Report
March 2019

Seven Dials Delivery and Servicing

Shaftesbury PLC
Our ref: 233 1 35 01

steer

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1 Introduction

Overview

In 2016 Shaftesbury commissioned a study which considered traffic movements in the Seven Dials area with a view to better understanding traffic movements and consider how traffic impact could be reduced to improve the local environment. The study identified a considerable level of movement through the area (circa 9000 movements in a 12-hour period). Based on the survey data, it was estimated that around 80% of vehicle movements within Seven Dials did not have an origin or destination within the area.

To better understand the activities based within the Seven Dials area, Steer has been commissioned by Shaftesbury to carry out a study on the delivery and servicing activity. The study aims to understand in more detail kerbside activity and servicing patterns through completion of a series of parking surveys and more detailed observational surveys at key locations.

Shaftesbury have commissioned this study to understand the volume and nature of servicing activity and consider, based on this information, what opportunities there are for them, as a local landowner and landlord, to promote measures which would rationalise activity and support improvements to the local environment by minimising the impact of traffic movements while, at the same time, supporting business needs.

Report Structure

This report has been divided into five chapters, where this chapter forms the introduction. The remaining chapters are as follows:

Chapter 2: Site Context
Chapter 3: Seven Dials Surveys
Chapter 4: Conclusions and Opportunities
Chapter 5: Traffic Movements and Environmental Improvements

2 Site Context

Existing Situation

Seven Dials is located to the north-east of Cambridge Circus and its one of the most well-known and dynamic areas of central London. Its unique and distinctive urban form, with seven tightly enclosed streets radiating out around a distinctive sun dial feature, and the diverse mix of shops, restaurants, bars, cafes and theatres, attract high levels of footfall both during the day and at night.

Numerous streetscape improvements have taken place in the area at various times seeking to reinforce its character and reduce the dominance of highways infrastructure, making it more amenable for pedestrians. On Neal Street (Figure 2.1), the carriageway is raised and brick paving is used to surface the entire street, with bollards that segregate the footway from the carriageway. On Monmouth Street (Figure 2.2) sets are used to reduce the visual dominance of the carriageway, whilst the raised kerbs are retained and some traffic calming measures have been used to manage traffic speeds.

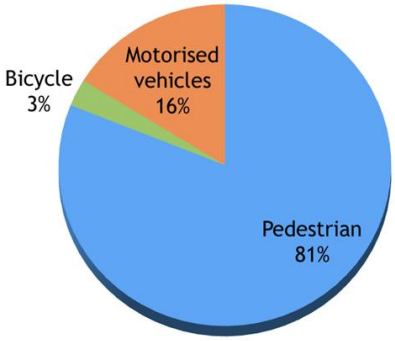
Figure 2.1: Cobbled carriageway on Neal Street

Figure 2.2: Cobbled carriageway on Monmouth Street (north arm)

The most recent improvements that have been implemented by Shaftesbury PLC are on Earlham Street (Figure 2.3), where the road has been closed and footways widened. This, together with a very clean palette of materials, has been used to minimise the physical and visual impact of motor vehicles. While different approaches have been adopted over the years on the different streets, the overall focus is on improving the pedestrian experience. Note that as shown in a previous traffic study conducted by Steer on Monmouth Street, pedestrians are the dominant mode in terms of the numbers of movements in the Seven Dials area (Figure 2.4).

Figure 2.3: Cobbled carriageway on Earlham Street (west arm)

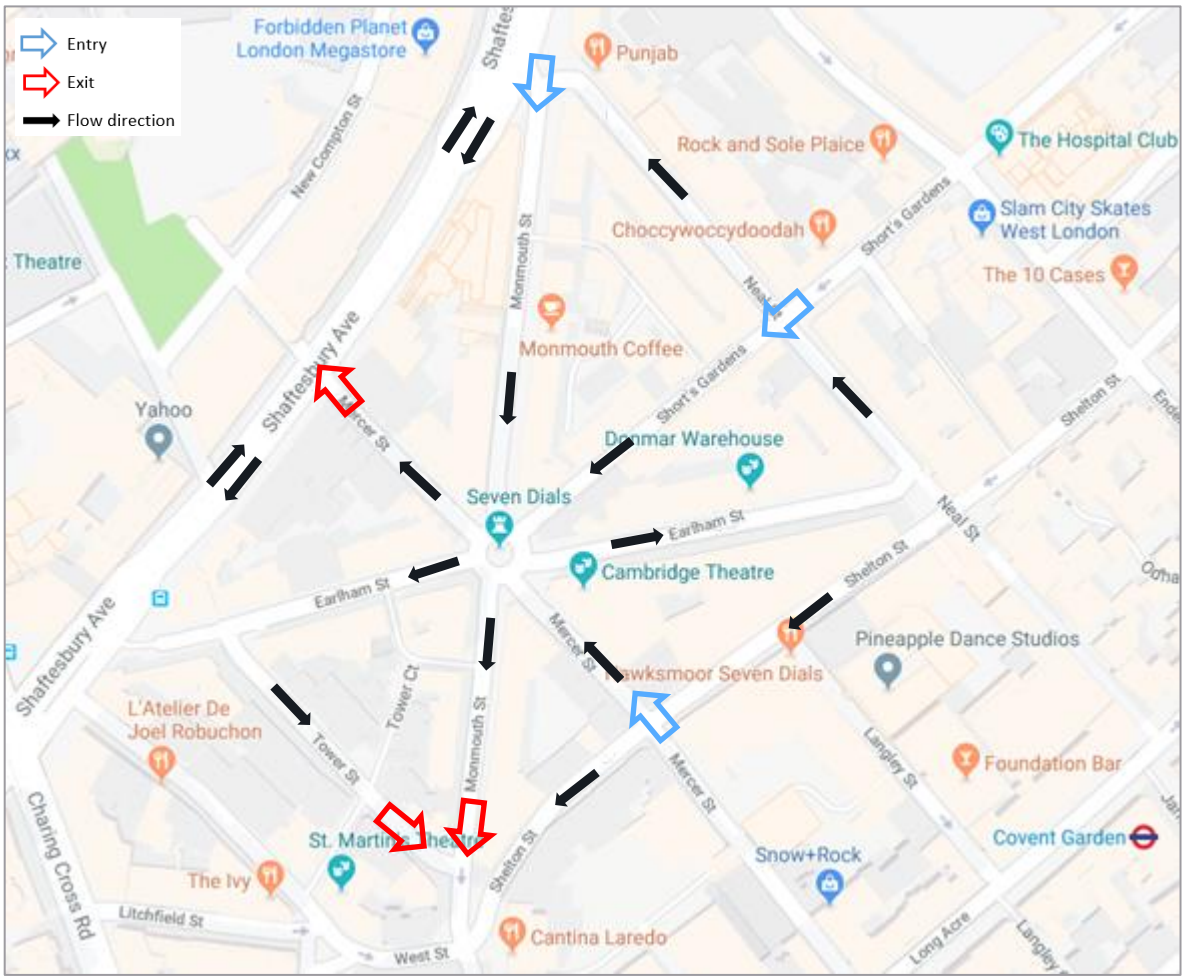
Figure 2.4: Seven Dials Mode Share (extracted from *Monmouth Street Traffic Study* Report, Steer 2016)



Traffic Routing

In addition to the form of the street, traffic routing has been used to manage traffic movements through the Dials (see Figure 2.5). At present Monmouth Street (to the north) provides a major through southbound route which can be accessed by vehicles travelling in either direction on the busy Shaftesbury Avenue. Seven Dials can also be accessed via Shorts Gardens (to the east) and Mercer Street (to the south). Mercer Street (north arm), Tower Street and Monmouth Street (south arm) are the only exit routes from the area. Earlham Street (east arm) also heads away from Seven Dials, however the permitted movement forces vehicles back into the area through Neal Street and Monmouth Street.

Figure 2.5: Existing traffic flow in Seven Dials

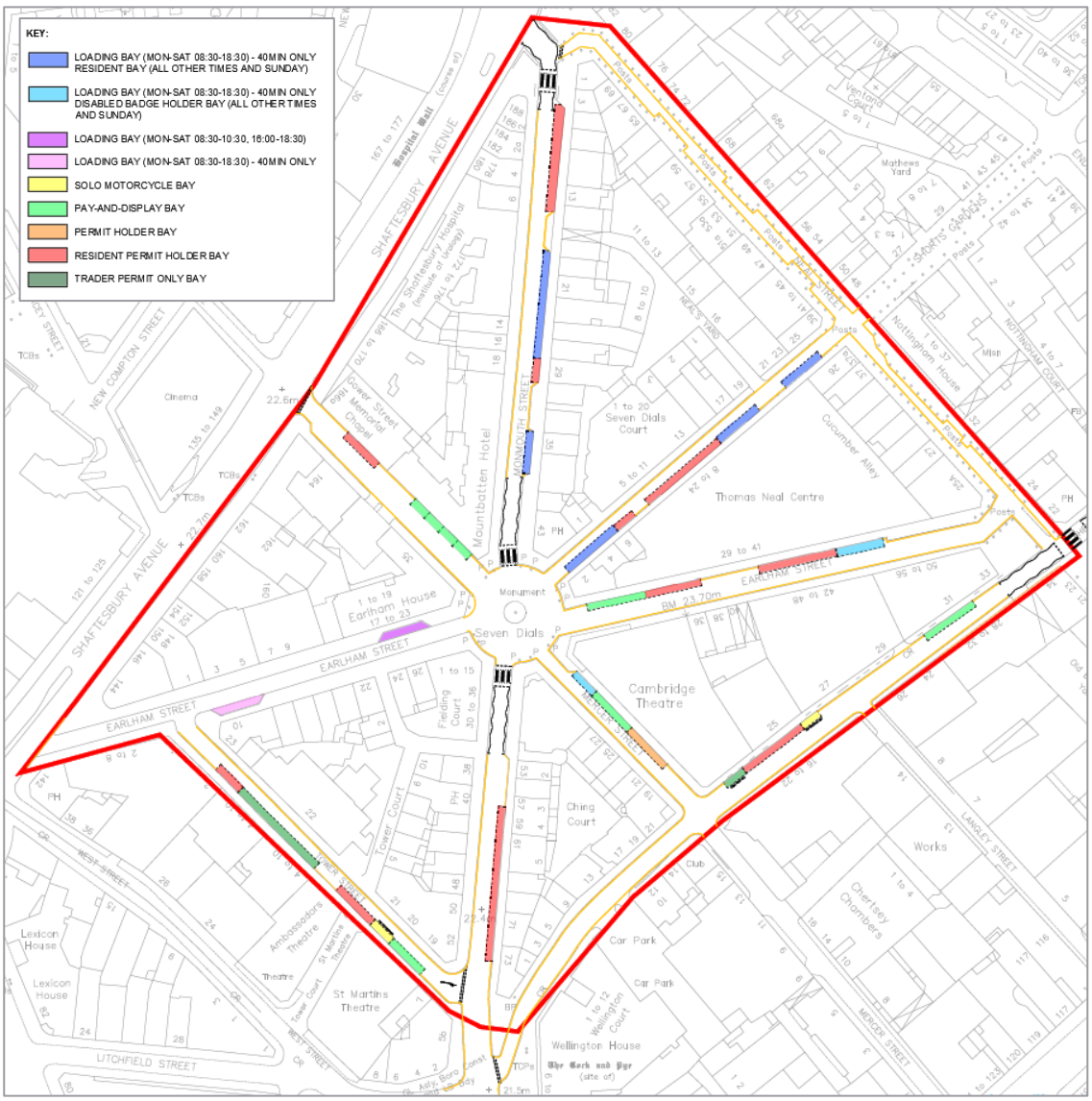


Parking controls

Seven Dials sits within a Control Parking Zone which operates 24 hours a day, 7 days per week. There are a mix of residents' bays, loading bays, shared use bays and "Pay-And-Display" bays within the area. Figure 2.6 below shows the location of the bays and their restriction. A scale copy of this plan is appended to this document (Appendix A).

