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LAMBETH PARKING STUDY PHASE 3

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	Author	Josh Bell	Consultant	26/04/2017		
1	Checked by	David Alderson	Associate	26/04/2017	DRAFT REPORT	
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	Author			DD/MM/YY		
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1. INTRODUCTION

1.1 Borough Context

The London Borough of Lambeth ('LBL') has a population of 318,000, making it the eighth largest London Borough by population, and the fifth most densely populated with 120 residents per hectare. LBL Local Plan notes that '*The Greater London Authority (GLA) project that, if current trends continue, the population will grow to 357,000 by 2030'*.

Data from the 2011 Census shows that there are 136,000 households in LBL. As stated in the Lambeth Local Plan *'The council will seek to maximise the supply of additional homes in the Borough to meet and exceed the annual housing target for LBL as set out in the London Plan for the period 2015 to 2030'.* The London Plan requires LBL to provide at least 1,195 net additional homes every year during the period of the Local Plan. The number of households is projected to grow to 158,500 in 2030 from 130,000 in 2011 according to the LBL Local Plan.

Within this context of future growth on-street parking provision is an important consideration. Currently at the time of this study approximately half the Borough's roads are subject to Controlled Parking Zone (CPZ) restrictions, with 27 CPZs in total.

1.2 Study Context

SYSTRA has been commissioned by LBL to undertake a three phase On-Street Parking Study.

- Phase One performed an operational review of current non-CPZ areas, primarily in the North of the Borough;
- Phase Two considered current non-CPZ areas in the South of the Borough; and
- Phase Three looks to offer recommendations on a future approach to current non CPZ areas in the Borough.

The remainder of this Phase 3 report consists of the following sections:

- Section 2 Policy Review
- Section 3 Baseline Conditions and existing CPZ provision
- Section 4 Non CPZ areas capacity and demand
- Section 5 Pros and Cons of CPZs
- Section 6 Conclusions
- Section 7 Future Approach

2. POLICY REVIEW

2.1 Introduction

In order to establish the context for CPZ provision across the Borough and to understand wider policy influences a comprehensive review of current and emerging policy at national, regional and local level has been undertaken. The following policy documents have been reviewed:

- National Policy
 - National Planning Policy Framework (NPPF) 2012
 - Traffic Management Act 2004 Operational Guidance to Local Authorities: Parking Policy and Enforcement
- Regional Policy
 - London Plan 2016
 - Mayor's Transport Strategy 2010
 - A City for All Londoners 2016
 - Healthy Streets for London 2017
 - Ultra-Low Emission Zone (ULEZ)
- O Local Policy
 - Lambeth Local Plan 2015
 - Lambeth Transport Plan 2011
 - Equality Streets Scrutiny Commission March 2017
 - Air Quality Action Plan Draft Consultation Document 2017-2022

SUMMARY OF KEY POLICY ISSUES

- The NPPF sets out that 'local authorities should seek to improve the quality of parking in town centres so that it is convenient, safe and secure, including appropriate provision for motorcycles. They should set appropriate parking charges that do not undermine the vitality of town centres. Parking enforcement should be proportionate'
- The Traffic Management Act 2004 recognises the importance of clear definition of CPZ schemes in terms of the area covers and operational hours, and also expects that they will be self-financing so as not to impact upon either national or local taxpayers.
- The Mayors Transport Strategy recognises the importance of parking regulation in encouraging sustainable travel across London and also mitigating the negatives impact of road traffic and supports the introduction of CPZs where the Borough would consider them beneficial
- The Healthy Streets for London (2017) does not specifically reference parking but promotes policies centred on reducing reliance on private car usage.
- The Lambeth Local Plan recognises that 'there will still be a need for an appropriate level of car use and parking to meet key needs' but that parking controls are designed to improve safety, accessibility and keep traffic moving. It establishes objectives to prioritise needs, protect vulnerable and priority road users, reduce car commuting, reduce the impact of traffic and parking and ensure firm and fair enforcement.
- Equality Streets Scrutiny Commission Lambeth Scrutiny Action Plan sets out a series of recommendations to provide streets that are accessible to all. It include support for the principle of introducing Borough-wide CPZ.
- The Draft Air Quality Action Plan Consultation Document (2017) requires that CPZ reports should detail parking policies to reduce air pollution or an explanation as to their absence.

2.2 National Policy

2.2.1 National Planning Policy Framework (NPPF) (2012)

The NPPF was published on 27th March 2012 and came into effect immediately, superseding the 2011 draft and all other planning policy guidance (except on waste). It sets out the Government's expectations and requirements from the planning system. It is meant as high level guidance for local councils to use when defining their own personal local and neighbourhood plans. This approach allows the planning system to be tailored to reflect the needs and priorities of individual communities.

At the heart of the NPPF is a presumption in favour of sustainable development which 'should be seen as a golden thread running through both plan making and decision taking' (para 14). The NPPF recognises that transport policies have an important role to play in wider sustainability and health objectives as well as their direct influence on development. It seeks to ensure that the transport system is balanced in favour of sustainable transport modes, giving people choice about their travel behaviour.

Paragraph 39 of the NPPF sets out criteria for setting local car parking standards. It states that local planning authorities should take the following into account in determining such standards:

- Accessibility of a development;
- Land use, quantum, mix and use of development;
- Availability of and opportunities for public transport;
- Local car ownership levels; and
- An overall need to reduce the use of high emission vehicles.

Paragraph 40 states that 'local authorities should seek to improve the quality of parking in town centres so that it is convenient, safe and secure, including appropriate provision for motorcycles. They should set appropriate parking charges that do not undermine the vitality of town centres. Parking enforcement should be proportionate'.

2.2.2 Traffic Management Act 2004 - Operational Guidance to Local Authorities: Parking Policy and Enforcement

The guidance recognises the importance of road users understanding the area covered by CPZs and their enforcement times, stating that unclear restrictions will confuse people and ultimately undermine the operation and enforcement of the scheme. In addition it is recommended that where possible neighbouring CPZs should harmonise their operational hours to reduce confusion.

Previous guidance stated that CPZs had to be self-financing, however the updated guidance states that it is sensible for them to be self-financing but not essential. It must be noted that, if there is a shortfall in funding it must come from current funding sources, stating that '*The Secretary of State will not expect either national or local taxpayers to meet any deficit*'.

2.3 Regional Policy

2.3.1 London Plan (2016)

The London Plan sets out the Mayor's vision for the development of London up to 2031. It is an overall strategic plan, setting out an integrated economic, environmental, transport and social framework for the development of London. The Mayor's overarching vision for London is that is should (para 1.52):

'Excel among global cities – expanding opportunities for all its people and enterprises, achieving the highest environmental standards and quality of life and leading the world in its approach to tackling the urban challenges of the 21st century, particularly that of climate change'.

The London Plan states that when providing parking for developments, consideration should be given to the implications for air-quality and on-street parking measures; CPZs may reduce the potential for overspill parking and improve safety and amenity (6.42).

2.3.2 Mayor's Transport Strategy (MTS) (2010)

The Mayor's Transport Strategy, published in 2010, contains five main objectives (Chapter 1, para 2):

- Support economic development and population growth;
- Enhance the quality of life for all Londoners;
- Improve the safety and security of all Londoners;
- Improve transport opportunities for all Londoners; and
- Reduce transport's contribution to climate change and improve its resilience.

It is noticed that the MTS will encourage the use of sustainable travel through 'setting appropriate parking standards, encouraging smarter travel planning and making public transport more attractive' (chapter 4, paragraph 147).

The Mayor's Transport Strategy (MTS) recognises the importance of parking regulation in encouraging sustainable travel across London and also mitigating the negatives impact of road traffic (chapter 5, paragraph 651). In relation to CPZs (chapter 5, paragraph 659) the MTS states that it supports the introduction of CPZs where the Borough would consider them beneficial and also supports the potential to integrate CPZ enforcement with activities to enhance the community.

2.3.3 A City for All Londoners (October 2016)

A City for all Londoners is a document published in October 2016 that sets out the new Mayor of London's vision for London. It provides an indication of the Mayor's direction on a number of strategies and policies, including transport. As such, its contents can be used to gain an understanding of what can be expected within the updated Mayor's Transport Strategy, which is due for publication in Autumn 2017.

A key focus of the Mayor is to ensure that London is as environmentally friendly and healthy as possible, with the aim of becoming a zero-carbon city by 2050. To achieve this, the Mayor is committed to reducing traffic and car usage whilst promoting cycling and walking on '*Healthy Streets*'.

The document also references a number of infrastructure projects the Mayor would like to see brought forward.

However, car parking is not referenced within the document, in part due to its high-level and widereaching nature. It is anticipated that further detail covering car parking will be incorporated within the updated Mayor's Transport Strategy.

Development of the updated Mayor's Transport Strategy began at the end of 2016 and is anticipated to continue to an indicative end date of Autumn 2017. The development of the MTS consists of:

- Stage 1: Pre Consultation Phase (January to April) preliminary engagement with stakeholders to develop the MTS;
- Stage 2: Statutory Consultation Phase (May to July) a draft MTS will be produced and a statutory consultation of stakeholders held; and
- Stage 3: Finalisation of the MTS (Autumn) a review of the consultation responses will be undertaken and amendments made to the MTS as necessary, followed by a formal review of the document by the London Assembly.

2.3.4 Healthy Streets for London (February 2017)

The Mayor of London, in partnership with Transport for London, has developed a long-term plan that aims to encourage the uptake of walking and cycling in London, through making streets healthier, safer and more welcoming.

