

Fife LDP Modelling

Final Report

On behalf of **Fife Council and Transport Scotland**



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1 Overview

1.1 Introduction

- 1.1.1 This report sets out the modelling approach for testing the traffic impacts of the Fife Local Development Plan (FIFEplan), following a meeting with Fife Council representatives on 04/09/14.
- 1.1.2 The note is structured as follows: an outline of the purpose and context of the work is followed by an overview of the SEStran Regional Model (SRM). It then discusses the scenarios against the developments and associated transport infrastructure proposed. Finally, the key outputs are presented with analysis of the results.

1.2 Purpose and context

- 1.2.1 FIFEplan, the Fife Local Development Plan (LDP) is currently under preparation. It includes the development contained within the adopted Fife Development Plan (FDP)¹ and the additional housing development identified through the SESplan Supplementary Guidance.
- 1.2.2 As part of the SESplan Supplementary Guidance, the amount of new housing required between 2009 – 2024 increases beyond that already adopted within the FDP by 7,870 housing units. There are proposed sites for the additional housing development areas, which must be assessed in terms of transportation impacts to ensure that they are located in a suitably accessible location which enables the transport network to function efficiently. Before the final decision on the suitability of the additional housing land can be made, a supporting transport appraisal of the additional land allocations is required to be undertaken and suitable transport interventions identified.
- 1.2.3 The aim of this study is to determine the impact on the road network of the development proposed within the LDP. In particular, it will assess whether the additional housing proposed within the SESplan Supplementary Guidance (SG) can be accommodated by existing infrastructure and the infrastructure already proposed within the FDP.
- 1.2.4 Fife Council (FC) has commissioned a study which, as a minimum, is to:
- Consider the transport interventions already proposed within the FDP and identify whether additional transport interventions are necessary to deliver the LDP.
 - Where transportation interventions prove impractical from an unaffordability viewpoint, particularly in relation to trunk road interchanges, an assessment should be made on the level of housing development which can be delivered through the LDP in the areas identified to accommodate the housing proposed within the SG.

1.3 The existing SRM model forecast

- 1.3.1 The SRM forecast for 2024 is an all-encompassing 'off the shelf' forecast for 2024. The scenario modelled is the best representation of the SESplan Strategic Development Plan (SDP) (Supplementary Guidance) which is currently available, and this modelled scenario was produced in 2013 for SESplan / SEStran. This scenario sought to represent the new allocations data reported in the SG which followed the SDP. This was based on 30 Spatial Assessment Areas (SAA), of which there are five in Fife as follows:
- Fife West

¹ There are 3 existing Adopted Plans in Fife – Dunfermline & West Fife Local Plan; Mid Fife Local Plan and the St Andrews and East Fife Local Plan

- Dunfermline Area
- Glenrothes / Kirkcaldy
- Fife South
- Fife East

1.3.2 The Fife SG housing figures (provided by SESplan in 2013 and represented in the SG 2024 SRM forecast) are shown in **Error! Reference source not found.**

Table 1.1 Existing SRM Model Housing Allocations (SDP, Supplementary Guidance 2013)

	Established Land Supply, 2009-24	Additional Allowances, 2009-24	Completions, 2007-09	Total, 2007-24
Fife West	804	492		1,296
Dunfermline Area	6,427	3,164		9,591
Glenrothes / Kirkcaldy	6,301	3,838		10,139
Fife South	1,869	57		1,926
Fife East	1,368	249		1,617
Total	16,769	7,800	2,713	27,282

1.3.3 Analysis of this forecast in terms of traffic impacts in Fife is presented in the Technical Note “20140911 SRM Fife forecast overview v2.1”. This forecast scenario forms the starting point for testing the Fife LDP, with details of how this is to be undertaken presented below.

1.3.4 This existing forecast has been used to provide an initial view of trunk road impacts in Fife in the work previously reported. In response to this, Fife Council queried the modelled V/C at the following junctions:

- Kirkcaldy Redhouse Rdb: northbound approach AM – V/C appears too low
- Cowdenbeath A92/A909: westbound off-slip PM – V/C appears too high

1.3.5 The coding at the junctions was reviewed. In terms of Redhouse, the northbound V/C is 59% based on a flow of 1822 PCUs and effective operational turning capacity of 3095 PCUs. However, it has been coded with a total turning capacity of 4500 PCUs, commensurate with 3 lanes; this has been revised down to a 2-lane capacity of 3600 PCUs. With regards to Cowdenbeath, the V/C presented is representative of the lowest common denominator in terms of turning movement; the right turn movement is at 88% capacity with a flow of 388 PCUs, whereas the main flow turning left is at only 13% capacity but represents a flow of 724 PCUs. This translates to an average transient queue of 2 PCUs, therefore the congestion on the link as a whole is relatively small.

2 Developing the Reference Case and Test Cases

2.1 Planning data scenarios

- 2.1.1 To facilitate the testing of the Fife LDP, the existing SRM Reference Case scenario discussed above was firstly modified to exclude **all Fife residential**, whilst forecast allocations were retained elsewhere in the model. This then formed the baseline for developing the new Fife LDP forecast scenarios.
- 2.1.2 There were two proposed scenarios to be tested:
- “Committed” case which represents existing allocations in the Adopted Local Plans;
 - “LDP Test” case which includes the committed case plus net change to the existing local plan sites, new proposals and housing opportunity sites. The revisions quantify the level of additionally proposed housing on each site thereby allowing an understanding of new impacts only.
- 2.1.3 Fife Council has supplied a full list of housing development sites to be included in the LDP modelling scenarios. Sites were classified into the following broad categories:
- **Carried forward from adopted LP** – committed sites from existing local plans, including Strategic Development Areas
 - **Carried forward from adopted LP with changes** - committed local plan sites which have been subject to revision through the LDP process
 - **New proposal** (New development sites, other) – new sites proposed since the adopted LP
- 2.1.4 The Committed and LDP Test scenarios are defined on the basis of these three site categories. It is assumed that 100% build-out is attained for all sites except those under the sub-categories of “Housing Opportunity Sites” and ‘Development Opportunity Sites’; and a 20% build-out is to be assumed for these locations.
- 2.1.5 It should also be noted that only sites with a housing capacity estimate were included. Originally, all sites classed as ‘Housing Opportunity Sites’ and ‘Development Opportunity Sites’ had zero housing quantity values associated with them. It is proposed that 5% build out is used to reflect the Housing Land Audit methodology; Fife Council has provided an estimate of housing units for these sites, as detailed in Appendix B.
- 2.1.6 For the purposes of this work, the modelling of all employment, retail, leisure and other non-residential land-uses remain as per the previous SDP (SG) modelled scenario.
- 2.1.7 Based on this, a full definition of the Committed and Test case scenarios, in terms of the development site categories to be included, is presented in Table 2.1.

