Bedford Town Centre Transport Strategy

Forecasting Report

Final Report

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Forecasting Report

Report

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1 Introduction

1.1 This report documents the methodology that JMP Consultants Ltd (JMP) adopted for the preparation of the future year model forecasts for the modelling of Bedford Town Centre undertaken on behalf of Bedford Borough Council ('BBC').

1.2 The first stage was the creation of latent travel demand forecasts, representing the 'starting point' demand for a future year scenario prior to the application of the highway transport model.

1.3 The latent demand forecasts represent the changes brought about by car ownership changes, the effects of changes in land use and the changes in goods vehicles demand.

1.4 Consequently these forecasts do not take into account the changes in income as represented through future year values of time, monetary transport cost changes such as fuel and fare costs, or changes caused by the feedback of these effects.

1.5 Forecast land use scenarios have been generated for the following years:

- Saturn: 2011, 2015, 2021 and 2032;
- VISSIM: 2014, 2021 and 2032.

1.6 The remainder of this note is structured as follows:

- Concepts and Methodology – Providing an outline of the methodology together with a rationale for the underlying concepts and reasons behind the choice of the proposed methodology;
- Trip Generation for Key Sites – Detailing the methodology for the calculation of trip volumes for the key development sites, segmented by travel purpose and time of day;
- Constraining to TEMPRO – Detailing the proposed methodology for constraining to TEMPRO, in effect including all of the proposed developments and the background growth that is expected based on the DfT National Transport Model forecasts;
- Trip Distribution for Key Sites – Documenting the methodology for distributing the above trip ends across the potential travel opportunities in the model; and
- Forecast Models Network Coding – Providing an outline of the stages and order of work in creating the future year networks and public transport network coding.

2 Concepts and Methodology

Base Year

2.1 The base year model for the Saturn forecasts is based on 2011 survey data as supplied by BBC.

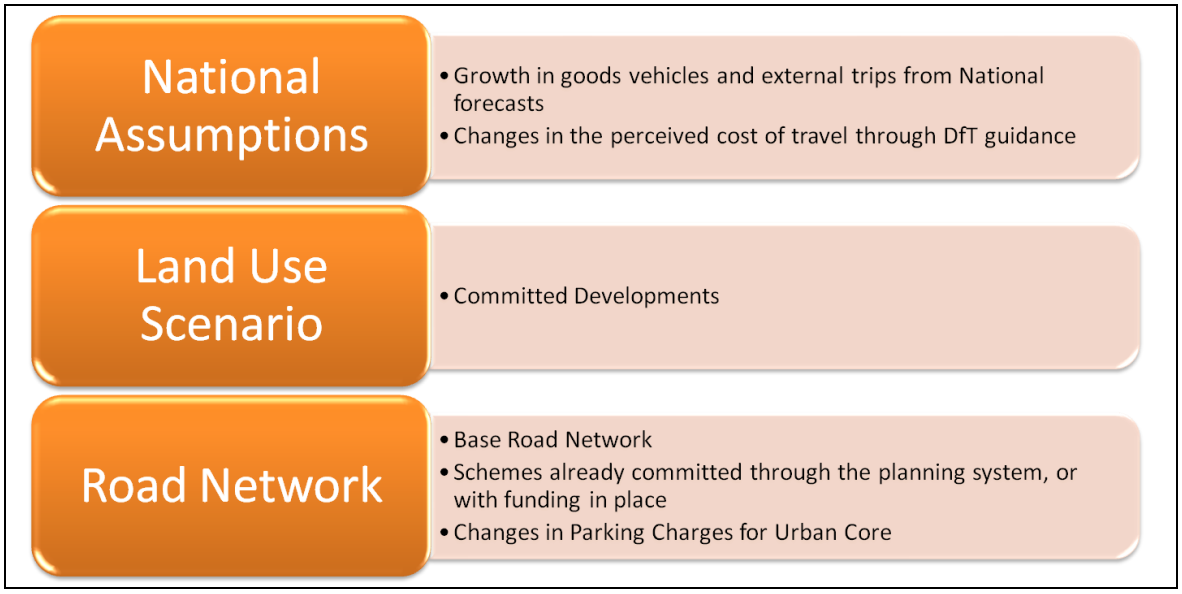
2.2 The base year model for the VISSIM forecast is based on 2014 survey data and on the current network as of November 2014.

Future Years

2.3 The formulation of the first forecast, the '**Do Minimum**' scenario, represents the 2015 base year and includes the build out of all of the new developments and highway schemes put in place since 2011. The latent travel demands are only related to committed schemes with funding in place, and the total growth due to committed developments is constrained to TEMPRO growth factors.

2.4 The scenario contains the following:

Figure 1 Do Minimum scenarios



JMP

2.5 The second requirement of the modelling assessment is to evaluate two further **Do Minimum** scenarios for both 2021 and 2032.

2.6 These scenarios include all additional development sites and proposed highway improvements together with the measures identified for the base models.

2.7 For all model zones, planning data supplied by BBC has been used to growth the base year trip matrix. These factored base matrices and key development area travel demands have been combined to form a travel pattern and then constrained to a total level of trip making in line with the DfT TEMPRO software for the forecast year.

3 Trip Generation for Developments

3.1 A development database has been constructed for all planned development sites. The development areas have been forecast through the standard transport assessment process to enable discrete analysis with the each development allocated to the appropriate zone.

3.2 For the development sites, a set of trip rates has been derived from a review of trip rates used for previous local development framework assessment work and Trip Rate Information Computer System (TRICS version 7.1.2) database. These derived trip rates have been applied to the planning data to yield a set of trips by journey purpose, mode and time period for inclusion in the trip distribution modelling.

3.3 This section of the report summarises the information currently available with regards to the development sites identified by Bedford Borough Council ('BBC'), which is presented in the tables in **Appendix A**.

3.4 This information is used to generate three future year scenarios: 2015, 2021 and 2032. Each development will generate an associated number of vehicle trips in each scenario.

Sources of Information and Assumptions

3.5 The various planning documents and sources of information are discussed in turn in this section. Where gaps in data have been identified, the assumptions made are stated.

Local Plan 2002

3.6 In the 2002 Local Plan, BBC identifies a series of Sites to be developed. These were summarised by Atkins in 2011 for their Bedford Borough Transport Model Forecasting Report, in which three future year scenarios were drafted for each development: 2011, 2021 and 2031.

3.7 The 2021 JMP scenario is assumed to remain the same as the Atkins one, and the 2032 scenario will be equal to the 2031. In order to generate a 2015 scenario, information was requested from BBC regarding the status of each development. For those sites for which this information was not available, the assumption made is for no build-out to take place by 2015.

Allocations and Designations Local Plan 2013

3.8 In July 2013, BBC adopted the Allocations and Designations Local Plan, which identified sites for development to meet the borough's needs to 2021. This document only partly supersedes the 2002 Local Plan.

3.9 The gaps regarding the quantum of developments have been filled by confidential information supplied by BBC.

3.10 Some information regarding phasing up to 2032 has been provided by BBC. For those sites without phasing information, it has been assumed that the 2015 build-out is 0 and the 2021 build-out is the final size of the development.

Bedford Town Centre Area Action Plan 2008

3.11 In October 2008, BBC adopted the Bedford Town Centre Area Action Plan, as part of the Bedford Development Framework. This document outlines the policy framework required to deliver the town's sustainable growth up to 2021.

3.12 The document includes the completion date for each site, which has been used to quantify the build-out of each development for each scenario.

Approved CPNJSs and planning applications

3.13 Following the adoption of the Town Centre Area Action Plan, a series of town centre sites have been granted planning permission. In addition to these, several offices have been converted to residential units as part of the government-permitted developments (CPNJs).

3.14 The information presented in this section of **Appendix A** has been provided by BBC. Very few of the sites have information regarding the time-scale of the development. Where no information is available, the assumption has been of a 2015 built-out of 0 and for the developments to be completed by 2021.

3.15 This information supersedes that outlined in the planning documents, for example with regards to the Kingsway Quarter and Lime Street developments.

BBC Growth beyond 2021

3.16 BBC are currently preparing a new version of the Local Plan, outlining the level and location of growth to 2032. The scale and locations of development have not yet been determined however a number of assumptions have been made to enable an indication of likely future growth to be included in the model.

3.17 These are presented in the “BBC growth beyond 2021” section of **Appendix A**. The information has been supplied by BBC.

Strategic Sites for Business

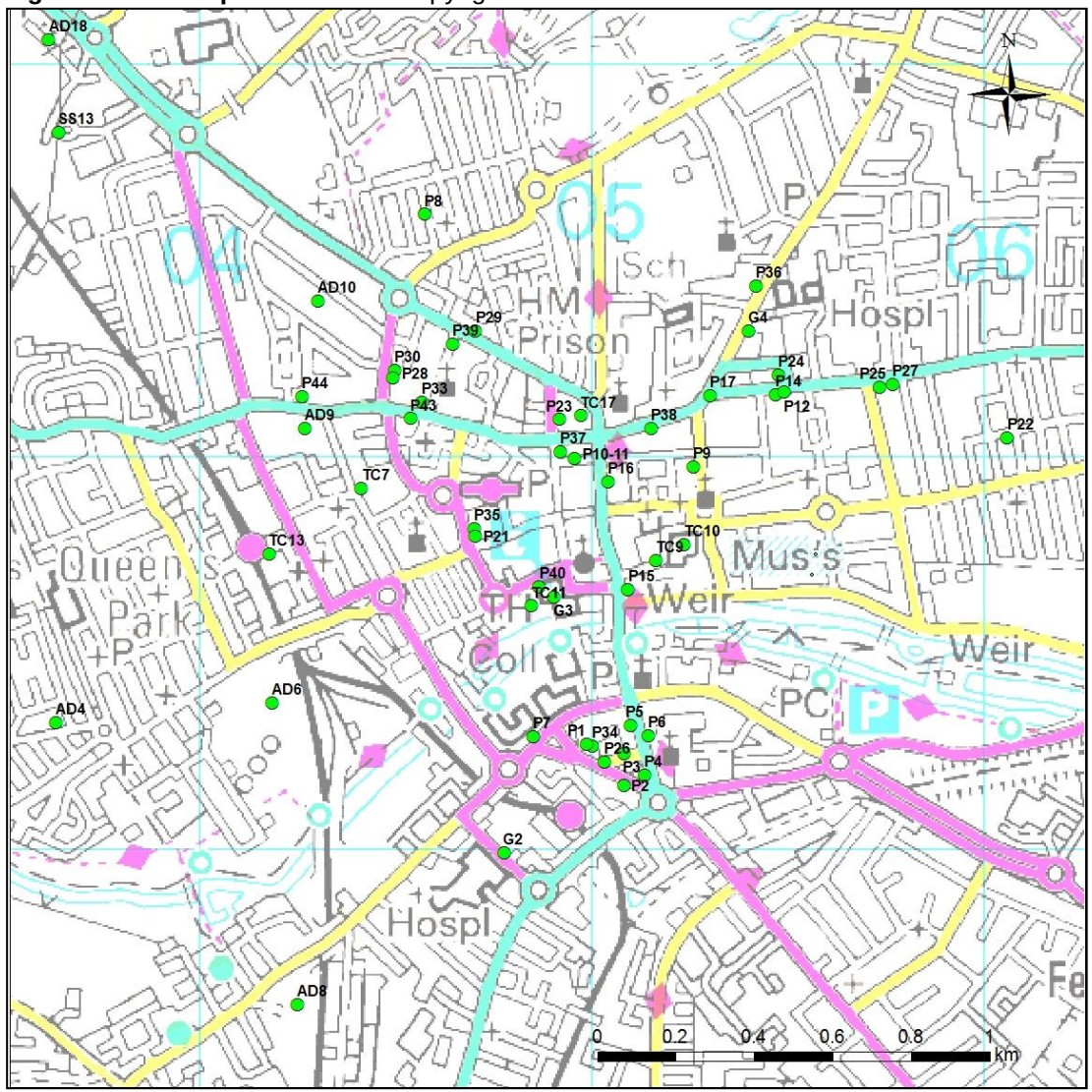
3.18 BBC has recently published a prospectus inviting businesses to Bedford. It includes information regarding the existing and upcoming employment areas with spare capacity, including the amount of jobs which will be created.

3.19 The assumption made for build-out of these sites is they will all come live in 2021, unless they supersede other sites for which we have a 2015 build-out.

Sites

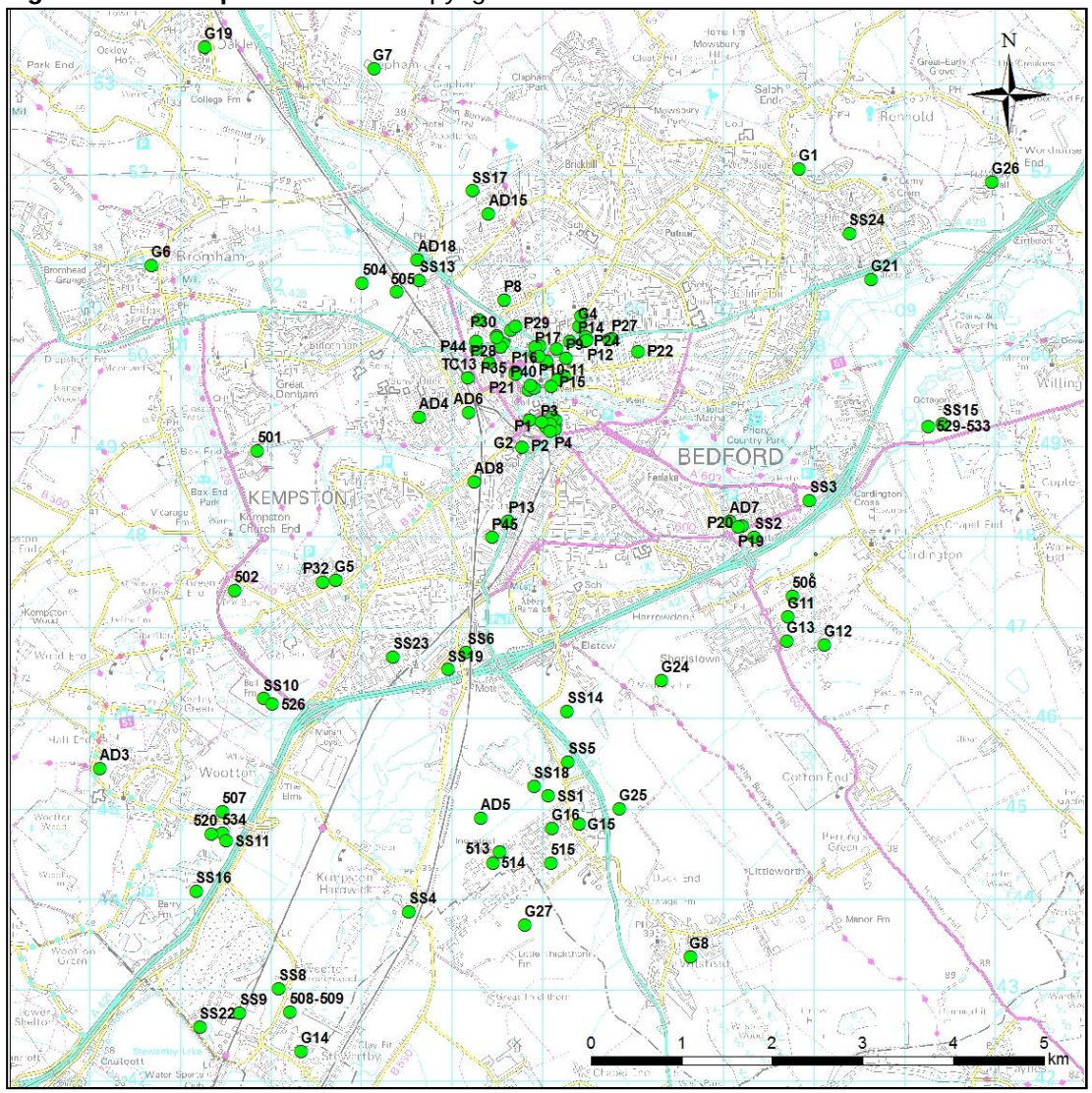
3.20 The figures overleaf map the sites that have been identified in the documents discussed above. The maps are provided at three different scales due to the varying density of planned developments within the borough.