The plan argues that London's streets, and as a result its residents and visitors, suffer as a result of high levels of car use. It noted that cars take up 19% of street space in Central London, but account for only 11% of journey kilometres, whilst buses take up 11% of street space, but account for 57% of journey kilometres. Traffic congestion and associated impacts are of particular concern.

The Mayor has a clear approach to addressing congestion that couples a short-term effort to ensure that streets are operating as efficiently as possible, and a longer-term plan that results in a shift from car use towards more sustainable travel modes.

High levels of dependency on private car usage are associated with road danger and air pollution, and can limit opportunities to walk and cycle. A key focus of the strategy is to reduce reliance on driving within London, with a number of steps put forward to help achieve this, including:

- Improving local environments by providing greater levels of space for walking and cycling;
- Providing better public spaces where people can interact with each other;
- Prioritising more affordable and reliable public transport services;
- Ensuring routes for walking and cycling are safe and appealing to all users; and
- Planning new developments in locations that facilitate trips to and from local shops, schools and to be made on foot or by bicycle, and that facilitate the use of public transport for longer journeys.

Such an approach is seen as able to improve the overall health of Londoners, reduce the economic burden on the NHS attributed to physical activity, reduce air and noise pollution, help combat social isolation and bring economic benefits to local high streets through increased pedestrian footfall.

The strategy identifies ten indicators that can be used to assess the 'health' of a street:

- Pedestrians from all walks of life make use of the street;
- People choose to walk, cycle and use public transport;
- Ease at which people are able to cross;
- Clean air;
- Perceptions of safety;
- Minimal noise;
- People feel relaxed;
- Provision of shade and shelter;
- Places to stop and rest are provided; and
- The street provides people with things to see and do.

It is noted that whilst the aim of the strategy is centred on reducing reliance on private car usage, no reference is made car parking, including Controlled Parking Zones. However, it can be assumed that measures that restrict or discourage car usage and ownership, such as the introduction of CPZ, would be supported as part of the Healthy Streets approach.

2.3.5 Ultra-Low Emission Zone

The Ultra-Low Emission Zone (ULEZ) will be an area of London in which all cars, motorcycles, vans, minibuses, buses, coaches and heavy goods vehicles are required to either meet exhaust emission standards or pay a daily charge in order to travel, as of September 2020.

The standards of the ULEZ will be in addition to the Congestion Charge and the requirements of the existing Low Emission Zone. The zone will be in operation 24 hours a day, every day of the year, including weekends and public holidays, and will have the same area of coverage as the Congestion Charge. The ULEZ will incorporate the northern section of the Borough, with the A3204 acting as the southern boundary of the zone.

2.4 Local Policy

2.4.1 Lambeth Local Plan (2015)

The Lambeth Local Plan sets out planning policies for Lambeth to guide growth in housing and jobs, infrastructure delivery, place-shaping and the quality of the built environment over the next 15 years to 2030. It replaces the Lambeth Core Strategy 2011 and remaining saved policies in the Unitary Development Plan 2007.

The Lambeth Local Plan recognises that 'there will still be a need for an appropriate level of car use and parking to meet key needs'.

The Local Plan lists the following needs:

- Those with mobility difficulties travelling to hospitals;
- Servicing for local businesses; and
- Providing essential local services (such as GPs and nursing teams).

The Local Plan also notes that in Streatham new development must address issues of parking street caused by commuter parking near the shopping centre and close to stations. It also recognises that Streatham Wells is a residential area experiencing high levels of parking stress, especially near schools.

2.4.2 Lambeth Transport Plan (2011-2031)

The Lambeth Transport Plan (LTP) 2011 sets out how the Borough are delivering with the London Mayor's Transport Strategy until 2031. The plan forms the basis for future funding bids in the Borough until 2031 and includes delivery proposals for the three year period from 2011/12 - 2013/14.

The Lambeth Transport Plan states that the Council will move towards a more holistic approach when carrying out schemes and projects. The Neighbourhood Enhancement Programme (NEP) has been designed to enable the maximum benefit for the local community. The Lambeth Transport Plan states that the NEP approach works by complementing any works such as local safety schemes, 20mph zones and controlled parking zones with softer measures such as:

- Cycle parking
- Cycle training
- Cycle facilities
- Pedestrian Accessibility solutions such as dropped kerbs
- O Car Clubs
- Tree planting
- De-cluttering
- Localised parking restrictions to improve junction safety (if appropriate)
- Disabled parking bays
- Road maintenance (wherever appropriate and practicable)

The Lambeth Transport Plan recognises that parking controls are designed to improve safety, accessibility and keep traffic moving. Within this document it is recognised that a number of objectives must be balanced so that the council can make decisions about the allocation of road space is allocated to different users. These objectives are:

- Prioritising the parking needs of local residents, people with disabilities, suppliers of goods and services, businesses and their customers;
- To ensure the safe and efficient flow of traffic particularly with regard to vulnerable and priority road users;
- To reduce car commuting into the Borough where alternative transport opportunities exist;
- To reduce the environmental and visual impact of traffic and parking;
- To ensure that parking regulations are firmly and fairly enforced.

2.4.3 Equality Streets Scrutiny Commission - Lambeth Scrutiny Action Plan (March 2017)

The Equality Streets Scrutiny Commission was established in 2015 with the aim of examining LBL policy with regards to car parking and make recommendations aimed at ensuring that the Borough's future social needs and environmental priorities are appropriately provided for. The commission notes that parking is a primary interest of residents within Lambeth; however, car ownership levels are reducing and alternatives such as car clubs, walking and cycling are becoming more readily available and more popular.

The commission's Action Plan sets out a series of recommendations to provide streets that are accessible to all. These include support for the principle of introducing a Borough-wide CPZ that incorporates different hours of restriction for different areas of the Borough, as required, and advancing parking restrictions in areas where this is necessary.

A cap on the number of business parking permits issued within the Borough is advocated for within the Action Plan, as a means of reducing on-street parking demand, alongside increasing the cost for businesses to obtain more than one permit. The Action Plan also supports comprehensive provision of car club bays, cycle parking and electric vehicle charging points across the Borough, and the introduction of two-way cycle routes on roads where vehicles are currently permitted to travel in one direction only.

The commission also states that clear and comprehensive details of publically accessible car and cycle parking provision within the Borough should be made readily available online for residents, businesses and visitors.

2.4.4 Draft Air Quality Action Plan Consultation Document (2017)

This document states that a CPZ report will detail the rollout and implementation plan for parking policies to reduce air pollution or if not, it will detail why air quality friendly policies are not being developed as part of the CPZ.

3. EXISTING CPZ PROVISION AND BENCHMARKING

3.1 Introduction

This section sets out a summary of the existing CPZ provision across the LBL and then conducts a benchmarking exercise against a selection of other boroughs.

SUMMARY OF KEY CPZ PROVISION AND BENCHMARKING

- Densely populated nature of the LBL places pressure on kerb-side parking provision, with many areas historically suffering from high levels of parking stress.
- A total of 27 CPZs are currently maintained by the Council, these cover 11 of the Boroughs stations, leaving six stations in areas outside CPZs.
- Neighbouring Borough of Wandsworth has a more comprehensive coverage of CPZ, although still with pockets of area uncovered. There is a slightly higher proportion of CPZs in operation on Saturdays than in LBL. The LBL CPZs tend to operate more consistently between 08.30 and 18.30, as opposed to LBW CPZs, which operate for shorter periods.

3.2 Existing CPZ Provision

3.2.1 Overview

The densely populated nature of the LBL, with its competing land use demands, places pressure on kerb-side parking provision, with many areas historically suffering from high levels of parking stress. This can lead to discontent amongst residents, businesses and other road users, as well as having a negative impact on the economic vitality of the area. CPZs have been introduced in parts of the Borough in order to ensure that local residents, businesses and their visitors are able to park easily and conveniently.

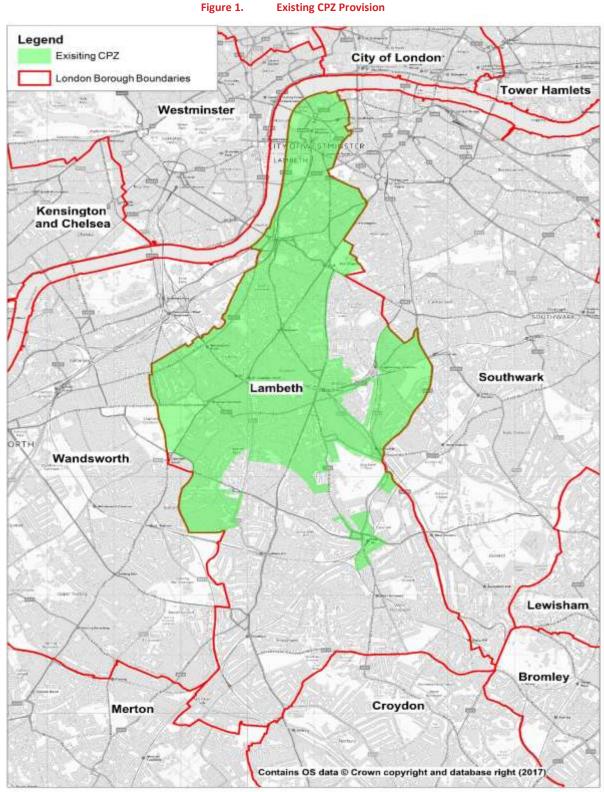
There are a total of 350km of roads within Lambeth, with approximately half subject to Controlled Parking Zones (`CPZ`) restrictions. A total of 27 CPZs are maintained by the Council.

