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**EVERY JOURNEY MATTERS**

# Review of bus services in Harold Hill

TfL Surface Transport – Buses Directorate

September 2016



# Current Bus Travel in Harold Hill



# Contents

- Overview of present bus services and travel patterns
- New development in Harold Hill including the Elizabeth line and impact on buses
- Proposed network changes
- Summary



# Harold Hill Demographics

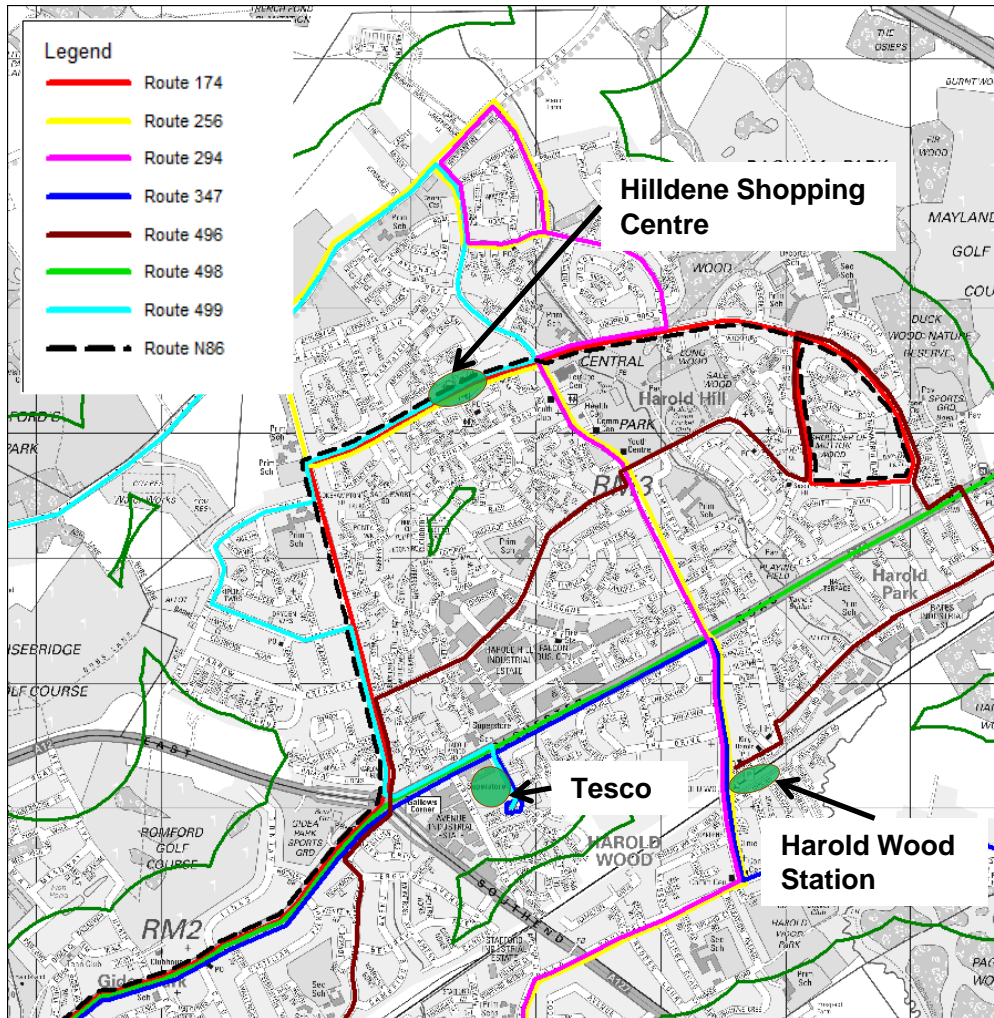
	2001	2011	Change 2001-2011
Total Population	25,781	27,253	1,472
Age 0-15	5,776	6,170	394
Age 16-29	4,071	4,977	906
Age 30-44	5,724	5,761	37
Age 45-64	5,415	6,335	920
Age 65+	4,795	4,010	-785
Total number of households	11,053	11,270	217
Car Ownership (% households)	63%	66%	3%
People in Employment	17,264	18,901	1,637
Travel to work by bus or train (% working population)	15%	16%	1%

- Figures based on Heaton and Gooshays wards
- Data obtained from ONS and Havering Intelligence

- The total population of Harold Hill has increased by 1,472 (5.7%) between 2001-2011.
- 16-29 and 45-64 age groups saw the biggest increase, with the 65 and over population decreasing over the period.
- The total number of people in employment increased by 1,637 (9.4%).
- Household car ownership also increased over the 10 year period, however the % of commuters using train or bus also saw a slight increase.



# Overview of Bus Network in Harold Hill



Digital Map Data © Collins Bartholomew Ltd 2016

Routes	Frequency	Bus Type	Start-Finish
<b>174</b>	7.5 bph	DD	Dagenham-Dagnam Park Square
<b>256</b>	6 bph	SD	St George's Hospital-Noak Hill
<b>294</b>	5 bph	DD	Havering Park-Noak Hill
<b>347</b>	4 return jnys*	SD	Ockendon Station-Romford Station
<b>496</b>	4 bph	DD	Harold Wood Station-Queens Hospital
<b>498</b>	3 bph	DD	Brentwood-Queens Hospital
<b>499</b>	3 bph	SD	Gallows Corner-Becontree Heath
<b>N86</b>	2 bph**	DD	Stratford-Dagnam Park Square

