Cambridge East

Transport Topic Paper 6 – First Phase and Trip Budget

1. Purpose and Context

1.1 This Topic Paper examines the scale of development that could potentially be delivered at Cambridge East under a first phase[1]. Cambridge East continues to represent a strong foundation for the emerging Greater Cambridge Local Plan, supported by confidence that a substantial first phase can come forward without reliance on significant external infrastructure investments. This is made possible by the site's extant vehicle trip generation, which provides a defined baseline for accommodating early development.

1.2 The paper outlines the analysis undertaken to date on the level of trip-making that could be supported within the site's current trip envelope, drawing on surveys carried out at Cambridge Airport in 2023. It also expands this analysis by incorporating empirical data from the vision-led development of Eddington, demonstrating the potential for a more ambitious yet achievable mix of homes and jobs under a more sustainable mode share scenario, and assuming the appropriate transport conditions are in place. Should transport conditions be less favourable then this example, the scale of development as reported in this note may become less but conversely should a more ambitious and lower car focussed scheme be proposed then the level of growth for the first phase may increase.

1.3 This approach aligns with the updated National Planning Policy Framework (NPPF), which endorses vision-led transport planning within a Monitor and Manage framework as a means of addressing uncertainty. A trip budget approach to managing uncertainty and impact is particularly appropriate and enforceable at Cambridge East due to the site's single land ownership.

1.4 The purpose of this Topic Paper is to provide background evidence to support the Local Plan process. It forms part of the wider evidence base for Cambridge East however does not include any proposed policies or site allocations. The paper is structured as follows:

- Previous First Phase Analysis – 'Benchmark' Scenario
- Revised First Phase Analysis – 'Vision-led' Scenario
- GCP Schemes and Additionality
- Summary

1.5 This Topic Paper should be read alongside previous Topic Papers prepared for the site and provided to Greater Cambridge Shared Planning and Cambridgeshire County Council. These Topic Papers are:

- Topic Paper 1: Structure Principles Rev C

[1] First Phase is used as a descriptor for a quantum of early development for the purposes of this note. It does not reflect a proposed first phase as part of a masterplan or planning application

- Topic Paper 2: Trip Budget Rev F
- Topic Paper 3: Homes and Jobs Ratio Rev F
- Topic Paper 4: Low Car Living and Mode Share Precedents Rev A
- Topic Paper 5: Transport Scenarios and Delivery

2. Previous First Phase Analysis – 'Benchmark' Scenario

2.1 Analysis undertaken in 2025 assessed the level of development that could be delivered at Cambridge East while remaining within the site's existing vehicular trip envelope. Survey data indicates that the site currently generates approximately 242 two-way vehicular trips in the AM peak hour (08:00-09:00) and 202 two-way vehicular trips in the PM peak hour (17:00-18:00) in total from both the Newmarket Road and Barnwell Road site accesses. For the purposes of this Topic Paper, this forms the existing trip budget for a first phase.

2.2 A "Benchmark" scenario was developed to estimate how many homes or jobs could be supported within this trip budget. Trip rates agreed for neighbouring residential and employment sites were applied, with a 40% car driver mode share[2] assumed and multiplied by the person trip rates for the respective land uses. The comparator sites used were:

- Residential: Land North of Cherry Hinton
- Employment: Land South of Coldham's Lane

2.3 This 'Benchmark' scenario showed that the extant trip generation of the site would accommodate the provision of up to 675 homes or 900 jobs without adding net vehicular trips to the local highway network. However, recognising the benefits that come from the co-location of jobs and homes, a hybrid mixture of homes and jobs could also be accommodated, equating to up to 340 homes and 450 jobs under a first phase at Cambridge East. These results are highlighted in **Table 2.1** below.

2.4 It is fully acknowledge that the tidality of these trips will be somewhat different to that of the extant trip generation and that this will need to be considered as part of more detailed assessments, however **Appendix A** presents the results of the Cambridge Airport Transport Survey referenced in paragraph 2.1 above and highlights the existing tidality of vehicular trips at the site.

[2] 40% car driver mode share taken from Land South of Coldham's Lane (23/04590/OUT) Transport Assessment, Phase 1 car driver mode share.

Table 2.1: Benchmark Scenario Trip Generation

Benchmarked Scenario (40% Car Driver)	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrival	Departure	Two-Way	Arrival	Departure	Two-Way
Dwellings Only						
Vehicular Trip Rate (40% Car Driver)	0.084	0.228	0.362	0.214	0.093	0.307
Trip Generation - 675 Homes	57	187	244	144	63	207
Employment Only (60:40 Lab : Office)						
Vehicular Trip Rate (40% Car Driver)	0.205	0.023	0.228	0.030	0.193	0.223
Trip Generation - 900 Jobs	185	21	205	27	174	201
Dwellings and Employment						
Trip Generation - 340 Homes, 450 Jobs	121	105	226	86	118	204

2.5 These results highlight the rare advantage Cambridge East holds: the ability to deliver a meaningful phase of development within its existing trip envelope. Few strategic sites can demonstrate this level of early deliverability before additional investment, such as the busway (or other schemes) through the site, become necessary.

2.6 Whilst the 'Benchmark' scenario confirms the potential for a first phase before net trip impact if located on the Newmarket Road side of the site (pending further master planning work), it is considered that a more ambitious and vision led approach as seen on other sites in Cambridge show that lower car-driver mode shares are achievable, and as such the level of development before net impact would be greater.

3. Revised First Phase Analysis – 'Vision-led' Scenario

3.1 To build upon the 2025 analysis, further work has explored how many additional homes and jobs could be unlocked in a first phase if a more ambitious, yet achievable, car-driver mode share is assumed. A car driver mode share of below 40% has already been agreed by the local highway authority for emerging sites such as Waterbeach Key Phase 2 and Northstowe, while it has also been evidenced by empirical monitoring data at North West Cambridge (Eddington). Given the connectivity advantages of the Cambridge East site, together with appropriate developer-led measures, it is reasonable to expect that car-driver mode shares below 40% could also be achieved here. This is reflected by modelling undertaken by CCC and as reported in Topic Paper 2 which suggests that 20% car driver mode share would be achievable.

3.2 This scenario, termed the "Vision-led" scenario, therefore applies the most recent mode-share data collected at Eddington in 2024, where a car-driver mode share of 14% is being achieved. While Eddington represents a unique set of transport circumstances, it demonstrates the potential that could be achieved within a Cambridge context with the right investments, right set of transport services and right job and housing tenures. As stated previously, if these outcomes were not

achieved by a first phase then the scale of development before impact would reduce but the principle, controlled through a 'Monitor and Manage' framework, remains true – embrace vision led transport ingredients to work within phased trip budgets and controls for longer.

3.3 Under this 'Vision-led' scenario, the existing trip generation at Cambridge East could accommodate up to 1,200 homes or 2,550 jobs. An indicative hybrid scenario is also feasible, indicating that a first phase could deliver approximately 800 homes and 1,070 jobs within the existing trip budget. These results are highlighted in **Table 3.1** below:

Table 3.1: Vision-led Scenario Trip Generation

Benchmarked Scenario (40% Car Driver)	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrival	Departure	Two-Way	Arrival	Departure	Two-Way
Dwellings Only						
Vehicular Trip Rate (14% Car Driver)	0.060	0.136	0.196	0.085	0.045	0.130
Trip Generation - 1200 Homes	71	164	235	102	54	156
Employment Only (60:40 Lab : Office)						
Vehicular Trip Rate (14% Car Driver)	0.072	0.008	0.080	0.011	0.068	0.078
Trip Generation - 2550 Jobs	183	20	203	27	172	199
Dwellings and Employment						
Trip Generation - 802 Homes, 1070 Jobs	125	118	242	80	108	188

3.4 The scenario demonstrates that ambitious mode-shift assumptions at Cambridge East are potentially achievable if similar transport conditions to those found at Eddington can be created at Cambridge East. This shows that the site could potentially exceed traditional expectations and deliver a far greater first-phase quantum within the same trip budget, on the assumption that these ambitious mode share targets can be met. In doing so, Cambridge East has the potential to set a new benchmark for sustainable, low-impact growth in Greater Cambridge.

3.5 **Appendix B** presents the scenario analysis underpinning the First Phase and Trip Budget work.

4. GCP Schemes and Additionality

4.1 While the 'Benchmark' and 'Vision-led' scenarios show the range of development that, subject to appropriate accompanying transport measures, could potentially be accommodated within the existing trip budget, neither scenario factors in the impact of external transport interventions. No allowances have been made for programmed Greater Cambridge Partnership (GCP) schemes (such as Cambridge Eastern Access Phase A or the Greenways Programme) which are assumed to be in place by 2031, supporting further modal shift and potentially increasing the scale of a first phase by reducing additional vehicular demand on the network.

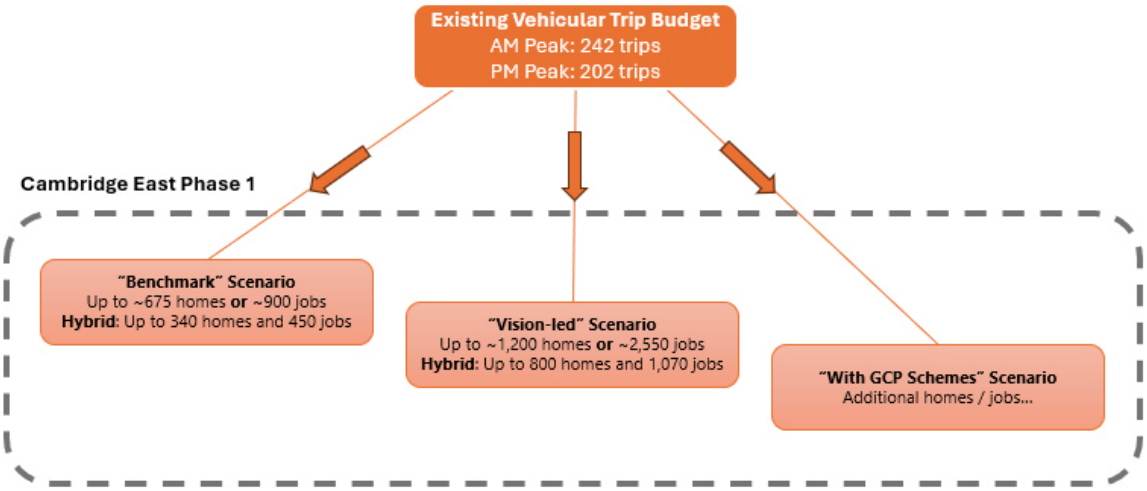
4.2 Looking beyond this initial first phase, a suite of more strategic transport opportunities is also being progressed. These include strategic connections such as the dedicated busway through the site as

part of Cambridge Eastern Access Phase B, and the potential for a new East West Rail station to the south, and wider corridor investments. These further measures would further strengthen sustainable travel choices and support a fully Vision-led approach to the long-term development of Cambridge East and the role it plays within the Greater Cambridge Local Plan.

5. Summary

5.1 This Transport Topic Paper 6 has examined the scale of early development that could be delivered at Cambridge East, subject to further scrutiny and analysis by the local authorities, within a defined trip-budget which draws on the existing trip generation at the site and evidence from delivered vision-led developments across Greater Cambridge.

5.2 The analysis demonstrates that an initial phase could be delivered within the existing trip envelope, without reliance on external third party led transport infrastructure but that a more ambitious Vision-led scenario, grounded in locally evidenced mode shares such as those achieved at Eddington, would see significantly higher levels of homes and jobs as justifiable if accompanied by appropriate measures to support achievement of the vision. It is noted that Eddington benefits from a particular set of transport conditions and therefore similar conditions would of course be required to match the transport outcomes now being achieved. These scenarios are summarised below:



5.3 Although further technical work will be required as part of subsequent stages of the planning process, these scenarios provide an early level of confidence for plan-making purposes. They demonstrate that Cambridge East is uniquely positioned to deliver meaningful early development in a transport-responsible way, offering confidence to central government and local authority partners when planning future growth and infrastructure investment. The findings also highlight the important role of vision-led transport planning and the Monitor and Manage approach in addressing uncertainty, ensuring that adaptive frameworks can support high-quality, low-impact outcomes over the lifetime of the development.

5.4 While the analysis deliberately excludes any development uplift associated with programmed GCP schemes or future strategic transport opportunities, these interventions are expected to further strengthen sustainable travel choices and increase development over the plan period.

5.5 Marshall continues to work closely with partners across Greater Cambridge to shape a flexible and future-ready transport strategy for the site and ensure that Cambridge East can be delivered in a way that is both ambitious and sustainable.

APPENDIX A: Cambridge Airport Transport Survey Results

Cambridge Airport, Cambridge

Transport Survey Results

July 2023

On behalf of **MGPH Ltd**

Project Ref: 332211006 | Date: July 2023

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Project Ref: **332211006**

Report Title: **Cambridge Airport, Transport Survey Results**

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Date: **July 2023**

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For and on behalf of Stantec UK Limited				

Revision	Date	Description	Prepared	Reviewed	Approved
01	05.07.2023	First Draft	JW	KS	KS

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1 Introduction

1.1 Background to Study

1.1.1 Stantec has been commissioned by MGPH Ltd ('Marshall') to provide supporting transport advice relating to a forthcoming planning application seeking to develop land at Cambridge City Airport (the 'Site') for new uses.

1.1.2 This report has been prepared to provide Marshall with an understanding of the existing travel characteristics of the current workforce and visitors to the Site, including the current traffic generation envelope, the existing modal share and the resulting car park utilisation.

1.1.3 Traffic surveys have been conducted to obtain data on the existing conditions of the Site, covering all business-as-usual entry and exit points and all car parking areas. Data has also been provided by Marshall in the form of a staff travel survey, with results provided by employee postcode.

1.1.4 The findings of this report may also be used to update Transport Topic Paper 2 'Establishing and Working within a Trip Budget' at an appropriate time. This Topic Paper was previously prepared to explore the considerations when setting a trip budget for Cambridge East and was issued to Greater Cambridge Shared Planning and Cambridgeshire County Council in December 2022.

