



TRICS Consortium Limited

TRICS Residential Sub-Category Comparative Analysis

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1. Introduction

- 1.1. TRICS has been undertaking surveys at residential developments ever since the project commenced in the late 1980's and, to this present day, residential surveys remain very important to our user organisations. Since 2000, these surveys have been enhanced with the introduction of multi-modal counts.
- 1.2. In addition to the annual regional data collection programmes across the UK and Ireland that TRICS manages and delivers, many separately commissioned Standardised Assessment Methodology (SAM) surveys at residential developments with travel plans are also delivered for numerous clients each year, with the resulting results also being added to the TRICS database.
- 1.3. Consistently year on year, more trip rate calculations are undertaken by our users for residential land use sub-categories than for any other development type in the database, and through the annual TRICS User Survey it is clear that our users require more surveys within this most popular of land uses. This remains a high priority for TRICS when we formulate our annual data collection programmes.
- 1.4. The main Residential land use category consists of a variety of sub-categories that contain sufficient data for a comparative trip generation analysis, and this technical note presents the findings of this. Residential land use sub-categories are defined by their proportions of privately owned and non-privately owned dwellings and housing types (see Section 2). Although the survey sample does not allow for more detailed breakdowns, the intention of this technical analysis was to provide some basic initial comparative information, which the survey sample is sufficient to achieve. It should be noted that the survey sample has also allowed us to provide a split of surveys across two time periods, to allow for some time-related context.
- 1.5. The aim of this technical note is not to provide any reasoning for any of the results obtained. Instead, the aim is to provide TRICS users and the wider transport planning community with clear, comparative trip generation data across a range of residential sub-categories, which is to be interpreted by practitioners using their own professional judgement. We offer no explanations or suggestions to explain any of the results, but we have provided detail on the survey selection criteria and the method used in the analysis.

2. TRICS Residential Land-Use Sub-Category Definitions

- 2.1. It is important for readers to understand the differences between the various TRICS residential land use sub-categories that have been included in this analysis. Two important factors determine which sub-category a residential survey is placed within, these being the level of privately owned dwellings compared to non-privately owned dwellings, and the proportion of dwellings that are flats or houses.
- 2.2. It is also important to note the definitions of what constitutes a privately owned dwelling and a non-privately owned dwelling in TRICS. A privately owned dwelling will be any dwelling where occupiers have any degree of equity in the property, so will include privately mortgaged dwellings (or dwellings owned outright), flats that are owned by a landlord and rented privately at market (or affordable) rates to tenants, and dwellings with any level of “shared ownership”. Non-privately owned dwellings in TRICS are defined as social rented (local authority) or housing association rented.
- 2.3 The official TRICS definitions of the residential land use sub-categories included in this analysis are as follows:

03/A (Houses Privately Owned)

Housing developments where at least 75% of units are privately owned. Of the total number of units, 75% must also be houses (sum of "non-split" terraced, detached, semi-detached, bungalows, etc), with no more than 25% of the total units being flats. The TRICS definition of a privately owned dwelling is a dwelling at which residents have any degree of equity, or a dwelling that is owned by a private landlord and rented at market rates.

03/B (Affordable/Local Authority Houses)

Housing developments where at least 75% of units are non-privately owned. Of the total number of units, 75% must also be houses (sum of "non-split" terraced, detached, semi-detached, bungalows, etc), with no more than 25% of the total units being flats. "Non-privately owned" may be council rented or housing association rented. The TRICS definition of a privately owned dwelling is a dwelling at which residents have any degree of equity, or a dwelling that is owned by a private landlord and rented at market rates.

03/C (Flats Privately Owned)

Housing developments where at least 75% of households are privately owned. Of the total number of units, 75% must also be flats (sum of flats in blocks and "split" houses), with no more than 25% of the total units being "non-split" houses. The TRICS definition of a privately owned dwelling is a dwelling at which residents have any degree of equity, or a dwelling that is owned by a private landlord and rented at market rates.

03/D (Affordable/Local Authority Flats)

Housing developments where at least 75% of households are non-privately owned. Of the total number of units, 75% must also be flats (sum of flats in blocks and "split" houses), with no more than 25% of the total units being "non-split" houses. "Non-privately owned" may be council rented or housing association rented. The TRICS definition of a privately owned dwelling is a dwelling at which residents have any degree of equity, or a dwelling that is owned by a private landlord and rented at market rates.



03/K (Mixed Private Housing (Flats & Houses))

Housing developments where at least 75% of units are privately owned. Of the total number of units, less than 75% must be houses (sum of "non-split" terraced, detached, semi-detached, bungalows, etc), and less than 75% must be flats (sum of flats in blocks and "split" houses). The TRICS definition of a privately owned dwelling is a dwelling at which residents have any degree of equity, or a dwelling that is owned by a private landlord and rented at market rates.

03/L (Mixed Affordable Housing (Flats & Houses))

Housing developments where at least 75% of units are non-privately owned. Of the total number of units, less than 75% must be houses (sum of "non-split" terraced, detached, semi-detached, bungalows, etc), and less than 75% must be flats (sum of flats in blocks and "split" houses). "Non-privately owned" may be council rented or housing association rented. The TRICS definition of a privately owned dwelling is a dwelling at which residents have any degree of equity, or a dwelling that is owned by a private landlord and rented at market rates.

03/M (Mixed Private/Affordable Housing)

Housing developments where less than 75% of units are privately owned, and less than 75% of units are non-privately owned. "Non-privately owned" may be council rented or housing association rented. The TRICS definition of a privately owned dwelling is a dwelling at which residents have any degree of equity, or a dwelling that is owned by a private landlord and rented at market rates.

3. Survey Samples & Method of Analysis

3.1 It was important from the outset that there were sufficient surveys within the TRICS database for the various residential land use sub-categories to allow a robust comparative analysis to take place. This meant that the site selection process could not be overly broken down to the extent that the sample sizes would render the results unreliable, but we still needed to provide enough variation to make the exercise worthwhile, and the database was sufficient in size to achieve this.

3.2 An initial analysis of the availability and variation of surveys within the TRICS database meant that the survey selection criteria could consist of the following elements:

- (i) All included surveys would have been undertaken no earlier than 01/01/2000.
- (ii) Sets of analyses would be split between surveys undertaken during 2000-2010 and surveys undertaken during 2011-2021.
- (iii) All surveys would be on weekdays (Monday to Friday).
- (iv) Separate sets of analyses would take place for Total Vehicles and Total People counts. All surveys include a Total Vehicles count, whilst only multi-modal surveys include a Total People count. However, a large proportion of the total surveys included in the analysis would be multi-modal surveys, meaning that the overall survey samples for Total Vehicles and Total People analysis would not differ greatly.
- (v) The main TRICS location types to be included would be Suburban Area, Edge of Town, and Neighbourhood Centre (excluding villages). This was the largest compatible grouping of main TRICS location types that would give us the biggest workable data set (see the TRICS Good Practice Guide for more information on location type compatibility).

3.3 These selection criteria allowed us to obtain the survey samples shown in the following table. Note that the samples are first broken down by date range, followed by the number of surveys for the Total Vehicles analysis and then for the Total People analysis. Also note that TRICS version 7.9.1 was used for all calculations.