СРΖ	OPERATING HOURS	СРΖ	OPERATING HOURS
Camberwell 'A'	Mon-Sun 08:30 - 18:30	Kennington 'KS'	Mon-Fri 08:30 - 18:30
Brixton 'B'	M-Sat 08:30 - 17:30 or 20:30	Clapham 'L'	Mon-Fri 10:00 - 15:30
Brixton 'B'	Mon-Sat 08:30 - 17:30	Clapham 'L'	Mon-Fri 10:00 - 12:00
Brixton 'B'	Mon-Fri 08:30 - 17:30	Clapham 'L'	Mon-Fri 09:00 - 20:30
Brixton 'B'	M-Sat 08:30 - 17:30 or 20:30	Clapham 'L'	Mon-Fri 09:00 - 18:00
Clapham 'C'	Mon-Fri 08:30 - 18:30	Herne Hill 'N'	Mon-Fri 12:00 - 14:00
Clapham 'C'	Mon-Fri 08:30 - 18:30	Poets Corner	Mon-Fri 08:30 - 17:30
Clapham 'C'	Mon-Fri 09:30 - 18:30;	Brixton Hill East 'Q'	Mon-Fri 10:00 - 12:00
Clapham 'C'	Mon-Fri 08:30 - 18:30;	Brixton Hill East 'Q'	Sun-Fri 08:30 - 18:30
Clapham 'C'	Mon-Fri 08:30 - 18:30	Brixton Hill East 'Q'	Mon-Fri 08:30 - 18:30
Brixton 'E'	Mon-Fri 09:00 - 15:30	Stockwell 'S'	Mon-Fri 08:30 - 17:30

Table 1.	Existing CPZs across London Borough of Lambeth

СРΖ	OPERATING HOURS	СРΖ	OPERATING HOURS
Tulse Hill 'H'	Mon-Fri 08:30 - 18:30	Thornton 'R'	Mon-Fri 08:30 - 17:30
Tulse Hill 'H'	Mon-Fri 08:30 - 18:30	Waterloo 'W'	Mon-Sat 08:30 - 18:30
Kennington 'K'	Mon-Fri 12:00 - 14:00		

The existing provision of CPZs in the Borough can be seen in Figure 1, overleaf. Furthermore, based on previous reports from this study two areas have now gone to consultation with regards to introducing a new CPZ.



Existing CPZ Provision

3.2.2 Stations

Within the areas currently covered by CPZs are the following stations:

- O London Waterloo
- Lambeth North
- Vauxhall
- Oval
- Stockwell
- O Wandsworth Road
- Clapham North
- O Clapham Common
- O Brixton
- O Herne Hill
- O Tulse Hill

The only station in the north of LBL not covered by a CPZ is Loughborough Junction; however the streets directly to the east of the station are all covered. The currently unrestricted streets form part of the Vassall Area study, shown later in this report.

To the south of the borough there are a further 5 stations that are not covered by a CPZ, as follows: :

- O Gipsy Hill
- Streatham
- Streatham Common
- Streatham Hill
- West Norwood

3.3 Benchmarking

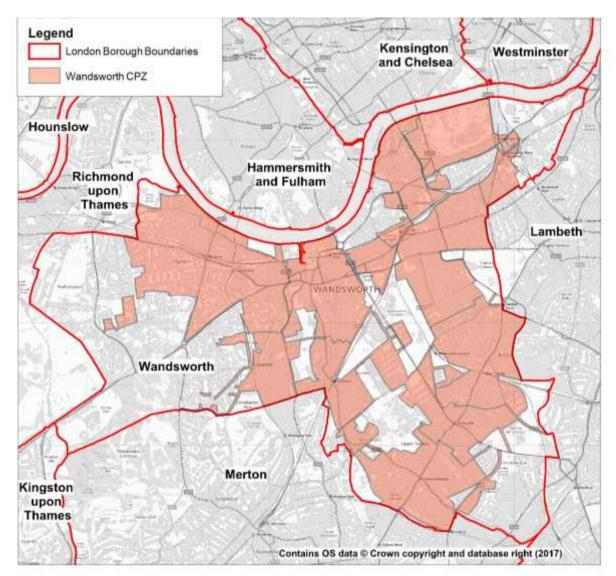
3.3.1 London Borough of Wandsworth

The London Borough of Wandsworth (LBW) borders LBL to the west and offers the most similar spatial characteristics to LBL. It has, therefore, been used to offer the primary benchmarking against LBL in this study.

A large proportion of the LBW is covered by CPZs, with a total of 15 CPZs across the Borough. The spatial distribution of the CPZs in LBW is much wider, than in LBL where CPZs are concentrated in the northern area of the Borough. This partly reflects the geographic layout of the LBW, which does not extend as far south as the LBL. There are still pockets of areas across LBW where there is no CPZ provision, even to the north of the Borough closer to Central London.

The location of CPZs in LBW can be seen in Figure 2 below.

Figure 2. Location of CPZs in London Borough of Wandsworth



3.3.2 Comparative Operating Hours between LBL and LBW

Within both Boroughs the CPZs are split into subzones with varying days and hours of operation. LBL has a total of 28 sub zones and LBW has a total of 65 subzones. The breakdown of the days of operations of CPZs in both LBL and LBW can be seen below in **Table 2.** It is evident that Monday to Friday is the most common arrangement for CPZ operation. LBW has slightly more CPZs that operate Monday to Saturday however LBL has an additional category of Sunday to Friday.

Table 2.	Days of	operation o	f CPZs in	LBL and LBW
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DAYS OF OPERATION	PERCENTAGE OF SUB ZONES – LAMBETH	PERCENTAGE OF SUB ZONES - WANDSWORTH
Mon-Fri	79%	77%
Mon-Sat	14%	20%
Mon-Sun	4%	3%
Sun-Fri	4%	0%

Table 3 shows the start times of CPZs in LBL and LBW, it is evident below that the start times vary considerably with the majority of CPZs in LBL starting at 08:30 and none starting after 12:00. The majority of LBW's CPZs start at 09:30, it must also be noted that there are more start times for CPZs in LBW than in LBL, nine compared with five respectively.

START TIME	PERCENTAGE OF SUB ZONES – LAMBETH	PERCENTAGE OF SUB ZONES - WANDSWORTH
08:30	68%	6%
09:00	11%	6%
09:30	4%	58%
10:00	11%	8%
10:30	0%	6%
11:00	0%	6%
11:30	0%	2%
12:00	7%	0%
13:30	0%	5%
14:00	0%	3%

Table 3. Start times of CPZs in LBL and LBW

Table 4 shows the end times of CPZs in LBL and LBW, similar to the start times of CPZs LBW has a greater variety in end times, with 13 different end times of CPZs compared with LBL's eight. The most common time for CPZs to end in LBL is 18:30 compared with LBW where this is two and a half hours earlier at 16:00. LBL also has no CPZs that end before 12:00, compared with LBW where the earliest CPZ finishes at 10:30, approximately 5% of all subzones finish at this time, with a further 6% finishing at 11:00.

Table 4. End times of CPZs in LBL and LBW

END TIME	PERCENTAGE OF SUB ZONES – LAMBETH	PERCENTAGE OF SUB ZONES - WANDSWORTH
10:30	0%	5%
11:00	0%	6%
11:30	0%	6%
12:00	7%	6%
12:30	0%	2%
14:00	7%	0%
14:30	0%	5%
15:00	0%	3%
15:30	7%	0%

END TIME	PERCENTAGE OF SUB ZONES – LAMBETH	PERCENTAGE OF SUB ZONES - WANDSWORTH
16:00	0%	31%
17:00	0%	5%
17:30	18%	18%
18:00	4%	0%
18:30	46%	8%
20:00	0%	3%
20:30	4%	0%
17:30 or 20:30	7%	0%

Note: There are exceptions to the tables above, such as Battersea Park subzone 2 which operates Monday to Sunday from 09:00 to 20:00 but ends at 17:00 on weekends and starts on Sunday at 13:00. For the purposes of the tables above this was recorded as a subzone operating Monday to Sunday with a start time of 09:00 and an end time of 20:00. The full breakdown of CPZs in each Borough can be found in the appendices.

3.3.3 Other London Boroughs

The London Borough of Southwark (LBS) borders LBL to the east, approximately 50% of LBS is covered by a total of 21 parking zones. Times and days of operation vary between each zone, however the sign in the relevant zone details restrictions. To the north of LBL is the City of Westminster, which is completely covered by CPZs. Similarly the City of London and Royal Borough of Kensington and Chelsea are completely covered by CPZs. All three have different characteristics to LBL and, therefore, the differences between CPZ provision are expected.

On the south west border of LBL is the London Borough of Merton. CPZ provision here is predominantly in the centre and north east of the Borough, surrounding Wimbledon rail station. This differs from LBL where there is significant CPZ provision in the north of the Borough, which is in close proximity to the City of London and other areas with high concentration of workplaces. In the London Borough of Bromley, which borders LBL to the south east, the main CPZ area surrounds Bromley Town Centre. This CPZ covers the main retail area and Bromley South Rail Station, stretching outwards towards Shortlands and Sundridge Park Rail Stations, and includes a significant amount of nearby residential streets in all directions. In comparison to LBL, both the London Borough of Merton and London Borough of Bromley are heavily residential, less commercial and have less of a tourist appeal, especially when comparing the northern end of LBL.