The loading bays (pink) and shared use bays (blue and light blue) are typically located in proximity to shops and restaurants, whilst resident bays (red) and other bays are scattered around the Dials, particularly near residential areas (e.g. Tower Street and Mercer Street).

Figure 2.6: Bays by restriction in Seven Dials



3 Seven Dials Surveys

Background

Steer commissioned two surveys to capture the following information:

- Daily vehicle stopping movements in the area;
- Type of vehicles using the bays;
- Duration of stay;
- Purpose of the visit.

The two surveys were:

1. **Kerbside activities survey**: Occupancy surveys for all streets within Seven Dials, for 24-hour periods, on Wednesday and Saturday. These surveys provide a picture on the usage and occupancy of all kerbside spaces by vehicle type, time of the day, duration of stay.

2. **Loading bays observation survey**: Occupancy surveys of specific loading/shared use bays on Monmouth Street (north arm), Shorts Gardens and Earlham Street (east arm), on a weekday, during the estimated peak hours of 8.30-10.30, 12.00-14.00, 16.00-18.00. These surveys provide additional information regarding the usage of the loading/shared use bays, the purpose of stay and the destination of the delivery/trip.

Survey 1 - Kerbside activities

Occupancy surveys have been carried out on Wednesday 19/07/2018 and Saturday 21/07/2018 for a duration of 24 hours, on all streets within Seven Dials:

- Earlham Street
- Mercer Street
- Monmouth Street
- Neal Street
- Seven Dials
- Shelton Street
- Shorts Gardens
- Tower Street

The occupancy surveys covered all kerbside spaces and the following information has been reported:

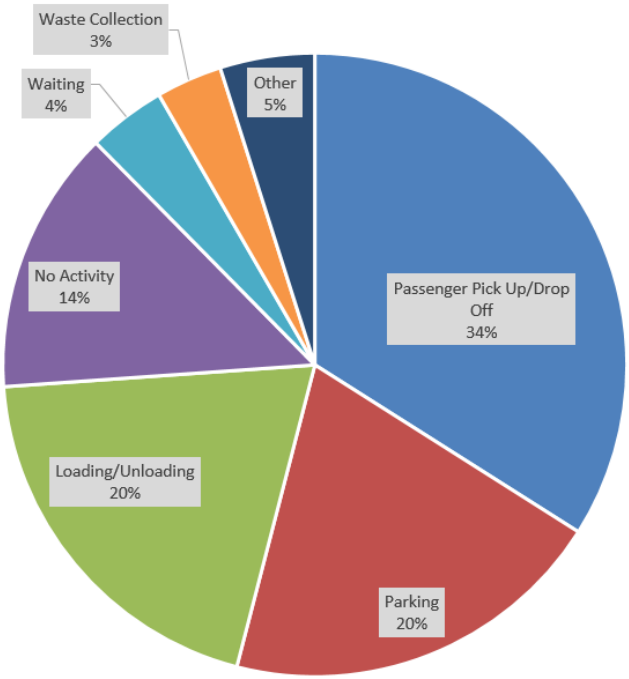
- Restriction (e.g. single-yellow line, pedestrian crossing, loading bay, etc.);
- Standard vehicle classification (i.e. Car/Taxi/LGV/OGV/etc.);
- Duration of stay;
- Stopping purpose (see description in Table 3.1).

Table 3.1: Description of stopping purpose

Stopping Purpose	Description
Passenger Pick Up/ Drop Off	Vehicle stops for passengers to be picked up/dropped off
Parking	Vehicle stops and driver/passenger leaves car, duration greater than 5 minutes
Loading/Unloading	Goods vehicle stops for loading/unloading of parcel(s) (i.e. delivery)
No Activity	Vehicle stops and driver/passengers do not leave vehicle
Waiting	Driver steps out of the vehicle, duration less than 5 minutes
Waste Collection	Bins emptied/waste uplifted
Vehicle Maintenance	Driver inspects vehicle
Roadworks	Works being done on road or buildings, includes street cleaning
Unknown Purpose	Purpose not clear

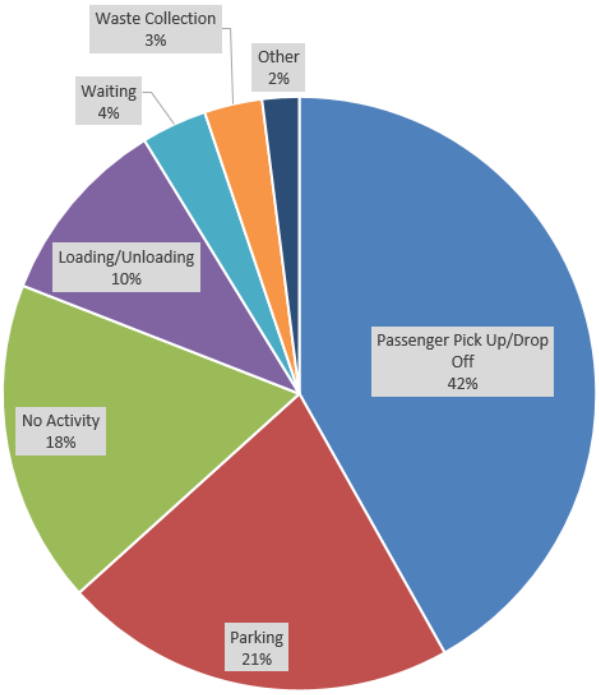
The total number of vehicles recorded entering the Seven Dials area and stopping for any of the reasons listed above is 2221 on a single weekday and 2186 on a weekend day. A breakdown of the activities by type of kerbside restriction is shown in Figure 3.1 (weekday) and Figure 3.2 (weekend).

Figure 3.1: Breakdown of activities by restriction – Weekday



	Double-Yellow Lines	Bays	Single-Yellow Lines	Unrestricted	Zig-Zag	Grand Total
Passenger Pick Up/Drop Off	474	234		18	29	**755**
Parking	99	308	1	8	29	**445**
Loading/Unloading	250	164	6	21		**441**
No Activity	153	137	1	9	5	**305**
Waiting	47	39		3	1	**90**
Unknown Purpose	29	46		10		**85**
Waste Collection	55	13		3	5	**76**
Roadworks	10	7		1		**18**
Vehicle Maintenance	5	1				**6**
Grand Total	**1122**	**949**	**8**	**73**	**69**	**2221**

Figure 3.2: Breakdown of activities by restriction – Weekend



	Double-Yellow Lines	Bays	Single-Yellow Lines	Unrestricted	Zig-Zag	Grand Total
Passenger Pick Up/Drop Off	554	319		16	26	**915**
Parking	67	362	3	8	29	**469**
No Activity	157	213	1	13	1	**385**
Loading/Unloading	108	96	3	18	1	**226**
Waiting	24	40		11	3	**78**
Waste Collection	54	7		4	4	**69**
Unknown Purpose	18	23				**41**
Vehicle Maintenance	3					**3**
Grand Total	**985**	**1060**	**7**	**70**	**64**	**2186**

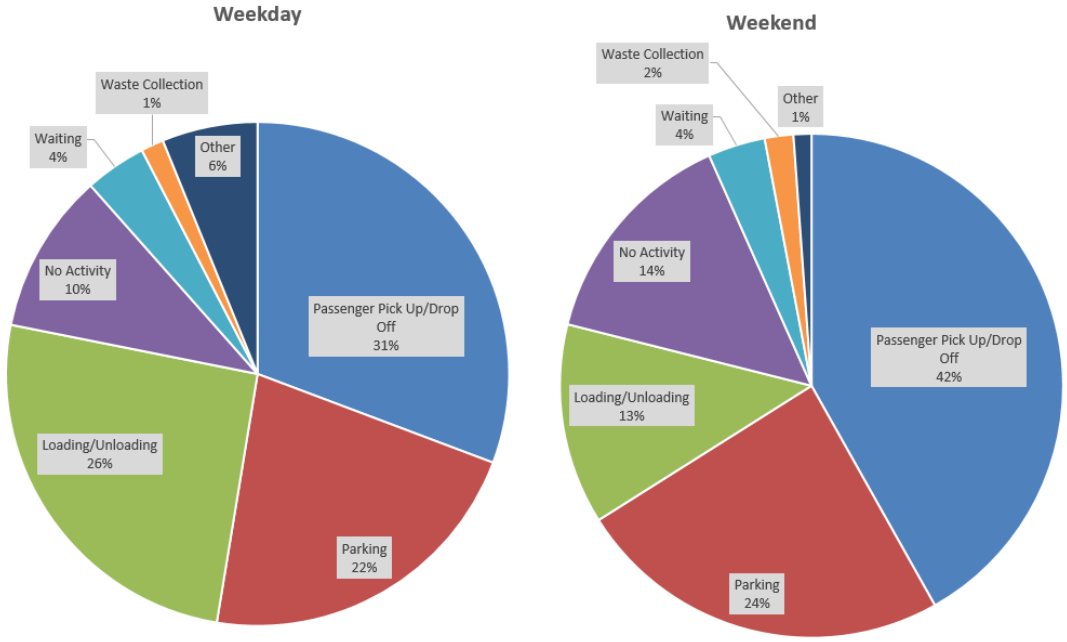
The figures above show that passenger pick up/drop off is the most common activity recorded in the Dials, occurring particularly on double-yellow lines.

This is followed by parking and loading/unloading. There is also a significant number of vehicles that stop in the area with no apparent purpose and without leaving the vehicle (i.e. approximately 15% of all vehicles are reported as “No Activity”). It is not possible from the video surveys to determine why vehicles have stopped, however some insight is provided in the section on “Loading Bays Observation Survey” below.

As shown in Figure 3.1 and Figure 3.2, there is no significant difference between weekday and weekend, other than an expected decrease in the weekend in the number of deliveries and a slight increase in passenger pick up/drop off.

A further breakdown of activities for a 12-hour period is reported in Figure 3.3. This is similar to the breakdowns reported above for 24-hour periods. Refer to Section 5 for comparison with the previous traffic study conducted by Steer on Monmouth Street,

Figure 3.3: Breakdown of activities for 12-hour period (07:00-19:00)



	Weekday	Weekend
Passenger Pick Up/Drop Off	420	546
Parking	299	316
Loading/Unloading	349	168
No Activity	141	188
Waiting	54	48
Unknown Purpose	70	12
Waste Collection	20	24
Other	14	3
Grand Total	**1367**	**1305**

The following sections analyse in more detail the data collected in the kerbside activities surveys (Survey 1), by type of activity and bays' occupancy:

1. Passenger Pick Up/Drop Off
2. "No Activity"
3. Parking and Loading/Unloading
4. Parking Bays Occupancy

1. Passenger Pick Up/Drop Off

Passenger pick up/drop off is the main activity recorded in Seven Dials. The maps in Figure 3.4 and Figure 3.5 show the distribution of this activity within the area, by kerbside restriction. Note that the marker colours indicate the kerbside restriction, whilst the size of the marker represents the number of pick up/drop offs observed at the specific locations.

Figure 3.4: Map of passenger pick up/drop off by restriction – Weekday (24-hour period)

Figure 3.5: Map of passenger pick up/drop off by restriction – Weekend (24-hour period)

With more passenger pick up/drop off occurring on weekend, both maps show that Monmouth Street, the centre of the Dials and the eastern part of Shelton Street are the locations with a higher number of passenger pick up/drop off. This activity mainly occurs on double-yellow lines (yellow dots) and in the bays (blue dots).

