

Forest Heath District Council Site Allocation Plan Cumulative Impact Study - Addendum

Prepared by: Georgia Ingleson.

Georgia Ingleson
Consultant

Checked by: Caroline Brooks

Caroline Brooks
Senior Consultant

Verified by: Bevin Carey

Bevin Carey
Associate Director

Approved by: Nick Anderson

Nick Anderson
Regional Director

Rev No	Comments	Checked by	Verified by	Approved by	Date
R1.V1	Changes to Addendum	CB	BC	NA	10/11/16

Telephone: Website: <http://www.aecom.com>

Job No 60445024

Date Created: October 2016

This document has been prepared by AECOM Limited for the sole use of our client (the "Client") and in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM Limited and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM Limited, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM Limited.

a:\projects\60445024_kier-scc_dc_input\m001.005_fhdc\reports\working\traffic_study\addendum\161107_fhdc_addendum_rev1_v1.docx

Table of Contents

1 **Addendum**..... Error! Bookmark not defined.

Appendices

Appendix A Site Location Plans

Appendix B Summary Table

Appendix C Accessibility Plans

Appendix D Traffic Flow Diagrams

Appendix E Percentage Impact (difference from that previously assessed in Traffic Study)

1. Addendum

Capabilities on project:
Transportation

1.1 Introduction

- 1.1.1 AECOM has been commissioned by Forest Heath District Council (FHDC) and Suffolk County Council (SCC) to undertake a study of the cumulative traffic impacts of the developments identified for allocation in the Site Allocations Local Plan (SALP) document which focuses on sites located in a number of towns and villages across the district.
- 1.1.2 Since the preparation of the main report titled 'Forest Heath District Council Site Allocation Plan Cumulative Impact Study' a planning application on one of the site allocations in Newmarket, Hatchfield Farm, has been refused by the Secretary of State, affecting the SALP dwelling numbers. As a result, changes to the SALP have been required to make up the shortfall in dwellings associated with this development site. This Addendum sets out potential changes to the SALP and assesses the impacts of removal of the Hatchfield Farm site from the SALP.
- 1.1.3 The study area, trip generation, trip distribution, traffic growth and highway network assessment methodology are consistent with the previous assessment. Any changes to the assessment are detailed in this Addendum.
- 1.1.4 This Addendum should be read in conjunction with the main report titled 'Forest Heath District Council Site Allocation Plan Cumulative Impact Study'.

1.2 Changes To Site Allocations

- 1.2.1 The Hatchfield Farm planning application (planning reference - DC/13/0408) comprised of a mixed use development with up to 400 dwellings, a minimum of 5ha employment and 1.5ha school site. As part of the previous assessment the development was assessed for the creation of 671 jobs on site. The site is situated to the north east of Newmarket, with Fordham Road bordering the site to the east and A14 to the north.
- 1.2.2 Other sites have been identified by officers to potentially make up the shortfall of dwelling numbers (that result from removal of the Hatchfield Farm allocation) through increasing density, altering the use of one site from employment to residential and adding in two new sites (with planning permission / resolution to approve). This information was provided by FHDC in order to assess the impact of a potential redistribution of some of the housing growth that would have been accommodated at Hatchfield Farm. FHDC have confirmed that additional capacity can come from further large site commitments (since 1st April 2016) and increasing the windfall allowance. The revised site location plans are attached in **Appendix A**.
- 1.2.3 **Table 1** below sets out the existing preferred options sites where capacity are proposed to be increased to take into account the shortfall in dwellings.

Capabilities on project:
Transportation

Table 1: Proposed Changes to Preferred Options

Location	Site Number	Site	Preferred Options site capacity	Additional capacity identified	Notes
Brandon	2	B1b – Warren Close	20	3	This site has not been assessed with the increase in density as the previous assessment assessed Brandon as a whole rather than each specific site in Brandon. It was previously assessed as a sensitivity test with a hypothetical site consisting of 200 dwellings. This remains unchanged in this assessment.
Mildenhall	4	M1a – West Mildenhall	1250	50	Dwellings increased to 1300.
	5	M2a – Land at 54 Kingsway	20	3	This development was previously assessed for 25 dwellings. In this assessment the dwellings have therefore not been changed.
Red Lodge	20	RL2a – Focus of growth north Red Lodge	300	50	Dwellings increased to 350.
Exning	37	E1(a) land south of Burwell Road	140	65	Dwellings increased to 205.
West Row	41	WR1(a) Focus of growth, north West Row	140	12	Dwellings increased to 152.
TOTALS				183	

1.2.4 As shown in **Table 1** above, a total of 183 additional dwellings are proposed to be accommodated through increasing capacity at six of the preferred options sites.

1.2.5 **Table 2** below shows new larger residential sites with planning permission, arising since 1st April 2016 which accommodates some of the shortfalls in dwelling numbers.

Table 2: New Larger Residential Sites with Planning Permission (arising since 1st April 2016)

Location	Site Number	Site	Application reference number	Capacity	Notes
Newmarket	46	Jim Joel Court	DC/16/0193/FUL	21	This site has been added to this assessment as it is a new development
Newmarket	45	146a High Street, Newmarket	DC/15/0754/FUL	46	This site has been added to this assessment as it is a new development
Red Lodge	21	Red Lodge approach site (EM1(c))	DC/16/0596/OUT	125	In the previous assessment this site was allocated as employment land, therefore in this assessment land use has been altered to residential
Kentford	44	Meddler Stud, Bury Road	DC/14/0585/OUT	63	In the previous assessment this site is included therefore remains unchanged in assessment
TOTALS				255	

Capabilities on project:
Transportation

- 1.2.6 As shown in **Table 2** above, a total of 255 additional dwellings can be accommodated through new larger residential sites with planning permission.
- 1.2.7 **Table 3** below shows a potential new residential site, which does not have planning permission, which could accommodate a further 10 dwellings.

Table 3: Potential New Residential Sites

Location	Site identification	Capacity identified	Notes
Red Lodge	Specific site location unknown	10	10 dwellings in Red Lodge has been added to this assessment
TOTALS		10	

- 1.2.8 **Table 4** below provides a summary of how the shortfall in dwellings, as a result of the removal of the Hatchfield Farm site, are proposed to be accommodated within the SALP.

Table 4: Summary of How Shortfall in Dwellings Can Be Accommodated

New large sites with planning permission arising since 1st April 2016	255
Existing preferred options sites where capacity can be increased	183
Potential new sites	10
TOTALS	448

- 1.2.9 Overall, a total of 448 additional dwellings are proposed to be allocated across the study area to account for the removal of Hatchfield Farm.
- 1.2.10 A table showing the sites assessed and the changes to the SALP as a result of the removal of Hatchfield Application is included in **Appendix B**. The changes from the previous assessment are highlighted in blue. **Table 5** below summaries the change in dwelling numbers per town and village from that previously assessed.

Table 5: Summary of Change in Dwellings

Location	Previous Dwelling Numbers	Revised Dwelling Numbers	Difference in Dwelling Numbers
Brandon	200	200	0
Lakenheath	841	841	0
Mildenhall	1451	1501	50
Red Lodge	896	1081	185
Newmarket	654	321	-333
West Row	173	185	12
Beck Row	404	404	0
Exning	260	325	65
Kentford	157	157	0
Total	5036	5015	-21

1.3 Revised Future Traffic Growth

- 1.3.1 The increase in the number of households identified to be built between 2016 and 2031 has been altered to a 0 increase as all residential trips are added manually, which is consistent with the previous assessment. However as a result of the removal of Hatchfield Farm from the SALP as well as the jobs lost on the Red Lodge approach site (EM1(c)), due to change of use from employment to residential, the job growth in Forest Heath has reduced from that previously assessed. FHDC confirmed that the 1121 jobs associated with the two sites should be removed from the future growth.
- 1.3.2 The increase in jobs identified in TEMPRO has therefore been altered such that the growth in jobs between 2016 and 2031 has been reduced from 3,017 to 1,796, to take into account the exclusion of the two sites as

Capabilities on project:
Transportation

detailed above. These 1,796 jobs have been added to the 2016 base job figure to create a job projection for the 2031 future year. Applying the alternative assumption tool within TEMPRO to the Weekday AM and PM time periods with Origin/Destination trip ends results in the adjusted growth factors (adjusted to NTM and alternative assumption) as set out **Table 6** below.

- 1.3.3 The TEMPRO adjusted to NTM growth factors which have been used in our assessment are provided below along with the equivalent unadjusted Tempro factors, for comparison purposes.

Table 6: TEMPRO Adjusted to NTM & Alternative Assumption Growth Factors and TEMPRO Adjusted to NTM Growth Factors

Period	TEMPRO Adjusted Growth Rates (used in this assessment)		TEMPRO Unadjusted	
	AM	PM	AM	PM
2016 – 2031	1.147	1.154	1.125	1.132

1.4 Accessibility Appraisal

- 1.4.1 The Accessibility Appraisal within the previous assessment remains unchanged. However as a consequence of the revised sites, the accessibility appraisal plans have been revised. These plans are included in **Appendix C**.

1.5 Revised Trip Generation

Residential Vehicular Trip Generation

- 1.5.1 The trip rates used in the previous assessment (set out in Table 5.1) remain the same for each of the different towns and villages assessed. These trip rates have been applied to the revised number of dwellings at each of the new and existing sites to create a revised trip generation for each of the residential sites and the residential elements of the mixed use sites within each of the towns / villages.
- 1.5.2 A summary of the vehicular trip generation per town and village is set out in **Table 7** below. The number of dwellings previously assessed have also been included in the table to allow comparison.

Capabilities on project:
Transportation

Table 7: Revised Vehicular Trip Generation Per Town / Village

Location	Peak Period	Total Number of Dwellings	Vehicular Trip Generation			Difference in Vehicular Trip Generation from Previous Assessment		
			Arrivals	Departures	Total	Arrivals	Departures	Total
Brandon	0800 - 0900	200	23	90	113	0	0	0
	1700 - 1800		60	38	97	0	0	0
Lakenheath	0800 - 0900	841	109	416	524	0	0	0
	1700 - 1800		278	175	453	0	0	0
Mildenhall	0800 - 0900	1501*	196	748	944	7	25	31
	1700 - 1800		499	314	814	17	10	27
Red Lodge	0800 - 0900	1081*	141	541	682	24	93	117
	1700 - 1800		362	228	590	62	39	101
Newmarket	0800 - 0900	321*	34	132	166	-36	-137	-173
	1700 - 1800		87	55	141	-90	-57	-147
Beck Row	0800 - 0900	404	53	201	254	0	0	0
	1700 - 1800		134	85	219	0	0	0
West Row	0800 - 0900	185*	24	92	116	2	6	8
	1700 - 1800		62	39	100	4	3	7
Exning	0800 - 0900	325*	35	133	168	7	27	34
	1700 - 1800		88	55	143	18	11	29
Kentford	0800 - 0900	157	21	79	99	0	0	0
	1700 - 1800		53	33	86	0	0	0
Total	0800 - 0900	5015	636	2432	3068	3	13	17
	1700 - 1800		1623	1021	2643	10	6	17

**Dwelling numbers have changed from that previously assessed*

- 1.5.4 **Table 7** above shows within the future year with development ST (including Brandon) scenario, an additional 3068 two way vehicular trips on the highway network in the AM peak hour and 2643 two way vehicular trips in the PM peak hour, which is associated with 5015 dwellings. The net difference in trip generation from that previously assessed (based on 5036 dwellings) equates to an additional 17 two way vehicular trips in both the AM and PM peak hours across the network.

Employment Vehicular Trip Generation

- 1.5.5 The vehicular trip generation associated with the revised allocated employment sites due to the removal of Hatchfield Farm from the SALP as well as and the jobs lost on the approach site in Red Lodge, have been revised in the traffic growth assumptions within TEMPRO, as discussed in the previous section.
- 1.5.6 The revised traffic flow diagrams for the base, future year with development and the future year with development sensitivity test which includes Brandon, are included in **Appendix D**.

Capabilities on project:
Transportation

Multimodal Trip Generation

- 1.5.7 The multimodal trip generation for each of the villages / towns have been calculated based on the same approach within the previous assessment, though with the revised dwelling numbers.
- 1.5.8 The mode shares detailed in **Table 8** below provides an aggregated mode share and person trips based on the trip purposes of work, education, shopping and other. These mode shares remain unchanged from the previous assessment, however as a result of the removal of Hatchfield Farm and the change in dwellings at towns/ villages, the multimodal trip generation at a number of towns / villages have changed since the previous assessment. The figures shown in blue in the below table illustrate where the multimodal trip generation has changed since the previous assessment.

Table 8: Mode Shares and Multimodal Trip Generation

	Modeshare		Total Trips by Mode					
	AM	PM	AM	PM	AM	PM	AM	PM
Brandon – Remains Unchanged								
Walk	25%	15%	73	29				
Cycle	2%	2%	6	5				
Car Driver	40%	51%	113	97				
Passenger	20%	20%	58	38				
Rail	2%	2%	4	3				
Local Bus	7%	5%	20	10				
Others*	4%	4%	10	7				
<i>Total</i>	<i>100%</i>	<i>100%</i>	<i>285</i>	<i>190</i>				
Lakenheath – Remains Unchanged								
Walk	25%	15%	320	129				
Cycle	2%	2%	19	13				
Car Driver	42%	54%	524	453				
Passenger	20%	19%	248	160				
Rail	1%	2%	17	13				
Local Bus	7%	5%	85	39				
Others*	3%	3%	41	29				
<i>Total</i>	<i>100%</i>	<i>100%</i>	<i>1255</i>	<i>837</i>				
Mildenhall / Beck Row / West Row			Mildenhall		Beck Row - Remains Unchanged		West Row	
Walk	26%	16%	591	240	159	65	73	30
Cycle	2%	2%	46	34	12	9	6	4
Car Driver	41%	53%	944	814	254	219	116	100
Passenger	20%	19%	454	293	122	79	56	36
Rail	1%	2%	32	24	9	6	4	3
Local Bus	7%	5%	156	72	42	19	19	9
Others*	4%	4%	88	65	24	17	11	8
<i>Total</i>	<i>100%</i>	<i>100%</i>	<i>2312</i>	<i>1541</i>	<i>622</i>	<i>415</i>	<i>285</i>	<i>190</i>
Newmarket / Exning			Newmarket		Exning			
Walk	27%	18%	124	55	126	56		
Cycle	3%	3%	12	10	13	10		
Car Driver	37%	47%	166	141	168	143		
Passenger	20%	19%	89	58	90	58		
Rail	1%	2%	7	5	7	5		
Local Bus	7%	5%	32	15	32	15		
Others*	5%	5%	20	16	21	16		
<i>Total</i>	<i>100%</i>	<i>100%</i>	<i>451</i>	<i>301</i>	<i>456</i>	<i>304</i>		

Capabilities on project:
Transportation

Red Lodge / Kentford			Red Lodge		Kentford - Remains Unchanged	
Walk	24%	14%	392	148	57	21
Cycle	1%	1%	23	15	3	2
Car Driver	42%	55%	682	590	99	86
Passenger	19%	19%	314	201	46	29
Rail	2%	2%	26	20	4	3
Local Bus	7%	5%	110	51	16	7
Others*	4%	4%	64	48	9	7
Total	100%	100%	1611	1074	234	156

*this includes work from home, motorcycle and taxi trips

1.6 Revised Highway Assessment

- 1.6.1 All junctions that were assessed previously in terms of percentage impact have been revised to take account of the changes in relation to the removal of the Hatchfield Farm site.
- 1.6.2 Overall the changes result in a net reduction in traffic flows in the future year scenarios at all junctions. Based on a review of the change in percentage impact from that previously assessed, the capacity assessments at two junctions in Newmarket have been rerun; junction 18 A14/ Fordham Road and junction 11, A1304 Fordham Road/ Studlands Park Avenue/Oaks Drive. The existing junction modelling and the preferred mitigation option modelling have been rerun with the revised traffic flows.
- 1.6.3 The change in percentage impact at all junctions and the justification for rerunning these two junctions is provided in Table 13 and a full table of the percentage impacts is included in **Appendix E**.
- 1.6.4 The revised capacity assessment results are provided in the below tables.