In the London Borough of Croydon there are a total of five CPZ areas, these tend to be located around areas such as rail stations or retail destinations. For example there is a large CPZ between East Croydon station and West Croydon station covering the streets surrounding the shopping centre.

4. NON CPZ AREAS CAPACITY AND DEMAND

4.1 Introduction

This section sets out a summary of the non-CPZ area parking capacity and observed demand.

SUMMARY OF KEY CAPACITY AND DEMAND ISSUES

- Vassal, Westow and Brixton Hill areas have the highest weekday occupancy levels, all with peak occupancy levels above 85% for large proportions of the day.
- Occupancy levels are generally lower at weekends, with the lowest variation between weekday and weekend parking levels in Streatham and Streatham Common Vale.
- Vassal, Brixton Hill, and Streatham Hill areas are estimated to have the highest proportion of residents remaining parked all day during a weekday, indicating less car use for employment and education purposes. West Norwood and Streatham have the highest weekday resident car usage. Westow has the highest proportion of observed residents departing and retuning during the 8am and 10pm.
- Streets near Loughborough Junction, West Norwood, and Streatham Common stations generally have higher occupancy levels during the weekday than recorded within the corresponding wider areas. This is also the case for Loughborough Junction and Streatham Common on weekends.
- The data also indicates very high occupancy levels in some, but not all, streets around Streatham Station on weekdays and high occupancies on weekends.
- There is no area-wide relationship between car ownership levels and observed parking

4.2 Location of Non-CPZ study areas

A total of seven non-CPZ areas were subjected to audits of parking provision and occupancy surveys across a weekday and weekend day.

The locations of the Phase 1 and Phase 2 study areas are shown below in Figure 3 and Figure 4.

Figure 3. Current CPZ provision and relative location of Phase 1 study areas

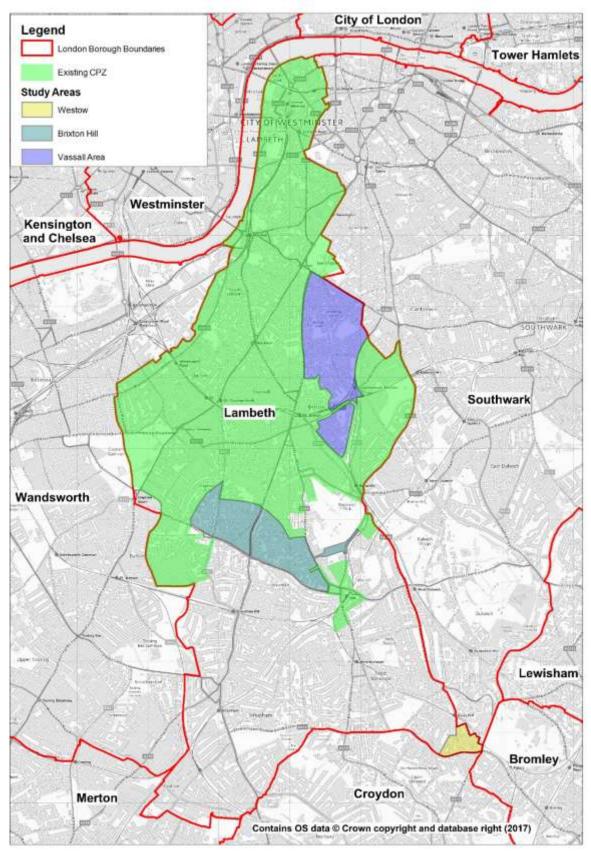
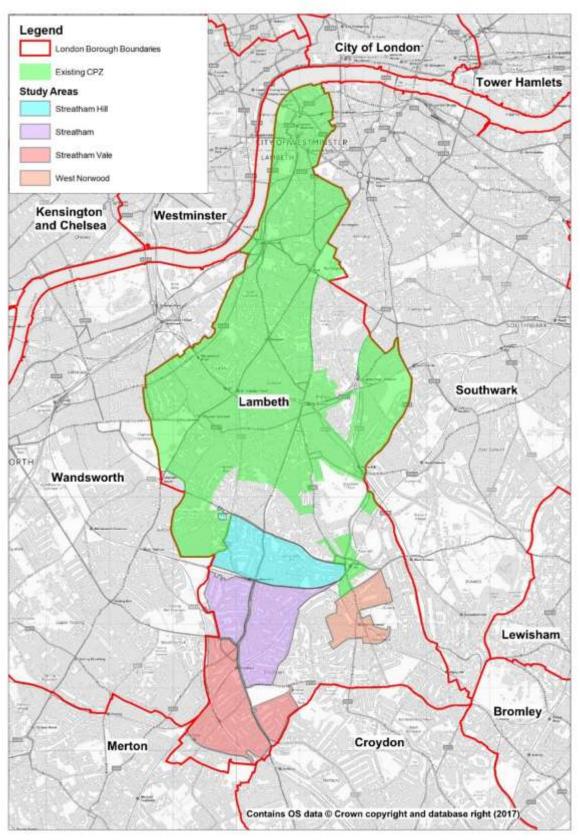


Figure 4. Current CPZ provision and relative location of Phase 2 study areas



The combined Phase 1 and Phase 2 study areas included the following stations and surrounding streets:

- Loughborough Junction
- Streatham
- Streatham Common
- Streatham Hill
- West Norwood

4.3 Capacity and Demand

4.3.1 Overall Unrestricted Parking Capacity and Peak Demand

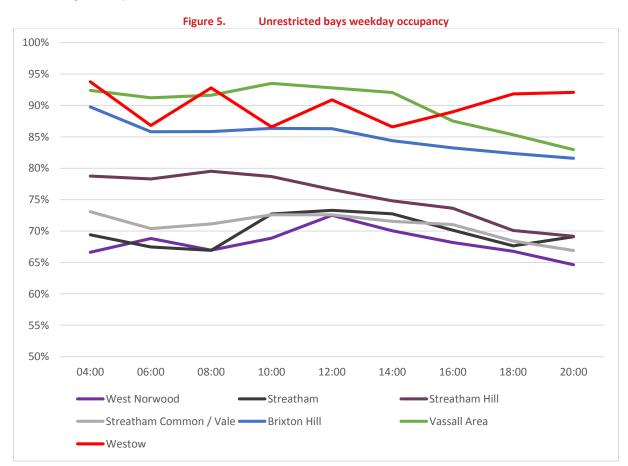
Table 5 shows the total unrestricted bay capacity of each of the study areas. Alongside the peak demand during both the weekday and weekend for the unrestricted bays in the study areas.

Table 5. Official day definition						
STUDY PHASE	STUDY AREA	UNRESTRICTED BAYS CAPACITY	WEEKDAY PEAK DEMAND	WEEKEND PEAK DEMAND		
Phase 1	Brixton Hill	2,607	2,251	1,383		
	Vassall Area	2,405	2,249	1,901		
	Westow	417	391	367		
Phase2	Streatham	4,145	3,014	3,034		
	Streatham Hill	3,468	2,758	2,587		
	Streatham Vale	4,686	3,401	3,491		
	West Norwood	2,143	1,554	1,444		



4.3.2 Weekday occupancy levels – Unrestricted Bays

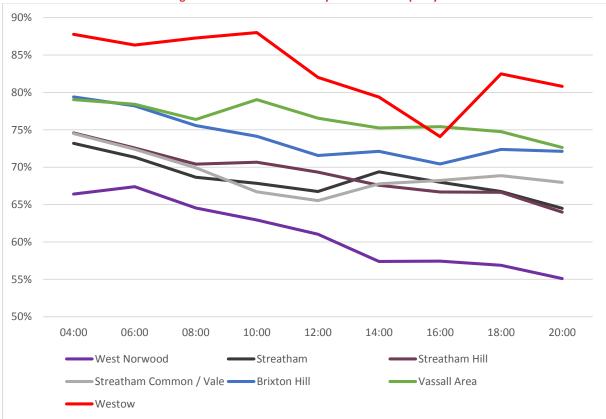
Figure 5 shows the average weekday occupancy of the unrestricted bays across the seven study areas which currently do not have a CPZ. There is a clear difference in occupancy levels, the study areas of Vassall Area, Westow and Brixton Hill experiencing the highest levels of parking stress. The other four study areas have lower parking stress levels, with Streatham Hill experiencing the highest and West Norwood generally the lowest.



4.3.3 Weekend occupancy levels – Unrestricted Bays

Figure 6 shows the average weekend occupancy of the unrestricted bays across the seven study areas which currently do not have a CPZ. Overall there is a general trend that occupancy levels are lower at the weekend than on a weekday, which suggest that a notable proportion of weekday parking relates to employment activities. The areas with the least variations in weekday and weekend parking occupancies are Streatham and Streatham Common Vale. This is investigated further in Section 4.2.4 below.

There is a clear difference in weekend occupancy levels between areas, the study area of Westow experienced the highest levels of parking stress of the study areas for all but one beat (16:00). Similar to the weekday results, Vassall Area and Brixton Hill have levels of parking stress in the top three of the study areas and West Norwood generally the lowest levels of parking stress.



