citroen site did not identify separate public transport travel by staff and visitors. Consequently, all observed pedestrian trips to and from the site have not been separated by sustainable mode.
- 3.3.4 In response to the GLA request for the identification of demand at Gunnersbury Station, **Table**3.6 presents the impact of 'Underground, Metro, Light Rail, Tram' trips all being to and from the station as a very conservative assessment for the reason highlighted in paragraph 3.3.3.



Table 3.6: Gunnersbury Station Net Difference in Trips

	AM Peak Hour	(8:00 – 9:00)	PM Peak Hour (17:00– 18:00)		
Form of Travel	Arrival	Arrival Depart		Depart	
Gunnersbury Station Trips in peak hour	14	60	51	23	
Underground frequency	10	0 minutes (appro	ox.): 6 per hour		
Overground frequency	1	5minutes (appro	x.): 4 per hour		
Total services	10	10	10	10	
Trips per underground/ train service	Less than 2 per service	6 per service	5 per service	Less than 3 per service	

Note: Trip generation subject to rounding

3.3.5 The increase in residential units is predicted to result in 2 additional departures in the AM peak period together with 1 additional arrival and 2 additional departures in the PM peak period.

Based on the frequency of existing services, the proposals are considered to represent minimal impact on services to and from the station.



# 4 Development Impact

#### 4.1 Introduction

4.1.1 The impact of the site on the highway network is assessed within this chapter. It is agreed with LBH to assess the development for the weekday AM (08.00-09.00) and PM (17.00-18.00) peak hours.

#### 4.2 Highway Impact

#### **Vehicle Trip Distribution**

4.2.1 The distribution remains the same as that set out within the original TS dated 19<sup>th</sup> October 2017.

#### Vehicular Impact

4.2.2 The net vehicular traffic flows presented in **Table 4.1**. reflect the changes to the developments proposals set out in Chapter 2.

Table 1 1.	: Net Vehicle I	lmnaat on	Highway	Motwork
I able 4. I.	. INCL VEHICLE	IIIIDALI UII	HIUHWav	INCLWOIR

Road Link		Distribution	AM Peak		PM Peak	
			Arr	Dep	Arr	Dep
A406 North Circular Road		13%	-1	5	5	0
Chiswick High Road North		9%	-1	3	3	0
Great West Road East		15%	-1	4	5	0
Chiswick High Road South		12%	-1	4	4	0
Great West Road West	M4	36%	-2	14	14	2
	A4	15%	-1	6	6	0

Source: Consultant Calculations and subject to rounding

- 4.2.3 **Table 4.1** illustrates that the proposed development is predicted to generate no additional vehicle arrivals on any of the links approaching Chiswick Roundabout or at the left in/left out junction between Capital Interchange Way and the A4 Great West Road. The highest net departure in the AM peak period is predicted via the left out junction onto the A4 Great West Road from Capital Interchange Way, with a total of 14 vehicles movements, which is just under 1 vehicle every 4 minutes.
- 4.2.4 The predicted net increase in departures towards the signalised junction with Chiswick High Road is 16 vehicles, which is just over 1 vehicle every 4 minutes
- 4.2.5 The highest net arrival vehicle levels in the PM peak period are predicted to be via the left in junction from the A4 Great West Road to Capital Interchange Way. A total of 33 vehicles movements are predicted on this movement, which is just over 1 vehicle every 2 minutes. A total of 4 additional arrivals are predicted to turn left from Chiswick High Road into Capital Interchange Way.
- 4.2.6 There is predicted to be a net increase of 2 additional vehicles departing in the PM peak period. Based upon the highest junction arm turning proportions, this could result in an additional 2 vehicle trips exiting Capital Interchange Way left onto the A4 Great West Road.



### 5 Conclusion

- 5.1.1 Peter Brett Associates LLP (PBA) was commissioned by the Applicant to prepare a Transport Statement (TS) to support the planning application for the redevelopment of the Citroen Site on Capital Interchange Way, Brentford, TW8 0EX.
- 5.1.2 Since the application was submitted, the Applicant has amended the scheme to provide a mixed use development of 441 residential units (Class C3) including 50% affordable housing with ancillary facilities, flexible uses (within Classes A1, A2, A3 and B1) and a nursery (Class D1), comprising buildings of 12, 13, 16, 17 and 18 storeys in height, with associated cycle parking, car parking, play space, landscaping and public real improvements.
- 5.1.3 The proposals will provide cycle parking above the requirements of the Draft New London Plan and consists of 881 cycle parking spaces with of 816 long stay spaces and 65 short stay spaces. The long stay residential cycle parking provision is provided in a mixture of enclosed cycle stores within the ground floor car park and at first floor podium level, which are specific to each residential block for additional security. Within the cycle store, the long stay spaces and some of the short stay spaces are made up of a mixture of 'Sheffield' type stands and two-tier stands for space saving efficiency.
- 5.1.4 An updated Delivery and Servicing Plan and Residential Travel Plan have separately been prepared to support the changes to the development proposals.
- 5.1.5 The proposed development is predicted to generate a very modest increase in additional trips based upon the increase in the number of residential units from 427 to 441. Although the proposed gym has reduced in size to 147 sqm, this is for residents only and has not altered the overall trip generation. All other land use elements of the development remain the same as the original November application and supporting TS.
- 5.1.6 Based upon the current use of the site as a Citroen Garage, between 08:00-09:00, the proposals are predicted to result in 6 less arrivals by car and 36 additional departures. This is a two-way increase of 30 cars above the existing site use and 1 vehicle more than the original submitted proposals. Between 17:00-18:00 there are predicted to be 36 additional car arrivals and an additional 2 departures, which is a two-way increase of 38 cars. There is no increase in PM peak vehicle trips a part of the current development proposals.
- 5.1.7 It has been identified that the additional demand at Gunnersbury Station from the proposed development will result in a maximum of 60 departure trips in the AM and 51 arrivals in the PM peak. With 10 services per hour, this results in an average of 6 trips per service in the AM peak and 5 per service in the PM peak.
- 5.1.8 The TS Addendum has demonstrated that the transport impact of the development at the Citroen site can be accommodated on the surrounding transport network. The residual transport impact of the development is not considered to be severe, and as such, in accordance with NPPF, it is concluded that the development should not be prevented or refused on transport grounds, and should be acceptable to the GLA.



# **Drawings**

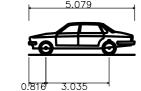
PBA Drawings 38397/5501/02 rev A

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#### VEHICLE PROFILE



Large Car (2006) With Mirrors Overall Length Overall Width Overall Body Height Min Body Ground Clearance Max Track Width Lock to lock time Kerb to Kerb Turning Radius

5.079m 1.872m 1.525m 0.310m 1.831m

Α	MASTERPLAN UPDATE WITH TRACKING ADJUSTMENT	09.04.18	JM	SM	-	
Mark	Revision	Date	Drawn	Chkd	Appd	

SCALING NOTE: Do <u>not</u> scale from this drawing. If in doubt, ask.

UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

# FOR INFORMATION

CITROEN SITE, HOUNSLOW, GROUND FLOOR SWEPT PATH ANALYSIS LARGE CAR



Drawn LA 27.09.17

Offices throughout the UK and Europe

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