Existing Highway Assessment

Junction Location	Junction Number	Junction	2016 Base		2031 Future Year with Development (Excluding Brandon)		2031 Future Year with Development (Including Brandon) ST	
			AM	PM	AM	PM	AM	PM
			Max RFC	Max RFC	Max RFC	Max RFC	Max RFC	Max RFC
Newmarket	18a	A14 / A142 Fordham Road (A14 Junction 37) Staggered	0.79	1.63	1.51	3.26	1.51	3.26
Newmarket	18b	A14 / A142 Fordham Road (A14 Junction 37) North T-Junction	1.27	1.05	3.01	3.10	3.01	3.10
Newmarket	18c	A14 / A142 Fordham Road (A14 Junction 37) South T-Junction	1.33	0.84	1.86	2.94	1.86	3.00
Newmarket	11	A1304 Fordham Road / Studlands Park Avenue / Oaks Drive	0.58	0.85	0.75	1.04	0.75	1.04

- 1.6.5 The existing highway assessment results with the revised flows for Junction 18 and Junction 11 are shown in **Table 9** below.

Table 9: Existing Highway Assessment for Junction 18 and Junction 11

- 1.6.6 The results indicate that with the revised traffic flows the two junctions would still operate over capacity in both the AM and PM peak hours in both future year scenarios, illustrating that mitigation is still required at these two junctions.

Mitigation - Preferred Options

- 1.6.7 The preferred mitigation option at Junction 18, A14/ Fordham Road, is the enhanced signalised option for the Northern junction and the signalised arrangements at the southern junction. This mitigation is based on improvements identified as part of the Hatchfield Farm application. **Table 10** and **11** below show the revised capacity results for this junction.

Capabilities on project:
Transportation

Table 10: Junction 18 Mitigation - A14/ Fordham Road – Southern Junction Signalised Arrangement

Arm		2016 Base				2031 Future Year with Development (Excluding Brandon)				2031 Future Year with Development (Including Brandon)			
		AM		PM		AM		PM		AM		PM	
		DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)
1/1 + 1/2	Fordham Road North 2 Right Ahead	70.3 %	9.6	73.0 %	8.9	133.6 %	216.5	127.9 %	147.5	133.6 %	216.5	127.9 %	147.5
4/1	Fordham Road Right Ahead	37.7 %	5.4	33.2 %	4.9	56.4 %	7.3	46.0 %	7.1	56.4 %	7.3	46.0 %	7.1
5/1	Fordham Road South Left	28.7 %	3.4	16.6 %	1.9	56.5 %	5.7	29.0 %	3.8	56.5 %	5.7	29.0 %	3.8
5/2	Fordham Road South Ahead	70.7 %	12.0	73.7 %	17.1	132.5 %	96.0	127.3 %	156.3	132.5 %	96.0	127.3 %	156.3
7/1	A14 WB Off-slip Left	56.1 %	8.9	65.3 %	6.9	50.9 %	7.7	41.4 %	5.7	50.9 %	7.7	41.4 %	5.7
7/2	A14 WB Off-slip Left	34.2 %	4.7	39.7 %	3.8	41.4 %	5.8	56.7 %	8.8	41.4 %	5.8	56.7 %	8.8
Practical Reserve Capacity		27.4		22.1		-48.5		-42.1		-48.5		-42.1	
Total Delay (pcuHr)		13.82		13.41		271.44		273.97		271.44		273.97	
Cycle Time (seconds)		90		90		90		90		90		90	

1.6.8 With the revised flows, the results indicate a greater practical reserve capacity (PRC) in all future year scenarios, for comparison, previously the two future year scenarios in the AM peak had a PRC value of -53.1 which illustrates the change in capacity results.

Table 11: Junction 18 Mitigation - A14/ Fordham Road – Northern Junction Enhanced Signalised Arrangement

Arm		2016 Base				2031 Future Year with Development (Excluding Brandon)				2031 Future Year with Development (Including Brandon)			
		AM		PM		AM		PM		AM		PM	
		DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)	DoS (%)	MMQ (PCU)
1/2 + 1/1	Fordham Road North Left Ahead	51.0 %	6.1	53.3 %	6.3	85.9 %	16.3	76.4 %	10.7	85.9 %	16.3	76.4 %	10.7
1/3	Fordham Road North Ahead	36.4 %	5.8	37.2 %	6.0	50.3 %	9.0	50.2 %	8.9	50.3 %	9.0	50.2 %	8.9
4/1 + 4/2	Fordham Road South Ahead Right	59.6 %	8.7	77.6 %	11.4	73.1 %	12.6	113.8 %	141.6	73.1 %	12.6	113.8 %	141.6
6/1	A14 EB Off-slip Left	48.9 %	5.0	77.4 %	10.1	81.4 %	8.7	103.6 %	30.1	81.4 %	8.7	103.6 %	30.1
6/2	A14 EB Off-slip Left Ahead Right	47.8 %	5.0	76.2 %	10.0	79.8 %	8.5	102.2 %	27.6	79.8 %	8.5	102.2 %	27.6
Practical Reserve Capacity		51.1		16.0		4.8		-26.4		4.8		-26.4	
Total Delay (pcuHr)		11.24		19.70		22.07		164.54		22.07		164.54	
Cycle Time (seconds)		90		90		90		90		90		90	

Capabilities on project:
Transportation

- 1.6.9 With the revised flows, the results indicate a greater practical reserve capacity (PRC) in all future year scenarios at this junction, for comparison; previously the two future year scenarios in the AM peak had a PRC value of 1.3 which illustrates the change in capacity results.
- 1.6.10 The preferred mitigation option at Junction 18 does not fully mitigate the impact in the PM peak hour, but explores indicative potential improvements to the existing arrangements (subject to land availability etc.). An enhanced signalised option remains a solution to be explored further, with the potential for bridge widening and slip road realignments considered as necessary.
- 1.6.11 **Table 12** below shows the revised capacity results for Junction 11, A1304 Fordham Road/ Studlands Park Avenue/Oaks Drive, which excludes U-turners from Fordham Road North to Fordham Road North, as a result of junction improvements required at Junction 18.

Table 12: Junction 12 – Mitigation - A1304 Fordham Road/ Studlands Park Avenue/Oaks Drive

Arm		2016 Base				2031 Future Year with Development (Excluding Brandon)				2031 Future Year with Development (Including Brandon)			
		AM		PM		AM		PM		AM		PM	
		RFC	Q	RFC	Q	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A	A142 Fordham Road North	0.44	1	0.43	1	0.54	2	0.54	1	0.54	2	0.54	2
B	A142 Fordham Road South	0.55	2	0.78	4	0.70	3	0.95	13	0.70	3	0.95	13
C	Oaks Drive	0.14	1	0.41	1	0.19	1	0.56	2	0.19	1	0.56	1
D	Studlands Park Avenue	0.17	1	0.23	1	0.21	1	0.31	1	0.21	1	0.31	1

- 1.6.12 With the revised flows, the results indicate lower RFC values on all arms in the future year scenarios. For comparison, previously, the two future year scenarios in the PM peak had an RFC value of 0.999 on the A142 Fordham Road South which illustrates the change in capacity results.
- 1.6.13 The results at this junction represent the package of improvements at Junction 18 and Junction 7 in combination. This option assumes that the U-turners (Fordham Road North to Fordham Road North) will be removed following the implementation of signals at Junction 18, A14/ Fordham Road Junction. It is still recommended that the performance at this junction is to be monitored following the implementation of improvements at Junction 18 to understand whether mitigation is required.
- 1.6.14 **Table 13** below summarises the previous conclusions of the junction mitigation, the percentage change at the junctions from that previously assessed, justification for rerunning the capacity assessments at two of the junctions and the revised conclusions based on the updated capacity assessments.

Capabilities on project:
Transportation

Table 9: Summary

Junction Number	Junction	Previous Conclusions	% Change at Junction from that Previously Assessed (Base 2016 to FY including Brandon)		Justification for re-run/no re-run of Capacity Assessment	Revised Conclusion
			AM	PM		
1	A1065 London Road / A1065 High Street / B1107 Thetford Road	Junction operates at or below capacity in the future year assessment scenarios. No mitigation required	-1.8%	-1.8%	A rerun of capacity assessment with revised flows would not alter conclusions of assessment. Rerun not required.	
2	B1107 Thetford Road / B1107 Beavor Lane / Lode Street	Based on percentage change at junction and location, junction not previously assessed in terms of capacity. No mitigation required	-1.8	-1.8	No capacity assessment previously undertaken at junction.	
3	A1101 Kingsway / A1101 North Terrace / B1102 High Street	No obvious physical improvement schemes were identified. Further investigation of solutions is required. The potential to prioritise sustainable travel or the potential to direct some movements away from the town centre to explored as part of a wider multimodal assessment of Mildenhall town centre.	-0.2	-0.5	A rerun of the capacity assessment with revised flows would not alter conclusions of assessment. Rerun not required.	
4	A1101 Kingsway / Brandon Road / A1101 Bury Road	Based on percentage change at junction and location, junction not previously assessed in terms of capacity. No mitigation required	-0.5	-0.6	A rerun of the capacity assessment with revised flows would not alter conclusions of assessment. Rerun not required.	
5	A1101 Kingsway / College Heath Road	No obvious physical improvement schemes were identified. Further investigation of solutions is required. The potential to prioritise sustainable travel or the potential to direct some movements away from the town centre to explored as part of a wider multimodal assessment of Mildenhall town centre.	-0.2	-0.5	No capacity assessment previously undertaken at junction	
6	A11 / A1101	Mitigation at this junction would require a step-	-1.4	-1.5	A rerun of the capacity	

Capabilities on project:
Transportation

	Mildenhall Road / A1065 Brandon Road / A1101 Bury Road	change in provision which will require further investigation such as grade separation			assessment with revised flows would not alter conclusions of assessment. Rerun not required.	
7	Rowley Drive / Black Bear Lane	Based on percentage change at junction and location, junction not previously assessed in terms of capacity. No mitigation required	-1.9	-1.9	No capacity assessment previously undertaken at junction	
8	Black Bear Lane / A1304 High Street	Based on percentage change at junction and location, junction not previously assessed in terms of capacity. No mitigation required	-1.5	-1.6	No capacity assessment previously undertaken at junction	
9	St Mary's Square / B1103 Mill Hill	Based on percentage change at junction and location, junction not previously assessed in terms of capacity. No mitigation required	-1.6	-1.7	No capacity assessment previously undertaken at junction	
10	A1304 High Street / The Avenue	Based on percentage change at junction and location, junction not previously assessed in terms of capacity. No mitigation required	-1.5	-1.5	No capacity assessment previously undertaken at junction	
11	A142 Fordham Road / Studlands Park Avenue / Oaks Drive	Performance to be monitored following the implementation of improvements at junction 18 to understand whether mitigation is required.	-5.7	-4.4	Rerun required due to close proximity and interaction with the A14 / A142 Fordham Road junction. Mitigation influenced by improvements at Junction 18.	No change in conclusion. Performance to be monitored following the implementation of improvements at junction 18 to understand whether mitigation is required.
12	Willie Snaith Road / A142 Fordham Road	Based on percentage change at junction and location, junction not previously assessed in terms of capacity. No mitigation required	-1.7	-1.2	No capacity assessment previously undertaken at junction	
13	B1103 Exning Road / Hamilton Road	Based on percentage change at junction and location, junction not previously assessed in terms of capacity. No mitigation required	-1.5	-1.6	No capacity assessment previously undertaken at junction	
14	Hamilton Road / Edinburgh Road	Based on percentage change at junction and location, junction not previously assessed in terms of capacity. No mitigation required	-1.6	-1.7	No capacity assessment previously undertaken at junction	
15	Hamilton Road / Rowley Drive	Based on percentage change at junction and location, junction not previously assessed in terms of capacity. No mitigation required	-1.8	-1.8	No capacity assessment previously undertaken at junction	
16	Hamilton Road / A1304 High Street	Junction operates at or below capacity in the future year assessment scenarios. No mitigation required	-1.3	-1.4	A rerun of the capacity assessment with revised flows would not alter conclusions of	

Capabilities on project:
Transportation

					assessment. Rerun not required.	
17	A14 / A11 / A1304 Bury Road	Upgrading of the existing road markings at the merge and diverge junctions required	-1.5	-1.6	A rerun of the capacity assessment with revised flows would not alter conclusions of assessment. Rerun not required.	
18	A14 / A142 Fordham Road	The enhanced signalised option for the junction to be explored.	-3.7	-3.7	Rerun required due to focus of change in traffic patterns at this key location arising from the removal of Hatchfield Farm.	No change in conclusion. A major improvement scheme is required and an enhanced signalised option for the junction to be explored.
19	A1304 High Street / Exeter Road / A142 / A1304 Bury Road / B1063	No further improvements identified. Further options should be explored as part of a wider Newmarket town centre study to include the Fordham Road signals and Exeter Road junction	-2.2	-2.1	A rerun of the capacity assessment with revised flows would not alter conclusions of assessment. Rerun not required.	
20	A11 / B1085 Turnpike Road / Dane Hill Road	Based on percentage change at junction and location, junction not previously assessed in terms of capacity. No mitigation required	-1.6	-1.6	No capacity assessment previously undertaken at junction	
21	Warren Road / Hundred Acre Way	Based on percentage change at junction and location, junction not previously assessed in terms of capacity. No mitigation required	-1.4	-0.9	No capacity assessment previously undertaken at junction	
22	A11 / Newmarket Road / Warren Road / Elms Road	Junction operates at or below capacity in the future year assessment scenarios. No mitigation required	-0.1	-0.4	A rerun of the capacity assessment with revised flows would not alter conclusions of assessment. Rerun not required.	
24	B1112 / Lord's Walk / Earls Field roundabout	Progress with proposed mitigation scheme as junction operates within theoretical capacity in the future year scenarios	% impact not undertaken at junction		A rerun of the capacity assessment with revised flows would not alter conclusions of assessment. Rerun not required.	
25	B1112 / Eriswell Road priority 'T' junction	Use the strategic model which is currently being developed to refine future year traffic flows to further understand proposed mitigation at this junction. Resolution of a number of issues, including land ownership would be required before mitigation could be implemented	% impact not undertaken at junction		A rerun of the capacity assessment with revised flows would not alter conclusions of assessment. Rerun not required.	

1.7 Changes to Housing Allocations in Red Lodge

- 1.7.1 As a result of re-examination of sites and information from developers, changes have been made to the housing allocations in Red Lodge since the Addendum was commissioned and the highway assessment undertaken. The following section sets out these changes. These changes are not significant to warrant a rerun of the capacity assessments.
- 1.7.2 The potential new residential site for 10 dwellings in Red Lodge has been removed and additions have been made to other sites in Red Lodge. These changes are set out in **Table 14** below.