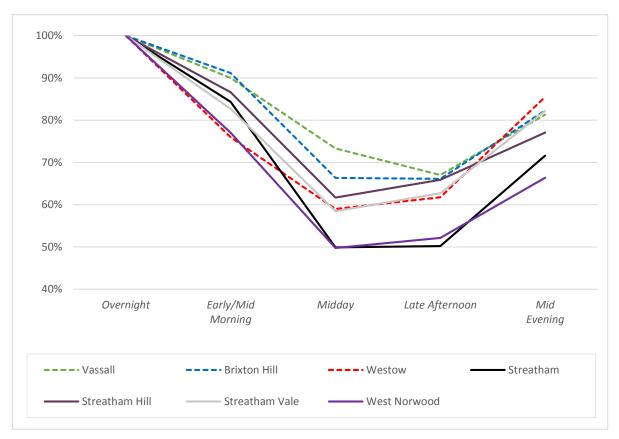


4.3.4 Analysis of Parking Profiles

In order to investigate the different types of parking that occur in each area, the weekday parking occupancy data has been disaggregated to examine those vehicles that were parked overnight (considered, in broad terms, to reflect levels of residential parking) and other vehicles that arrived during the course of the surveys (considered, in broad terms, to be non-residential parking).

Figure 7 presents a profile of the vehicles parked overnight and demonstrates the proportions that departed and returned during the course of the survey period. In all cases the overnight parking represents 100%.



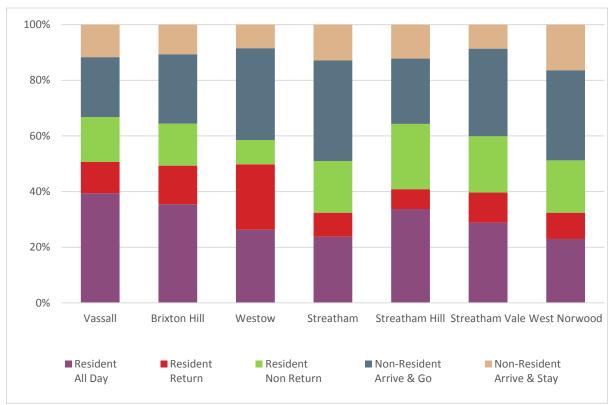


This indicates that the largest proportional level of residential (overnight) departures were in the areas of West Norward and Streatham where around 50% of the vehicles observed during the overnight survey departed. Conversely, the Vassal and Brixton Hill area were observed to have the lowest proportion of residential (overnight) car usage.

Figure 8 presents a further breakdown of the estimated proportional split of the following five different parking profiles:

- **Resident All Day:** Vehicles parked overnight that remained parked throughout the duration of the survey
- **Resident Return:** Vehicles parked overnight that departed at some point during the surveys and were observed returning during the course of the survey
- **Resident Non Return:** Vehicles parked overnight that departed at some point during the surveys but were not observed to have returned during the course of the survey
- **Non-resident Arrive & Go:** Vehicles that arrived during the course of the survey and then departed before the end of the survey
- Non-residents Arrive & Stay: Vehicles that arrived during the course of the survey and were still observed parking at the end of the survey





The data provides an overall breakdown of the proportion of resident (overnight) and non-residential parking that was observed to occur in each area. This indicates that the highest proportional levels of non-residential parking were in the Streatham area, followed by West Norwood and Westow.

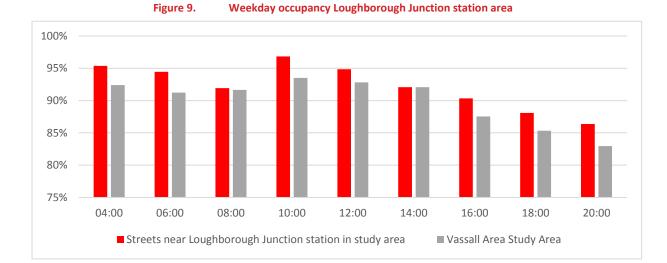
Vassal, Brixton Hill and Streatham Hill areas had the highest proportion of overnight parking that remained parked during the course of the survey period, whilst Westow had the largest proportion of residents who departed and returned during the course of the survey period.

4.3.5 Occupancy levels around Stations - Weekdays

As detailed in the sections above, the study areas include the following stations and surrounding streets:

- Loughborough Junction
- O West Norwood
- Streatham
- Streatham Common
- O Streatham Hill

Analysis has been completed to evaluate whether the streets within study sub-areas that are close to stations have higher occupancy levels than the study overall area. Results for the weekday analysis are shown below.



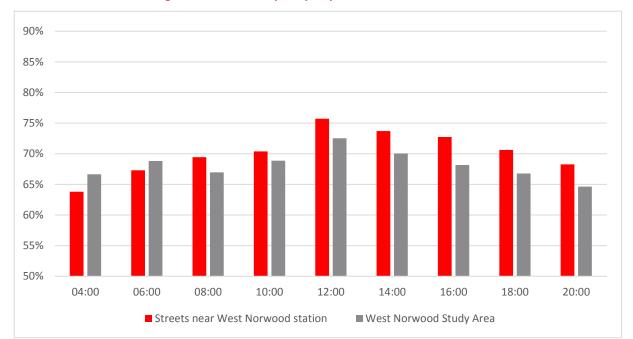
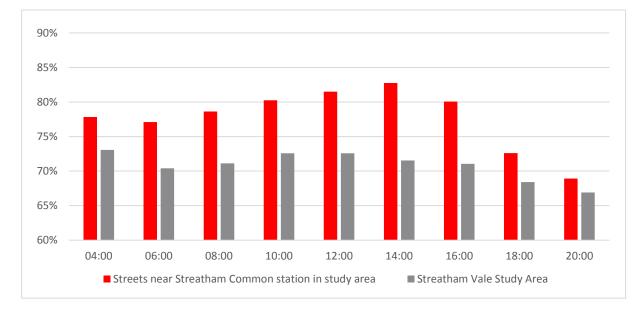


Figure 10. Weekday occupancy West Norwood station area

Figure 11. Weekday occupancy Streatham Common station area



As can be seen above in **Figure 9**, **Figure 10** and **Figure 11**, in general the streets near to the stations have higher occupancies than the full study area during the weekday survey. The exception to this being that in the West Norwood study area the occupancy level of the streets near to West Norwood station was below the occupancy level of the overall study area for the first two parking survey beats of the day (04:00 and 06:00). It must be noted that streets to the east of Loughborough Junction station are currently subject to a CPZ and therefore there could be the ripple effect also taking place in the areas near to the station and in the wider study area.

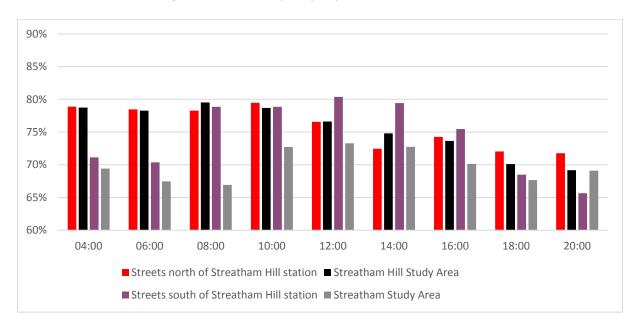


Figure 12. Weekday occupancy Streatham Hill station area

Figure 12, above, shows the weekday occupancy levels for the streets surrounding Streatham Hill station and the surrounding study areas. The streets to the north of Streatham Hill station fall into the Streatham Hill study area whereas the streets to the south of the station fall into the Streatham study area. The occupancies vary throughout the weekday survey, however it is clear that the occupancy levels of the streets to the north are very similar to the occupancy levels of their study area, in comparison the streets to the south and the Streatham study area generally have larger differences in occupancy levels. This is evident from 08:00 until 16:00 where the streets to the south of the station have considerably higher occupancy levels than the Streatham study area.

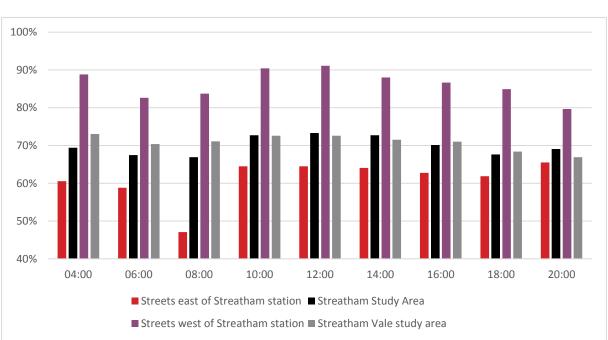




Figure 13, above shows the weekday occupancy levels for the streets surrounding Streatham station and the surrounding study areas. The streets to the east of Streatham station fall into the Streatham study area whereas the streets to the west of the station fall into the Streatham Vale study area. There are contrasting results from this analysis, showing that the streets nearest the station in the Streatham study area (east side) have occupancy levels lower than the Streatham overall study area. By comparison the streets in the Streatham Vale study area near the station (west side) have a higher occupancy level than the Streatham Vale study area. This is noted for every parking beat across the weekday survey.

4.3.6 **Occupancy levels around Stations - Weekends**

As evident in Figure 14, throughout the entire weekend survey the streets near to Loughborough Junction station experienced parking stress levels significantly higher than the Vassall Area study area as a whole. The West Norwood study area did not experience this, shown in Figure 15, with the study area generally having a slightly higher occupancy level than the streets near to West Norwood station, with the exception of the 10:00 survey beat. Figure 16, shows that the Streatham Vale study area is similar to Vassall Area, with the streets near to the station (Streatham Common) having higher occupancy levels than the study area as a whole however the differences are not as significant as Vassall Area.