1.2 Site Location

1.2.1 The Site occupies a large area of land on the east side of the city. It is bound on the northern and eastern boundaries by Newmarket Road and Airport Way respectively, and on the southern and western boundaries by Coldhams Lane and Barnwell Road respectively. The Site boundary defined for the purpose of the traffic surveys is highlighted in **Figure 1**.

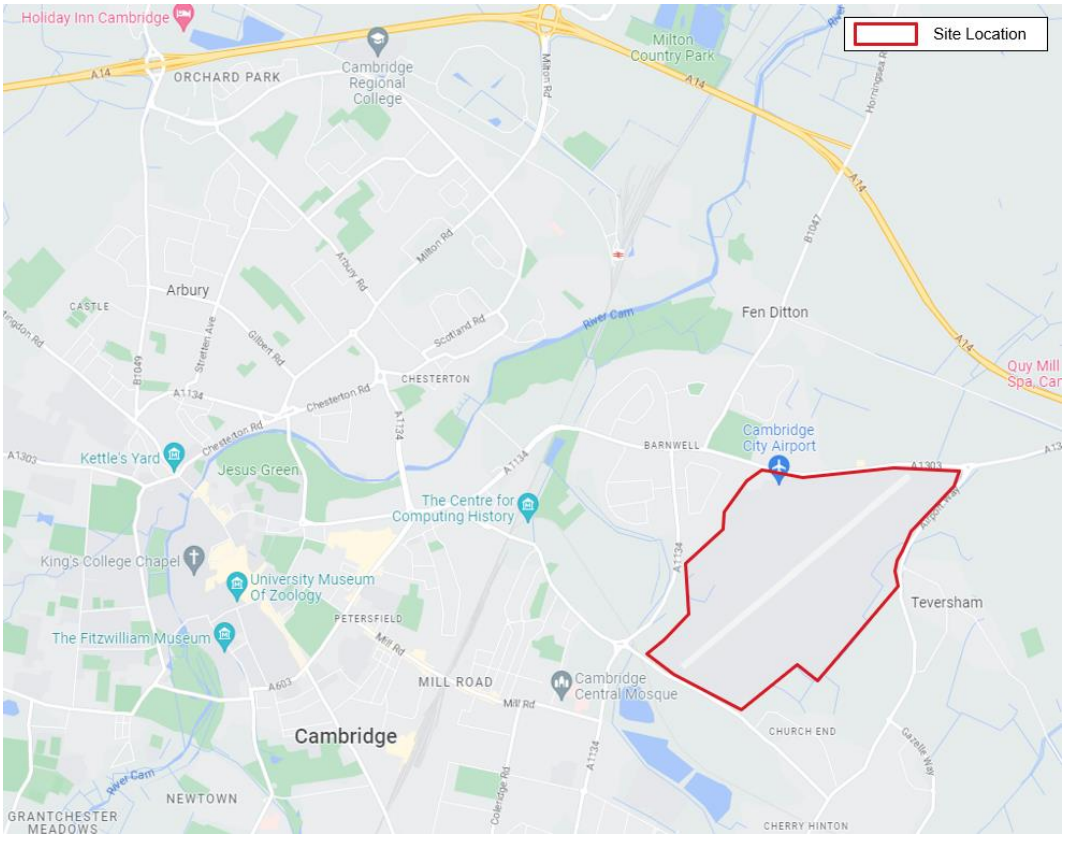


Figure 1: Site Location for Traffic Surveys

1.3 Aims of Transport and Travel Surveys

1.3.1 To understand the existing travel and transport characteristics of the current workforce and visitors to the Site and implications for the trip budget for Cambridge East, a number of aims have been identified. These aims helped to guide the transport survey specification devised for this study. The aims are outlined below:

- To determine how many movements there are to and from the Site and their approach / exit direction during a single 24-hour period;
- To determine the modal share of trips to and from the Site;
- To determine the peak hour for arrivals and departures at the Site;
- To understand the total number of car parking spaces across the Site and their relative occupancy at intervals across the day; and
- To understand the existing travel characteristics of staff with regards to distance travelled and mode choice.

1.3.2 The analysis chapter of this report has been broken down to answer the above aims while maintaining an understanding the wider context of the Site in terms of its operation and typical movements. The implications of the findings for the trip budget are subsequently outlined.

1.4 Report Structure

1.4.1 The remainder of this report is structured as follows:

- **Traffic and Travel Survey Specification** – Outlines how the traffic surveys were collected and how data was provided regarding the travel habits of existing staff;
- **Traffic and Travel Survey Analysis** – Outlines the analysis conducted on the data and highlights key findings;
- **Implications** – Discusses the implications of the findings with reference to the aims of the surveys and their wider importance; and
- **Conclusions**

2 Traffic and Travel Survey Specification

2.1 Introduction

2.1.1 Stantec commissioned traffic survey company Advanced Transport Research (ATR) to undertake traffic surveys at Cambridge City Airport on Tuesday 16th May 2023 to capture typical business as usual conditions. ATR conducted CCTV surveys and parking beat surveys on this day, following a previous site walkover conducted with Stantec to gain an understanding of the Site layout and the key access points.

2.1.2 Following the traffic surveys Marshall also provided a spreadsheet containing information on how current employees usually travel to the Site.

2.1.3 More information on how the data was collected by ATR and Marshall is provided below.

2.2 CCTV Surveys

2.2.1 CCTV surveys were used to capture the vehicular, pedestrian and cycle entry and exit counts at the Site over the 24-hour period, with arrivals, departures and turning movements recorded by 15-minute period at the following accesses:

1. Western access along Barnwell Drive
2. Access opposite Mercedes of Cambridge along Barnwell Drive
3. Access at the eastern end of Barnwell Drive
4. Southern access to leased building car park
5. Northern access to leased building car park
6. Marshall Gate A
7. Marshall exit-only, directly east of the Visitor Centre
8. Marshall Gate D
9. Marshall exit-only, directly east of Marshall Gate D
10. Marshall Gate E
11. Access directly east of Marleigh Avenue (additional instructions noted below)
12. Newmarket Road Park and Ride access
13. Marshall Skills Academy access (additional instructions noted below)

2.2.2 These CCTV survey locations are also highlighted in **Figure 2** below and in **Appendix A**.

2.2.3 At each of the above accesses, each arrival and departure were classified as one of the following: cars, LGVs, OGV1, OGV2, buses, motorcycles, cyclists and pedestrians.

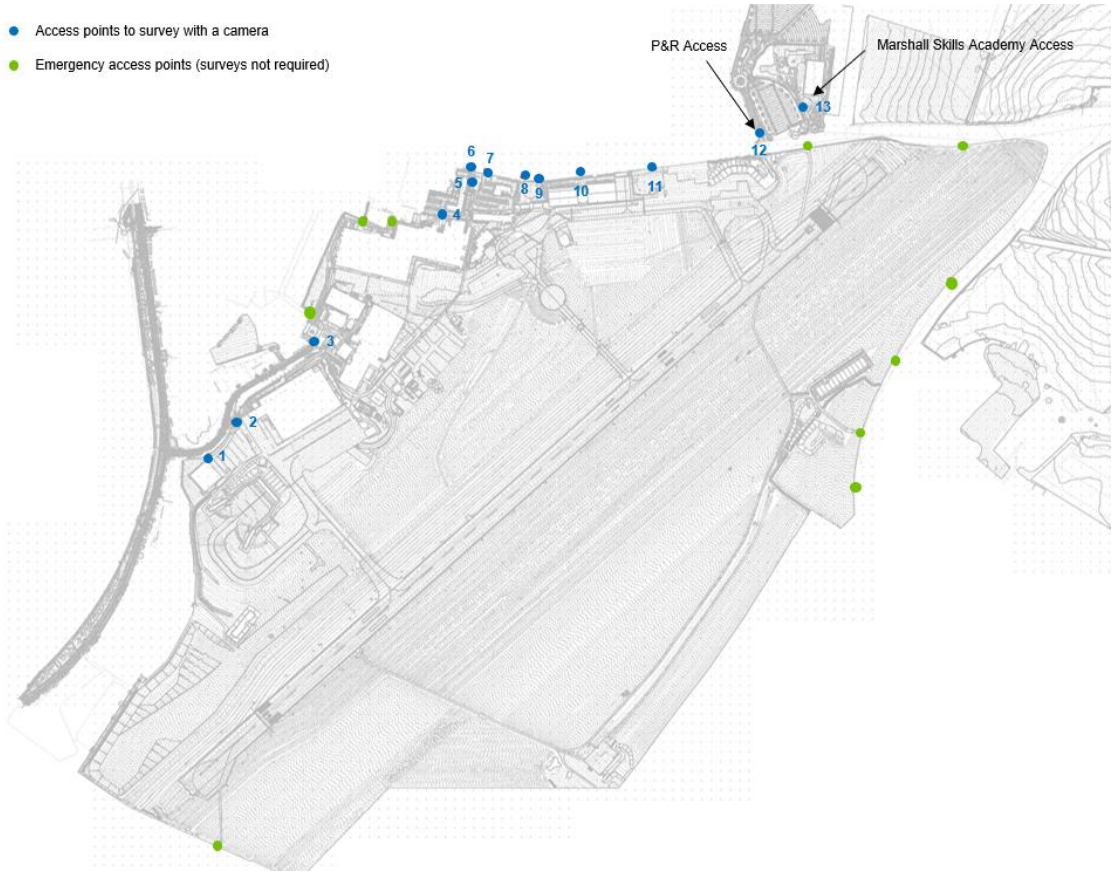


Figure 2: Access Locations for CCTV Surveys

2.2.4 Additional instructions were provided to ATR with regards to certain accesses such that any data obtained could be rationalised and attributed to Marshall-only movements. For example:

- At Access 11 (Access directly east of Marleigh Avenue), CCTV was installed such that movements turning from Newmarket Road into the parking area were captured separately depending on whether they turned into the eastern (B) or western (A) side of the parking area as highlighted in **Figure 3**. The same rule was followed when recording movements departing this access, capturing movements which departed from the eastern (B) and western (A) side of the parking area separately. At present, only the western parcel (A) of this area is used by Marshall staff for car parking, while the eastern parcel (B) is used by a nearby car dealership for extra car storage space. As such, obtaining the separate turning movements to and from these areas allowed the typical daily Marshall-only use to be determined and included in subsequent analysis.

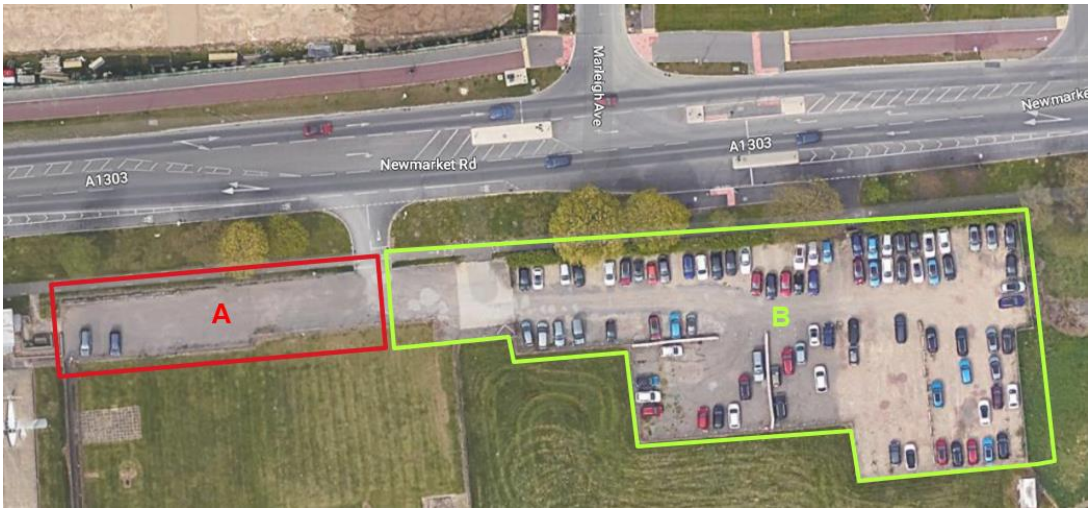


Figure 3: Movements to / from Access 11 to Capture

- At Access 13 (Marshall Skills Academy access), CCTV was installed such that only movements arriving at and departing from Marshall Skills Academy were captured. At this access, a barrier-controlled access prevents visitors of the Cambridge Ice Arena from accessing the Skills Academy, as highlighted in **Figure 4**. Any movements associated with Cambridge Ice Arena were therefore not included within the counts for this access.

Figure 4: Barrier at Access 13

2.2.5 In addition, although CCTV was used to collect data at a total of 13 accesses, it is important to note that not all accesses relate to Marshall-only use. For example, counts recorded at

accesses 4 and 5 (Southern and Northern accesses to Leased Building Car Park) relate to use by an external organisation who currently rent the standalone office building from Marshall for private use (known as the 'Aircraft Support Centre'). However, given that any movements recorded at accesses 4 and 5 would have likely entered or exited the Site from Access 6, movements recorded at Accesses 4 and 5 could be deducted from the movements recorded at Access 6 to obtain representative Marshall-only results for Access 6.

2.2.6 Counts recorded at Access 12 relate to the existing use of the Newmarket Road Park and Ride site. As such, Marshall-only movements are not distinguished here, however data was still collected at this Access due to its potential relevance to the proposed trip budget for Cambridge East as the Park and Ride relocates further east as part of the Greater Cambridge Partnership's Cambridge Eastern Access Phase 2 scheme, the detail of which is not considered within this note.

2.3 Parking Beat Survey

2.3.1 A parking beat survey was also conducted to understand the existing levels of vehicular parking across the Site and the peak occupancies and existing parking ratios on-site. The parking beat survey also took place on Tuesday 16th May to coincide with the CCTV surveys, and was conducted during the times noted below:

- 07:00 – 08:00
- 12:00 – 13:00
- 16:00 – 17:00

2.3.2 The times stated gave a range during which the beats were to be undertaken, i.e., the first beat started no earlier than 07:00 and was completed by 08:00, etc.