Figure 2 Sites Map 1 – © Crown Copyright



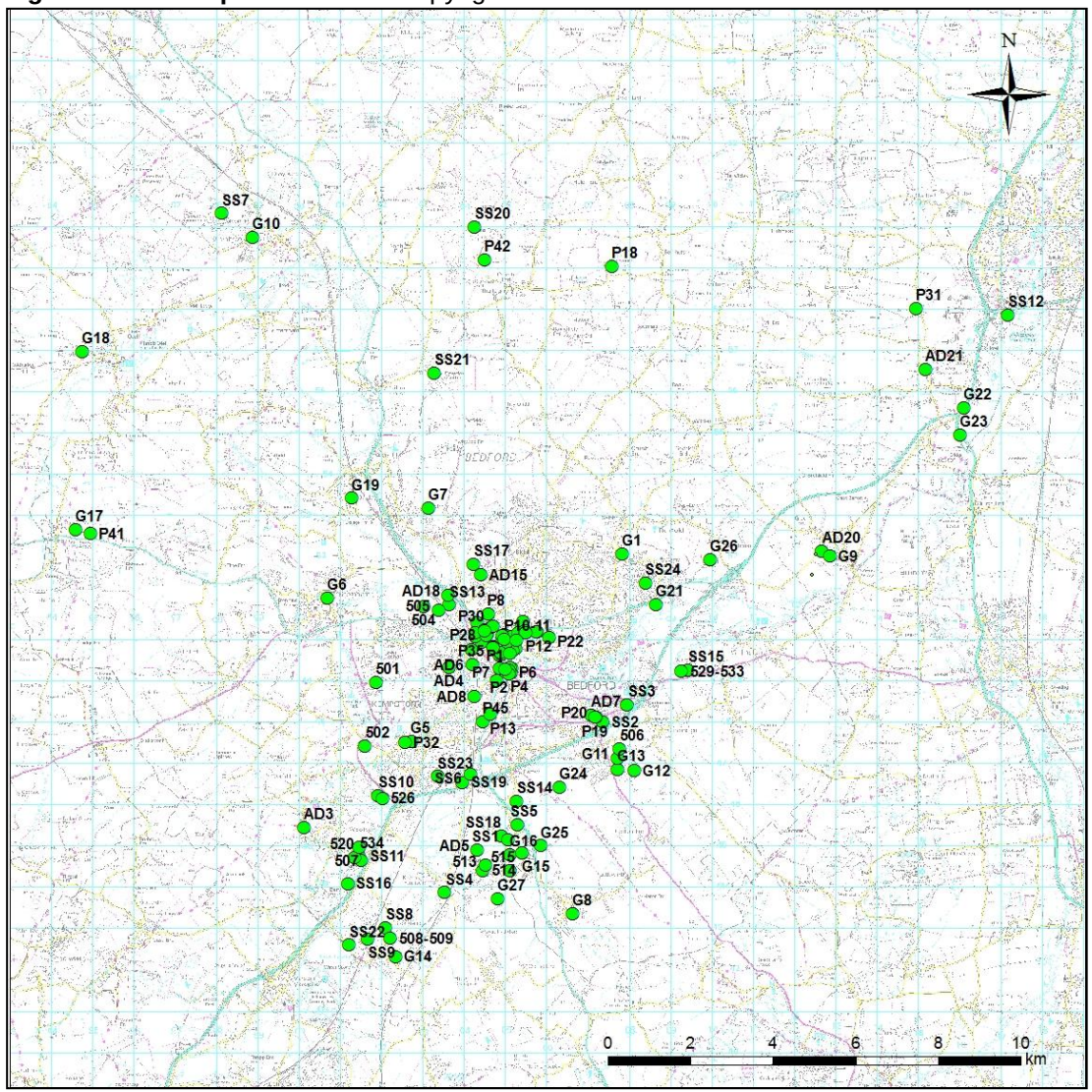
- AD4 Old Ford End Road
- AD6 Ford End Road
- AD8 Dallas Road, Kempston
- AD9 St Bede's School
- AD10 Warwick Avenue
- G2 Britannia E&F
- G3 Riverside North
- G4 Bedford Charter House
- G21 503 Goldington Road
- P1 2 Kingsway
- P2 13 Kingsway
- P3 St John's St
- P4 The Phoenix PH, St John's St
- P5 Eurobar (The Clarence) PH, St John's St
- P6 25-27 St John's St
- P7 Cauldwell St
- P8 2A Beaconsfield Street
- P9 14 St Cuthberts Street
- P10-11 Albion House, 14-18 Lime Street
- P12 31 - 33 Goldington Road
- P14 29 Goldington Road
- P15 Swan House, 3 High Street
- P16 87 High Street
- P17 57 St Peters Street
- P21 1 - 13 Greyfriars & 57 - 65 Midland Road
- P22 The Old Coalhouse, 28A Rosamond Road
- P23 Eagle Court, 47 Harpur Street
- P24 Zurich House, 6 - 8 Goldington Road
- P25 Portman House, 59 - 63 Goldington Road
- P26 Melbourne House, 3 Kingsway
- P27 67 Goldington Road
- P28 1-3 Union St, Bedford
- P29 80 Tavistock St
- P30 5 Union St, Bedford
- P33 51 Bromham Rd
- P34 Block A, Rogers Crt, 2 Kingsway
- P35 Greyfriars Chambers, 7 Greyfriars
- P36 48 Kimbolton Rd
- P37 45 Harpur St
- P38 Merton Centre, 45 St Peters St
- P39 Crescent House
- P40 Pilgrims Hse, 4 Horne Lane
- P43 62-64 Bromham Rd
- P44 63-67 Bromham Rd
- SS13 Clapham Roundabout
- TC7 New Retail Quarter
- TC9 Castle Lane
- TC10 Cecil Higgins Art Gallery & Bedford Museum
- TC11 Riverside Square
- TC13 Station Quarter
- TC17 Progress Ford, the Broadway

Figure 3 Sites Map 2 – © Crown Copyright



- 501 Biddenham Loop
- 502 West of Kempston
- 504-05 Biddenham North
- 506 Shortstown
- 507 North of Fields Road, Wooton
- 508-09 Stewartby
- 513-14 Wixams
- 515 Wixams (Villages 1-4)
- 520 Wootton Innovation Park
- 526 Bell Farm, Kempston
- 529-33 River Valley, Cardington
- 534 South of Fields Road , Wooton
- AD3 Hall End Road, Wooton
- AD5 Wixams
- AD7 Eastcotts Road
- AD15 Manton Lane Reservoir Site
- AD18 16-A28 Link Road
- G1 Norse Road 3
- G5 Camford Court
- G6 Bromham
- G7 Clapham
- G11 Shortstown Eastern Parcel
- G12 Shortstown Sheds
- G13 Shortstown Lower School
- G14 Stewartby Hostel Site
- G15 Wixams Causeway
- G16 Wixams North End Farm / Seasons Car Park
- G19 Oakley
- G24 Medbury Farm (East), Elstow
- G25 East of A6, Wixams
- G26 Howbury Hall, Renhold
- G27 Wixams Southern Expansion
- P13 Technology House, 239 Ampthill Road
- P19 Cambridge House, Cambridge Road
- P20 Sovereign House, Cambridge Road
- P32 26 Molly Moore Ave, Kempston
- P45 Morrison's, Ampthill Road
- SS1 M1/A1 Central, Wixams
- SS2 G Park, Cambridge Road
- SS3 Apex site, Cambridge Road
- SS4 Coronation Business Park
- SS5 Wixams Island
- SS6 Interchange Park
- SS8 Stewartby Business Area
- SS9 Stewartby Brickworks Area
- SS10 Bedford Connect
- SS11 Marston Vale Innovation Park Phase 1
- SS14 Medbury Farm, Elstow
- SS15 Bedford River Valley Park
- SS16 Marston Vale Innovation Park Phase 2
- SS17 West of Manton Lane
- SS18 Expansion business area, Wixams
- SS19 West of B530 Business Area
- SS22 Stewartby Head Office Building
- SS23 Woburn Road Industrial Estate, Kempston
- SS24 Elms and Vikings Industrial Estate

Figure 4 Sites Map 3 – © Crown Copyright



- AD20 Bedford Road, Great Barford
- AD21 Wyboston Holiday fishing village
- G8 Wilstead
- G9 Great Barford
- G10 Sharnbrook
- G17 Turvey
- G18 Harrold
- G22 10 Great North Road, Chawston
- G23 College Farm Leisure Marina, Roxton
- P18 Greensbury Farm, Thurleigh Road, Bolnhurst
- P31 Tythe Farm, Staploe Rd, Wyboston
- P41 The Old Hay Barn, Bamfords Yard, Turvey
- P42 Manor Farm, Thurleigh
- SS7 Colworth Science Park, Sharnbrook
- SS12 Wyboston Business Suite
- SS20 Thurleigh Airfield Business Park
- SS21 Twinwoods Business Park

Scenario Assumptions

3.21 Where multiple sources present information for the same site, only the most up-to-date has been taken into account.

3.22 The site location is a key aspect to assess the transport impact of a development. The BBC area has been separated into a number of zones, outlined in the figures in **Appendix B**, and each development has been allocated to one of these zones. Certain zones have been designated as "Town Centre and Edge of Town Centre", whilst others have been classified as "Edge of Town and Suburban", as outlined in **Appendix B**.

3.23 In order to quantify the number of trips for the other developments, trip rates have to be assumed for each land use. This trip rate information is discussed in **Appendix C**. Different trip rates have been used for town centre / edge of town centre locations and edge of town / suburban locations. To simulate a worst-case scenario, all employment has been assumed to fall within the B1 office land use, and all retail within the A1 food superstore category.

3.24 For several sites the only information available is the total area of the sites, which has been converted to gross floor area (GFA) as discussed in **Appendix C**. Where the documentation includes the expected number of jobs created by a site (for example the Strategic Sites Brochure), this information has been converted to GFA as discussed in **Appendix C**.

3.25 For those developments that are land use conversions and for which information has been provided regarding the current and previous land use (**Appendix A)**, the net change in trips has been taken into account, as discussed in **Appendix C** and shown in **Appendix D**.

Results

3.26 The estimated growth based on planned developments is summarised in **Table 3.1** below, where the % growth is with respect to the 89,500 vehicles in the 2011 base year model. A full list of trips generated by each of the sites in the each scenario is included in **Appendix D**.

Table 3.1 Bedford Planned Developments Trip Growth Rates

Period	AM Peak (%)	PM Peak (%)
2011 - 2015	3.16	3.38
2011 - 2021	15.9	14.6
2011 - 2032	29.8	26.3

TRICS (v 7.1.2)

Trip Distribution for Development Areas

Trip Distribution

3.27 The trip distribution for the developments has been based on the validated base model travel patterns. The percentage change in planning data terms for each zone has been applied to the trip matrices, with the change in households being a proxy for trip origins and the change in jobs being a proxy for destinations.

3.28 For zones where the existing land use is supplemented by a similar development composition the current trip distribution is retained. If there is a change in land use composition or the zone currently has few or no trips, the distribution from a suitable adjacent zone with a similar land use has been used as a proxy.

4 Constraining to TEMPRO

4.1 The final stage of the forecasting was to constrain the trip totals to those output by TEMPRO. This is required to allow for changes in car ownership to be reflected within the forecasts and to ensure compatibility with nationally derived forecasts. This compatibility is recommended as future work leading towards business case submissions will require compatibility as a pre-requisite for bid submission.

4.2 The total levels of housing and jobs for the study area have been input into the TEMPRO program as an alternative planning scenario, with the output providing a total for future year trips by time period, journey purpose and mode for this level of development.

4.3 These targets have then been input as control totals into a doubly constrained trip factoring process that will seek to constrain the combination of the factored base year trip matrices and development area trip matrices to the total trips as output from TEMPRO. The outputs will be journey purpose, mode and time period specific origin destination matrices that can be input into the Bedford transport model to enable the inclusion of the effects of changes in travel costs to be incorporated into the forecasts.

Growth Rates

Methodology

4.4 The forecast models have been constrained to TEMPRO growth factors based on the NTM AF09 dataset. The following criteria have been adopted:

- Area definition: GB, East, Bedfordshire, Bedford
- Transport mode: car driver
- Trip end type: origin / destination
- Base year: 2011

4.5 HGV growth and external to external trip growth are based on the DfT's Road Traffic Forecasts spreadsheet NTM13. The "English regional plus Welsh traffic growth and speed forecasts (kilometres)" spreadsheet has been interrogated for Area Type and Road Type growth factors within East of England.

TEMPRO Results

4.6 **Table 4.1**, **Table 4.2** and **Table 4.3** below present the growth rate to 2015, 2021 and 2032 for the various road types within Bedford. It should be noted that no data is available for urban motorways, as there are none in Bedford.

Table 4.1 Bedford TEMPRO Growth Rates; 2011 - 2015

Type	AM Peak (%)	Inter Peak (%)	PM Peak (%)
All	**3.31**	**3.91**	**3.61**
Urban			
All	3.61	4.22	3.91
Trunk	4.49	5.10	4.80
Principal	3.31	3.91	3.61
Minor	3.61	4.22	3.91
Rural			
All	3.01	3.61	3.31
Motorway	2.70	3.30	3.00
Trunk	3.01	3.61	3.31
Principal	3.31	3.91	3.61
Minor	3.61	4.22	3.91

TEMPRO (dataset version 62, NTM AF09)

Table 4.2 Bedford TEMPRO Growth Rates; 2011 - 2021

Type	AM Peak (%)	Inter Peak (%)	PM Peak (%)
All	**11.3**	**11.6**	**11.4**
Urban			
All	11.3	11.6	11.4
Trunk	11.5	11.8	11.5
Principal	11.2	11.5	11.3
Minor	11.2	11.5	11.3
Rural			
All	11.4	11.6	11.4
Motorway	11.3	11.6	11.4
Trunk	11.5	11.8	11.6
Principal	11.3	11.5	11.3
Minor	11.3	11.6	11.4

TEMPRO (dataset version 62, NTM AF09)

Table 4.3 Bedford TEMPRO Growth Rates; 2011 - 2032

Type	AM Peak (%)	Inter Peak (%)	PM Peal (%)
All	**13.0**	**13.8**	**13.2**
Urban			
All	12.9	13.8	13.1
Trunk	13.2	14.0	13.4
Principal	12.8	13.6	12.9
Minor	12.9	13.7	11.1
Rural			
All	13.1	13.9	13.3
Motorway	13.2	14.1	13.4
Trunk	13.3	14.2	13.5
Principal	12.9	13.7	13.0
Minor	13.0	13.8	13.2

TEMPRO (dataset version 62, NTM AF09)

4.7 A comparison between planned development growth rates (**Table 3.1**) and TEMPRO growth rates (**Table 4.1**, **Table 4.2** and **Table 4.3**) can be drawn.

4.8 Whilst the 2015 scenario in **Table 3.1** only takes into account committed developments, the future models include planned sites, which may or may not be developed out. This partly explains why the planned development growth matches the TEMPRO growth for 2015 whilst it overestimates the 2021 and 2032 growth.

4.9 Furthermore, a TRICS-based estimate of future trips leads to instances of double counting vehicles leaving new residential sites and arriving at new employment sites. Lastly, factors such as changing residential density as a result of people relocating to new developments are not taken into account. The trips from the new residential sites may be people that have moved within Bedford as opposed to new residents.

4.10 In light of this, the growth from planned developments has been constrained to TEMPRO growth, and the TRICS information has been used to distribute the additional trips by zone and time of the day.

4.11 This is in line with Webtag unit M4 Forecasting and Uncertainty paragraph 7.3.2, which states that – whilst the reference forecast should take into account the impact of national and local changes (e.g. housing developments) on travel demand – overall demand should be constrained to the Department's projections (trip end growth factors from the NTEM dataset). Local changes influence the spatial distribution.

HGV Growth

4.12 HGVs are constrained by factors derived from the DfT's Road Traffic Forecasts NTM13 spreadsheet *All Outputs by Area Type* in the East of England. The dataset was interrogated for rigid and artic vehicle growth between 2010 and 2035, to interpolate the growth factors for the three scenarios (2015, 2021 and 2032), presented in **Table 4.4** below. Growth is based on a 2011 baseline.

Table 4.4 Road Transport Forecasts by Area Type (all areas within East of England)

Vehicle Type	2015	2021	2032
HGV (Rigid & Artic)	-2.4%	10.0%	21.2%

RTF 2013, NTM13

External to External Growth

The growth of external to external trips is based on the DfT's Road Traffic Forecasts *NTM13 spreadsheet All Outputs by Road Type* in the East of England. The dataset was interrogated for growth of all traffic in the HA InterUrban roads between 2010 and 2035. Interpolation was then used to determine the growth factors presented in **Error! Reference source not found.** below

Table 4.5 Road Transport Forecasts by Road Type (HA InterUrban within East of England)

Vehicle Type	2015	2021	2032
All traffic	0.44%	6.4%	31.0%

RTF 2013, NTM13

5 Forecast Models Network Coding

5.1 The models include of all currently committed schemes that have identified funding or are conditioned through the planning system. This network has updated generalised costs using values of time for the forecast year coded into it and represents the supply side of the **Do Minimum** scenario.

5.2 On to this Do Minimum network, proposed schemes that form part of the options have been coded to produce the supply networks for the future year **Do Minimum** scenarios. The network coding task includes the coding of additional zones into the highway model.

5.3 The base year model has been re-run through to enable cost skims to be calculated for use in the trip distribution of these development areas. The results of the base year model have been unchanged as a result of these zones being included as no additional demands have been loaded into the model.

5.4 A list of the committed highways schemes that have come online between 2011 and 2015 and have been included in the 2015 model is presented below.

1. Western bypass;
2. Improvements to Union Street roundabout;
3. Signalisation and southern extension of Ampthill Road / West End junction;
4. Improvements to the double roundabout at Bromham Road / Ashburnham Road, including the reduction in number of westbound lanes, to accommodate a cycle lane;
5. New junction for Morissons on Ampthill Road;
6. Lane reduction to the Goldington Road / Newham Avenue junction in southern and northern directions, to accommodate a toucan crossing;
7. Eastbound lane reduction to Bromham Road / Greyfriars, to accommodate a cycle lane; and
8. Eastbound lane reduction to the Cauldwell Street / St John's Street junction.

5.5 For the future year models (2032 and 2021), the following scheme which was announced as part of the Government's Road Investment Plan has been included:

9. An uninterrupted East-West A421/A428 route, through a grade-separated junction (flyover) at the Black Cat junction and a dual carriageway route heading east from the Black Cat (A421/A1) roundabout to Cambridge.

5.6 It is worth noting that schemes 1 and 9 lie outside the VISSIM model boundary, and hence are only included in the Saturn model.