Dark green lines represent a 400m distance from the nearest bus stop

bph= buses per hour

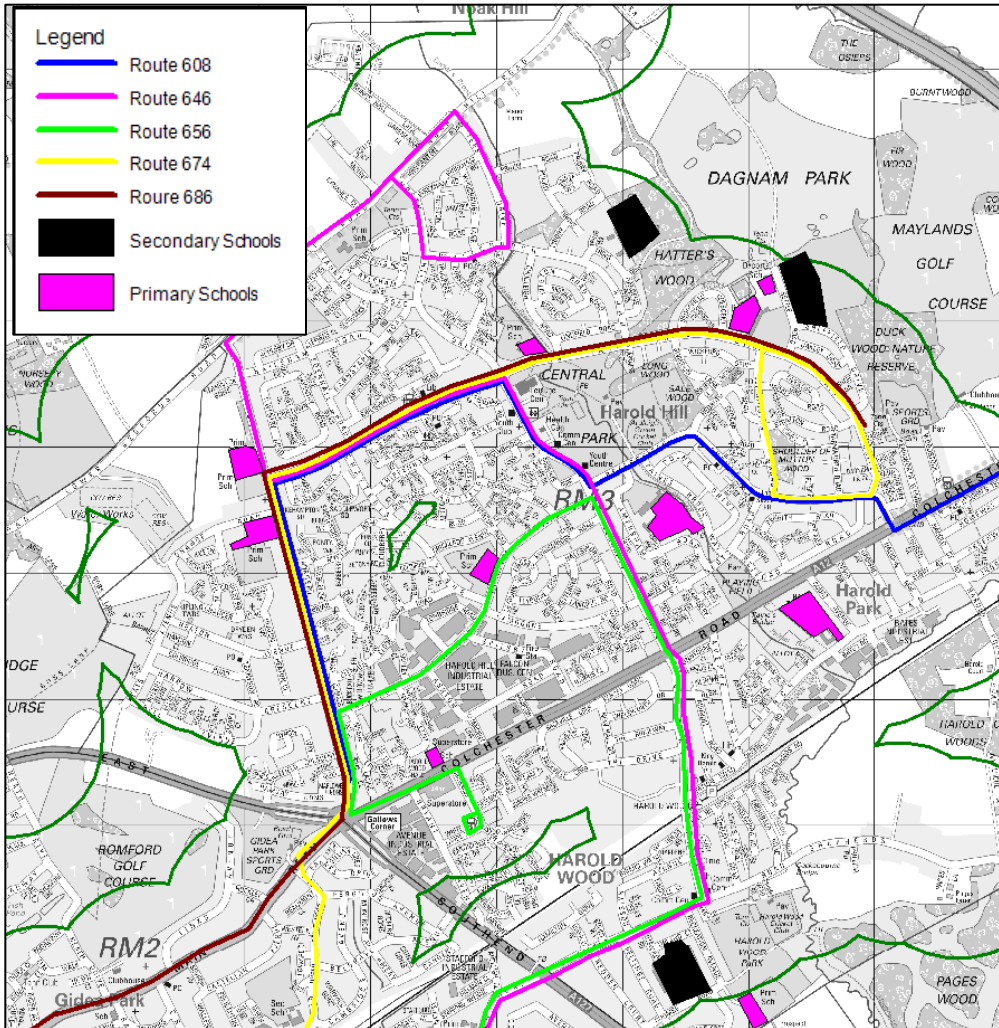
DD=Double Deck, SD=Single Deck

\*Route 347 runs Mon-Sat daytime only

\*\*Route N86 is a night route



# Overview of School Bus Network in Harold Hill



Routes	Journeys	Bus Type	Start-Finish	Key Schools
608	3 AM/ 3 PM	DD	Gallows Corner- Shenfield High School	Shenfield High School/ Brentwood County High School
646	3 AM/ 3 PM	SD	Noak Hill- Cranham	Ardleigh Green/ Redden Court School
656	2 AM/ 2 PM	DD	Gallows Corner- Emerson Park School	Redden Court/Ardleigh Green/ Emerson Park
674	1 AM/ 1 PM	DD	Romford Station- Dagnam Park Square	Royal Liberty School/ Frances Bardsley Academy
686	2 AM/ 2 PM	DD	Romford Station- St Edward's School	St Edward's School

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# Reliability of Services in Harold Hill (Financial Year 2015/16)

Route	01/04/15-26/06/15	27/06/15-18/09/15	19/09/15-08/01/16	09/01/16-31/03/16	Current Annual Average	Current QIC Minimum Standard
High Frequency Routes: Excess wait time (minutes)						
174	<b>1.15</b>	1.00	<b>1.74</b>	<b>1.32</b>	<b>1.30</b>	1.00
256	0.52	0.64	<b>1.17</b>	<b>0.88</b>	<b>0.80</b>	0.80
294	0.64	0.67	<b>1.26</b>	<b>0.92</b>	0.87	0.90

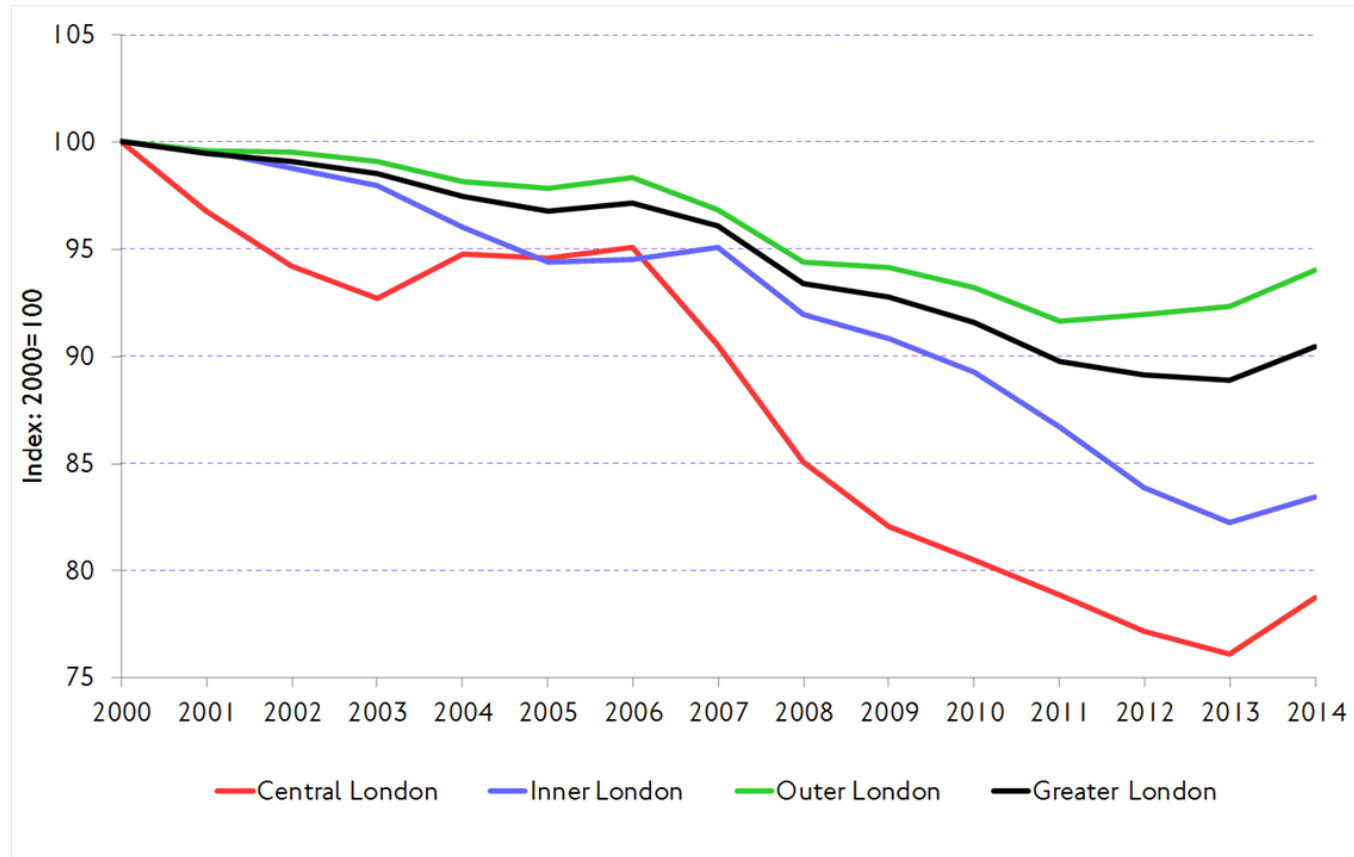
Route	13/09/14-02/01/15	03/01/15-31/03/15	01/04/15-26/06/15	27/06/15-18/09/15	Current Annual Average	Current QIC Minimum Standard
Low Frequency Routes: % Buses on time						
347	<b>80.6</b>	<b>80.6</b>	<b>77.9</b>	<b>79.8</b>	<b>79.7</b>	86.0
496	<b>84.2</b>	87.9	<b>85.8</b>	89.8	86.9	86.0
498	<b>80.7</b>	86.4	<b>85.1</b>	89.8	<b>85.5</b>	86.0
499	<b>79.3</b>	84.8	<b>73.5</b>	<b>80.2</b>	<b>79.5</b>	82.0
N86	93.6	<b>89.5</b>	<b>75.2</b>	92.2	<b>87.7</b>	100.0

- Values which miss reliability targets are in bold.
- The 174 has consistently missed its reliability target in the last 4 quarters.
- The 256 and 294 performed reliably in the last 4 quarters.
- Reliability targets for the 496 and 498 were changed from 82% to 86% in October 2015 and June 2015 respectively.
- Traffic has grown in outer London following a period of decline (see below). This is likely to impact bus service performance.





# Trends in Road Traffic in London



Source: DfT, also referenced in TfL's 'Travel in London Report' 2014

- Outer London traffic levels have been rising since 2011



# Overview of Daily bus trips in Harold Hill

Total daily trips:  
20,800

300 (1.5%)  
trips to/from  
Rise Park

7,000 (33.5%)  
trips to/from  
Romford Town  
Centre, of which  
2,900 (15%) are  
to/from Romford  
Station, and 350  
(1.7%) to/from  
Queens Hospital