2.3.3 **Figure 5** highlights the parking areas included in the parking beat survey. Any vehicles parked within these areas during the survey times were recorded by area number (i.e.: area 1, area 2, area 3, area 4, area 5 or area 6).

Figure 5: Parking Beat Survey Locations

2.3.4 During each beat, for each separate area shown in **Figure 5**, the results recorded how many spaces were occupied and how many were vacant. If certain areas did not have clearly marked parking bays, a best estimate was made regarding the maximum parking capacity of that area, with the number of parked cars subsequently recorded to calculate how many spaces were occupied and how many were vacant. The beats also noted the location of any informal vehicle parking and the count of any vehicles utilising this parking for each of the survey time periods.

2.3.5 The vehicle type was also noted within the areas highlighted in **Figure 5** (Pedal Cycle, Motorcycle, Passenger Car, Light Goods Vehicle (LGV), Medium Good Vehicle (MGV), Buses and Coaches, Heavy Goods Vehicle (HGV)). Any obstructions to bays / parking areas (e.g.: by a skip) were also be noted, so that the true parking capacity was accurately represented.

2.4 Marshall Staff Travel Survey

2.4.1 To complement the traffic surveys conducted by ATR, data was provided by Marshall on current staff travel to work characteristics. Data was provided to Stantec in the form of a spreadsheet containing employee postcodes at a postcode sector level, and their respective typical mode of travel to the Site. Data could not therefore be linked back to specific individuals; however it could be analysed collectively to determine the existing workforce travel characteristics.

3 Traffic and Travel Survey Analysis

3.1 Introduction

3.1.1 The data collected by ATR and Marshall has been analysed to address the aims of this study which are outlined in Section 1 and repeated below for reference:

- To determine how many movements there are to and from the Site and their approach / exit direction during a single 24-hour period;
- To determine the modal share of trips to and from the Site;
- To determine the peak hour for arrivals and departures at the Site;
- To understand the total number of car parking spaces across the Site and their relative occupancy at intervals across the day; and
- To understand the existing travel characteristics of staff with regards to distance travelled and mode choice.

3.1.2 To build a meaningful picture of what the analysis means regarding the popularity of different approach and exit corridors in relation to the Site, the data has been grouped by location to understand the characteristics of Marshall movements along Barnwell Road and Newmarket Road. The following commentary presents data for these two corridors, and highlights key accesses or parking areas where further explanation is required. The below lists show the groupings of the Site accesses for the purpose of this analysis:

Barnwell Road	Newmarket Road
Access 1	Access 6 (Marshall movements only)
Access 2	Access 7
Access 3	Access 8
	Access 9
	Access 10
	Access 11 (Marshall movements only)
	Access 13

3.1.3 Any analysis referred to as part of this note relates to Marshall-only movements exclusively, and thus omits any data recorded for accesses 4, 5, 11 (with respect to the car dealership movements), and 12.

3.1.4 For the purpose of this study, a ‘movement’ is defined as either a one-way entry or a one-way exit movement at the Site by any mode unless stated otherwise, as opposed to referring to the term ‘trip’ which typically defines a complete two-way journey.

3.1.5 **Appendix B** provides a record of all the analysis conducted to support this study.

3.2 Key Findings

24-Hour Movements

3.2.1 The CCTV data provided by ATR for Marshall-only movements shows that a total of 2,299 movements were recorded during the 24-hour period, comprising 1,151 entry movements and 1,148 exit movements. Based on subsequent groupings of movements depending on whether they related to entry and exit movements along Barnwell Road or Newmarket Road, 655 (29%) of the movements occurred along Barnwell Road and 1,634 (71%) of the movements occurred along Newmarket Road, as also highlighted by **Figure 6** below. This suggests that on a typical working day, Newmarket Road is a more popular approach and exit route to and from the Site than Barnwell Road. Further to this, when considering vehicular-only movements, the percentage of movements along Newmarket Road increases to 75%, and the percentage of movements along Barnwell Road decreases to 25%.

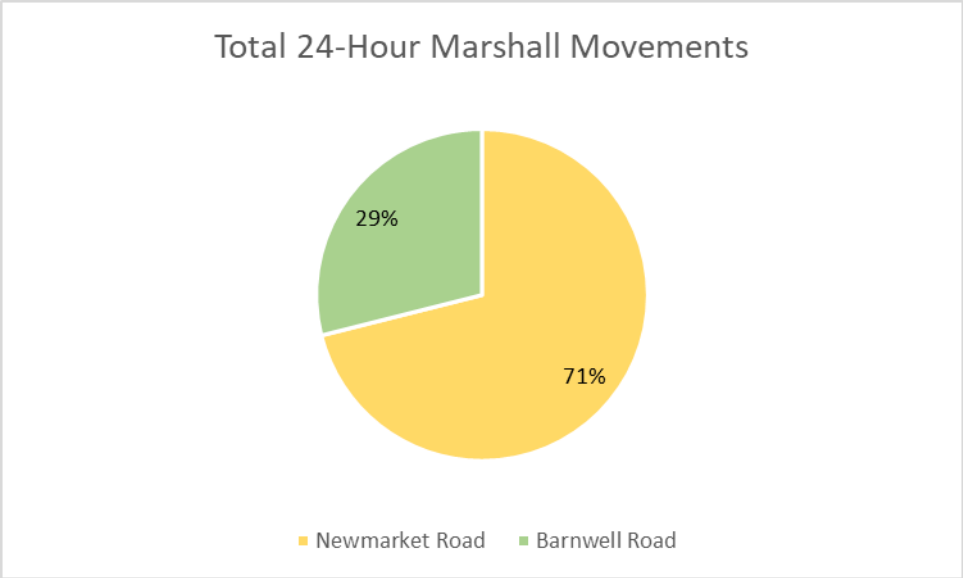


Figure 6: Total 24-Hour Marshall Movements by Road

3.2.2 The access with the greatest utilisation during the 24-hour period was Access 6 (Marshall Gate A), with a total of 900 Marshall-only movements recorded, comprising 563 entry movements and 337 exit movements. The second most popular access was Access 3 (Access at the eastern end of Barnwell Drive) with a total of 444 Marshall-only movements, and the third most popular access was Access 7 (Marshall exit-only, directly east of the Visitor Centre) with a total of 268 Marshall-only movements.

3.2.3 The access with the lowest utilisation during the 24-hour period was Access 11 (Access directly east of Marleigh Avenue), which only experienced a total of 4 Marshall-only movements.

3.2.4 In terms of the approach and exit directions to and from the Site, the data for the accesses along Newmarket Road was analysed further. Data for the Barnwell Road accesses could not be analysed in the same way due to their location along Barnwell Drive which is a minor access-only road / dead end, meaning that any movements approaching the Barnwell Road accesses would be right-in movements and left-out movements. Therefore, the approach and exit direction along Barnwell Road itself could not be determined.

3.2.5 Data for the Newmarket Road accesses showed that during the 24-hour period, 50% of entry movements approached the Site from Newmarket Road East, and 50% of entry movements approached the Site from Newmarket Road West. Similarly, with regards to Marshall movements leaving the Site, 46% of exit movements turned right out of the Site to Newmarket

Road East, and 54% of exit movements turned left out of the Site to Newmarket Road West. This shows that there is no dominant approach or exit direction for Marshall-only movements.

Modal Share

3.2.6 The site-wide modal share is dominated by car use, with the data provided by ATR showing the following modal split: 65% car, 14% pedestrian, 13% LGV, 5% cycle, 2% HGV, 1% motorbike, 0% bus / coach. However, it is worth noting that the pedestrian mode share also captures bus users too (and not just pedestrians whose main mode of travel to the Site is walking), since any bus users would likely alight along Newmarket Road and then walk to the Site as the final mode of their journey. Based on subsequent groupings of movements depending on whether they related to entry and exit movements along Barnwell Road or Newmarket Road, the car and pedestrian mode shares were greater along Newmarket Road compared to Barnwell Road. However, the LGV, cycle and HGV mode shares were higher along Barnwell Road compared to Newmarket Road. The motorbike and bus / coach mode shares were identical along Newmarket Road and Barnwell Road. These characteristics are also highlighted in **Figure 7** below.

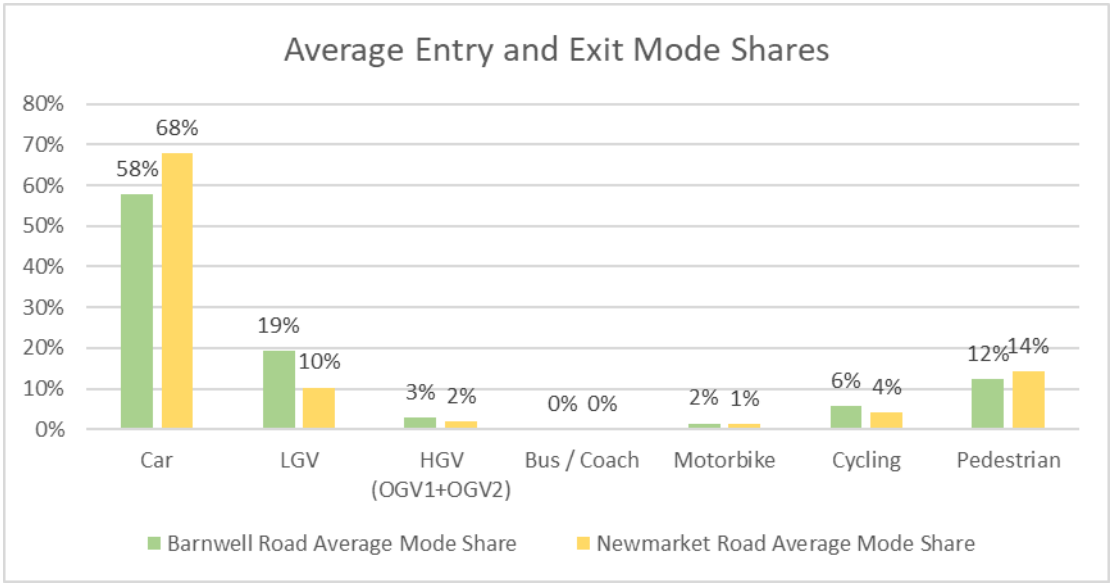


Figure 7: Average Entry and Exit Mode Shares

3.2.7 The access with the greatest car mode share was Access 11 (Access directly east of Marleigh Avenue) with a car mode share of 100%. However, only a total of 4 movements were recorded during the 24-hour period. The access with the second greatest car mode share was Access 13 (Marshall Skills Academy access), with a car mode share of 84%. The access with the third greatest car mode share was Access 1 (Western access along Barnwell Drive), with a car mode share of 82%.

3.2.8 In contrast, the access with the greatest cycling mode share was Access 3 (Access at the eastern end of Barnwell Drive), with a cycling mode share of 7%, while the access with the greatest pedestrian mode share was Site 10 (Marshall Gate E), with a pedestrian mode share of 39%.

3.2.9 In terms of delivery and servicing access, the access with the greatest LGV mode share was Access 3 (Access at the eastern end of Barnwell Drive) with a LGV mode share of 24%, followed by Access 10 (Marshall Gate E) with a LGV mode share of 22%, followed by Access 9 (Marshall exit-only, directly east of Marshall Gate D) with an LGV mode share of 19%.

3.2.10 The access with the greatest HGV mode share was Access 8 (Marshall Gate D) with an HGV mode share of 7%, followed by Access 9 (Marshall exit-only, directly east of Marshall Gate D) and Access 3 (Access at the eastern end of Barnwell Drive), each with an HGV mode share of

4%. This shows that Access 3 and Access 9 are most popular in terms of collective use by both LGVs and HGVs.

3.3 Peak Hour

3.3.1 The site-wide AM peak hour for Marshall-only movements is 07:00 – 08:00, with 384 movements recorded which comprise 327 person arrivals and 57 person departures. The site-wide PM peak hour for Marshall-only movements is 15:00 – 16:00, with 315 Marshall-only movements recorded which comprise 60 person arrivals and 255 person departures. With regards to vehicular-only movements, this equates to a total of 323 vehicular movements during the AM peak hour (289 arrivals, 34 departures) and a total of 262 vehicular movements during the PM peak hour (38 arrivals, 224 departures).

3.3.2 The AM peak hour for the access with the greatest number of movements during the 24-hour period (Access 6 - Marshall Gate A) is 06:30-07:30, with a PM peak hour of 16:30-17:30. This equates to a total of 183 person arrivals during the AM peak hour for this access, and a total of 121 person departures during the PM peak hour for this access.

3.3.3 The accesses along Barnwell Road tend to have an earlier AM peak hour than the access along Newmarket Road, with AM peak hours ranging between 06:30 to 07:45, compared to between 06:30 to 09:15 along Newmarket Road. The PM peak hours of accesses along Barnwell Road and Newmarket Road are similar in terms of their spread, ranging from midday to 17:45, typically showing two PM peaks at around 12:00-13:00 and 15:00-16:00.

3.3.4 Compared to the usual AM and PM peak characteristics of the surrounding highway network, the AM and PM peaks for the Marshall-only movements occur earlier on. This suggests that the peak hours for the Marshall-only movements do not therefore coincide with the usual network peaks albeit further off-site data collection is required to confirm the wider network peak periods. In terms of vehicular trips only (excluding cycles and pedestrians) during the assumed AM network peak of 08:00-09:00, Marshall-only vehicular movements total 242 movements, equating to 189 entry movements and 53 exit movements. During the assumed PM network peak of 17:00-18:00, Marshall-only vehicular movements total 202 movements, equating to 16 entry movements and 186 exit movements.

3.3.5 When considering a 3-hour AM and PM peak period, rather than a single hour, the following vehicular movements are recorded: 697 vehicular movements between 07:00-10:00, equating to 565 entry movements and 132 exit movements, and 527 vehicular movements between 16:00-19:00, equating to 43 entry movements and 484 exit movements. This shows that the dominant AM movements are typically entry movements, and the dominant PM movements are typically exit movements. **Table 1** below shows the hourly breakdown of vehicular arrivals and departures between 07:00-10:00 and 16:00-19:00.