Appendix A

Planned Development Sites

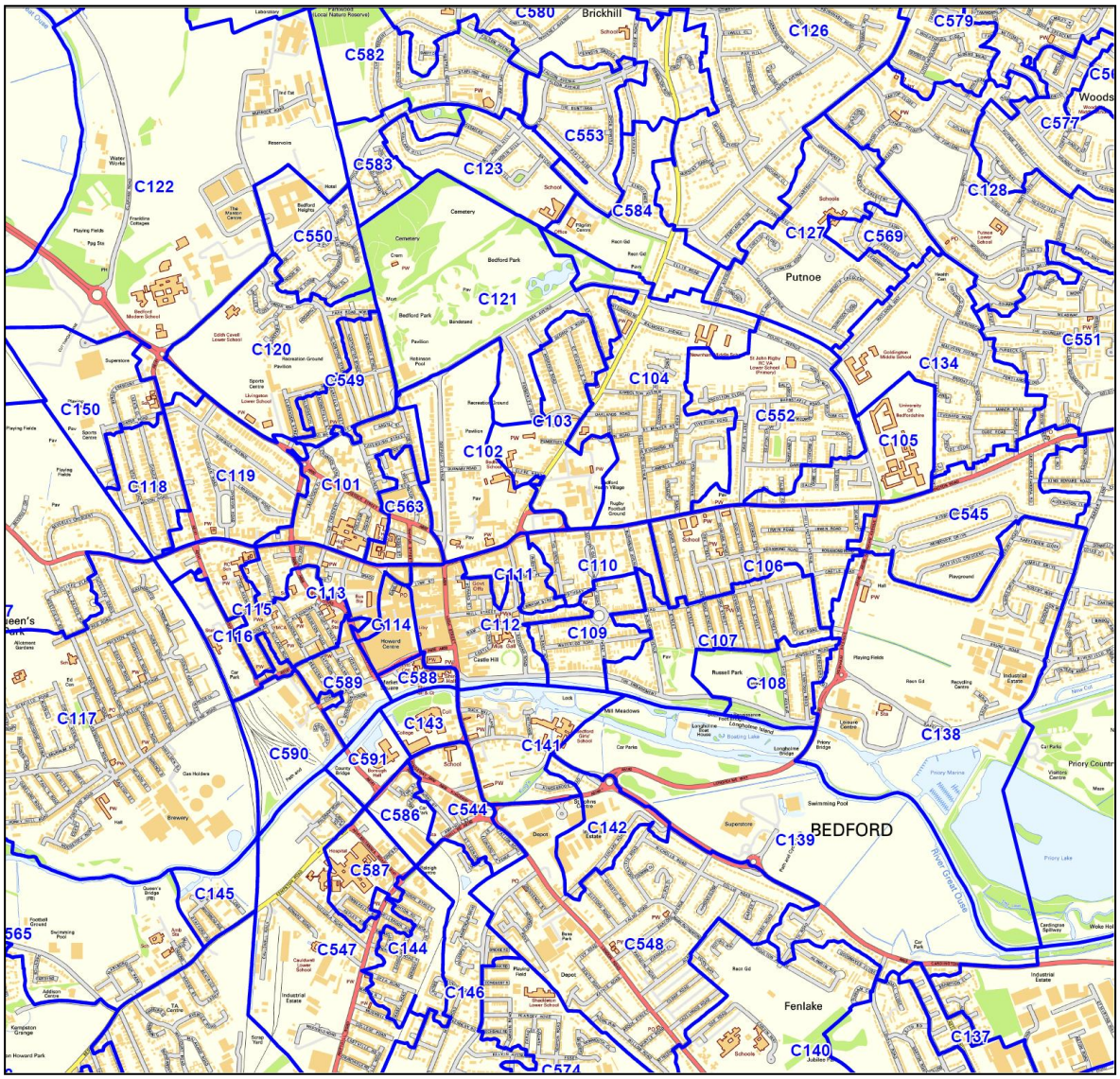
Ref	Development	Location	Zone (C)	Land Use	Final Size	Units	2015	2021	2032	Previous Use	Quantum	Units
Local Plan 2002												
501	H6	Biddenham Loop	212	Residential	1,258	Dwellings	661	1,258	1,258			
502	H7	West of Kempston	585	Residential	1,207	Dwellings	835	1,207	1,207			
504	H8	Biddenham North (Land North of Bromham Road)	201	Residential	1,300	Dwellings	0	250	1,300			
505	H8	Biddenham North	201	Employment	230	100 sqm	115	230	230			
506	H9	Shortstown	221	Residential	1,683	Dwellings	450	980	1,683			
534	H11	South of Fields Road , Wooton	211	Residential	1100	Dwellings	0	375	1,100			
507	H12	North of Fields Road, Wooton	211	Residential	603	Dwellings	188	488	603			
508	H13	Stewartby	215	Residential	610	Dwellings	25	500	776			
509	H13	Stewartby	215	Employment	340	100 sqm	170	340	340			
513	H14	Wixams	218	Retail	96	100 sqm	96	96	96			
514	H14	Wixams	218	Sports	0.3	Hectares	0.15	0.3	0.3			
515	H14	Wixams (Villages 1-4)	218	Residential	4,142	Dwellings	575	949	4,142			
520	Wootton IP	Wootton	211	Hotel	100	Rooms	0	50	100			
526	Bell Farm	Kempston	585	Hotel	75	Rooms	0	37	75			
529	River Valley	Cardington	223	Retirement	350	Dwellings	0	175	350	Greenfield		
530	River Valley	Cardington	223	Sports (emp)	50	Jobs	0	25	50	Greenfield		
531	River Valley	Cardington	223	Restaurant	120	Jobs	0	60	120	Greenfield		
532	River Valley	Cardington	223	Hotel	100	Rooms	0	25	50	Greenfield		
533	River Valley	Cardington	223	Education (sec-pupils)	1,800	Students	0	900	1,800	Greenfield		
Allocations and Designations Local Plan 2013												
AD3	Hall End Road	Wooton	214	Residential	57	Dwellings	0	57	57	Brownfield		
AD3	Hall End Road	Wooton	214	Education (sec-area)	100	100 sqm	100	100	100	Brownfield		
AD4	Old Ford End Road	Bedford	217	Residential	450	Dwellings	0	0	450	Employment		
AD5	Wixams Northern Expansion	Wixams	217	Residential	1050	Dwellings	0	1050	1050	Greenfield		
AD5	Wixams Northern Expansion	Wixams	217	Employment	500	100 sqm	0	500	500	Greenfield		
AD5	Wixams Northern Expansion	Wixams	217	Education (prim-area)	200	100 sqm	0	200	200	Greenfield		
AD6	Ford End Road	Bedford	117	Residential	250	Dwellings	0	0	250	Brownfield		
AD6	Ford End Road	Bedford	117	Employment	40	100 sqm	0	40	40	Brownfield		
AD7	Eastcotts Road	Bedford	151	Residential	57	Dwellings	40	57	57	Brownfield		
AD7	Eastcotts Road	Bedford	151	Employment	4	Units	4	4	4	Brownfield		
AD8	Dallas Road	Kempston	263	Residential	127	Dwellings	0	0	127	Brownfield		
AD9	St Bede's School	Bedford	115	Residential	104	Dwellings	104	104	104	Brownfield		
AD10	Landsowne Rd, Warwick Ave & Dyvenor Rd	Bedford	119	Residential	152	Dwellings	33	152	152	Brownfield		
AD15	Manton Lane Reservoir Site	Bedford	122	Employment	160	100 sqm	0	160	160			
AD18	16-A28 Link Road	Bedford	122	Hotel	107	100 sqm	0	107	107	Greenfield		
AD20	Bedford Road	Great Barford	226	Primary care	40	100 sqm	40	40	40	Greenfield		
AD20	Bedford Road	Great Barford	226	Residential	50	Dwellings	0	50	50	Greenfield		
AD21	Chawston Lakes, Roxton Road	Wyboston Holiday fishing village	228	Hotel	10	Rooms	0	10	10	Greenfield		
Town Centre Area Action Plan 2008												
TC7	New Retail Quarter	Bedford Town Centre West	113	Retail	300	100 sqm	0	300	300	Retail	150	100 sqm
TC7	New Retail Quarter	Bedford Town Centre West	113	Residential	300	Dwellings	0	300	300			
TC9	Cultural Quarter	Castle Lane	112	Retail	6	100 sqm	6	6	6	Brownfield		
TC9	Cultural Quarter	Castle Lane	112	Residential	105	Dwellings	105	105	105	Brownfield		
TC10	Cultural Quarter	Cecil Higgins Art Gallery & Bedford Museum	112	Residential	20	Dwellings	20	20	20	Brownfield		
TC11	Riverside Quarter	Riverside Square	588	Retail	6	100 sqm	6	6	6	Brownfield		
TC13	Station Quarter	Bedford Station	590 / 116	Residential	180	Dwellings	180	180	180			
TC13	Station Quarter	Bedford	590 / 116	Employment	18,600	sqm GFA	0	18,600	18,600	Redundant buildings & car parking areas		
TC17	Progress Ford	Progress Ford, the Broadway	563	Residential	85	Dwellings	85	85	85			
Approved CPNJs and Planning Applications												
P1	12/00703/MAF	2 Kingsway	544	Residential	36	Dwellings	24	36	36	Car Park		
P2	05/02153/FUL	13 Kingsway	544	Residential	33	Dwellings	0	33	33	Employment		
P3	14/01818/CPNJ	St John's St	544	Residential	39	Dwellings	0	39	39	Employment		
P4	13/02631/FUL	The Phoenix PH, St John's St	544	Residential	5	Dwellings	0	5	5	Public House and 1 dwelling		
P5	13/02450/MAF	Eurobar (formerly The Clarence PH), St John's St	544	Residential	30	Dwellings	0	30	30	Public House		
P6	05/00598/FUL	25-27 St John's St	544	Residential	107	Dwellings	0	107	107	Vacant buildings		
P7	13/02225/FUL	Cauldwell St	586	Residential	5	Dwellings	0	5	5	Mixed		
P8	13/01196/CPNJ	2A Beaconsfield Street, Bedford MK41 7SD	549	Residential	1	Dwellings	0	1	1	Employment	0.6	100 sqm GFA
P9	13/01217/CPNJ	14 St Cuthberts Street, Bedford MK40 3JU	112	Residential	12	Dwellings	0	12	12	Employment	6.17	100 sqm GFA
P10	13/01229/CPNJ	1st Floor, Albion House, 14-18 Lime Street, Bedford MK40 1LD	112	Residential	8	Dwellings	0	8	8	Employment	8.2	100 sqm GFA
P11	13/02625/CPNJ	2nd Floor, Albion House, 14-18 Lime Street, Bedford MK40 1LD	112	Residential	8	Dwellings	0	8	8	Employment	8.2	100 sqm GFA
P12	13/01242/CPNJ	31 - 33 Goldington Road, Bedford MK40 3LH	110	Residential	5	Dwellings	0	5	5	Employment	4.2	100 sqm GFA
P13	13/01257/CPNJ	Technology House, 239 Ampthill Road, Bedford	547	Residential	98	Dwellings	0	98	98	Employment	83.61	100 sqm GFA
P14	13/01344/CPNJ	29 Goldington Road, Bedford MK40 3NN	110	Residential	10	Dwellings	0	10	10	Employment	7.25	100 sqm GFA
P15	13/01347/CPNJ	Swan House, 3 High Street, Bedford MK40 1RN	112	Residential	12	Dwellings	0	12	12	Employment	4	100 sqm GFA
P16	13/01591/CPNJ	87 High Street, Bedford MK40 1NE	112	Residential	5	Dwellings	0	5	5	Employment	2.02	100 sqm GFA
P17	13/01718/CPNJ	57 St Peters Street, Bedford MK40 2PR	111	Residential	1	Dwellings	0	1	1	Employment	1.76	100 sqm GFA
P18	13/01769/CPNJ	Greensbury Farm, Thurleigh Road, Bolnhurst MK44 2ET	237	Residential	4	Dwellings	0	4	4	Employment	7.2	100 sqm GFA
P19	13/02123/CPNJ	Cambridge House, Cambridge Road, Bedford MK42 0LH	137	Residential	9	Dwellings	0	9	9	Employment	5.25	100 sqm GFA
P20	13/02124/CPNJ	Sovereign House, Cambridge Road, Bedford MK42 0NN	137	Residential	8	Dwellings	0	8	8	Employment	5	100 sqm GFA
P21	13/02126/CPNJ	1 - 13 Greyfriars & 57 - 65 Midland Road, Bedford, MK40 1HJ	589	Residential	18	Dwellings	1	18	18	Employment	17.7	100 sqm GFA
P22	13/02129/CPNJ	The Old Coalhouse, 28A Rosamond Road, Bedford	106	Residential	1	Dwellings	0	1	1	Employment	0.7	100 sqm GFA
P23	13/02150/CPNJ	Eagle Court, 47 Harpur Street, Bedford MK40 2SR	563	Residential	12	Dwellings	0	12	12	Employment	89.36	100 sqm GFA
P24	13/02164/CPNJ	Zurich House, 6 - 8 Goldington Road, Bedford MK40 3NF	102	Residential	31	Dwellings	0	31	31	Employment	19.5	100 sqm GFA
P25	13/02337/CPNJ	Portman House, 59 - 63 Goldington Road, Bedford MK40 3NB	110	Residential	24	Dwellings	0	24	24	Employment	14.84	100 sqm GFA
P26	13/02618/CPNJ	Ann Frank Trust, Melbourne House, 3 Kingsway, Bedford MK42 9DB	544	Residential	90	Dwellings	0	90	90	Employment	19	100 sqm GFA
P27	14/00098/CPNJ	67 Goldington Road, Bedford MK40 3NB	110	Residential	1	Dwellings	0	1	1	Employment	4.8	100 sqm GFA
P28	14/00244/CPNJ	1-3 Union St, Bedford	101	Residential	9	Dwellings	0	9	9	Employment	6	100 sqm GFA
P29	14/00463/CPNJ	80 Tavistock St, Bedford	101	Residential	2	Dwellings	0	2	2	Employment	0.74	100 sqm GFA
P30	14/00944/CPNJ	5 Union St, Bedford	101	Residential	6	Dwellings	0	6	6	Employment	3	100 sqm GFA
P31	14/01083/CPNJ	Tythe Farm, Staploe Rd, Wyboston	231	Residential	8	Dwellings	0	8	8	Employment	10.2	100 sqm GFA
P32	14/01338/CPNJ	26 Molly Moore Ave, Kempston	207	Residential	1	Dwellings	0	1	1	Employment	0.4	100 sqm GFA
P33	14/01386/CPNJ	51 Bromham Rd, Bedford	101	Residential	21	Dwellings	0	21	21	Employment	13.77	100 sqm GFA
P34	14/01389/CPNJ	Block A, Rogers Crt, 2 Kingsway, Bedford	544	Residential	20	Dwellings	0	20	20	Employment	9	100 sqm GFA
P35	14/01483/CPNJ	Greyfriars Chambers, 7 Greyfriars, Bedford	589	Residential	6	Dwellings	0	6	6	Employment	2.29	100 sqm GFA
P36	14/02078/CPNJ	48 Kimbolton Rd, Bedford	103	Residential	1	Dwellings	0	1	1	Employment	4	100 sqm GFA
P37	14/02242/CPNJ	45 Harpur St	112	Residential	9	Dwellings	9	9	9	Employment	7.8	100 sqm GFA
P38	14/02389/CPNJ	Merton Centre, 45 St Peters St, Bedford	111	Residential	148	Dwellings	0	148	148	Employment	80	100 sqm GFA
P39	14/02451/CPNJ	Crescent House, 19 The Crescent, MK45 2QS	306	Residential	8	Dwellings	8	8	8	Employment	4.8	100 sqm GFA
P40	14/02515/CPNJ	Pilgrims Hse, 4 Horne Lane	114	Residential	23	Dwellings	0	23	23	Employment	14.4	100 sqm GFA
P41	14/02582/	The Old Hay Barn, Bamfords Yard, Turvey, MK43 8DL	257	Residential	1	Dwellings	0	1	1	Employment	0.86	100 sqm GFA
P42	14/02596	Manor Farm Thurleigh	243	Residential	1	Dwellings	0	1	1	Employment	1.21	100 sqm GFA
P43	14/02773	62-64 Bromham Rd	113	Residential	9	Dwellings	0	9	9	Employment	5.63	100 sqm GFA
P44	14/02912	63-67 Bromham Rd	119	Residential	12	Dwellings	0	12	12	Employment	6.06	100 sqm GFA
P45	Morissons	Ampthill Road	263	Retail	67	100 sqm GFA	67	67	67	Greenfield		
BBC Growth Beyond 2021												
G1	Norse Road 3	Bedford	131	Residential	321	Dwellings	265	321	321			
G2	Britannia E&F	Bedford	587	Residential	60	Dwellings	0	60	60			
G3	Riverside North	Bedford	588	Residential	66	Dwellings	0	66	66			
G4	Bedford Charter House	Bedford	103	Residential	42	Dwellings	0	42	42			
G5		Camford (court)	207	Residential	122	Dwellings	0	0	122			
G6		Bromham	203	Residential	500	Dwellings	0	0	500			
G7		Clapham	204	Residential	500	Dwellings	0	0	500			
G8		Wilstead	219	Residential	500	Dwellings	0	0	500			
G9		Great Barford	226	Residential	500	Dwellings	0	0	500			
G10		Sharnbrook	248	Residential	500	Dwellings	0	0	500			
G11		Shortstown Eastern Parcel	221	Residential	167	Dwellings						
G12		Shortstown sheds	221	Residential	425	Dwellings						
G13		Shortstown Lower School	221	Residential	40	Dwellings	40	40	40			
G14		Stewartby Hostel Site	221	Residential	58	Dwellings	45	58	58			
G15		Wixams Causeway	218	Residential	325	Dwellings	0	230	325			
G16	Wixams	North End Farm / Seasons Garden Centre Car Park	218	Residential	39	Dwellings	0	39	39			
G17		Turvey	257	Residential	166	Dwellings	0	0	166			
G18		Harrold	256	Residential	166	Dwellings	0	0	166			
G19		Oakley	252	Residential	166	Dwellings	0	0	166			
G21	503 Goldington Road	Bedford	135	Employment	400	100 sqm	0	400	400			
G22	10 Great North Road	Chawston	229	Employment	1,000	100 sqm	0	0	1,000			
G23	College Farm, Great North Road	Roxton	401	Leisure Marina	1,000	100 sqm	0	0	1,000			