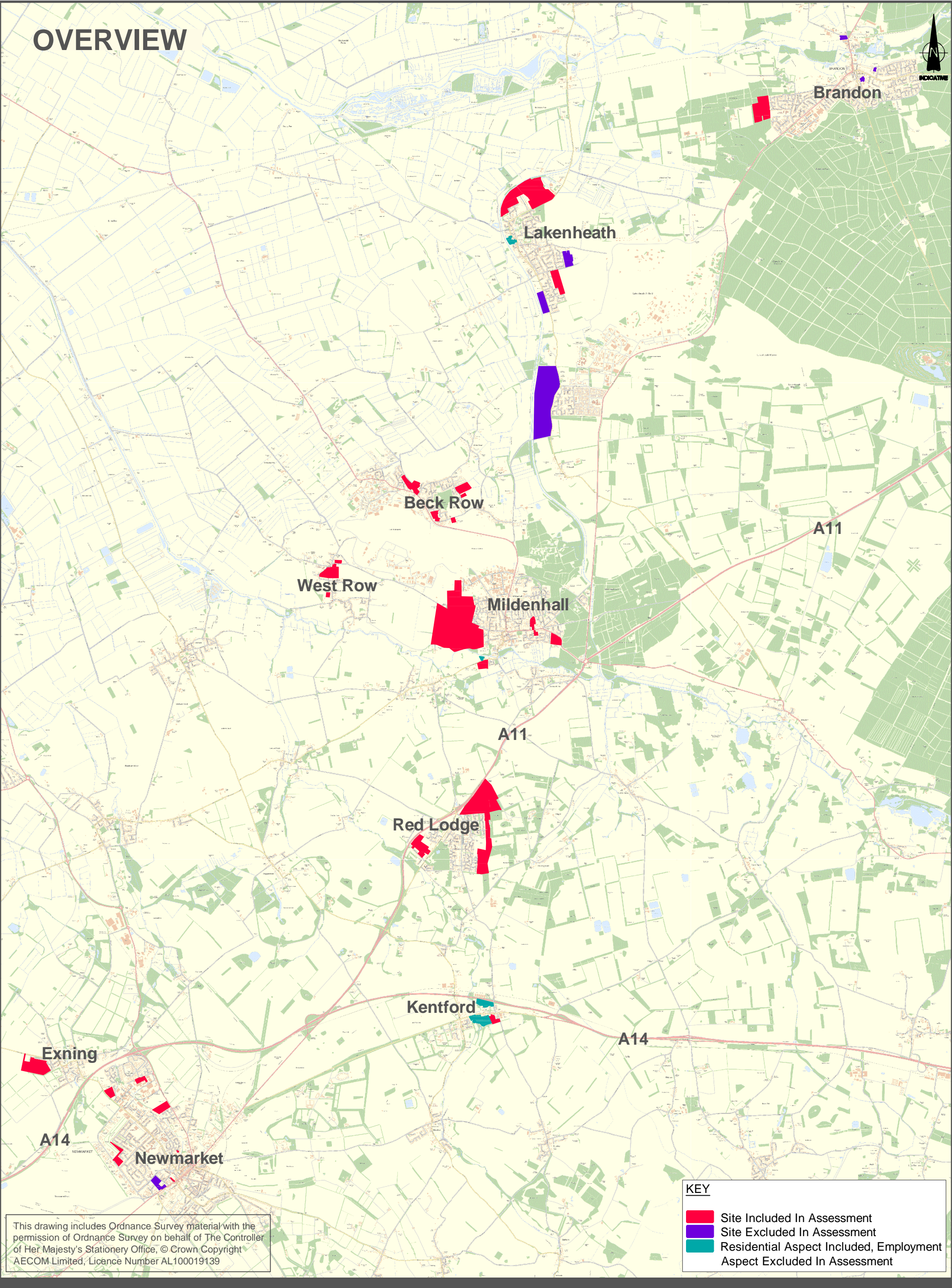
Table 14: Changes to Housing Allocations in Red Lodge

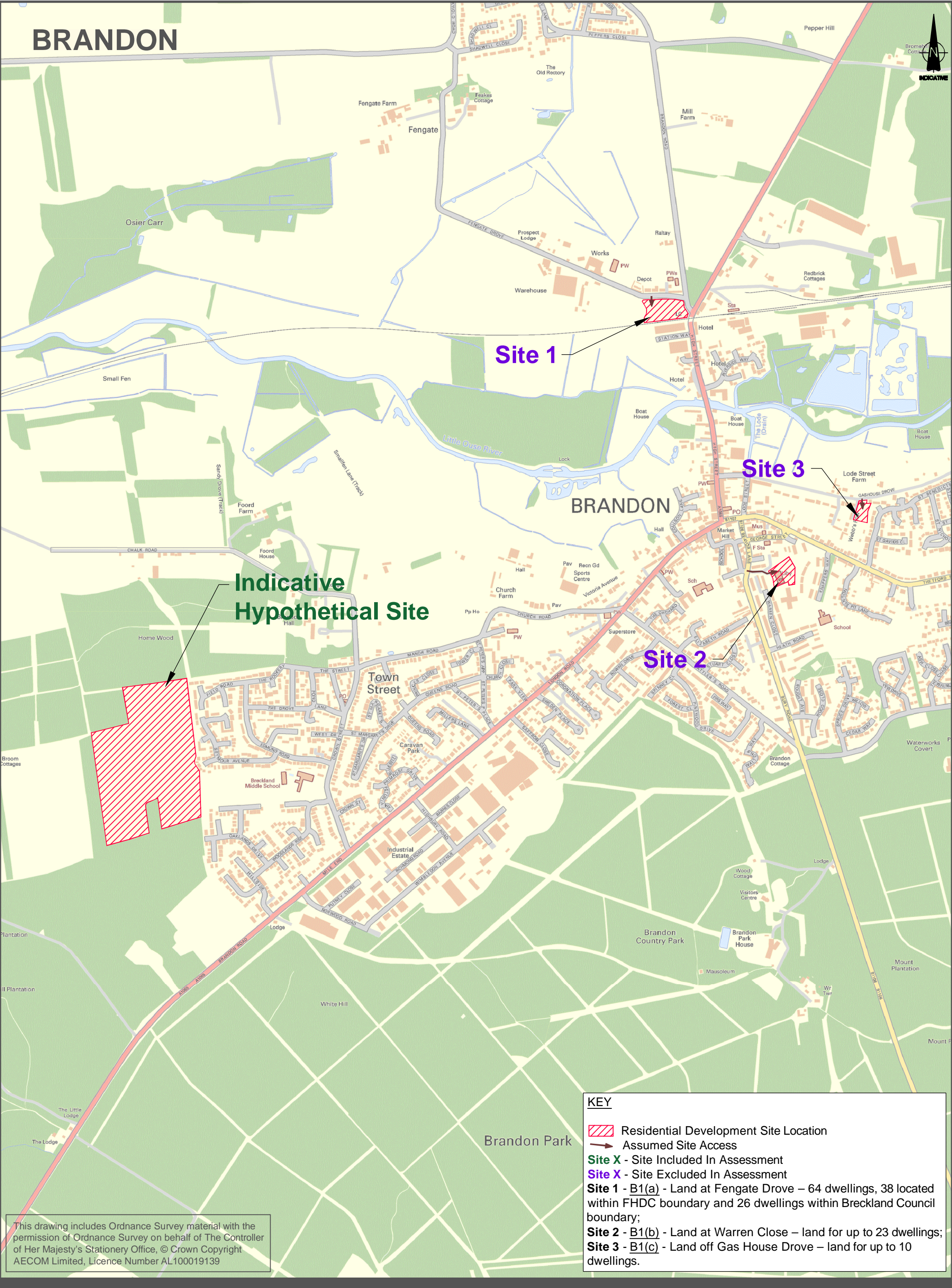
SA9 & SA10						
Site Number	Former preferred options ref no.	Preferred options site capacity assessed in Traffic Study	Number of Dwellings Assessed in Addendum	New site ref	Revised Dwellings Total	Additional number of dwellings compared to that assessed in Addendum
17	RL1(a)	125	125	SA9(a)	132	7
18	RL1(b)	97	97	SA9(b)	140	43
19	RL1(c)	374	374	SA9(c)	382	8
20	Formerly employment land allocation EM1(c)	0	125	SA9(d)	125	0
20	RL2(a)	300	350	SA10(a)	350	0
Potential new residential site in Red Lodge						
-	-		10	-	0	-10
TOTAL		896	1081		1129	48

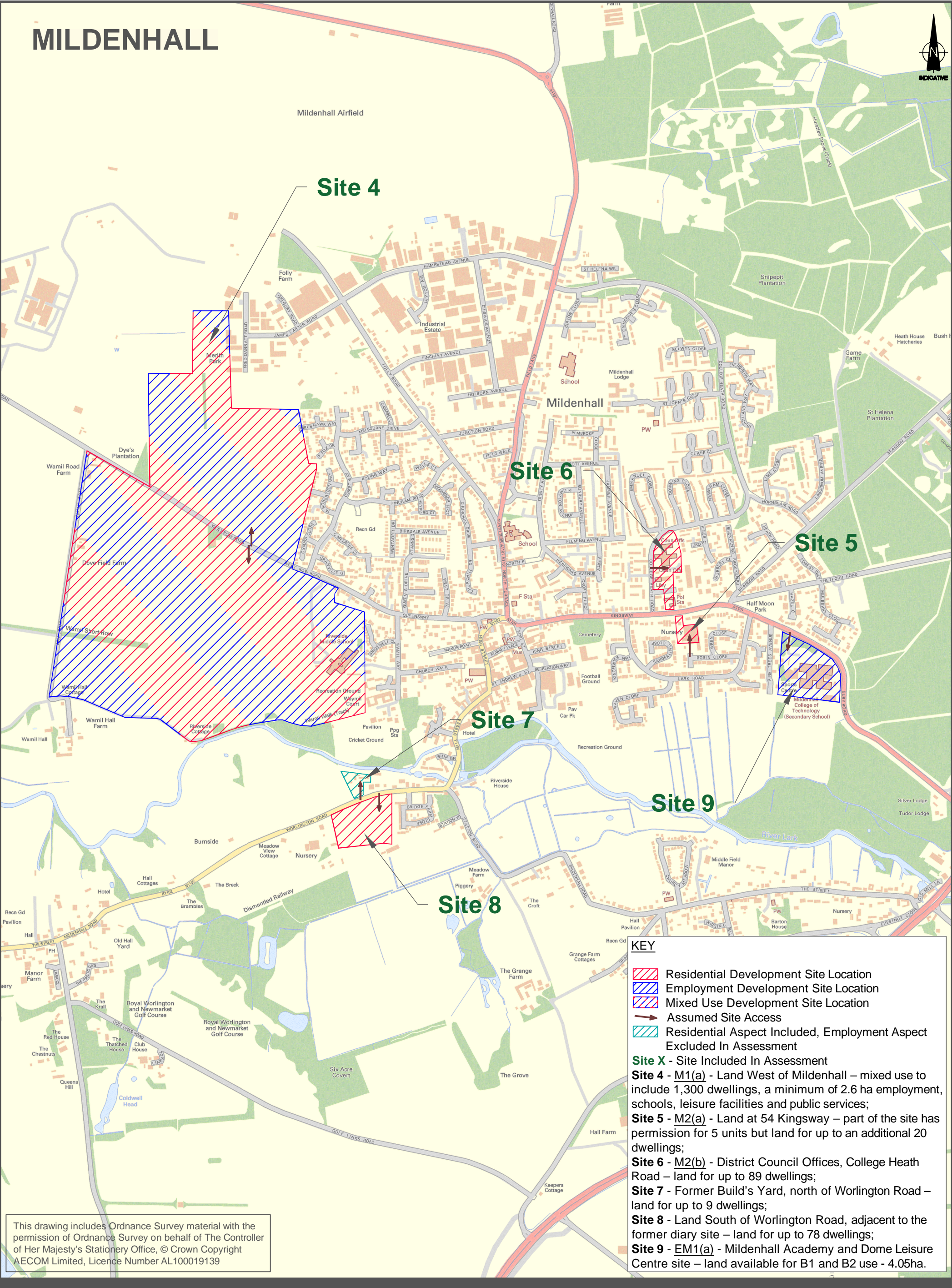
- 1.7.3 Overall the above changes result in an additional 48 dwellings in Red Lodge from what was assessed in this Addendum. This increase is not significant enough to warrant a rerun of the capacity assessments as 48 dwellings would result in an increase in 30 two-way vehicular trips in the AM and 26 two-way vehicular trips in the PM. Junction 22a/b, A11/Newmarket Road/Warren Road, which is closest to Red Lodge has sufficient capacity to accommodate these additional vehicular trips in both the AM and PM peak hours. This increase in dwelling numbers and associated vehicular trips does not alter the conclusions and recommendations of this Addendum and Traffic Study.
- 1.7.4 The site location plans in Appendix A, Summary Table in Appendix B and Traffic Flow Diagrams in Appendix D do not reflect the changes to dwellings in Red Lodge, as set out above, and therefore reflect what has been assessed in the highway assessment.
- ## 1.8 Summary and Conclusions
- 1.8.1 The removal of the Hatchfield Farm site from the SALP and the changes made to preferred sites and new sites to take account of the shortfall in dwellings reduces the future year with development traffic flows from that previously assessed.
- 1.8.2 Due to the close proximity with the Hatchfield Farm site, two junctions have been rerun to take into account the revised traffic flows. The results of these assessments do not change the recommendations and mitigation schemes for these junctions.
- 1.8.3 Since the Addendum was commissioned as a result of re-examination of sites and information from developers there has been a change of an additional 48 dwelling in Red Lodge from that assessed on this Addendum. This change does not impact on the conclusions and recommendations of this Addendum and the Traffic Study.
- 1.8.4 The conclusions and recommendations provided within the previous assessment remain the same, despite the removal of Hatchfield Farm site.