Table 2.1 Development site categories to be modelled in the Committed and Test scenarios.

Development Category	Sub-category (sites with housing quantity)	Build out assumption	Included in Committed Scenario	Included in Test Scenario
Carried forward from adopted LP	Housing	100%	✓	✓
	Strategic Development Areas	100%	✓	✓
Carried forward from adopted LP with changes (net difference to original LP site proposal where relevant)	Housing	100%	✗	✓
	Strategic Development Areas	100%	✗	✓
New proposals	New development sites	100%	✗	✓
	Other ²	100%	✗	✓
Existing TELMOS allocations (no change)	Non-residential land uses (employment, retail, leisure)	100%	✓	✓

2.1.8 The full list of individual sites to be included in the Committed and LDP Test scenarios is presented in Appendix A. Based on this classification, the total housing allocations for the two scenarios are shown in Table 2.2.

Table 2.2 Total housing allocations to be modelled in the Committed and Test scenarios

Development Category	Committed scenario allocations (assuming 100% build out up to 2024)	LDP Test scenario allocations (assuming 100% build out up to 2024)
Carried forward from adopted LP	19,524	19,524
Carried forward from adopted LP with changes	0	2,928 ³
New proposal (development site)	0	8,919
New proposal (other)	0	176

² includes a variety of sites of various land uses - only the housing sites are included.

³ these sites are additional to 'carried forward from adopted LP'

Total allocations	19,524	31,547
<i>Total Fife allocations in TAYplan</i>	5,418	
<i>Total Fife allocations</i>	36,969	

2.1.9 It should be noted that no duplication was identified between the “Carried forward from adopted LP with changes” and “Carried forward from adopted LP” sites discussed above. Therefore, the total allocations from the former have been included in the Test scenario.

2.1.10 A further discussion paper relating to the resultant trip generation associated with the planning data scenarios was prepared and provided alongside this document (SRM Trip Generation associated with Fife LDP Modelling, PBA May 2015).

2.2 Infrastructure associated with development

2.2.1 Fife Council provided a list of all the proposed infrastructure interventions associated with the developments outlined in the proposed plan. These include road, rail and pedestrian/cycle schemes.

2.2.2 Due to this being a highway modelling exercise, only the road infrastructure was considered in this work. In addition, the strategic nature of the SRM dictates that small scale local access roads are not significant enough to have a bearing on trips to/from the zone containing the development. As such, only strategic road network infrastructure interventions are to be included in the modelling work. Halbeath P&R is also not included in this modelling exercise.

2.2.3 The list of schemes that were coded into the SRM highway network is detailed in Table 2.3 and also shown in Figure 2.1 and Figure 2.2. This is based on Figure 4 in the FIFEplan Planning Obligations Supplementary Guidance document.

Table 2.3 Network infrastructure to be modelled

Notional Location	Intervention Zone	Detailed Intervention	Modelled
Kirkcaldy	Redhouse Roundabout Improvements	Redhouse Roundabout	Yes
		Gallatown Roundabout	Yes
		Mitchelston Road	No
		Standing Stane Link Road	Yes
		Randolph Road Improvements	No
Kirkcaldy South West – A92 Corridor.	Chapel Interchange and Oriel Road/Forth Street/Abbotshall Road	Chapel Interchange Signalisation	Yes
		Oriel Road / Forth Avenue/ Abbotshall Road gyratory	No

Notional Location	Intervention Zone	Detailed Intervention	Modelled
Glenrothes	Bankhead Roundabout	Bankhead Roundabout signalisation	Yes
	North Glenrothes (Preston/Leslie/Cadham /Balfarg junctions)	Preston Roundabout & A92 Improvements	Yes
Dunfermline	Northern Link Road	Northern Link Road	Yes
	Northern Link Road	Improvement of Halbeath Road / Whitefield Road Junction	Yes
	Bothwell Gardens Roundabout	Signalise Bothwell Gardens Roundabout	Yes
	Pitreavie Roundabout	Signalisation of Pitreavie roundabout including widening of approach lanes	Yes
	Pitreavie Roundabout	Kings Road / Admiralty Road Junction Signalisation	Yes
	Western Distributor Road	Forth Street / Elgin Street Junction / Link Road	Yes
	Western Distributor Road	Grange Drive link road, Rumblingwell / William St Junction, William St. / Pittencrief St Junction, Coal Road / Lovers Loan, Grange Drive / Queensferry Road roundabout	Yes

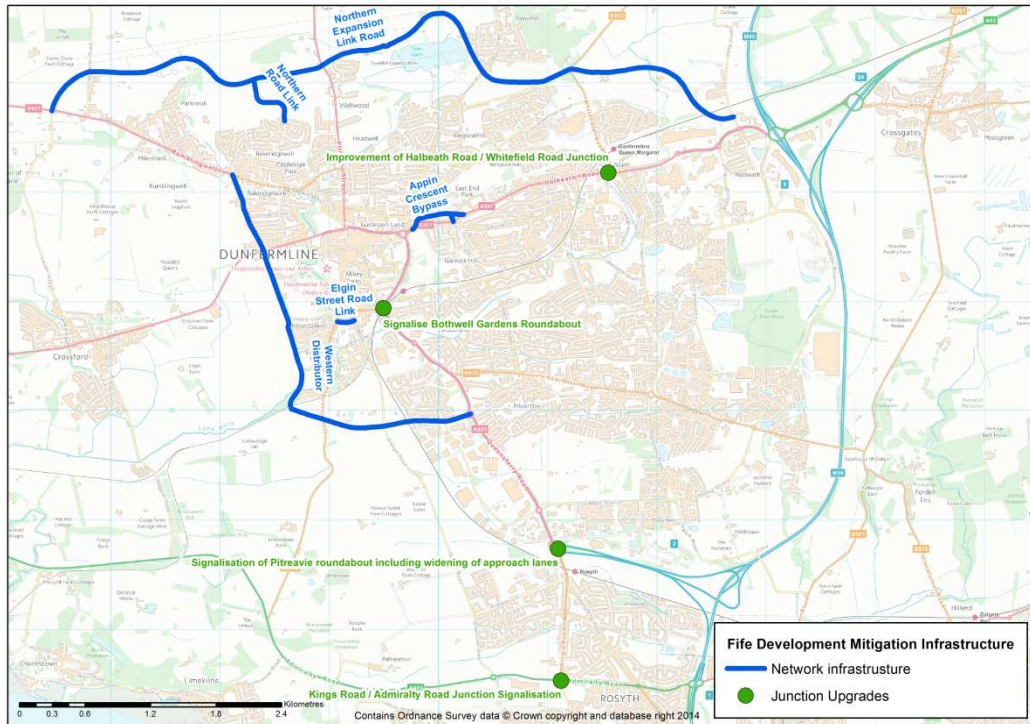


Figure 2.1 FIFEplan Local Development Plan (LDP) proposed plan infrastructure – mitigation measures modelled in the Dunfermline area.