Ref	Development	Location	Zone (C)	Land Use	Final Size	Units	2015	2021	2032	Previous Use	Quantum	Units
G24	Medbury Farm, East	Elstow	217	Employment	6,800	100 sqm	0	0	6,800	Greenfield		
G25	East of A6	Wixams	218	Employment	348	100 sqm	0	0	348			
G26	Howbury Hall	Renhold	225	Employment	2,500	100 sqm	0	0	2,500			
G27	Wixams southern expansion	Wixams	132	Residential	1,500	Dwellings	0	1,500	1,500			
Strategic Sites for Business												
SS2	G Park	Cambridge Road, Bedford	221	Employment	26,000	sqm GFA	0	48,000	48,000	Greenfield		
SS3	Apex site	Cambridge Road, Bedford	222/151	Employment	23,000	sqm GFA	7,400	18,900	23,000	Greenfield		
SS4	Coronation Business Park	Bedford	209	Employment	16,000	sqm GFA	0	16,000	16,000	Greenfield		
SS5	Wixams Island	Wixams	217	Employment	12,000	sqm GFA	0	12,000	12,000	Greenfield		
SS6	Interchange Park	Bedford	261	Employment	9,900	sqm GFA	0	9,900	9,900	Greenfield		
SS7	Colworth Science Park	Sharnbrook	248	Employment	6,000	sqm GFA	0	6,000	6,000	Employment	12	100 sqm GFA
SS8	Stewartby Business Area		215	Employment	9,600	sqm GFA	0	9,600	9,600	Greenfield		
SS9	Stewartby Brickworks Area		215	Employment	237,000	sqm GFA	0	237,000	237,000	Greenfield		
SS10	Bedford Connect		585	Employment	90,000	sqm GFA	0	90,000	90,000	Greenfield		
SS11	Phase 1	Marston Vale Innovation Park	211	Employment	32,000	sqm GFA	0	32,000	32,000	Greenfield		
SS12	Wyboston Business Suite		229	Employment	18,500	sqm GFA	0	18,500	18,500	Greenfield		
SS13	Clapham Roundabout		150	Employment	25,000	sqm GFA	0	25,000	25,000	Greenfield		
SS14	Medbury Farm	Elstow	217	Employment	124,000	sqm GFA	0	80,000	124,000	Greenfield		
SS15	Bedford River Valley Park		223	Employment	68,000	sqm GFA	0	68,000	68,000	Greenfield		
SS16	Phase 2	Marston Vale Innovation Park	211	Employment	50,000	sqm GFA	0	50,000	50,000	Greenfield		
SS17	West of Manton Lane		122	Employment	30,000	sqm GFA	0	30,000	30,000	Greenfield		
SS19	West of B530 Business Area	Bedford	261	Employment	13,600	sqm GFA	0	13,600	13,600	Greenfield		
SS20	Thurleigh Airfield Business P		244	Employment	71,200	sqm GFA	0	71,200	71,200	Greenfield		
SS21	Twinwoods Business Park		251	Employment	13,000	sqm GFA	0	13,000	13,000			
SS22	Stewartby Head Office Building	Stewartby	215	Employment	6,000	sqm GFA	0	6,000	6,000			
SS23	WoburnRoad Industrial Estate	Kempston	264	Employment	16,500	sqm GFA	0	16,500	16,500			
SS24		Elms and Vikings Industrial Estate	132	Employment	37,500	sqm GFA	0	37,500	37,500			

Note: 1 hectare = 100 x 100 sqm

Appendix B

Maps



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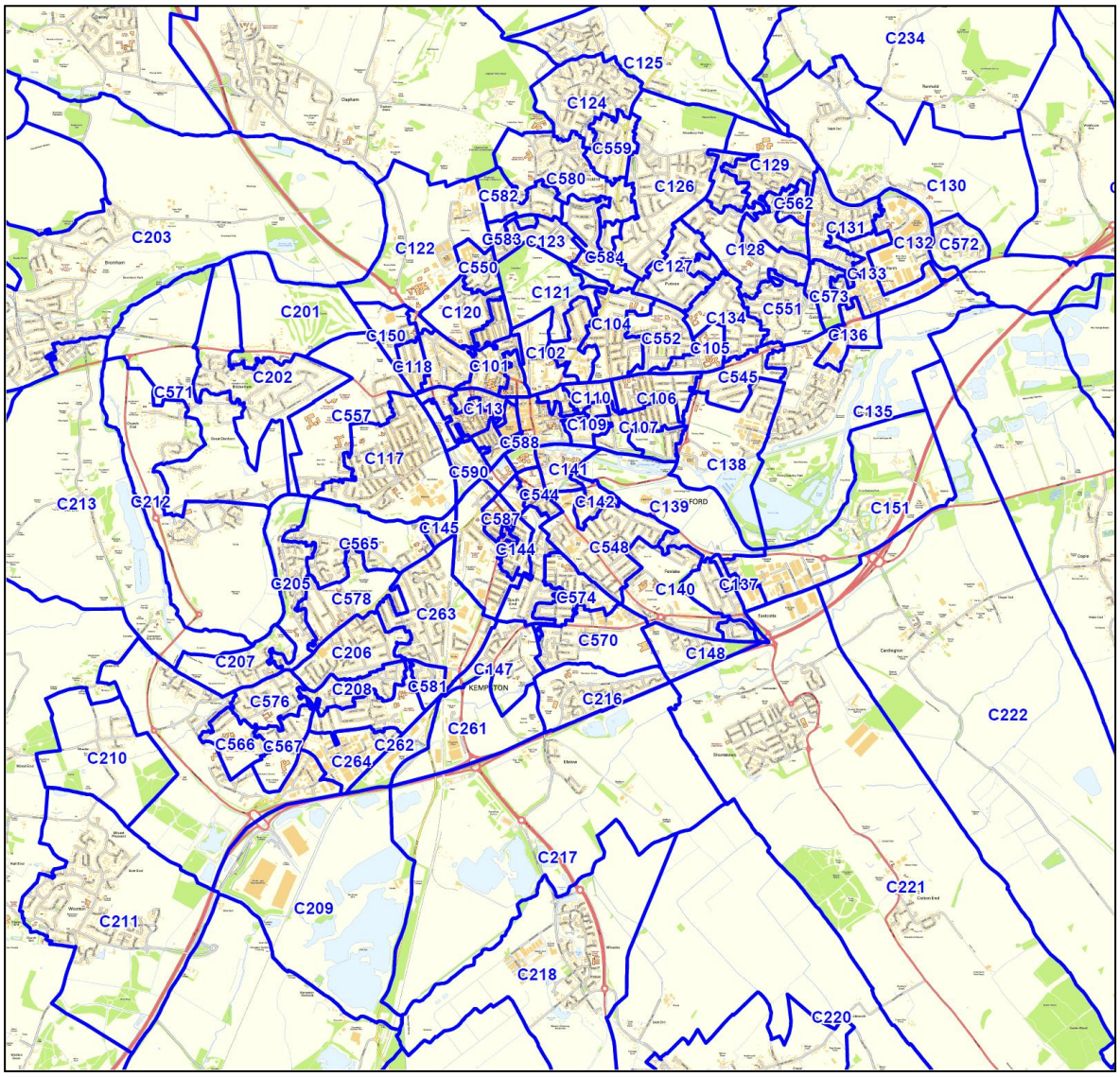
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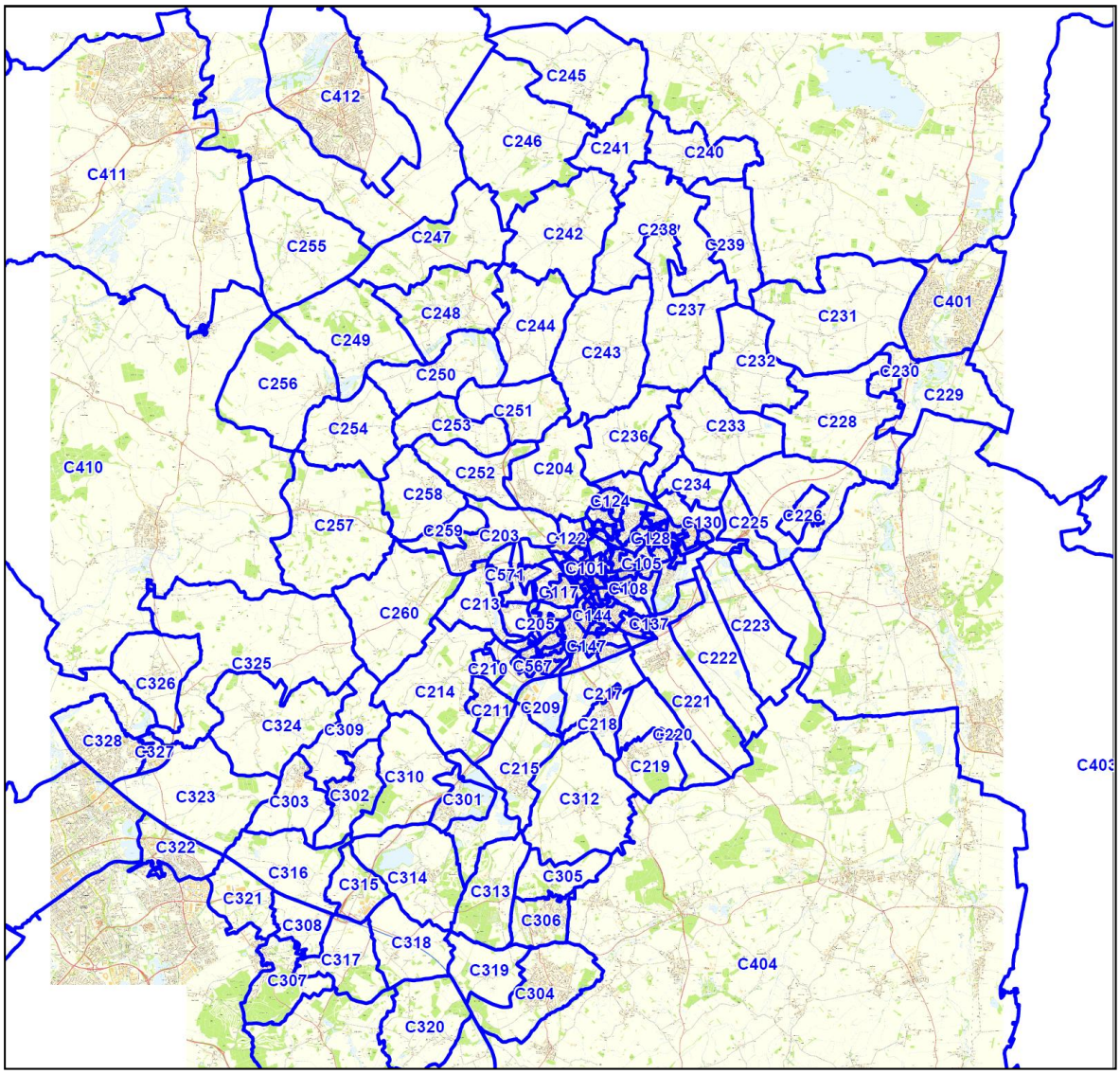
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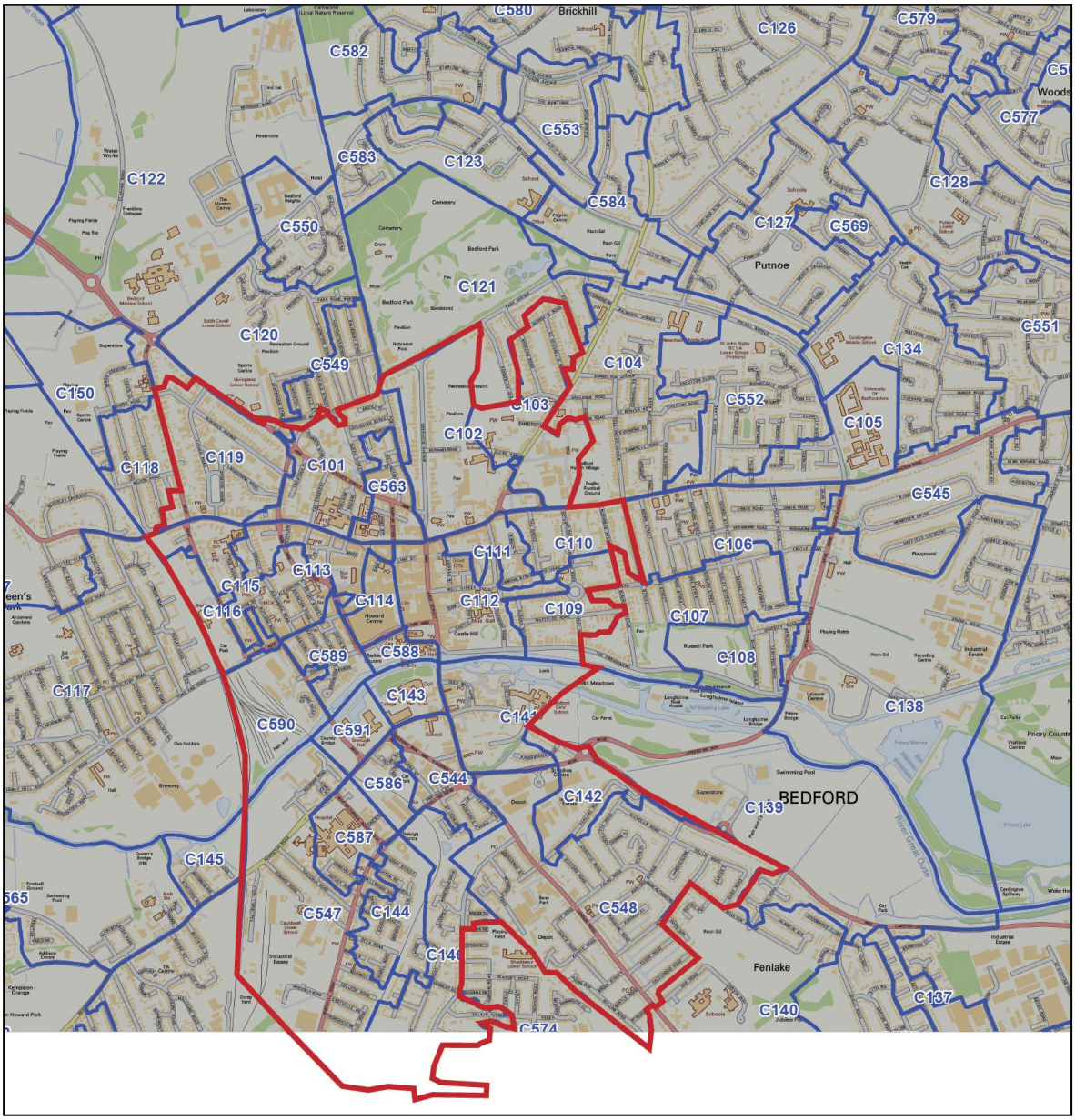
Town Centre and Edge of Town Centre locations within the red boundary



Appendix C

Trip Rates

Trip Rates

Introduction

This Appendix summarises the methodology used to generate generic trip rates to estimate the growth in vehicle trips due to the planned developments in Bedford.

Methodology

The trip rates have been generated using the industry standard trip generation tool, TRICS® (Trip Rate Information Computer System) database version 7.1.2.

The following criteria have been applied in formulating generic trip rates for Bedford:

- Multi-modal trip rates;
- England surveys only, excluding Greater London (unless otherwise stated);
- Surveys undertaken after 1 January 2006;
- Weekday surveys only; and
- Town Centre / Edge of Town Centre locations or Edge of Town / Suburban locations.

Generic trip rates have been calculated for the following land uses:

- C3 Residential (mix of houses / flats, privately owned / for rent);
- A1 Food Superstore;
- B1 Office;
- Hotel;
- Industrial Estate;
- Leisure Centre;
- Education (primary);
- Education (secondary);
- Retirement
- Primary Care; and
- Restaurant.

Generic Trip Rates

Trip rates for the standard network AM and PM peaks (08:00-09:00 and 17:00-18:00 respectively) have been formulated and are presented below.

The vehicle types included in TRICS for which trips rates have been calculated, include:

- Total vehicles;
- Public service vehicles (PSVs); and
- Other Goods Vehicles (OGVs).

