

**Report on Transport Sustainability on behalf of Save Rural
Codicote (SRC)**

Railton TPC Ltd

**41 York Road
Newbury
Berkshire RG14 7NJ
T. 07500 557255**

**Report Ref: Codicote 02
Version: 01C**

**Prepared by: Bruce Bamber BSc MA MSc CMILT
MCIHT**

Date: January 2018

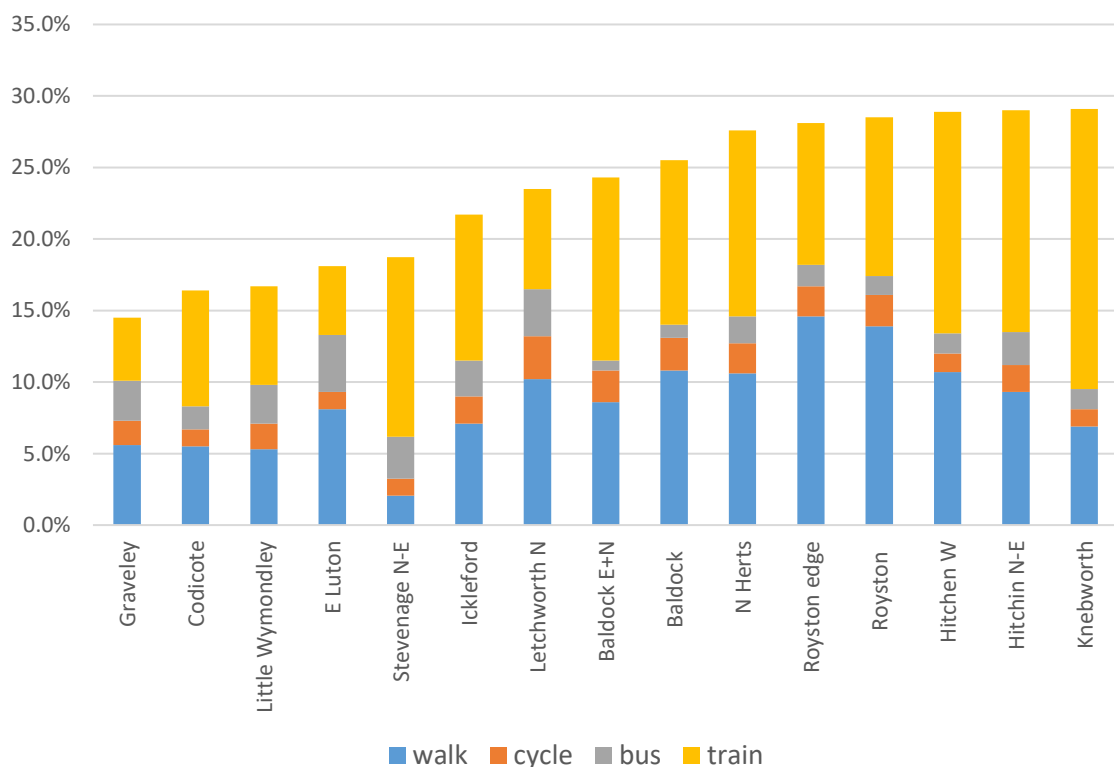
Introduction

1. This report deals with the transport sustainability of Codicote as a potential location for major development and has been prepared on behalf of Save Rural Codicote (SRC).
2. This report draws on information submitted in the Railton Report, 'North Hertfordshire Local Plan Preferred Housing Allocations: Representations on Behalf of Save Rural Codicote (SRC): Transport' dated 23/11/16.

Transport Sustainability

3. The 2011 census provides information on the existing mode of travel to work. The following graph summarises the level of sustainable travel from Codicote, North Hertfordshire as a whole and a number of the other proposed housing allocation areas. Raw data are provided in **Annex 1**:

Graph 1: Existing Level of Travel by Sustainable Modes



4. Codicote displays almost the lowest level of sustainable travel of all the areas within North Hertfordshire. If it were not for a level of train use significantly higher than Graveley, Codicote would have the lowest overall level of sustainable travel. Since

Codicote's nearest train station is not accessible on foot or by bicycle, almost all train journeys from Codicote will involve some element of car travel.