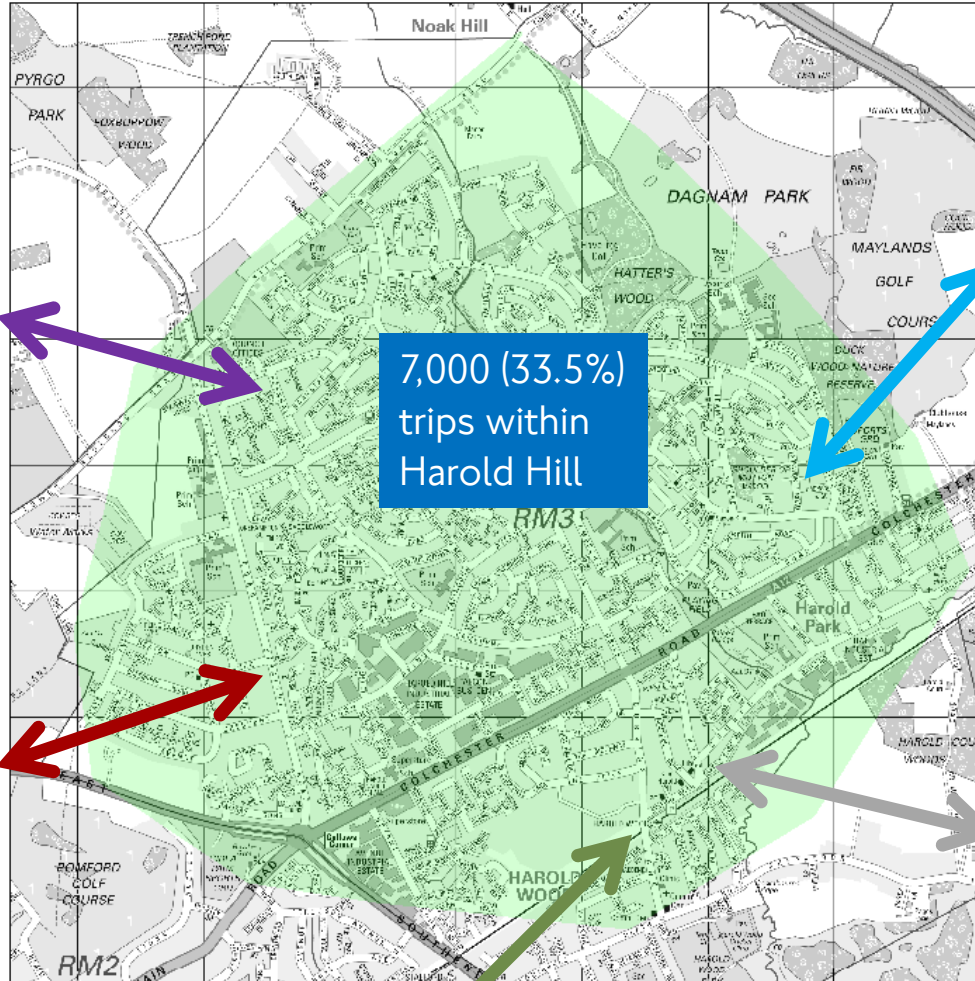
2,400 (11.5%)  
trips to/from  
Gidea Park

7,000 (33.5%)  
trips within  
Harold Hill

400 (2%) trips to/from  
Brentwood/outside  
GLA

2,200  
(10.5%) other  
trips

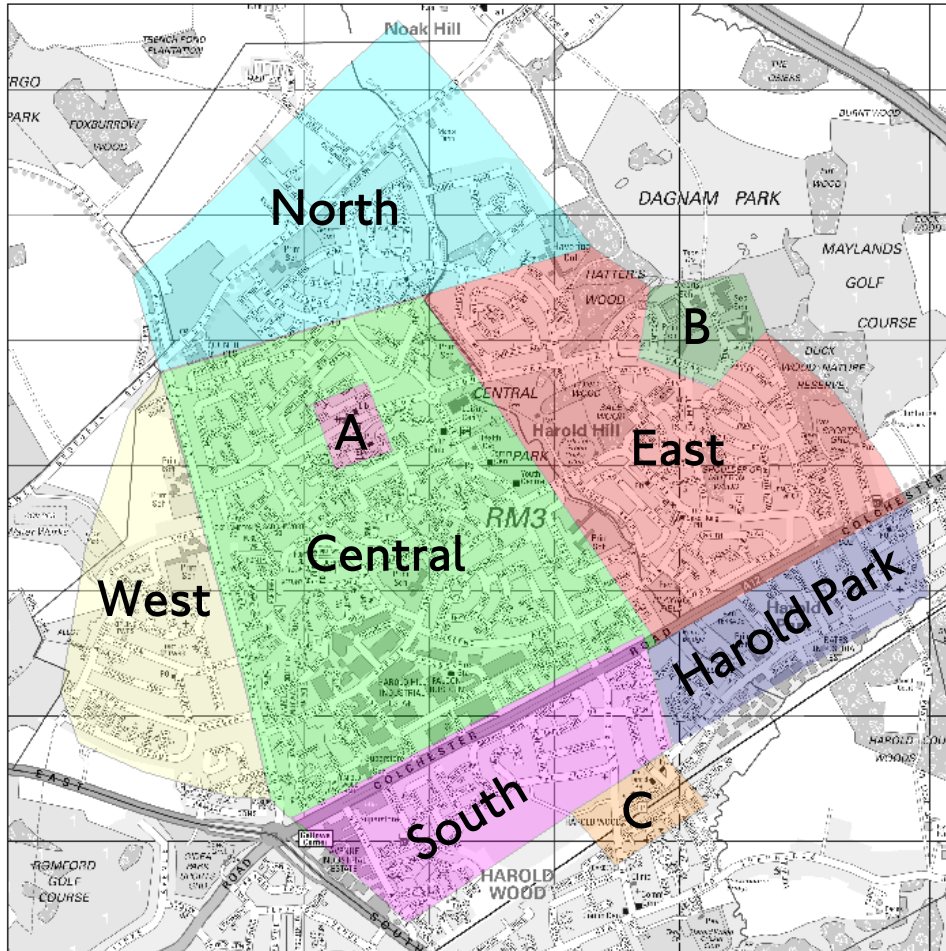
1,700 (8%) trips to/from  
south of Harold Wood  
(e.g. Emerson Park)



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# Harold Hill (Location of Zones)



Zone A: Hildene Shopping Centre

Zone B: Harold Hill Learning Village

Zone C: Harold Wood Station

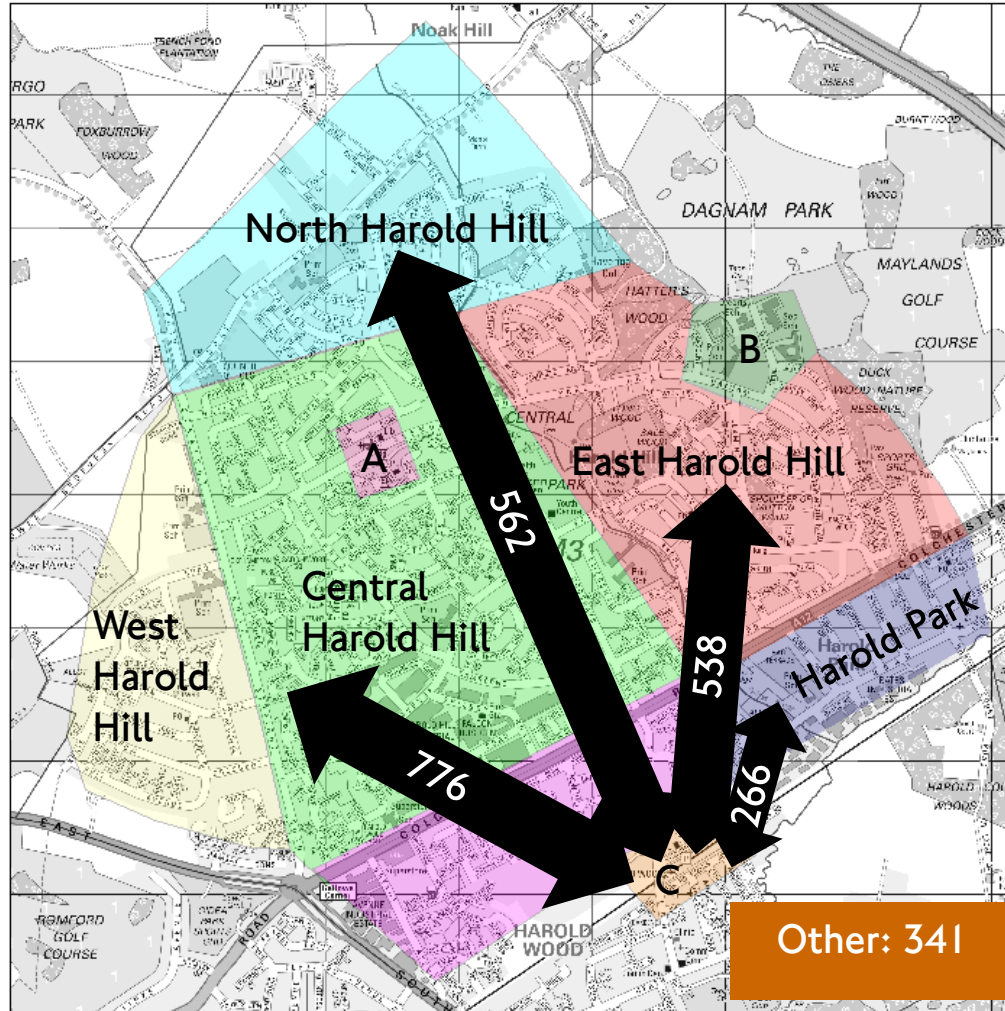
# Origin-Destination Matrix for Harold Hill