Furthermore, as shown in Figure 3.4 and Figure 3.5, the points with most drop off / pick up activity are located in close proximity to Covent Garden Hotel (Monmouth Street), Radisson Hotel and Cambridge Theatre (centre of the Dials), where demand for taxis/private hire cars is higher.

Figure 3.6: Daily distribution of passenger pick up/drop off – Weekday (24-hour period)

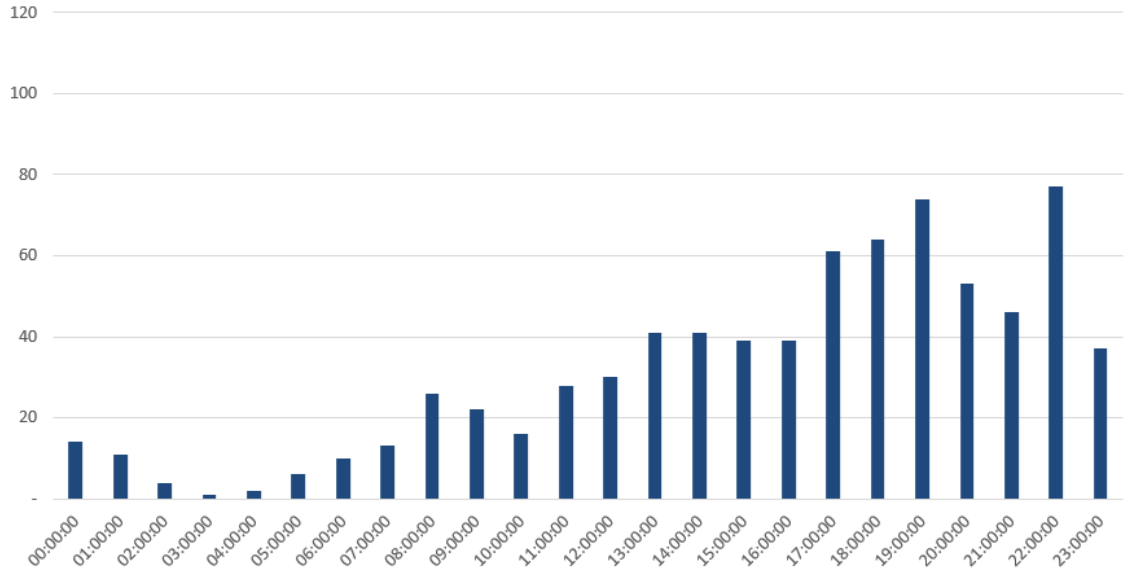


Figure 3.7: Daily distribution of passenger pick up/drop off – Weekend (24-hour period)

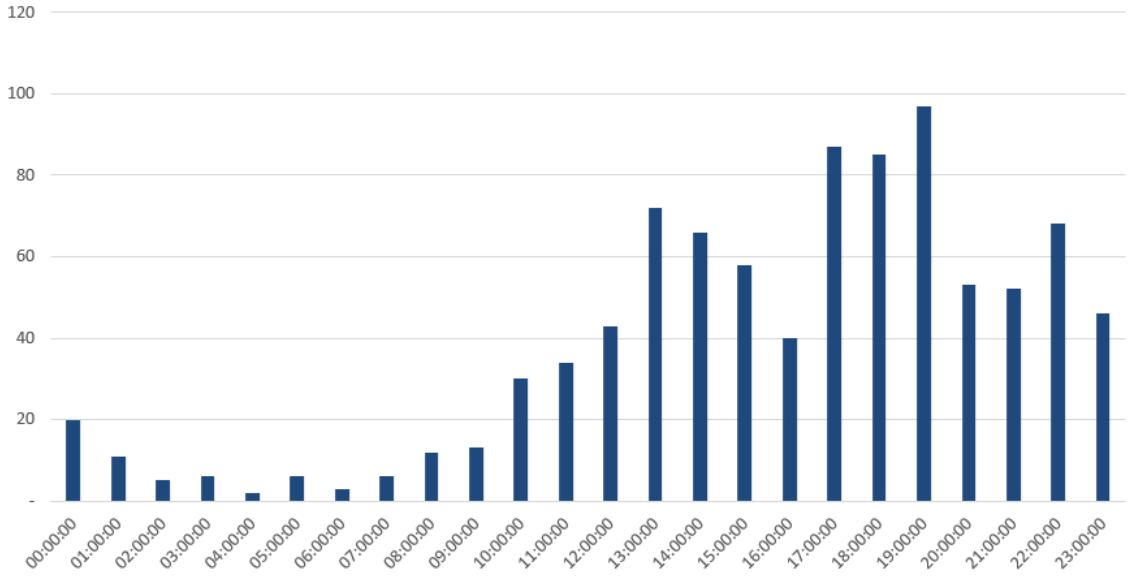


Figure 3.6 shows that the daily distribution of passenger pick up/drop off activities in weekdays gradually increases, towards the peak in the late hours of the afternoon (18:00-19:00).

During weekends (Figure 3.7) a first peak is reached at 13:00-14:00, followed by the evening peak at 17:00 to 19:00. The timing of the peaks may be due to the theatre activities.

2. "No Activity"

As shown previously in the breakdown of activities (Figure 3.1 and Figure 3.2), about 15% of all activities are recorded as "No Activity" meaning that vehicles stop with no apparent purpose and the drivers/passengers do not leave the vehicles.

From the maps in Figure 3.8 and Figure 3.9, this seems to be occurring generally across the Seven Dials area, with slightly higher numbers in the parking bays on Monmouth Street.

Note that the marker colours indicate the kerbside restriction, whilst the size of the marker represents the number of "no activity" at the specific location.

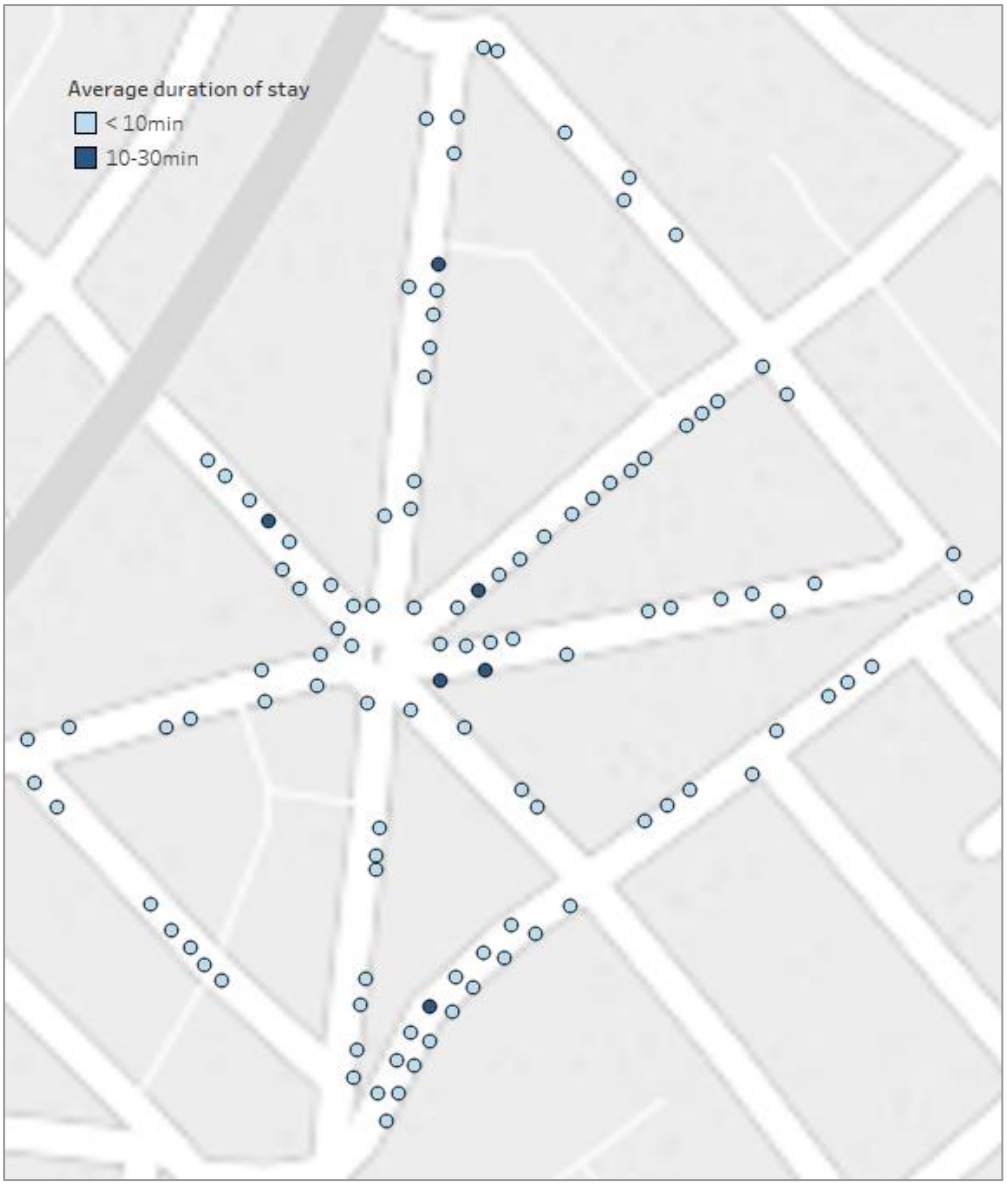
Figure 3.8: Map of "No Activity" by restriction – Weekday (24-hour period)

Figure 3.9: Map of "No Activity" by restriction – Weekend (24-hour period)

Although the duration of stay for such visit purpose is generally less than 10 minutes (refer to Figure 3.10 and Figure 3.11) and with an average of 3 minutes, the frequency of vehicles stopping for "No Activity" is high (weekday 12.8 vehicles/hr and weekend 16 vehicles/hr). "No Activity" results in bays being occupied for no reason and other vehicles not being able to park in the designated bays for deliveries, pick up, etc.

Figure 3.10: Map of "No Activity" by average duration of stay – Weekday (24-hour period)

Figure 3.11: Map of "No Activity" by average duration of stay – Weekend (24-hour period)



3. Parking and Loading/Unloading

The following figures show the distribution of the activities classified as parking (Figure 3.12 to Figure 3.15) and loading/unloading (Figure 3.16 to Figure 3.19) by restriction.

Note that parking and loading/unloading are defined as follows:

- **Parking**: vehicle stops and driver/passenger leaves car, duration greater than 5 minutes.
- **Loading/Unloading:** Goods vehicle stops for loading/unloading of parcel (i.e. delivery).

As for the previous figures, the marker colours indicate the kerbside restriction, whilst the size of the marker represents the number of parking or loading/unloading at the specific location.

Figure 3.12: Map of parking activity by restriction – Weekday (from 08:30 to 18:30)

Figure 3.13: Map of parking activity by restriction – Weekday (from 18:30 to 08:30)

Figure 3.14: Map of parking activity by restriction – Weekend (from 08:30 to 18:30)

Figure 3.15: Map of parking activity by restriction – Weekend (from 18:30 to 08:30)

As expected, parking generally occurs in resident/permit and pay-and-display bays, with a few exceptions on Monmouth Street, Shelton Street and Neal Street, where parking has been recorded in loading/shared use bays (blue dashed line) outside the permitted hours of 18:30-08:30 (refer to Figure 3.12 weekday and Figure 3.14 weekend).

In Figure 3.16 to Figure 3.19, loading/unloading activities are shown to take place more generally in the area, with slightly more records in the loading bays on Monmouth Street and on the double-yellow lines on Shelton Street and Neal Street. Some loading/unloading activities have also been recorded outside the allowed hours of 08:30-18:30 in the loading/shared use bays, particularly on Monmouth Street (refer to Figure 3.17 weekday and Figure 3.19 weekend).