Availability of Facilities

5. Codicote has some local facilities including local food retail, a pharmacy, dry cleaners, post office, pubs and takeaways, a primary school, a recreation ground, a community centre, a church and a café (located at the garden centre north of the village).
6. The village does not have a GP surgery or dentist, the nearest being 2.1 miles away in Welwyn to the south.
7. People living in Codicote must travel in order to reach the following key higher order facilities:
 - A supermarket (nearest Stevenage, 5 miles);
 - A hospital (nearest Stevenage, 9 miles);
 - A secondary school (nearest Monk's Walk School Welwyn Garden City, 3.6 miles). A school bus is provided but this does not cater for any pupils who participate in any before or after school activities;
 - Other further or higher education;
 - Comparison and other non-food shopping (nearest Stevenage, 6 miles);
 - Employment (Hatfield, 8 miles, Welwyn Garden City, 6 miles, Stevenage, 6 miles, St Albans, 9 miles and London);
 - Higher order leisure and recreation facilities (nearest cinema Stevenage, 7 miles, nearest swimming pool Stevenage, 5 miles);
 - Other personal business (Stevenage, Hatfield, Welwyn Garden City, St Albans, Luton).
8. It is concluded that although Codicote is provided with some local facilities, residents must travel in order to reach all higher order facilities.

Walking

9. Walking offers an opportunity to access local services. However, there are areas within the village where pedestrian movement is hindered by a lack of footway provision, such as along Cowards Lane, by the presence of significant numbers of HGV movements such as along St Albans Road in the vicinity of the primary school and by high vehicle flows that limit opportunities to cross roads, particularly in relation to the B656 through the centre of the village.
10. Pedestrian movement, particularly that of those with pushchairs or with mobility impairments is hindered along the B656 in places by the presence of cars forced to park partly on the footways to avoid the risk of damage from passing traffic.

Cycling

11. Stevenage and Welwyn Garden City are potentially accessible by bicycle. However, the B656 is not conducive to cycling due to its constrained width, the speed and volume of traffic, the presence of bends that restrict forward visibility and the number of side roads and private accesses. The route to Knebworth (Park Lane) comprises poor quality country lanes that carry a significant volume of traffic and present a hostile environment for cycling.
12. It is concluded that the nature of the local road network serves as a significant deterrent to cycling as confirmed by observed travel patterns (1.2% cycle mode share from 2011 census).

Access to Public Transport

Buses

13. There are currently three bus services in Codicote. Details are provided in **Annex 2**. Services between Codicote and some surrounding urban areas are, at best, two hourly. There are no evening or Sunday services and there is a reduced service on Saturdays. No buses go to the nearest hospital.
14. Existing bus provision is therefore poor and does not provide a convenient or accessible service for the vast majority of journey types.

Trains

15. There are no railway stations within walking distance of Codicote. The nearest station is at Knebworth, 3 miles from Codicote. The 44/45 bus service stops close to the station but the service is infrequent. The route to Knebworth is not conducive to cycling, comprising narrow country lanes with restricted forward visibility carrying a significant amount of 2-way traffic. Another station is available at Welwyn North, 3.4 miles from Codicote. This is not accessible on foot, by bicycle or by bus.
16. Car parking at Knebworth and Welwyn North is currently under great stress to the extent that many drivers wishing to access rail services are forced to seek inappropriate parking elsewhere on surrounding streets and in residential areas. Any additional rail users from Codicote would be forced to park inappropriately around local stations or be forced to drive further afield to access rail services with available parking.

Scope to Improve Public Transport Provision

17. The service no. 44/45 is publicly subsidised service and the 314/315 is a largely commercial service.

18. The existing bus mode share for Codicote is very low (1.6%) and the increased revenue from additional passengers associated with development of several hundred houses will not be sufficient to lead to any increase in level of the service.
19. There is no opportunity to increase Codicote's accessibility by train.