Figure 2.2 FIFEplan Local Development Plan (LDP) proposed plan infrastructure – mitigation measures modelled in the Kirkcaldy/Glenrothes area.

2.2.4 In the meeting with Fife council on 04/09/14, it was agreed that only the middle section of the Dunfermline Northern Expansion Link Road was to be modelled in the test scenarios. The

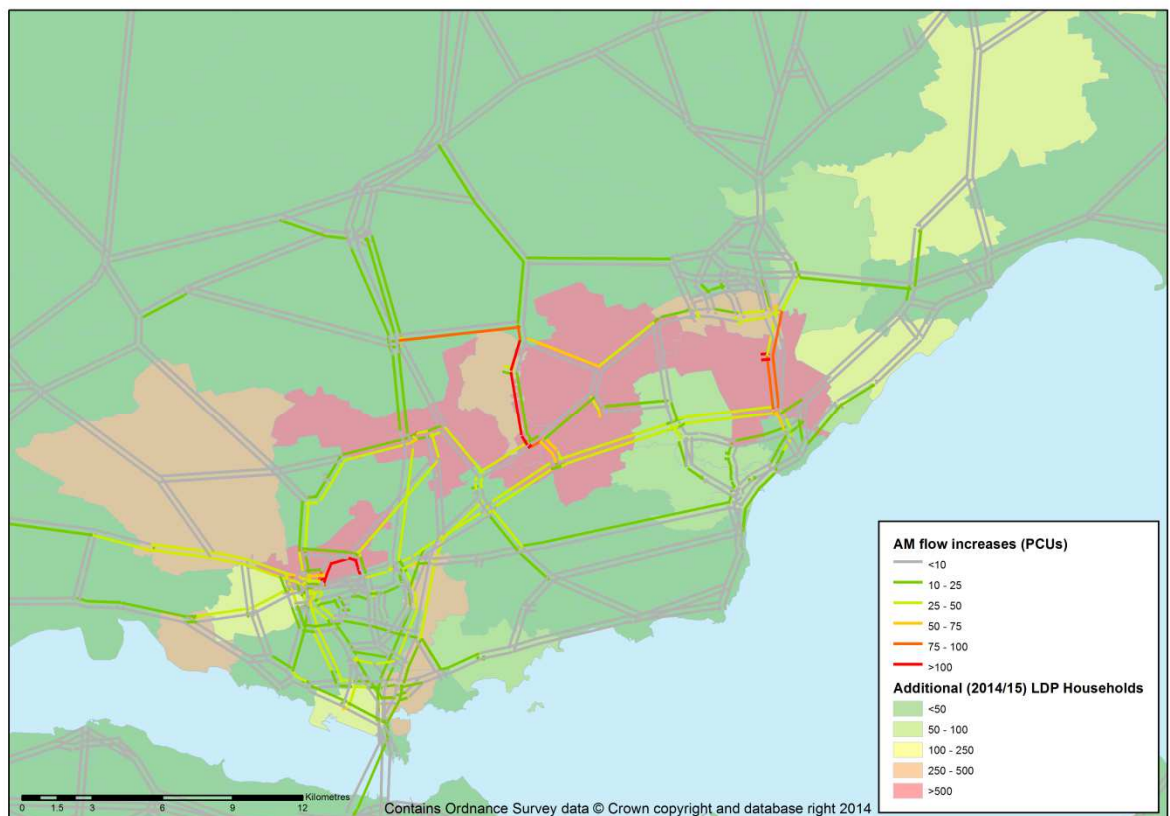
Dunfermline SLA TA has not modelled or included the Rosyth Bypass within the proposed intervention measures. The Rosyth Bypass is a Trunk Road scheme and was not included within the Reference Case. The Forth Replacement Crossing is already part of the standard 2024 Reference case scenario in the SRM.

3 Analysis and outputs

3.1 Demand and flow increases

- 3.1.1 The 12,500 additional (2014/15) LDP houses generate trips to and from the zones into which the respective developments were allocated to. The distribution of these houses is shown in Figure 3.1 below, with the resultant network impacts also shown. It can be seen that the majority of development lies in areas north of Dunfermline and the A92 corridor, resulting in traffic increases being highest on routes serving these locations.

Figure 3.1 Additional (2014/15) LDP Households per zone and AM flow increases



3.2 Trunk network junction analysis

- 3.2.1 Detailed analysis of trunk road junctions in Fife was undertaken, to assess the impacts of additional LDP trips on network performance.
- 3.2.2 Graphics have been produced to systematically analyse the 2024 forecast scenarios (Committed and LDP) for the AM and PM peak hour assignments, focussing on the trunk roads junctions through Fife. Within the SATURN highway assignment software, road capacity is primarily a function of junction capacity (including motorway and dual carriageway on and off slips, merges / diverges), although the mid-link capacity is also important for motorway links.
- 3.2.3 In the model, each 'node' (generally a stop line / merge / diverge) comprises at least one individual turning movement, representing straight on, right turn and left turn, and these have a given capacity. Each turning movement can therefore be analysed in terms of the v/c (volume / capacity) ratio.