Table 6.1 Vehicle Trip Rates by Land Use

Land Use	Unit	Town Centre & Edge of Town Centre				Edge of Town & Suburban			
		AM Peak		PM Peak		AM Peak		PM Peak	
		In	Out	In	Out	In	Out	In	Out
Residential	Dwelling	0.102	0.211	0.198	0.105	0.139	0.351	0.266	0.142
Food Superstore	100 sqm	2.589	1.798	3.673	3.986	2.976	2.337	5.561	5.769
Office	100 sqm	1.168	0.148	0.126	1.053	1.421	0.271	0.185	1.228
Hotel	Bedroom	0.154	0.169	0.135	0.115	0.157	0.229	0.210	0.121
Industrial Estate	100 sqm	-	-	-	-	0.429	0.206	0.113	0.360
Leisure Centre	Hectare	-	-	-	-	15.33	12.98	41.64	13.31
Leisure Centre	Employee	-	-	-	-	0.519	0.470	1.605	1.303
Education (primary)	100 sqm	-	-	-	-	4.249	2.640	0.638	0.914
Education (secondary)*	Student	-	-	-	-	0.059	0.054	0.004	0.007
Education (secondary)*	100 sqm	-	-	-	-	0.741	0.682	0.051	0.085
Retirement	Dwelling	-	-	-	-	0.028	0.000	0.056	0.028
Primary care	100 sqm	-	-	-	-	4.618	2.420	2.228	3.246
Restaurant	Employee	0.000	0.000	0.536	0.661	-	-	-	-

TRICS (v 7.1.2)
**Includes London sites*

Table 6.2 Heavy Goods Vehicles (HGVs and PSVs) Trip Rates by Land Use

Land Use	Unit	Town Centre & Edge of Town Centre				Edge of Town & Suburban			
		AM Peak		PM Peak		AM Peak		PM Peak	
		In	Out	In	Out	In	Out	In	Out
Residential	Dwelling	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000
Food Superstore	100 sqm	0.020	0.029	0.000	0.000	0.029	0.037	0.027	0.029
Office	100 sqm	0.004	0.004	0.001	0.001	0.010	0.009	0.003	0.006
Hotel	Bedroom	0.005	0.006	0.004	0.004	0.002	0.004	0.000	0.000
Industrial Estate	100 sqm	-	-	-	-	0.022	0.028	0.012	0.010
Leisure Centre	Hectare	-	-	-	-	0.314	0.314	0.163	0.245
Leisure Centre	Employee	-	-	-	-	0.011	0.009	0.005	0.010
Education (primary)	100 sqm	-	-	-	-	0.000	0.000	0.000	0.000
Education (secondary)*	Student	-	-	-	-	0.001	0.001	0.000	0.000
Education (secondary)*	100 sqm	-	-	-	-	0.009	0.009	0.000	0.000
Retirement	Dwelling	-	-	-	-	0.000	0.000	0.000	0.000
Primary care	100 sqm	-	-	-	-	0.021	0.019	0.011	0.012
Restaurant	Employee	0.000	0.000	0.000	0.000	-	-	-	-

TRICS (v 7.1.2)
**Includes London sites*

Unit conversion

Given the quantum of several of the sites has been provided as either total site area or number of jobs, these must be converted to the unit of the TRICS trip rates. The table below presents the conversion ratios for each land use for which a conversion is required.

The ratios were determined from the TRICS database, using the same sites selected to generate the generic trip rates. In each case, the average ratio was determined excluding the top and bottom 15%.

Table 6.3 Conversion Ratios

Land Use	Location	sqm GFA / sqm of Site	sqm GFA / employee	sqm GFA / bedroom
Office	Town Centre & Edge of Town Centre	1.715	14.05	
Office	Out of Town and Suburban	0.389	15.33	
Food Superstore	Town Centre & Edge of Town Centre	1.107		
Food Superstore	Out of Town and Suburban	0.257		
Primary School	Out of Town and Suburban	0.283		
Hotel	Out of Town and Suburban			38.69

TRICS (v 7.1.2)

Net Impact

Some planned developments are land use conversions as opposed to Greenfield developments. In most cases either the quantum or type of previous use is unknown, but for those developments for which both are known (**Appendix A**), the net impact of the conversion in terms of trip generation has been accounted for.

The trips associated with the previous land use have been calculated with the same trip rates as those used for the future use, and they are subtracted in the build-out associated with each development. For example, if an employment site will be converted to residential in 2021, in the 2021 and 2032 scenarios the employment trips have been subtracted from the future trips. The 2015 scenario will have a net impact of 0.

Given the magnitude and central location of the TC7 retail development, which will improve the retail offer of the town centre by increasing the retail area to 30,000sqm, the assumption made is that 50% of the trips associated with this development already exist (**Appendix A**). The 2021 and 2032 increase in trips associated with this development is thus as if only 15,000sqm of retail were added. This is considered to be a worst-case scenario, as most of these trips will be either relocated or linked, rather than new trips.

Appendix D

Growth from Planned Developments

2015 Net and Proposed

Ref	Zone	Land Use	Previous Use	Light Vehicles				Heavy vehicles			
				AM peak in	AM peak out	PM peak in	PM peak out	AM peak in	AM peak out	PM peak in	PM peak out
501	**212**	Residential		**91**	**231**	**176**	**94**	**1**	**1**	**0**	**0**
502	**585**	Residential		**115**	**292**	**222**	**118**	**1**	**1**	**0**	**0**
505	**201**	Employment		**63**	**12**	**8**	**55**	**0**	**0**	**0**	**0**
506	**221**	Residential		**62**	**157**	**120**	**64**	**1**	**1**	**0**	**0**
507	**211**	Residential		**26**	**66**	**50**	**27**	**0**	**0**	**0**	**0**
508	**215**	Residential		**3**	**9**	**7**	**4**	**0**	**0**	**0**	**0**
509	**215**	Employment		**93**	**17**	**12**	**81**	**1**	**1**	**0**	**0**
513	**218**	Retail		**73**	**57**	**137**	**142**	**1**	**1**	**1**	**1**
514	**218**	Sports		**2**	**2**	**6**	**2**	**0**	**0**	**0**	**0**
515	**218**	Residential		**79**	**201**	**153**	**81**	**1**	**1**	**0**	**0**
AD3	**214**	Education (sec-area)	Brownfield	**20**	**19**	**1**	**2**	**0**	**0**	**0**	**0**
AD7	**151**	Residential	Brownfield	**6**	**14**	**11**	**6**	**0**	**0**	**0**	**0**
AD7	**151**	Employment	Brownfield	**6**	**1**	**1**	**5**	**0**	**0**	**0**	**0**
AD9	**115**	Residential	Brownfield	**11**	**22**	**21**	**11**	**0**	**0**	**0**	**0**
AD10	**119**	Residential	Brownfield	**3**	**7**	**7**	**3**	**0**	**0**	**0**	**0**
AD20	**226**	Primary care	Greenfield	**184**	**96**	**89**	**130**	**1**	**1**	**0**	**0**
TC9	**112**	Retail	Brownfield	**17**	**12**	**24**	**26**	**0**	**0**	**0**	**0**
TC9	**112**	Residential	Brownfield	**11**	**22**	**21**	**11**	**0**	**0**	**0**	**0**
TC10	**112**	Residential	Brownfield	**2**	**4**	**4**	**2**	**0**	**0**	**0**	**0**
TC11	**588**	Retail	Brownfield	**17**	**12**	**24**	**26**	**0**	**0**	**0**	**0**
TC13	**590 / 116**	Residential		**18**	**38**	**36**	**19**	**0**	**0**	**0**	**0**
TC17	**563**	Residential		**9**	**18**	**17**	**9**	**0**	**0**	**0**	**0**
P1	**544**	Residential	Car Park	**2**	**5**	**5**	**3**	**0**	**0**	**0**	**0**
P21	**589**	Residential	Employment	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
P37	**112**	Residential	Employment	**1**	**2**	**2**	**1**	**0**	**0**	**0**	**0**
P39	**306**	Residential	Employment	**1**	**3**	**2**	**1**	**0**	**0**	**0**	**0**
P45	**263**	Retail	Greenfield	**198**	**155**	**373**	**386**	**2**	**2**	**2**	**2**
G1	**131**	Residential		**37**	**93**	**70**	**38**	**0**	**0**	**0**	**0**
G13	**221**	Residential		**6**	**14**	**11**	**6**	**0**	**0**	**0**	**0**
G14	**221**	Residential		**6**	**16**	**12**	**6**	**0**	**0**	**0**	**0**
SS3	**222 / 151**	Employment	Greenfield	**43**	**8**	**6**	**37**	**0**	**0**	**0**	**0**
		TOTAL		1,207	1,602	1,625	1,395	9	10	4	5

2021 Proposed

Ref	Zone	Land Use	Previous Use	Light Vehicles				Heavy vehicles			
				AM peak in	AM peak out	PM peak in	PM peak out	AM peak in	AM peak out	PM peak in	PM peak out
501	212	Residential		174	439	335	178	2	2	0	0
502	585	Residential		167	422	321	171	2	2	0	0
504	201	Residential		35	87	67	35	0	0	0	0
505	201	Employment		126	23	16	109	1	1	0	1
506	221	Residential		135	342	261	139	1	1	0	0
534	211	Residential		52	131	100	53	1	1	0	0
507	211	Residential		67	170	130	69	1	1	0	0
508	215	Residential		69	175	133	71	1	1	0	0
509	215	Employment		187	35	24	162	1	1	0	1
513	218	Retail		73	57	137	142	1	1	1	1
514	218	Sports		5	4	12	4	0	0	0	0
515	218	Residential		131	332	252	134	1	1	0	0
520	211	Hotel		8	11	11	6	0	0	0	0
526	585	Hotel		6	8	8	4	0	0	0	0
529	223	Retirement	Greenfield	5	0	10	5	0	0	0	0
530	223	Sports (emp)	Greenfield	13	12	40	32	0	0	0	0
531	223	Restaurant	Greenfield	0	0	32	40	0	0	0	0
532	223	Hotel	Greenfield	4	6	5	3	0	0	0	0
533	223	Education (sec-pupils)	Greenfield	52	48	4	6	1	1	0	0
AD3	214	Residential	Brownfield	8	20	15	8	0	0	0	0
AD3	214	Education (sec-area)	Brownfield	20	19	1	2	0	0	0	0
AD5	217	Residential	Greenfield	145	367	279	149	1	1	0	0
AD5	217	Employment	Greenfield	274	51	35	238	2	2	1	1
AD5	217	Education (prim-area)	Greenfield	238	148	36	51	0	0	0	0
AD6	117	Employment	Brownfield	22	4	3	19	0	0	0	0
AD7	151	Residential	Brownfield	8	20	15	8	0	0	0	0
AD7	151	Employment	Brownfield	6	1	1	5	0	0	0	0
AD9	115	Residential	Brownfield	11	22	21	11	0	0	0	0
AD10	119	Residential	Brownfield	16	32	30	16	0	0	0	0
AD15	122	Employment		88	16	11	76	1	1	0	0
AD18	122	Hotel	Greenfield	6	9	9	5	0	0	0	0
AD20	226	Primary care	Greenfield	184	96	89	130	1	1	0	0
AD20	226	Residential	Greenfield	7	17	13	7	0	0	0	0
AD21	228	Hotel	Greenfield	2	2	2	1	0	0	0	0
TC7	113	Retail	Retail	853	587	1,220	1,324	7	10	0	0
TC7	113	Residential		31	63	60	31	0	0	0	0
TC9	112	Retail	Brownfield	17	12	24	26	0	0	0	0
TC9	112	Residential	Brownfield	11	22	21	11	0	0	0	0
TC10	112	Residential	Brownfield	2	4	4	2	0	0	0	0
TC11	588	Retail	Brownfield	17	12	24	26	0	0	0	0
TC13	590 / 116	Residential		18	38	36	19	0	0	0	0
TC13	590 / 116	Employment	Redundant buildings & car parking areas	217	27	23	196	1	1	0	0
TC17	563	Residential		9	18	17	9	0	0	0	0
P1	544	Residential	Car Park	4	8	7	4	0	0	0	0
P2	544	Residential	Employment	3	7	7	3	0	0	0	0
P3	544	Residential	Employment	4	8	8	4	0	0	0	0
P4	544	Residential	Public House and 1 dwelling	1	1	1	1	0	0	0	0
P5	544	Residential	Public House	3	6	6	3	0	0	0	0
P6	544	Residential	Vacant buildings	11	23	21	11	0	0	0	0
P7	586	Residential	Mixed	1	1	1	1	0	0	0	0
P8	549	Residential	Employment	0	0	0	0	0	0	0	0
P9	112	Residential	Employment	1	3	2	1	0	0	0	0
P10	112	Residential	Employment	1	2	2	1	0	0	0	0
P11	112	Residential	Employment	1	2	2	1	0	0	0	0
P12	110	Residential	Employment	1	1	1	1	0	0	0	0
P13	547	Residential	Employment	10	21	19	10	0	0	0	0
P14	110	Residential	Employment	1	2	2	1	0	0	0	0
P15	112	Residential	Employment	1	3	2	1	0	0	0	0
P16	112	Residential	Employment	1	1	1	1	0	0	0	0
P17	111	Residential	Employment	0	0	0	0	0	0	0	0
P18	237	Residential	Employment	1	1	1	1	0	0	0	0
P19	137	Residential	Employment	1	3	2	1	0	0	0	0
P20	137	Residential	Employment	1	3	2	1	0	0	0	0
P21	589	Residential	Employment	2	4	4	2	0	0	0	0
P22	106	Residential	Employment	0	0	0	0	0	0	0	0
P23	563	Residential	Employment	1	3	2	1	0	0	0	0
P24	102	Residential	Employment	3	7	6	3	0	0	0	0
P25	110	Residential	Employment	2	5	5	3	0	0	0	0
P26	544	Residential	Employment	9	19	18	9	0	0	0	0
P27	110	Residential	Employment	0	0	0	0	0	0	0	0
P28	101	Residential	Employment	1	2	2	1	0	0	0	0
P29	101	Residential	Employment	0	0	0	0	0	0	0	0
P30	101	Residential	Employment	1	1	1	1	0	0	0	0
P31	231	Residential	Employment	1	3	2	1	0	0	0	0
P32	207	Residential	Employment	0	0	0	0	0	0	0	0
P33	101	Residential	Employment	2	4	4	2	0	0	0	0
P34	544	Residential	Employment	2	4	4	2	0	0	0	0
P35	589	Residential	Employment	1	1	1	1	0	0	0	0
P36	103	Residential	Employment	0	0	0	0	0	0	0	0
P37	112	Residential	Employment	1	2	2	1	0	0	0	0
P38	111	Residential	Employment	15	31	29	15	0	0	0	0
P39	306	Residential	Employment	1	3	2	1	0	0	0	0
P40	114	Residential	Employment	2	5	5	2	0	0	0	0
P41	257	Residential	Employment	0	0	0	0	0	0	0	0
P42	243	Residential	Employment	0	0	0	0	0	0	0	0
P43	113	Residential	Employment	1	2	2	1	0	0	0	0
P44	119	Residential	Employment	1	3	2	1	0	0	0	0
P45	263	Retail	Greenfield	198	155	373	386	2	2	2	2
G1	131	Residential		44	112	85	45	0	0	0	0
G2	587	Residential		6	13	12	6	0	0	0	0

Ref	Zone	Land Use	Previous Use	Light Vehicles				Heavy vehicles			
				AM peak in	AM peak out	PM peak in	PM peak out	AM peak in	AM peak out	PM peak in	PM peak out
G3	**588**	Residential		**7**	**14**	**13**	**7**	**0**	**0**	**0**	**0**
G4	**103**	Residential		**4**	**9**	**8**	**4**	**0**	**0**	**0**	**0**
G11	**221**	Residential		**23**	**58**	**44**	**24**	**0**	**0**	**0**	**0**
G12	**221**	Residential		**59**	**148**	**113**	**60**	**1**	**1**	**0**	**0**
G13	**221**	Residential		**6**	**14**	**11**	**6**	**0**	**0**	**0**	**0**
G14	**221**	Residential		**8**	**20**	**15**	**8**	**0**	**0**	**0**	**0**
G15	**218**	Residential		**32**	**80**	**61**	**33**	**0**	**0**	**0**	**0**
G16	**218**	Residential		**5**	**14**	**10**	**6**	**0**	**0**	**0**	**0**
G21	**135**	Employment		**220**	**41**	**28**	**190**	**2**	**1**	**0**	**1**
G27	**132**	Residential		**207**	**524**	**399**	**213**	**2**	**2**	**1**	**1**
SS2	**221**	Employment	Greenfield	**140**	**26**	**18**	**122**	**1**	**1**	**0**	**1**
SS3	**222 / 151**	Employment	Greenfield	**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS4	**209**	Employment	Greenfield	**86**	**16**	**11**	**75**	**1**	**1**	**0**	**0**
SS5	**217**	Employment	Greenfield	**65**	**12**	**8**	**56**	**0**	**0**	**0**	**0**
SS6	**261**	Employment	Greenfield	**54**	**10**	**7**	**47**	**0**	**0**	**0**	**0**
SS7	**248**	Employment	Employment	**54**	**10**	**7**	**47**	**0**	**0**	**0**	**0**
SS8	**215**	Employment	Greenfield	**54**	**10**	**7**	**47**	**0**	**0**	**0**	**0**
SS9	**215**	Employment	Greenfield	**1,274**	**237**	**164**	**1,103**	**9**	**8**	**3**	**5**
SS10	**585**	Employment	Greenfield	**389**	**72**	**50**	**337**	**3**	**2**	**1**	**2**
SS11	**211**	Employment	Greenfield	**173**	**32**	**22**	**150**	**1**	**1**	**0**	**1**
SS12	**229**	Employment	Greenfield	**97**	**18**	**13**	**84**	**1**	**1**	**0**	**0**
SS13	**150**	Employment	Greenfield	**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS14	**217**	Employment	Greenfield	**432**	**80**	**56**	**374**	**3**	**3**	**1**	**2**
SS15	**223**	Employment	Greenfield	**302**	**56**	**39**	**262**	**2**	**2**	**1**	**1**
SS16	**211**	Employment	Greenfield	**216**	**40**	**28**	**187**	**2**	**1**	**0**	**1**
SS17	**122**	Employment	Greenfield	**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS19	**261**	Employment	Greenfield	**108**	**20**	**14**	**93**	**1**	**1**	**0**	**0**
SS20	**244**	Employment	Greenfield	**76**	**14**	**10**	**65**	**1**	**0**	**0**	**0**
SS21	**251**	Employment		**389**	**72**	**50**	**337**	**3**	**2**	**1**	**2**
SS22	**215**	Employment		**216**	**40**	**28**	**187**	**2**	**1**	**0**	**1**
SS23	**264**	Employment		**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS24	**132**	Employment		**216**	**40**	**28**	**187**	**2**	**1**	**0**	**1**
		TOTAL		9,284	6,209	5,867	9,025	67	67	18	31