Quality of Highway Network

20. The B656 through Codicote suffers from conflict between through traffic, parked and manoeuvring vehicles and pedestrian movements. Long queues of stationary or slow-moving traffic through the village are not unusual at peak times. Although there has been some suggestion that these issues can be alleviated, it is unlikely that significant improvements will be achievable since many residents have no alternative place to park and the B656 serves as the only car park supporting the vitality and viability of local shops and services.
21. Drivers End Lane and Park Lane to the east and St Albans Road to the west are used as rat runs. Any significant development in Codicote will result in a significant increase in the use of country lanes as rat runs to strategic destinations such as Stevenage, Luton, St Albans and Hemel Hempstead. The large proposed housing allocations at Knebworth will also lead to significant increases in traffic using the Park Lane route to access the B656. Earlier strategic model runs reported in Aecom's Technical Note, NHDC Housing Assessment Transport Modelling Report 2014 Update 2.1' identifies the Park Lane route between Codicote and Knebworth as operating over 100% capacity in 2031. Subsequent models omit any reference to link capacity so the future impact on this sensitive link is not reported.

Conclusion

22. On the basis of available evidence it is concluded that Codicote is a poor location for any major housing development for the following reasons:
 1. Codicote has almost the lowest level of sustainable travel of all identified possible development areas;
 2. Residents in Codicote must travel to access all higher order facilities (employment, secondary schools, leisure, bulk food and comparison shopping, hospital);
 3. Walking and cycling are not realistic modes of travel to anywhere outside of the village;
 4. Bus services in the village are poor and would not be improved with development;

5. Train services are only realistically accessible by car and parking at local stations is already operating over capacity;
 6. The B656 through Codicote is congested and there is little prospect that the existing conflicts between vehicles and pedestrians can be suitably mitigated without significant adverse impacts on local residents or village facilities;
 7. Development at Codicote (and at Knebworth) will increase rat-running on the sensitive Park Lane east-west route.
23. It is concluded that any major development at Codicote will 'build in' fundamentally unsustainable development having lasting adverse impacts that are highly resistant to mitigation by virtue of the village's poor locational characteristics.

Annex 1: Mode of Travel to Work

Mode of Travel to Work (2011 Census)

area	train	bus	m/c	drive	pass	cycle	walk	all sustainable (walk, cycle, PT)
Graveley	4.4%	2.8%	0.6%	81.7%	3.3%	1.7%	5.6%	14.5%
Codicote	8.1%	1.6%	1.1%	78.3%	4.2%	1.2%	5.5%	16.4%
Little Wymondley	6.9%	2.7%	0.9%	78.3%	4.2%	1.8%	5.3%	16.7%
East of Luton	4.8%	4.0%	0.6%	75.5%	5.8%	1.2%	8.1%	18.1%
Stevenage north-east	12.6%	2.9%	0.5%	76.3%	4.4%	1.2%	2.1%	18.7%
Ickleford	10.2%	2.5%	1.1%	71.1%	6.1%	1.9%	7.1%	21.7%
Letchworth N	7.0%	3.3%	0.9%	69.7%	5.9%	3.0%	10.2%	23.5%
Baldock east and north	12.8%	0.7%	0.5%	70.5%	4.6%	2.2%	8.6%	24.3%
Baldock	11.5%	0.9%	0.6%	69.2%	4.6%	2.3%	10.8%	25.5%
North Hertfordshire	13.0%	1.9%	0.7%	67.1%	4.7%	2.1%	10.6%	27.6%
Royston periphery	9.9%	1.5%	0.5%	65.8%	5.5%	2.1%	14.6%	28.1%
Royston	11.1%	1.3%	0.5%	66.4%	4.7%	2.2%	13.9%	28.5%
Hitchin west	15.5%	1.4%	0.5%	66.9%	3.8%	1.3%	10.7%	28.9%
Hitchin north-east	15.5%	2.3%	0.6%	64.6%	5.7%	1.9%	9.3%	29.0%
Knebworth	19.6%	1.4%	0.4%	66.2%	4.1%	1.2%	6.9%	29.1%