TRICS Land Use Sub-Category	2000-2010		2011-2021	
	Total Vehicles	Total People	Total Vehicles	Total People
03/A (Houses Privately Owned)	83	78	126	115
03/B (Affordable/Local Authority Houses)	11	n/a *	18	n/a *
03/C (Flats Privately Owned)	26	21	55	48
03/D (Affordable/Local Authority Flats)	23	15	19	13
03/K (Mixed Private Housing (Flats & Houses))	25	21	34	26
03/L (Mixed Affordable Housing (Flats & Houses))	8	n/a *	11	n/a *
03/M (Mixed Private/Affordable Housing)	25	17	86	77
Total	201	152	349	279

* The Total People survey samples for the 03/B and 03/L land use sub-categories were considered too low to provide reliable results.

Table 1: TRICS survey samples used in the technical analysis.

- 3.4 Having undertaken the survey selection process and achieved workable survey samples, the numerous average trip rate calculations could then take place. It was decided that the following method would be used:
- (i) All trip rates would be calculated using the Dwellings option, meaning that all trip rate results would be presented per 1 dwelling.
 - (ii) The first set of trip rates displayed would be Total Vehicle rates (using all surveys for each separate residential land use sub-category), so would include the 7 standard TRICS vehicle classifications combined (cars, taxis, motorcycles, light goods vehicles, public service vehicles, OGV1 (up to and including 3 axles) and OGV2 (over 3 axles)).
 - (iii) The second set of trip rates displayed would be Total People rates (using multi-modal surveys only for each separate residential land use sub-category), so would include all people movements (the sum of vehicle occupants, pedestrians, public transport users and cyclists).
 - (iv) Inbound and outbound trip rates would be displayed separately for specified peak periods (see next point), seeing as the nature of residential developments means that peaks of inbound and outbound activity take place at different times of the day. Combined inbound and outbound trip rates would also be shown for the 0700-1900 period.
 - (v) Trip rates would be shown for the 0700-1000, 1600-1900 and 0700-1900 time periods for each calculation undertaken.
 - (vi) Trip rates would also be shown for the peak (total two-way) hour for each calculation undertaken, with that hourly period displayed.



4. Comparative Results

4.1. The first set of comparative trip generation results are for the Total Vehicles analysis, and these are shown in Table 2.

Survey Dates and Land Use Sub-Categories	Survey Days	Inbound	Outbound	Inbound	Outbound	Total Trip Rate 0700-1900	Peak Hour	
		Trip Rate 0700-1000	Trip Rate 0700-1000	Trip Rate 1600-1900	Trip Rate 1600-1900		Period	Trip Rate
2000-2010								
03/A (Houses Privately Owned)	83	0.395	0.927	1.005	0.664	5.312	1700-1800	0.616
03/B (Affordable/Local Authority Houses)	11	0.331	0.508	0.685	0.516	4.031	1600-1700	0.442
03/C (Flats Privately Owned)	26	0.128	0.422	0.420	0.233	2.022	0800-0900	0.238
03/D (Affordable/Local Authority Flats)	23	0.149	0.240	0.322	0.266	1.895	1800-1900	0.205
03/K (Mixed Private Housing)	25	0.303	0.730	0.781	0.511	4.042	1700-1800	0.444
03/L (Mixed Affordable Housing)	8	0.237	0.468	0.695	0.442	3.427	1700-1800	0.402
03/M (Mixed Private/Affordable Housing)	25	0.274	0.543	0.651	0.440	3.362	1700-1800	0.389
2011-2021								
03/A (Houses Privately Owned)	126	0.353	0.844	0.922	0.516	4.642	1700-1800	0.534
03/B (Affordable/Local Authority Houses)	18	0.381	0.674	0.796	0.568	4.617	1700-1800	0.559
03/C (Flats Privately Owned)	55	0.142	0.348	0.352	0.193	1.775	0800-0900	0.203
03/D (Affordable/Local Authority Flats)	19	0.151	0.247	0.251	0.201	1.690	0800-0900	0.178
03/K (Mixed Private Housing)	34	0.308	0.708	0.728	0.429	3.878	0800-0900	0.422
03/L (Mixed Affordable Housing)	11	0.253	0.509	0.516	0.320	2.911	0800-0900	0.318
03/M (Mixed Private/Affordable Housing)	86	0.282	0.591	0.610	0.378	3.280	0800-0900	0.378

All trip rates displayed are per 1 dwelling

Table 2: Weekday comparisons between Residential land use sub-categories – Total Vehicles

4.2. The second set of comparative trip generation results are for the Total People analysis, and these are shown in Table 3.

Survey Dates and Land Use Sub-Categories	Survey Days	Inbound	Outbound	Inbound	Outbound	Total Trip Rate 0700-1900	Peak Hour	
		Trip Rate 0700-1000	Trip Rate 0700-1000	Trip Rate 1600-1900	Trip Rate 1600-1900		Period	Trip Rate
2000-2010								
03/A (Houses Privately Owned)	78	0.600	1.710	1.702	1.163	9.023	0800-0900	1.159
03/B (Affordable/Local Authority Houses)	n/a	Insufficient data available						
03/C (Flats Privately Owned)	21	0.215	1.018	0.978	0.468	4.445	1800-1900	0.609
03/D (Affordable/Local Authority Flats)	15	0.425	1.104	1.213	0.837	6.792	1500-1600	0.708
03/K (Mixed Private Housing)	21	0.441	1.427	1.387	0.831	6.952	0800-0900	0.908
03/L (Mixed Affordable Housing)	n/a	Insufficient data available						
03/M (Mixed Private/Affordable Housing)	17	0.484	1.243	1.271	0.806	6.583	0800-0900	0.850
2011-2021								
03/A (Houses Privately Owned)	115	0.547	1.559	1.631	0.879	7.955	0800-0900	1.007
03/B (Affordable/Local Authority Houses)	n/a	Insufficient data available						
03/C (Flats Privately Owned)	48	0.299	1.068	0.975	0.442	4.615	0800-0900	0.590
03/D (Affordable/Local Authority Flats)	13	0.305	0.944	0.959	0.551	5.071	0800-0900	0.669
03/K (Mixed Private Housing)	26	0.531	1.504	1.439	0.825	7.509	0800-0900	0.954
03/L (Mixed Affordable Housing)	n/a	Insufficient data available						
03/M (Mixed Private/Affordable Housing)	77	0.472	1.385	1.271	0.729	6.646	0800-0900	0.891

All trip rates displayed are per 1 dwelling

Table 3: Weekday comparisons between Residential land use sub-categories – Total People



5. Comparative Modal Split & Modal Shift Results

5.1. The Total People trip rate calculations also allowed two additional sets of comparative analyses to be undertaken, these being modal splits and the shifts of modal splits, with data represented for the two time periods of 2000-2010 and 2011-2021.