Figure 3.16: Map of parcel loading/unloading by restriction – Weekday (from 08:30-18:30)

Figure 3.17: Map of parcel loading/unloading by restriction – Weekday (from 18:30-08:30)

Figure 3.18: Map of parcel loading/unloading by restriction – Weekend (from 08:30-18:30)

Figure 3.19: Map of parcel loading/unloading by restriction – Weekend (from 18:30-08:30)

Once again, there is no significant difference between weekday and weekend, other than a general decrease in loading/unloading activities.

Figure 3.20: Daily distribution of parcel loading/unloading – Weekday (24-hour period)

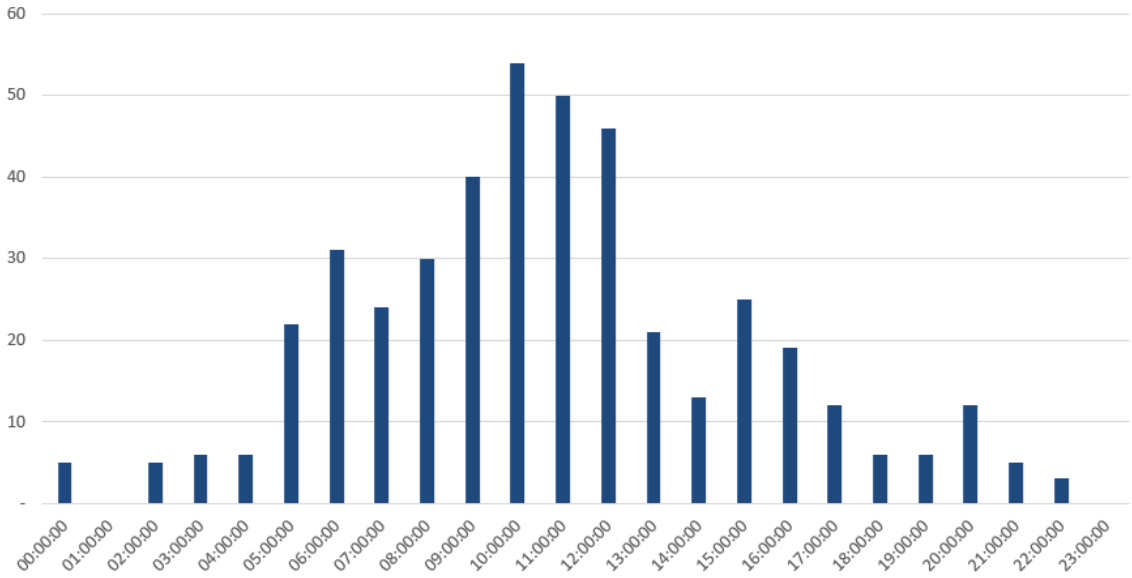


Figure 3.21: Daily distribution of parcel loading/unloading – Weekend (24-hour period)

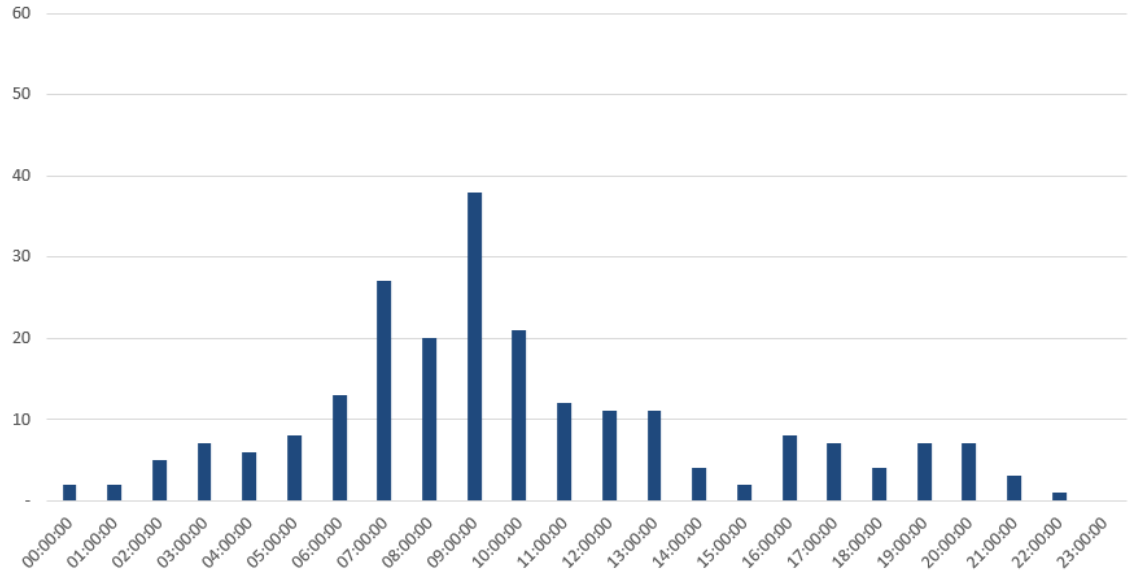


Figure 3.20 shows that in a weekday the daily distribution of loading/unloading activities peaks between 09:00 and 12:00, and decreases in the late hours of the day. A similar trend can be seen during weekends (Figure 3.21), with a lower peak in loading/unloading activities at 09:00.

Furthermore, it was possible to identify from the data provided, that in the weekday a total of 18 vehicles were parked in the loading/shared use bays for more than the allowed 40 minutes, between 08:30 and 18:30 (8 on Earlham Street, 1 on Mercer Street and 9 on Monmouth Street). Similarly, during the Saturday 17 vehicles were parked for more than 40 minutes, 4 on Earlham Street, 1 on Mercer Street, 10 on Monmouth Street and 2 on Shorts Gardens.

Figure 3.22: Loading/unloading by vehicle type – Weekday (24-hour period)

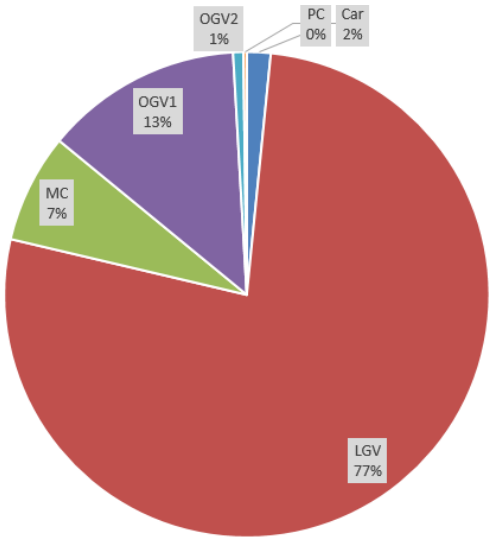


Figure 3.23: Loading/unloading by vehicle type – Weekend (24-hour period)

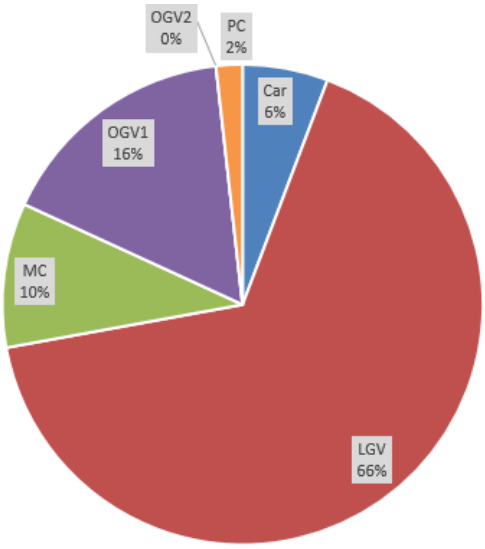


Figure 3.22 and Figure 3.23 show the daily distribution of loading/unloading by vehicle type in weekday and weekend. LGVs are the main vehicles loading/unloading in the area in addition to OGVs in the morning hours and motorcycles in the afternoon. Refer to Appendix B for vehicle classification.

4. Parking Bays Occupancy

The data from the occupancy surveys, plotted in Figure 3.24 and Figure 3.25, show that both in weekday and weekend, the **resident bays** (■) have typically the highest occupancy rates 70-100% (dark red) and the longest duration of stay (dark blue, 2 hours and above) recorded in a 24-hour period. This is expected as the resident bays are more likely to be occupied both during the day and at night.

All **shared use bays** (★) (**+**) and **loading bays** (•) generally show occupancy rates between 10-50%, with an average duration of stay varying from less than 10 minutes to around 1 hour.

All **other parking bays** (▲) (i.e. "Pay-And-Display", motorcycle bays, etc.) show daily occupancy rates of 50-70%, with varied duration of stay from 10 minutes to a few hours.

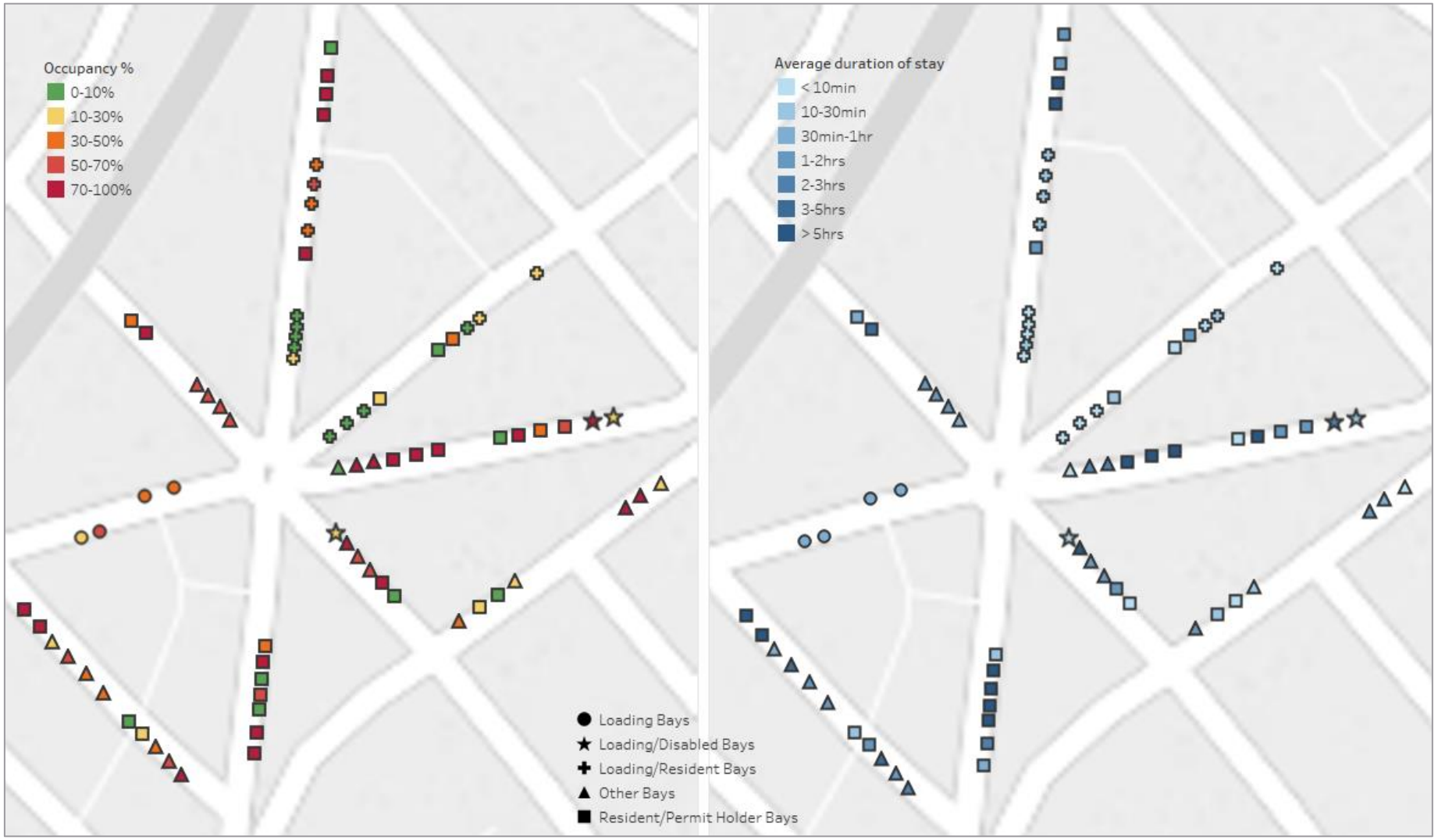
Overall the data shows that the kerbside space within the area is working very hard. Many of the parking bays are operating at full capacity. Generally, the loading bays operate with some capacity during the day.