Totals	Zones	West	North	Central	East	Harold Park	South	Hilldene Shopping	Harold Wood Stn	Learning Village
8	West	8								
48	North	14	34							
1,443	Central	41	439	963						
748	East	0	52	605	91					
609	Harold Park	0	0	14	572	23				
159	South	0	30	128	0	0	1			
1,098	Hilldene Shopping	45	176	539	302	0	36	0		
2,330	Harold Wood Stn	0	562	776	538	266	0	188	0	
582	Learning Village	0	24	48	85	153	0	119	153	0
7,025	Totals	108	1,317	3,073	1,588	442	37	307	153	0

- Total of 7,025 daily passenger trips within Harold Hill.
- 21% of trips starting and finishing in Harold Hill are made within the Central and Hilldene Shopping zones.
- 2,500 (36%) trips within Harold Hill involve Harold Wood station.
- 1,400 (20%) trips within Harold Hill involve Hilldene Shopping Centre.
- 550 (8%) of trips currently involve the site of the new Learning Village.
- Trips highlighted in yellow can be made directly.



# Major Travel Patterns to/from Harold Wood Station



- Daily trips to/from Harold Wood Station: 2,483

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# Capacity Analysis

AM							
Route	Bus Type	Busiest Point	Busiest Hour	Survey Date	Supply	Demand	Diff Supply-Demand
174	DD	Leaving Dagenham Heathway Stn towards Harold Hill	08:07-09:07	13-Oct-14	525	596	-71
256	SD+2DD journeys	Arriving at Harold Wood Stn towards Hornchurch	07:35-07:36	29-Apr-16	410	400	10
294	DD	Arriving at Harold Wood Stn towards Havering Park	07:11-08:11	29-Apr-16	350	269	81
496	DD	Leaving Romford South Street towards Harold Wood	07:42-08:42	31-Jan-14	270	175	95
498	DD	Leaving Romford Main Road towards Brentwood	07:10-08:10	17-Nov-15	210	182	28
499	SD	Leaving Romford Main Road towards Heath Park	07:20-08:20	12-Nov-15	135	129	6
PM							
Route	Bus Type	Busiest Point	Busiest Hour	Survey Date	Supply	Demand	Diff Supply-Demand
174	DD	Leaving Romford Main Road towards Harold Hill	15:24-16:24	25-Nov-15	525	436	89
256	SD	Leaving Harold Wood Station towards Noak Hill	16:46-17:46	03-May-16	270	272	-2
294	DD	Arriving at Romford Station towards Havering Park	15:08-16:08	03-May-16	350	231	119
496	DD	Leaving Gallows Corner towards Harold Wood	15:29-16:29	02-Jul-14	270	138	132
498	DD	Leaving Romford Main Road towards Brentwood	16:32-17:32	25-Nov-15	210	168	42
499	SD	Leaving Romford Main Road towards Gallows Cnr	17:00-18:00	25-Nov-15	135	133	2

- SD (Single Deck) has planning capacity of 45.
- DD (Double Deck) has a planning capacity of 70.
- Very peaked demand into Harold Wood Station between 0730-0830 from school and commuter travel.
- Route 256, 498 and 499 capacity well matched to demand.
- Capacity concerns on the 174 at Dagenham Heathway northbound in the AM peak. An additional peak journey to alleviate crowding to be introduced September 2016.
- Possible scope to take capacity out of route 496 should passenger growth not materialise (see below).
- Other analysis identified that Route 647 can be accommodated on route 174, hence withdrawn from September 2016.