2021 Existing

Ref	Zone	Land Use	Previous Use	Light Vehicles				Heavy vehicles			
				AM peak in	AM peak out	PM peak in	PM peak out	AM peak in	AM peak out	PM peak in	PM peak out
501	**212**	Residential									
502	**585**	Residential									
504	**201**	Residential									
505	**201**	Employment									
506	**221**	Residential									
534	**211**	Residential									
507	**211**	Residential									
508	**215**	Residential									
509	**215**	Employment									
513	**218**	Retail									
514	**218**	Sports									
515	**218**	Residential									
520	**211**	Hotel									
526	**585**	Hotel									
529	**223**	Retirement	Greenfield								
530	**223**	Sports (emp)	Greenfield								
531	**223**	Restaurant	Greenfield								
532	**223**	Hotel	Greenfield								
533	**223**	Education (sec-pupils)	Greenfield								
AD3	**214**	Residential	Brownfield								
AD3	**214**	Education (sec-area)	Brownfield								
AD5	**217**	Residential	Greenfield								
AD5	**217**	Employment	Greenfield								
AD5	**217**	Education (prim-area)	Greenfield								
AD6	**117**	Employment	Brownfield								
AD7	**151**	Residential	Brownfield								
AD7	**151**	Employment	Brownfield								
AD9	**115**	Residential	Brownfield								
AD10	**119**	Residential	Brownfield								
AD15	**122**	Employment									
AD18	**122**	Hotel	Greenfield								
AD20	**226**	Primary care	Greenfield								
AD20	**226**	Residential	Greenfield								
AD21	**228**	Hotel	Greenfield								
TC7	**113**	Retail	Retail	**427**	**294**	**610**	**662**	**3**	**5**	**0**	**0**
TC7	**113**	Residential									
TC9	**112**	Retail	Brownfield								
TC9	**112**	Residential	Brownfield								
TC10	**112**	Residential	Brownfield								
TC11	**588**	Retail	Brownfield								
TC13	**590 / 116**	Residential									
TC13	**590 / 116**	Employment	Redundant buildings & car parking areas								
TC17	**563**	Residential									
P1	**544**	Residential	Car Park								
P2	**544**	Residential	Employment								
P3	**544**	Residential	Employment								
P4	**544**	Residential	Public House and 1 dwelling								
P5	**544**	Residential	Public House								
P6	**544**	Residential	Vacant buildings								
P7	**586**	Residential	Mixed								
P8	**549**	Residential	Employment	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
P9	**112**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**
P10	**112**	Residential	Employment	**10**	**1**	**1**	**9**	**0**	**0**	**0**	**0**
P11	**112**	Residential	Employment	**10**	**1**	**1**	**9**	**0**	**0**	**0**	**0**
P12	**110**	Residential	Employment	**5**	**1**	**1**	**4**	**0**	**0**	**0**	**0**
P13	**547**	Residential	Employment	**97**	**12**	**10**	**88**	**0**	**0**	**0**	**0**
P14	**110**	Residential	Employment	**8**	**1**	**1**	**8**	**0**	**0**	**0**	**0**
P15	**112**	Residential	Employment	**5**	**1**	**1**	**4**	**0**	**0**	**0**	**0**
P16	**112**	Residential	Employment	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**
P17	**111**	Residential	Employment	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**
P18	**237**	Residential	Employment	**10**	**2**	**1**	**9**	**0**	**0**	**0**	**0**
P19	**137**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**
P20	**137**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**
P21	**589**	Residential	Employment	**21**	**3**	**2**	**19**	**0**	**0**	**0**	**0**
P22	**106**	Residential	Employment	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
P23	**563**	Residential	Employment	**104**	**13**	**11**	**94**	**0**	**0**	**0**	**0**
P24	**102**	Residential	Employment	**23**	**3**	**2**	**21**	**0**	**0**	**0**	**0**
P25	**110**	Residential	Employment	**17**	**2**	**2**	**16**	**0**	**0**	**0**	**0**
P26	**544**	Residential	Employment	**22**	**3**	**2**	**20**	**0**	**0**	**0**	**0**
P27	**110**	Residential	Employment	**6**	**1**	**1**	**5**	**0**	**0**	**0**	**0**
P28	**101**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**
P29	**101**	Residential	Employment	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
P30	**101**	Residential	Employment	**3**	**0**	**0**	**3**	**0**	**0**	**0**	**0**
P31	**231**	Residential	Employment	**14**	**3**	**2**	**12**	**0**	**0**	**0**	**0**
P32	**207**	Residential	Employment	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
P33	**101**	Residential	Employment	**16**	**2**	**2**	**14**	**0**	**0**	**0**	**0**
P34	**544**	Residential	Employment	**10**	**1**	**1**	**9**	**0**	**0**	**0**	**0**
P35	**589**	Residential	Employment	**3**	**0**	**0**	**2**	**0**	**0**	**0**	**0**
P36	**103**	Residential	Employment	**5**	**1**	**1**	**4**	**0**	**0**	**0**	**0**
P37	**112**	Residential	Employment	**9**	**1**	**1**	**8**	**0**	**0**	**0**	**0**
P38	**111**	Residential	Employment	**93**	**12**	**10**	**84**	**0**	**0**	**0**	**0**
P39	**306**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**
P40	**114**	Residential	Employment	**17**	**2**	**2**	**15**	**0**	**0**	**0**	**0**
P41	**257**	Residential	Employment	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
P42	**243**	Residential	Employment	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
P43	**113**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**
P44	**119**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**
P45	**263**	Retail	Greenfield								
G1	**131**	Residential									
G2	**587**	Residential									

Ref	Zone	Land Use	Previous Use	Light Vehicles				Heavy vehicles			
				AM peak in	AM peak out	PM peak in	PM peak out	AM peak in	AM peak out	PM peak in	PM peak out
G3	**588**	Residential									
G4	**103**	Residential									
G11	**221**	Residential									
G12	**221**	Residential									
G13	**221**	Residential									
G14	**221**	Residential									
G15	**218**	Residential									
G16	**218**	Residential									
G21	**135**	Employment									
G27	**132**	Residential									
SS2	**221**	Employment	Greenfield								
SS3	**222 / 151**	Employment	Greenfield								
SS4	**209**	Employment	Greenfield								
SS5	**217**	Employment	Greenfield								
SS6	**261**	Employment	Greenfield								
SS7	**248**	Employment	Employment	**17**	**3**	**2**	**15**	**0**	**0**	**0**	**0**
SS8	**215**	Employment	Greenfield								
SS9	**215**	Employment	Greenfield								
SS10	**585**	Employment	Greenfield								
SS11	**211**	Employment	Greenfield								
SS12	**229**	Employment	Greenfield								
SS13	**150**	Employment	Greenfield								
SS14	**217**	Employment	Greenfield								
SS15	**223**	Employment	Greenfield								
SS16	**211**	Employment	Greenfield								
SS17	**122**	Employment	Greenfield								
SS19	**261**	Employment	Greenfield								
SS20	**244**	Employment	Greenfield								
SS21	**251**	Employment									
SS22	**215**	Employment									
SS23	**264**	Employment									
SS24	**132**	Employment									
		TOTAL		1,011	370	674	1,187	6	7	1	1

2021 Net

Ref	Zone	Land Use	Previous Use	Light Vehicles				Heavy vehicles			
				AM peak in	AM peak out	PM peak in	PM peak out	AM peak in	AM peak out	PM peak in	PM peak out
501	212	Residential		174	439	335	178	2	2	0	0
502	585	Residential		167	422	321	171	2	2	0	0
504	201	Residential		35	87	67	35	0	0	0	0
505	201	Employment		126	23	16	109	1	1	0	1
506	221	Residential		135	342	261	139	1	1	0	0
534	211	Residential		52	131	100	53	1	1	0	0
507	211	Residential		67	170	130	69	1	1	0	0
508	215	Residential		69	175	133	71	1	1	0	0
509	215	Employment		187	35	24	162	1	1	0	1
513	218	Retail		73	57	137	142	1	1	1	1
514	218	Sports		5	4	12	4	0	0	0	0
515	218	Residential		131	332	252	134	1	1	0	0
520	211	Hotel		8	11	11	6	0	0	0	0
526	585	Hotel		6	8	8	4	0	0	0	0
529	223	Retirement	Greenfield	5	0	10	5	0	0	0	0
530	223	Sports (emp)	Greenfield	13	12	40	32	0	0	0	0
531	223	Restaurant	Greenfield	0	0	32	40	0	0	0	0
532	223	Hotel	Greenfield	4	6	5	3	0	0	0	0
533	223	Education (sec-pupils)	Greenfield	52	48	4	6	1	1	0	0
AD3	214	Residential	Brownfield	8	20	15	8	0	0	0	0
AD3	214	Education (sec-area)	Brownfield	20	19	1	2	0	0	0	0
AD5	217	Residential	Greenfield	145	367	279	149	1	1	0	0
AD5	217	Employment	Greenfield	274	51	35	238	2	2	1	1
AD5	217	Education (prim-area)	Greenfield	238	148	36	51	0	0	0	0
AD6	117	Employment	Brownfield	22	4	3	19	0	0	0	0
AD7	151	Residential	Brownfield	8	20	15	8	0	0	0	0
AD7	151	Employment	Brownfield	6	1	1	5	0	0	0	0
AD9	115	Residential	Brownfield	11	22	21	11	0	0	0	0
AD10	119	Residential	Brownfield	16	32	30	16	0	0	0	0
AD15	122	Employment		88	16	11	76	1	1	0	0
AD18	122	Hotel	Greenfield	6	9	9	5	0	0	0	0
AD20	226	Primary care	Greenfield	184	96	89	130	1	1	0	0
AD20	226	Residential	Greenfield	7	17	13	7	0	0	0	0
AD21	228	Hotel	Greenfield	2	2	2	1	0	0	0	0
TC7	113	Retail	Retail	427	294	610	662	3	5	0	0
TC7	113	Residential		31	63	60	31	0	0	0	0
TC9	112	Retail	Brownfield	17	12	24	26	0	0	0	0
TC9	112	Residential	Brownfield	11	22	21	11	0	0	0	0
TC10	112	Residential	Brownfield	2	4	4	2	0	0	0	0
TC11	588	Retail	Brownfield	17	12	24	26	0	0	0	0
TC13	590 / 116	Residential		18	38	36	19	0	0	0	0
TC13	590 / 116	Employment	Redundant buildings & car parking areas	217	27	23	196	1	1	0	0
TC17	563	Residential		9	18	17	9	0	0	0	0
P1	544	Residential	Car Park	4	8	7	4	0	0	0	0
P2	544	Residential	Employment	3	7	7	3	0	0	0	0
P3	544	Residential	Employment	4	8	8	4	0	0	0	0
P4	544	Residential	Public House and 1 dwelling	1	1	1	1	0	0	0	0
P5	544	Residential	Public House	3	6	6	3	0	0	0	0
P6	544	Residential	Vacant buildings	11	23	21	11	0	0	0	0
P7	586	Residential	Mixed	1	1	1	1	0	0	0	0
P8	549	Residential	Employment	-1	0	0	-1	0	0	0	0
P9	112	Residential	Employment	-6	2	2	-5	0	0	0	0
P10	112	Residential	Employment	-9	1	1	-8	0	0	0	0
P11	112	Residential	Employment	-9	1	1	-8	0	0	0	0
P12	110	Residential	Employment	-4	0	0	-4	0	0	0	0
P13	547	Residential	Employment	-87	9	9	-78	0	0	0	0
P14	110	Residential	Employment	-7	1	1	-7	0	0	0	0
P15	112	Residential	Employment	-3	2	2	-3	0	0	0	0
P16	112	Residential	Employment	-2	1	1	-2	0	0	0	0
P17	111	Residential	Employment	-2	0	0	-2	0	0	0	0
P18	237	Residential	Employment	-10	0	0	-8	0	0	0	0
P19	137	Residential	Employment	-6	2	1	-5	0	0	0	0
P20	137	Residential	Employment	-6	1	1	-5	0	0	0	0
P21	589	Residential	Employment	-19	1	1	-17	0	0	0	0
P22	106	Residential	Employment	-1	0	0	-1	0	0	0	0
P23	563	Residential	Employment	-103	-10	-9	-93	0	0	0	0
P24	102	Residential	Employment	-20	4	4	-17	0	0	0	0
P25	110	Residential	Employment	-15	3	3	-13	0	0	0	0
P26	544	Residential	Employment	-13	16	15	-11	0	0	0	0
P27	110	Residential	Employment	-5	0	0	-5	0	0	0	0
P28	101	Residential	Employment	-6	1	1	-5	0	0	0	0
P29	101	Residential	Employment	-1	0	0	-1	0	0	0	0
P30	101	Residential	Employment	-3	1	1	-3	0	0	0	0
P31	231	Residential	Employment	-13	0	0	-11	0	0	0	0
P32	207	Residential	Employment	0	0	0	0	0	0	0	0
P33	101	Residential	Employment	-14	2	2	-12	0	0	0	0
P34	544	Residential	Employment	-8	3	3	-7	0	0	0	0
P35	589	Residential	Employment	-2	1	1	-2	0	0	0	0
P36	103	Residential	Employment	-5	0	0	-4	0	0	0	0
P37	112	Residential	Employment	-8	1	1	-7	0	0	0	0
P38	111	Residential	Employment	-78	20	19	-69	0	0	0	0
P39	306	Residential	Employment	-6	2	1	-5	0	0	0	0
P40	114	Residential	Employment	-14	3	3	-13	0	0	0	0
P41	257	Residential	Employment	-1	0	0	-1	0	0	0	0
P42	243	Residential	Employment	-2	0	0	-1	0	0	0	0
P43	113	Residential	Employment	-6	1	1	-5	0	0	0	0
P44	119	Residential	Employment	-6	2	2	-5	0	0	0	0
P45	263	Retail	Greenfield	198	155	373	386	2	2	2	2
G1	131	Residential		44	112	85	45	0	0	0	0
G2	587	Residential		6	13	12	6	0	0	0	0

Ref	Zone	Land Use	Previous Use	Light Vehicles				Heavy vehicles			
				AM peak in	AM peak out	PM peak in	PM peak out	AM peak in	AM peak out	PM peak in	PM peak out
G3	**588**	Residential		**7**	**14**	**13**	**7**	**0**	**0**	**0**	**0**
G4	**103**	Residential		**4**	**9**	**8**	**4**	**0**	**0**	**0**	**0**
G11	**221**	Residential		**23**	**58**	**44**	**24**	**0**	**0**	**0**	**0**
G12	**221**	Residential		**59**	**148**	**113**	**60**	**1**	**1**	**0**	**0**
G13	**221**	Residential		**6**	**14**	**11**	**6**	**0**	**0**	**0**	**0**
G14	**221**	Residential		**8**	**20**	**15**	**8**	**0**	**0**	**0**	**0**
G15	**218**	Residential		**32**	**80**	**61**	**33**	**0**	**0**	**0**	**0**
G16	**218**	Residential		**5**	**14**	**10**	**6**	**0**	**0**	**0**	**0**
G21	**135**	Employment		**220**	**41**	**28**	**190**	**2**	**1**	**0**	**1**
G27	**132**	Residential		**207**	**524**	**399**	**213**	**2**	**2**	**1**	**1**
SS2	**221**	Employment	Greenfield	**140**	**26**	**18**	**122**	**1**	**1**	**0**	**1**
SS3	**222 / 151**	Employment	Greenfield	**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS4	**209**	Employment	Greenfield	**86**	**16**	**11**	**75**	**1**	**1**	**0**	**0**
SS5	**217**	Employment	Greenfield	**65**	**12**	**8**	**56**	**0**	**0**	**0**	**0**
SS6	**261**	Employment	Greenfield	**54**	**10**	**7**	**47**	**0**	**0**	**0**	**0**
SS7	**248**	Employment	Employment	**37**	**7**	**5**	**32**	**0**	**0**	**0**	**0**
SS8	**215**	Employment	Greenfield	**54**	**10**	**7**	**47**	**0**	**0**	**0**	**0**
SS9	**215**	Employment	Greenfield	**1,274**	**237**	**164**	**1,103**	**9**	**8**	**3**	**5**
SS10	**585**	Employment	Greenfield	**389**	**72**	**50**	**337**	**3**	**2**	**1**	**2**
SS11	**211**	Employment	Greenfield	**173**	**32**	**22**	**150**	**1**	**1**	**0**	**1**
SS12	**229**	Employment	Greenfield	**97**	**18**	**13**	**84**	**1**	**1**	**0**	**0**
SS13	**150**	Employment	Greenfield	**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS14	**217**	Employment	Greenfield	**432**	**80**	**56**	**374**	**3**	**3**	**1**	**2**
SS15	**223**	Employment	Greenfield	**302**	**56**	**39**	**262**	**2**	**2**	**1**	**1**
SS16	**211**	Employment	Greenfield	**216**	**40**	**28**	**187**	**2**	**1**	**0**	**1**
SS17	**122**	Employment	Greenfield	**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS19	**261**	Employment	Greenfield	**108**	**20**	**14**	**93**	**1**	**1**	**0**	**0**
SS20	**244**	Employment	Greenfield	**76**	**14**	**10**	**65**	**1**	**0**	**0**	**0**
SS21	**251**	Employment		**389**	**72**	**50**	**337**	**3**	**2**	**1**	**2**
SS22	**215**	Employment		**216**	**40**	**28**	**187**	**2**	**1**	**0**	**1**
SS23	**264**	Employment		**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS24	**132**	Employment		**216**	**40**	**28**	**187**	**2**	**1**	**0**	**1**
		TOTAL		8,273	5,838	5,193	7,838	62	60	18	30