Table 1: Vehicular Arrivals and Departures between 07:00-10:00 and 16:00-19:00

	07:00-08:00	08:00-09:00	09:00-10:00	**07:00-10:00 Total**	16:00-17:00	17:00-18:00	18:00-19:00	**16:00-19:00 Total**
Vehicular Arrivals	289	189	87	565	22	16	5	43
Vehicular Departures	34	53	45	132	236	186	62	484
Total Vehicular Movements	323	242	132	**697**	258	202	67	**527**

3.3.6 The Marshall-only 24-hour combined entry and exit movement profile (all modes) is highlighted below in **Figure 8**.

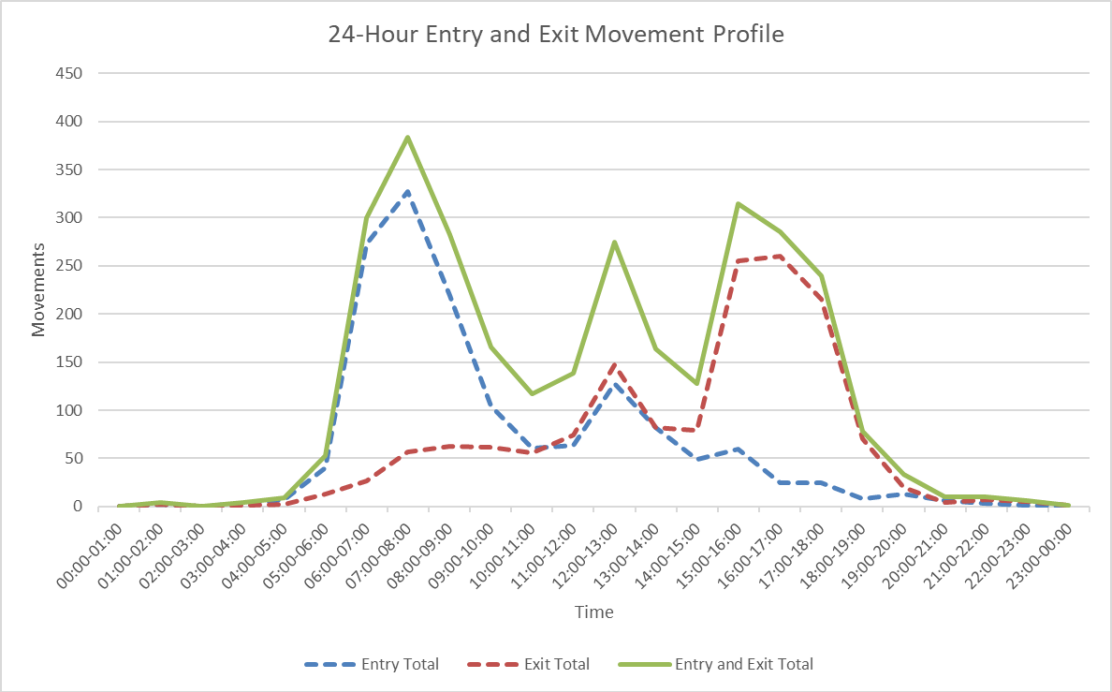


Figure 8: 24-Hour Marshall-only Entry and Exit Movement Profile

3.4 Car Park Occupancy

3.4.1 The car park data provided by ATR shows that, excluding the parking area associated with the leased building, Marshall have a total of 946 car parking spaces across the Site. Although the occupancy of individual parking areas varied throughout the day, the car parks typically experienced the greatest level of occupancy at midday. Between 07:00-08:00, the average occupancy across Marshall car parks was 51%. This increased to 71% between 12:00-13:00 and decreased to 50% between 16:00-17:00.

3.4.2 The car parking area with the greatest average occupancy across all three time periods was Area 6, with an average occupancy of 75%. However, this parking area is only used as an overflow car park for the car dealership at Glyn Hopkin, therefore this apparent popularity does not reflect use by Marshall staff.

3.4.3 The car parking area with the second greatest average occupancy across all three time periods, and the most popular for Marshall employee parking was Area 2, with an average occupancy of 64%, closely followed by Area 4 with an average occupancy of 63%.

3.4.4 The car parking area which experiences the greatest peak demand is Area 2, with a total occupancy of 87% between 12:00-13:00. Excluding car park Area 6, between 07:00-08:00, the car parking area with the greatest occupancy was Area 2 with a total occupancy of 61%, and between 16:00-17:00, the car parking area with the greatest occupancy was Area 4 with a total occupancy of 53%.

3.4.5 The car parking provided in Area 3 for the rented building is utilised to its full capacity of 116 spaces, with occupancy reaching 100% between 12:00-13:00.

3.5 Staff Travel Characteristics

3.5.1 Staff travel survey data provided by Marshall identifies the home postcodes of current employees by postcode sector and their respective typical method of travel to the Site. A total of 1,004 employees were included within this dataset, 94% (946) of whom stated ‘Drive’ as their typical method of travel to the Site.

3.5.2 Only 4% of employees were recorded as cycling to work and an even lower proportion of employees were recorded as walking to work (1%). Less than 1% of employees were recorded as travelling by either bus or train.

3.5.3 Further analysis was conducted on the postcode data provided by Marshall to understand the distances travelled by current employees to the Site. The postcode data was converted from sector level to district level for this exercise to provide more spatially meaningful results. With regards to the car divers, this showed that the total one-way distance travelled to Marshall (CB5 8RX) by employees was over 26,100 miles, with a median one-way distance of 20.3 miles.

3.5.4 In addition, of the employees who drive to the Site, the shortest one-way distance recorded was approximately 1 mile (CB5), while the greatest one-way distance recorded was approximately 440 miles (BT5).

3.5.5 Localised spatial analysis was further conducted using GIS software to visualise where the car drivers commute from and to consider the spatial distribution and popularity of different postcode areas. **Figure 9** highlights the areas of greatest car-driver density.

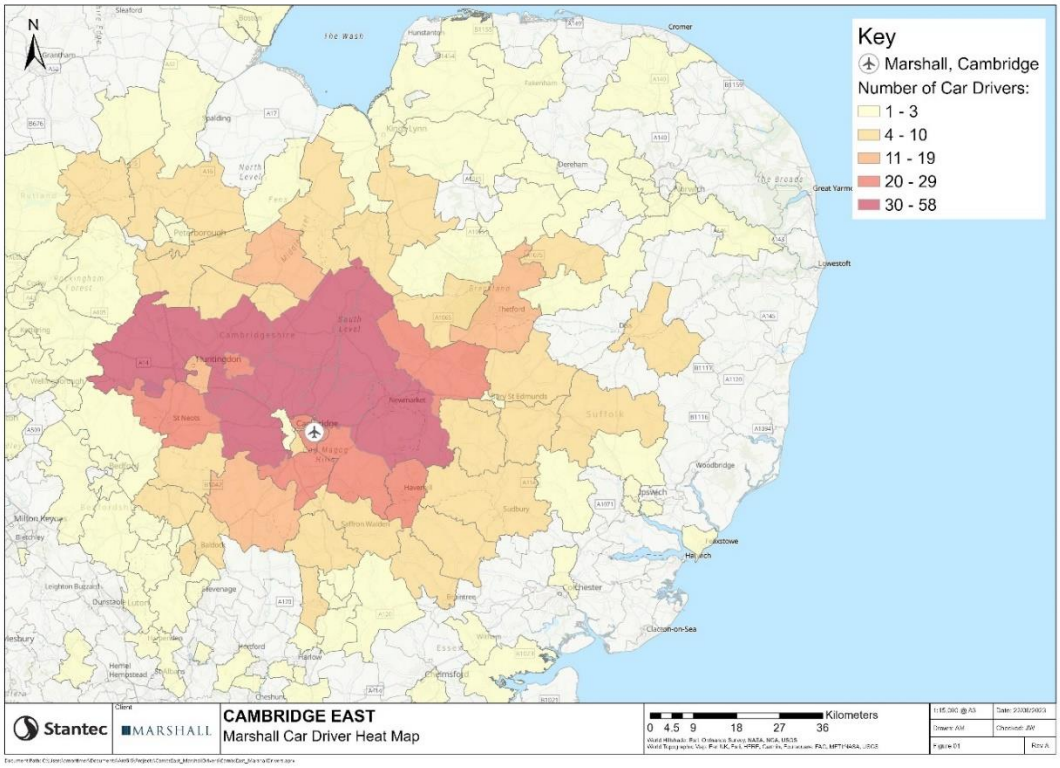


Figure 9: Marshall Car Driver Heat Map

3.5.6 The most popular postcode area in terms of employees who drive to the Site was CB6, with a total of 58 car drivers. Further to this, **Figure 9** shows a distinct northwest – southeast pattern in the distribution of car driver employees, with a greater density of car drivers living to the north of the pattern. Postcode areas covering Newmarket, Waterbeach, Ely, Littleport, Alconbury, Papworth and Over have the greatest proportion of car drivers, suggesting that most car drivers approach the Site from the A14, A142, A10, A1(M) or the A428.

4 Implications

4.1 Summary of Results

4.1.1 The above analysis has highlighted several key findings which are summarised below and considered in further detail with regards to their implications on a proposed trip budget at Cambridge East.

4.1.2 Key findings include:

- Approximately 2,300 one-way movements occur at the Site on a typical business-as-usual day, the majority of which utilise accesses located along Newmarket Road (71%) compared to access located off Barnwell Road (29%). Further to this, when considering vehicular-only movements, the percentage of movements along Newmarket Road increases to 75%, and the percentage of movements along Barnwell Road decreases to 25%.

- There is no dominant approach or exit direction for movements entering or exiting the Site along Newmarket Road.

- The modal share of trips to and from the Site is dominated by car use, with a site-wide modal split of 65% car, 14% pedestrian, 13% LGV, 5% cycle, 2% HGV, 1% motorbike, 0% bus / coach.

- The peak hour for arrivals at the Site is 07:00 – 08:00 with 289 vehicular arrivals, and the peak hour for departures at the site is 15:00 – 16:00 with 224 vehicular departures. These times coincide with the AM and PM peak hours for the total movements across the Site.

- This contrasts with the vehicular movements recorded during the typical network peaks, with 189 vehicular arrivals recorded during the assumed AM peak of 08:00-09:00 and 186 vehicular departures recorded during the assumed PM peak of 17:00-18:00

- There are a total of 946 car parking spaces across the Site which have a maximum occupancy of 71% between 12:00-13:00

- With regards to staff travel characteristics, 94% of employees recorded ‘Drive’ as their typical method of travel to the Site. Of those who drive, a median one-way distance of 20.3 miles is driven to the Site. Given that a greater proportion of employees recorded driving as their main method of travel in the employee travel survey compared to the maximum recorded occupancy of the car parks, this could suggest that at present there are still some employees who are following a ‘work from home’ culture as a result of the pandemic. If the car parking surveys had been conducted pre-pandemic, the maximum car park occupancy during the day might have been greater and more closely mirrored the result of the staff travel survey.

4.2 Influence on Proposed Cambridge East Trip Budget

4.2.1 The findings of this study will aid Marshall in relation to the forthcoming planning application seeking to develop land at the Site for new uses. Marshall are aware that any proposed development at Cambridge East must be achievable within the constraints of a pre-determined trip budget, the specifics of which are to be agreed with Cambridgeshire County Council at the planning stage. The CSRM modelling undertaken by Cambridgeshire County Council as part of the evidence base assumed 7,000 homes and 9,000 jobs, and the base model assumed 675 jobs at Marshall, thus testing 7,000 homes and c. 8,325 additional jobs. Based on our surveys, the existing number of jobs is higher than this and this needs to be

considered as part of the trip budget. In addition, to build the CSRM, traffic flows will have been collected to form the base year of the model, which would have also included Marshall flows. Therefore, the CSRM includes an element of double counting which will need to be adjusted for

4.2.2 This study has shown that with regards to a proposed trip budget, the peak hours for Marshall-only movements to and from the Site do not coincide with the assumed network peak hours in Cambridge. The traffic surveys have shown that the AM and PM movement peaks at the Site are 07:00-08:00 and 15:00-16:00 respectively, compared to the assumed network peaks of 08:00-09:00 and 17:00-18:00. As such, if a trip budget was set to match the network peak timings of the surrounding highway network, the maximum number of existing Marshall-only movements could not be pre-banked within this allowance. Only 242 AM and 202 PM Marshall-only vehicular movements could be banked, as opposed to the total number of vehicular movements reflected in the true Marshall AM and PM peaks (323 and 262 movements respectively).

4.2.3 It may therefore be advantageous to instead consider setting a trip budget over a 3-hour AM and 3-hour PM period. For example, this would allow 697 vehicular movements to be banked between 07:00-10:00 and 527 vehicular movements to be banked between 16:00-19:00. Ultimately, it is advantageous to bank as many vehicular trips as possible per time segment at this stage of the proposals to gain an insight into how much additional demand should be planned for on the highway network.

4.2.4 Further to this, if a trip budget is to be set based on the existing utilisation of site accesses, thus forming a separate trip budget for Newmarket Road and a separate trip budget for Barnwell Road, consideration should be paid to their relative budgets. At present, the accesses along Newmarket Road are utilised for over twice as many movements as those located off Barnwell Road. Therefore, arguably the trip budget set for Newmarket Road should be greater than that set for Barnwell Road.

4.2.5 Any trip budget set for Newmarket Road will also need to consider the impact of relocating the existing Park and Ride site from Newmarket Road to land east of Airport Way.

4.2.6 At present, the movement characteristics analysed in this study are based upon a Site which experiences a 61% car driver mode share and a workforce car driver mode share of 94%. Both of these factors should be taken into account when considering the type of commercial uses planned for the Site, the size of their workforce and the availability of on-site car parking in order to promote more sustainable mode shares with greater proportions of public transport use and active travel.

5 Conclusions

5.1.1 This study has highlighted the existing travel and transport characteristics of the current workforce and visitors to Cambridge City Airport. It has also presented the current trip generation envelope of the Site, the existing modal share and the resulting car park utilisation.