Annex 2: Bus Services



The information on this timetable is expected to be valid until at least 31st January 2018. Where we know of variations, before or after this date, then we show these at the top of each affected column in the table.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Mondays to Fridays

Service	44	44	44	45	45
Luton, Luton Station Interchange (Stand 5)	0900	1100	1310	1530	1750
Luton Town Centre, Church Street (Stop C9)	0902	1102	1312	1532	1752
Vauxhall, o/s Luton Airport Parkway Rail Station	0906	1106	1316	1536	1756
Newmill End, adj Chiltern Green Road				1541	1801
Newmill End, opp Chiltern Green Road	0911	1111	1321		
East Hyde, opp Viaduct Cottages				1544	1804
Harpenden, opp The Red Cow				1547	1807
Harpenden, The George (Stop D)				1553	1813
Harpenden, Harpenden Railway Station (Stop B)				1554	1814
Batford, adj The Malta				1559	1819
Marshalls Heath, opp Cherry Trees Restaurant				1603	1823
Blackmore End, adj The Broadway				1610	1830
Chiltern Green, opp Laburnum Farm	0915	1115	1325		
Peter's Green, opp The Green	0917	1117	1327		
Kimpton, o/s The Boot	0926	1126	1336	1617	1837
Codicote, opp The Bell Inn	0934	1134	1344	1625	1845
Nup End, on The Green	0938	1138	1348	1629	1849
Old Knebworth, nr Playing Field	0940	1140	1350	1631	1851
Knebworth, Knebworth Railway Station (Stop A)	0945	1145	1355	1636	1856
Knebworth, Station Road (Stop C)	0946	1146	1356	1637	1857
Stevenage, Bus Station (Stop D)	0952	1152	1402	1643	1903

Saturdays

Service	44	44	44	44
Peter's Green, adj The Green	0906	1106	1306	1506
Chiltern Green, adj Laburnum Farm	0908	1108	1308	1508
Newmill End, adj Chiltern Green Road	0912	1112	1312	1512
East Hyde, opp Viaduct Cottages	0913	1113	1313	—
Kimpton, o/s The Boot	0927	1127	1327	—
Codicote, opp The Bell Inn	0935	1135	1335	—
Nup End, on The Green	0939	1139	1339	—
Old Knebworth, nr Playing Field	0941	1141	1341	—
Knebworth, Knebworth Railway Station (Stop A)	0946	1146	1346	—
Knebworth, Station Road (Stop C)	0947	1147	1347	—
Stevenage, Bus Station (Stop D)	0953	1153	1353	—

Sundays

no service



The information on this timetable is expected to be valid until at least 31st January 2018. Where we know of variations, before or after this date, then we show these at the top of each affected column in the table.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Mondays to Fridays

	Service	45	44	44	44	44
Stevenage, Bus Station (Stop J)		0730	1000	1200	1430	1650
Knebworth, Station Road (Stop D)		0736	1006	1206	1436	1656
Knebworth, Knebworth Railway Station (Stop B)		0737	1007	1207	1437	1657
Old Knebworth, opp Playing Field		0742	1012	1212	1442	1702
Nup End, opp The Green		0744	1014	1214	1444	1704
Codicote, nr The Bell Inn		0748	1018	1218	1448	1708
Kimpton, opp The Boot		0756	1026	1226	1456	1716
Blackmore End, opp The Broadway		0804				
Marshalls Heath, adj Cherry Trees Restaurant		0810				
Batford, opp The Malta		0815				
Harpenden, Harpenden Railway Station (Stop A)		0819				
Harpenden, The George (Stop C)		0821				
Harpenden, adj The Red Cow		0824				
Peter's Green, adj The Green			1036	1236	1506	1726
Chiltern Green, adj Laburnum Farm			1038	1238	1508	1728
Newmill End, opp Chiltern Green Road		0832	1042	1242	1512	1732
Vauxhall, o/s Luton Airport Parkway Rail Station		0837	1047	1247	1517	1737
Luton Town Centre, Church Street (Stop C3)		0841	1051	1251	1521	1741
Luton, Luton Station Interchange (Stand 5)		0843	1053	1253	1523	1743