- 3.2.4 In the accompanying PowerPoint contained in Appendix C, four plots per junction per time period have been produced:
- Max turn V/C Committed scenario
 - Max turn V/C LDP scenario
 - Difference in delay
 - Difference in flow
- 3.2.5 In addition, a sensitivity test was carried out, which is discussed in further detail below. This resulted in an additional 3 plots per time period for Masterton and Halbeath junctions.
- 3.2.6 Model nodes and links have been colour coded from dark green/blue to red/pink to show the magnitude of the issue. In the case of maximum turning count v/c at each node, each approach arm (link) is similarly colour coded to show the maximum v/c turning count of the turning movements coming from that approach arm.
- 3.2.7 Therefore a blue node and blue approach arms means that none of the turning movements at that node are approaching capacity; there are no forecast issues of concern at that junction.
- 3.2.8 An orange node means that at least one turning movement has a moderate to high v/c, indicating capacity is close to being reached. At least one approach arm will be coloured orange to indicate the direction from which the potential problem is arising.
- 3.2.9 Nodes shaded red or pink exhibit a v/c of >1, implying capacity has been reached has been exceeded. At least one approach arm will also be coloured red to indicate the direction from which the problem or potential problem is arising.
- 3.2.10 In the Table 3.1 below, a summary of the issues exhibited at each junction is presented. These impacts are all slight to moderate in severity, with no major deterioration in junction performance exhibited.

Table 3.1 Trunk network junction impacts

Road	Junction	AM impact	PM impact
M90	Ferrytoll	No material impact	No material impact
M90	Admiralty (J1)	No material impact	No material impact
M90	Masterton (J2)	No material impact	No material impact
M90	Halbeath (J3)	Increase in average queue on southbound on slip (5 PCUs)	No material impact
M90	Kelty (M90 J4)	No material impact	No material impact
A92	A92 / A909 Cowdenbeath	No material impact	Average Delay increase on westbound off slip (38% / 2 seconds) Flow increase on eastbound on slip

Road	Junction	AM impact	PM impact
			(52 PCUs)
A92	A92 / B9149 Lochgelly	No material impact	Increase in flows on B9149 approach and on all slip roads (50 – 100 PCUs on slips, 150 PCUs on B9149)
A92	A92 / A910 Kirkcaldy West (Chapel)	Increase in average delay approaching roundabout from the north (38% / 9 seconds)	Increase in average delay on northbound roundabout circulation (35% / 14 seconds) Increase in average queue on northbound roundabout circulation (6 PCUs)
A92	A92 / A921 Kirkcaldy East (Redhouse)	No material impact on delay, although increase in flows on approach from B1930 (75 PCUs), due to development in Thornton	B9130 from Thornton onto roundabout, increases in average delay (82% / 9 seconds) and average queue (5 PCUs LDP, 0 PCUs Committed) Increase in flows traversing roundabout on a north/south axis (150 PCUs southbound, 50 PCUs northbound) Flow increases on A92 eastbound (50 PCUs) and westbound (75 PCUs) to/from Chapel
A92	A92 / B921 Glenrothes	No material impact	Increase in flows circulating around roundabout (50 PCUs eastbound, 100 PCUs westbound), although the majority of this is local traffic and not trips on the A92
A92	A92 / A911 Glenrothes Queensway	No material impact	No material impact
A823(M)	A823(M) Pitreavie	No material impact	No material impact

3.3 Dunfermline Link Road Eastern extension sensitivity test

3.3.1 A sensitivity test was carried out to assess the impacts on the trunk road network of extending the Dunfermline Northern Link Road (DNLR) eastwards to Halbeath. The LDP scenario was rerun with this additional section of network included, and results compared against the standard LDP scenario. These comparisons are included in Appendix C for Halbeath and

Masterton junctions only (ie the sphere of influence), with graphics showing the following for each time period:

- Max turn V/C LDP sensitivity scenario
- Difference in delay (LDP sensitivity – LDP test)
- Difference in flow (LDP sensitivity – LDP test)

3.3.2 The impacts of the DNLR extension on trunk network performance are presented in Table 3.2 below.

Table 3.2 Trunk network junction impacts – DNLR extension sensitivity

Road	Junction	AM impact	PM impact
M90	Masterton (J2)	No material impact on delays or V/C Flow decrease on southbound on slip (~200 PCUs) Flow decrease on southbound mainline approach from Halbeath (~100 PCUs)	No material impact
M90	Halbeath (J3)	No material impact on delays or V/C Flow decrease on southbound on slip (~100 PCUs) Flow increase on westbound roundabout circulation (~200 PCUs)	No material impact Flow increase on westbound roundabout circulation (~75 PCUs)

3.3.3 In summary, the DNLR extension has no material impact on junction performance at Masterton. At Halbeath, there is a significant increase in traffic traversing the roundabout to/from the A92, particularly in the AM, but no significant impact on the performance of the M90 junction itself. This suggests that the majority of traffic re-routing as a result of the DNLR extension is local.

3.4 Network statistics

3.4.1 Total vehicle kilometres and total delay are reported for Fife in Table 3.3 below.

Table 3.3 Network statistics across Fife

Scenario	Delay (Hours)		Vehicle Kilometres	
	AM	PM	AM	PM

Committed	3292	2632	1,060,583	1,189,641
LDP	3460	2836	1,088,208	1,227,685
Diff	167	204	27,625	38,044
%Diff	5%	8%	3%	3%

3.4.2 The results indicate the additional trips generated by the LDP traffic cause an additional 5% delay across the network in Fife in the AM peak, and an 8% increase in the PM peak. Vehicle kilometres are 3% higher in both time periods.

3.4.3 Considering trunk roads within the FIFEplan region only, the percentage impacts are very similar, as shown in Table 3.4 below.

Table 3.4 Network statistics for trunk roads in FIFEplan

Scenario	Delay (Hours)		Vehicle Kilometres	
	AM	PM	AM	PM
Committed	620	699	258,265	274,526
LDP	646	751	265,269	284,107
Diff	26	51	7,004	9,581
%Diff	4%	7%	3%	3%

3.4.4 In summary, the impact of additional LDP traffic on the network in terms of delays is relatively small. The PM peak period exhibits a bigger increase in delays than the AM, due to the former being a more congested network as a starting point.

3.5 Further Discussion and Comments

3.5.1 A number of key points and comments came out of the analysis of the LDP modelling as follows:

- The results demonstrate that the net impact on the trunk road network of adding 12,500 additional (2014/15) LDP houses, on top of the committed 19,500 dwellings, is relatively minor. Although there are some junctions on the trunk network which are at or near capacity in the committed scenario, the incremental impact of the additional traffic is modest;
- Further discussion relating to trip generation associated with the planning scenarios for this modelling work are discussed separately in “SRM Trip Generation associated with Fife LDP Modelling”, PBA May 2015;

- In terms of existing Fife resident workers, only 9% live in Fife and travel south of the Forth for work⁴. Many of the new houses provided as part of the LDP will be occupied by existing Fife residents moving within Fife (ie reflecting the trend of lower number of persons per household). The vast majority of these will work locally where many of these trips are short distance and do not use the strategic network;
- The Committed and LDP scenarios assume a 100% development build out. In reality, Fife Council suggest that a figure of 33% is more realistic figure, so the results presented here represent a 'worst case' scenario;
- The model year used in this work, 2024, is two years earlier than the final build out date of 2026. However, this is unlikely to have any material impact on the results due to the forecast conditions being very similar. Furthermore, the fact the model base year is 2007, as opposed to a more recent baseline position, is also unlikely to have any significant impact on results, due to traffic levels remaining relatively static between 2007/2008 and 2012⁵.