However, it should be noted that although the maps show some bays at the end of Monmouth Street (north arm) and on Shorts Gardens with lower occupancy rate, between 0-10%, it is expected that there will be an increase in the use of those bays once the adjacent Thomas Neal Warehouse is re-opened and business are running and being serviced from these streets. Note that Thomas Neal Warehouse will become a two-floor food hall, with its opening predicted for Summer 2019. It is therefore likely that the level of occupancy will increase once the renovated Thomas Neal Warehouse will become fully operational.

Furthermore, the resident bays on Tower Street (south of Tower Court) appear to also have low occupancy levels. A total of 10 vehicles are recorded using these bays both in the weekday and weekend. However, it is believed that this is due to a parking suspension in place when the surveys were being undertaken.

Figure 3.24: Map of daily occupancy (left) and average duration of stay (right) – Weekday (24-hour period)

Figure 3.25: Map of daily occupancy (left) and average duration of stay (right) – Weekend (24-hour period)



Whilst the previous figures present the data for a 24-hour period, Figure 3.26 and Figure 3.27 below show the occupancy rates of the parking bays in the time interval of 08:30-18:30.

The occupancy rates during the period 08:30-18:30 do not differ significantly from the ones for a 24-hour period. In particular, for both weekday and weekend:

- The **resident bays** (■) and **other parking bays** (▲) (i.e. "Pay-And-Display", motorcycle bays, etc.) generally have the highest occupancy rates (dark red) recorded between 08:30-18:30, varying from 50% to 100%.
- The **shared use bays** (★) (**+**) and **loading bays** (•) show occupancy rates between 10-50%.

Figure 3.26: Map of daily occupancy – Weekday (08:30-18:30)

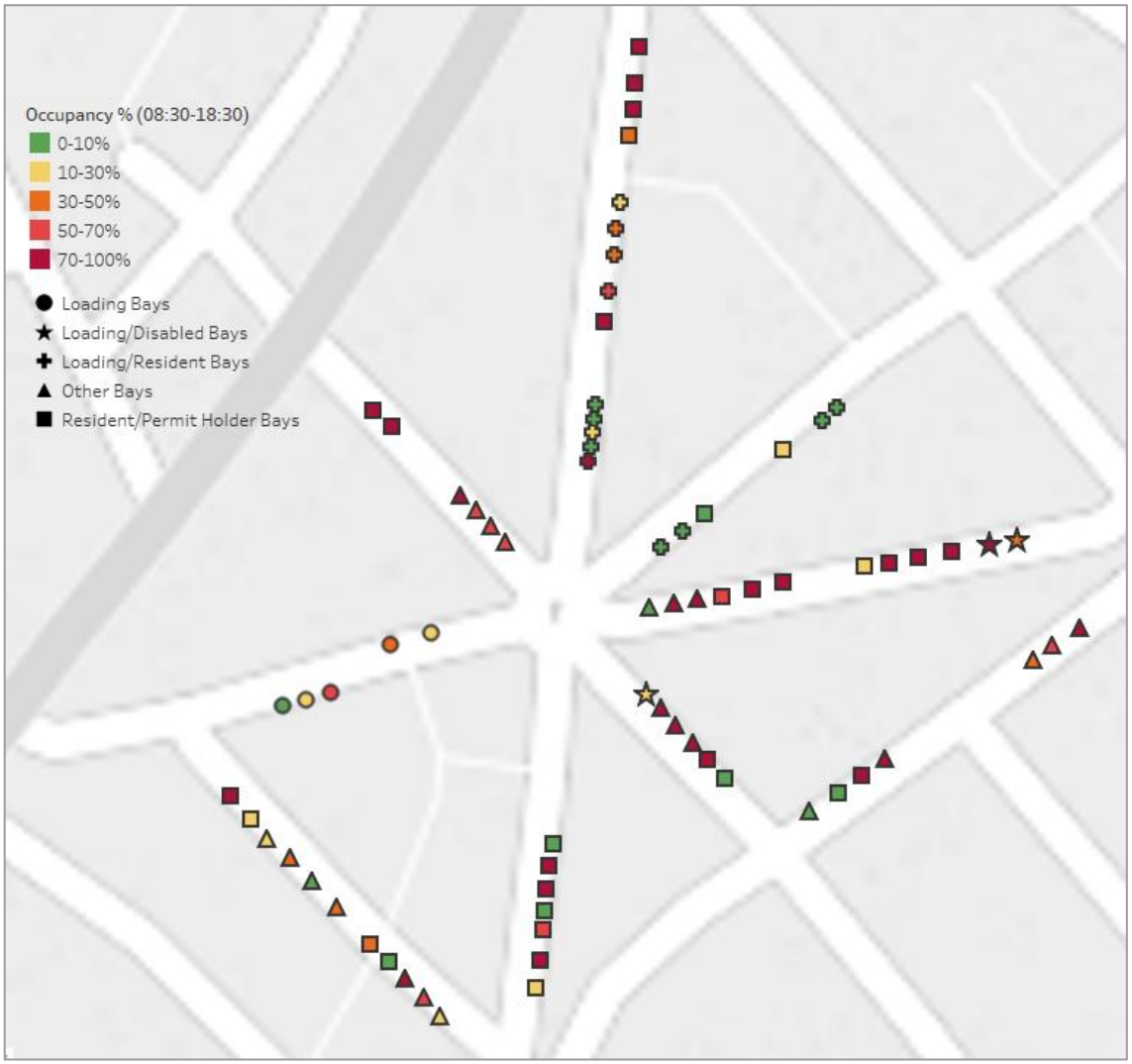
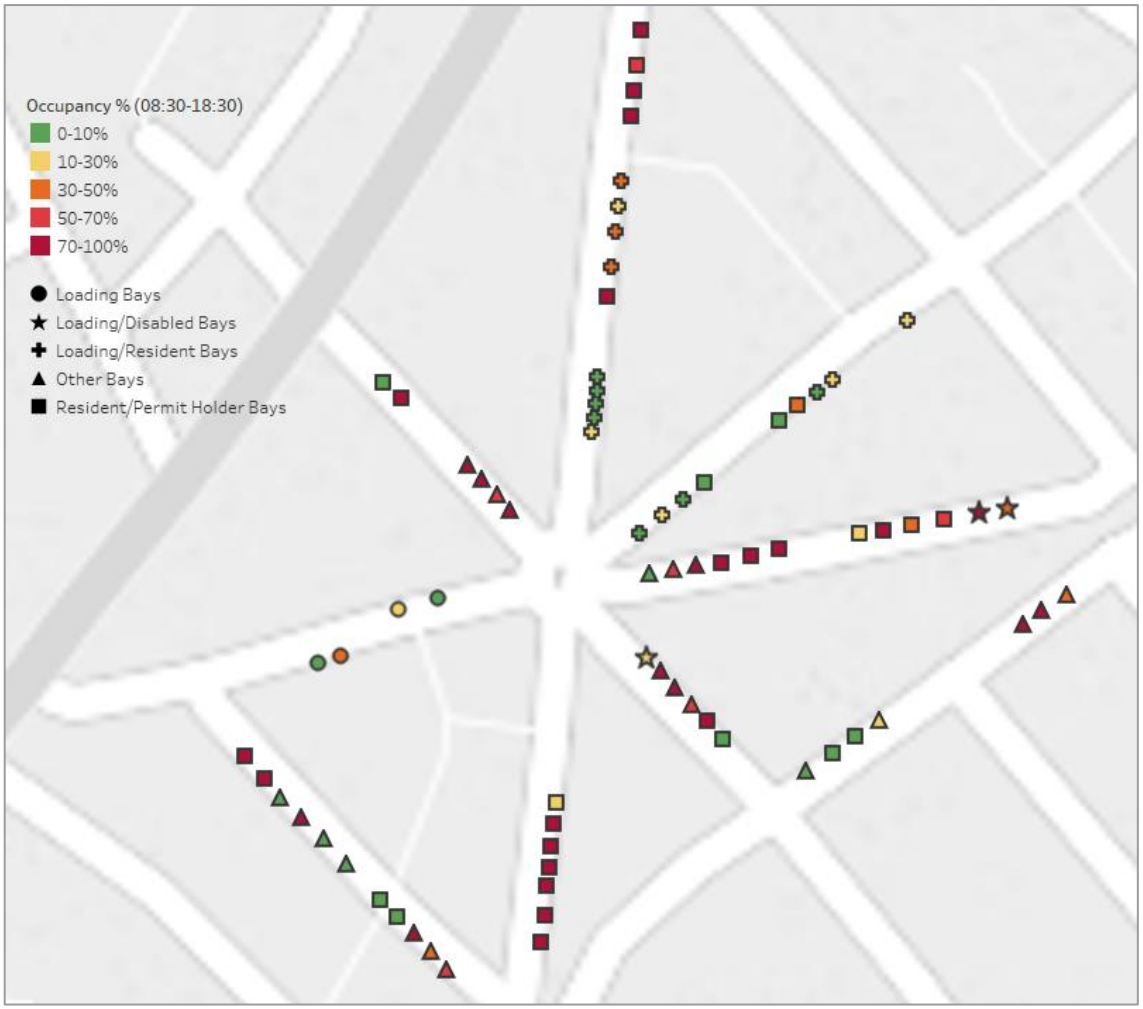


Figure 3.27: Map of daily occupancy – Weekend (08:30-18:30)



In summary, the parking bays are well utilised throughout the day and in the weekend with no evident areas where there appears to be opportunities for review of designation based on occupancy.