5.1.2 The findings of this study will be used to support subsequent transport advice and trip budget discussions relating to the forthcoming planning application seeking to develop land at the Site. It may also be used to update the existing Trip Budget Topic Paper previously prepared for Greater Cambridge Shared Planning and Cambridgeshire County Council at an appropriate juncture to explore the considerations required when setting a trip budget for Cambridge East.

5.1.3 Further traffic surveys will be conducted as part of the upcoming planning application for the Site to confirm the network peaks in relation to the existing Marshall peaks.

5.1.4 This study has further identified that the existing AM and PM peak hours at the Site likely do not coincide with the network peaks of the wider highway network. Therefore, consideration needs to be paid as to whether the proposed trip budget for Cambridge East is based on one-hour AM and PM peak periods, or wider three-hour AM and PM peak periods.

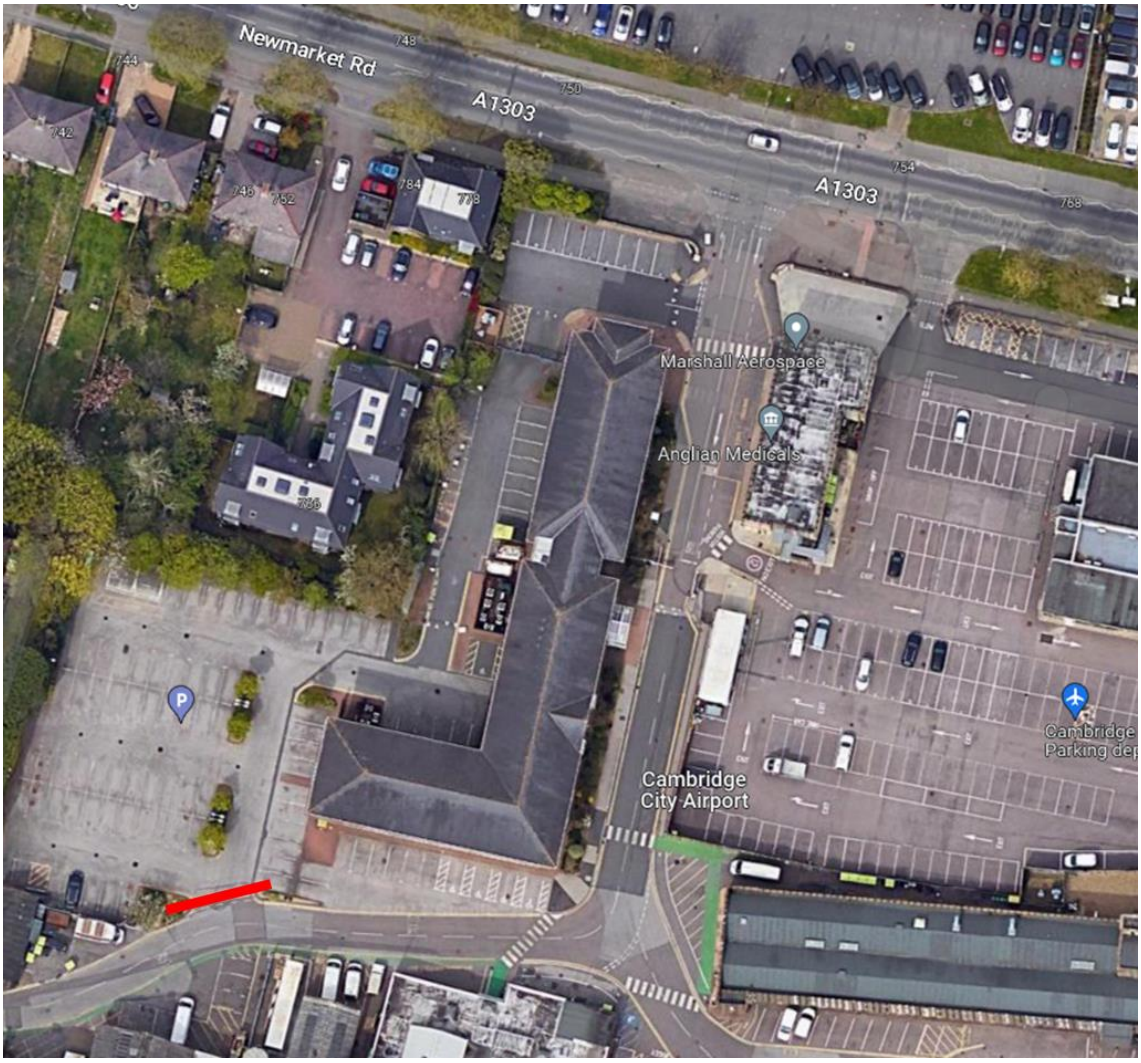
Appendix A CCTV Survey Locations

1. Western access along Barnwell Drive

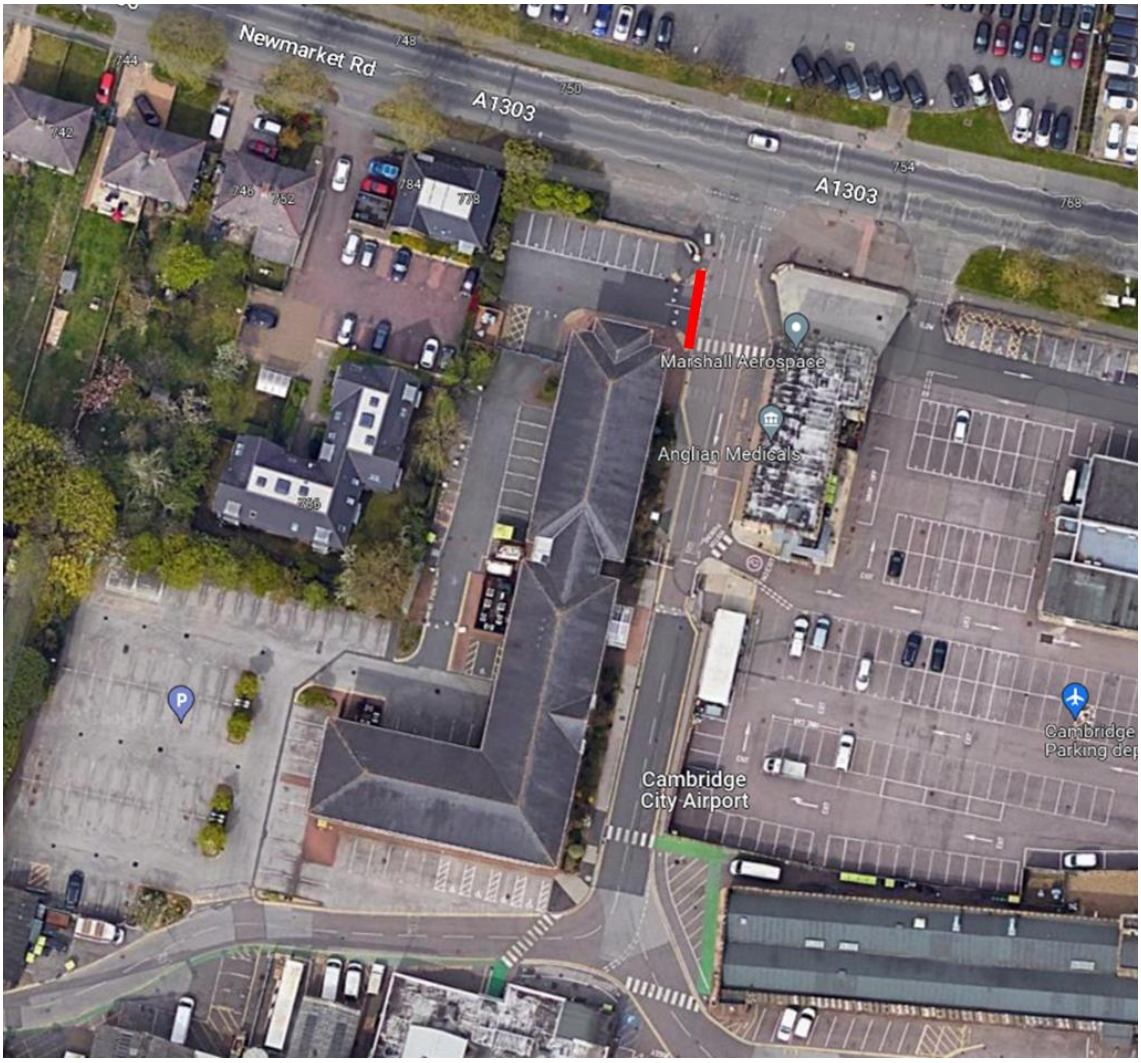
2. Access opposite Mercedes of Cambridge along Barnwell Drive

3. Access at the eastern end of Barnwell Drive

4. Southern access to leased building car park



5. Northern access to leased building car park



6. Marshall Gate A

7. Marshall exit-only, directly east of the Visitor Centre

8. Marshall Gate D

9. Marshall exit-only, directly east of Marshall Gate D

10. Marshall Gate E

11. Access directly east of Marleigh Avenue

12. Newmarket Road Park and Ride access

13. Marshall Skills Academy access

Appendix B Traffic Survey Analysis

Cambridge East: Transport Survey Analysis

24 Hour Movements

Site	Road Grouping	Total Entry	Total Exit	Total Movements	Vehicular Total Entry	Vehicular Total Exit	Vehicular Total Movements
Site 1	*Barnwell Road*	*0*	*94*	*94*	0	91	91
Site 2	*Barnwell Road*	*108*	*19*	*127*	91	1	92
Site 3	*Barnwell Road*	*231*	*213*	*444*	188	172	360
Site 4	Southern Access to Leased Building Car Park	271	285	556	137	136	273
Site 5	Northern Access to Leased Building Car Park	77	69	146	19	18	37
Site 6	Newmarket Road (**includes** movements associated with Leased Building)	911	691	1602	756	552	1308
Site 7	*Newmarket Road*	*16*	*252*	*268*	2	232	234
Site 8	*Newmarket Road*	*78*	*8*	*86*	73	0	73
Site 9	*Newmarket Road*	*17*	*130*	*147*	1	113	114
Site 10	*Newmarket Road*	*75*	*28*	*103*	51	8	59
*Site 11**	*Newmarket Road - Marshall Staff*	*3*	*1*	*4*	3	1	4
Site 11	Newmarket Road - Car Dealership Staff	39	36	75	27	24	51
Site 12	Park and Ride Access	1146	1204	2350	1100	1159	2259
Site 13	*Newmarket Road*	*60*	*66*	*126*	55	55	110
*Site 6**	*Newmarket Road (**without** movements associated with Leased Building)*	*563*	*337*	*900*	600	398	998

Road Grouping	Total Entry	Total Exit	Total Movements	Proportion of Total Marshall Employee Movements	Vehicular Total Entry	Vehicular Total Exit	Vehicular Total Movements	Proportion of Total Marshall Employee Vehicular Movements
Barnwell Road	*339*	*326*	*665*	*29%*	*279*	*264*	543	25%
Newmarket Road	1160	1176	2336		968	985	1953	
Newmarket Road Minus allowance for Leased Building Movements	*812*	*822*	*1634*	*71%*	812	831	1643	75%
Total 24-Hour Marshall Movements	1151	1148	2299	100%	1091	1095	2186	100%

	Total 24-Hour Marshall Movements
Newmarket Road	1634
Barnwell Road	665

24-Hour Directional Movements
Newmarket Road

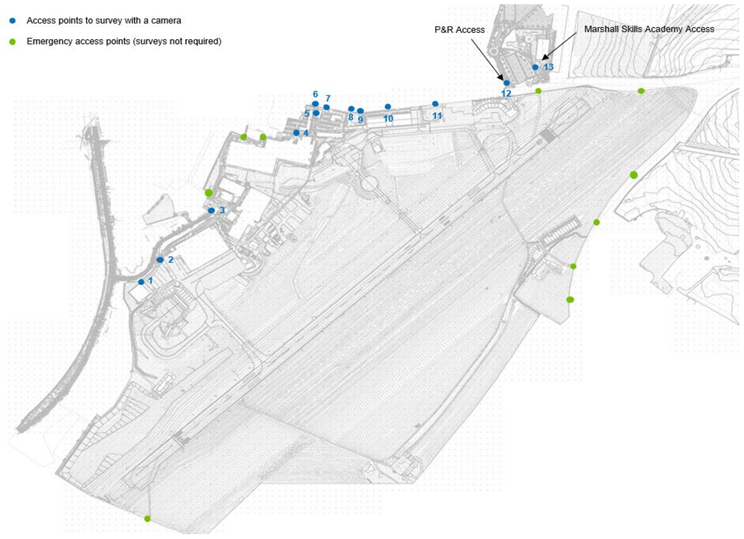
JC - assume this ok as all movements?