5.2. The first set of comparative results are for the mode splits, and these are shown in Table 4.

Survey Dates and Land Use Sub-Categories	Survey Days	Total Trip Rate 0700-1900	Peak Hour Period		Mode Split Percentages (0700-1900)			
			Trip Rate	Trip Rate	Vehicle Occ.	Peds	Cyclists	PT Users
2000-2010								
03/A (Houses Privately Owned)	78	9.023	0800-0900	1.159	79.5	15.4	1.9	3.2
03/B (Affordable/Local Authority Houses)	n/a	Insufficient data available						
03/C (Flats Privately Owned)	21	4.445	1800-1900	0.609	56.0	19.8	2.4	21.8
03/D (Affordable/Local Authority Flats)	15	6.792	1500-1600	0.708	36.9	46.6	3.2	13.4
03/K (Mixed Private Housing)	21	6.952	0800-0900	0.908	72.8	15.9	1.9	9.4
03/L (Mixed Affordable Housing)	n/a	Insufficient data available						
03/M (Mixed Private/Affordable Housing)	17	0.484	0800-0900	0.850	71.1	20.7	4.0	4.2
2011-2021								
03/A (Houses Privately Owned)	115	7.955	0800-0900	1.007	81.9	13.4	1.6	3.1
03/B (Affordable/Local Authority Houses)	n/a	Insufficient data available						
03/C (Flats Privately Owned)	48	4.615	0800-0900	0.590	48.3	25.8	2.8	23.1
03/D (Affordable/Local Authority Flats)	13	5.071	0800-0900	0.669	42.0	36.4	1.9	19.8
03/K (Mixed Private Housing)	26	7.509	0800-0900	0.954	70.9	19.5	2.3	7.2
03/L (Mixed Affordable Housing)	n/a	Insufficient data available						
03/M (Mixed Private/Affordable Housing)	77	6.646	0800-0900	0.891	67.4	19.7	2.0	10.9

All trip rates displayed are per 1 dwelling

Table 4: Mode split comparisons between Residential land use sub-categories

5.3. The second set of comparative results are for the shifts in mode split over the two time periods, and these are shown in Table 5.

Survey Dates and Land Use Sub-Categories	Survey Days	Modal Split (0700-1900) & Mode Shift between 2000-2010 & 2011-2021							
		Vehicle Occupants		Pedestrians		Cyclists		PT Users	
		Split %	Shift %	Split %	Shift %	Split %	Shift %	Split %	Shift %
2000-2010									
03/A (Houses Privately Owned)	78	79.5		15.4		1.9		3.2	
03/B (Affordable/Local Authority Houses)	n/a	Insufficient data available							
03/C (Flats Privately Owned)	21	56.0		19.8		2.4		21.8	
03/D (Affordable/Local Authority Flats)	15	36.9		46.6		3.2		13.4	
03/K (Mixed Private Housing)	21	72.8		15.9		1.9		9.4	
03/L (Mixed Affordable Housing)	n/a	Insufficient data available							
03/M (Mixed Private/Affordable Housing)	17	71.1		20.7		4.0		4.2	
2011-2021									
03/A (Houses Privately Owned)	115	81.9	3.0	13.4	-13.0	1.6	-15.8	3.1	-3.1
03/B (Affordable/Local Authority Houses)	n/a	Insufficient data available							
03/C (Flats Privately Owned)	48	48.3	-13.8	25.8	30.3	2.8	16.7	23.1	6.0
03/D (Affordable/Local Authority Flats)	13	42.0	13.8	36.4	-21.9	1.9	-40.6	19.8	47.8
03/K (Mixed Private Housing)	26	70.9	-2.6	19.5	22.6	2.3	21.1	7.2	-23.4
03/L (Mixed Affordable Housing)	n/a	Insufficient data available							
03/M (Mixed Private/Affordable Housing)	77	67.4	-5.2	19.7	-4.8	2.0	-50.0	10.9	159.5

All trip rates displayed are per 1 dwelling

Table 5: Mode shift comparisons between Residential land use sub-categories

6. Observations on Trip Generation Comparisons

- 6.1. TRICS does not intend to provide any explanations, suggestions or reasoning behind the comparative results that have been obtained through this technical analysis. Therefore, any speculative conclusions to be drawn from the results presented in this technical note will be down to the professional judgement of practitioners, and none will be the opinion of TRICS Consortium Limited. However, we can provide some technical observations that may allow such a process to take place.
- 6.2. The residential land use sub-category with the highest overall Total Vehicles trip rates (inbound and outbound combined for the 0700-1900 time period) was 03/A (Houses Privately Owned), with a figure of 5.312 Total Vehicle trips per dwelling for surveys undertaken from 2000 to 2010, and 4.642 Total Vehicle trips per dwelling for surveys undertaken from 2011 to 2021. This sub-category was followed by 03/K (Mixed Private Housing) and 03/B (Affordable/Local Authority Houses).
- 6.3. The two residential land use sub-categories with the lowest overall Total Vehicles trip rates (inbound and outbound combined for the 0700-1900 time period) were 03/C (Flats Privately Owned) and 03/D (Affordable/Local Authority Flats), with figures of 2.022 and 1.895 Total Vehicle trips per dwelling respectively for surveys undertaken from 2000 to 2010, and 1.775 and 1.690 Total Vehicle trips per dwelling respectively for surveys undertaken from 2011 to 2021.
- 6.4. All but one of the residential land use sub-categories show a noticeable decrease in overall Total Vehicles trip rates over time (when the 2000-2010 and 2011-2021 periods are compared). The only sub-category that shows any increase in overall trip rates is 03/B (Affordable/Local Authority Houses), with an increase from 4.031 to 4.617 Total Vehicle trips per dwelling. However, it should be noted that the survey sample for this sub-category for the 2000-2010 period was quite low at 11 survey days. The overall average was a decrease of 5.4%.
- 6.5. In the 2000-2010 period, the overall (inbound plus outbound) peak hour of Total Vehicles activity was shown to be 1700-1800 for 4 of the 7 residential sub-categories, with an average trip rate of 0.391 trips per dwelling. However, in the 2010-2021 period the peak hour changes for 5 of the 7 sub-categories to 0800-0900, with the average trip rate reducing by 5.4% to 0.370 trips per dwelling.
- 6.6. The residential land use sub-category with the highest overall Total People trip rates (inbound and outbound combined for the 0700-1900 time period) was 03/A (Houses Privately Owned), with a figure of 9.023 Total People trips per dwelling for surveys undertaken from 2000 to 2010, and 7.955 Total People trips per dwelling for surveys undertaken from 2011 to 2021. This sub-category was followed by 03/K (Mixed Private Housing), with other sub-categories not far behind.
- 6.7. The residential land use sub-category with the lowest overall Total People trip rates (inbound and outbound combined for the 0700-1900 time period) was 03/C (Flats Privately Owned), with a figure of 4.445 Total People trips per dwelling for surveys undertaken from 2000 to 2010, and 4.615 Total People trips per dwelling for surveys undertaken from 2011 to 2021. The sub-category of 03/D (Affordable/Local Authority Flats) had the next lowest trip rate figure of 5.071 Total People trips per dwelling for the 2010-2021 period, although its corresponding figure for the 2000-2010 period was significantly higher at 6.792 Total People trips per dwelling.

- 6.8. Unlike the Total Vehicles trip rate comparison, the Total People comparison did not show a consistent decrease across the residential sub-categories of overall trip generation rates over time (inbound and outbound combined for the 0700-1900 time period), with some sub-categories showing a decrease whilst others showing an increase when the 2000-2010 and 2011-2021 periods were compared. However, the overall average was a decrease of 5.9%, which is fairly consistent with the 5.4% average decrease in Total Vehicle trip rates.
- 6.9. In the 2000-2010 period, the overall (inbound plus outbound) peak hour of Total People activity was shown to be 0800-0900 for 3 of the 5 residential sub-categories (noting that two sub-categories had insufficient Total People data to be included in this part of the analysis), with an average trip rate of 0.847 trips per dwelling. In the 2010-2021 period, all 5 sub-categories show the peak being 0800-0900, with the average trip rate reducing by 3.0% to 0.822 trips per dwelling.