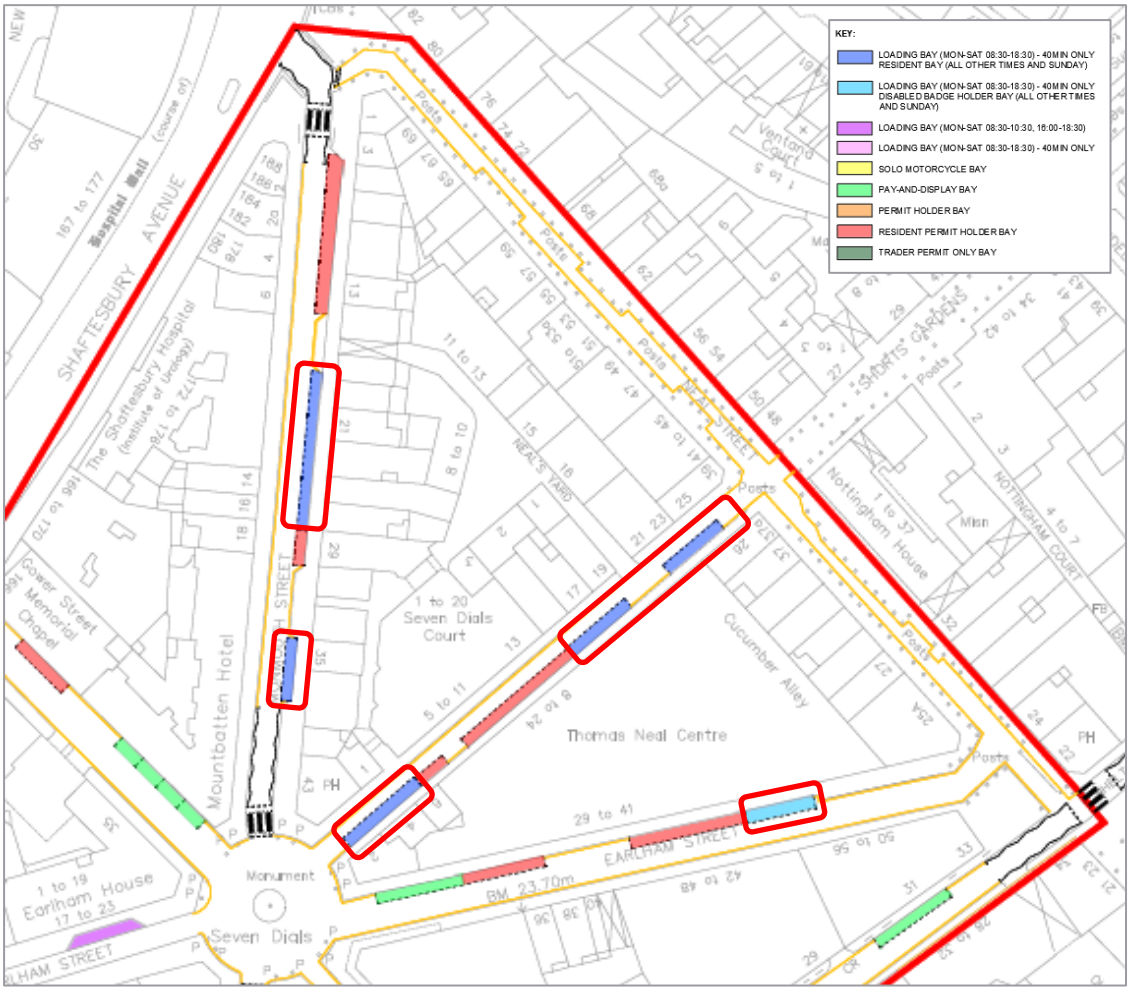
Survey 2 - Loading Bays Observation Survey

A second survey of specific loading/shared use bays (red circles in Figure 3.28) has been carried out on Monmouth Street (north arm), Shorts Gardens and Earlham Street (east arm), on a weekday, during the estimated peak hours of 8.30-10.30, 12.00-14.00, 16.00-18.00.

These surveys revealed more details on the type of activities and deliveries taking place. The following information has been captured:

- Standard vehicle classification (i.e. Car/Taxi/LGV/OGV/etc.);
- Duration of stay;
- Stopping purpose (see description in Table 3.1);
- Destination/s of the delivery/trip;
- Any additional information (i.e. type of parcel delivered, if multiple activities were undertaken, etc.).

Figure 3.28: Loading/shared use bays surveyed

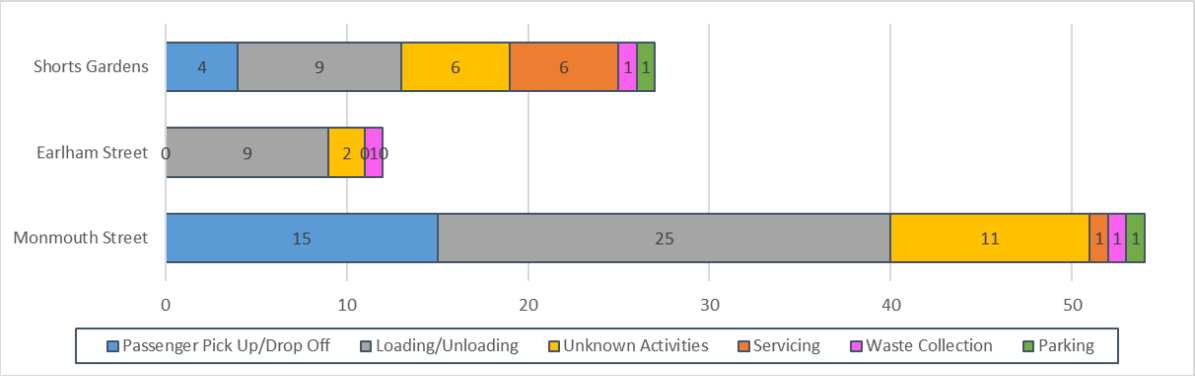


The following sections analyse more in details the activities breakdown and the nature of the deliveries.

1. Activities breakdown

During the estimated peak hours, a total of 93 activities were recorded in the loading/shared use bays surveyed, of which 54 on Monmouth Street, 27 on Shorts Gardens and 12 on Earlham Street. The breakdown of the activities is shown in Figure 3.29.

Figure 3.29: Activities breakdown during peak hours



Monmouth Street proved to be the busiest street: as well as the numerous loading/unloading activities and passenger pick up/drop off taking place, it was often observed that the street was used as a through route to avoid the busy Shaftesbury Avenue. Furthermore, numerous drivers were recorded stopping in the area with no apparent purpose and without leaving the vehicle. This often resulted in LGVs using double-yellow lines and/or driving on the pavement to load/unload to local shops, therefore narrowing the clear space on the carriageway and causing blocking.

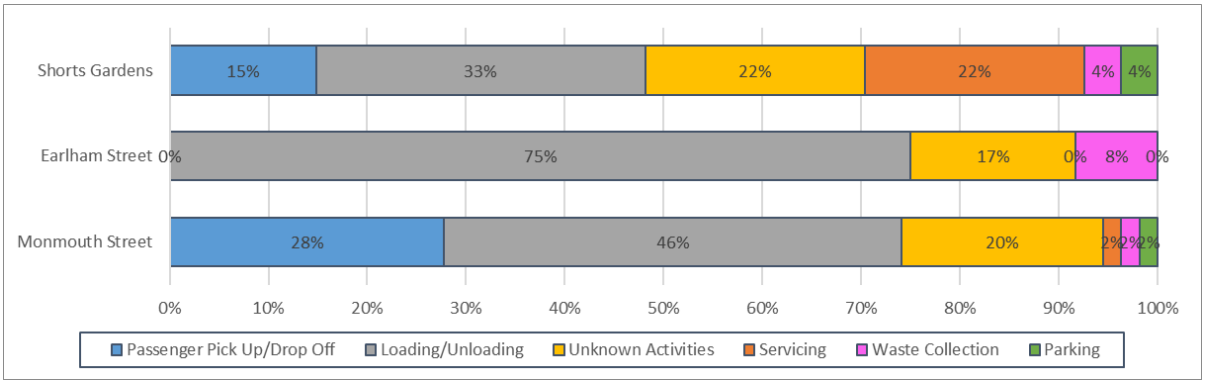
Shorts Gardens is the second busiest street. On site it was observed that the loading/shared use bays were used more efficiently in Shorts Gardens than on Monmouth Street, with less occasions of "no activity" recorded. It was also often noted that LGVs used Shorts Gardens' loading bays to unload goods/parcels and transport them to the busy Monmouth Street.

Earlham Street (east arm) has the lowest number of activities occurring in peak hours. This could be attributed to the fact that the loading bays are located at the end of the street (at the junction with Neal Street) and there are not many shops/restaurants to service. During the surveys, it was also noted that one of the two loading bays was being permanently used by a waste skip.

In order to compare the activities breakdown taking place on the three streets, the data in Figure 3.29 has been normalised by the total number of activities on each street (see Figure 3.30 below):

- On Monmouth Street less than 50% of all activities are loading/unloading (46%), with the remaining 54% split between passenger pick up/drop off (28%), unknown activities (20%) and other activities (6%).
- Shorts Gardens has the highest percentage of unknown activities recorded (22%), 33% of loading/unloading, 15% of passenger pick up/drop off and 22% of servicing activities.
- Earlham Street (east arm) has the highest percentage of loading/unloading (75%), no passenger pick up/drop off and 17% of unknown activities recorded.

Figure 3.30: Activities breakdown (percentage of total)



Where possible, the surveyor captured through observation/interviews more details on the activities with unclear purpose. Of the 19 activities classified as "unclear" (i.e. equal to approximately 20% of all activities recorded), the following were the reasons for stopping (and the number of occurrences):

- The driver does not leave the vehicle, activity unclear (8)
- The driver waits in the vehicle and then leaves (6)
- The driver talks to the driver in the adjacent bay and then leaves (2)
- The driver does not leave the vehicle and reads the newspaper (1)
- The driver does not leave the vehicle and sorts out the SatNav (1)
- The driver talks on the phone and then leaves (1)

Furthermore, it is interesting to note that in 5 instances vehicles were parked in the loading/shared use bays for more than the allowed 40 minutes. In particular, on Monmouth Street, 1 LGV occupied the bay for delivery purposes for approximately 1.5 hours and 1 LGV for unclear activity for more than 2 hours. On Shorts Gardens, 1 motorcycle parked for 1 hour and 15 minutes for collection, while 2 LGVs stopped for more than 1 and 2 hours for unidentified reasons.

Taken together with the instances of "No Activity", the total number of vehicles who appear not to be complying with the controls is circa 24 vehicles or 25% of the activity within the loading bays.

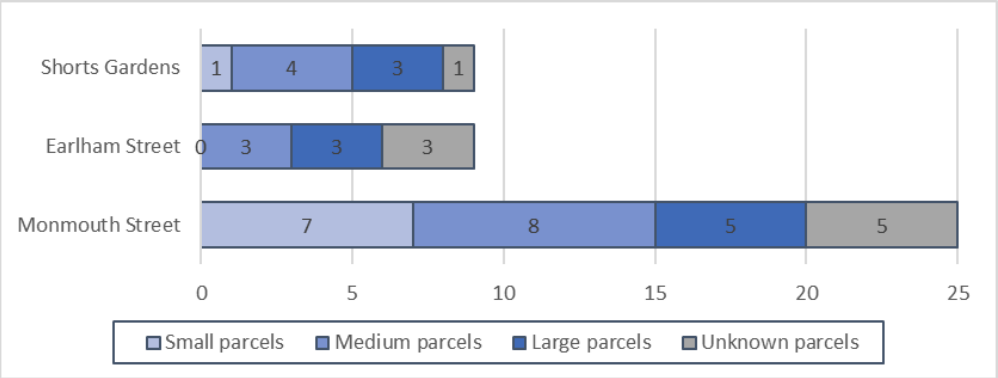
2. Deliveries by type

As part of these surveys, the surveyor recorded the type and size of parcel being delivered (where possible). Note that if multiple parcels where delivered, the parcel size was recorded as the size of the majority of the parcels.

Figure 3.31 shows the breakdown of the deliveries by parcel size. Note that the parcel's size has been defined as follows:

- Small parcel: letters/envelops/small Amazon parcels/flowers deliveries and similar.
- Medium parcel: small to medium size boxes (typically food supplies to cafes), laundry deliver and similar.
- Large parcel: supermarket crates, large boxes, water battles for dispenser and similar.

Figure 3.31: Deliveries breakdown by parcel size



From the graph above, it can be seen that Monmouth Street has the highest number of deliveries during peak hours, with more than half being small or medium size parcels.

On Shorts Gardens and Earlham Street, ignoring the unknown/unidentified parcels, medium to large size parcels represent a significant proportion of the deliveries.

Furthermore, the activities recorded during the peak hours show broadly an equal split between goods (food supplies) and parcel deliveries (Figure 3.32), with the majority being single deliveries (Figure 3.33).

