

# Route 384 Post Implementation Review

August 2021

TfL Surface Transport – Public Transport Service Planning

**MAYOR OF LONDON**



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## Introduction

1. In 2018 a review of routes in Barnet town centre was undertaken. As an outcome of that, a consultation was carried out on a proposed restructuring of route 384 to simplify its routeing and extend it to Edgware. Details of the consultation and the responses to issues raised were published on TfL's Website (<https://consultations.tfl.gov.uk/buses/route-384/>).
2. The changes were implemented on 29 August 2020. At that time, it was extended from Barnet, Quinta Drive to Edgware Station with multiple re-routeings around Barnet to make it more direct. These are summarised below:
  - Running via Station Road instead of a loop via Lyonsdown Road
  - Running via Victoria Road instead of a loop via Brookhill Road
  - Running via the full length of Salisbury Road eastbound instead of via Strafford Road
3. It currently operates every 20 minutes (3 buses per hour) Monday to Saturday daytimes and every 30 minutes (2 bph) on Sundays and all evenings. There are additional peak journeys timed to serve the JCoSS school.
4. As an outcome of consultation, it was agreed that there would be a review of the service a year after the change had been implemented. However, the review has been conducted earlier to tie in with timescales for our contract renewal process.
5. Due to the pandemic there has been a significant drop in usage across the public transport network. This has meant that the review has involved grossing up data to represent more normal usage.

## Usage

6. The service change to route 384 was introduced in August 2020, during the COVID pandemic. Therefore, comparing before and after usage is difficult. Network usage in March 2021 was 47% of autumn 2019. This factor has been used to calculate what usage of the restructured service would have been in a more usual year and also to allow comparisons with the forecast change in demand arising from the changes to the service. It is estimated that:
- Usage on the extension would be around 850 – 880 trips a day in a normal year
  - Usage on the Quinta Drive – Cockfosters section would be around 2,100 – 2,300 in a normal year. This suggests a decrease in usage on this section of around 150 – 200 trips a day. This was expected as a result of the changes in routeing. Some of these trips have been displaced to route 326 and other parallel services
  - Overall usage would be around 3,000 – 3,100 in a normal year
7. This suggests an overall increase of around 700 – 800 trips a day since the service change which is in line with the forecast. Further growth in usage in a normal year would have been expected and before and after usage will be assessed again as the economy reopens.

384 usage	New Route			Previous Route	% change in new route (March 2021 data) vs previous route P9 2019 data
	2021 March	Network % of pre COVID demand	2021 March Scaled-up	2020 P9 Actual	
Total usage between Edgware and Barnet Lane	482	47%	1026	-	100%
Total usage between Barnet Everyman Cinema and Cockfosters Station	325	47%	691	1243	-44%
Total usage between Quinta Drive and Cockfosters Station	938	47%	1996	2416	-17%
<b>Total route usage</b>	<b>1419</b>	<b>47%</b>	<b>3019</b>	<b>2416</b>	<b>25%</b>

Table 1 – 384 usage

Principle routes effected by the package of Barnet changes	New Route			Previous Route	% change in new route (March 2021 data) vs previous route P9 2019 data
	2021 March	Network % of pre COVID demand	2021 March Scaled-up	2020 P9 Actual	
Route 292	2251	47%	4789	6029	-21%
Route 326	1635	47%	3479	4133	-16%
Route 384	1419	47%	3019	2416	25%
Route 107	4413	47%	9389	8568	10%
<b>Total Network Change</b>	<b>9718</b>	<b>47%</b>	<b>20676</b>	<b>21146</b>	<b>-2%</b>