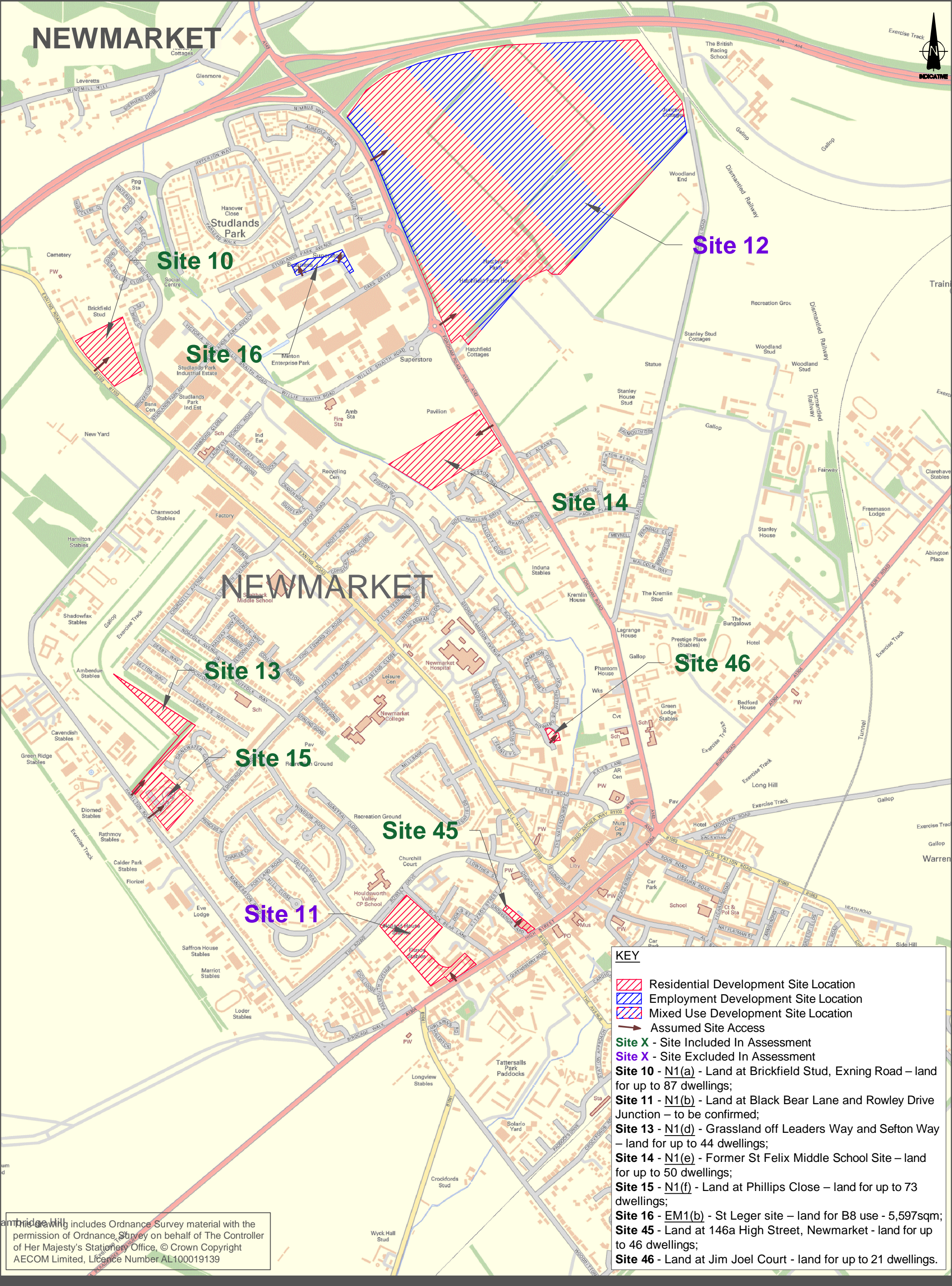
Appendices

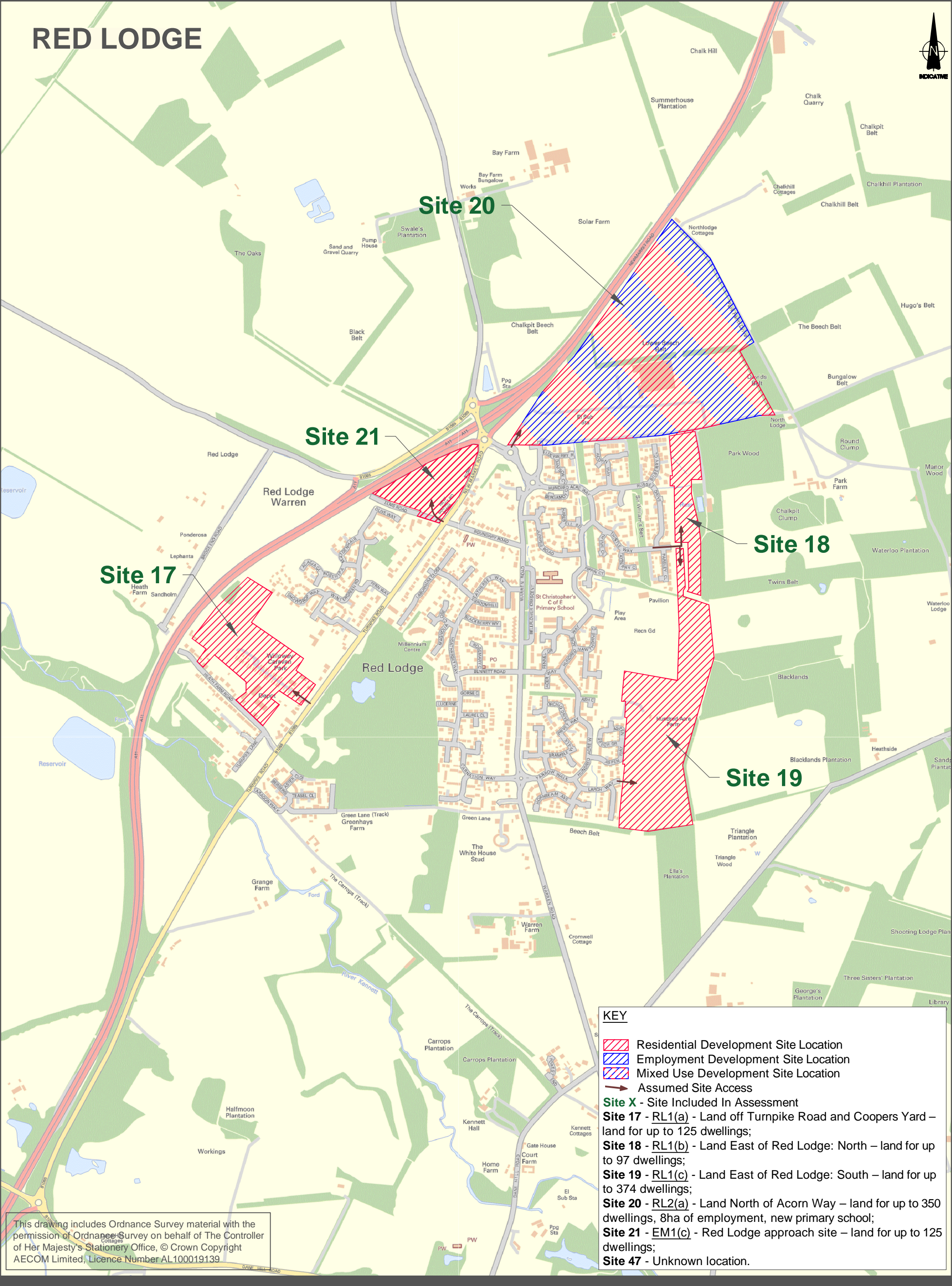
Appendix A - Location Plans

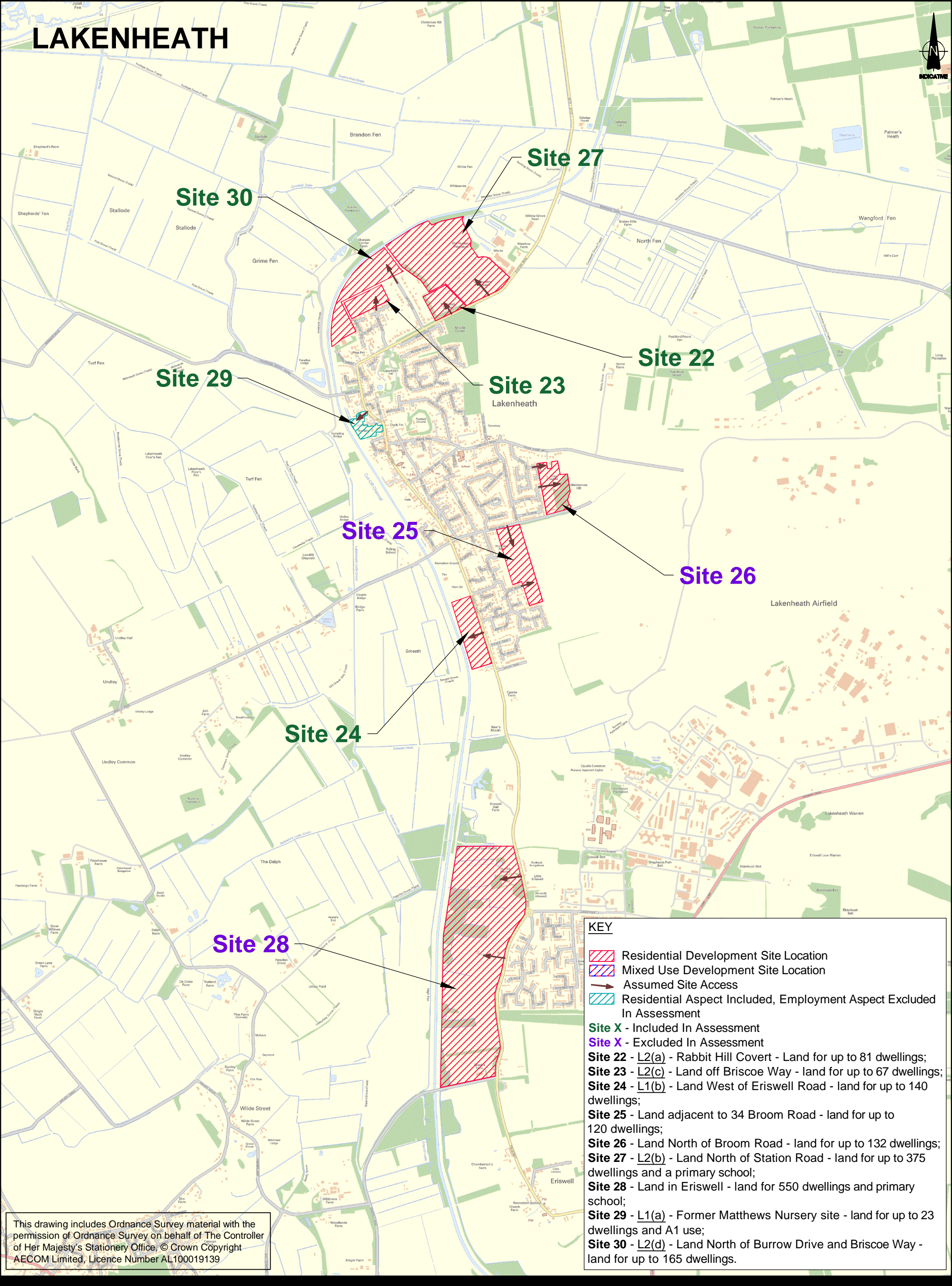


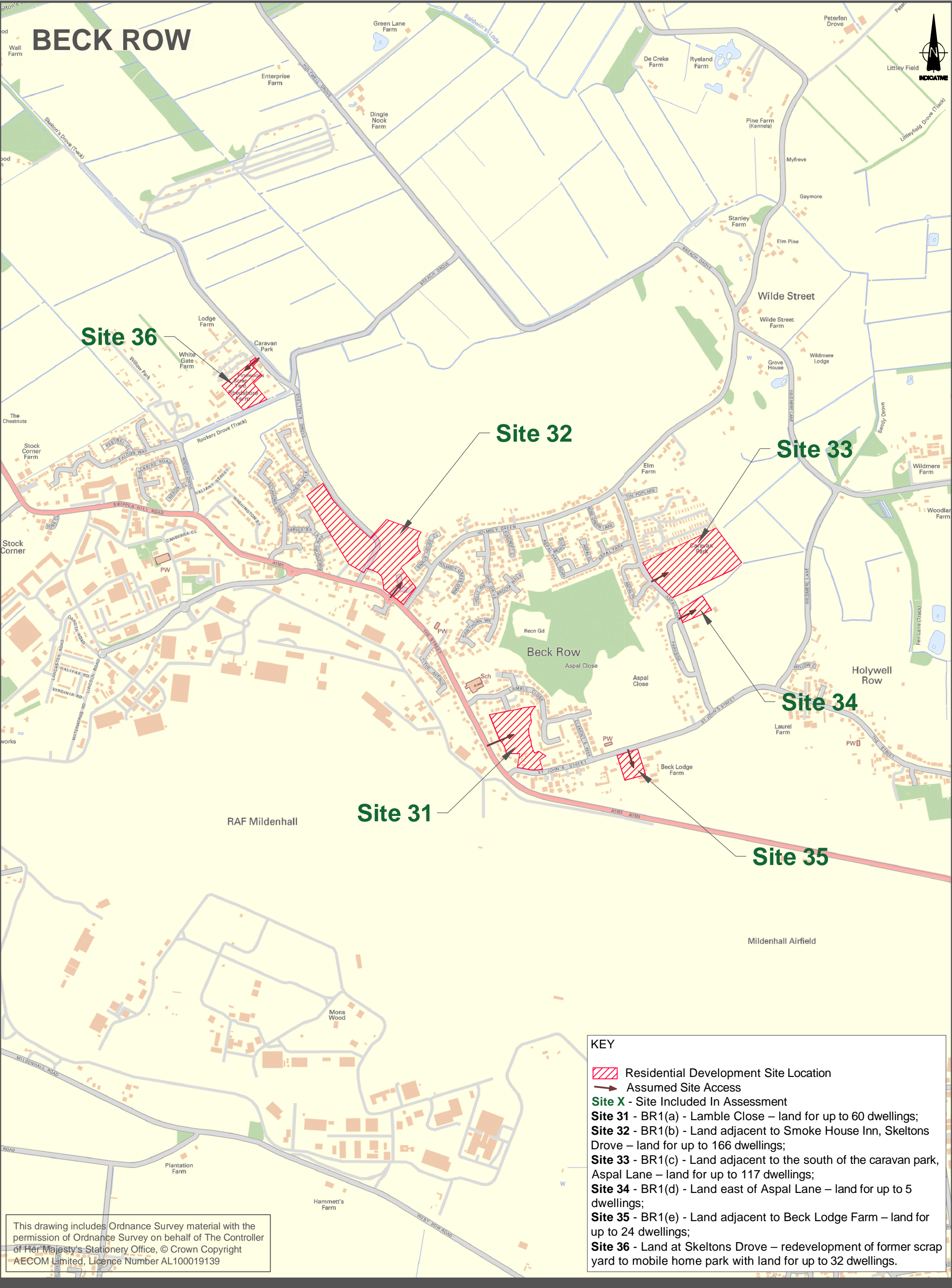


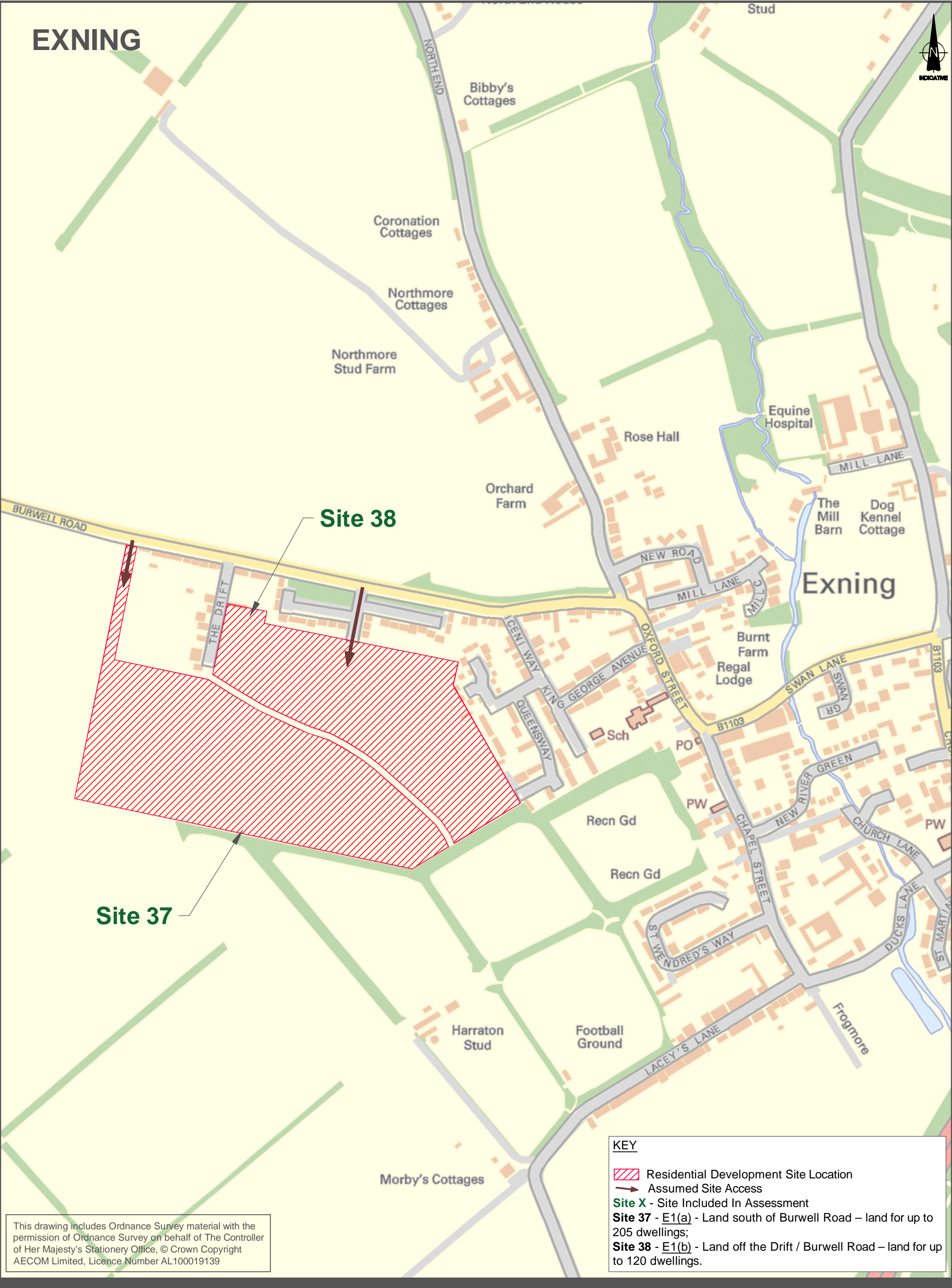


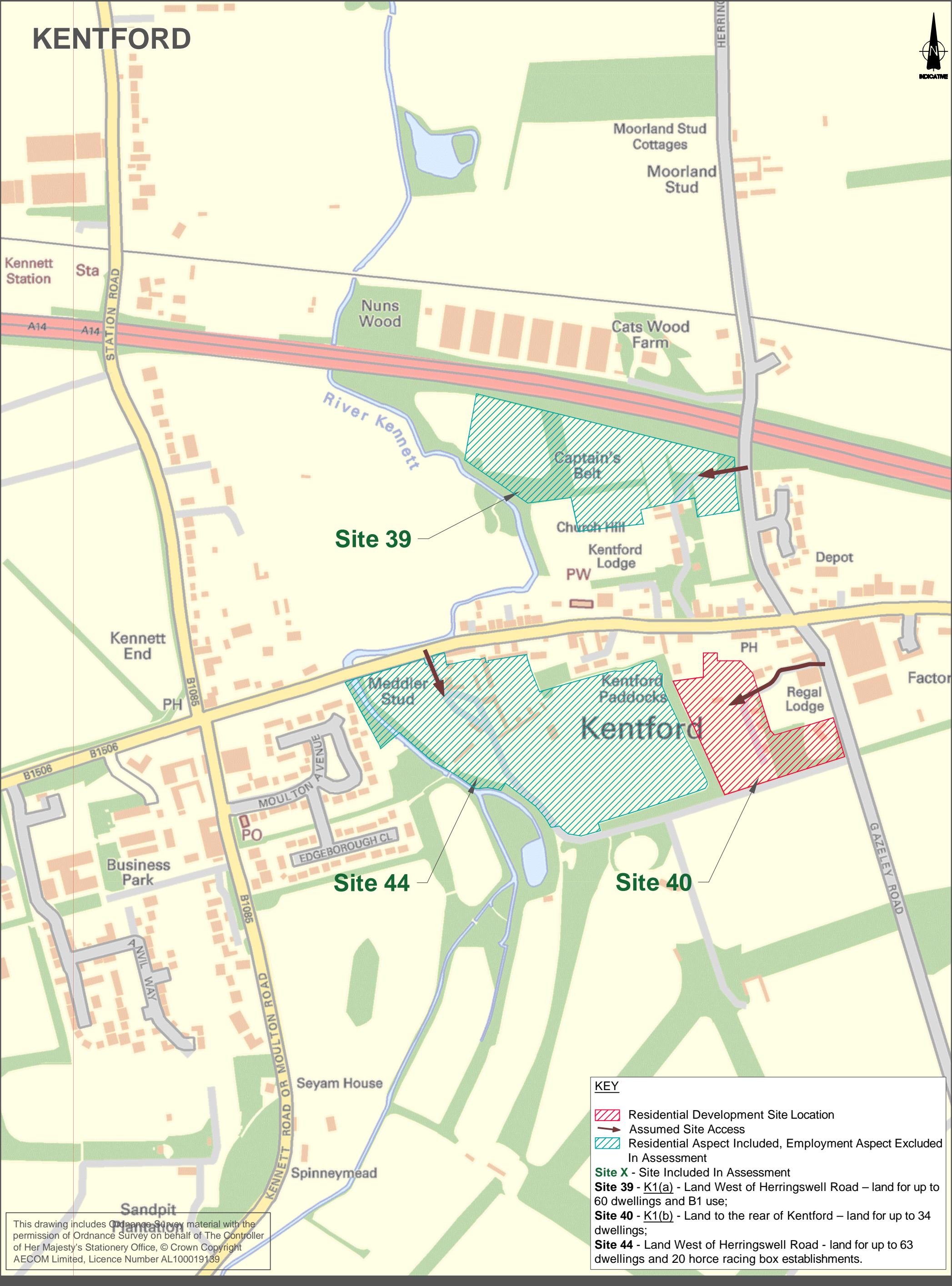


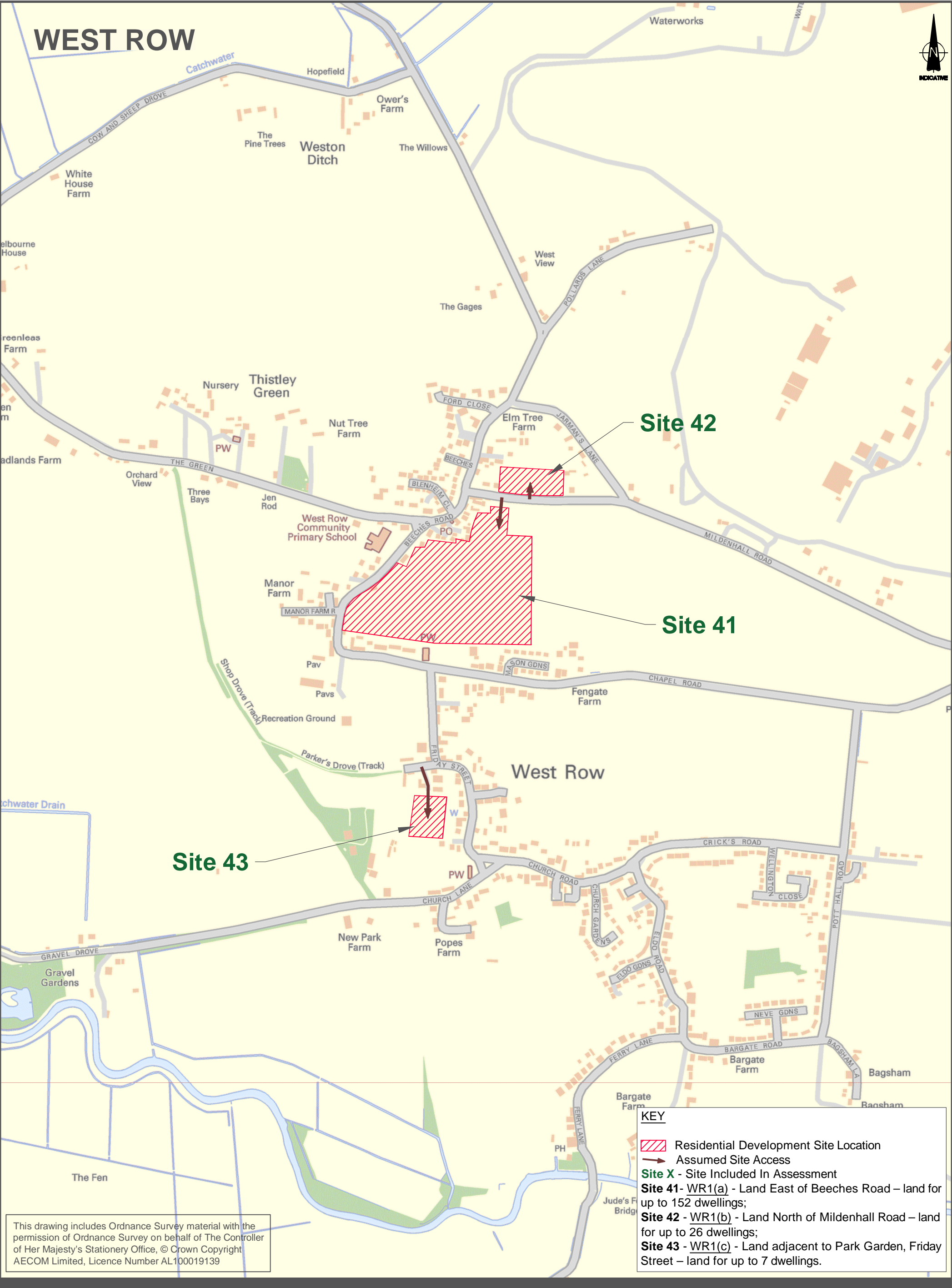












Appendix B - Summary Table

SUMMARY TABLE used for Capacity Assessments				08/11/16 - V9			
KEY	Mixed Use						
	Residential						
	Employment						
Site Allocation Reference	Site Number	Planning Application	Planning Application Description	Number of dwellings (up to) Assessed	Residential Assessment Approach	Employment Assessment Approach	Previously Assessed in Traffic Study
		• Brandon					
B1(a)	1	o Land at Fengate Drove – DC/14/2219/FUL – 64 dwellings, 38 located within FHDC boundary and 26 dwellings within Breckland Council boundary	Cross Boundary Planning Application - construction of 64 no. dwellings with associated external works including new vehicular access, as amended by drawing numbers 052H, 053C, 054C, 060D, 061D, 062C, 063C, 064D, 065C, 066D, 067C and 068, all received by the Local Planning Authority on 18th May 2015 and by report entitled 'Supporting Evidence for Appropriate Assessment relating to Breckland Special Protection Area' prepared by Wild Frontier Ecology (dated May 2015), received by the Local Planning Authority on 18th May 2015.	64			
B1(b)	2	o Land at Warren Close – land for up to 20 dwellings		23			200 - Hypothetical Site
B1(c)	3	o Land off Gas House Drove – land for up to 10 dwellings	No Application Found	10			
200 homes being tested for Brandon (adjacent to settlement boundary with access of A1065) at a hypothetical site				200	Excluded from study, but will be assessed as a sensitivity test following on from the study		
		• Mildenhall					
M1(a)	4	o Land West of Mildenhall – mixed use to include 1,250 dwellings, a minimum of 2.6 ha employment, schools, leisure facilities and public services	No Application Found	1,300	Residential aspect of development is over 100 dwellings therefore site will be manually added rather than included in Temprow forecast	Site size is 2.6ha. Land use split between B1/B2/B8 as 15% B1a, 15% B1c, 35% B2, 35% B8.Estimated developable floor space, B1 = 1,950sqm, B2 = 3,822sqm, B8 = 4,500sqm.	1250 dwellings
M2(a)	5	o Land at 54 Kingsway – part of the site has permission for 5 units under DC/15/0828/OUT but land for up to an additional 20 dwellings	Outline Planning Application (Means of Access to be considered) - Residential development of 5 no. dwellings with vehicular access from Robin Close (Resubmission of DC/15/0150/OUT)	25	Site will be manually added rather than included in Temprow forecast at the request of SCC		25 dwellings
M2(b)	6	o District Council Offices, College Heath Road – land for up to 89 dwellings	No Application Found	89	Site will be manually added rather than included in Temprow forecast at the request of SCC		
	7	o Former Build's Yard, north of Worlington Road – land for up to 9 dwellings DC/14/2320/FUL	Planning Application - erection of 9 no. dwellings and 1 no. B1 office unit 26C Worlington Road Barton Mills Suffolk IP28 7DY	9	Site will be manually added rather than included in Temprow forecast at the request of SCC	Employment aspect of development is excluded as quantum is too small	
	8	o Land South of Worlington Road, adjacent to the former dairy site – land for up to 78 dwellings DC/13/0927/OUT	Outline application - residential development of up to 78 dwellings with creation of new vehicular access, as amended by drawing numbers; S434900054-05 RevB; A.45,846; A.45,846a; B.11,757 and G.748, by unnumbered drawing entitled 'Proposed TRO Relocation Plan' and by 'Archaeological Evaluation Report' dated February 2014 and letter dated 30th April 2014 setting out percolation test results. (Major Development and Departure from the Development Plan)	78	Site will be manually added rather than included in Temprow forecast at the request of SCC		
EM1(a)	9	o Mildenhall Academy and Dome Leisure Centre site – land available for B1 and B2 use. 4.05ha	No Application Found			Site size is 4.05ha. Land use split between B1/B2 as 25% B1a, 25% B1c, 50% B2.Estimated developable floor space, B1 = 8,000sqm, B2 = 8,400sqm.	
				1,501			
		• Newmarket					
	46	Jim Joel Court - DC/16/0193/FUL	Planning Application - 21 no. two bedroom apartments	21			New site
	45	146a High Street, Newmarket - DC/15/0754/FUL	Planning Application - Conversion of former nightclub to residential use (36 dwelling units including 2 affordable units) and 290 square metres of office space, a detached block of 10 affordable housing apartments and ancillary parking (as amended by drawings received 19 October 2015).	46			New site
N1(a)	10	o Land at Brickfield Stud, Exning Road – land for up to 87 dwellings	No Application Found	87	Site will be manually added rather than included in Temprow forecast at the request of SCC		
N1(b)	11	o Land at Black Bear Lane and Rowley Drive Junction – to be confirmed	No Application Found		Excluded as not known what development will be at site		
N1(c)	12	o Hatchfield Farm – DC/13/0406 – mixed use to include 400 dwellings, a minimum of 5ha employment and 1.5ha school site	For southern part of site allocation area-Outline application: Residential development of up to 400 dwellings plus associated open space (including areas of habitat enhancement), foul and surface water infrastructure, two accesses onto the A142, internal footpaths, cycle routes and estate roads. (Major Development) (Departure from the Development Plan)		Excluded as refused by Secretary of State	Site size is 5ha. Land use split between B1/B2 as 25% B1a, 25% B1c, 50% B2.Estimated developable floor space, B1 = 6,250sqm, B2 = 10,500sqm.	Previously assessed as mixed use - employment and residential