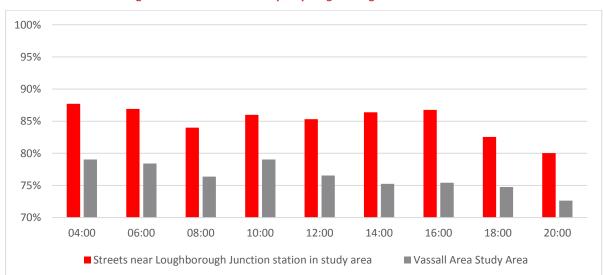


Figure 14. Weekend occupancy Loughborough Junction station area

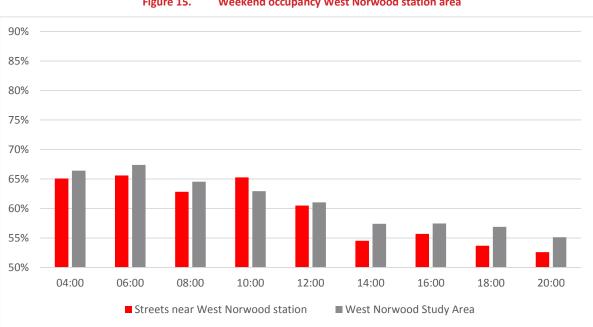
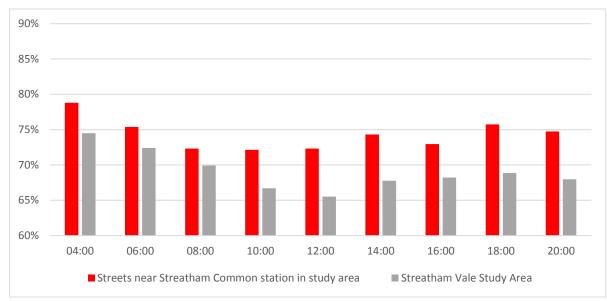


Figure 15. Weekend occupancy West Norwood station area

Figure 16. Weekend occupancy Streatham Common station area





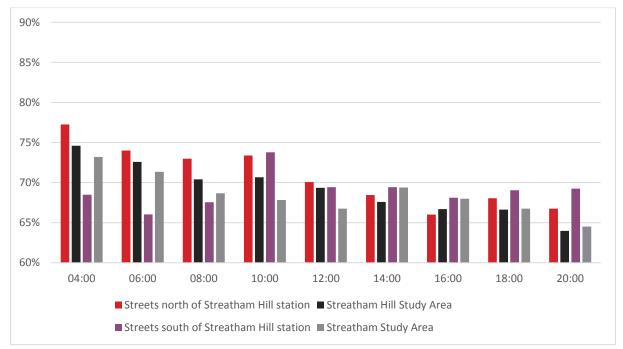


Figure 17, above, shows the weekday occupancy levels for the streets surrounding Streatham Hill station and the surrounding study areas. The streets to the north of Streatham Hill station fall into the Streatham Hill study area whereas the streets to the south of the station fall into the Streatham study area.

The occupancies vary throughout the weekend survey, with the streets to the north of the station having higher occupancies at the start of the survey until the 10:00 beat where the streets to the south have a high occupancy level which continues throughout the rest of the day. The streets to the north of the station generally have a slightly higher occupancy level than the Streatham Hill study area which they fall into throughout the entire survey with the exception of the 16:00 parking beat. The streets to the south of the station have lower occupancy levels than the Streatham study area as a whole until the 10:00 beat where the occupancy levels of these streets increase and remain above or equal to the study area throughout the remainder of the survey.

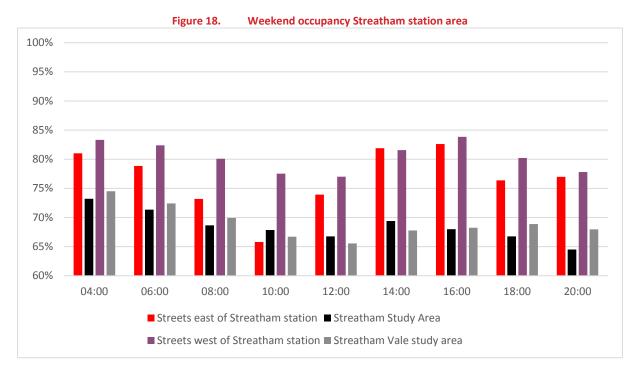


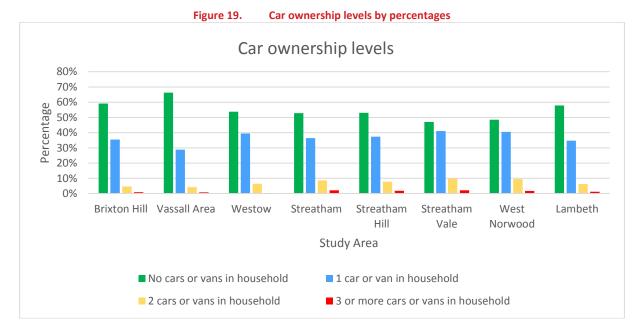
Figure 18, above shows the weekday occupancy levels for the streets surrounding Streatham station and the surrounding study areas. The streets to the east of Streatham station fall into the Streatham study area whereas the streets to the west of the station fall into the Streatham Vale study area.

The streets nearest to the station have higher occupancy levels than their respective study area throughout the entire survey period, with the exception of the streets to the east of the station during the 10:00 beat. Furthermore, streets to the west of Streatham station generally have a higher occupancy percentage than streets to the east of the station, with the only exception being the 14:00 beat where the streets to the east have a slightly higher occupancy percentage.

4.4 Car Ownership Levels

Figure 19 show the differences between car ownership levels across all study areas.

Streatham Vale and West Norwood have the highest proportion of households with either '1 car or van in household' or '2 cars or vans in household'.



As **Table 6** shows, all of the study areas have car ownership levels significantly below one car per household, with a LBL wide average of 0.51 cars per household.

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The survey data presented earlier in this section indicates that the Brixton Hill, Vassall and Westow areas experience the highest levels of parking stress yet they are in the lower levels for car ownership amongst the study areas. This suggests there is no direct correlation between car ownership levels and parking stress, although the density of housing provision is also likely to be a factor.

Similarly, in contrast, Streatham Vale and West Norwood have the highest levels of car ownership amongst the study areas and some of the lowest levels of parking stress.



 Table 6. Average number of cars per household

5. PROS AND CONS OF CPZS

5.1 Key Strengths

The perceived key strength of CPZs are summarised below:

- Supports key policies
 - The Mayor's Transport Strategy (MTS) recognises the importance of parking regulation in encouraging sustainable travel across London and also mitigating the negatives impact of road traffic. It also supports the introduction of CPZs where the Borough would consider them beneficial.
 - The Lambeth Local Plan (2015) recognises that 'there will still be a need for an appropriate level of car use and parking to meet key needs'. CPZs form a part of the Neighbourhood Enhancement Programme (NEP), which has been designed to enable the maximum benefit for the local community.
 - CPZs would be supported by the Lambeth Transport Plan (2011-2031) which recognises that parking controls are designed to improve safety, accessibility and keep traffic moving. Within this document one of the stated objectives of parking controls is balancing needs of users such as:
 - Prioritising the parking needs of local residents, people with disabilities, suppliers of goods and services, businesses and their customers;
 - > To reduce car commuting into the Borough where alternative transport opportunities exist; and
 - > To reduce the environmental and visual impact of traffic and parking.

• Restricts Commuter Parking

• A primary benefit of a CPZ is to prevent long-stay commuter car parking in residential areas that can take up valuable road-space and create parking pressures for residents.

• Discourages other non-residential parking by people from outside of the area

 In addition to discouraging commuters, CPZ's can be designed to minimise other forms of non-residential parking, albeit the use of short-stay Pay & Display bays can still be used to allow parking in support of specific local retail and leisure facilities.

O Reduces congestion

 By restricting the availability of parking for commuters, and other non-residential parking, CPZs can reduce the level of vehicle trips driving into an area and help reduce localised congestion.

• Increased public transport patronage

- The introduction of a CPZ in an area can encourage non-residents from elsewhere within the Borough, and further afield, to utilise public transport when travelling around the area by restricting their ability to park. This can be particularly successful in restricting 'rail heading' where people drive in toward Central London and the access the rail or tube network, instead accessing rail further out of London.
- In addition the reduced congestion improves bus journey times, making it a more attractive option.

• Improved access for emergency and service vehicles

 By formalising parking provision, restricting the overall levels of parking, and reducing congestion, access can be improved for emergency and service vehicles.

• Improved parking access for businesses

 In addition to the improved parking access for local residents, CPZ's can also include provision for businesses operating in the area, including access to permits, potentially making it easier for them to access their premises.

• Improved turnover of parking spaces

Through the removal of long-stay non-residential parking, CPZ's can result in a more efficient use of limited kerbside space by incorporation short-stay Pay & Display bays to encourage a higher turnover of vehicles in retail areas, rather than a single vehicle parked in a space all day.

5.2 Weaknesses

The perceived weaknesses to CPZs are summarised as follows:

O Permit Costs

 The introduction of CPZ schemes will be accompanied by a requirement for residents to purchase permits. Whilst these do not have to be particularly expensive to cover the costs of the scheme, they can none-the-less be unwelcome for some residents.

O Loss of parking

The introduction of CPZ schemes will generally require a formalised parking scheme to be introduced (with the possible exception of cul-de-sacs where only CPZ entry signs can be required). Formalised parking bays must be subject to certain design standards to avoid risk to the local authority. In narrow streets this can often result in the restrictions in available parking provision that can result in an overall reduction in the total parking stock.