Figure 3.32: Deliveries breakdown by type

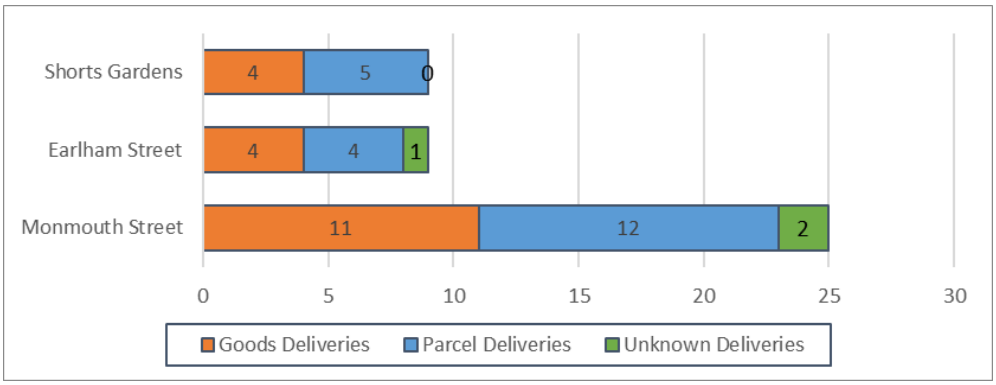


Figure 3.33: Single/Multiple Deliveries breakdown

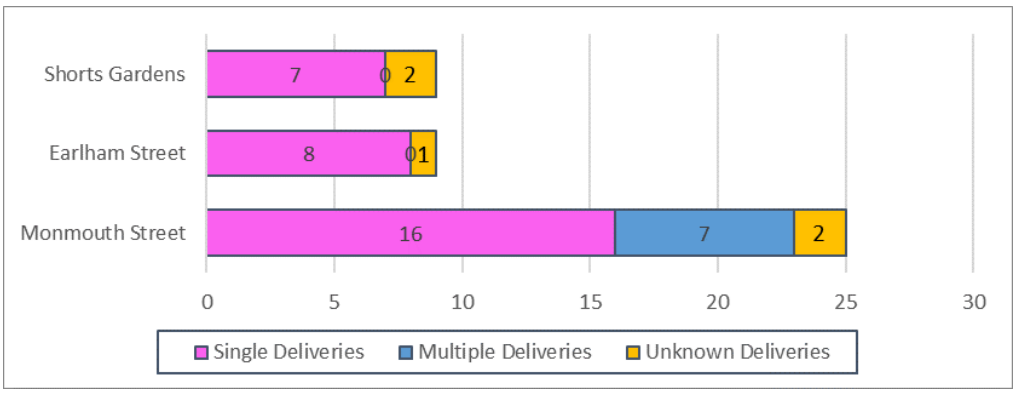


Table 3.2 shows the breakdown of the type of vehicles delivering on the three streets. As it can be noted, LGVs are the primary vehicles recorded delivering parcels on Monmouth Street, Earlham Street and Shorts Gardens.

Table 3.2: Deliveries breakdown by vehicle type

	Monmouth Street	Earlham Street	Shorts Gardens
No. of deliveries	24	9	8
Cars	0%	11%	0%
LGVs	79%	89%	100%
OGVs	21%	0%	0%
Other Vehicles	0%	0%	0%

Figure 3.34 shows the destination of deliveries. On Monmouth Street and Earlham Street approximately 90% of destinations are on the same street as the location of bay, whilst this occurs 60% of the times on Shorts Gardens. The lower percentage on Shorts Gardens can be explained by what was observed on site: on numerous occasions LGVs used Shorts Gardens to unload and deliver goods/parcels onto Monmouth Street, as the bays there are often busy, with no free designated bays.

Figure 3.34: Destination of activities in loading/shared use bays surveyed

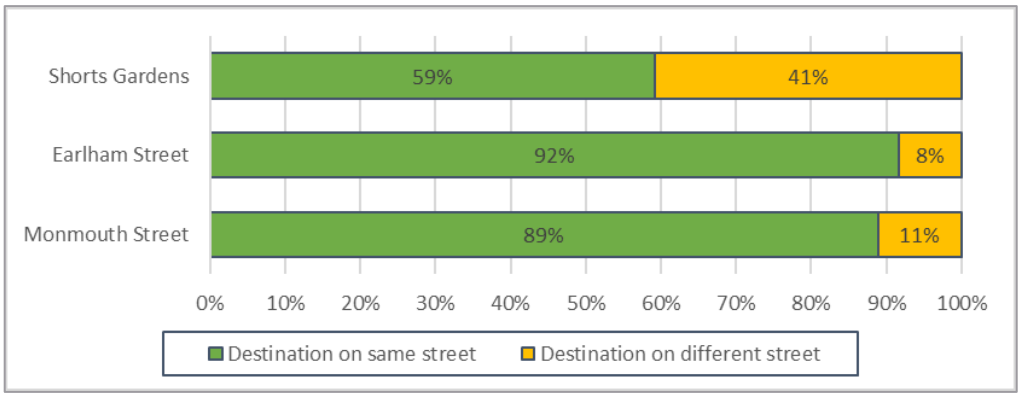


Table 3.3: Duration of stay in loading/shared use bays surveyed

	Monmouth Street	Earlham Street	Shorts Gardens
Average duration of stay	00:11:23	00:11:33	00:15:43
Maximum duration of stay	01:24:00 (LGV, delivery)	00:33:00 (LGV, delivery)	01:14:00 (Motorcycle, collection)
Number of vehicles per dwell times			
0-5min	17	2	6
5-10min	11	5	3
10-30min	22	2	13
30min-1hr	2	2	2
1-2hrs	1	0	2
>2hrs	1	0	1

Table 3.3 shows that the loading/shared use bays surveyed are typically occupied for 10 to 15 minutes, with a maximum duration of stay of less than 1 hour and 30 minutes.

Summary

The loading bays observation survey provided some useful insights into the type of servicing activities and use of the loading bays. Key points include:

- There would appear to be some misused bays. This could be addressed through better enforcement.
- A large number of smaller delivery vans are used for single delivery of small to medium size parcels in the Dials and therefore there is an opportunity for local consolidation of deliveries. There would appear to be potential opportunity for local consolidation of deliveries, with the creation of a central hub in Seven Dials and a delivery service taking place using cargo bikes. or similar .

4 Conclusions and Opportunities

Conclusions

Seven Dials is one of the most well-known and dynamic areas of central London, with its unique and distinctive urban form attracting high levels of footfall both during the day and at night.

This study aimed to understand the volume and nature of servicing activity in the area, through completion of a series of parking surveys and more detailed observational surveys at key locations.

It was shown that there is a significant number of daily activities occurring in Seven Dials, with a total of approximately 2000 vehicles recorded entering and stopping in the area. In terms of understanding the operation of the kerbside space and opportunities for improvements, a summary by activity is provided below.

Parking

Parking bays are well utilised throughout the day and in the weekend, with no evident areas of low occupancy. As expected, parking generally occurs in resident/permit and pay-and-display bays. A few exceptions were identified on Monmouth Street, Shelton Street and Neal Street, where parking has been recorded in loading/shared use bays outside the permitted hours of 18:30-08:30. Better enforcement could assist in controlling this and minimising the instances of "No Activity", parking in loading/shared use bays outside of the allowed times and parking for longer that the allowed time (e.g. 40min).

Loading/Unloading

This represents approximately 20% of all activities recorded during the week, and drops to 10% during the weekend. The peak of loading/unloading activities was identified to be between 09:00 and 12:00 during weekdays and around 09:00 on Saturday. LGVs are the main vehicles loading/unloading in the area. OGVs are evident but focus in the morning peak, while courier deliver by motorbike peaks in the afternoon.

From the loading bays surveys, it was interesting to note that a significant portion of the deliveries, within the Seven Dials area, are single deliveries of small to medium size parcels.

Passenger Pick Up/Drop Off

Passenger pick up/drop off represents a significant portion of the activities recorded (around 40%). This occurs mainly on double yellow line and bays on Monmouth Street, around the Dials and on Shelton Street, in close proximity to the hotels and theatre. This type of activity is transitory in nature and is typically most difficult to control. Consideration could be given to assisting this activity around the key destinations, such as the Dials, to manage the impacts on Monmouth Street. Although this would mean loss of another type of bay and it would be dependent on good levels of enforcement.

No Activity

The study has shown that 15-20% of all activities recorded are classified as "No Activity". This meaning that a vehicle stops and the driver/passengers do not leave the vehicle. The average duration of stay for such visit is 3 minutes, with a high frequency of up to 16 vehicles/hr. The occupancy surveys of specific loading/shared use bays clarified that, in some of these instances, the drivers were reading the newspaper, sorting the SatNav, on the phone or just sitting in the parked vehicle.

Opportunities for reducing the impact of freight traffic.

The following opportunities have been identified as possible measures reduce the volume of freight movements in the area.

Re-timing deliveries/restricted access times

The distribution of freight activity has shown a concentration of activity in the morning between 9am and 12am. This is consistent with other freight surveys conducted across a range of land uses, which has shown that most stock deliveries, especially food, occur early in the day. Measures such as those introduced in Earlham Street, that provide dual use footways which are available for loading for restricted periods of the day and then revert to footway, could be considered.

A key consideration of this approach would be the capacity of existing loading bays to meet demand locally, if demand is concentrated into a shorter time period during the day. The survey data has indicated that loading/shared use bays are well utilised throughout the day, and that on a weekday there are approximately 440 deliveries in Seven Dials. The average duration of stay for such activity is 15 minutes. Assuming that all loading/unloading activities take place between 08:30 and 18:30, there are approximately 44 vehicles/hour in need of a loading bay.

If loading/unloading activities were to be re-timed to only occur in the morning hours, as for example between 08:30 and 12:30, and assuming the deliveries are reduced by 20% due to consolidation, there would be approximately 350 delivery vehicles entering the Dials in the 4-hour delivery period. This means that the demand for loading bays will double (88 vehicles/hour). The study has clearly shown that the current occupancy of the loading/shared use bays is greater than 50%.

Therefore, it can be deduced that the current bays would not have sufficient capacity to accommodate for the additional demand produced by restricting the access hours to 08:30-12:30.

However, if loading/unloading activities were to be re-timed to only occur in the morning hours, between 06:00 and 12:30, with the loading time of the shared use bays being shifted to start at 06:00, the demand for loading bays will not be significantly different from the current situation (54 vehicles/hour). This, combined with a better enforcement that minimises the instances of "No Activity", parking outside of the allowed times and parking for longer that allowed, would make it possible to accommodate for the additional demand produced by restricting the access hours to 06:00-12:30.

Note that this does not take into account the expected increase in occupancy of the bays on Shorts Gardens and Monmouth Street due to the re-opening of the Thomas Neal Warehouse.

Measures to improve the efficiency of bays

Enforcement

Given the data presented above, parking restrictions should be more strictly enforced to minimise the instances of "No Activity", parking in loading/shared use bays outside of the allowed times and parking for longer that the allowed time (e.g. 40min).

Change in time restriction of shared use bays

The shared use bays can be re-timed to operate for loading purposes between 06:00 and 12:30. This would be beneficial for businesses which can be receiving the deliveries earlier in the morning, however it will reduce the availability of bays for residents' use.

Measures to reduce freight traffic

Deliveries Consolidation

Locally consolidate the deliveries, with the creation of a central hub and a delivery service taking place using cargo bikes. It would be recommended to locate this central hub on the outskirts of Seven Dials to minimise the number of delivery vehicles that enter the area.