JW - confirmed ok

	Inbound Movements		Outbound Movements	
	From Newmarket Road East	From Newmarket Road West	To Newmarket Road East	To Newmarket Road West
Site 6	459	452	318	373
Site 7	12	4	118	134
Site 8	30	48	5	3
Site 9	3	14	50	80
Site 10	46	29	22	6
Site 11*	1	2	0	1
Site 13				

Total Inbound Movements	1100	Total Outbound Movements	1110
Inbound from East	551	Outbound to East	513
Inbound from West	549	Outbound to West	597

% Inbound from East	50%	**% Outbound to East**	46%
% Inbourn from West	50%	**% Outbound to West**	54%



Cambridge East: Transport Survey Analysis

Mode Share

Ins

Site	Road Grouping	Car	LGV	HGV (OGV1+OGV2)	Bus / Coach	Motorbike	Cycling	Pedestrian	Total	Car	LGV	HGV (OGV1+OGV2)	Bus / Coach	Motorbike	Cycling	Pedestrian	Total
		Mode Classification: Counts								**Mode Classification: Percentages**							
Site 1	Barnwell Road	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0%	0%	0%	0%
Site 2	Barnwell Road	78	11	2	0	0	3	14	108	72%	10%	2%	0%	0%	3%	13%	100%
Site 3	Barnwell Road	119	57	8	0	4	18	25	231	52%	25%	3%	0%	2%	8%	11%	100%
Site 4	Southern Access to Leased Building Car Park	125	8	4	0	0	11	123	271	46%	3%	1%	0%	0%	4%	45%	100%
Site 5	Northern Access to Leased Building Car Park	19	0	0	0	0	0	58	77	25%	0%	0%	0%	0%	0%	75%	100%
Site 6	Newmarket Road	641	85	13	1	16	42	113	911	70%	9%	1%	0%	2%	5%	12%	100%
Site 7	Newmarket Road	1	0	1	0	0	3	11	16	6%	0%	6%	0%	0%	19%	69%	100%
Site 8	Newmarket Road	56	10	6	0	1	2	3	78	72%	13%	8%	0%	1%	3%	4%	100%
Site 9	Newmarket Road	1	0	0	0	0	2	14	17	6%	0%	0%	0%	0%	12%	82%	100%
Site 10	Newmarket Road	31	19	0	0	1	4	20	75	41%	25%	0%	0%	1%	5%	27%	100%
Site 11	Newmarket Road - Marshall Staff	3	0	0	0	0	0	0	3	100%	0%	0%	0%	0%	0%	0%	100%
Site 11	Newmarket Road - Car Dealership Staff	27	0	0	0	0	1	11	39	69%	0%	0%	0%	0%	3%	28%	100%
Site 12	Park and Ride Access	983	38	4	75	0	24	22	1146	86%	3%	0%	7%	0%	2%	2%	100%
Site 13	Newmarket Road	53	2	0	0	0	0	5	60	88%	3%	0%	0%	0%	0%	8%	100%
Site 6	*Newmarket Road (**without** movements associated with Leased Building)*	497	66	10	1	12	33	88	706	70%	9%	1%	0%	2%	5%	12%	100%
AVERAGES	Barnwell Road Average Mode Share	66	23	3	0	1	7	13	113	58%	20%	3%	0%	1%	6%	12%	100%
AVERAGES	Newmarket Road Average Mode Share	92	14	2	0	2	6	20	136	67%	10%	2%	0%	2%	5%	15%	100%
TOTAL	Combined Average Barnwell Road and Newmarket Road Mode Share	79	18	3	0	2	7	17	125	63%	15%	2%	0%	1%	5%	13%	100%
	JC - Weighted average?	84	16	3	0	2	6	18	129	65%	13%	2%	0%	1%	5%	14%	100%

Above counts assume same proportional reduction as car reduction due to their destination being unknown

Outs

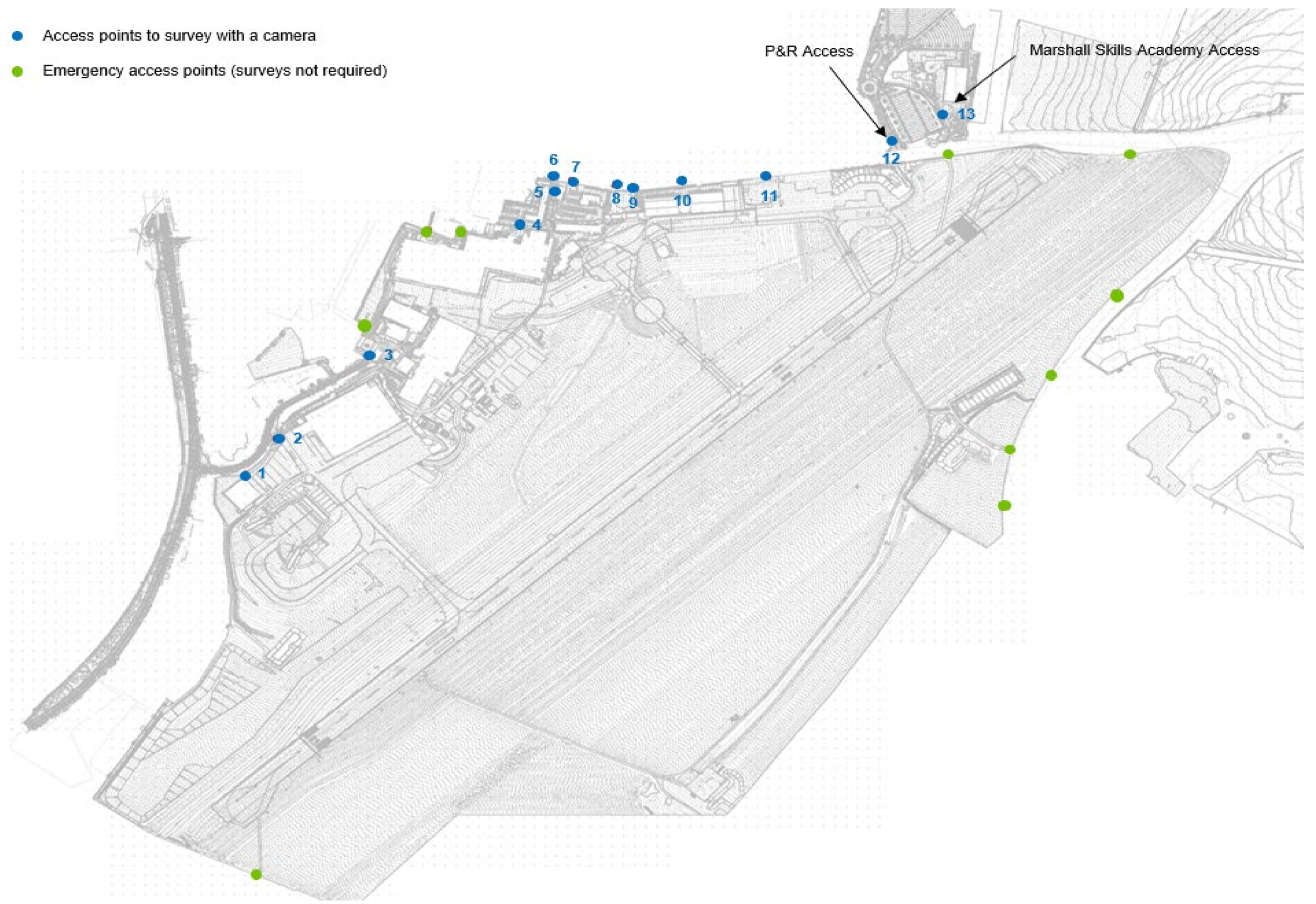
Site	Road Grouping	Car	LGV	HGV (OGV1+OGV2)	Bus / Coac	Motorbike	Cycling	Pedestrian	Total	Car	LGV	HGV (OGV1+OGV2)	Bus / Coac	Motorbike	Cycling	Pedestrian	Total
		Mode Classification: Counts								**Mode Classification: Percentages**							
Site 1	Barnwell Road	77	12	2	0	0	3	0	94	82%	13%	2%	0%	0%	3%	0%	100%
Site 2	Barnwell Road	1	0	0	0	0	0	18	19	5%	0%	0%	0%	0%	0%	95%	100%
Site 3	Barnwell Road	109	49	8	0	6	15	26	213	51%	23%	4%	0%	3%	7%	12%	100%
Site 4	Southern Access to Leased Building Car Park	123	8	5	0	0	10	139	285	43%	3%	2%	0%	0%	4%	49%	100%
Site 5	Northern Access to Leased Building Car Park	18	0	0	0	0	0	51	69	26%	0%	0%	0%	0%	0%	74%	100%
Site 6	Newmarket Road	450	72	17	0	13	43	96	691	65%	10%	2%	0%	2%	6%	14%	100%
Site 7	Newmarket Road	213	18	1	0	0	5	15	252	85%	7%	0%	0%	0%	2%	6%	100%
Site 8	Newmarket Road	0	0	0	0	0	1	7	8	0%	0%	0%	0%	0%	13%	88%	100%
Site 9	Newmarket Road	79	28	6	0	0	3	14	130	61%	22%	5%	0%	0%	2%	11%	100%
Site 10	Newmarket Road	3	4	0	0	1	0	20	28	11%	14%	0%	0%	4%	0%	71%	100%
Site 11	Newmarket Road - Marshall Staff	1	0	0	0	0	0	0	1	100%	0%	0%	0%	0%	0%	0%	100%
Site 11	Newmarket Road - Car Dealership Staff	24	0	0	0	0	1	11	36	67%	0%	0%	0%	0%	3%	31%	100%
Site 12	Park and Ride Access	1044	36	3	76	0	19	26	1204	87%	3%	0%	6%	0%	2%	2%	100%
Site 13	Newmarket Road	53	2	0	0	0	0	11	66	80%	3%	0%	0%	0%	0%	17%	100%
Site 6	*Newmarket Road (**without** movements associated with Leased Building)*	309	49	12	0	9	30	66	474	65%	10%	2%	0%	2%	6%	14%	100%
AVERAGES	Barnwell Road Average Mode Share	62	20	3	0	2	6	15	109	57%	19%	3%	0%	2%	6%	13%	100%
AVERAGES	Newmarket Road Average Mode Share	94	14	3	0	1	6	19	137	69%	11%	2%	0%	1%	4%	14%	100%
TOTAL	Combined Average Barnwell Road and Newmarket Road Mode Share	78	17	3	0	2	6	17	123	64%	14%	2%	0%	1%	5%	14%	100%
	JC - Weighted average?	85	16	3	0	2	6	18	129	66%	13%	2%	0%	1%	4%	14%	100%

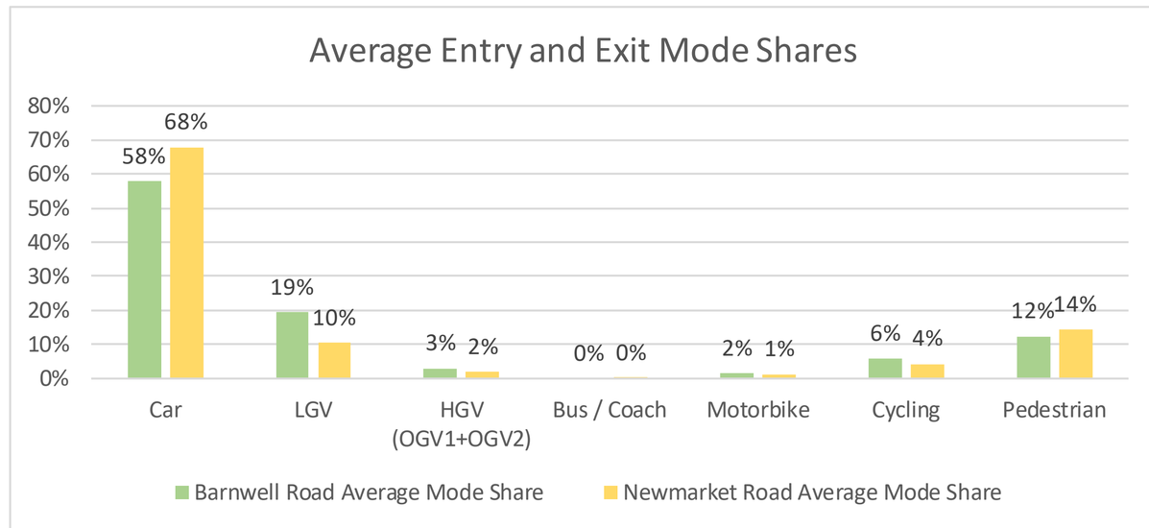
Above counts assume same proportional reduction as car reduction due to their destination being unknown

Total Movements

Site	Road Grouping	Car	LGV	HGV (OGV1+OGV2)	Bus / Coac	Motorbike	Cycling	Pedestrian	Total	Car	LGV	HGV (OGV1+OGV2)	Bus / Coac	Motorbike	Cycling	Pedestrian	Total
		Mode Classification: Counts								**Mode Classification: Percentages**							
Site 1	Barnwell Road	77	12	2	0	0	3	0	94	82%	13%	2%	0%	0%	3%	0%	100%
Site 2	Barnwell Road	79	11	2	0	0	3	32	127	62%	9%	2%	0%	0%	2%	25%	100%
Site 3	Barnwell Road	228	106	16	0	10	33	51	444	51%	24%	4%	0%	2%	7%	11%	100%
Site 4	Southern Access to Leased Building Car Park	248	16	9	0	0	21	262	556	45%	3%	2%	0%	0%	4%	47%	100%
Site 5	Northern Access to Leased Building Car Park	37	0	0	0	0	0	109	146	25%	0%	0%	0%	0%	0%	75%	100%
Site 6	Newmarket Road	1091	157	30	1	29	85	209	1602	68%	10%	2%	0%	2%	5%	13%	100%
Site 7	Newmarket Road	214	18	2	0	0	8	26	268	80%	7%	1%	0%	0%	3%	10%	100%
Site 8	Newmarket Road	56	10	6	0	1	3	10	86	65%	12%	7%	0%	1%	3%	12%	100%
Site 9	Newmarket Road	80	28	6	0	0	5	28	147	54%	19%	4%	0%	0%	3%	19%	100%
Site 10	Newmarket Road	34	23	0	0	2	4	40	103	33%	22%	0%	0%	2%	4%	39%	100%
Site 11	Newmarket Road - Marshall Staff	4	0	0	0	0	0	0	4	100%	0%	0%	0%	0%	0%	0%	100%
Site 11	Newmarket Road - Car Dealership Staff	51	0	0	0	0	2	22	75	68%	0%	0%	0%	0%	3%	29%	100%
Site 12	Park and Ride Access	2027	74	7	151	0	43	48	2350	86%	3%	0%	6%	0%	2%	2%	100%
Site 13	Newmarket Road	106	4	0	0	0	0	16	126	84%	3%	0%	0%	0%	0%	13%	100%
Site 6	*Newmarket Road (**without** movements associated with Leased Building)*	806	115	22	1	21	62	154	1181	68%	10%	2%	0%	2%	5%	13%	100%
										Car	**LGV**	**HGV (OGV1+OGV2)**	**Bus / Coac**	**Motorbike**	**Cycling**	**Pedestrian**	
AVERAGES	Barnwell Road Average Mode Share	128	43	7	0	3	13	28	222	58%	19%	3%	0%	2%	6%	12%	100%
AVERAGES	Newmarket Road Average Mode Share	186	28	5	0	3	12	39	274	68%	10%	2%	0%	1%	4%	14%	100%
TOTAL	Combined Average Barnwell Road and Newmarket Road Mode Share	157	36	6	0	3	12	33	248	63%	14%	2%	0%	1%	5%	13%	100%
	JC - Weighted average?	168	33	6	0	3	12	36	258	65%	13%	2%	0%	1%	5%	14%	100%