O Enforcement

 The introduction of a formalised parking scheme requires appropriate enforcement to ensure that it operates effectively. This requires changes to operational enforcement regimes and, in some cases, can require additional resource.

• Restricted permits per household

 In areas with high density housing, it is often a requirement to either restrict the overall number of permits allowed per household, or to price the permit accordingly so that there is an additional premium the more permits a household has. Whilst not necessarily a weakness in itself, for multiple-occupancy households, it can restrict the number of permits available and can result in residents having to park one or more of their vehicles in different locations.

• Ripple effect

Introducing a CPZ in one area can create a risk of simply transferring the identified parking stress to adjacent streets outside of the CPZ boundary. In certain areas there has been a displacement effect to unrestricted roads on the edge of current CPZs, with these roads now experiencing parking stress.

• Timescales

 Due to the study and consultation process it can take a significant amount of time to implement a CPZ. For example London Borough of Southwark state that 'The time taken from initial concept to a new zone commencing will be at least 12 months'.

5.3 Opportunities

• Opportunity to maintain good quality roads

 Funds raised from the permit sales helps to ensure that the roads, lines and signs are kept in good condition. It also helps to support the enforcement in the area so residents and businesses have priority.

O Opportunity to increase customers for local businesses

With the introduction of short stay pay and display and / or pay by phone parking there
is the potential to increase the turnover of vehicles in the area, therefore increasing the
potential number of customers to local businesses.

O Opportunity to support the promotion of wider sustainable travel

 Controlling on-street parking provision can be an important element of wider promotion of sustainable travel across the Borough

5.4 Threats

• Statutory Consultation process and negative feedback

 CPZs must undergo a thorough consultation process with the public before being implemented. During the consultation there is the potential for negative feedback and a lack of public support for the implementation of the scheme.

• Lack of business local support

Certain business groups often fear the introduction of a CPZ will have significant negative effects on their business and their business practices. They often complain about either the cost of business (generally significantly higher than residents permits) or the restrictions in being able to obtain permits. Certain businesses are more prone to be against CPZ, including repair garages (where customers wish to leave their cars all day) and high-turnover retail outlets (e.g. fast food outlets, newsagents etc.)

O Insufficient Enforcement

 There is a chance that if a CPZ is not thoroughly enforced it will not be effective and the benefits will be greatly reduced.

• On-going Operating Costs

- Whilst generally relatively low cost to implement, CPZs do have on-going costs, mainly
 associated with enforcement and back-office costs associated with processing permits
 and PCNs. It is therefore important that the schemes generate sufficient revenue to
 cover these costs.
- According to government guidance, a sensible aim would be for a CPZ for the be selffinancing, however if it is not this must be met from current funding sources, stating that 'The Secretary of State will not expect wither national or local taxpayers to meet any deficit'.

6. CONCLUSIONS

6.1 Overview

SYSTRA has been commissioned by LBL to undertake a three phase On-Street Parking Study.

- Phase One performed an operational review of the current non-CPZ areas, primarily in the North of the Borough;
- Phase Two considered current non-CPZ areas in the South of the Borough; and
- Phase Three looks to offer recommendations on a future approach to current non CPZ areas in the Borough.

6.2 Existing provision

The densely populated nature of the LBL places pressure on kerb-side parking provision, with many areas historically suffering from high levels of parking stress. A total of 27 CPZs are currently maintained by the Council, these cover 11 of the Borough's stations, leaving six stations in areas outside CPZs. These six stations are:

- O Gipsy Hill
- Loughborough Junction
- Streatham
- Streatham Common
- Streatham Hill
- West Norwood

The neighbouring Borough of Wandsworth, used in this study for benchmarking, has a more comprehensive coverage of CPZs, although still with areas uncovered. There is a slightly higher proportion of CPZs in operation on Saturdays than in LBL. The LBL CPZs tend to operate more consistently between 08.30 and 18.30, as opposed to LBW CPZs, which operate for shorter periods and have a greater variety of start and end times.

6.3 Capacity and demand

The overall parking capacity of unrestricted bays in each study area ranges from 417 bays in Westow to 4,686 in Streatham Vale. Within these unrestricted bays, Vassal, Westow and Brixton Hill areas have the highest weekday occupancy levels, all with peak occupancy levels above 85% for large proportions of the day.

Occupancy levels are generally lower at weekends, with the lowest variation between weekday and weekend parking levels in Streatham and Streatham Common Vale.

Vassal, Brixton Hill, and Streatham Hill areas are estimated to have the highest proportion of residents vehicles that remain parked all day during a weekday, indicating less car use for employment and education purposes. West Norwood and Streatham have the highest weekday resident car usage. Westow has the highest proportion of observed residents departing and retuning during the 8am and 10pm. The highest levels of non-residential parking was found to be in Streatham, West Norwood and Westow.

The study areas included the following stations and surrounding streets:

- Loughborough Junction
- Streatham
- Streatham Common
- Streatham Hill
- O West Norwood

From the earlier analysis it was shown that streets near Loughborough Junction, West Norwood, and Streatham Common stations generally have higher occupancy levels during the weekday than

recorded within the corresponding wider areas. This is also the case for Loughborough Junction and Streatham Common on weekends. The data also indicates very high occupancy levels in some, but not all, streets around Streatham Station on weekdays and high occupancies on weekends.

6.4 Pros and cons of CPZs

The section below gives a brief overview of the strengths, weaknesses, opportunities and threats of CPZs which were explored in Section 5 above.

STRENGTHS	WEAKNESSES
 Supports key policies Restricts Commuter Parking Discourages other non-residential parking by people from outside of the area Reduces congestion Increased public transport patronage Improved access for emergency and service vehicles Improved parking access for businesses Improved turnover of parking spaces 	 Permit Costs Loss of parking Enforcement Restricted permits per household Ripple effect Timescales
OPPORTUNITIES	THREATS
 Opportunity to maintain good quality roads Opportunity to increase customers for local businesses Opportunity to support the promotion of wider sustainable travel 	 Statutory Consultation process and negative feedback Lack of business local support Insufficient Enforcement On-going Operating Costs

6.5 Conclusion

The evidence from the first two phases of this study, and the results from this report, indicate the further role out of CPZ in current non-CPZ areas would offer a range of potential benefits to LBL. The survey work has identified a range of areas with relatively high occupancy levels, either across whole areas or in specific areas, such as around Railway Stations. Furthermore, a number of areas recorded notable levels of non-residential parking that could be targeted by CPZ measures, to reduce parking stress levels and prioritise parking for local residents and businesses.

SYSTRA would therefore recommend a further role out in these areas and in the chapter below we offer recommendations on a future approach.

7. FUTURE APPROACH

7.1 Overview

This section explores potential future approaches to CPZ implementation in current non-CPZ areas in LBL. We also offer recommends on CPZ days and times of operations, including the provision of sub zones.

7.2 Approach options

Below we offer options for the approach to future role out in current non-CPZ areas. Based on our recommendation that a further role out would be beneficial, we have not included a do-nothing scenario:

• Reactive approach

One future approach to CPZ provision would be to implement CPZs in areas as and when they are needed. This would require areas to experience high parking stress before a CPZ was implemented and so suffer a period of poor parking provision. An advantage to this method includes the increased likelihood of public support before and afterwards, since local residents, local businesses and residents would have first-hand experience of the challenges of parking and acknowledge the likely benefits of a CPZ. This method could, however, leave LBL with pockets of areas not covered by CPZs.

O North to south domino approach

CPZ provision could be implemented in a domino approach in the study areas, with a roll out from north to south, starting at areas with no CPZ provision in the north of the Borough and working southwards through the Borough. This approach could result in the ripple effect taking place, with parking stress issues being pushed southwards as additional CPZ are introduced in the north. Alternatively, if CPZs are introduced prior to significant parking stress occurring, then there could be complaints from residents and businesses that the CPZ is not required.

• Full roll-out

Another potential approach to CPZs would be to implement CPZs across all remaining areas of LBL at the same time. This would remove the possibility of the parking issue being switched to another area of the Borough, however, would increase the potential for backlash from residents and businesses who may not see the need for a CPZ to be implemented. London Boroughs north of the river have full roll-out of CPZs; however this is not something Boroughs south of the river have implemented.

O Station orientated

As shown in the analysis earlier, streets near to stations tend to have higher parking stress than the overall study area. Implementing CPZs near to public transport hubs, such as the rail stations, could discourage commuters from travelling into the area to take advantage of the good transport connections to central London. The could be a negative ripple effect, with the potential for commuters being willing to walk longer distances to access stations and so parking on the edge of the CPZ, causing higher levels of parking stress in those streets. There is likely to be a distance beyond which commuters are much less likely to walk (800m) and so the CPZ schemes could take this into account. We would, therefore, recommend that these zones are contained within wider area zones to mitigate this potential effect.

7.3 Recommendations

It is recommended that a north to south domino approach is undertaken when implementing CPZs across current non-CPZ study areas in LBL. This would be done with a phasing plan that works toward a full roll out, helping to mitigate any ripple effects, and supporting the long term growth of the Borough.

Based upon the outputs from the survey work, we would recommend the following times and days of operation being implemented for each study area based on the results of the study, however these times and days of operation should be kept under regular review.