This would reduce the number of LGVs and OGVs entering the area for deliveries and servicing, and therefore improve road congestion and associated air and noise pollution. The use of cargo bikes would also minimise the delivery time, as well as improve the safety of the people in the area. An image of an e-cargo bike is shown in Figure 4.1. Cargo bikes are already used by Homeslice restaurant in Neal's Yard to transfer supplies between their restaurant in Neal's Yard and Fitzrovia.

Figure 4.1: E-cargo bike

The extent to which this could be further developed would need to be considered at area-wide basis, as the investment in a hub would require a critical mass.

Supplier Consolidation

A shared understanding of suppliers being used within the area would enable the identification of consolidation opportunities between businesses. It is known that Amazon and UPS, as well as waste collection vehicles, already do so in Seven Dials. This has been effective locally in reducing vehicle trips. However, the surveys data indicates that there are a significant number of single parcel deliveries and courier services which are delivering locally. A further push in this area could support the consolidation of deliveries. This could include, for example, Shaftesbury operating its own delivery hub for parcels with an adjacent loading facility. Some developers are now including parcel concierge services within new build developments, to accommodate for personal deliveries.

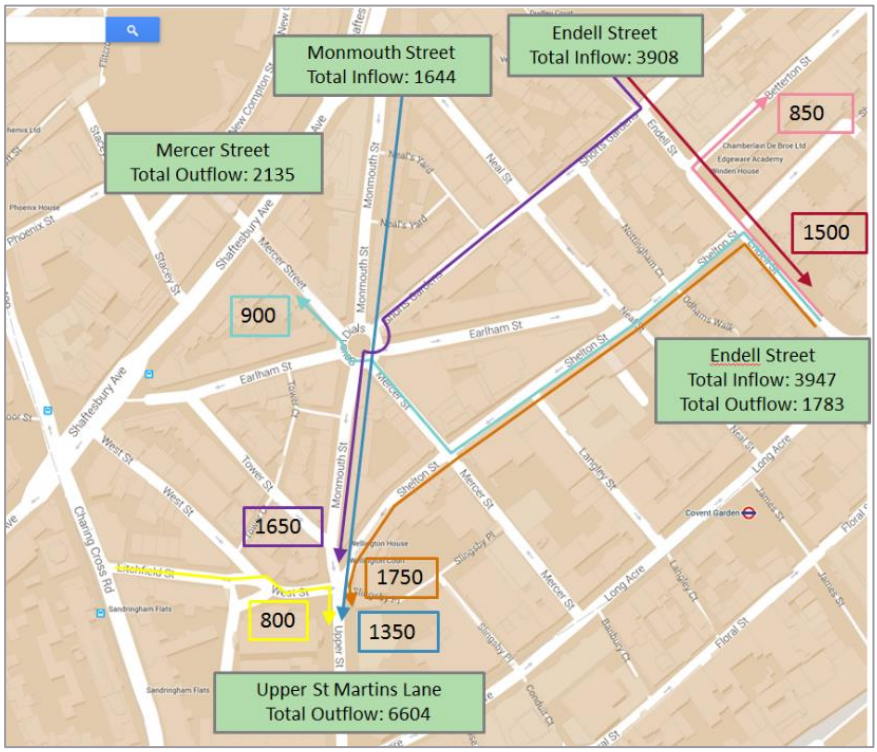
5 Traffic Movements and Environmental Improvements

As referenced at the outset, Shaftesbury commissioned a study in 2016 to understand the traffic movements in the area and consider potential measure to reduce the adverse impact and promote walking and cycling. The study quantified through movements and investigated key routeing.

This study of the delivery and servicing in Seven Dials, has provided a more in-depth understanding of the delivery and servicing activities taking place in the area. Approximately 2000 kerbside activities were recorded in the Dials in a 24-hour period, with about 1400 occurring between 07:00 and 19:00 (refer to Figure 3.3). The study also considered what improvements can be made within the Dials to reduce the impact of vehicles in the area.

Within the previous study, assumptions were made about journey times to estimate the volume of through traffic. This more in-depth study of loading activities has shown that there is a greater volume of passenger pick up/drop off and short-term loading activity than previously assumed and thus the volume of through traffic was over-estimated by about 5%.

Figure 5.1: Traffic volumes on key routes (from previous study)



By combining this new information with the data provided in the previous study conducted by Steer on Monmouth Street, the following can be concluded:

- There are about 9000 vehicles entering the Seven Dials area over a 12-hour period (from the first study).
- Approximately 5% of these vehicles (~400 vehicles) stop for passenger pick up/drop off.
- Approximately 10% of these vehicles (~1000 vehicles) stop for other reasons such as loading/unloading, parking, waste collection, etc.

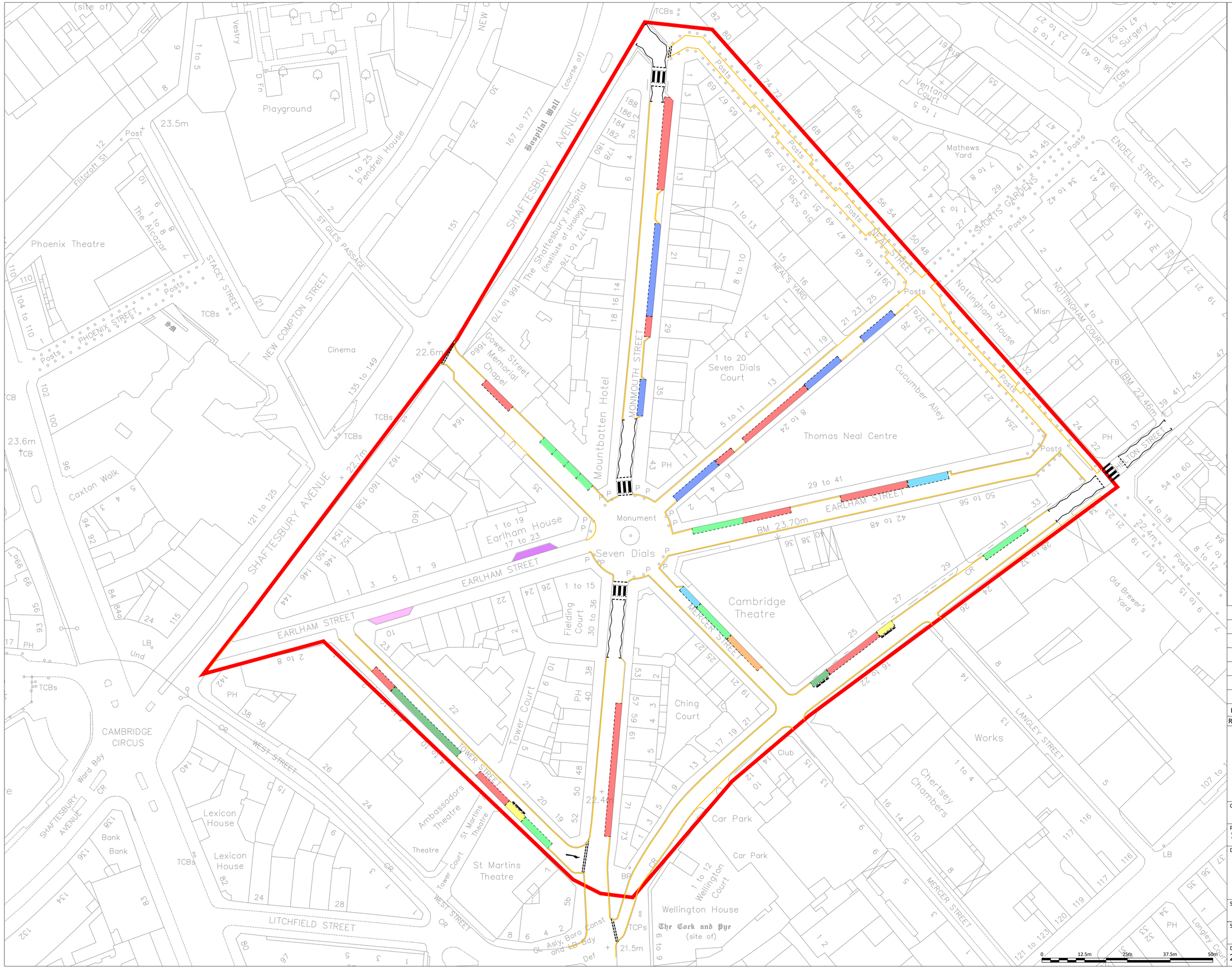
Therefore, it can be deduced that the remaining 85% (~7600 vehicles) are through trips which do little to support the local area.

Whilst reductions in servicing traffic in Seven Dials can be achieved by rationalising/consolidating the servicing activities and maximising the use of the bays in the area, this will only be a partial improvement. There remains a very significant component of the traffic that is represented by rat-running vehicles. This through movement of traffic is contributing to some of the behaviours seen around opportunistic stopping in loading bays, etc.

Fundamentally while there are opportunities to achieve a better balance of priority for pedestrians and cyclists and allow for significant improvement to the public realm, as seen in Earlham Street, a reduction in through traffic is required to remove the 7600 daily vehicles that use Monmouth Street

Appendix A

Seven Dials bays by restriction



KEY:

- LOADING BAY (MON-SAT 08:30-18:30) - 40MIN ONLY RESIDENT BAY (ALL OTHER TIMES AND SUNDAY)
- LOADING BAY (MON-SAT 08:30-18:30) - 40MIN ONLY DISABLED BADGE HOLDER BAY (ALL OTHER TIMES AND SUNDAY)
- LOADING BAY (MON-SAT 08:30-10:30, 16:00-18:30)
- LOADING BAY (MON-SAT 08:30-18:30) - 40MIN ONLY
- SOLO MOTORCYCLE BAY
- PAY-AND-DISPLAY BAY
- PERMIT HOLDER BAY
- RESIDENT PERMIT HOLDER BAY
- TRADER PERMIT ONLY BAY

REV	DATE	DESCRIPTION	DES	CHK	APP
P0	17/08/18	ORIGINAL ISSUE	CGF		

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Client: SHAFTESBURY

Project Title: SEVEN DIALS DELIVERY & SERVICING

Drawing Title: EXISTING ROAD MARKINGS

Status: WORK IN PROGRESS

Size:	Scale:	Suitability	Rev.
A1	1:500	S0	P0

Drawing No. 23313501-STR-HGN-100-DR-D-10101

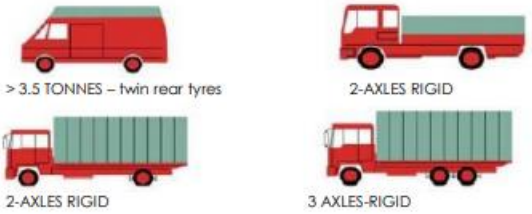
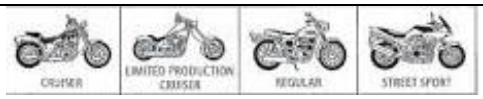
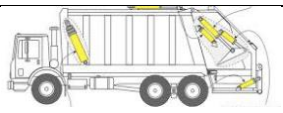
0 12.5m 25m 37.5m 50m

CAD REFERENCE: P:\Projects\233\13501\01\CAD\Drawings\23313501-STR-HGN-100-DR-D-101 - 10101

DATE: 05/12/2018

Appendix B

Vehicle Classification

Car	
Taxi	
Light Goods Vehicle (LGV)	
Ordinary Goods Vehicle (OGV1)	
Ordinary Goods Vehicle (OGV2)	
Bus and Coach (PSV)	
Pedal Cycle (PC)	
Motorcycle (M/C)	
Refuse Vehicle	

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Steer project/proposal number

233 1 35 01

Client contract/project number

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Version control/issue number

V3.0

Date

March 2019

steer

DNV UKAS ENVIRONMENTAL MANAGEMENT 013

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