# Development and Future Changes



# Development in Harold Hill

Non-Residential

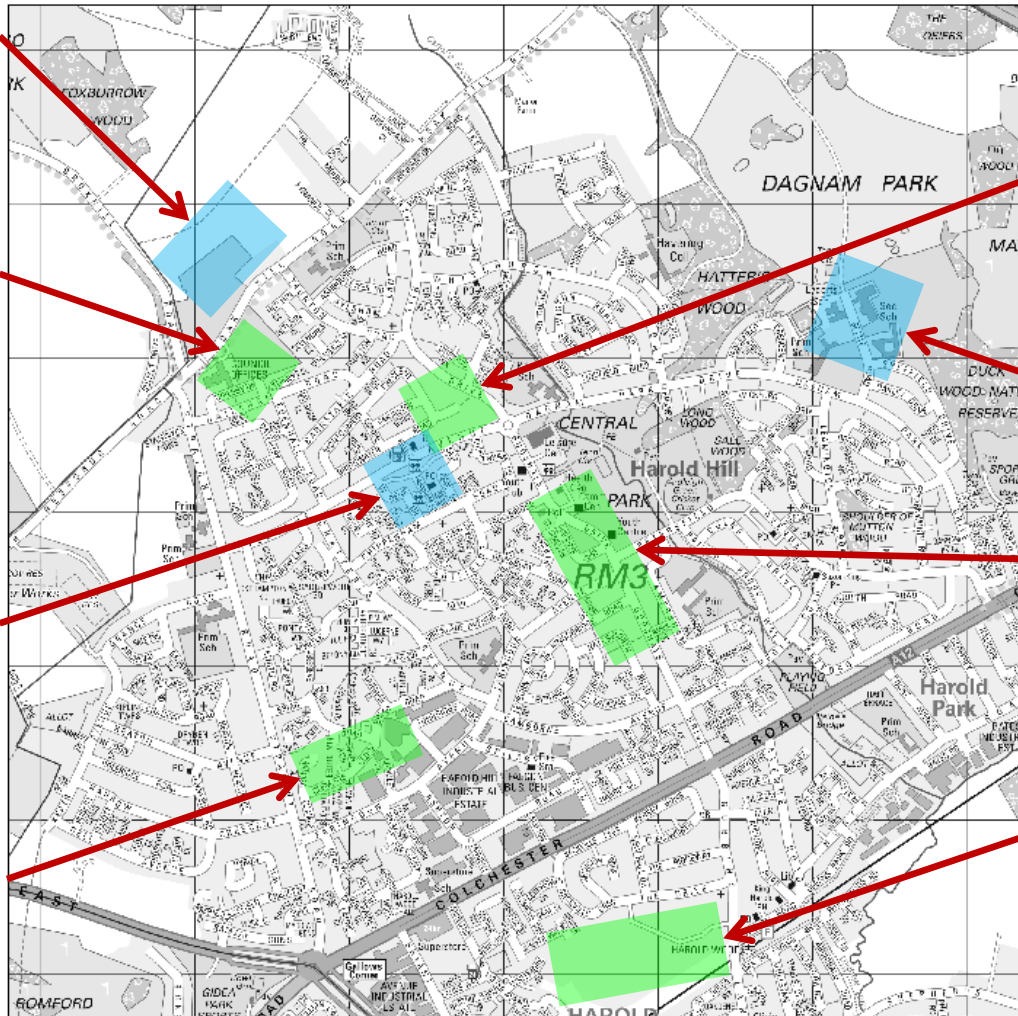
Residential

New sports park

260 new homes in Noak Hill/Whitworth on the site of old council offices

Improvements to Hilldene Shopping Centre

148 new homes in Briar Road



170 new homes in the Hilldene area

Harold Hill Learning Village

250 new homes in Gooshays

863 new homes on the site of the old Harold Wood hospital

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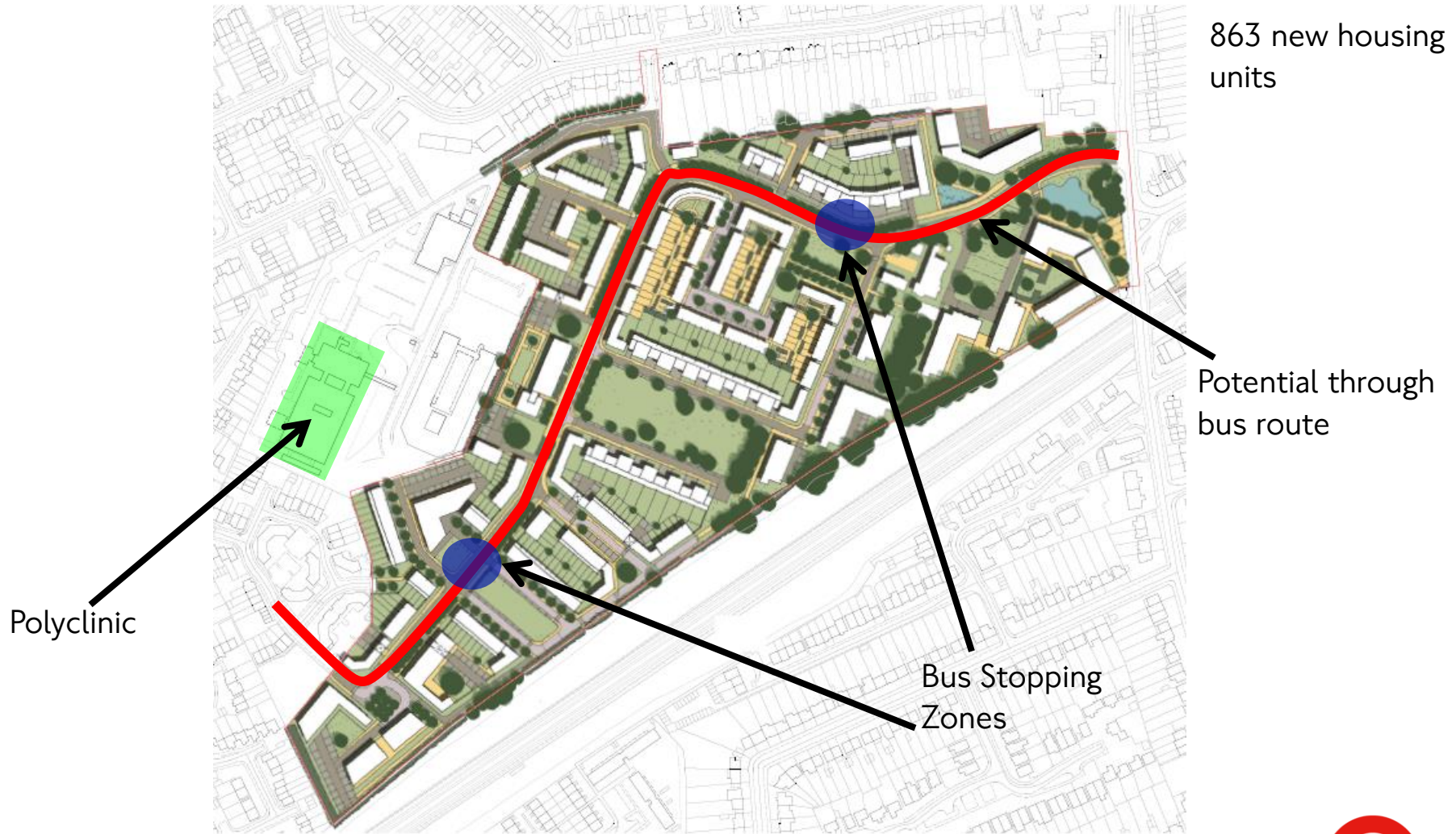
# Future Changes: Schools

School Name	School Type	Comments	Known Expansion Plans	Relevant Bus Routes
Ardleigh Green Infant School	Primary	-	-	294, 646, 256, 656
Ardleigh Green Junior School	Primary	-	-	294, 646, 256, 656
Broadford Primary	Primary	1 to 2 form entry Sep 15, 3 form entry in Sep 16	320 to 480 in 2015, 480 to 620 in 2016	496, 656
Brookside Infant School	Primary	Two year old offer commenced Sep 14	-	174, 499, 294
Draper's Academy	Secondary	-	-	647, 174, 496
Draper's Junior School	Primary	-	-	647, 174, 496, 674
Emerson Park Academy	Secondary	-	-	650, 193, 656
Frances Bardsley School for Girls	Secondary	Open from 7:30am, staggered finishing times with after school clubs	-	294, 165, 193
Harold Court Primary	Primary	Changed from 1.5 to 2 form entry in 2013/14	315 to 420 pupils in next school years	294, 496
Harold Wood Primary	Primary	-	-	256, 294
Hilldene Primary	Primary	Going from 2 form entry to 3 form entry	413 to 620 pupils in when 3 form entry comes in	496, 499, 174
Mead Primary	Primary	-	-	499, 174, 608, 647, 674, 686
Pyrgo Priory	Primary	School has filled up to full capacity of 450 pupils	315 to 450 pupils over last 6 years	174, 496, 294, 647
Redden Court	Secondary	Going from 125 to 150 per year group	Recent increase from 125 to 150 pupils per intake	347, 646, 256, 294, 656
Royal Liberty School	Secondary	-	-	496, 674
St Edwards CofE	Secondary	-	-	296, 347, 247, 5, 370, 103, 175, 86, 365, 248, 498, 362, 165
St Ursula's Catholic Infant	Primary	Opens earlier, shuts later	-	499, 256, 294, 265, 174
St Ursula's Catholic Junior	Primary	-	-	499, 256, 294, 265, 174