table	2171	229	42	76	20	99	423
summary	2171	229	42	76	20	99	423
	0	0	0	0	0	0	0





Cambridge East: Transport Survey Analysis

Peak Hour by Site

Site	Road Grouping	AM Peak Hour	AM Peak Hour Total Entry	AM Peak Hour Total Exit	AM Peak Hour Total Movements	PM Peak Hour	PM Peak Hour Total Entry	PM Peak Hour Total Exit	PM Peak Hour Total Movements
Site 1	Barnwell Road	06:30 - 07:30	0	3	3	15:30 - 16:30	0	43	43
Site 2	Barnwell Road	06:45 - 07:45	45	1	46	12:00 - 13:00	10	8	18
Site 3	Barnwell Road	06:30 - 07:30	85	2	87	16:45 - 17:45	2	63	65
Site 4	Southern Access to Leased Building Car Park	06:30 - 07:30	68	34	102	15:15 - 16:15	24	46	70
Site 5	Northern Access to Leased Building Car Park	07:30 - 08:30 and 08:00 - 09:00	16	6	22	12:00 - 13:00	9	16	25
Site 6	Newmarket Road	06:30 - 07:30	257	8	265	16:30 - 17:30	17	167	184
Site 7	Newmarket Road	07:15 - 08:15	4	16	20	16:45 - 17:45	0	52	52
Site 8	Newmarket Road	08:15 - 09:15	23	1	24	12:45 - 13:45	7	0	7
Site 9	Newmarket Road	08:15 - 09:15	1	15	16	15:30 - 16:30	4	26	30
Site 10	Newmarket Road	06:45 - 07:45	13	3	16	12:45 - 13:45	10	11	21
Site 11	Newmarket Road - Marshall Staff	No peak hour as no AM movements recorded	0	0	0	14:00 - 15:00 and 14:15 - 15:15	3	1	4
Site 11	Newmarket Road - Car Dealership Staff	07:45 - 08:45	9	7	16	13:45 - 14:45 and 17:00 - 18:00	earlier PM peak: 7, later PM peak: 5	earlier PM peak: 6, later PM peak: 8	13
Site 12	Park and Ride Access	09:45 - 10:45	136	65	201	17:00 - 18:00	56	185	241
Site 13	Newmarket Road	07:00 - 08:00	15	3	18	14:30 - 15:30	5	14	19

Site 6	Newmarket Road (minus Site 4 and 5 movements for Site 6 AM and PM peak hours)	06:30 - 07:30	183	16:30 - 17:30	121	

		Total Movements AM			Total Movements PM		
Site	Road Grouping	0700-0800	0800-0900	0900-1000	1600-1700	1700-1800	1800-1900
Site 1	Barnwell Road	2	2	2	10	8	9
Site 2	Barnwell Road	41	11	4	3	2	2
Site 3	Barnwell Road	53	29	25	52	39	0
Site 4	Southern Access to Leased Building Car Park	76	45	26	52	36	13
Site 5	Northern Access to Leased Building Car Park	16	22	9	11	5	4
Site 6	Newmarket Road	221	168	89	141	118	46
Site 7	Newmarket Road	14	15	9	43	45	12
Site 8	Newmarket Road	14	22	10	0	3	0
Site 9	Newmarket Road	8	13	8	20	23	7
Site 10	Newmarket Road	13	14	8	3	1	1
Site 11	Newmarket Road - Marshall Staff	0	0	0	0	0	0
Site 11	Newmarket Road - Car Dealership Staff	6	13	0	2	13	0
Site 12	Park and Ride Access	141	173	179	204	241	151
Site 13	Newmarket Road	18	8	11	13	1	1
Site 6	*Newmarket Road (**without** movements associated with Leased Building)*	129	101	54	78	77	29

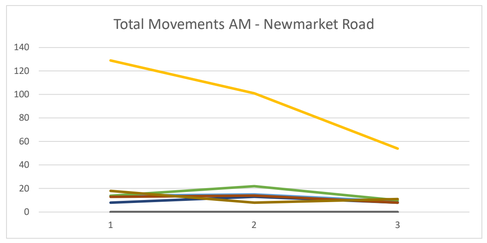
VEHICULAR TRIPS ONLY FOR TRIP BUDGET

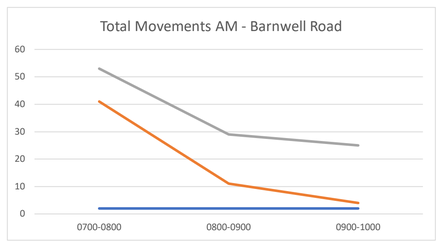
	Total	Inbound	Outbound
Typical AM Network Peak 08:00-09:00	242	189	53
Typical PM Network Peak 17:00-18:00	202	16	186
Total 07:00-10:00 Envelope Movements	697	565	132
Total 16:00-19:00 Envelope Movements	527	43	484

Peak Hours Across Whole Site				
AM Peak Hour	**07:00 - 08:00**	635 Movements (including P&R movements and leased building movements)	**07:00 - 08:00**	402 Marshall-only Movements
PM Peak Hour	**15:00 - 16:00**	594 Movements (including P&R movements and leased building movements)	**15:00 - 16:00**	331 Marshall-only Movements

Duplicated table from above to produce a line graph

		Total Movements AM			Total Movements PM		
Site	Road Grouping	0700-0800	0800-0900	0900-1000	1600-1700	1700-1800	1800-1900
Site 1	Barnwell Road	2	2	2	10	8	9
Site 2	Barnwell Road	41	11	4	3	2	2
Site 3	Barnwell Road	53	29	25	52	39	0
Site 6	*Newmarket Road (**without** movements associated with Leased Building)*	129	101	54	78	77	29
Site 7	Newmarket Road	14	15	9	43	45	12
Site 8	Newmarket Road	14	22	10	0	3	0
Site 9	Newmarket Road	8	13	8	20	23	7
Site 10	Newmarket Road	13	14	8	3	1	1
Site 11	Newmarket Road - Marshall Staff	0	0	0	0	0	0
Site 13	Newmarket Road	18	8	11	13	1	1





Cambridge East: Transport Survey Analysis

Total Occupancy and Total Spaces excludes bikes parked

Car Park Occupancy

		0700-0800			1200-1300			1600-1700			
Car Park Area	**Total Spaces**	**Total Occupancy**	**Total Occupancy %**	**Bikes Parked**	**Total Occupancy**	**Total Occupancy %**	**Bikes Parked**	**Total Occupancy**	**Total Occupancy %**	**Bikes Parked**	**Average Occupancy over three time periods**
Area 1	**206**	113	55%	11	140	68%	12	85	41%	4	55%
Area 2	**211**	128	61%	0	184	87%	0	95	45%	0	64%
Area 3 - rented building car park	**116**	68	59%	0	117	101%	5	73	63%	6	74%
Area 4	**240**	132	55%	0	191	80%	0	127	53%	0	63%
Area 5	**149**	13	9%	0	60	40%	0	58	39%	0	29%
Area 6 includes car dealership parking	**140**	103	74%	0	109	78%	0	103	74%	0	75%

Including rented building car park							
Total Spaces	1062	Average Occupancy	52%	Average Occupancy	76%	Average Occupancy	52%
Excluding rented building car park							
Total Spaces	946	Average Occupancy	51%	Average Occupancy	71%	Average Occupancy	50%

Employee Travel Survey Results

postcode_district	count_drive	Distance to CB5 8RX (miles)	Cumulative total	
CB5	19	1.2	19	
CB1	28	2.5	47	
CB4	25	3.3	72	
CB2	7	3.4	79	
IP21	5	4	84	
CB3	3	4.7	87	
CB25	46	6.0	133	
CB22	23	8.3	156	
CB21	27	10.3	183	
CB24	45	10.6	228	
CB23	40	11.1	268	
CB8	40	14.3	308	
PE27	29	17.1	337	
SG8	15	17.1	352	
CB10	7	17.6	359	
CB9	29	18.8	388	
CB7	46	19.1	434	
IP28	26	19.4	460	
CB11	7	20.2	467	
CB6	58	20.3	525	Median distance travelled
PE29	17	20.3	542	
SG19	10	21.8	552	
PE19	26	23.2	578	
SG18	4	23.7	582	
PE16	9	23.9	591	
SG7	4	25.3	595	
CM24	1	26.2	596	
PE28	43	26.4	639	
IP32	3	26.7	642	
IP33	7	27.2	649	
IP27	7	27.4	656	
SG6	4	27.4	660	
PE15	16	28.7	676	
CM7	4	28.8	680	
SG15	1	30	681	
CO9	6	30.4	687	
CM23	5	30.7	692	
PE38	7	31.2	699	
SG16	1	31.2	700	
IP29	5	31.3	705	
SG4	2	31.6	707	
MK44	1	31.8	708	
PE26	10	32.4	718	
MK41	1	32.5	719	
IP24	12	33	731	
IP30	8	33.3	739	
SG1	2	33.4	741	
CM22	2	33.6	743	
CO10	7	33.7	750	
MK42	1	33.8	751	
IP26	2	34.5	753	
CM21	2	34.9	755	
SG5	3	35.3	758	
MK45	1	35.3	759	
CM6	3	35.5	762	
IP31	5	36.3	767	
PE14	4	36.6	771	
SG17	2	36.9	773	
PE7	7	37.3	780	
LU2	2	38.3	782	
MK43	1	38.8	783	
PE33	4	38.9	787	
PE2	4	39.4	791	
SG13	1	39.5	792	
CM18	1	39.6	793	
CM19	2	39.8	795	
SP1	1	39.8	796	
CM16	1	40.8	797	
PE3	1	41.4	798	
CM8	1	42.1	799	
IP14	6	42.7	805	
EN10	1	42.7	806	
NN14	2	43	808	
NN9	2	43.1	810	
PE13	2	43.1	812	
NN15	3	43.6	815	
PE8	2	43.8	817	
IP7	1	43.9	818	
NN10	2	44.5	820	
NR17	5	44.7	825	
NN16	1	45.7	826	
PE34	3	45.8	829	
AL7	1	45.8	830	
PE6	7	46.1	837	
PE30	1	46.4	838	
NN18	3	46.6	841	
NN8	1	46.7	842	
IP25	2	46.9	844	
PE1	1	46.9	845	
CO4	1	47.4	846	
IP6	1	47.8	847	
PE4	1	47.8	848	
PE32	2	49.8	850	
CM9	2	50.0	852	
IP1	2	50.3	854	
AL4	1	50.3	855	
MK2	1	50.4	856	
CM2	2	50.6	858	
NR16	1	51.2	859	
AL5	1	51.5	860	
NN17	2	51.7	862	
EN4	1	52.2	863	
E4 8	1	52.9	864	
IG2	1	53	865	
E6 3	1	55	866	
IP2	1	55	867	
NR9	1	55	868	
PE31	1	55.3	869	
PE9	4	55.4	873	
NN7	1	55.4	874	
E6 5	1	56.2	875	
NR19	2	56.4	877	
CM13	1	56.8	878	
NR4	1	56.9	879	
LE16	1	58.5	880	
IP3	2	59.1	882	
PE11	1	59.2	883	
HA2	1	59.4	884	
NN5	1	59.7	885	
LE15	1	60.5	886	
NR5	1	61.7	887	
SS16	2	62.5	889	
W3 8	1	63	890	
HP4	1	63.3	891	
NR1	1	63.4	892	
NR8	1	63.4	893	
IP11	1	63.7	894	
SE18	1	63.7	895	
PE10	3	63.9	898	
NR21	1	64.5	899	
SS9	1	64.8	900	
NR7	1	66.7	901	
NR14	1	68	902	
BR2	1	69.5	903	
OX27	1	69.8	904	
PE21	1	70.1	905	
PE22	1	76.6	906	
NN11	1	76.7	907	
TN15	1	77.3	908	
NR11	1	77.6	909	
ME1	1	78.6	910	
TN16	1	79.8	911	
CV31	1	85.8	912	
LN5	1	86.2	913	
CV10	1	86.7	914	
OX7	1	89.6	915	
NG2	1	90.6	916	
GU46	1	92.3	917	
B27	1	101	918	
OX12	1	104	919	
RH12	1	105	920	
RG19	2	107	922	
GU30	1	109	923	
PO8	1	125	924	
SN4	1	126	925	
GL20	1	127	926	
PO7	1	127	927	
PO9	1	128	928	
DN8	1	133	929	
HU17	1	152	930	
YO10	1	163	931	
SK9	1	169	932	
HR2	1	170	933	
LN11	2	180	935	
CF14	1	187	936	
LL15	1	191	937	
PR26	1	197	938	
DL8	1	199	939	
DL3	1	202	940	
FY5	1	222	941	
PL7	1	270	942	
ML3	1	351	943	
PA8	1	370	944	
BT5	1	438	945	

APPENDIX B: First Phase and Trip Budget Analysis

23/04590/OUT - Land South of Coldhams Lane

Taken from Transport Assessment

	AM Peak			PM Peak		
per 100sqm NIA	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Veh Trip Rate (40% Car Driver)						
Person Trip Rates						

	AM Peak			PM Peak		
PER STAFF MEMBER	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Veh Trip Rate (40% Car Driver)						
Person Trip Rates	0.084	0.009	0.093	0.009	0.060	0.069

MSOAs with three of more trips to Cambridge 0XX were considered in distribution assessment.