Table 2 – Principle alternative route usage

8. Some of the trips previously made on route 384 were expected to transfer to other services, particularly the 107 and 326. Overall there appears to have been a slight decrease in usage of these three routes.
9. Usage on route 292 was expected to decline as the frequency was reduced from 4 to 3 buses per hour (bph) on 29 August 2020 as the 384 now serves the busiest bit of the 292.
10. Usage on the 326 was not expected to decline. The decline in usage on the 326 can be explained by the national lockdown and closure of shops at Brent Cross Shopping Centre. While Brent Cross is not the busiest point on the route, data shows that historically there are a high percentage of passengers that use the route to travel to the centre. If this is taken into account then overall usage on the network has grown to some extent.
11. The busiest point is at Barnet High Street where, based on pre-COVID data, 1.7 bph were required to cater for the demand in the busiest hour and busiest direction. This is an outer London route that is expected to have a post-pandemic passenger decrease of around 10% over the next few years. Taking this decrease into account the route would require 1.5 bph. However, between 2-3 bph is expected to be required as a result of the service change providing new and quicker links. A number of secondary schools in the Barnet area are expected to see an increase in pupil numbers in the coming years and many of these are served by the 384.
12. As a result of the package of implemented Barnet changes, we have seen an increase of 10% in usage across the four routes affected. Data from March 2021 has been used but grossed up to take account of the impact of the pandemic.

## Run time

13. A comparison has been undertaken of the actual and scheduled journey times. This is summarised in Table 3. This is showing that scheduled run time consistently exceeds actual run times. This means that buses are arriving at the termini early and waiting longer before departing for their next trip. Time at the termini is known as layover or recovery time, and is required to allow late running buses to leave on time, as well as giving drivers a comfort break.
14. At present actual run times are lower than scheduled run times on most routes across the TfL network. This is due to lower traffic levels due to COVID. It is expected that once restrictions ease, the gap between scheduled and actual runtime will decrease.
15. Table 3 shows the difference between actual and scheduled runtime and the resulting recovery time for the whole route over 4 weeks in June 2021.

Day Type	Time Period	Actual run time exceeds scheduled run time by (mins)		Typical scheduled stand time (mins)	Recovery time with existing resource (mins)
		Towards Edgware Station	Towards Cockfosters Station		
M-F	0500-0700	-1.6	-2.9	20	24.5
	0700-1000	-4.7	-0.5	20	25.2
	1000-1300	-3.1	-0.4	31	34.5
	1300-1600	-2.8	0.8	25	27.0
	1600-1900	-3.4	-1.0	21	25.4
	1900-2200	-2.7	-2.7	19	24.4
	2200-2400	-3.5	-3.4	33	39.9
Sat	0500-0700	-3.3	-2.7	27	33.0
	0700-1000	-3.0	-2.0	23	28.0
	1000-1300	-1.4	-1.1	33	35.5
	1300-1600	-3.3	-0.8	41	45.1
	1600-1900	-3.1	-1.0	33	37.1
	1900-2200	-2.3	-2.0	33	37.3
	2200-2400	-3.9	-2.6	33	39.5
Sun	0500-0700	-1.9	-4.6	40	46.5
	0700-1000	-3.2	-1.6	27	31.8
	1000-1300	-1.4	-2.1	21	24.5
	1300-1600	-1.8	-1.9	39	42.7
	1600-1900	-2.6	-3.5	21	27.1
	1900-2200	-2.1	-2.0	33	37.1
	2200-2400	-3.1	-3.5	33	39.6

Table 3 – Run time analysis 01/06/2021 to 28/06/2021

16. Table 4 looks at the localised saving in run time due to the rerouting in Chipping Barnet. Times are taken between Union Street and Salisbury Road (east) over 3 months, comparing September 2020, November 2020 and February 2021 with

September 2019, November 2019 and February 2020. This shows a quicker and more consistent journey time on the new routing.

Journey time in minutes	Previous Route Sept 2019	New Route Sept 2020	Previous Route Nov 2019	New Route Nov 2020	Previous Route Feb 2020	New Route Feb 2021	Previous Route Average	New Route Average	Difference
0500-0700	2.5	2.0	2.8	2.0	3.0	2.0	2.7	2.0	-0.8
0700-1000	3.5	2.5	3.5	2.6	3.5	2.5	3.5	2.6	-0.9
1000-1300	3.7	2.5	3.3	2.6	3.4	2.6	3.5	2.6	-0.9
1300-1600	3.6	2.4	3.3	2.5	3.4	2.7	3.4	2.5	-0.9
1600-1900	3.2	2.3	3.3	2.5	3.2	2.6	3.2	2.5	-0.8
1900-2100	2.7	2.3	3.0	2.1	3.0	2.1	2.9	2.2	-0.8
2100-2300	2.4	2.6	2.5	2.0	2.5	2.0	2.5	2.2	-0.3