N1(d)	13	o Grassland off Leaders Way and Sefton Way – land for up to 44 dwellings	No Application Found	44	Residential development is adjacent to N1f and therefore treated as one cluster. Total residential development is over 100 dwellings therefore site will be manually added rather than included in Temprow forecast		

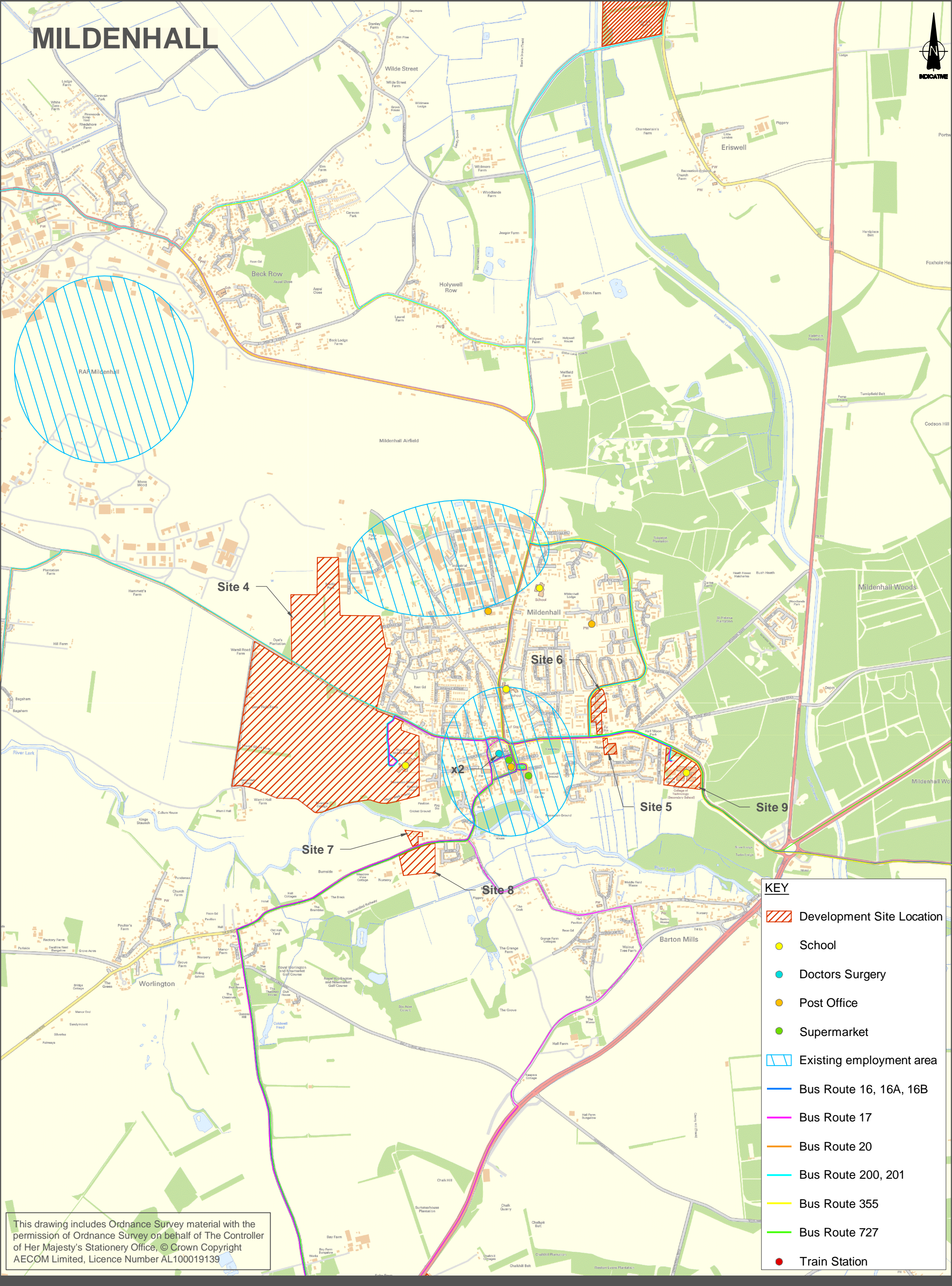
N1(e)	14	o Former St Felix Middle School Site – land for up to 50 dwellings	No Application Found	50	Site will be manually added rather than included in Tempro forecast at the request of SCC		
N1(f)	15	o Land at Phillips Close – land for up to 73 dwellings	No Application Found	73	Residential development is adjacent to N1d and therefore treated as one cluster. Total residential development is over 100 dwellings therefore site will be manually added rather than included in Tempro forecast		
EM1 (b)	16	o St Leger site – land for B8 use - DC/16/0465/FUL - 5,597sqm	Planning Application - B2/B8 warehouse and distribution centre Units 9 - 11 St Leger Drive Newmarket Suffolk CB8 7DT			Site size is 1.6ha. Land use is B8 as 100%.Estimated developable floor space, B8 = 8,000	
				321			
		• Red Lodge					
RL1(a)	17	o Land off Turnpike Road and Coopers Yard – land for up to 125 dwellings	No Application Found	125	Residential development is over 100 dwellings therefore site will be manually added rather than included in Tempro forecast		
RL1(b)	18	o Land East of Red Lodge: North – land for up to 97 dwellings	No Application Found	97	Residential development is close to 100 dwellings therefore site will be manually added rather than included in Tempro forecast		
RL1(c)	19	o Land East of Red Lodge: South – land for up to 374 dwellings - F/2013/0257/HYB	Hybrid application: Outline application - demolition of Hundred Acre Farm and the construction of up to 268 dwellings, new public open space, drainage ditches, associated access, landscaping, infrastructure and ancillary works on land East of Red Lodge and the construction of up to 225 sq., metres of Class A1 retail floor space on land forming part of Phase 4a Kings Warren, as amended. Full application - (Phase A): construction of 106 dwellings (including the relocation of 3 committed dwellings from Phase 4a), new public open spaces, associated access, landscaping, infrastructure and ancillary works on land East of Red Lodge. Restoration of open Breck grassland on land South East of Herringswell, as amended.	374	Residential development is over 100 dwellings therefore site will be manually added rather than included in Tempro forecast		
RL2(a)	20	o Land North of Acorn Way – land for up to 300 dwellings, 8ha of employment, new primary school	F/2000/282 / -Outline planning permission for residential and commercial uses including ancillary uses such as two form entry primary school, village center, retail and commercial uses, associated open space, landscaping and provision of access (Application accompanied by an environmental statement and also affecting a Public Right of Way). employment - F/2008/0102/RMA Submission of details under outline planning permission F/2000/282/OUT for the erection of twelve small business units & three commercial units, all within B1 (C) use class (light industrial) with associated yards and parking (Major Development) Land North of Hundred Acre Way Kings Warren Red Lodge	350	Residential aspect of development is over 100 dwellings therefore site will be manually added rather than included in Tempro forecast	Site size is 8ha. Land use split between B1/B2/B8 as 15% B1a, 15% B1c, 35% B2, 35% B8.Estimated developable floor space, B1 = 6,000qm, B2 = 11,760sqm, B8 = 14,000sqm.	300 dwellings
EM1(c)	21	o Red Lodge approach site – DC/16/0596/OUT	Outline Planning Application (Means of Access to be considered) - (i) Residential development for up to 125 dwellings (ii) Public open space including children's play area and electricity substation	125	Residential aspect of development is over 100 dwellings therefore site will be manually added rather than included in Tempro forecast		Previously assessed as an employment site
		Site Location Unknown		10			New site
				1,081			
		• Lakenheath					
L2(a)	22	o Rabbit Hill Covert – F/2013/0345/OUT – land for up to 81 dwellings	Outline application - residential development (up to 81 dwellings), as amended by agents letter, amended design and access statement and confidential stone curlew records received by the Local Planning Authority on 7th May 2014 and by flood risk assessment & drainage strategy and archaeological report both received by the Local Planning Authority on 23rd May 2014 and by Noise Assessment received by the Local Planning Authority on 12th August 2014. (Major Development and Departure from the Development Plan)	81	Residential development cluster to the North of Lakenheath including L2a, L2b, L2c and L2d equates to over 100 dwellings. Sites will manually added rather than included in Tempro forecast		
L2(c)	23	o Land off Briscoe Way – F/2013/0660/FUL – land for up to 67 dwellings	Erection of 67 dwellings (including 20 affordable dwellings) together with 1500 square metres of public open space (Major Development and Departure from the Development Plan)	67	Residential development cluster to the North of Lakenheath including L2a, L2b, L2c and L2d equates to over 100 dwellings. Sites will manually added rather than included in Tempro forecast		
L1(b)	24	o Land West of Eriswell Road – F/2013/0394/OUT – land for up to 140 dwellings	Outline application - residential development of up to 140 dwellings with associated open space provision, landscaping and infrastructure works, as amended. (Major Development, Departure from the Development Plan and Development Affecting a Public Right of Way)	140	Residential development is over 100 dwellings therefore site will be manually added		