⁴ Census Travel to Work 2011

⁵ Traffic on Trunk Roads and local authority roads in Fife was 889mvKM in 2007 and 820mvKM in 2012. Source STS 32 Table 5.5.

Appendix A Housing sites to be modelled

REF_ID	Location	Area (ha)	Use Class/type	Estimated capacity (Housing)	Existing, amended or new proposal	In Committed scenario	In Test scenario
ABD 001	Hillside School	4.2	Housing	70	Carried forward from adopted LP	1	1
ABD 002	Main Street	2.8	Housing	40	New proposal (candidate site)	0	1
ABD 003	Wester Aberdour	1.6	Housing	20	New proposal (candidate site)	0	1
AUT 001	Camilla Farm	0.6	Housing	16	Carried forward from adopted LP	1	1
BGY 001	Flock House South	1.7	Housing	40	Carried forward from adopted LP	1	1
BGY 002	Land to the east of Ballingry	4.2	Housing	105	Carried forward from adopted LP	1	1
BGY 003	Ballingry Road	0.9	Housing	25	Carried forward from adopted LP	1	1
BKN 001	Denbeath Parish Church , Buckhaven	0.2	Housing	12	Carried forward from adopted LP	1	1
BLA 001	Land south of Blairhall	2.5	Housing	64	Carried forward from adopted LP	1	1
BLA 002	Comrie Castle	1	Housing	15	Carried forward from adopted LP with changes	0	1
BLA 003	Land West of Rintoul Avenue	1.7	Housing	6	Carried forward from adopted LP	1	1
BLA 004	South Avenue	0.9	Housing	15	Carried forward from adopted LP	1	1
BLA 005	Adjacent Primary School, Comrie Castle	0.2	Housing	5	Carried forward from adopted LP with changes	0	1
BUR 001	Alcan site	19.7	Housing	492	Carried forward from adopted LP	1	1
BUR 002	Grange Farm	2.8	Housing	30	Carried forward from adopted LP	1	1
BUR 003	Land at Haugh Road	2.3	Housing	40	New proposal (candidate site)	0	1
BUR 005	Grange Distillery	1.8	Housing	49	Carried forward from adopted LP	1	1
BUR 006	Greenmount Hotel	0.8	Housing	20	Carried forward from adopted LP	1	1
CDD 001	Bowhill Colliery	2	Housing	27	Carried forward from adopted LP	1	1

REF_ID	Location	Area (ha)	Use Class/type	Estimated capacity (Housing)	Existing, amended or new proposal	In Committed scenario	In Test scenario
CDD 002	Cardenden South	2.4	Housing	60	Carried forward from adopted LP	1	1
CDD 003	Dundonald South	16.4	Housing	450	Carried forward from adopted LP	1	1
CDD 004	Cardenden Road East	3.6	Housing	110	New proposal (candidate site)	0	1
CDD 005	Cardenden Road West	5.7	Housing	170	New proposal (candidate site)	0	1
CDD 006	Woodend Road	5.5	Housing	145	Carried forward from adopted LP	1	1
CHL 002	Land at the old school	0.3	Housing	5	New proposal (candidate site)	0	1
CLB 001	Coaltown of Balgonie east	3.6	Housing	88	Carried forward from adopted LP	1	1
CLB 002	Land to the north of Pyetree Road	0.9	Housing	23	Carried forward from adopted LP	1	1
CLB 003	North of Main Street	4.2	Housing	50	Carried forward from adopted LP	1	1
CLW 001	Coaltown of Wemyss North	5.7	Housing	110	Carried forward from adopted LP	1	1
CLW 002	Land south of Coaltown of Wemyss	6.3	Housing	125	New proposal (candidate site)	0	1
CNH 001	Pitdinnie Road	0.7	Housing	10	Carried forward from adopted LP	1	1
CNH 002	Conscience Bridge (north)	4.9	Housing	100	New proposal (candidate site)	0	1
CNH 005	Land north of Cairneyhill	5.3	Housing	250	New proposal (candidate site)	0	1
CNK 001	Carneil Road	3.7	Housing	45	Carried forward from adopted LP	1	1
COW 001	Beath Glebe	1.3	Housing	33	Carried forward from adopted LP	1	1
COW 002	King Street 2	3.4	Housing	25	Carried forward from adopted LP	1	1
COW 003	Leuchatsbeath	24.6	Housing	406	Carried forward from adopted LP	1	1
COW 004	Adjacent gas works	0.2	Housing	5	Carried forward from adopted LP	1	1
COW 005	Rosebank	1.4	Housing	35	Carried forward from adopted LP	1	1
CRF 002	Pitconochie	9	Housing	200	New proposal (candidate site)	0	1
CRH 001	Former Meedies Neuk Bar	0.2	Housing	14	Carried forward from adopted LP	1	1

REF_ID	Location	Area (ha)	Use Class/type	Estimated capacity (Housing)	Existing, amended or new proposal	In Committed scenario	In Test scenario
CRO 001	North Knowe , Inverkeithing Road	11.7	Housing	174	Carried forward from adopted LP	1	1
CRO 002	Land to the west of Old Perth Road	8.7	Housing	260	New proposal (candidate site)	0	1
CRO 003	Gallows Knowe	7.2	Housing	150	New proposal (candidate site)	0	1
CRO 004	Rear of Hillview Crescent	0.2	Housing	5	Carried forward from adopted LP	1	1
CRO 005	Manse Road	0.4	Housing	9	Carried forward from adopted LP	1	1
CRO 006	Builders Yard adjacent to Crossgates Primary School	0.7	Housing	18	Carried forward from adopted LP	1	1
CUL 001	Blackadder Haven	0.4	Housing	3	Carried forward from adopted LP	1	1
DGB 001	OCLI, Donibristle Industrial Estate	6.3	Housing	125	Carried forward from adopted LP	1	1
DGB 002	Fulmar Way 2	1.6	Housing	50	Carried forward from adopted LP	1	1
DGB 003	Barns Farm (south)	1.8	Housing	50	New proposal (candidate site)	0	1
DGB 004	St David's Harbour – Harbour Place	0.5	Housing	24	Carried forward from adopted LP with changes	0	1
DUN 001	5-7 Comley Park	0.3	Housing	5	Carried forward from adopted LP	1	1
DUN 002	6 Hill Street	0.1	Housing	6	Carried forward from adopted LP	1	1
DUN 003	Beveridge House	0.1	Housing	6	Carried forward from adopted LP	1	1
DUN 004	Brucefield Hotel	0.2	Housing	6	Carried forward from adopted LP	1	1
DUN 005	East Dunfermline North C	7.3	Housing	170	Carried forward from adopted LP	1	1
DUN 006	Campbell Street	2.2	Housing	184	Carried forward from adopted LP	1	1
DUN 007	90 Campbell Street	0.2	Housing	24	Carried forward from adopted LP	1	1