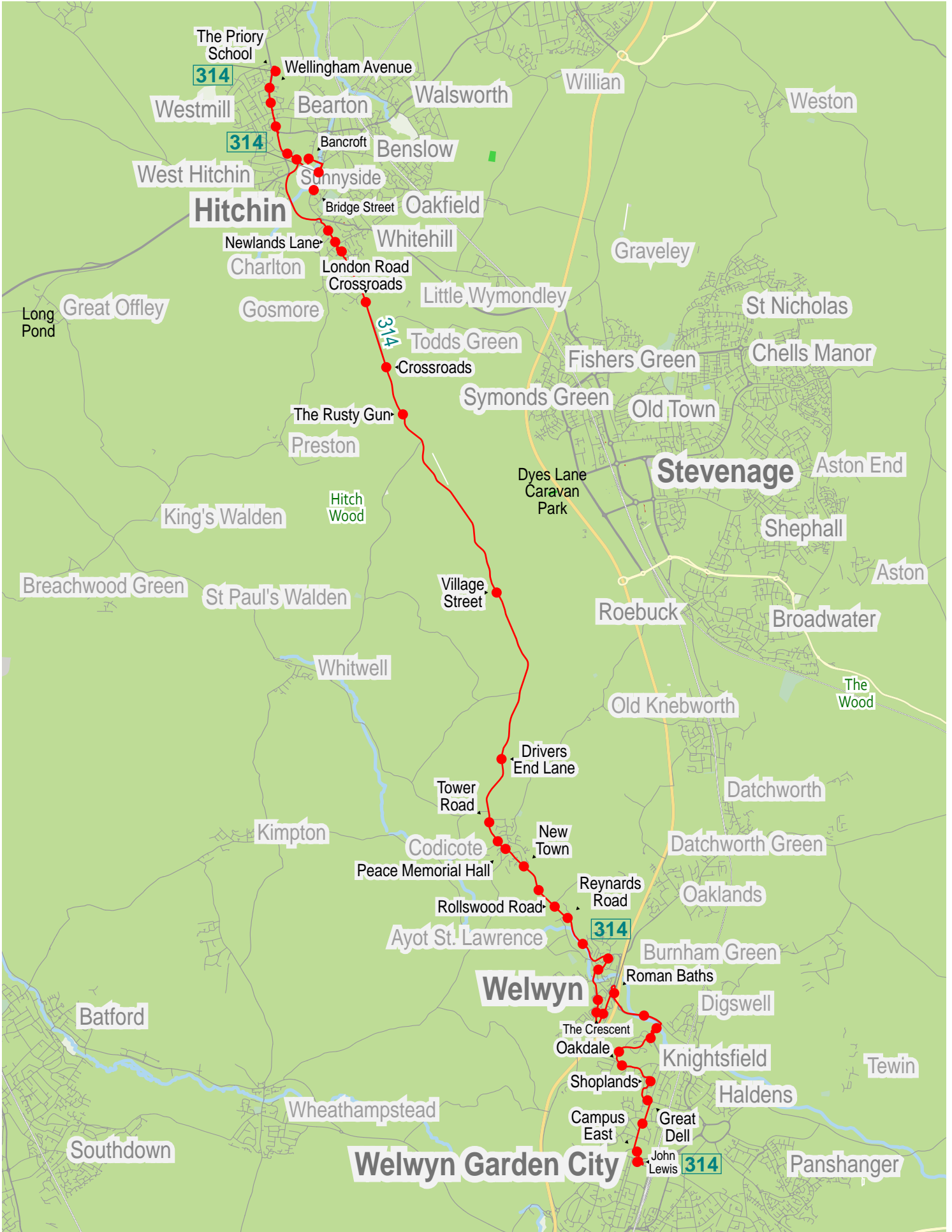
Saturdays

	Service	44	44	44
Stevenage, Bus Station (Stop J)		1030	1230	1430
Knebworth, Station Road (Stop D)		1036	1236	1436
Knebworth, Knebworth Railway Station (Stop B)		1037	1237	1437
Old Knebworth, opp Playing Field		1042	1242	1442
Nup End, opp The Green		1044	1244	1444
Codicote, nr The Bell Inn		1048	1248	1448
Kimpton, opp The Boot		1056	1256	1456
Peter's Green, adj The Green		1106	1306	1506
Chiltern Green, adj Laburnum Farm		1108	1308	1508
Newmill End, adj Chiltern Green Road		1112	1312	1512

Sundays

no service

Route map for Centrebus South service 314 (outbound)



2.5 km

5 km

7.5 km

10 km



The information on this timetable is expected to be valid until at least 31st January 2018. Where we know of variations, before or after this date, then we show these at the top of each affected column in the table.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Mondays to Fridays

Service	315	315	314	314	314	314	315	314	314	314	315
Service Restrictions											
Notes											
1											
G											
Westmill Estate, o/s The Priory School	—	—	—	—	—	—	—	—	1545	—	—
Hitchin, opp Waitrose	—	—	—	—	—	—	—	—	1555	—	—
Hitchin, St Mary's Square (Stop L)	—	—	0850	1000	1200	1400	—	1600	1600	1740	—
Hitchin, Bancroft (Stop G)	—	—	0852	1002	1202	1402	—	1602	1602	1742	—
St Ippolyts, London Road Crossroads (S-bound)	—	—	0858	1008	1208	1408	—	1608	1608	1748	—
Langley, nr Village Street	—	—	0904	1014	1214	1414	—	1614	1614	1754	—
Kimpton, Hampden (S-bound)	—	0756	—	—	—	—	1559	—	—	—	1759
Kimpton, o/s The Boot	—	0757	—	—	—	—	1600	—	—	—	1800