7. Observations on Mode Split & Mode Shift Comparisons

- 7.1. The residential land use sub-category with the highest Vehicle Occupants mode split (inbound and outbound combined for the 0700-1900 time period) was 03/A (Houses Privately Owned), with Vehicle Occupants representing 79.5% of all people movements for surveys undertaken from 2000 to 2010, and 81.9% for surveys undertaken from 2010 to 2021. This sub-category was followed by 03/K (Mixed Private Housing) and 03/M (Mixed Private/Affordable Housing).
- 7.2. The residential land use sub-category with the highest Pedestrians mode split (inbound and outbound combined for the 0700-1900 time period) was 03/D (Affordable/Local Authority Flats), with Pedestrians representing 46.6% of all people movements for surveys undertaken from 2000 to 2010, and 36.4% for surveys undertaken from 2010 to 2021. This sub-category shows a much higher percentage of Pedestrians mode split than any of the other sub-categories.
- 7.3. The residential land use sub-category with the highest Cyclists mode split (inbound and outbound combined for the 0700-1900 time period) was 03/M (Mixed Private/Affordable Housing), with Cyclists representing 4.0% of all people movements for surveys undertaken from 2000 to 2010, although this reduces to 2.0% for surveys undertaken from 2010 to 2021 (the highest Cyclists sub-category for the 2011-2021 period being 03/C (Flats Privately Owned) at 2.8%, although across the overall 2000-2021 period the 03/M category still has the highest Cyclists percentage).
- 7.4. The residential land use sub-category with the highest Public Transport Users mode split (inbound and outbound combined for the 0700-1900 time period) was 03/C (Flats Privately Owned), with Public Transport Users representing 21.8% of all people movements for surveys undertaken from 2000 to 2010, and 23.1% for surveys undertaken from 2010 to 2021. This sub-category was followed by 03/D (Affordable/Local Authority Flats).
- 7.5. The mode shifts across the 2000-2010 and 2011-2021 periods do not provide adequate consistency to highlight any particular observations, with the mode shifts fluctuating greatly with no clear patterns emerging. It should be noted that there are significant differences in the survey samples for some of the residential land use sub-categories when the 2000-2010 and 2011-2021 periods are compared, and that coupled with the fact that there are relatively low samples for some sub-categories, means that pointing out any single features of the mode shift table might be considered potentially misleading. Practitioners are encouraged, as always, to exercise their own professional judgement in this respect. It should be noted that the survey samples were not filtered in any way by levels of local public transport, pedestrian or cycling accessibility, or any other factors other than those identified earlier in this technical note.



APPENDIX A: Full TRICS Calculation Results Tables – Total Vehicles

2000-2010

Time Range	ARR.			DEP.			TOT.		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	83	129	0.075	83	129	0.274	83	129	0.349
08:00-09:00	83	129	0.153	83	129	0.429	83	129	0.582
09:00-10:00	83	129	0.167	83	129	0.224	83	129	0.391
10:00-11:00	83	129	0.144	83	129	0.170	83	129	0.314
11:00-12:00	83	129	0.179	83	129	0.177	83	129	0.356
12:00-13:00	83	129	0.201	83	129	0.180	83	129	0.381
13:00-14:00	83	129	0.192	83	129	0.187	83	129	0.379
14:00-15:00	83	129	0.200	83	129	0.200	83	129	0.400
15:00-16:00	83	129	0.277	83	129	0.214	83	129	0.491
16:00-17:00	83	129	0.319	83	129	0.202	83	129	0.521
17:00-18:00	83	129	0.385	83	129	0.231	83	129	0.616
18:00-19:00	83	129	0.301	83	129	0.231	83	129	0.532
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:		2.593			2.719			5.312	

2011-2021

Time Range	ARR.			DEP.			TOT.		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	126	101	0.068	126	101	0.278	126	101	0.346
08:00-09:00	126	101	0.143	126	101	0.386	126	101	0.529
09:00-10:00	126	101	0.142	126	101	0.180	126	101	0.322
10:00-11:00	126	101	0.128	126	101	0.150	126	101	0.278
11:00-12:00	126	101	0.135	126	101	0.150	126	101	0.285
12:00-13:00	126	101	0.158	126	101	0.155	126	101	0.313
13:00-14:00	126	101	0.166	126	101	0.163	126	101	0.329
14:00-15:00	126	101	0.173	126	101	0.190	126	101	0.363
15:00-16:00	126	101	0.259	126	101	0.180	126	101	0.439
16:00-17:00	126	101	0.283	126	101	0.168	126	101	0.451
17:00-18:00	126	101	0.358	126	101	0.176	126	101	0.534
18:00-19:00	126	101	0.281	126	101	0.172	126	101	0.453
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:		2.294			2.348			4.642	

Table A 1: Trip rate calculation results for 03/A (Houses Privately Owned) – Total Vehicles

2000-2010

Time Range	ARR.			DEP.			TOT.		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	11	88	0.055	11	88	0.138	11	88	0.193
08:00-09:00	11	88	0.116	11	88	0.232	11	88	0.348
09:00-10:00	11	88	0.160	11	88	0.138	11	88	0.298
10:00-11:00	11	88	0.142	11	88	0.139	11	88	0.281
11:00-12:00	11	88	0.148	11	88	0.161	11	88	0.309
12:00-13:00	11	88	0.146	11	88	0.187	11	88	0.333
13:00-14:00	11	88	0.156	11	88	0.134	11	88	0.290
14:00-15:00	11	88	0.166	11	88	0.194	11	88	0.360
15:00-16:00	11	88	0.232	11	88	0.186	11	88	0.418
16:00-17:00	11	88	0.242	11	88	0.200	11	88	0.442
17:00-18:00	11	88	0.270	11	88	0.167	11	88	0.437
18:00-19:00	11	88	0.173	11	88	0.149	11	88	0.322
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:		2.006			2.025			4.031	

2011-2021

Time Range	ARR.			DEP.			TOT.		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	18	44	0.069	18	44	0.176	18	44	0.245
08:00-09:00	18	44	0.156	18	44	0.278	18	44	0.434
09:00-10:00	18	44	0.156	18	44	0.220	18	44	0.376
10:00-11:00	18	44	0.172	18	44	0.181	18	44	0.353
11:00-12:00	18	44	0.160	18	44	0.158	18	44	0.318
12:00-13:00	18	44	0.185	18	44	0.146	18	44	0.331
13:00-14:00	18	44	0.158	18	44	0.166	18	44	0.324
14:00-15:00	18	44	0.202	18	44	0.201	18	44	0.403
15:00-16:00	18	44	0.267	18	44	0.202	18	44	0.469
16:00-17:00	18	44	0.271	18	44	0.165	18	44	0.436
17:00-18:00	18	44	0.321	18	44	0.238	18	44	0.559
18:00-19:00	18	44	0.204	18	44	0.165	18	44	0.369
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:		2.321			2.296			4.617	

Table A 2: Trip rate calculation results for 03/B (Affordable/Local Authority Houses) – Total Vehicles