Route planning software used

90,018 sqm GEA of laboratory and office spaces. 60:40 split Lab:Office

Phase 1 modal splits:

40% car driver mode share
8% Walking
32% Cycling

Phase 1 - 11,610sqm NIA, 535 staff -

Phase	AM Peak Hour (08:00-09:00)		PM Peak Hour (17:00-18:00)	
	Arrivals	Departures	Arrivals	Departures
Phase 1 (Building 3 and 4) 40% car driver mode share	45	5	5	32
Phase 2 (Phase 1+Building 1 and 2) 37.5% car driver mode share	143	16	17	103
Phase 3 (Phase 1+2+Building 5 and 6) 35% car driver mode share	221	25	26	159
Phase 4 (Phase 1+2+3+Building 7 and 8) 30% car driver mode share	215	25	26	155

Table 12: Peak Hours Vehicle Trip Generation

Junction	Approach / Direction	Distribution %
Coldham's Lane/ Norman Way Signalised T-Junction and Coldham's Lane / High Street T-Junction	Coldham's Lane (West)	57%
	Coldham's Lane (East)	43%
Coldham's Lane/ Brooks Road/ A1134 Barnwell Road Roundabout	Brooks Road (South)	16%
	Coldham's Lane (West)	20%
	A1134 Barnwell Road (North)	21% - includes 4% of local traffic
	Coldham's Lane (East)	0%
A1134 Barnwell Road/ A1303 Newmarket Road/ Wadloes Road Roundabout	Wadloes Road (North)	17%
	A1134 Newmarket Road (West)	0%
	A1134 Newmarket Road (East)	0%
Coldham's Lane/ High Street Signalised T-Junction	High Street (South)	19%
	High Street (North)	24% - includes 5% of local traffic
Airport Way/ Gazelle Way/ Cherry Hinton Roundabout	Airport Way (North)	13%
	Gazelle Way (East)	2%
	Cherry Hinton	4%
A1303 Newmarket Road/ Airport Way Roundabout	Newmarket Road (East)	13%
	Newmarket Road (West)	0%

Table 13: Forecast Vehicle Distribution

18/0481/OUT - Land North of Cherry Hinton

Transport Assessment - ES Appendix 8.1 (Part 2 contains trip gen)

	AM Peak			PM Peak		
per dwelling	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Veh Trip Rate (40	0.0844	0.2776	0.362	0.214	0.0928	0.3068
Person Trip Rates	0.211	0.694	0.905	0.535	0.232	0.767

Table 10.1 | Summary of the TRICS Person Trip Rates for Privately Owned Houses – TRICS 2017 v 7.4.1

Land-use	Unit	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
		In	Out	Total	In	Out	Total
Privately Owned Houses	Per Dwelling	0.211	0.694	0.905	0.535	0.232	0.767
Primary School	Per Pupil	1.281	0.493	1.774	0.053	0.108	0.161
Secondary School	Per Pupil	0.762	0.083	0.845	0.015	0.021	0.036
Shopping Centre - Local Shops	Per 100m² GFA	16.658	16.981	33.639	14.591	16.640	31.231

Table 10.3 | Comparative Person Trip Assessment – Residential Trip Rates.

Person Trip Rate Per Dwelling	AM Peak (0800 – 0900)			PM Peak (1700 – 1800)		
	In	Out	Total	In	Out	Total
Wing Development	0.35	0.75	1.10	0.56	0.26	0.82
Land North of Cherry Hinton	0.211	0.694	0.905	0.535	0.232	0.767
Bar Hill	n/a	n/a	0.83	n/a	n/a	0.90
Cherry Hinton	n/a	n/a	0.82	n/a	n/a	0.70
Trumpington	n/a	n/a	0.96	n/a	n/a	0.58
Cambridge South	n/a	n/a	0.794	n/a	n/a	0.748
Clay Farm	0.058	0.529	0.591	0.399	0.197	0.593
IDA Darwin	0.236	0.778	1.014	0.576	0.305	0.881
Average Person Trip Rate	-	-	0.872	-	-	0.746

Table 10.9 | Adjustments to Residential and Education based person trip generation for Internalisation - AM and PM Peaks

Residential Land-uses	
Commuting and Business	6.1% Working internal to the development.
Education	No Adjustments
Escort Education	
Shopping	80% Assumed to be to and from Local Centre
Other work, other escort and personal business	50% Assumed to be to and from Local Centre
Visiting friends / entertainment / sport / Holiday / Day Trip / Other	No Adjustments
Education	
Primary School	97% Assumed to be Internal Trips only. Assume only 3% of total person trip generation is an external trip as this reflects estimated staff numbers.
Secondary School	18% assumed internal, 82% assumed external.

March 2026 Scenarios
Using Development Togge Table, and changing only the number of homes OR the number of jobs (not changing employment floorspace)

Scenarios

(what we need to achieve to meet the existing trip budget)

Newmarket Road: 209 AM trips /175 PM trips

Barnwell Road: 33 AM trips / 27 PM trips

Existing Vehicular Trip Budget

Total AM Trip	242	0800-0900
Total PM Trip	202	1700-1800

Vision-led Scenario (ie more ambitious car driver mode share

(20% Car Driver)	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrival	Departure	Two-Way	Arrival	Departure	Two-Way
Employment Only (60:40 Lab to Office)	0	0	**0**	0	0	**0**
Employment Only (60:40 Lab to Office) PER STAFF	0	0	0	0	0	0
Employment Only (Lab 100%)	0	0	0	0	0	0
Employment Only (Office 100%)	0	0	0	0	0	0
Residential Only	0	0	**0**	0	0	**0**
Total jobs and homes vehiuclar trips			0			0

Benchmarked Scenario (ie standard car driver mode share)

(40% Car Driver)	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrival	Departure	Two-Way	Arrival	Departure	Two-Way
Employment Only (60:40 Lab to Office)	0	0	**0**	0	0	**0**
Employment Only (60:40 Lab to Office) PER STAFF	92	10	103	14	87	100
Employment Only (Lab 100%)	0	0	0	0	0	0
Employment Only (Office 100%)	0	0	0	0	0	0
Residential Only	29	94	**123**	73	32	**104**
Total jobs and homes vehiuclar trips			226			205

Proportion of Homes to Jobs (more jobs than homes) - AIM 0.75

0.755555556	Benchmarked
#DIV/0!	Vision-led

VISION LED DEVELOPMENT TOGGLE TABLE

Employment sqm (60:40)		NIA
Employment sqm (Lab)		
Employment sqm (Office)		
No. Dwellings		
No. Staff Members		

Use this table to input the number of jobs **or** homes or a **combination** of both to see the total vehicular trips above

(can also use employment floorspace but in this instance we are using number of jobs)

NB: when toggling no. of dwellings and no. of staff, you must make sure both the AM **and PM trips are within the AM and PM trip bidgets in the bright yellow box

BENCHMARKED DEVELOPMENT TOGGLE TABLE

Employment sqm (60:40)		NIA
Employment sqm (Lab)		
Employment sqm (Office)		
No. Dwellings	340	
No. Staff Members	450	

Use this table to input the number of jobs **or** homes or a **combination** of both to see the total vehicular trips above

(can also use employment floorspace but in this instance we are using number of jobs)

NB: when toggling no. of dwellings and no. of staff, you must make sure both the AM **and PM trips are within the AM and PM trip bidgets in the bright yellow box

start here and amend toggle links to link to above benchmarked table

23/04590/OUT - Land South of Coldhams Lane
Taken from Transport Assessment

	AM Peak			PM Peak		
per 100sqm NIA	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Veh Trip Rate (40% Car Driver)	0.388	0.043	0.431	0.043	0.276	0.319
Veh Trip Rate (20% Car Driver)	0.194	0.0215	0.2155	0.0215	0.138	0.1595
Person Trip Rates	0.97	0.1075	1.0775	0.1075	0.69	0.7975

	AM Peak			PM Peak		
per 100sqm NIA	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Veh Trip Rate (40% Car Driver)	0.95	0.11	1.05	0.14	0.89	1.03
Veh Trip Rate (20% Car Driver)	0.47	0.05	0.53	0.07	0.44	0.51
Person Trip Rates	2.36	0.26	2.63	0.35	2.22	2.57

Resi 40% D	72	236	308	182	79	261
walk	28	92	120	47	21	68
cycle	11	38	49	45	20	65
pt	4	12	15	18	8	26

Employme	0	0	0	0	0	0
walk	0	0	0	0	0	0
cycle	0	0	0	0	0	0
pt	0	0	0	0	0	0

18/0481/OUT - Land North of Cherry Hinton
Transport Assessment - ES Appendix 8.1 (Part 2 contains trip gen)

	AM Peak			PM Peak		
per dwelling	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Veh Trip Rate (40% Car Driver)	0.0844	0.2776	0.362	0.214	0.0928	0.307
Veh Trip Rate (20% Car Driver)	0.0422	0.1388	0.181	0.107	0.0464	0.153
Person Trip Rates	0.211	0.694	0.905	0.535	0.232	0.767

Employment (Lab) (TRICS)

	AM Peak			PM Peak		
per 100sqm	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Veh Trip Rate (40% Car Driver)	0.662	0.0884	0.7504	0.0496	0.4996	0.5492
Veh Trip Rate (20% Car Driver)	0.331	0.0442	0.3752	0.0248	0.2498	0.2746
Person Trip Rates	1.655	0.221	1.876	0.124	1.249	1.373

Employment (Office) (TRICS)

	AM Peak			PM Peak		
per 100sqm	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Veh Trip Rate (40% Car Driver)	0.5548	0.0756	0.6304	0.0664	0.404	0.4704
Veh Trip Rate (20% Car Driver)	0.2774	0.0378	0.3152	0.0332	0.202	0.2352
Person Trip Rates	1.387	0.189	1.576	0.166	1.01	1.176

Employment (60:40 Lab:Office) PER STAFF MEMBER

	AM Peak			PM Peak		
PER STAFF MEMBER	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Veh Trip Rate (20% Car Driver)	0.042	0.005	0.047	0.005	0.030	0.035
Veh Trip Rate (40% Car Driver)	0.084	0.009	0.093	0.009	0.060	0.069
Person Trip Rates	0.210	0.023	0.234	0.023	0.150	0.173

	AM Peak			PM Peak		
PER STAFF MEMBER	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Veh Trip Rate (20% Car Driver)	0.103	0.011	0.114	0.015	0.096	0.112
Veh Trip Rate (40% Car Driver)	0.205	0.023	0.228	0.030	0.193	0.223
Person Trip Rates	0.513	0.057	0.570	0.075	0.482	0.558

More ambitious vehicular mode shares

NW Cambridge (Eddington)

		Residential Vehicular Trip rates
Latest 2024 car driver mode share	0.14	
AM Peak Person Trip Rate (0800-0900,Resid	0.425	0.060
AM Peak Person Trip Rate (0800-0900,Resid	0.974	0.136
AM Peak Person Trip Rate (0800-0900,Resid	1.399	0.196
PM Peak Person Trip Rate (1700-1800,Resid	0.608	0.085
PM Peak Person Trip Rate (1700-1800,Resid	0.32	0.045
PM Peak Person Trip Rate (1700-1800,Resid	0.928	0.130

For employment vehicular trip rates, use person trips with above mode share applied (see right hand side next to box)

Employment Vehicular Trip Rates

AM Arrival	0.072
AM Departure	0.008
AM Two Way	0.080
PM Arrival	0.011
PM Departure	0.068
PM Two-Way	0.078

NB: using Eddington as we have recorded mode share data for 2024

Existing Cambridge East Trip Envelope

Total AM T	242	0800-0900
Total PM T	202	1700-1800

Eddington Car Driver Mode Share	AM Peak (0800-0900)			PM Peak (1700-1800)		
	Arrival	Departure	Two-Way	Arrival	Departure	Two-Way
Employment Only (60:40 Lab to Office) PER STAFF	77	9	85	11	72	84
Residential Only	48	109	157	68	36	104
Total jobs and homes vehiuclar trips	125	118	242	80	108	188
Total buffer remaining			*0*			*14*

EDDINGTON VEHICLE MODE SHARE TOGGLE TABLE

Number of Dwellings	802
Number of Staff Meml	1070

Waterbeach Key Phase 2

AM Peak Vehicular Trip Rate - Arrival	0.115
AM Peak Vehicular Trip Rate - Departure	0.201
AM Peak Vehicular Trip Rate - Two Way	0.316
PM Peak Vehicular Trip Rate - Arrival	0.183
PM Peak Vehicular Trip Rate - Departure	0.118
PM Peak Vehicular Trip Rate - Two Way	0.301
KP1 Resi Car driver Mode Share AM	0.5
KP1 Resi Car driver Mode Share PM	0.59
Full Dev Resi Car driver Mode Share AM	0.48
Full Dev Resi Car driver Mode Share PM	0.55
Full Allocation Resi Car driver Mode Share Al	0.48
Full Allocation Resi Car driver Mode Share Pl	0.61

Northstowe

AM Peak Vehicular Trip Rate - Arrival	0.108
AM Peak Vehicular Trip Rate - Departure	0.196
AM Peak Vehicular Trip Rate - Two Way	0.304
PM Peak Vehicular Trip Rate - Arrival	0.096
PM Peak Vehicular Trip Rate - Departure	0.205
PM Peak Vehicular Trip Rate - Two Way	0.301

Combinations which satisfy existing trip envelope

Scenario 1 **40% Car Driver Mode Share**	Dwellings	Jobs	Dwellings Two Way Vehicular Trip Rates	Jobs Two Way Vehicular Trip Rates
Dwellings only	675		AM: 0.362	AM: 0.228
Jobs only		900	PM: 0.307	PM: 0.223
Dwellings **and** Jobs hybrid @ 0.75 homes to jobs	340	450		

20% Car Driver Mode Share	Dwellings	Jobs	Dwellings Two Way Vehicular Trip Rates	Jobs Two Way Vehicular Trip Rates
Dwellings only	1350		AM: 0.181	AM: 0.114
Jobs only		1800	PM: 0.153	PM: 0.112
Dwellings **and** Jobs hybrid @ 0.75 homes to jobs	675	900		

Scenario 2 **Eddington 2024 Recorded Car Driver Mode Share**	Dwellings	Jobs
Dwellings only	1200	
Jobs only		2550
Dwellings **and** Jobs hybrid @ 0.75 homes to jobs	802	1070

^^ *This is the more ambitious relatity we should be aiming for at Cambridge East*