Codicote, adj Tower Road	0700	0805	0909	1019	1219	1419	—	1619	1619	1759	—
Codicote, nr The Bell Inn	0702	0807	0910	1020	1220	1420	—	1620	1620	1800	—
Welwyn, opp St Mary's Church	0707	0812	0916	1026	1226	1426	1612	1626	1626	1806	1812
Welwyn, The Frythe (E-bound)	0710	0815	—	—	—	—	—	—	—	—	—
Welwyn, adj Roman Baths	0713	0818	0918	1030	1230	1430	1615	1630	1630	1810	1815
Digswell Park, opp Monks Walk School	0716	0822	—	1034	1234	1434	1618	1634	1634	—	1818
Welwyn Garden City, John Lewis (Stop 8)	0723	—	—	1040	1240	1440	1625	1640	1640	—	1825
Welwyn Garden City, nr Harwood Hill	—	0825	—	—	—	—	—	—	—	—	—
Welwyn Garden City, Business Parks South (SW-bound)	—	0828	—	—	—	—	—	—	—	—	—
Welwyn Garden City, Waitrose (W-bound)	—	0833	—	—	—	—	—	—	—	—	—

Saturdays

Service	315	314	314	314	314	314	
Hitchin, St Mary's Square (Stop L)	—	0850	1000	1200	1400	1600	1740
Hitchin, Bancroft (Stop G)	—	0852	1002	1202	1402	1602	1742
St Ippolyts, London Road Crossroads (S-bound)	—	0858	1008	1208	1408	1608	1748
Langley, nr Village Street	—	0904	1014	1214	1414	1614	1754
Codicote, adj Tower Road	—	0909	1019	1219	1419	1619	1759
Codicote, nr The Bell Inn	—	0910	1020	1220	1420	1620	1800
Welwyn, opp St Mary's Church	0812	0916	1026	1226	1426	1626	1806
Welwyn, The Frythe (E-bound)	0815	—	—	—	—	—	—
Welwyn, adj Roman Baths	0818	0918	1030	1230	1430	1630	1810
Digswell Park, opp Monks Walk School	0822	—	1034	1234	1434	1634	—
Welwyn Garden City, John Lewis (Stop 8)	0829	—	1040	1240	1440	1640	—

Sundays

no service

Service Restrictions: 1 - from 3.1.18, not 12.2.18 to 16.2., 3.4. to 13.4.