Data provided by LB Havering



# Future Changes: Re-development of Harold Wood Hospital (now Kings Park)

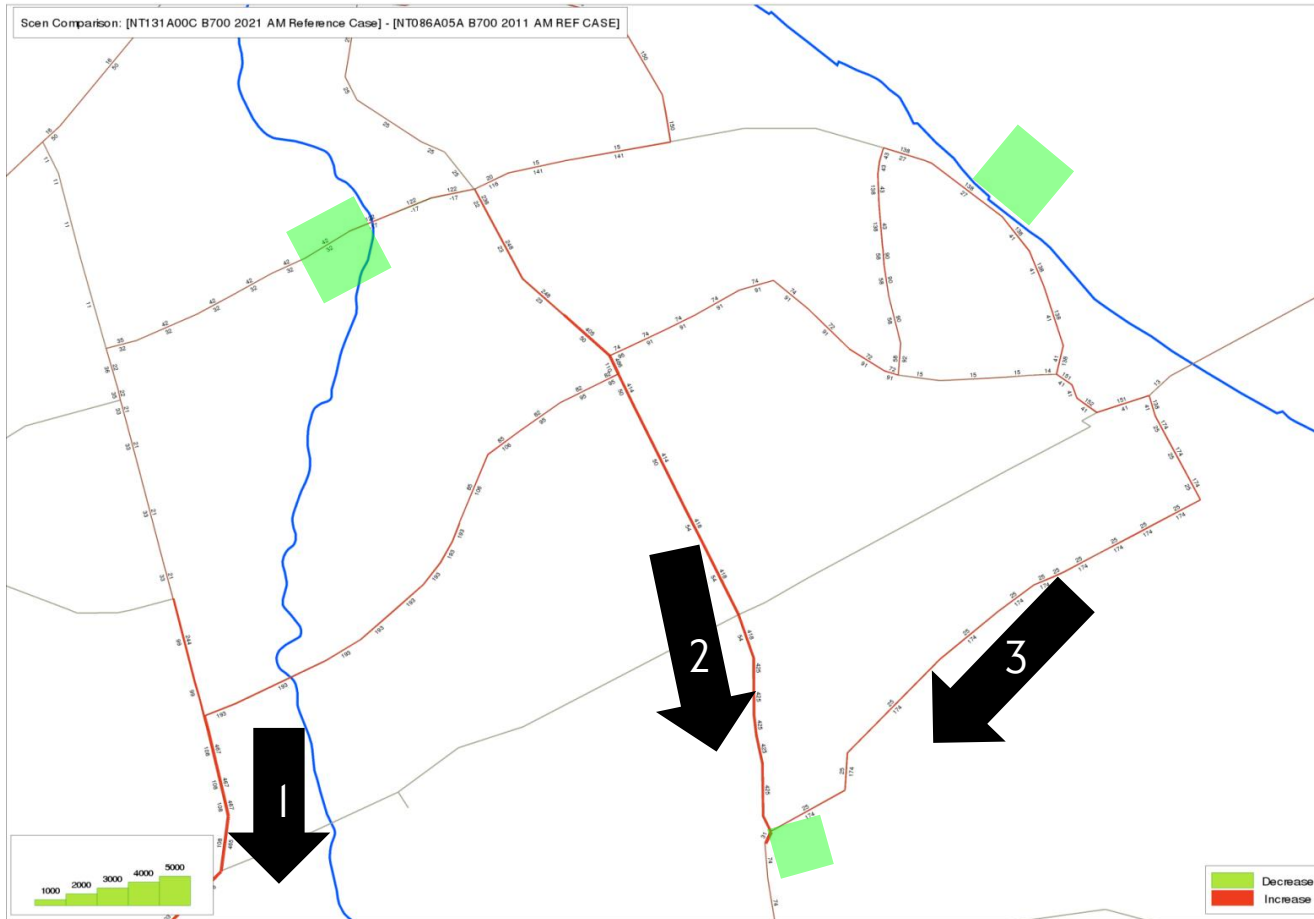


# Future Changes: Elizabeth Line in Havering

- From May 2019, the Elizabeth Line will run from Harold Wood and Gidea Park into Paddington. From 2020, Elizabeth Line services become fully operational with through services beyond Paddington.
- Currently, TfL rail and Abellio Greater Anglia run 8 trains per hour from Harold Wood and 15 trains per hour from Gidea Park and Romford into Liverpool Street Station during the AM peak hour.
- Below is a summary of frequency changes with the introduction of the Elizabeth Line:
  - 12 trains per hour between Harold Wood and Liverpool Street/ Paddington.
  - 12 trains per hour between Gidea Park/ Romford and Paddington, with an additional 6 trains per hour to Liverpool Street station.
- The increase in frequency and faster access to a wider range of central and west London stations will influence future travel patterns into Harold Wood and Gidea Park.
- The following maps model bus demand changes between the base year of 2011 and 2021, during the morning peak period (0700-1000). The modelling considers both the introduction of Elizabeth Line services and development in Havering.



# Future Changes: Forecast Changes in Bus Demand 2011-2021 in Harold Hill



## Additional Movements in the AM peak hour:

1. 230 trips through Gallows Corner towards Gidea Park/Romford on the 174 and 496
2. 210 trips into Harold Wood station south from Hilldene through Gooshays Drive on the 256 and 294
3. 80 trips through Harold Park onto Harold Wood Station on the 496



# Future Changes: Overall Outcomes for Capacity, Harold Hill, AM busiest hour

- Tables below shows the projected impacts of additional demand on key corridors with current service levels during the AM peak hour.
- Current planning capacity insufficient to meet 2021 demand into Harold Wood Station along Gooshays Drive, and through Gallows Corner on the 174.

AM							
Corridor	Corridor Number	Routes	2016 Provision	Current Demand	Current Available Capacity	2021 Additional Demand with Development and Crossrail	2021 Available Capacity
Westbound through Gallows Corner towards Gidea Park	1	496	280	144	136	100	36
Westbound through Gallows Corner towards Romford		174	525	453	72	130	-58
Gooshays Avenue southbound towards Harold Wood Station	2	256 294	760	679	81	210	-129
Church Road towards Harold Wood Station	3	496	280	174	106	80	26



# Future Changes: Overall outcomes for Capacity, Harold Hill, PM busiest hour

- In the PM peak, there is also insufficient planning capacity to accommodate future demand from Harold Wood Station northbound on Gooshays Drive.

PM							
Corridor	Corridor Number	Routes	2016 Provision	Current Demand	Current Available Capacity	2021 Additional Demand with Development and Crossrail	2021 Available Capacity
Eastbound through Gallows Corner towards Harold Hill	1	496	280	138	142	100	42
Eastbound through Gallows Corner towards Harold Hill		174	525	363	162	130	32
Gooshays Avenue northbound leaving Harold Wood Station	2	256 294	620	443	177	210	-33
Church Road leaving Harold Wood Station	3	496	280	115	165	80	85





# Future Changes: Overall Outcomes for Capacity at Gidea Park Station

AM								
Corridor	Direction	Corridor Number	Routes	2016 Provision	Current Demand	Current Available Capacity	2021 Additional Demand with Development and Crossrail	2021 Available Capacity
Upper Brentwood Road	Towards Gidea Park Station	4	496	280	160	120	110	10
Squirrels Heath Lane	Towards Gidea Park Station	5	294	350	160	190	15	175

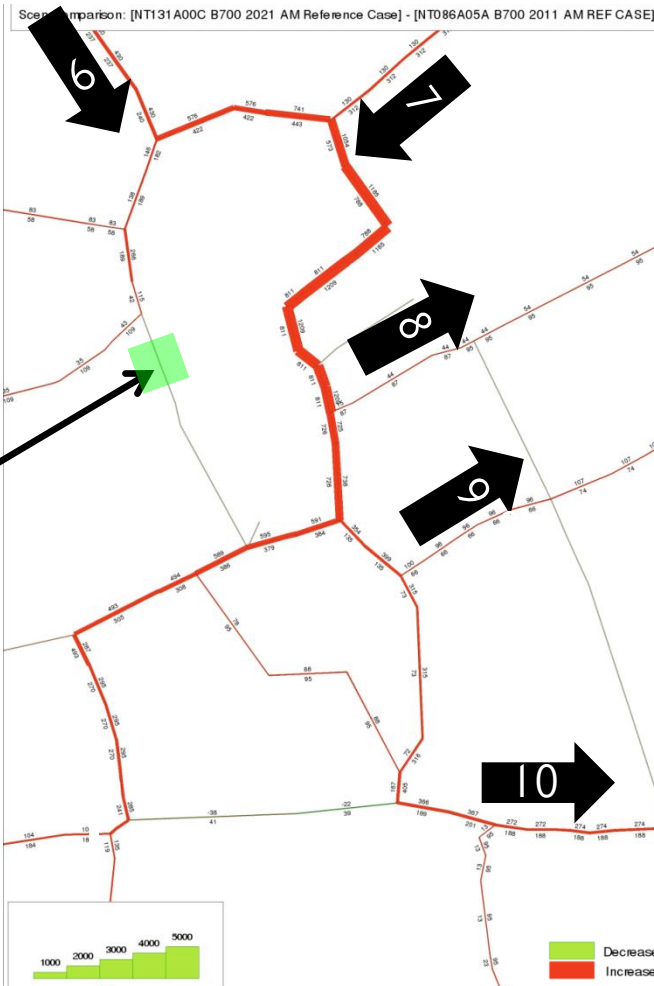
PM								
Corridor	Direction	Corridor Number	Routes	2016 Provision	Current Demand	Current Available Capacity	2021 Additional Demand with Development and Crossrail	2021 Available Capacity
Upper Brentwood Road	Leaving Gidea Park Station	4	496	280	134	146	110	36
Squirrels Heath Lane	Leaving Gidea Park Station	5	294	350	110	240	15	225

- Current service levels are sufficient to cope with additional demand in both morning and afternoon peaks, although this will need to be kept under review.





# Future Changes: Forecast Change in Bus Demand 2011-2021 at Romford Town Centre



## Additional Movements in the AM peak hour:

6. 230 trips North Street southbound across routes 175, 247, 294, 365.
7. 130 trips Main Road westbound, route 174.
8. 27 trips Victoria Road eastbound, routes 370, 496.
9. 54 trips Brentwood Road eastbound, routes 165, 193, 294.
10. 135 trips Hornchurch Road eastbound, routes 248, 365

# Future Changes: Overall Outcomes for Capacity, Romford, AM busiest hour

AM								
Corridor	Direction	Corridor Number	Routes	2016 Provision	Current Demand	Current Available Capacity	2021 Additional Demand with Development and Crossrail	2021 Available Capacity
North Street	Towards Romford	6	175 247 294 365	1470	980	490	215	275
Main Road	Towards Romford	7	174	525	530	-5	130	-135
Victoria Road/Heath Park Road	Towards Romford	8	496 370	560	200	360	55	305
	Leaving Romford			560	301	259	27	232
Brentwood Road	Towards Romford	9	165 193 294	890	460	430	37	393
	Leaving Romford			890	635	255	54	201
Hornchurch Road	Leaving Romford	10	248 365	875	450	425	135	290

- Planning capacity on route 174 is insufficient to accommodate future demand into Romford.