2032 Proposed

Ref	Zone	Land Use	Previous Use	Light Vehicles				Heavy vehicles			
				AM peak in	AM peak out	PM peak in	PM peak out	AM peak in	AM peak out	PM peak in	PM peak out
501	**212**	Residential		**174**	**439**	**335**	**178**	**2**	**2**	**0**	**0**
502	**585**	Residential		**167**	**422**	**321**	**171**	**2**	**2**	**0**	**0**
504	**201**	Residential		**179**	**454**	**346**	**184**	**2**	**2**	**0**	**0**
505	**201**	Employment		**126**	**23**	**16**	**109**	**1**	**1**	**0**	**1**
506	**221**	Residential		**232**	**588**	**448**	**238**	**2**	**2**	**1**	**1**
534	**211**	Residential		**152**	**384**	**293**	**156**	**1**	**1**	**0**	**0**
507	**211**	Residential		**83**	**211**	**160**	**85**	**1**	**1**	**0**	**0**
508	**215**	Residential		**107**	**271**	**206**	**110**	**1**	**1**	**0**	**0**
509	**215**	Employment		**187**	**35**	**24**	**162**	**1**	**1**	**0**	**1**
513	**218**	Retail		**73**	**57**	**137**	**142**	**1**	**1**	**1**	**1**
514	**218**	Sports		**5**	**4**	**12**	**4**	**0**	**0**	**0**	**0**
515	**218**	Residential		**572**	**1,447**	**1,102**	**587**	**6**	**6**	**1**	**1**
520	**211**	Hotel		**16**	**23**	**21**	**12**	**0**	**0**	**0**	**0**
526	**585**	Hotel		**12**	**17**	**16**	**9**	**0**	**0**	**0**	**0**
529	**223**	Retirement	Greenfield	**10**	**0**	**20**	**10**	**0**	**0**	**0**	**0**
530	**223**	Sports (emp)	Greenfield	**25**	**23**	**80**	**65**	**1**	**0**	**0**	**1**
531	**223**	Restaurant	Greenfield	**0**	**0**	**64**	**79**	**0**	**0**	**0**	**0**
532	**223**	Hotel	Greenfield	**8**	**11**	**11**	**6**	**0**	**0**	**0**	**0**
533	**223**	Education (sec-pupils)	Greenfield	**104**	**95**	**7**	**13**	**2**	**2**	**0**	**0**
AD3	**214**	Residential	Brownfield	**8**	**20**	**15**	**8**	**0**	**0**	**0**	**0**
AD3	**214**	Education (sec-area)	Brownfield	**20**	**19**	**1**	**2**	**0**	**0**	**0**	**0**
AD4	**217**	Residential	Employment	**62**	**157**	**120**	**64**	**1**	**1**	**0**	**0**
AD5	**217**	Residential	Greenfield	**145**	**367**	**279**	**149**	**1**	**1**	**0**	**0**
AD5	**217**	Employment	Greenfield	**274**	**51**	**35**	**238**	**2**	**2**	**1**	**1**
AD5	**217**	Education (prim-area)	Greenfield	**238**	**148**	**36**	**51**	**0**	**0**	**0**	**0**
AD6	**117**	Residential	Brownfield	**35**	**87**	**67**	**35**	**0**	**0**	**0**	**0**
AD6	**117**	Employment	Brownfield	**22**	**4**	**3**	**19**	**0**	**0**	**0**	**0**
AD7	**151**	Residential	Brownfield	**8**	**20**	**15**	**8**	**0**	**0**	**0**	**0**
AD7	**151**	Employment	Brownfield	**6**	**1**	**1**	**5**	**0**	**0**	**0**	**0**
AD8	**263**	Residential	Brownfield	**18**	**44**	**34**	**18**	**0**	**0**	**0**	**0**
AD9	**115**	Residential	Brownfield	**11**	**22**	**21**	**11**	**0**	**0**	**0**	**0**
AD10	**119**	Residential	Brownfield	**16**	**32**	**30**	**16**	**0**	**0**	**0**	**0**
AD15	**122**	Employment		**88**	**16**	**11**	**76**	**1**	**1**	**0**	**0**
AD18	**122**	Hotel	Greenfield	**6**	**9**	**9**	**5**	**0**	**0**	**0**	**0**
AD20	**226**	Primary care	Greenfield	**184**	**96**	**89**	**130**	**1**	**1**	**0**	**0**
AD20	**226**	Residential	Greenfield	**7**	**17**	**13**	**7**	**0**	**0**	**0**	**0**
AD21	**228**	Hotel	Greenfield	**2**	**2**	**2**	**1**	**0**	**0**	**0**	**0**
TC7	**113**	Retail	Retail	**853**	**587**	**1,220**	**1,324**	**7**	**10**	**0**	**0**
TC7	**113**	Residential		**31**	**63**	**60**	**31**	**0**	**0**	**0**	**0**
TC9	**112**	Retail	Brownfield	**17**	**12**	**24**	**26**	**0**	**0**	**0**	**0**
TC9	**112**	Residential	Brownfield	**11**	**22**	**21**	**11**	**0**	**0**	**0**	**0**
TC10	**112**	Residential	Brownfield	**2**	**4**	**4**	**2**	**0**	**0**	**0**	**0**
TC11	**588**	Retail	Brownfield	**17**	**12**	**24**	**26**	**0**	**0**	**0**	**0**
TC13	**590 / 116**	Residential		**18**	**38**	**36**	**19**	**0**	**0**	**0**	**0**
TC13	**590 / 116**	Employment	Redundant buildings & car parking areas	**217**	**27**	**23**	**196**	**1**	**1**	**0**	**0**
TC17	**563**	Residential		**9**	**18**	**17**	**9**	**0**	**0**	**0**	**0**
P1	**544**	Residential	Car Park	**4**	**8**	**7**	**4**	**0**	**0**	**0**	**0**
P2	**544**	Residential	Employment	**3**	**7**	**7**	**3**	**0**	**0**	**0**	**0**
P3	**544**	Residential	Employment	**4**	**8**	**8**	**4**	**0**	**0**	**0**	**0**
P4	**544**	Residential	Public House and 1 dwelling	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**
P5	**544**	Residential	Public House	**3**	**6**	**6**	**3**	**0**	**0**	**0**	**0**
P6	**544**	Residential	Vacant buildings	**11**	**23**	**21**	**11**	**0**	**0**	**0**	**0**
P7	**586**	Residential	Mixed	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**
P8	**549**	Residential	Employment	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
P9	**112**	Residential	Employment	**1**	**3**	**2**	**1**	**0**	**0**	**0**	**0**
P10	**112**	Residential	Employment	**1**	**2**	**2**	**1**	**0**	**0**	**0**	**0**
P11	**112**	Residential	Employment	**1**	**2**	**2**	**1**	**0**	**0**	**0**	**0**
P12	**110**	Residential	Employment	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**
P13	**547**	Residential	Employment	**10**	**21**	**19**	**10**	**0**	**0**	**0**	**0**
P14	**110**	Residential	Employment	**1**	**2**	**2**	**1**	**0**	**0**	**0**	**0**
P15	**112**	Residential	Employment	**1**	**3**	**2**	**1**	**0**	**0**	**0**	**0**
P16	**112**	Residential	Employment	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**
P17	**111**	Residential	Employment	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
P18	**237**	Residential	Employment	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**
P19	**137**	Residential	Employment	**1**	**3**	**2**	**1**	**0**	**0**	**0**	**0**
P20	**137**	Residential	Employment	**1**	**3**	**2**	**1**	**0**	**0**	**0**	**0**
P21	**589**	Residential	Employment	**2**	**4**	**4**	**2**	**0**	**0**	**0**	**0**
P22	**106**	Residential	Employment	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
P23	**563**	Residential	Employment	**1**	**3**	**2**	**1**	**0**	**0**	**0**	**0**
P24	**102**	Residential	Employment	**3**	**7**	**6**	**3**	**0**	**0**	**0**	**0**
P25	**110**	Residential	Employment	**2**	**5**	**5**	**3**	**0**	**0**	**0**	**0**
P26	**544**	Residential	Employment	**9**	**19**	**18**	**9**	**0**	**0**	**0**	**0**
P27	**110**	Residential	Employment	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
P28	**101**	Residential	Employment	**1**	**2**	**2**	**1**	**0**	**0**	**0**	**0**
P29	**101**	Residential	Employment	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
P30	**101**	Residential	Employment	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**
P31	**231**	Residential	Employment	**1**	**3**	**2**	**1**	**0**	**0**	**0**	**0**
P32	**207**	Residential	Employment	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
P33	**101**	Residential	Employment	**2**	**4**	**4**	**2**	**0**	**0**	**0**	**0**
P34	**544**	Residential	Employment	**2**	**4**	**4**	**2**	**0**	**0**	**0**	**0**
P35	**589**	Residential	Employment	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**
P36	**103**	Residential	Employment	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
P37	**112**	Residential	Employment	**1**	**2**	**2**	**1**	**0**	**0**	**0**	**0**
P38	**111**	Residential	Employment	**15**	**31**	**29**	**15**	**0**	**0**	**0**	**0**
P39	**306**	Residential	Employment	**1**	**3**	**2**	**1**	**0**	**0**	**0**	**0**
P40	**114**	Residential	Employment	**2**	**5**	**5**	**2**	**0**	**0**	**0**	**0**
P41	**257**	Residential	Employment	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
P42	**243**	Residential	Employment	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
P43	**113**	Residential	Employment	**1**	**2**	**2**	**1**	**0**	**0**	**0**	**0**
P44	**119**	Residential	Employment	**1**	**3**	**2**	**1**	**0**	**0**	**0**	**0**

Ref	Zone	Land Use	Previous Use	Light Vehicles				Heavy vehicles			
				AM peak in	AM peak out	PM peak in	PM peak out	AM peak in	AM peak out	PM peak in	PM peak out
P45	**263**	Retail	Greenfield	**198**	**155**	**373**	**386**	**2**	**2**	**2**	**2**
G1	**131**	Residential		**44**	**112**	**85**	**45**	**0**	**0**	**0**	**0**
G2	**587**	Residential		**6**	**13**	**12**	**6**	**0**	**0**	**0**	**0**
G3	**588**	Residential		**7**	**14**	**13**	**7**	**0**	**0**	**0**	**0**
G4	**103**	Residential		**4**	**9**	**8**	**4**	**0**	**0**	**0**	**0**
G5	**207**	Residential		**17**	**43**	**32**	**17**	**0**	**0**	**0**	**0**
G6	**203**	Residential		**69**	**175**	**133**	**71**	**1**	**1**	**0**	**0**
G7	**204**	Residential		**69**	**175**	**133**	**71**	**1**	**1**	**0**	**0**
G8	**219**	Residential		**69**	**175**	**133**	**71**	**1**	**1**	**0**	**0**
G9	**226**	Residential		**69**	**175**	**133**	**71**	**1**	**1**	**0**	**0**
G10	**248**	Residential		**69**	**175**	**133**	**71**	**1**	**1**	**0**	**0**
G11	**221**	Residential		**23**	**58**	**44**	**24**	**0**	**0**	**0**	**0**
G12	**221**	Residential		**59**	**148**	**113**	**60**	**1**	**1**	**0**	**0**
G13	**221**	Residential		**6**	**14**	**11**	**6**	**0**	**0**	**0**	**0**
G14	**221**	Residential		**8**	**20**	**15**	**8**	**0**	**0**	**0**	**0**
G15	**218**	Residential		**45**	**114**	**86**	**46**	**0**	**0**	**0**	**0**
G16	**218**	Residential		**5**	**14**	**10**	**6**	**0**	**0**	**0**	**0**
G17	**257**	Residential		**23**	**58**	**44**	**24**	**0**	**0**	**0**	**0**
G18	**256**	Residential		**23**	**58**	**44**	**24**	**0**	**0**	**0**	**0**
G19	**252**	Residential		**23**	**58**	**44**	**24**	**0**	**0**	**0**	**0**
G21	**135**	Employment		**220**	**41**	**28**	**190**	**2**	**1**	**0**	**1**
G22	**229**	Employment		**549**	**102**	**71**	**475**	**4**	**4**	**1**	**2**
G24	**217**	Employment	Greenfield	**3,732**	**693**	**481**	**3,232**	**26**	**24**	**8**	**16**
G25	**218**	Employment		**191**	**35**	**25**	**165**	**1**	**1**	**0**	**1**
G26	**225**	Employment		**1,372**	**255**	**177**	**1,188**	**10**	**9**	**3**	**6**
G27	**132**	Residential		**207**	**524**	**399**	**213**	**2**	**2**	**1**	**1**
SS2	**221**	Employment	Greenfield	**140**	**26**	**18**	**122**	**1**	**1**	**0**	**1**
SS3	**222 / 151**	Employment	Greenfield	**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS4	**209**	Employment	Greenfield	**86**	**16**	**11**	**75**	**1**	**1**	**0**	**0**
SS5	**217**	Employment	Greenfield	**65**	**12**	**8**	**56**	**0**	**0**	**0**	**0**
SS6	**261**	Employment	Greenfield	**54**	**10**	**7**	**47**	**0**	**0**	**0**	**0**
SS7	**248**	Employment	Employment	**54**	**10**	**7**	**47**	**0**	**0**	**0**	**0**
SS8	**215**	Employment	Greenfield	**54**	**10**	**7**	**47**	**0**	**0**	**0**	**0**
SS9	**215**	Employment	Greenfield	**1,274**	**237**	**164**	**1,103**	**9**	**8**	**3**	**5**
SS10	**585**	Employment	Greenfield	**389**	**72**	**50**	**337**	**3**	**2**	**1**	**2**
SS11	**211**	Employment	Greenfield	**173**	**32**	**22**	**150**	**1**	**1**	**0**	**1**
SS12	**229**	Employment	Greenfield	**97**	**18**	**13**	**84**	**1**	**1**	**0**	**0**
SS13	**150**	Employment	Greenfield	**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS14	**217**	Employment	Greenfield	**669**	**124**	**86**	**580**	**5**	**4**	**1**	**3**
SS15	**223**	Employment	Greenfield	**302**	**56**	**39**	**262**	**2**	**2**	**1**	**1**
SS16	**211**	Employment	Greenfield	**216**	**40**	**28**	**187**	**2**	**1**	**0**	**1**
SS17	**122**	Employment	Greenfield	**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS19	**261**	Employment	Greenfield	**108**	**20**	**14**	**93**	**1**	**1**	**0**	**0**
SS20	**244**	Employment	Greenfield	**76**	**14**	**10**	**65**	**1**	**0**	**0**	**0**
SS21	**251**	Employment		**389**	**72**	**50**	**337**	**3**	**2**	**1**	**2**
SS22	**215**	Employment		**216**	**40**	**28**	**187**	**2**	**1**	**0**	**1**
SS23	**264**	Employment		**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS24	**132**	Employment		**216**	**40**	**28**	**187**	**2**	**1**	**0**	**1**
			TOTAL	16,847	10,952	9,449	15,821	125	121	35	61