REF_ID	Location	Area (ha)	Use Class/type	Estimated capacity (Housing)	Existing, amended or new proposal	In Committed scenario	In Test scenario
DUN 008	East Dunfermline North F	12.2	Housing	84	Carried forward from adopted LP	1	1
DUN 009	Kingdom Gateway G	8.4	Housing	139	Carried forward from adopted LP	1	1
DUN 010	Kingdom Gateway EF1	3.2	Housing	110	Carried forward from adopted LP	1	1
DUN 011	Kingdom Gateway EF2	2.3	Housing	80	Carried forward from adopted LP	1	1
DUN 012	Kingdom Gateway EF3	5.6	Housing	105	Carried forward from adopted LP	1	1
DUN 013	Trondheim	2.5	Housing	80	Carried forward from adopted LP	1	1
DUN 014	Kingdom Gateway EF4	1.7	Housing	54	Carried forward from adopted LP	1	1
DUN 015	Kingdom Gateway EF5	1.3	Housing	27	Carried forward from adopted LP	1	1
DUN 016	Woodmill Filling Station	0.3	Housing	12	Carried forward from adopted LP	1	1
DUN 017	East Dunfermline North B	8.1	Housing	180	Carried forward from adopted LP	1	1
DUN 018	Kingdom Gateway HI	9.4	Housing	274	Carried forward from adopted LP	1	1
DUN 019	Masterton Farm	1.1	Housing	35	Carried forward from adopted LP	1	1
DUN 020	Rear of 179 Rumblingwell	1	Housing	35	Carried forward from adopted LP	1	1
DUN 021	South Fod Farm	2.6	Housing	26	Carried forward from adopted LP	1	1
DUN 022	Leys Park Road	0.9	Housing	60	Carried forward from adopted LP	1	1
DUN 023	110 Halbeath Road	0.1	Housing	9	Carried forward from adopted LP	1	1
DUN 024	Blacklaw Road	4.7	Housing	131	Carried forward from adopted LP	1	1
DUN 025	Land North of Yewtree House, Masterton	0.6	Housing	16	Carried forward from adopted LP	1	1
DUN 026	North West Corner of Whitefield Road	0.5	Housing	13	Carried forward from adopted LP	1	1

REF_ID	Location	Area (ha)	Use Class/type	Estimated capacity (Housing)	Existing, amended or new proposal	In Committed scenario	In Test scenario
DUN 027	South West Corner of Whitefield Road	0.4	Housing	11	Carried forward from adopted LP	1	1
DUN 028	Meadowland	6.5	Housing	90	Carried forward from adopted LP	1	1
DUN 030	Land at Masterton(west of Masterton Road)	1.9	Housing	45	Carried forward from adopted LP	1	1
DUN 031	Paton Street North	1.5	Housing	30	Carried forward from adopted LP	1	1
DUN 032	Paton Street South	1	Housing	20	Carried forward from adopted LP	1	1
DUN 033	School Row	0.9	Housing	20	Carried forward from adopted LP	1	1
DUN 035	Dunfermline N/W/SW Strategic Development Area	290.4	Housing	4,200	Carried forward from adopted LP	1	1
DUN 036	Elliot Street	0.5	Housing	19	New proposal (candidate site)	0	1
DUN 037	Dover Heights	12.4	Housing	220	Carried forward from adopted LP	1	1
DUN 038	Kent Street	4	Housing	120	New proposal (candidate site)	0	1
DUN 039	North Dunfermline (Colton)	33	Housing	300	New proposal (candidate site)	0	1
DUN 040	Craigluscar Road/ Carnock Road	24	Housing	0	New proposal (candidate site)	0	1
DUN 041	North Dunfermline (Swallow Drum)	55.5	Housing	900	New proposal (candidate site)	0	1
DUN 042	Carnock Road	1.08	Housing	30	New proposal (candidate site)	0	1
DUN 043	Halbeath	77.25	Housing	1400	New proposal (candidate site)	0	1
DUN 044	Land to the north of Wellwood	5.73	Housing	100	New proposal (candidate site)	0	1
DUN 045	Rosegreen, Carnock Road	2.8	Housing	100	New proposal (candidate site)	0	1

REF_ID	Location	Area (ha)	Use Class/type	Estimated capacity (Housing)	Existing, amended or new proposal	In Committed scenario	In Test scenario
DUN 046	Chamberfield	1.8	Housing	50	New proposal (candidate site)	0	1
EWS 001	West of Randolph Street		Housing	86	New proposal (candidate site)	0	1
GLC 001	Glenraig East	15	Housing	275	New proposal (candidate site)	0	1
GLC 002	Glenraig West	3.4	Housing	50	Carried forward from adopted LP	1	1
GLE 001	Balgeddie Riding School	9.2	Housing	72	Carried forward from adopted LP	1	1
GLE 002	Lochtybridge	9.1	Housing	120	Carried forward from adopted LP	1	1
GLE 003	Viewfield	14.3	Housing	360	New proposal (candidate site)	0	1
GLE 004	Land to the south of Cadham Road	10	Housing	200	Carried forward from adopted LP	1	1
GLE 005	Whitehill Industrial Estate	10	Housing	230	Carried forward from adopted LP	1	1
GLE 026	Westwood Park	40.4	Housing	420	Carried forward from adopted LP	1	1
GWH 001	Land North of Clune Road	1.3	Housing	10	New proposal (candidate site)	0	1
HOB 001	North of Hill of Beath	4.6	Housing	115	Carried forward from adopted LP	1	1
HVF 001	Woodhead Farm	1.5	Housing	31	Carried forward from adopted LP	1	1
HVF 002	Land to the north of Woodhead Farm Road and East of the B9037 Road	6.1	Housing	50	Carried forward from adopted LP	1	1
HVF 003	Abbey Street	<0.1	Housing	10	Carried forward from adopted LP	1	1
HVF 004	Chapel Place/Carlisle Street	0.3	Housing	10	Carried forward from adopted LP	1	1
INV 001	Borelands Reservoir	0.7	Housing	18	Carried forward from adopted LP	1	1
INV 002	The Royal	<0.1	Housing	8	Carried forward from adopted LP	1	1
INV 003	Roods	2.6	Housing	50	Carried forward from adopted LP	1	1