# Future Changes: Overall Outcomes for Capacity, Romford, PM busiest hour

PM								
Corridor	Direction	Corridor Number	Routes	2016 Provision	Current Demand	Current Available Capacity	2021 Additional Demand with Development and Crossrail	2021 Available Capacity
North Street	Leaving Romford	6	175 247 294 365	1470	824	646	215	431
Main Road	Towards Romford	7	174	525	436	89	130	-41
Victoria Road/ Heath Park Road	Leaving Romford	8	496 370	560	270	290	55	235
	Towards Romford			560	232	328	27	301
Brentwood Road	Towards Romford	9	165 193 294	890	476	414	54	360
	Leaving Romford			890	632	258	37	221
Hornchurch Road	Towards Romford	10	248 365	875	532	343	135	208

- Equally, planning capacity on the 174 leaving Romford is insufficient to meet demand.



# Summary of Analysis

- Harold Hill comprehensively served by 6 day routes, 6 school routes and a night route.
- Historically, reliability has been good, resulting in improved reliability targets. More recently, in 2015, a number of routes have missed their reliability targets. It is known traffic in outer London has grown in the past 3-4 years. Bus priority would mitigate the impact.
- Approximately 20,000 trips per weekday made within the study area. Key movements are to Harold Wood Station, Hildene Avenue Shops, Romford, Gidea Park and school travel.
- Aspirations to serve the new development at Kings Park, some of which is over 400m from the nearest bus stop. The new through road also encourages the design of progressive bus routeings.
- The Elizabeth Line and other future developments put additional demand on Gooshays Drive into Harold Wood station (circa 3 DD bus loads) and to/from Romford in the AM peak hour.



# Service Changes

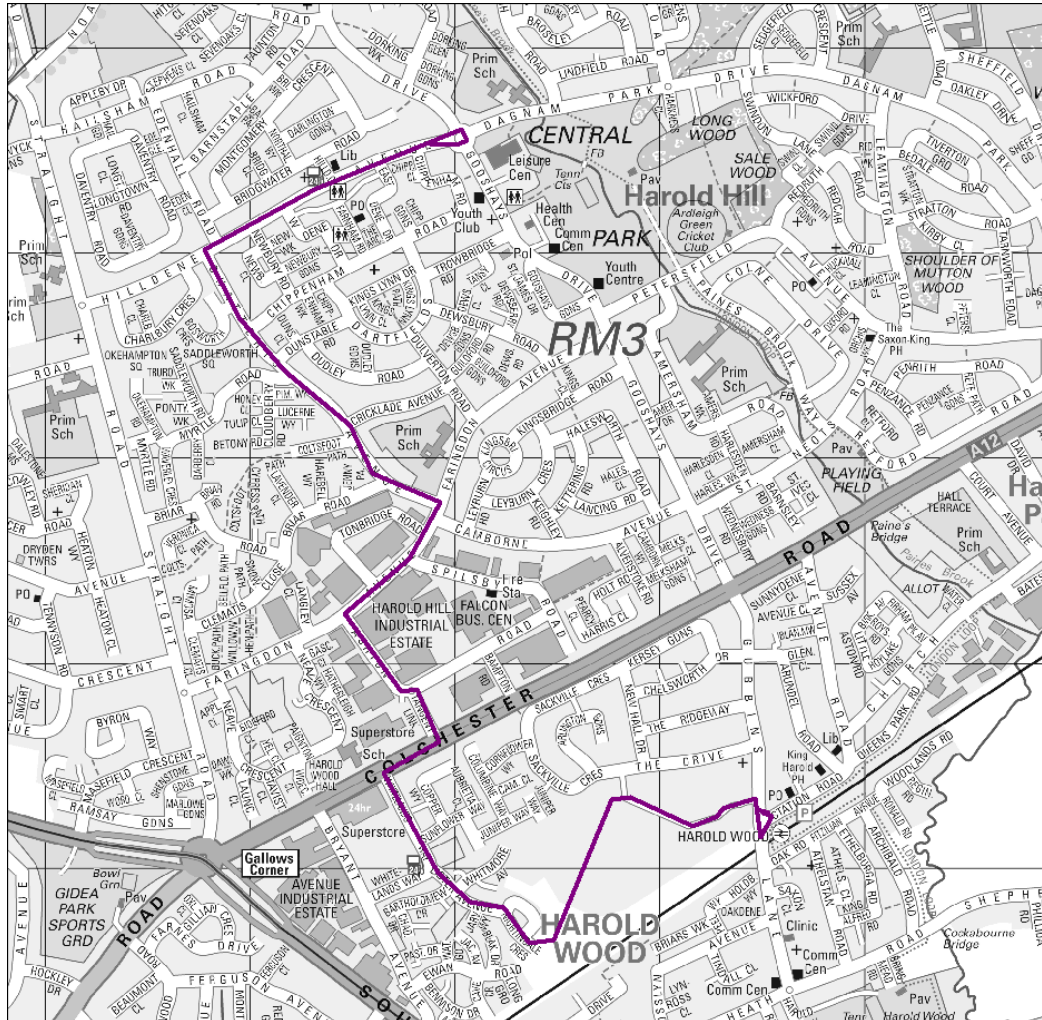


# Proposed Service Changes

- Increasing the frequency of the 174 to 10 bph would provide the required capacity to meet forecast demand into Romford from new development and the Elizabeth Line.
  - An evaluation of the above scheme has an estimated net cost of £760,000 per annum (p.a.) and a benefit to cost ratio of 3.1 to 1.
- Double decking route 256 and maintaining existing service patterns would provide the required capacity to meet forecast demand following the opening of the Elizabeth line.
  - An evaluation of double decking the route has an estimated net cost of £135,000 p.a. and a benefit to net cost ratio of 2.4 to 1.
- Introduce a new route, numbered 497, to serve the new development at Kings Park. The new route would operate at a frequency of 2 bph (hourly service on Sundays) and run between Hilldene Avenue and Harold Wood Station.
  - An explanation of the scheme and why it is recommended over other schemes is summarised below.



# Recommended Scheme: Map of New Route 497



- The route starts at Hilldene Avenue and serves Chatteris Avenue, Faringdon Avenue, Ashton Road, Tangent Link, Gallows Corner Tesco and terminates at Harold Wood Station.

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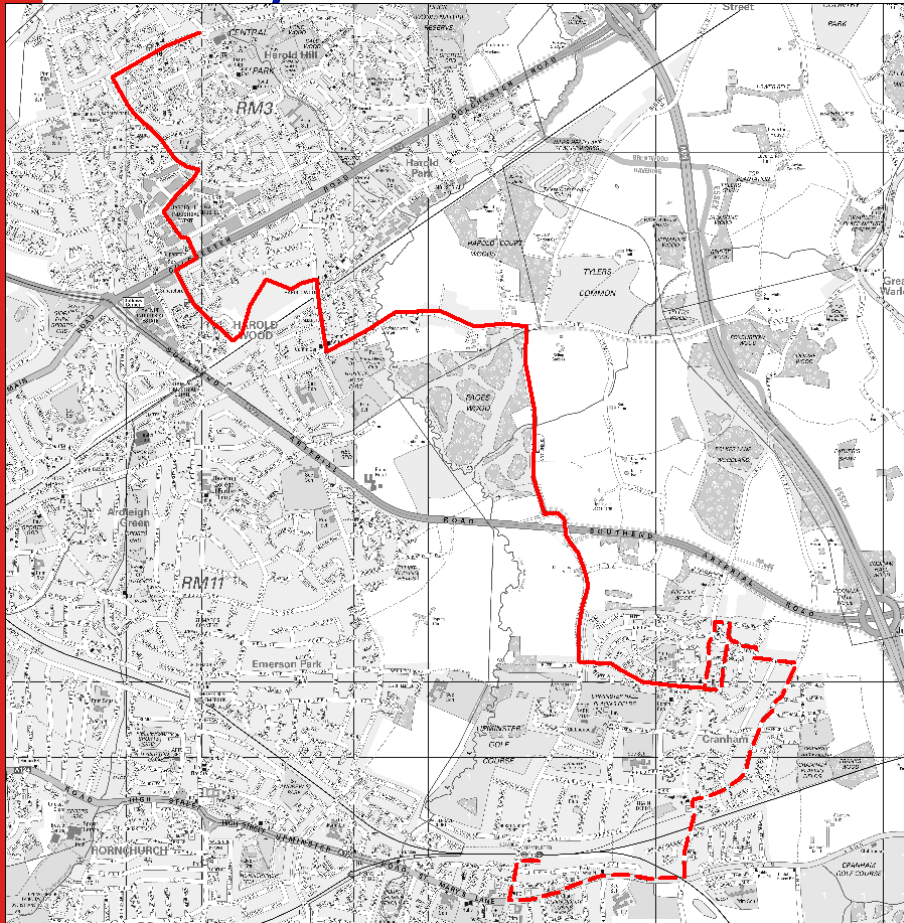
# Analysis of Route 497 scheme

- Introducing the new route would meet ambitions to provide Kings Park with a bus service.
- It is an opportunity run a bus along Chatteris Avenue. This would bring all residential areas in Harold Hill within 400m of the regular bus network.
- Provides new direct connections. Destinations served by the new route would include Hildene Avenue Shopping Centre, Tesco, Harold Wood Polyclinic and Harold Wood Station.
- Providing a 2 bph Monday-Saturday service (hourly on Sundays) has an estimated net cost of £295,000 p.a. and a benefit to net cost ratio of 2.3 to 1. The evaluation assumes 860 passenger trips per weekday generated by the new housing and direct connections the route creates.
- The net cost could be reduced by an estimated £30,000 with no Sunday service provided.