TRICS Residential Sub-Category Comparative Analysis

2000-2010

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	26	81	0.029	26	81	0.143	26	81	0.172
08:00-09:00	26	81	0.051	26	81	0.187	26	81	0.238
09:00-10:00	26	81	0.048	26	81	0.092	26	81	0.140
10:00-11:00	26	81	0.050	26	81	0.073	26	81	0.123
11:00-12:00	26	81	0.064	26	81	0.060	26	81	0.124
12:00-13:00	26	81	0.072	26	81	0.088	26	81	0.160
13:00-14:00	26	81	0.071	26	81	0.077	26	81	0.148
14:00-15:00	26	81	0.061	26	81	0.054	26	81	0.115
15:00-16:00	26	81	0.082	26	81	0.067	26	81	0.149
16:00-17:00	26	81	0.096	26	81	0.059	26	81	0.155
17:00-18:00	26	81	0.167	26	81	0.069	26	81	0.236
18:00-19:00	26	81	0.157	26	81	0.105	26	81	0.262
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			0.948			1.074			2.022

2011-2021

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	55	93	0.034	55	93	0.120	55	93	0.154
08:00-09:00	55	93	0.047	55	93	0.156	55	93	0.203
09:00-10:00	55	93	0.061	55	93	0.072	55	93	0.133
10:00-11:00	55	93	0.047	55	93	0.062	55	93	0.109
11:00-12:00	55	93	0.048	55	93	0.057	55	93	0.105
12:00-13:00	55	93	0.059	55	93	0.062	55	93	0.121
13:00-14:00	55	93	0.061	55	93	0.068	55	93	0.129
14:00-15:00	55	93	0.068	55	93	0.066	55	93	0.134
15:00-16:00	55	93	0.081	55	93	0.061	55	93	0.142
16:00-17:00	55	93	0.099	55	93	0.062	55	93	0.161
17:00-18:00	55	93	0.136	55	93	0.063	55	93	0.199
18:00-19:00	55	93	0.117	55	93	0.068	55	93	0.185
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			0.858			0.917			1.775

Table A 3: Trip rate calculation results for 03/C (Flats Privately Owned) – Total Vehicles

2000-2010

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	23	71	0.034	23	71	0.084	23	71	0.118
08:00-09:00	23	71	0.057	23	71	0.089	23	71	0.146
09:00-10:00	23	71	0.058	23	71	0.067	23	71	0.125
10:00-11:00	23	71	0.074	23	71	0.069	23	71	0.143
11:00-12:00	23	71	0.071	23	71	0.082	23	71	0.153
12:00-13:00	23	71	0.086	23	71	0.074	23	71	0.160
13:00-14:00	23	71	0.071	23	71	0.082	23	71	0.153
14:00-15:00	23	71	0.078	23	71	0.072	23	71	0.150
15:00-16:00	23	71	0.085	23	71	0.074	23	71	0.159
16:00-17:00	23	71	0.107	23	71	0.090	23	71	0.197
17:00-18:00	23	71	0.102	23	71	0.084	23	71	0.186
18:00-19:00	23	71	0.113	23	71	0.092	23	71	0.205
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			0.936			0.959			1.895

2011-2021

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	19	82	0.029	19	82	0.053	19	82	0.082
08:00-09:00	19	82	0.059	19	82	0.119	19	82	0.178
09:00-10:00	19	82	0.063	19	82	0.075	19	82	0.138
10:00-11:00	19	82	0.068	19	82	0.076	19	82	0.144
11:00-12:00	19	82	0.064	19	82	0.073	19	82	0.137
12:00-13:00	19	82	0.062	19	82	0.061	19	82	0.123
13:00-14:00	19	82	0.063	19	82	0.059	19	82	0.122
14:00-15:00	19	82	0.072	19	82	0.081	19	82	0.153
15:00-16:00	19	82	0.088	19	82	0.073	19	82	0.161
16:00-17:00	19	82	0.090	19	82	0.071	19	82	0.161
17:00-18:00	19	82	0.089	19	82	0.072	19	82	0.161
18:00-19:00	19	82	0.072	19	82	0.058	19	82	0.130
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			0.819			0.871			1.690

Table A 4: Trip rate calculation results for 03/D (Affordable/Local Authority Flats) – Total Vehicles

TRICS Residential Sub-Category Comparative Analysis

2000-2010

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	25	105	0.063	25	105	0.221	25	105	0.284
08:00-09:00	25	105	0.114	25	105	0.317	25	105	0.431
09:00-10:00	25	105	0.126	25	105	0.192	25	105	0.318
10:00-11:00	25	105	0.108	25	105	0.146	25	105	0.254
11:00-12:00	25	105	0.125	25	105	0.114	25	105	0.239
12:00-13:00	25	105	0.142	25	105	0.134	25	105	0.276
13:00-14:00	25	105	0.141	25	105	0.154	25	105	0.295
14:00-15:00	25	105	0.152	25	105	0.154	25	105	0.306
15:00-16:00	25	105	0.197	25	105	0.150	25	105	0.347
16:00-17:00	25	105	0.254	25	105	0.165	25	105	0.419
17:00-18:00	25	105	0.266	25	105	0.178	25	105	0.444
18:00-19:00	25	105	0.261	25	105	0.168	25	105	0.429
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:		1.949			2.093			4.042	

2011-2021

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	34	115	0.065	34	115	0.228	34	115	0.293
08:00-09:00	34	115	0.113	34	115	0.309	34	115	0.422
09:00-10:00	34	115	0.130	34	115	0.171	34	115	0.301
10:00-11:00	34	115	0.112	34	115	0.135	34	115	0.247
11:00-12:00	34	115	0.116	34	115	0.132	34	115	0.248
12:00-13:00	34	115	0.138	34	115	0.129	34	115	0.267
13:00-14:00	34	115	0.161	34	115	0.152	34	115	0.313
14:00-15:00	34	115	0.140	34	115	0.149	34	115	0.289
15:00-16:00	34	115	0.191	34	115	0.150	34	115	0.341
16:00-17:00	34	115	0.213	34	115	0.136	34	115	0.349
17:00-18:00	34	115	0.267	34	115	0.147	34	115	0.414
18:00-19:00	34	115	0.248	34	115	0.146	34	115	0.394
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:		1.894			1.984			3.878	

Table A 5: Trip rate calculation results for 03/K (Mixed Private Housing) – Total Vehicles

2000-2010

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	8	128	0.054	8	128	0.143	8	128	0.197
08:00-09:00	8	128	0.078	8	128	0.189	8	128	0.267
09:00-10:00	8	128	0.105	8	128	0.136	8	128	0.241
10:00-11:00	8	128	0.095	8	128	0.114	8	128	0.209
11:00-12:00	8	128	0.137	8	128	0.117	8	128	0.254
12:00-13:00	8	128	0.128	8	128	0.121	8	128	0.249
13:00-14:00	8	128	0.114	8	128	0.103	8	128	0.217
14:00-15:00	8	128	0.140	8	128	0.154	8	128	0.294
15:00-16:00	8	128	0.182	8	128	0.180	8	128	0.362
16:00-17:00	8	128	0.205	8	128	0.147	8	128	0.352
17:00-18:00	8	128	0.246	8	128	0.156	8	128	0.402
18:00-19:00	8	128	0.244	8	128	0.139	8	128	0.383
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:		1.728			1.699			3.427	