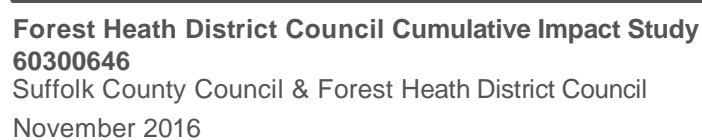
	25	<div>o Land adjacent to 34 Broom Road – DC/14/2073/FUL – land for up to 120 dwellings</div>	Planning Application - 120 dwellings together with associated access, landscaping and open space, as amended	120	Excluded as not preferred site in Lakenheath		
	26	<div>o Land North of Broom Road – DC/14/2042/OUT – land for up to 132 dwellings</div>	Outline Planning Application (All matters reserved) for residential development of up to 132 dwellings	132	Excluded as not preferred site in Lakenheath		
L2(b)	27	<div>o Land North of Station Road – DC/14/2096/HYB – land for up to 375 dwellings and a primary school</div>	Hybrid planning application - 1) Full application for the creation of a new vehicular access onto Station Road, and entrance to a new primary school, 2) Outline application for up to 375 dwellings (including 112 affordable homes), and the provision of land for a new primary school, land for ecological mitigation and open space and associated infrastructure (as amended)	375	Residential development cluster to the North of Lakenheath including L2a, L2b, L2c and L2d equates to over 100 dwellings. Sites will manually added rather than included in Temprow forecast		
	28	<div>o Land in Eriswell – DC/15/1050/EIASCO – land for 550 dwellings and primary school</div>	Scoping Opinion Under Environmental Impact Assessment Regulations 2011 - Proposed development on site area over 5 ha including residential dwelling houses alongside the provision of a primary school, allotments, play space for sports and other green spaces	550	Excluded as not preferred site in Lakenheath		
L1(a)	29	<div>o Former Matthews Nursery site – land for up to 23 dwellings and A1 use - F/2010/0338/FUL</div>	Erection of Class A1 retail store, associated access, car parking, landscaping and boundary treatment. Refurbishment of Matthew's Nursery shop including change of use to A1, A2 or A3 and creation of hard landscaped area between shop and High Street (demolition of 12 High Street, glasshouses and associated structures). (Major Development) (Departure from the Development Plan) Matthews Nursery site and adjoining land to the north of Dumpling Bridge Lane Lakenheath	13	Residential development cluster to the North of Lakenheath including L2a, L2b, L2c and L2d equates to over 100 dwellings. Sites will manually added rather than included in Temprow forecast	Employment aspect of development is excluded as quantum is too small	
L2(d)	30	<div>o Land North of Burrow Drive and Briscoe Way - land for up to 165 dwellings</div>	No Application Found	165	Residential development is over 100 dwellings therefore site will be manually added rather than included in Temprow forecast		
				841			
		<div>• Beck Row</div>					
BR1(a)	31	<div>o Lamble Close – land for up to 60 dwellings - DC/15/0922/OUT</div>	Outline Planning Application (Means of Access to be considered) - Residential development of up to 60 dwellings with new vehicular access from St Johns Street Land Adj 1 St Johns Street Beck Row Suffolk	60	All sites in Beck Row are residential therefore treated as one cluster. Total residential development is over 100 dwellings for Beck Row therefore site will be manually added rather than included in Temprow forecast		
BR1(b)	32	<div>o Land adjacent to Smoke House Inn, Skeltons Drove – land for up to 166 dwellings - DC/14/1206/FUL</div>	Proposed residential development of 166 no. market dwellings, including associated public open space, associated accesses, landscaping and ancillary works, including the part retrospective development of 24 residential units (as amended by drawings received 09 July 2015 which proposes 49 affordable housing units). (Major Development) (Departure from the Development Plan)	166			
BR1(c)	33	<div>o Land adjacent to the south of the caravan park, Aspal Lane – land for up to 117 dwellings - DC/13/0123/OUT</div>	Outline Application - residential development for up to 124 dwellings and new vehicular and pedestrian accesses off Aspal Lane. (Major Development and Departure from the Development Plan), as amended by plans received on 19/11/13 reducing the number of dwellings to 117.	117			
BR1(d)	34	<div>o Land east of Aspal Lane – land for up to 5 dwellings - DC/15/0321/OUT</div>	Outline Planning Application- Redevelopment of part of existing site for 5 no. dwellings (Means of access to be considered)	5			
BR1(e)	35	<div>o Land adjacent to Beck Lodge Farm – land for up to 24 dwellings - DC/14/1745/OUT</div>	Outline Planning Application (All Matters Reserved) - erection of up to 24 dwellings (including 12 affordable units) with relocated access drive, area of open space and associated storage and parking facilities.	24			
	36	<div>o Land at Skeltons Drove – redevelopment of former scrap yard to mobile home park with land for up to 32 dwellings - DC/13/0144/FUL</div>	Change of use of land from scrap yard to mobile home park for permanent residential occupation by people over 50 years old (Major Development and Departure from the Development Plan)	32			
				404			
		<div>• Exning</div>					
E1(a)	37	<div>o Land south of Burwell Road – land for up to 140 dwellings</div>	NOT FOUND	205	All sites in Exning are residential therefore treated as one cluster. Total residential development is over 100 dwellings for Exning therefore site will be manually added rather than included in Temprow forecast		140 dwellings
E1(b)	38	<div>o Land off the Drift / Burwell Road – land for up to 120 dwellings - F/2012/0552/OUT</div>	Outline application for erection of 120 dwellings including associated access arrangements and open space provision (Departure from the Development Plan and Major Development)	120			
				325			
		<div>• Kentford</div>					
K1(a)	39	<div>o Land West of Herringswell Road – land for up to 60 dwellings and B1 use (F/2013/0061/HYB)</div>	Hybrid application: Full application - erection of 98 dwellings and garages (including 30 affordable dwellings), creation of a new access onto Herringswell Road and upgrading of existing accesses onto Herringswell Road and Bury Road, the provision of amenity space and associated infrastructure. Outline application - erection of up to 579 square metres of B1 office employment space. (Major Development, Departure from the Development Plan and Development Affecting the Setting of a Listed Building) as amended by plans received on 05.09.2013 reducing the number of dwellings to 60 (inc. 18 affordable).	60	All sites in Kentford are treated as one cluster. The sites will be manually added rather than included in Temprow forecast	Employment aspect of development is excluded as quantum is too small	
K1(b)	40	<div>o Land to the rear of Kentford – land for up to 34 dwellings (DC/14/2203/OUT)</div>	Outline Planning Application - Residential Development of up to 34 dwellings with associated road, paths and access to the public highway (Bury Road)	34			

	44	o Land West of Herringswell Road – land for up to 63 dwellings and 20 horse racing box establishment DC/14/0585/OUT	Outline application: creation of a 20-box racehorse training establishment (with associated Trainer's house) and erection of up to 63 dwellings (including 19 affordable units) with associated access arrangements and open space provision. (Major Development and Departure from the Development Plan	63	Tempro forecast	Employment aspect of development is excluded as quantum is too small	63 dwellings (same as previously assessed)
				157			
		West Row					
WR1(a)	41	o Land East of Beeches Road – land for up to 140 dwellings - DC/14/2047/HYB	Hybrid Planning Application comprising: Full application for erection of 41 dwellings (including 12 affordable dwellings), creation of new vehicular access onto Beeches Road, an outline application with all matters reserved for the erection of up to 90 dwellings and an outline application with all matters reserved for 7 self-build homes, the provision of 1.91 hectares of public open space, 1.9 hectares of landscaping and 4.46 hectares of retained agricultural land for potential ecological mitigation.	152	All sites in West Row are residential therefore treated as one cluster. Total residential development is over 100 dwellings for West row therefore sites will be manually added rather than included in Tempro forecast		140 dwellings
WR1(b)	42	o Land North of Mildenhall Road – land for up to 26 dwellings - DC/14/0632/OUT	Outline Application - residential development of up to 26 dwellings with new vehicular access and creation of a new footpath link along Mildenhall Road (Major Development and Departure from the Development Plan) as amended by plans and email rec 17.10.14 which add additional signage in the highway	26			
WR1(c)	43	o Land adjacent to Park Garden, Friday Street – land for up to 7 dwellings - F/2013/0329/OUT	Outline application: erection of 7 detached dwellings (Departure from the Development Plan)	7			
				185			
			Total Dwellings	5,015			