REF_ID	Location	Area (ha)	Use Class/type	Estimated capacity (Housing)	Existing, amended or new proposal	In Committed scenario	In Test scenario
INV 004	Former Inverkeithing Primary School, Roads Road	0.9	Housing	42	New proposal (other)	0	1
INV 005	Spencerfield	20	Housing	330	New proposal (candidate site)	0	1
KCD 001	Burnbrae East	2	Housing	30	Carried forward from adopted LP	1	1
KCD 002	Kincardine Eastern Expansion Phase 1	10.5	Housing	300	Carried forward from adopted LP	1	1
KCD 003	Kincardine Eastern Expansion Phase 2	4.5	Housing	190	Carried forward from adopted LP	1	1
KCD 004	Kincardine Multi Storey Flats	4	Housing	130	Carried forward from adopted LP	1	1
KCD 005	Land North and East of Burnbrae House		Housing	36	Carried forward from adopted LP	1	1
KDY 001	8 Anderson Street	0.1	Housing	9	Carried forward from adopted LP	1	1
KDY 002	Capshard North	11.7	Housing	189	Carried forward from adopted LP	1	1
KDY 003	Chapel Extension, John Smith BP	12.9	Housing	285	Carried forward from adopted LP	1	1
KDY 004	Dunnikier Maltings	4	Housing	199	Carried forward from adopted LP	1	1
KDY 005	Ferrard Road	1.9	Housing	119	Carried forward from adopted LP	1	1
KDY 006	Katherine Street	0.2	Housing	5	Carried forward from adopted LP	1	1
KDY 007	18 Pottery Street	0.2	Housing	6	Carried forward from adopted LP	1	1
KDY 008	45 Pottery Street	0.2	Housing	5	Carried forward from adopted LP	1	1
KDY 009	Chapel Home Farm	6.3	Housing	100	New proposal (candidate site)	0	1
KDY 010	Forth Park Hospital		Housing	69	New proposal (candidate site)	0	1
KDY 011	Park Road / Lawson Road	0.4	Housing	37	Carried forward from adopted LP	1	1

REF_ID	Location	Area (ha)	Use Class/type	Estimated capacity (Housing)	Existing, amended or new proposal	In Committed scenario	In Test scenario
KDY 012	257-261 High Street	0.2	Housing	26	Carried forward from adopted LP	1	1
KDY 013	Viewforth Terrace	0.6	Housing	25	Carried forward from adopted LP	1	1
KDY 014	Hayfield Road	2	Housing	60	New proposal (other)	0	1
KDY 015	Smeaton Road	0.5	Housing	19	Carried forward from adopted LP	1	1
KDY 016	Junction Road	1	Housing	38	Carried forward from adopted LP	1	1
KDY 017	Factory Road/Nairn Street	1.8	Housing	68	Carried forward from adopted LP with changes	0	1
KDY 018	Den Road Former Tramworks site	2.8	Housing	90	Carried forward from adopted LP	1	1
KDY 025	Kirkcaldy East Strategic development Area (SDA)	197	Housing	2,850	Carried forward from adopted LP	1	1
KDY 026	Kirkcaldy South-West Strategic Development Area (SDA)	101.9	Housing	1,000	Carried forward from adopted LP	1	1
KDY 032	YWCA and former cinema	0.3	Housing	11	Carried forward from adopted LP	1	1
KEL 001	Bath Street Extension 1	6.9	Housing	130	Carried forward from adopted LP	1	1
KEL 002	Bath Street Extension 2	0.4	Housing	18	Carried forward from adopted LP	1	1
KEL 003	Elmwood Terrace	1.2	Housing	30	Carried forward from adopted LP	1	1
KEL 004	Netherton Farm	10.3	Housing	236	Carried forward from adopted LP	1	1
KEL 005	Kelty South West	46.2	Housing	900	New proposal (candidate site)	0	1
KEL 006	Woodend Place	1.3	Housing	20	New proposal (candidate site)	0	1
KEL 007	Black Road	2.6	Housing	20	New proposal (candidate site)	0	1
KEL 008	Old Gas Works	1.8	Housing	44	Carried forward from adopted LP	1	1
KEN 001	Hallfields Farm 5a	3.5	Housing	66	Carried forward from adopted LP	1	1

REF_ID	Location	Area (ha)	Use Class/type	Estimated capacity (Housing)	Existing, amended or new proposal	In Committed scenario	In Test scenario
KEN 002	Land between Halfields Gardens and Leven Road	12.2	Housing	190	New proposal (candidate site)	0	1
KEN 003	Langside Crescent, South	0.8	Housing	25	New proposal (candidate site)	0	1
KEN 004	Langside Crescent	0.7	Housing	5	Carried forward from adopted LP	1	1
KEN 005	Old Station Road	1.2	Housing	30	Carried forward from adopted LP	1	1
KLS 001	Laurence Park South	7	Housing	211	New proposal (candidate site)	0	1
KLS 002	Laurence Park North	0.5	Housing	14	New proposal (candidate site)	0	1
KNH 001	Lochside	5.7	Housing	110	Carried forward from adopted LP	1	1
KNH 002	Viewforth Place	0.5	Housing	18	Carried forward from adopted LP	1	1
KST 001	Kingseat Road	3	Housing	50	New proposal (candidate site)	0	1
LES 001	Leslie House	10	Housing	29	Carried forward from adopted LP	1	1
LES 002	Prinlaws Mill	3.4	Housing	85	Carried forward from adopted LP	1	1
LES 003	South of Walkerton Drive	1.7	Housing	42	Carried forward from adopted LP	1	1
LEV 001	Leven Vale South	3.1	Housing	75	Carried forward from adopted LP	1	1
LEV 002	Leven Vale West	11	Housing	200	Carried forward from adopted LP	1	1
LEV 003	Land at Cupar Road	5.4	Housing	100	Carried forward from adopted LP	1	1
LGY 001	Hugh Place	1.1	Housing	25	Carried forward from adopted LP	1	1
LGY 002	South Street	0.5	Housing	25	Carried forward from adopted LP	1	1
LGY 003	The Avenue	6.6	Housing	90	Carried forward from adopted LP	1	1
LGY 004	West Cartmore	3.7	Housing	60	Carried forward from adopted LP	1	1
LGY 007	Lochgelly Strategic Development Area (SDA) – various sites	174.1	Housing	2,550	Carried forward from adopted LP with changes	0	1
LHR 001	Capledrae Farm	5.1	Housing	100	Carried forward from adopted LP	1	1