2011-2021

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	11	50	0.038	11	50	0.155	11	50	0.193
08:00-09:00	11	50	0.101	11	50	0.217	11	50	0.318
09:00-10:00	11	50	0.114	11	50	0.137	11	50	0.251
10:00-11:00	11	50	0.099	11	50	0.108	11	50	0.207
11:00-12:00	11	50	0.099	11	50	0.099	11	50	0.198
12:00-13:00	11	50	0.083	11	50	0.072	11	50	0.155
13:00-14:00	11	50	0.112	11	50	0.117	11	50	0.229
14:00-15:00	11	50	0.106	11	50	0.110	11	50	0.216
15:00-16:00	11	50	0.171	11	50	0.137	11	50	0.308
16:00-17:00	11	50	0.135	11	50	0.094	11	50	0.229
17:00-18:00	11	50	0.188	11	50	0.121	11	50	0.309
18:00-19:00	11	50	0.193	11	50	0.105	11	50	0.298
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:		1.439			1.472			2.911	

Table A 6: Trip rate calculation results for 03/L (Mixed Affordable Housing) – Total Vehicles



TRICS Residential Sub-Category Comparative Analysis

2000-2010

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	25	164	0.060	25	164	0.164	25	164	0.224
08:00-09:00	25	164	0.105	25	164	0.246	25	164	0.351
09:00-10:00	25	164	0.109	25	164	0.133	25	164	0.242
10:00-11:00	25	164	0.097	25	164	0.105	25	164	0.202
11:00-12:00	25	164	0.103	25	164	0.109	25	164	0.212
12:00-13:00	25	164	0.124	25	164	0.116	25	164	0.240
13:00-14:00	25	164	0.119	25	164	0.125	25	164	0.244
14:00-15:00	25	164	0.119	25	164	0.121	25	164	0.240
15:00-16:00	25	164	0.169	25	164	0.147	25	164	0.316
16:00-17:00	25	164	0.199	25	164	0.142	25	164	0.341
17:00-18:00	25	164	0.249	25	164	0.140	25	164	0.389
18:00-19:00	25	164	0.203	25	164	0.158	25	164	0.361
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			1.656			1.706			3.362

2011-2021

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	86	161	0.062	86	161	0.198	86	161	0.260
08:00-09:00	86	161	0.112	86	161	0.266	86	161	0.378
09:00-10:00	86	161	0.108	86	161	0.127	86	161	0.235
10:00-11:00	86	161	0.093	86	161	0.108	86	161	0.201
11:00-12:00	86	161	0.101	86	161	0.110	86	161	0.211
12:00-13:00	86	161	0.114	86	161	0.108	86	161	0.222
13:00-14:00	86	161	0.116	86	161	0.114	86	161	0.230
14:00-15:00	86	161	0.105	86	161	0.130	86	161	0.235
15:00-16:00	86	161	0.190	86	161	0.130	86	161	0.320
16:00-17:00	86	161	0.186	86	161	0.123	86	161	0.309
17:00-18:00	86	161	0.224	86	161	0.127	86	161	0.351
18:00-19:00	86	161	0.200	86	161	0.128	86	161	0.328
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			1.611			1.669			3.280

Table A 7: Trip rate calculation results for 03/M (Mixed Private/Affordable Housing) – Total Vehicles



APPENDIX B: Full TRICS Calculation Results Tables – Total People

2000-2010

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	78	116	0.107	78	116	0.416	78	116	0.523
08:00-09:00	78	116	0.240	78	116	0.919	78	116	1.159
09:00-10:00	78	116	0.253	78	116	0.375	78	116	0.628
10:00-11:00	78	116	0.209	78	116	0.280	78	116	0.489
11:00-12:00	78	116	0.274	78	116	0.277	78	116	0.551
12:00-13:00	78	116	0.307	78	116	0.288	78	116	0.595
13:00-14:00	78	116	0.307	78	116	0.297	78	116	0.604
14:00-15:00	78	116	0.322	78	116	0.310	78	116	0.632
15:00-16:00	78	116	0.612	78	116	0.365	78	116	0.977
16:00-17:00	78	116	0.567	78	116	0.367	78	116	0.934
17:00-18:00	78	116	0.635	78	116	0.385	78	116	1.020
18:00-19:00	78	116	0.500	78	116	0.411	78	116	0.911
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			4.333			4.690			9.023

2011-2021

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	115	107	0.105	115	107	0.468	115	107	0.573
08:00-09:00	115	107	0.222	115	107	0.785	115	107	1.007
09:00-10:00	115	107	0.220	115	107	0.306	115	107	0.526
10:00-11:00	115	107	0.196	115	107	0.254	115	107	0.450
11:00-12:00	115	107	0.210	115	107	0.237	115	107	0.447
12:00-13:00	115	107	0.249	115	107	0.247	115	107	0.496
13:00-14:00	115	107	0.262	115	107	0.257	115	107	0.519
14:00-15:00	115	107	0.282	115	107	0.295	115	107	0.577
15:00-16:00	115	107	0.541	115	107	0.309	115	107	0.850
16:00-17:00	115	107	0.536	115	107	0.285	115	107	0.821
17:00-18:00	115	107	0.606	115	107	0.298	115	107	0.904
18:00-19:00	115	107	0.489	115	107	0.296	115	107	0.785
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			3.918			4.037			7.955

Table B 1: Trip rate calculation results for 03/A (Houses Privately Owned) – Total People

2000-2010

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	21	83	0.048	21	83	0.317	21	83	0.365
08:00-09:00	21	83	0.090	21	83	0.492	21	83	0.582
09:00-10:00	21	83	0.077	21	83	0.209	21	83	0.286
10:00-11:00	21	83	0.102	21	83	0.151	21	83	0.253
11:00-12:00	21	83	0.126	21	83	0.137	21	83	0.263
12:00-13:00	21	83	0.157	21	83	0.201	21	83	0.358
13:00-14:00	21	83	0.145	21	83	0.147	21	83	0.292
14:00-15:00	21	83	0.140	21	83	0.130	21	83	0.270
15:00-16:00	21	83	0.196	21	83	0.134	21	83	0.330
16:00-17:00	21	83	0.203	21	83	0.135	21	83	0.338
17:00-18:00	21	83	0.359	21	83	0.140	21	83	0.499
18:00-19:00	21	83	0.416	21	83	0.193	21	83	0.609
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			2.059			2.386			4.445

2011-2021

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	48	100	0.066	48	100	0.344	48	100	0.410
08:00-09:00	48	100	0.096	48	100	0.494	48	100	0.590
09:00-10:00	48	100	0.137	48	100	0.230	48	100	0.367
10:00-11:00	48	100	0.112	48	100	0.163	48	100	0.275
11:00-12:00	48	100	0.126	48	100	0.147	48	100	0.273
12:00-13:00	48	100	0.141	48	100	0.146	48	100	0.287
13:00-14:00	48	100	0.140	48	100	0.157	48	100	0.297
14:00-15:00	48	100	0.157	48	100	0.157	48	100	0.314
15:00-16:00	48	100	0.229	48	100	0.156	48	100	0.385
16:00-17:00	48	100	0.278	48	100	0.143	48	100	0.421
17:00-18:00	48	100	0.361	48	100	0.149	48	100	0.510
18:00-19:00	48	100	0.336	48	100	0.150	48	100	0.486
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			2.179			2.436			4.615