AREA	DAYS OF OPERATION	TIMES OF OPERATION
Vassall Area	Monday – Friday	08:30 - 17:30
Brixton Hill	Monday – Friday	08:30 - 18:30
Streatham Hill	Monday – Friday	08:30 - 16:00
Streatham	Monday – Friday	10:00 - 16:00
Streatham Vale	Monday – Friday	08:30 - 16:00
West Norwood	Monday – Friday	10:00 - 16:00
Westow	Monday – Saturday	08:30 - 18:30

Table 7. Recommendations for CPZs in study areas

Note: An end time of 12:00 on Saturday for the Westow CPZ would be recommended due to the parking stress levels falling around midday on Saturday.

In line with current CPZ provision in LBL, where the majority of current CPZs operate Monday to Friday, the suggested CPZ days of operation are Monday to Friday. The only exception to this would be for Westow, which is proposed as Monday to Saturday due to high parking stress levels observed on the weekend survey.

Start times are, where appropriate, aligned to the 08:30 start time that is most common for CPZ start times in LBL. The exceptions to this are Streatham and West Norwood where parking stress levels do not rise until later on, therefore a 10:00 start time could be deemed more appropriate.

The most common end times for CPZs in LBL are 18:30 and 17:30, as a result of this the suggested end times for implementing a CPZ in the study areas was one of these, where appropriate. The exceptions to these were Streatham, Streatham Hill, Streatham Vale and West Norwood where parking stress levels decreased to a lower level earlier in the day and therefore a 16:00 end time would be more appropriate.

7.4 Sub Zones

Parking stress levels in the streets nearest to the rail stations can vary in comparison to the study area as a whole as shown earlier. Therefore it would be recommended that there are adjustments to the days and times of operation of the above CPZs through the creation of the following subzones, as shown in **Table 8.** The location of the streets in the sub zones are shown in **Figure 20.**

Table 8. Recommended Sub Zones

STUDY AREA	SUB ZONE	NEAREST STATION	DAYS OF OPERATION	TIMES OF OPERATION
Streatham	1	Streatham Hill	Monday – Friday	08:30 - 16:00
Streatham	2	Streatham	Monday – Saturday	10:00 - 16:00
Streatham Vale	1	Streatham	Monday – Saturday	08:30 - 20:30
Streatham Vale	2	Streatham Common	Monday – Saturday	08:30 - 18:30
West Norwood	1	West Norwood	Monday – Friday	10:00 - 18:30

7.4.1 Streatham Sub Zone 1

The CPZ suggested for the Streatham study area operates from Monday – Friday, 10:00 - 16:00. The difference would be that Streatham Sub Zone 1 has suggested operating hours of 08:30 - 16:00 to combat the higher parking stress levels experienced earlier in the weekday.

7.4.2 Streatham Sub Zone 2

The proposed changes to the CPZ in this sub zone are that the days of operation would be extended to include Saturdays. This would be to combat the high levels of parking stress in the streets near to Streatham station which were experienced during the weekend survey. The hours of operation are consistent with the suggested CPZ for the study area as a whole.

7.4.3 Streatham Vale Sub Zone 1

The streets near to Streatham station have much higher parking stress levels throughout the entire weekday survey than the study area as a whole, therefore it is recommended that the operating times of the CPZ should be extended to 08:30 - 20:30. This is also the case for the weekend survey, resulting in the recommendation of extending the days of operation.

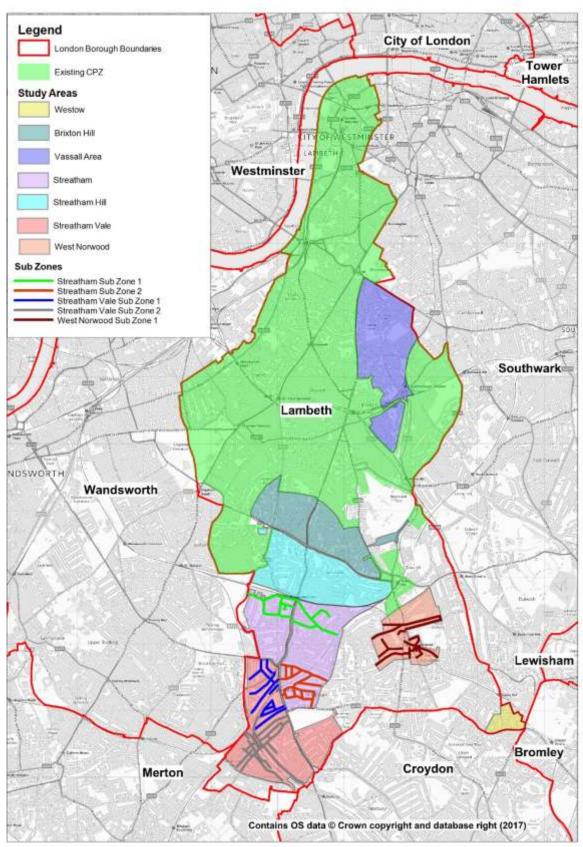
7.4.4 Streatham Vale Sub Zone 2

Within Streatham Vale Sub Zone 2 the streets near to Streatham Common station have higher weekend stress levels than the study area and, therefore, it is recommended that the CPZ in this area operates on a Saturday to combat this. This sub zone also has extended operating hours in comparison to the CPZ recommended for the study area due to higher stress levels in the early evening.

7.4.5 West Norwood Sub Zone 1

This sub zone has the same start time as the CPZ for the overall area; however in the streets near to the station, stress levels take longer to decrease so, therefore, it would be recommended that the sub zone has extended operating hours.





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Abu Dhabi

AS Business Centre, First Floor, Suites 201-213, Al Ain Road, Umm al Nar, P.O. Box 129865, Abu Dhabi, UAE T: +971 2 558 3809 F: +971 2 558 9961

Birmingham

5th Floor, Lancaster House, Newhall St, Birmingham, B3 1NQ T: +44 (0)121 233 7680 F: +44 (0)121 233 7681

Dublin

2nd Floor, Riverview House, 21-23 City Quay Dublin 2,Ireland T: +353 (0)1 542 6000 F: +353 (0)1 542 6001

Edinburgh

Prospect House, 5 Thistle Street, Edinburgh EH2 1DF United Kingdom T: +44 (0)131 220 6966

Glasgow

Seventh Floor, 124 St Vincent Street Glasgow G2 5HF United Kingdom T: +44 (0)141 225 4400

Lille

86 Boulevard Carnot, 59000 Lille, France T: +33 (0)3 74 07 00 F: +33 (0)1 53 17 36 01

London

5 Old Bailey London EC4M 7BA United Kingdom T: +44 (0)20 7529 6500 F: +44 (0)20 3427 6274

Lyon 11, rue de la République, 69001 Lyon, France T: +33 (0)4 72 10 29 29 F: +33 (0)4 72 10 29 28

Manchester

25th Floor, City Tower, Piccadilly Plaza Manchester M1 4BT United Kingdom T: +44 (0)161 236 0282 F: +44 (0)161 236 0095

Marseille

76, rue de la République, 13002 Marseille, France T: +33 (0)4 91 37 35 15 F: +33 (0)4 91 91 90 14

Newcastle

PO Box 438, Newcastle upon Tyne, NE3 9BT United Kingdom T: +44 (0)191 2136157

Paris

72 rue Henry Farman, 75015 Paris, France T: +33 (0)1 53 17 36 00 F: +33 (0)1 53 17 36 01

Woking

Dukes Court, Duke Street Woking, Surrey GU21 5BH United Kingdom T: +44 (0)1483 728051 F: +44 (0)1483 755207

Hong Kong

14th Floor West, Warwick House, TaiKoo Place, 979 King's Road, Island East, Hong Kong T: +852 2529 7037 F: +852 2527 8490

Shenzhen

Room 905, Excellence Mansion, No.98, No.1 Fuhua Road, Futian Central Zone, Shenzhen, PRC, Post Code : 518048 T : +86 755 3336 1898 F : +86 755 3336 2060

Shenzhen - Beijing Branch Office

Room 1503, Block C, He Qiao Mansion, No. 8 Guanghua Road, Chaoyang District, Beijing, PRC, Post Code : 100026 T : +86 10 8557 0116 F : +86 10 8557 0126

Beijing Joint Venture

Room 1507, Main Building, No. 60, Nan Li Shi Road, Xi Cheng District, Beijing, PRC, Post Code : 100045 T : +86 10 8807 3718 F : +86 10 6804 3744

Mumbai

Antriksh, Unit no. 301, 3rd Floor, CTS Nos. 773, 773/1 to 7, Makwana Road, Marol, Andheri East , Mumbai 400069 T: +91 22 2647 3134 B 307, Great Eastern Summit Sector - 15, CBD Belapur Navi Mumbai - 400 614 T: +91 22 2757 2745

New Delhi

5th Floor Guru Angad Bhawan, 71 Nehru Place, New Delhi 110019 T: +91 11 2641 3310

Noida

3/F, C-131, Sector 2, Noida-201301, U.P. T: +91 120 432 6999

Singapore

25 Seah Street #04-01 Singapore 188381 T : +65 6227 3252 F : +65 6423 0178

Thailand

37th Floor, Unit F, Payatai Plaza Building,128/404-405 Payathai Road, Rajthewee, Bangkok 10400, Thailand T : +662 216 6652 F : +662 216 6651

Vietnam

5/F Perfect Building, Le Thi Hong Gam St, District 1, Ho Chi Minh City, Vietnam T : +84 8 3821 7183 F : +84 8 3821 6967