Notes: G - Hertfordshire Schooldays only



The information on this timetable is expected to be valid until at least 31st January 2018. Where we know of variations, before or after this date, then we show these at the top of each affected column in the table.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Mondays to Fridays

Service	315	314	314	314	314	314	314	314	315	314	315	315
Service Restrictions	1		1		2							
Notes	G		G		H							
Welwyn Garden City, Waitrose (Stop 7)	—	—	—	—	—	—	—	—	—	—	1720	—
Welwyn Garden City, Business Parks North (NE-bound)	—	—	—	—	—	—	—	—	—	—	1723	—
Welwyn Garden City, opp Harwood Hill	—	—	—	—	—	—	—	—	—	—	1728	—
Welwyn Garden City, John Lewis (Stop 8)	0725	—	—	—	—	1050	1250	1450	1525	1650	—	1830
Digswell Park, nr Monks Walk School	0732	—	—	—	—	1056	1256	1456	1532	1656	1732	1837
Welwyn, nr Fire Station	0735	—	—	—	—	1100	1300	1500	1535	1700	1735	1840
Welwyn, adj Roman Baths	—	—	—	—	0925	—	—	—	—	—	—	—
Welwyn, The Frythe (E-bound)	—	—	—	—	—	—	—	—	1538	—	1738	1843
Welwyn, nr St Mary's Church	0738	0740	0741	0756	0930	1105	1305	1505	1543	1705	1743	1848
Codicote, opp The Bell Inn	—	0748	0749	0802	0936	1111	1311	1511	1546	1711	1747	1851
Codicote, opp Tower Road	—	0749	0750	0803	0937	1112	1312	1512	1548	1712	1749	1853
Kimpton, Hampden (S-bound)	0751	—	—	—	—	—	—	—	1557	—	1758	—
Langley, opp Village Street	—	0756	0757	0808	0942	1117	1317	1517	—	1717	—	—
St Ippolyts, London Road Crossroads (N-bound)	—	0803	0804	0814	0948	1123	1323	1523	—	1723	—	—
Hitchin, St Mary's Square (Stop L)	—	0815	0815	0820	0954	1129	1329	1529	—	1729	—	—
Hitchin, Bancroft (Stop G)	—	0817	0817	—	—	—	—	—	—	—	—	—
Westmill Estate, o/s The Priory School	—	0825	0825	—	—	—	—	—	—	—	—	—

Saturdays

Service	314	314	314	314	314	315	314
Welwyn Garden City, John Lewis (Stop 8)	—	—	1050	1250	1450	1630	1650
Digswell Park, nr Monks Walk School	—	—	1056	1256	1456	1637	1656
Welwyn, nr Fire Station	—	—	1100	1300	1500	1640	1700
Welwyn, adj Roman Baths	—	0925	—	—	—	—	—
Welwyn, The Frythe (E-bound)	—	—	—	—	—	1643	—
Welwyn, nr St Mary's Church	0821	0930	1105	1305	1505	1648	1705
Codicote, opp The Bell Inn	0827	0936	1111	1311	1511	—	1711
Codicote, opp Tower Road	0828	0937	1112	1312	1512	—	1712
Langley, opp Village Street	0833	0942	1117	1317	1517	—	1717
St Ippolyts, London Road Crossroads (N-bound)	0839	0948	1123	1323	1523	—	1723
Hitchin, St Mary's Square (Stop L)	0845	0954	1129	1329	1529	—	1729

Sundays

no service

Service Restrictions: 1 - from 3.1.18, not 12.2.18 to 16.2., 3.4. to 13.4.
2 - only 2.1.18, 12.2. to 16.2., 3.4. to 13.4.

Notes: G - Hertfordshire Schooldays only
H - Hertfordshire School Holidays only