Table B 2: Trip rate calculation results for 03/C (Flats Privately Owned) – Total People

TRICS Residential Sub-Category Comparative Analysis

2000-2010

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	15	63	0.081	15	63	0.315	15	63	0.396
08:00-09:00	15	63	0.148	15	63	0.505	15	63	0.653
09:00-10:00	15	63	0.196	15	63	0.284	15	63	0.480
10:00-11:00	15	63	0.205	15	63	0.278	15	63	0.483
11:00-12:00	15	63	0.237	15	63	0.293	15	63	0.530
12:00-13:00	15	63	0.265	15	63	0.245	15	63	0.510
13:00-14:00	15	63	0.243	15	63	0.217	15	63	0.460
14:00-15:00	15	63	0.260	15	63	0.262	15	63	0.522
15:00-16:00	15	63	0.402	15	63	0.306	15	63	0.708
16:00-17:00	15	63	0.462	15	63	0.234	15	63	0.696
17:00-18:00	15	63	0.384	15	63	0.304	15	63	0.688
18:00-19:00	15	63	0.367	15	63	0.299	15	63	0.666
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			3.250			3.542			6.792

2011-2021

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	13	96	0.049	13	96	0.211	13	96	0.260
08:00-09:00	13	96	0.116	13	96	0.553	13	96	0.669
09:00-10:00	13	96	0.140	13	96	0.180	13	96	0.320
10:00-11:00	13	96	0.149	13	96	0.176	13	96	0.325
11:00-12:00	13	96	0.145	13	96	0.181	13	96	0.326
12:00-13:00	13	96	0.165	13	96	0.182	13	96	0.347
13:00-14:00	13	96	0.158	13	96	0.167	13	96	0.325
14:00-15:00	13	96	0.186	13	96	0.219	13	96	0.405
15:00-16:00	13	96	0.358	13	96	0.226	13	96	0.584
16:00-17:00	13	96	0.381	13	96	0.184	13	96	0.565
17:00-18:00	13	96	0.325	13	96	0.212	13	96	0.537
18:00-19:00	13	96	0.253	13	96	0.155	13	96	0.408
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			2.425			2.646			5.071

Table B 3: Trip rate calculation results for 03/D (Affordable/Local Authority Flats) – Total People

2000-2010

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	21	111	0.097	21	111	0.370	21	111	0.467
08:00-09:00	21	111	0.166	21	111	0.742	21	111	0.908
09:00-10:00	21	111	0.178	21	111	0.315	21	111	0.493
10:00-11:00	21	111	0.152	21	111	0.268	21	111	0.420
11:00-12:00	21	111	0.196	21	111	0.191	21	111	0.387
12:00-13:00	21	111	0.236	21	111	0.233	21	111	0.469
13:00-14:00	21	111	0.218	21	111	0.257	21	111	0.475
14:00-15:00	21	111	0.253	21	111	0.220	21	111	0.473
15:00-16:00	21	111	0.393	21	111	0.249	21	111	0.642
16:00-17:00	21	111	0.449	21	111	0.270	21	111	0.719
17:00-18:00	21	111	0.475	21	111	0.280	21	111	0.755
18:00-19:00	21	111	0.463	21	111	0.281	21	111	0.744
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			3.276			3.676			6.952

2011-2021

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	26	135	0.103	26	135	0.446	26	135	0.549
08:00-09:00	26	135	0.207	26	135	0.747	26	135	0.954
09:00-10:00	26	135	0.221	26	135	0.311	26	135	0.532
10:00-11:00	26	135	0.185	26	135	0.238	26	135	0.423
11:00-12:00	26	135	0.194	26	135	0.224	26	135	0.418
12:00-13:00	26	135	0.246	26	135	0.238	26	135	0.484
13:00-14:00	26	135	0.287	26	135	0.272	26	135	0.559
14:00-15:00	26	135	0.274	26	135	0.274	26	135	0.548
15:00-16:00	26	135	0.472	26	135	0.306	26	135	0.778
16:00-17:00	26	135	0.421	26	135	0.264	26	135	0.685
17:00-18:00	26	135	0.523	26	135	0.276	26	135	0.799
18:00-19:00	26	135	0.495	26	135	0.285	26	135	0.780
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			3.628			3.881			7.509

Table B 4: Trip rate calculation results for 03/K (Mixed Private Housing) – Total People



TRICS Residential Sub-Category Comparative Analysis

2000-2010

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	17	172	0.110	17	172	0.345	17	172	0.455
08:00-09:00	17	172	0.201	17	172	0.649	17	172	0.850
09:00-10:00	17	172	0.173	17	172	0.249	17	172	0.422
10:00-11:00	17	172	0.167	17	172	0.192	17	172	0.359
11:00-12:00	17	172	0.178	17	172	0.212	17	172	0.390
12:00-13:00	17	172	0.222	17	172	0.200	17	172	0.422
13:00-14:00	17	172	0.214	17	172	0.219	17	172	0.433
14:00-15:00	17	172	0.240	17	172	0.229	17	172	0.469
15:00-16:00	17	172	0.437	17	172	0.269	17	172	0.706
16:00-17:00	17	172	0.419	17	172	0.269	17	172	0.688
17:00-18:00	17	172	0.461	17	172	0.267	17	172	0.728
18:00-19:00	17	172	0.391	17	172	0.270	17	172	0.661
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			3.213			3.370			6.583

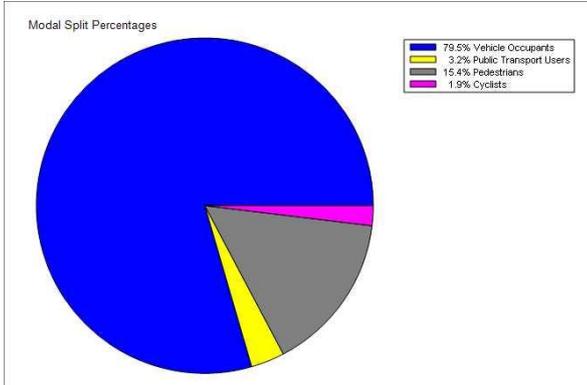
2011-2021

Time Range	ARR.			DEP.			TOT.		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	77	168	0.098	77	168	0.424	77	168	0.522
08:00-09:00	77	168	0.183	77	168	0.708	77	168	0.891
09:00-10:00	77	168	0.191	77	168	0.253	77	168	0.444
10:00-11:00	77	168	0.158	77	168	0.203	77	168	0.361
11:00-12:00	77	168	0.179	77	168	0.208	77	168	0.387
12:00-13:00	77	168	0.209	77	168	0.206	77	168	0.415
13:00-14:00	77	168	0.210	77	168	0.209	77	168	0.419
14:00-15:00	77	168	0.208	77	168	0.241	77	168	0.449
15:00-16:00	77	168	0.505	77	168	0.253	77	168	0.758
16:00-17:00	77	168	0.413	77	168	0.245	77	168	0.658
17:00-18:00	77	168	0.447	77	168	0.247	77	168	0.694
18:00-19:00	77	168	0.411	77	168	0.237	77	168	0.648
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Total Trip Rates:			3.212			3.434			6.646

Table B 5: Trip rate calculation results for 03/M (Mixed Private/Affordable Housing) – Total People