2032 Existing

Ref	Zone	Land Use	Previous Use	Light Vehicles				Heavy vehicles			
				AM peak in	AM peak out	PM peak in	PM peak out	AM peak in	AM peak out	PM peak in	PM peak out
501	**212**	Residential									
502	**585**	Residential									
504	**201**	Residential									
505	**201**	Employment									
506	**221**	Residential									
534	**211**	Residential									
507	**211**	Residential									
508	**215**	Residential									
509	**215**	Employment									
513	**218**	Retail									
514	**218**	Sports									
515	**218**	Residential									
520	**211**	Hotel									
526	**585**	Hotel									
529	**223**	Retirement	Greenfield								
530	**223**	Sports (emp)	Greenfield								
531	**223**	Restaurant	Greenfield								
532	**223**	Hotel	Greenfield								
533	**223**	Education (sec-pupils)	Greenfield								
AD3	**214**	Residential	Brownfield								
AD3	**214**	Education (sec-area)	Brownfield								
AD4	**217**	Residential	Employment								
AD5	**217**	Residential	Greenfield								
AD5	**217**	Employment	Greenfield								
AD5	**217**	Education (prim-area)	Greenfield								
AD6	**117**	Residential	Brownfield								
AD6	**117**	Employment	Brownfield								
AD7	**151**	Residential	Brownfield								
AD7	**151**	Employment	Brownfield								
AD8	**263**	Residential	Brownfield								
AD9	**115**	Residential	Brownfield								
AD10	**119**	Residential	Brownfield								
AD15	**122**	Employment									
AD18	**122**	Hotel	Greenfield								
AD20	**226**	Primary care	Greenfield								
AD20	**226**	Residential	Greenfield								
AD21	**228**	Hotel	Greenfield								
TC7	**113**	Retail	Retail	**427**	**294**	**610**	**662**	**3**	**5**	**0**	**0**
TC7	**113**	Residential									
TC9	**112**	Retail	Brownfield								
TC9	**112**	Residential	Brownfield								
TC10	**112**	Residential	Brownfield								
TC11	**588**	Retail	Brownfield								
TC13	**590 / 116**	Residential									
TC13	**590 / 116**	Employment	Redundant buildings & car parking areas								
TC17	**563**	Residential									
P1	**544**	Residential	Car Park								
P2	**544**	Residential	Employment								
P3	**544**	Residential	Employment								
P4	**544**	Residential	Public House and 1 dwelling								
P5	**544**	Residential	Public House								
P6	**544**	Residential	Vacant buildings								
P7	**586**	Residential	Mixed								
P8	**549**	Residential	Employment	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
P9	**112**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**
P10	**112**	Residential	Employment	**10**	**1**	**1**	**9**	**0**	**0**	**0**	**0**
P11	**112**	Residential	Employment	**10**	**1**	**1**	**9**	**0**	**0**	**0**	**0**
P12	**110**	Residential	Employment	**5**	**1**	**1**	**4**	**0**	**0**	**0**	**0**
P13	**547**	Residential	Employment	**97**	**12**	**10**	**88**	**0**	**0**	**0**	**0**
P14	**110**	Residential	Employment	**8**	**1**	**1**	**8**	**0**	**0**	**0**	**0**
P15	**112**	Residential	Employment	**5**	**1**	**1**	**4**	**0**	**0**	**0**	**0**
P16	**112**	Residential	Employment	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**
P17	**111**	Residential	Employment	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**
P18	**237**	Residential	Employment	**10**	**2**	**1**	**9**	**0**	**0**	**0**	**0**
P19	**137**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**
P20	**137**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**
P21	**589**	Residential	Employment	**21**	**3**	**2**	**19**	**0**	**0**	**0**	**0**
P22	**106**	Residential	Employment	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
P23	**563**	Residential	Employment	**104**	**13**	**11**	**94**	**0**	**0**	**0**	**0**
P24	**102**	Residential	Employment	**23**	**3**	**2**	**21**	**0**	**0**	**0**	**0**
P25	**110**	Residential	Employment	**17**	**2**	**2**	**16**	**0**	**0**	**0**	**0**
P26	**544**	Residential	Employment	**22**	**3**	**2**	**20**	**0**	**0**	**0**	**0**
P27	**110**	Residential	Employment	**6**	**1**	**1**	**5**	**0**	**0**	**0**	**0**
P28	**101**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**
P29	**101**	Residential	Employment	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
P30	**101**	Residential	Employment	**3**	**0**	**0**	**3**	**0**	**0**	**0**	**0**
P31	**231**	Residential	Employment	**14**	**3**	**2**	**12**	**0**	**0**	**0**	**0**
P32	**207**	Residential	Employment	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
P33	**101**	Residential	Employment	**16**	**2**	**2**	**14**	**0**	**0**	**0**	**0**
P34	**544**	Residential	Employment	**10**	**1**	**1**	**9**	**0**	**0**	**0**	**0**
P35	**589**	Residential	Employment	**3**	**0**	**0**	**2**	**0**	**0**	**0**	**0**
P36	**103**	Residential	Employment	**5**	**1**	**1**	**4**	**0**	**0**	**0**	**0**
P37	**112**	Residential	Employment	**9**	**1**	**1**	**8**	**0**	**0**	**0**	**0**
P38	**111**	Residential	Employment	**93**	**12**	**10**	**84**	**0**	**0**	**0**	**0**
P39	**306**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**
P40	**114**	Residential	Employment	**17**	**2**	**2**	**15**	**0**	**0**	**0**	**0**
P41	**257**	Residential	Employment	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
P42	**243**	Residential	Employment	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
P43	**113**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**
P44	**119**	Residential	Employment	**7**	**1**	**1**	**6**	**0**	**0**	**0**	**0**

Ref	Zone	Land Use	Previous Use	Light Vehicles				Heavy vehicles			
				AM peak in	AM peak out	PM peak in	PM peak out	AM peak in	AM peak out	PM peak in	PM peak out
P45	**263**	Retail	Greenfield								
G1	**131**	Residential									
G2	**587**	Residential									
G3	**588**	Residential									
G4	**103**	Residential									
G5	**207**	Residential									
G6	**203**	Residential									
G7	**204**	Residential									
G8	**219**	Residential									
G9	**226**	Residential									
G10	**248**	Residential									
G11	**221**	Residential									
G12	**221**	Residential									
G13	**221**	Residential									
G14	**221**	Residential									
G15	**218**	Residential									
G16	**218**	Residential									
G17	**257**	Residential									
G18	**256**	Residential									
G19	**252**	Residential									
G21	**135**	Employment									
G22	**229**	Employment									
G24	**217**	Employment	Greenfield								
G25	**218**	Employment									
G26	**225**	Employment									
G27	**132**	Residential									
SS2	**221**	Employment	Greenfield								
SS3	**222 / 151**	Employment	Greenfield								
SS4	**209**	Employment	Greenfield								
SS5	**217**	Employment	Greenfield								
SS6	**261**	Employment	Greenfield								
SS7	**248**	Employment	Employment	**17**	**3**	**2**	**15**	**0**	**0**	**0**	**0**
SS8	**215**	Employment	Greenfield								
SS9	**215**	Employment	Greenfield								
SS10	**585**	Employment	Greenfield								
SS11	**211**	Employment	Greenfield								
SS12	**229**	Employment	Greenfield								
SS13	**150**	Employment	Greenfield								
SS14	**217**	Employment	Greenfield								
SS15	**223**	Employment	Greenfield								
SS16	**211**	Employment	Greenfield								
SS17	**122**	Employment	Greenfield								
SS19	**261**	Employment	Greenfield								
SS20	**244**	Employment	Greenfield								
SS21	**251**	Employment									
SS22	**215**	Employment									
SS23	**264**	Employment									
SS24	**132**	Employment									
			TOTAL	1,011	370	674	1,187	6	7	1	1

2032 Net

Ref	Zone	Land Use	Previous Use	Light Vehicles				Heavy vehicles			
				AM peak in	AM peak out	PM peak in	PM peak out	AM peak in	AM peak out	PM peak in	PM peak out
501	212	Residential		174	439	335	178	2	2	0	0
502	585	Residential		167	422	321	171	2	2	0	0
504	201	Residential		179	454	346	184	2	2	0	0
505	201	Employment		126	23	16	109	1	1	0	1
506	221	Residential		232	588	448	238	2	2	1	1
534	211	Residential		152	384	293	156	1	1	0	0
507	211	Residential		83	211	160	85	1	1	0	0
508	215	Residential		107	271	206	110	1	1	0	0
509	215	Employment		187	35	24	162	1	1	0	1
513	218	Retail		73	57	137	142	1	1	1	1
514	218	Sports		5	4	12	4	0	0	0	0
515	218	Residential		572	1,447	1,102	587	6	6	1	1
520	211	Hotel		16	23	21	12	0	0	0	0
526	585	Hotel		12	17	16	9	0	0	0	0
529	223	Retirement	Greenfield	10	0	20	10	0	0	0	0
530	223	Sports (emp)	Greenfield	25	23	80	65	1	0	0	1
531	223	Restaurant	Greenfield	0	0	64	79	0	0	0	0
532	223	Hotel	Greenfield	8	11	11	6	0	0	0	0
533	223	Education (sec-pupils)	Greenfield	104	95	7	13	2	2	0	0
AD3	214	Residential	Brownfield	8	20	15	8	0	0	0	0
AD3	214	Education (sec-area)	Brownfield	20	19	1	2	0	0	0	0
AD4	217	Residential	Employment	62	157	120	64	1	1	0	0
AD5	217	Residential	Greenfield	145	367	279	149	1	1	0	0
AD5	217	Employment	Greenfield	274	51	35	238	2	2	1	1
AD5	217	Education (prim-area)	Greenfield	238	148	36	51	0	0	0	0
AD6	117	Residential	Brownfield	35	87	67	35	0	0	0	0
AD6	117	Employment	Brownfield	22	4	3	19	0	0	0	0
AD7	151	Residential	Brownfield	8	20	15	8	0	0	0	0
AD7	151	Employment	Brownfield	6	1	1	5	0	0	0	0
AD8	263	Residential	Brownfield	18	44	34	18	0	0	0	0
AD9	115	Residential	Brownfield	11	22	21	11	0	0	0	0
AD10	119	Residential	Brownfield	16	32	30	16	0	0	0	0
AD15	122	Employment		88	16	11	76	1	1	0	0
AD18	122	Hotel	Greenfield	6	9	9	5	0	0	0	0
AD20	226	Primary care	Greenfield	184	96	89	130	1	1	0	0
AD20	226	Residential	Greenfield	7	17	13	7	0	0	0	0
AD21	228	Hotel	Greenfield	2	2	2	1	0	0	0	0
TC7	113	Retail	Retail	427	294	610	662	3	5	0	0
TC7	113	Residential		31	63	60	31	0	0	0	0
TC9	112	Retail	Brownfield	17	12	24	26	0	0	0	0
TC9	112	Residential	Brownfield	11	22	21	11	0	0	0	0
TC10	112	Residential	Brownfield	2	4	4	2	0	0	0	0
TC11	588	Retail	Brownfield	17	12	24	26	0	0	0	0
TC13	590 / 116	Residential		18	38	36	19	0	0	0	0
TC13	590 / 116	Employment	Redundant buildings & car parking areas	217	27	23	196	1	1	0	0
TC17	563	Residential		9	18	17	9	0	0	0	0
P1	544	Residential	Car Park	4	8	7	4	0	0	0	0
P2	544	Residential	Employment	3	7	7	3	0	0	0	0
P3	544	Residential	Employment	4	8	8	4	0	0	0	0
P4	544	Residential	Public House and 1 dwelling	1	1	1	1	0	0	0	0
P5	544	Residential	Public House	3	6	6	3	0	0	0	0
P6	544	Residential	Vacant buildings	11	23	21	11	0	0	0	0
P7	586	Residential	Mixed	1	1	1	1	0	0	0	0
P8	549	Residential	Employment	-1	0	0	-1	-0	-0	-0	-0
P9	112	Residential	Employment	-6	2	2	-5	-0	-0	-0	-0
P10	112	Residential	Employment	-9	1	1	-8	-0	-0	-0	-0
P11	112	Residential	Employment	-9	1	1	-8	-0	-0	-0	-0
P12	110	Residential	Employment	-4	0	0	-4	-0	-0	-0	-0
P13	547	Residential	Employment	-87	9	9	-78	-0	-0	-0	-0
P14	110	Residential	Employment	-7	1	1	-7	-0	-0	-0	-0
P15	112	Residential	Employment	-3	2	2	-3	-0	-0	-0	-0
P16	112	Residential	Employment	-2	1	1	-2	-0	-0	-0	-0
P17	111	Residential	Employment	-2	-0	-0	-2	-0	-0	-0	-0
P18	237	Residential	Employment	-10	-0	-0	-8	-0	-0	-0	-0
P19	137	Residential	Employment	-6	2	1	-5	-0	-0	-0	-0
P20	137	Residential	Employment	-6	1	1	-5	-0	-0	-0	-0
P21	589	Residential	Employment	-19	1	1	-17	-0	-0	-0	-0
P22	106	Residential	Employment	-1	0	0	-1	-0	-0	-0	-0
P23	563	Residential	Employment	-103	-10	-9	-93	-0	-0	-0	-0
P24	102	Residential	Employment	-20	4	4	-17	-0	-0	-0	-0
P25	110	Residential	Employment	-15	3	3	-13	-0	-0	-0	-0
P26	544	Residential	Employment	-13	16	15	-11	-0	-0	-0	-0
P27	110	Residential	Employment	-5	-0	-0	-5	-0	-0	-0	-0
P28	101	Residential	Employment	-6	1	1	-5	-0	-0	-0	-0
P29	101	Residential	Employment	-1	0	0	-1	-0	-0	-0	-0
P30	101	Residential	Employment	-3	1	1	-3	-0	-0	-0	-0
P31	231	Residential	Employment	-13	0	0	-11	-0	-0	-0	-0
P32	207	Residential	Employment	-0	0	0	-0	-0	-0	-0	-0
P33	101	Residential	Employment	-14	2	2	-12	-0	-0	-0	-0
P34	544	Residential	Employment	-8	3	3	-7	-0	-0	-0	-0
P35	589	Residential	Employment	-2	1	1	-2	-0	-0	-0	-0
P36	103	Residential	Employment	-5	-0	-0	-4	-0	-0	-0	-0
P37	112	Residential	Employment	-8	1	1	-7	-0	-0	-0	-0
P38	111	Residential	Employment	-78	20	19	-69	-0	-0	-0	-0
P39	306	Residential	Employment	-6	2	1	-5	-0	-0	-0	-0
P40	114	Residential	Employment	-14	3	3	-13	-0	-0	-0	-0
P41	257	Residential	Employment	-1	0	0	-1	-0	-0	-0	-0
P42	243	Residential	Employment	-2	0	0	-1	-0	-0	-0	-0
P43	113	Residential	Employment	-6	1	1	-5	-0	-0	-0	-0
P44	119	Residential	Employment	-6	2	2	-5	-0	-0	-0	-0

Ref	Zone	Land Use	Previous Use	Light Vehicles				Heavy vehicles			
				AM peak in	AM peak out	PM peak in	PM peak out	AM peak in	AM peak out	PM peak in	PM peak out
P45	**263**	Retail	Greenfield	**198**	**155**	**373**	**386**	**2**	**2**	**2**	**2**
G1	**131**	Residential		**44**	**112**	**85**	**45**	**0**	**0**	**0**	**0**
G2	**587**	Residential		**6**	**13**	**12**	**6**	**0**	**0**	**0**	**0**
G3	**588**	Residential		**7**	**14**	**13**	**7**	**0**	**0**	**0**	**0**
G4	**103**	Residential		**4**	**9**	**8**	**4**	**0**	**0**	**0**	**0**
G5	**207**	Residential		**17**	**43**	**32**	**17**	**0**	**0**	**0**	**0**
G6	**203**	Residential		**69**	**175**	**133**	**71**	**1**	**1**	**0**	**0**
G7	**204**	Residential		**69**	**175**	**133**	**71**	**1**	**1**	**0**	**0**
G8	**219**	Residential		**69**	**175**	**133**	**71**	**1**	**1**	**0**	**0**
G9	**226**	Residential		**69**	**175**	**133**	**71**	**1**	**1**	**0**	**0**
G10	**248**	Residential		**69**	**175**	**133**	**71**	**1**	**1**	**0**	**0**
G11	**221**	Residential		**23**	**58**	**44**	**24**	**0**	**0**	**0**	**0**
G12	**221**	Residential		**59**	**148**	**113**	**60**	**1**	**1**	**0**	**0**
G13	**221**	Residential		**6**	**14**	**11**	**6**	**0**	**0**	**0**	**0**
G14	**221**	Residential		**8**	**20**	**15**	**8**	**0**	**0**	**0**	**0**
G15	**218**	Residential		**45**	**114**	**86**	**46**	**0**	**0**	**0**	**0**
G16	**218**	Residential		**5**	**14**	**10**	**6**	**0**	**0**	**0**	**0**
G17	**257**	Residential		**23**	**58**	**44**	**24**	**0**	**0**	**0**	**0**
G18	**256**	Residential		**23**	**58**	**44**	**24**	**0**	**0**	**0**	**0**
G19	**252**	Residential		**23**	**58**	**44**	**24**	**0**	**0**	**0**	**0**
G21	**135**	Employment		**220**	**41**	**28**	**190**	**2**	**1**	**0**	**1**
G22	**229**	Employment		**549**	**102**	**71**	**475**	**4**	**4**	**1**	**2**
G24	**217**	Employment	Greenfield	**3,732**	**693**	**481**	**3,232**	**26**	**24**	**8**	**16**
G25	**218**	Employment		**191**	**35**	**25**	**165**	**1**	**1**	**0**	**1**
G26	**225**	Employment		**1,372**	**255**	**177**	**1,188**	**10**	**9**	**3**	**6**
G27	**132**	Residential		**207**	**524**	**399**	**213**	**2**	**2**	**1**	**1**
SS2	**221**	Employment	Greenfield	**140**	**26**	**18**	**122**	**1**	**1**	**0**	**1**
SS3	**222 / 151**	Employment	Greenfield	**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS4	**209**	Employment	Greenfield	**86**	**16**	**11**	**75**	**1**	**1**	**0**	**0**
SS5	**217**	Employment	Greenfield	**65**	**12**	**8**	**56**	**0**	**0**	**0**	**0**
SS6	**261**	Employment	Greenfield	**54**	**10**	**7**	**47**	**0**	**0**	**0**	**0**
SS7	**248**	Employment	Employment	**37**	**7**	**5**	**32**	**0**	**0**	**0**	**0**
SS8	**215**	Employment	Greenfield	**54**	**10**	**7**	**47**	**0**	**0**	**0**	**0**
SS9	**215**	Employment	Greenfield	**1,274**	**237**	**164**	**1,103**	**9**	**8**	**3**	**5**
SS10	**585**	Employment	Greenfield	**389**	**72**	**50**	**337**	**3**	**2**	**1**	**2**
SS11	**211**	Employment	Greenfield	**173**	**32**	**22**	**150**	**1**	**1**	**0**	**1**
SS12	**229**	Employment	Greenfield	**97**	**18**	**13**	**84**	**1**	**1**	**0**	**0**
SS13	**150**	Employment	Greenfield	**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS14	**217**	Employment	Greenfield	**669**	**124**	**86**	**580**	**5**	**4**	**1**	**3**
SS15	**223**	Employment	Greenfield	**302**	**56**	**39**	**262**	**2**	**2**	**1**	**1**
SS16	**211**	Employment	Greenfield	**216**	**40**	**28**	**187**	**2**	**1**	**0**	**1**
SS17	**122**	Employment	Greenfield	**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS19	**261**	Employment	Greenfield	**108**	**20**	**14**	**93**	**1**	**1**	**0**	**0**
SS20	**244**	Employment	Greenfield	**76**	**14**	**10**	**65**	**1**	**0**	**0**	**0**
SS21	**251**	Employment		**389**	**72**	**50**	**337**	**3**	**2**	**1**	**2**
SS22	**215**	Employment		**216**	**40**	**28**	**187**	**2**	**1**	**0**	**1**
SS23	**264**	Employment		**130**	**24**	**17**	**112**	**1**	**1**	**0**	**1**
SS24	**132**	Employment		**216**	**40**	**28**	**187**	**2**	**1**	**0**	**1**
			TOTAL	15,837	10,582	8,775	14,633	120	114	34	60