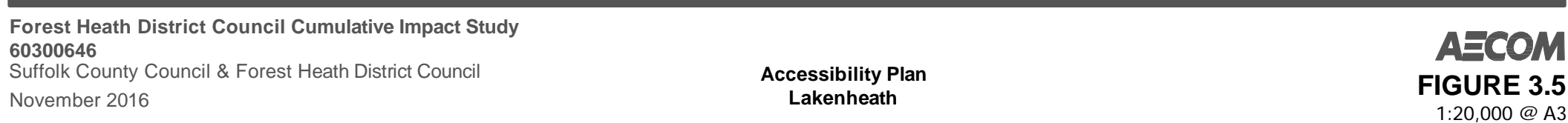
Appendix C - Accessibility Plans



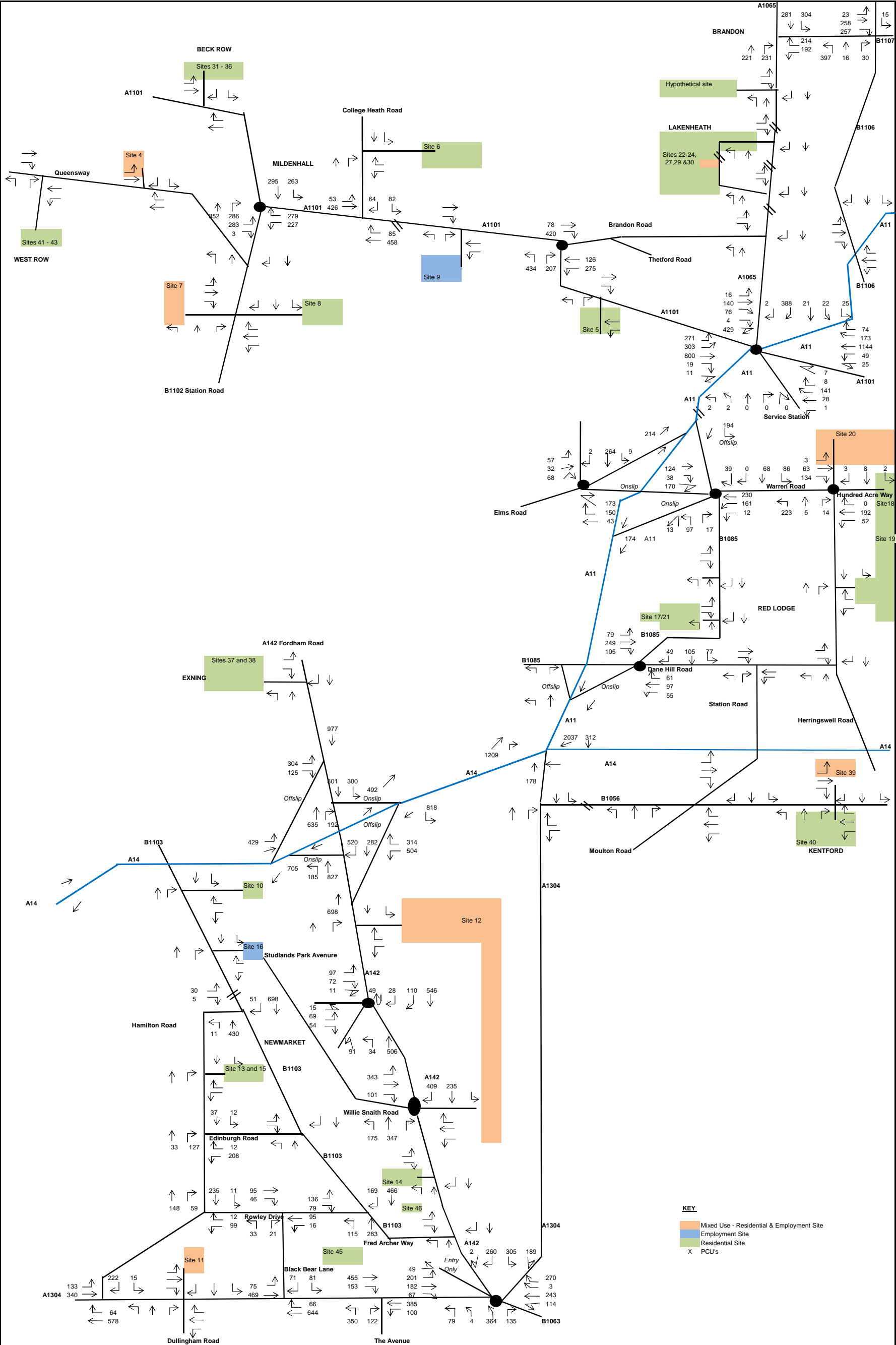




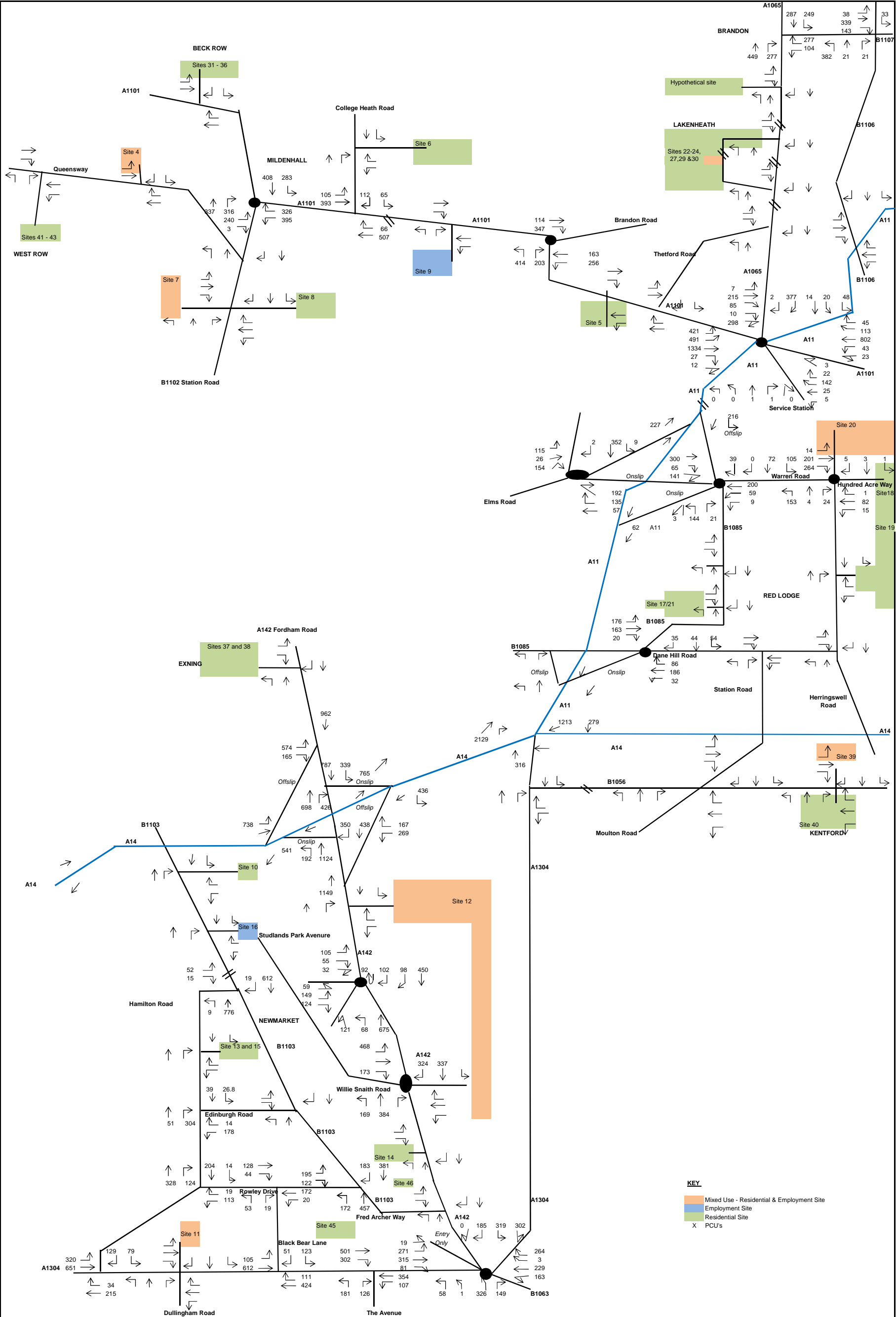





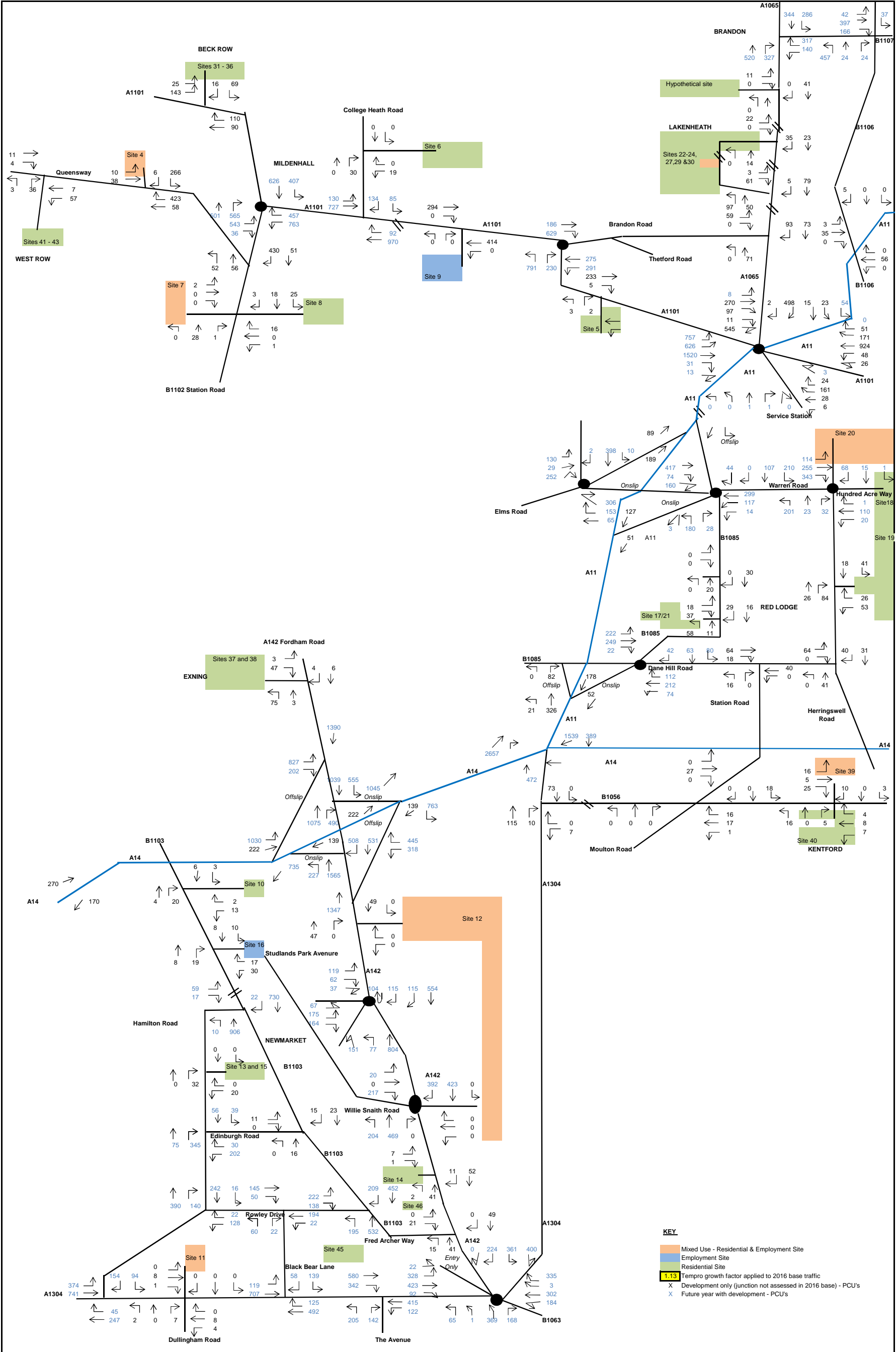
Appendix D - Traffic Flow Diagrams



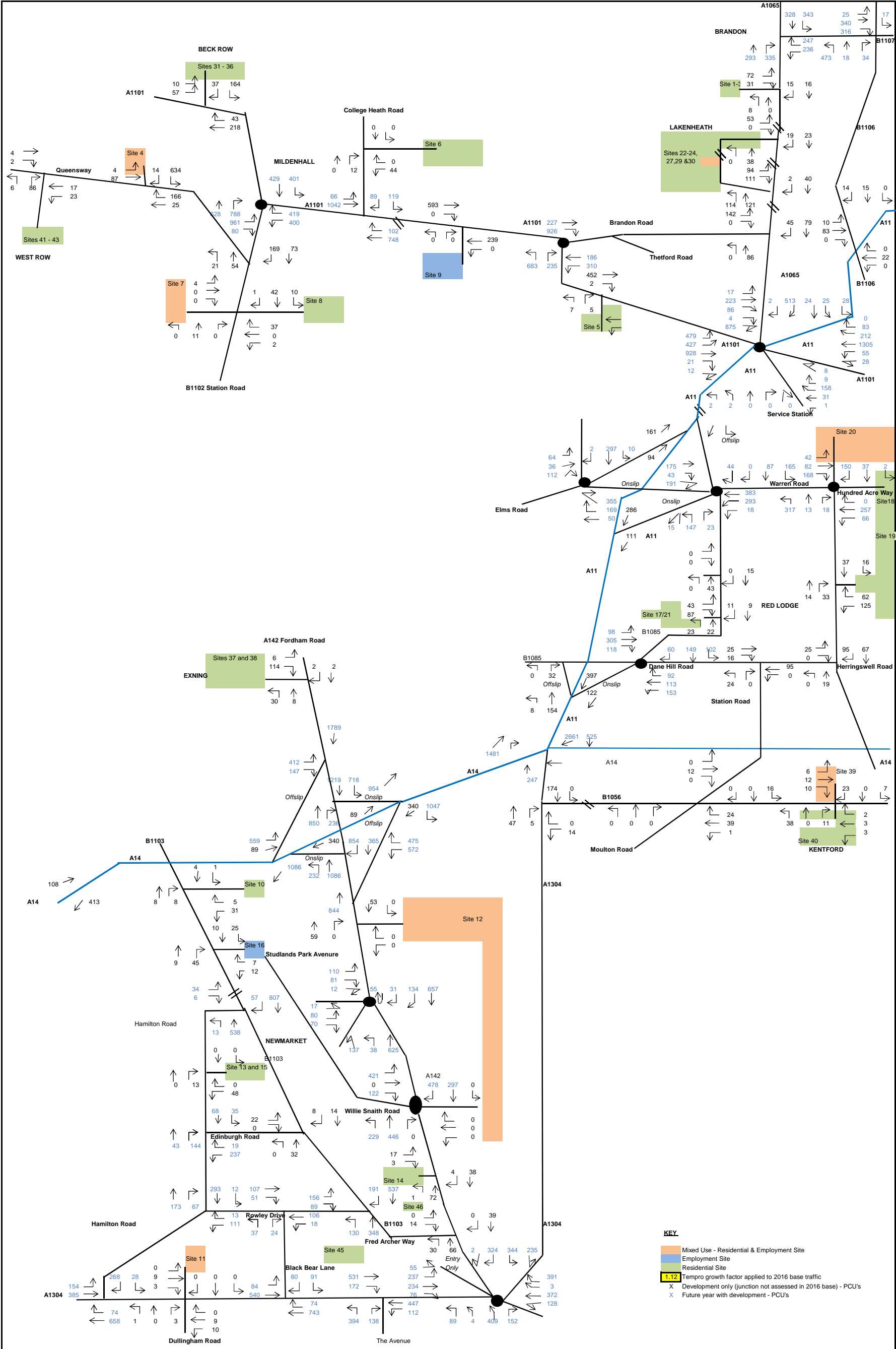
Project	Forest Heath District Council Cumulative Study	<div></div> <div>Figure 1: 2016 Base AM</div>	Ref. 60445024/005	Date 08/11/2016
Client	Suffolk County Council		Drawn Georgia Ingleson	Checked Caroline Brooks



Project	Forest Heath District Council Cumulative Study		Ref. 60445024/005	Date 08/11/2016
Client	Suffolk County Council	Figure 2: 2016 Base PM	Drawn Georgia Ingleson	Checked Caroline Brooks



Project	Forest Heath District Council Cumulative Study	<div>AECOM</div> <div>Figure 4: 2031 Future Year with Development PM</div>	Ref.	60445024/005	Date	08/11/2016
Client	Suffolk County Council		Drawn	Georgia Ingleson	Checked	Caroline Brooks



KEY

- Mixed Use - Residential & Employment Site
- Employment Site
- Residential Site
- 1, 12 Temporo growth factor applied to 2016 base traffic
- X Development only (junction not assessed in 2016 base) - PCU's
- X Future year with development - PCU's

Project	Forest Heath District Council Cumulative Study		Ref. 60445024/005	Date 08/11/2016
Client	Suffolk County Council	Figure 5: 2031 Future Year with Development ST AM	Drawn Georgia Ingleson	Checked Caroline Brooks

Appendix E - Percentage Impact
(difference from that previously
assessed in Traffic Study)