REF_ID	Location	Area (ha)	Use Class/type	Estimated capacity (Housing)	Existing, amended or new proposal	In Committed scenario	In Test scenario
LHR 002	North of Ivanhoe Crescent, Lochore	0.5	Housing	28	Carried forward from adopted LP	1	1
LPH 001	Lochgelly Road	4	Housing	100	Carried forward from adopted LP	1	1
LPH 003	Land to the north of Lumphinnans	14.4	Housing	300	New proposal (candidate site)	0	1
LWD 001	Standalane, Nr Saline	0.5	Housing	7	Carried forward from adopted LP	1	1
MAR 001	Markinch South	24.1	Housing	350	Carried forward from adopted LP	1	1
MAR 002	Sweetbank Park Terrace	1.5	Housing	38	Carried forward from adopted LP	1	1
MET 001	South Grove		Housing	10	New proposal (other)	0	1
MET 002	Methilhill House	0.4	Housing	9	Carried forward from adopted LP	1	1
MET 003	Sea Road/Chemiss Road, Methilhill	1	Housing	24	Carried forward from adopted LP	1	1
MET 004	Glencast Foundry	5.6	Housing	100	Carried forward from adopted LP	1	1
MOB 001	Balfour Place/ Main Street	2.1	Housing	63	New proposal (candidate site)	0	1
OAK 001	Woodburn Crescent	0.2	Housing	9	Carried forward from adopted LP	1	1
OAK 002	Land at Pavilion & Bowling Green	0.5	Housing	15	Carried forward from adopted LP	1	1
OAK 003	Land to north of Oakley		Housing	260	Carried forward from adopted LP with changes	0	1
OAK 005	Holy Name Primary School	1	Housing	15	Carried forward from adopted LP	1	1
ROS 001	Admiralty Road	0.2	Housing	12	Carried forward from adopted LP	1	1
ROS 002	Brankholme Lane	0.1	Housing	9	Carried forward from adopted LP	1	1
ROS 003	Cochranes Hotel	0.7	Housing	54	Carried forward from adopted LP	1	1
ROS 004	Primrose Lane 2	7.1	Housing	175	Carried forward from adopted LP	1	1
ROS 015	Land at Admiralty Road	12.5	Housing	450	Carried forward from adopted LP	1	1

REF_ID	Location	Area (ha)	Use Class/type	Estimated capacity (Housing)	Existing, amended or new proposal	In Committed scenario	In Test scenario
	& East of Brankholm Brae						
ROS 016	Castlelandhill (north)	10.7	Housing	150	New proposal (candidate site)	0	1
SAL 001	North Main Street	3.6	Housing	10	Carried forward from adopted LP	1	1
SAL 002	Land at Kinnedar Mains	3.1	Housing	70	Carried forward from adopted LP	1	1
SAL 003	Land at West Road	8.2	Housing	130	New proposal (candidate site)	0	1
SAL 004	Land south of Saline Park	2.1	Housing	50	New proposal (other)	0	1
SOM 001	West End Dairy	1.7	Housing	20	New proposal (candidate site)	0	1
STE 001	Land to east of Steelend	1	Housing	30	New proposal (candidate site)	0	1
THO 001	Auction Mart	1.6	Housing	26	Carried forward from adopted LP	1	1
THO 002	Burnbank Terrace	0.3	Housing	6	Carried forward from adopted LP	1	1
THO 003	Land north and west of Thornton	38	Housing	900	New proposal (candidate site)	0	1
THO 004	Spittal Farm, Elmbank Terrace/Station Road	2.4	Housing	73	New proposal (candidate site)	0	1
THO 005	Land off Main Street	0.1	Housing	6	Carried forward from adopted LP	1	1
THO 006	Network Rail Land to the east of Thornton	0.4	Housing	10	Carried forward from adopted LP	1	1
WDY 001	Balcurvie Meadows	2.9	Housing	55	Carried forward from adopted LP	1	1
WDY 002	Land at Temple	3.4	Housing	75	Carried forward from adopted LP	1	1
WWS 001	Wemyss Estate Land at West Wemyss	3.64	Housing	54	New proposal (candidate site)	0	1

Report Name
Job Name



Appendix B Opportunity site housing units provided by Fife council

REF_ID	Adopted LP ref	Location	Area (ha)	Use Class/type	Estimated capacity (Housing)	Existing, amended or new proposal
BGY 004		Former Benarty Centre		Development opportunity for uses compatible with adjacent housing.	14	New proposal (other)
BUR 004		Former cinema site, High Street	0.1	Development Opportunity Site	8	New proposal (town centre review)
COW 009	COW 08, MFLP	Woodend Business Centre	3	Employment (Class 4)/Housing	6	Carried forward from adopted LP
DUN 074		Pilmuir Works (see Central Dunfermline Framework Diagram)	1.6	Development Opportunity (Retail, food & drink, housing, offices)	55	New proposal (town centre review)
KDY 027	KDY 04 & 44, MFLP	Millie Street	1.4	Development Opportunity site	28	Carried forward from adopted LP with changes
KDY 028	KDY 42, MFLP	Former car sales garage, Millie Street	0.5	Development Opportunity site	15	Carried forward from adopted LP
KDY 029	KDY 47, MFLP	Victoria Road, Former Power Station	0.8	Development Opportunity site	40	Carried forward from adopted LP
KDY 030	KDY 48, MFLP	Victoria Road	0.9	Development Opportunity site	45	Carried forward from adopted LP
KDY 036	KDY 53, MFLP	Former Jackie O's nightclub	??	Development opportunity site	20	New proposal (town centre review)
KDY 038	KDY 37, MFLP	Former Bus Painters Garage site		Development Opportunity	87	Carried forward from adopted LP with changes
THO 007	THO 05 & 08, MFLP	Orebank Terrace/ Strathore Road	9.8	Housing Opportunity Site	73	Carried forward from adopted LP

Appendix C Junction analysis