APPENDIX C: Modal Split Pie Charts

2000-2010



2011-2021

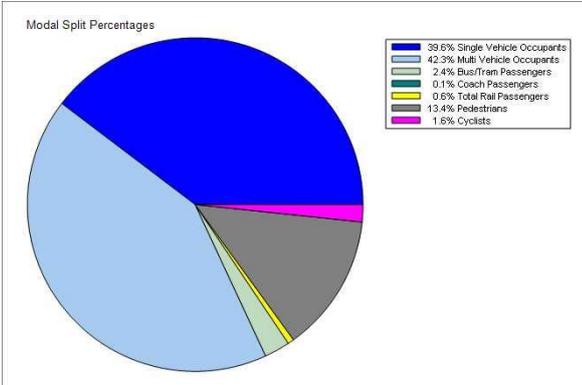
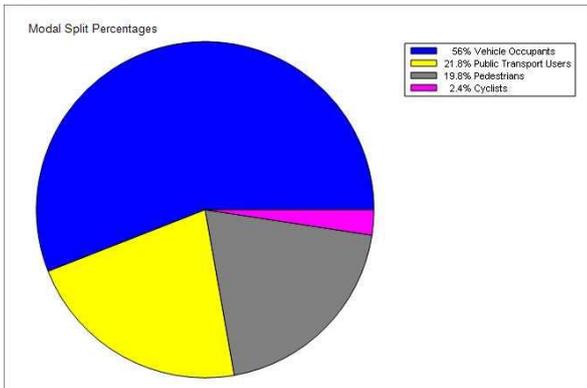


Figure C 1: Modal split pie charts for 03/A (Houses Privately Owned)

2000-2010



2011-2021

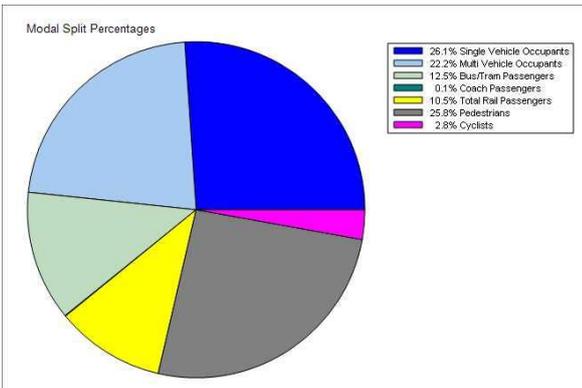
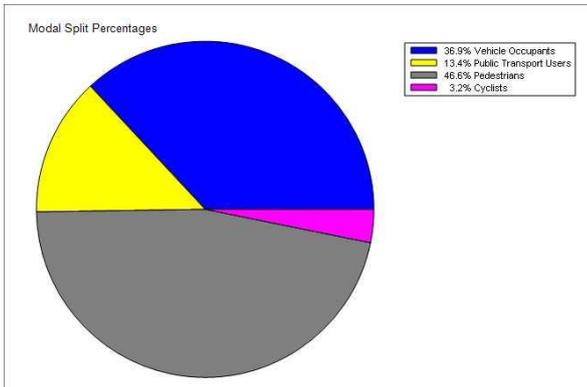


Figure C 2: Modal split pie charts for 03/C (Flats Privately Owned)

2000-2010



2011-2021

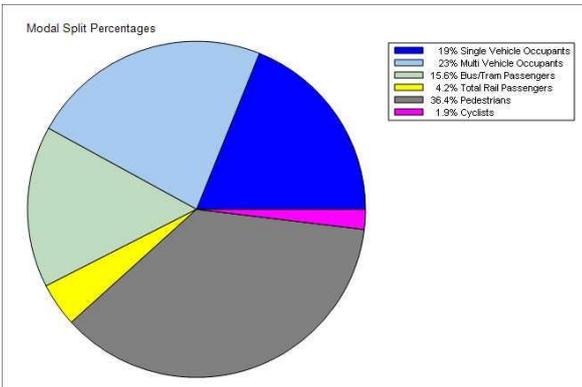
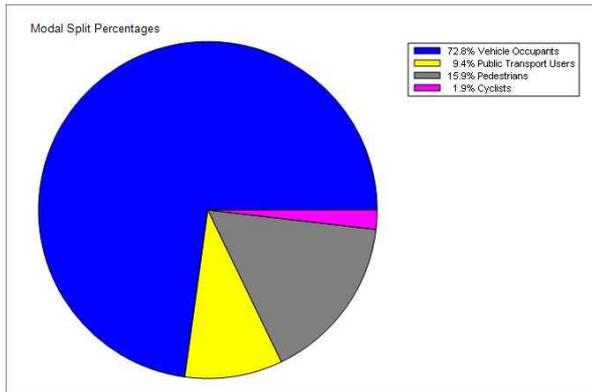


Figure C 3: Modal split pie charts for 03/D (Affordable/Local Authority Flats)

2000-2010



2011-2021

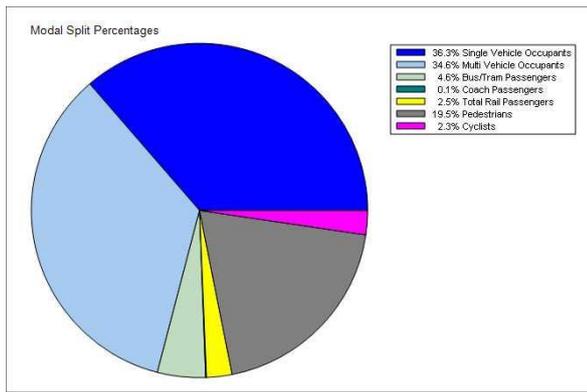
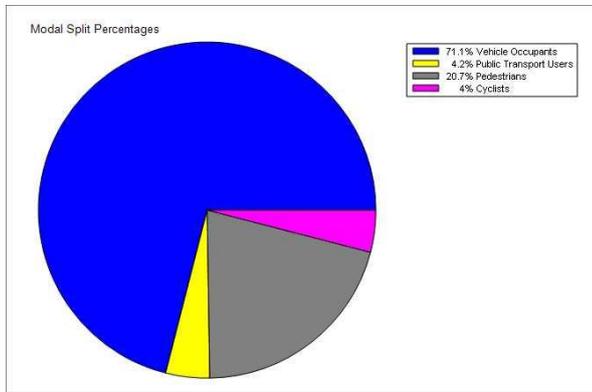


Figure C 4: Modal split pie charts for 03/K (Mixed Private Housing)

2000-2010



2011-2021

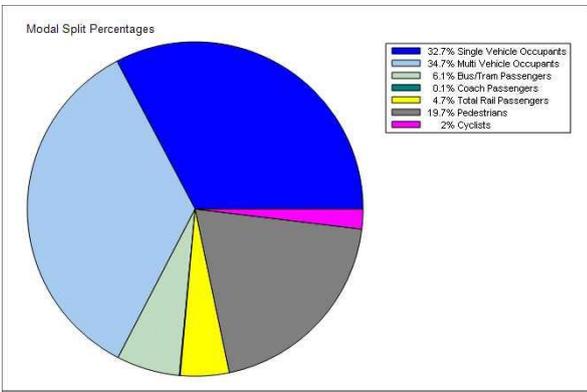


Figure C 5: Modal split pie charts for 03/M (Mixed Private/Affordable Housing)