Percentage Impact Assessment Comparison Addendum

Table illustrates that original flows are higher then addendum flows

Junction Number	Junction Name	Approaches	AM								PM							
			Base		Future (excluding Brandon)		%	Future (Including Brandon)		%	Base		Future (excluding Brandon)		%	Future (Including Brandon)		%
1	A1065 London Road / A1065 High Street / B1107 Thetford Road	A1065 London Road	0	0	-4	-9	-1.64%	-4	-9	-1.49%	0	0	-10	-16	-1.87%	-10	-16	-1.82%
		0	-5		-5			0			-6		-6					
		A1065 High Street	0	0	-6	-13	-1.89%	-6	-13	-1.88%	0	0	-6	-12	-1.81%	-6	-12	-1.78%
		0	-7		-7			0			-6		-6					
		B1107 Thetford Road	0	0	-5	-10	-1.98%	-5	-10	-1.94%	0	0	-6	-9	-1.88%	-6	-9	-1.77%
		0	-5		-5			0			-2		-2					
Total	0	0	-32	-32	-1.83%	-32	-32	-1.76%	0	0	-36	-36	-1.85%	-36	-36	-1.79%		
2	B1107 Thetford Road / B1107 Beavor Lane / Lode Street	Lode Street	0	0	0	0	-1.94%	0	0	-1.94%	0	0	-1	-1	-1.93%	-1	-1	-1.93%
		0	0		0			0			0		0					
		B1106	0	0	-9	-10	-1.98%	-9	-10	-1.94%	0	0	-9	-10	-1.88%	-9	-10	-1.78%
		0	0		0			0			0		0					
		A1065	0	0	-1	-12	-1.86%	-1	-12	-1.74%	0	0	-1	-12	-1.93%	-1	-12	-1.88%
		0	-6		-6			0			-8		-8					
		0	-6	-6	0	-4	-4											
		Total	0	0	-23	-23	-1.91%	-23	-23	-1.83%	0	0	-22	-22	-1.91%	-22	-22	-1.84%
3	A1101 Kingsway / A1101 North Terrace / B1102 High Street	A1101 Kingsway	0	0	-7	-8	-0.95%	-7	-8	-0.94%	0	0	-8	-5	-0.39%	-8	-5	-0.39%
		0	-1		-1			0			3		3					
		A1101 North Terrace	0	0	-6	-10	-1.22%	-6	-10	-1.22%	0	0	-7	-10	-0.94%	-7	-10	-0.94%
		0	-4		-4			0			-3		-3					
		B1102 High Street	0	0	1	13	0.90%	1	13	0.90%	0	0	-4	-3	-0.32%	-4	-3	-0.32%
		0	11		11			0			0		0					
Total	0	0	-5	-5	-0.18%	-5	-5	-0.18%	0	0	-18	-18	-0.54%	-18	-18	-0.54%		
4	A1101 Kingsway / Brandon Road / A1101 Bury Road	A1101 Kingsway	0	0	3	6	0.55%	3	6	0.55%	0	0	-1	-4	-0.43%	-1	-4	-0.43%
		0	3		3			0			-3		-3					
		Brandon Road	0	0	-2	-8	-1.56%	-2	-8	-1.53%	0	0	-1	-6	-1.09%	-1	-6	-1.08%
		0	-6		-6			0			-6		-6					
		A1101 Bury Road	0	0	-7	-12	-1.29%	-7	-12	-1.29%	0	0	-1	-5	-0.54%	-1	-5	-0.54%
		0	-5		-5			0			-5		-5					
Total	0	0	-13	-13	-0.52%	-13	-13	-0.52%	0	0	-15	-15	-0.63%	-15	-15	-0.63%		
5	A1101 Kingsway / College Heath Road	A1101 Kingsway East	0	0	-2	-9	-1.01%	-2	-9	-1.00%	0	0	-1	-1	-0.13%	-1	-1	-0.13%
		0	-7		-7			0			0		0					
		College Heath Road	0	0	-2	-3	-1.53%	-2	-3	-1.53%	0	0	-1	-4	-1.77%	-1	-4	-1.77%
		0	-1		-1			0			-2		-2					
		A1101 Kingsway West	0	0	-1	7	0.61%	-1	7	0.61%	0	0	-2	-4	-0.51%	-2	-4	-0.50%
		0	8		8			0			-2		-2					
Total	0	0	-5	-5	-0.24%	-5	-5	-0.23%	0	0	-10	-10	-0.45%	-10	-10	-0.45%		
19	A1304 High Street / Exeter Road / A142 / A1304 Bury Road / B1063	A1304 High Street	0	0	-1	-10	-1.64%	-1	-10	-1.64%	0	0	0	-25	-2.82%	0	-25	-2.82%
		0	-8		-8			0			-19		-19					
		0	0		0			0			-3		-3					
		0	-1		-1			0			-2		-2					
		Exeter Road	0	0	0	0	#DIV/0!	0	0	#DIV/0!	0	0	0	0	#DIV/0!	0	0	#DIV/0!
		0	0		0			0			0		0					
		0	0		0			0			0		0					
		0	0		0			0			0		0					
		A142	0	0	0	-38	-3.99%	0	-38	-3.99%	0	0	0	-23	-2.32%	0	-23	-2.32%
		0	-27		-27			0			-12		-12					
		0	-7		-7			0			-7		-7					
		0	-3		-3			0			-5		-5					
		A1304 Bury Road	0	0	-3	-7	-0.74%	-3	-7	-0.74%	0	0	-5	-10	-1.17%	-5	-10	-1.17%
		0	0		0			0			0		0					
0	-1	-1	0		-1			-1										
0	-3	-3	0		-4			-4										
B1063	0	0	-2	-13	-1.95%	-2	-13	-1.95%	0	0	-1	-12	-1.96%	-1	-12	-1.96%		
0	0		0			0			0		0							
0	-8		-8			0			-7		-7							
0	-3		-3			0			-3		-3							
Total	0	0	-67	-67	-2.16%	-67	-67	-2.16%	0	0	-70	-70	-2.10%	-70	-70	-2.10%		
7	Rowley Drive / Black Bear Lane	Rowley Drive West	0	0	-2	-3	-1.94%	-2	-3	-1.94%	0	0	-3	-4	-1.93%	-3	-4	-1.93%
		0	-1		-1			0			-1		-1					
		Black Bear Lane	0	0	-1	-1	-1.94%	-1	-1	-1.94%	0	0	-1	-2	-1.93%	-1	-2	-1.93%
		0	0		0			0			0		0					
		Rowley Drive East	0	0	0	-2	-1.84%	0	-2	-1.84%	0	0	0	-4	-1.91%	0	-4	-1.91%
		0	-2		-2			0			-4		-4					
Total	0	0	-7	-7	-1.90%	-7	-7	-1.90%	0	0	-10	-10	-1.92%	-10	-10	-1.92%		
8	Black Bear Lane / A1304 High Street	Black Bear Lane	0	0	-1	-3	-1.87%	-1	-3	-1.87%	0	0	-1	-4	-1.91%	-1	-4	-1.91%
		0	-2		-2			0			-3		-3					
		A1304 High Street West	0	0	-2	-11	-1.69%	-2	-11	-1.69%	0	0	-2	-12	-1.48%	-2	-12	-1.48%
		0	-9		-9			0			-10		-10					
		A1304 High Street East	0	0	-1	-11	-1.27%	-1	-11	-1.27%	0	0	-2	-10	-1.56%	-2	-10	-1.56%
		0	-9		-9			0			-7		-7					
Total	0	0	-24	-24	-1.50%	-24	-24	-1.50%	0	0	-26	-26	-1.56%	-26	-26	-1.56%		
9	St Mary's Square / B1103 Mill Hill	St Mary's Square	0	0	0	-2	-0.90%	0	-2	-0.90%	0	0	-3	-6	-1.62%	-3	-6	-1.62%
		0	-2		-2			0			-3		-3					
		B1103 Mill Hill North	0	0	-3	-13	-1.77%	-3	-13	-1.77%	0	0	-2	-10	-1.52%	-2	-10	-1.52%
		0	-10		-10			0			-8		-8					
		B1103 Mill Hill South	0	0	-3	-8	-1.62%	-3	-8	-1.62%	0	0	-4	-14	-1.84%	-4	-14	-1.84%
		0	-5		-5			0			-10		-10					
Total	0	0	-23	-23	-1.57%	-23	-23	-1.57%	0	0	-30	-30	-1.67%	-30	-30	-1.67%		
10	A1304 High Street / The Avenue	The Avenue	0	0	-8	-11	-1.94%	-8	-11	-1.94%	0	0	-4	-7	-1.93%	-4	-7	-1.93%
		0	-3		-3			0			-3		-3					
		A1304 High Street East	0	0	-2	-5	-0.74%	-2	-5	-0.74%	0	0	-9	-16	-1.68%	-9	-16	-1.68%
		0	-3		-3			0			-7		-7					
		A1304 High Street West	0	0	-8	-11	-1.88%	-8	-11	-1.88%	0	0	-3	-5	-1.00%	-3	-5	-1.00%
		0	-2		-2			0			-2		-2					
Total	0	0	-27	-27	-1.46%	-27	-27	-1.46%	0	0	-28	-28	-1.53%	-28	-28	-1.53%		
11	A142 Fordham Road / Studlands Park Avenue / Oaks Drive	A142 Fordham Road North	0	0	-1	-47	-5.13%	-1	-47	-5.13%	0	0	-2	-57	-5.99%	-2	-57	-5.99%
		0	-5		-5			0			-4		-4					
		0	0		0			0			-1		-1					
		0	-41		-41			0			-49		-49					
		Studlands Park Avenue	0	0	-2	-4	-1.94%	-2	-4	-1.94%	0	0	-2	-4	-1.93%	-2	-4	-1.93%
		0	0		0			0			-1		-1					
		0	0		0			0			-1		-1					
		0	-65		-65			0			-46		-46					
		A142 Fordham Road South	0	0	-1	-69	-7.97%	-1	-69	-7.97%	0	0	-2	-51	-4.71%	-2	-51	-4.71%
		0	-4		-4			0			-3		-3					
		0	0		0			0			-1		-1					
		0	-1		-1			0			-2		-2					
Oaks Drive	0	0	-1	-2	-1.14%	-1	-2	-1.14%	0	0	-2	-5	-1.10%	-2	-5	-1.10%		
0	-1		-1			0			-1		-1							
0	0		0			0			0		0							
0	0		0			0			0		0							
Total	0	0	-123	-123	-5.65%	-123	-123	-5.65%	0	0	-116	-116	-4.38%	-116	-116	-4.38%		
12	Willie Snaith Road / A142 Fordham Road	A142 Fordham Road North	0	0	-15	-26	-3.29%	-15	-26	-3.29%	0	0	-10	-15	-1.79%	-10	-15	-1.79%
		0	-11		-11			0			-5		-5					
		Willie Snaith Road	0	0	-7	-9	-1.56%	-7	-9	-1.56%	0	0	1	-1	-0.29%	1	-1	-0.29%
		0	-1		-1			0			-2		-2					
		A142 Fordham Road South	0	0	-1	1	0.10%	-1	1	0.10%	0	0	-3	-6	-0.85%	-3	-6	-0.85%
		0	2		2			0			-3		-3					
Total	0	0	-34	-34	-1.69%	-34	-34	-1.69%	0	0	-21	-21	-1.22%	-21	-21	-1.22%		
13	B1103 Exning Road / Hamilton Road	B1103 Exning Road North	0	0	-1	-15	-1.75%	-1	-15	-1.75%	0	0	0	-12	-1.52%	0	-12	-1.52%
		0	-14		-14			0			-11		-11					
		Hamilton Road	0	0	-1	-1	-1.94%	-1	-1	-1.94%	0	0	-1	-1	-1.93%	-1	-1	-1.93%
		0	0		0			0			0		0					
		B1103 Exning Road	0	0	0	-6	-1.11%	0	-6	-1.11%	0	0	0	-16	-1.60%	0	-16	-1.60%
		0	0		0			0			0		0					

		South	0	0	-6	-6	-1.11%	-6	-6	-1.11%	0	0	-16	-16	-1.63%	-16	-16	-1.63%
		Total	0	0	-22	-22	-1.51%	-22	-22	-1.51%	0	0	-29	-29	-1.63%	-29	-29	-1.63%
14	Hamilton Road / Edinburgh Road	Hamilton Road	0	0	-1	-1	-1.04%	-1	-1	-1.04%	0	0	-1	-1	-1.53%	-1	-1	-1.53%
		Edinburgh Road	0	0	-1	-3	-1.81%	-1	-3	-1.81%	0	0	-1	-8	-1.79%	-1	-8	-1.79%
		South	0	0	-3			-3			0	0	-7			-7		
		Edinburgh Road East	0	0	0	-4	-1.73%	0	-4	-1.73%	0	0	0	-4	-1.74%	0	-4	-1.74%
			0	0	-4			-4			0	0	-4			-4		
		Total	0	0	-9	-9	-1.63%	-9	-9	-1.63%	0	0	-13	-13	-1.74%	-13	-13	-1.74%
16	Hamilton Road / A1304 High Street	Hamilton Road	0	0	-5	-5	-1.62%	-5	-5	-1.62%	0	0	-3	-4	-1.78%	-3	-4	-1.78%
			0	0	0			0			0	0	-2			-2		
		A1304 High Street East	0	0	-1	-7	-0.94%	-1	-7	-0.94%	0	0	0	-2	-0.78%	0	-2	-0.78%
			0	0	-6			-6			0	0	-2			-2		
		A1304 High Street West	0	0	-3	-9	-1.58%	-3	-9	-1.58%	0	0	-7	-17	-1.49%	-7	-17	-1.49%
			0	0	-6			-6			0	0	-10			-10		
		Total	0	0	-20	-20	-1.29%	-20	-20	-1.29%	0	0	-24	-24	-1.41%	-24	-24	-1.41%
20	A11 / B1085 Turnpike Road / Dane Hill Road	B1085	0	0	-2	-10	-1.80%	-2	-10	-1.80%	0	0	-4	-8	-1.54%	-4	-8	-1.54%
			0	0	-6			-6			0	0	-4			-4		
			0	0	-2			-2			0	0	0			0		
		A11 On slip	0	0	0	0	#DIV/0!	0	0	#DIV/0!	0	0	0	0	#DIV/0!	0	0	#DIV/0!
			0	0	0			0			0	0	0			0		
			0	0	0			0			0	0	0			0		
		B1085 Turnpike Road	0	0	-1	-5	-1.50%	-1	-5	-1.50%	0	0	-1	-3	-1.50%	-1	-3	-1.50%
			0	0	-2			-2			0	0	-1			-1		
			0	0	-2			-2			0	0	-1			-1		
		Dane Hill Road	0	0	-1	-5	-1.31%	-1	-5	-1.31%	0	0	-2	-7	-1.67%	-2	-7	-1.67%
	0	0	-2			-2			0	0	-4			-4				
			0	0	-1			-1			0	0	-1			-1		
		Total	0	0	-19	-19	-1.57%	-19	-19	-1.57%	0	0	-17	-17	-1.58%	-17	-17	-1.58%
22 (a&b)	A11 / Newmarket Road / Warren Road / Elms Road	Worlington Road	0	0	0	-6	-1.94%	0	-6	-1.94%	0	0	0	-8	-1.93%	0	-8	-1.93%
			0	0	-6			-6			0	0	-8			-8		
			0	0	0			0			0	0	0			0		
		Warren Road	0	0	3	-1	-0.16%	3	-1	-0.16%	0	0	-1	-5	-0.94%	-1	-5	-0.94%
			0	0	-3			-3			0	0	-3			-3		
			0	0	-1			-1			0	0	-1			-1		
		Elms Road	0	0	-1	-3	-1.42%	-1	-3	-1.42%	0	0	-3	1	0.16%	-3	1	0.16%
			0	0	-1			-1			0	0	-1			-1		
			0	0	-1			-1			0	0	4			4		
		Total	0	0	-10	-10	-0.91%	-10	-10	-0.91%	0	0	-12	-12	-0.92%	-12	-12	-0.91%
			0	0	-2			-2			0	0	0			0		
		Warren Road West	0	0	-1	-7	-1.68%	-1	-7	-1.68%	0	0	-1	-4	-0.64%	-1	-4	-0.64%
			0	0	-4			-4			0	0	-3			-3		
21	Warren Road / Hundred Acre Way	A11 Off-Slip	0	0	-1	-2	-0.52%	-1	-2	-0.52%	0	0	-1	0	0.06%	-1	0	0.06%
			0	0	0			0			0	0	0			0		
			0	0	1			1			0	0	3			3		
			0	0	-2			-2			0	0	-2			-2		
		Warren Road East	0	0	2	10	1.49%	2	10	1.49%	0	0	-1	1	0.25%	-1	1	0.25%
	0	0	8			8			0	0	2			2				
	0	0	0			0			0	0	0			0				
Newmarket Road	0	0	0	-3	-1.44%	0	-3	-1.44%	0	0	0	-3	-1.62%	0	-3	-1.62%		
	0	0	-2			-2			0	0	-3			-3				
			0	0	0			0			0	0	0			0		
		Total	0	0	-1	-1	-0.07%	-1	-1	-0.07%	0	0	-6	-6	-0.39%	-6	-6	-0.39%
18 (a,b&c)	A14 / A142 Fordham Road	Warren Road West	0	0	5	1	0.35%	5	1	0.35%	0	0	14	3	0.48%	14	3	0.48%
			0	0	-1			-1			0	0	-4			-4		
			0	0	-3			-3			0	0	-6			-6		
		Elderberry Road	0	0	21	25	14.98%	21	25	14.98%	0	0	9	10	14.04%	9	10	14.04%
			0	0	4			4			0	0	2			2		
			0	0	0			0			0	0	0			0		
		Hundred Acre Way	0	0	0	-5	-1.65%	0	-5	-1.65%	0	0	0	-2	-1.64%	0	-2	-1.64%
			0	0	-4			-4			0	0	-2			-2		
	0	0	-1			-1			0	0	0			0				
17	A14 / A11 / A1304 Bury Road	Warren Road South	0	0	0	-4	-1.23%	0	-4	-1.23%	0	0	-1	-1	-0.52%	-1	-1	-0.52%
			0	0	1			1			0	0	3			3		
			0	0	-5			-5			0	0	-3			-3		
		Total	0	0	16	16	1.40%	16	16	1.40%	0	0	10	10	0.87%	10	10	0.87%
		A142 Fornham Road North	0	0	-20	-22	-1.11%	-20	-22	-1.11%	0	0	-61	-66	-3.97%	-61	-66	-3.97%
			0	0	-2			-2			0	0	-5			-5		
		A14 Off Slip North	0	0	-4	-23	-3.87%	-4	-23	-3.87%	0	0	-6	-49	-4.56%	-6	-49	-4.56%
			0	0	-18			-18			0	0	-43			-43		
6	A11 / A1101 Mildenhall Road / A1065 Brandon Road / A1101 Bury Road	A142 Fornham Road South	0	0	-28	-60	-5.22%	-28	-60	-5.22%	0	0	-14	-35	-2.20%	-14	-35	-2.20%
			0	0	-32			-32			0	0	-21			-21		
		A142 Fornham Road North	0	0	-2	-20	-1.62%	-2	-20	-1.62%	0	0	-4	-61	-5.54%	-4	-61	-5.54%
			0	0	-18			-18			0	0	-57			-57		
		A142 Off Slip South	0	0	-5	-23	-2.19%	-5	-23	-2.19%	0	0	0	-25	-3.12%	0	-25	-3.12%
			0	0	-19			-19			0	0	-24			-24		
		A142 Fordham Road South	0	0	-60	-123	-8.56%	-60	-123	-8.56%	0	0	-35	-64	-3.45%	-35	-64	-3.45%
			0	0	-64			-64			0	0	-29			-29		