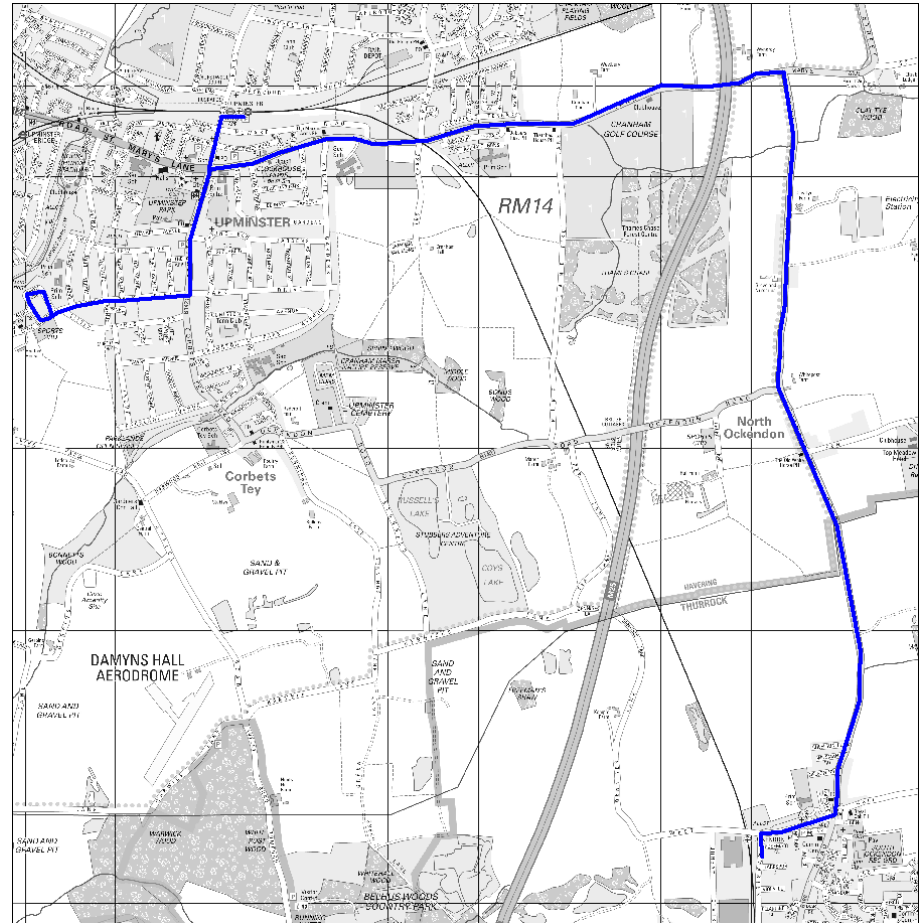


# Map of alternative scheme involving routes 346/347



Digital Map Data © Collins Bartholomew Ltd 2016

-  Existing 346 route
-  Proposed extension to Gooshays Roundabout, via Harold Wood Station and Kings Park



Digital Map Data © Collins Bartholomew Ltd 2016

Proposed re-structuring of route 347 to run along existing line of route between Ockendon-Upminster and then to Hacton



# Analysis of alternative 346/347 scheme

- Route 346 currently runs at 4 bph between Upminster Station and Upminster Park, Monday to Saturday.
- The scheme involved extending the 346 from Upminster to Harold Hill via new development at Kings Park. A frequency of 3 bph was assumed to meet current 346 demand in the busiest hour.
- The 346 routeing also allowed a re-structuring of route 347. A routeing between Hacton and Ockendon was assumed to close a network hole in Hacton. The shorter routeing permits a higher frequency of 1 bph using the same levels of resource.
- The scheme would provide similar benefits to the new 497 scheme, but in addition give a frequent, direct service between Upminster and Harold Hill and improved north-south access to the future Elizabeth Line station at Harold Wood.
- The scheme also provides benefits to passengers on the re-structured 347 through a higher frequency of service and new direct bus connections, e.g. between Hacton and Upminster.
- The scheme creates some disbenefit to existing passengers – primarily around 45 broken trips per day on route 347 and reduction of frequency for existing users of the 346.
- The scheme is worthwhile, with an estimated benefit to net cost ratio of 2.2 to 1, which is marginally less than the 497 scheme. However, the estimated net cost of £545,000 p.a. is significantly higher than the 497 scheme, making it less affordable. Also, adding a 2 bph Sunday service is unlikely to be worthwhile.



# Other alternative options considered for serving Kings Park

Proposed Scheme	Estimated Resource/ Gross Annual Cost	Advantages	Disadvantages	Reasoning for not proceeding further
Routeing 347 from existing terminus at Ockendon through King's Park to Gooshays Roundabout, frequency of 2 bph Mon-Sat	4 PVR, £900k	Provides new links to, from and within Harold Hill. Provides a link between Ockendon, Upminster and Harold Wood. Increased frequency along existing 347 route.	High cost of £900k p.a. (4 PVR). Difficult to justify a worthwhile Sunday service. Breaks route 347 links to Romford.	The most expensive option. Unlikely to generate sufficient benefits to justify the cost.
Re-structuring 347 to run between St Mary's Lane, Cranham to Gooshays Roundabout through Kings Park at 2 bph Mon-Sat	4 PVR, £800k	As above. Also saves 100k compared on costs.	Shortening the route to Cranham does not save a PVR, but saves mileage and driver duties costs. Sunday service not worthwhile. Breaks freehold links between Romford and Ockendon.	Still an expensive option. Also unlikely to generate sufficient benefits to justify cost.
Extend the route 499 through Kings Park to Harold Wood Station	1 PVR, 200k	Low cost. Would provide a 3bph service to local destinations in Harold Hill as well as onto Romford.	Journey times to Romford are long. Does not close a network hole in Harold Hill. No stand space at Harold Wood Station.	No stand space at Harold Wood Station.
Extend route 499 to Harold Wood Station via Kings Park and extend route 496 via Kings Park to stand at Gallows Corner Tesco	2 PVR, 450k	Re-allocates existing stand space between the two routes. Provides new Kings Park development with wide range of local links, and a frequency of 7 bph between the two routes.	The new development does not require 7 bph for capacity purposes. Creates some new links, but not expected to be sufficiently attractive.	Overbuses the new development and not expected to generate sufficient benefit to justify the cost.
Extend route 499 from Tesco via Kings Park to Havering College	3 PVR, 700k	As well as serving Kings Park, provides wider benefits in new links to south of Harold Wood and the Havering College.	A high cost of 3 PVR. During school holidays. Stand space would be required at Havering College.	Still an expensive scheme.



# Summary

- Analysis forecasts a need for additional capacity on the 174 and 256/294 corridors due to the Elizabeth Line and new/recent development.
- Increasing the frequency of route 174 to 10 bph and converting route 256 to double deck operation has been evaluated in response to the findings. The schemes have an estimated benefit to net cost ratio in excess of 2.0 to 1.
- The new Kings Park development of 863 units is nearing completion. The new road provides the opportunity to bring these within 400m of a bus route as well as provide new connections to Harold Wood Station.
- Introducing a new route, numbered 497, to serve the Kings Park development at a frequency of 2 bph Monday-Saturday and 1 bph on Sundays has also been evaluated. The route would create new direct travel opportunities and run between Harold Wood Station and Hilldene Avenue.



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