Table 4 – Run time comparison

17. Table 5 looks at the average runtime saving between Union Street and Salisbury Road (east) from August 2020 to September 2020.

journey time (mins)	previous route	new route	difference
average	3.1	2.3	-0.8
upper quartile	3.5	2.6	-0.9
lower quartile	2.6	2.0	-0.6
interquartile range	1.0	0.6	-0.3

Table 5 – Run time comparison Aug 2020 vs Sept 2020

## Outstanding infrastructure

18. There are a number of stop improvements that have been agreed with the London Borough of Barnet that still need to be installed. These include installation of a bidirectional stop at on the north eastern side of the Mount Pleasant roundabout next to Grove Road. This will improve access to the Bevan Estate by reducing walk distances. A minor re-routeing is required westbound with buses undertaking a full loop of the roundabout to access it with a small increase in mileage.



Map 1 – Indicative location for bidirectional stop at Mount Pleasant

19. A stop towards Cockfosters will be introduced on Wellhouse Lane to better serve Barnet Hospital A&E Department.
20. Concept designs have been developed by LB Barnet following a site visit to these locations last year. LB Barnet are in the process of requesting funds and getting ongoing technical advice from TfL. However, it may take two financial years to deliver and will focus on the stops at the eastern end of the route first, where walking times have increased for some residents following the service change. They hope to deliver the new stops at the eastern end by the end of 2021.
21. Replacing the hail and ride with fixed stops has been investigated by Barnet and TfL as part of the work being undertaken on the outstanding infrastructure. Not all sections of hail and ride are suitable for fixed stops, but some potential locations have been identified. Indicative locations for these are shown in the Appendix. They are:
- Edgeworth Road - junction with Park Road
  - Park Road between Crescent Road and Victoria Road
  - Quinta Drive southbound – junction with Barnet Road



- Quinta Drive junction with Aitken Road

## Customer Feedback

22. Before the service change was implemented there was a campaign set up by local residents called “Save the 384 bus” that opposed the changes.
23. Since the change was implemented in August 2020, TfL have had regular correspondence from residents of Salisbury Road complaining about the service operating along the new routeing. The most common issues raised are:
- a. Buses block oncoming vehicles on Salisbury Road and also Alston Road, The Avenue and Stapylton Road. This is causing concern about safety as some vehicles are forced to reverse along the western section of Salisbury Road and into a junction with heavy fast-moving traffic
  - b. Road damage, increased noise and pollution
  - c. Buses travelling at high speeds
  - d. Bus drivers refusing to stop along certain sections of the Hail and Ride sections particularly Victoria and Edgeworth Roads meaning significant increased walking distances.
24. In regard to congestion and pollution, the bus comes once every twenty minutes and journey time data indicates that there has been less congestion in the area than experienced on the previous route. All our buses use the most modern technology; termed Euro VI, which minimises emissions. This has reduced NOx by 95% and particulates by 85%. The bus service is unlikely to have a material impact compared to other more elderly diesel and petrol vehicles whose numbers would increase should the bus service be rerouted.
25. TfL do not accept that the new route is the source of all the existing road surface problems on Salisbury Road. There have been long standing issues with potholes and the condition of the road before the new service was introduced. The relevant highway authority for Salisbury Road is the London Borough of Barnet and TfL have been sharing customer concerns regarding the quality of the road surface with borough officers.
26. TfL are working closely with the route operator regarding complaints received concerning bus drivers, particularly buses not stopping on hail and ride sections of the route. The routes operator Metroline have been able to view CCTV images to try to understand the circumstances better. Drivers should stop when and where it is safe to do so when passengers request them to. Sometimes it may not be safe to stop in certain locations due to parking or deliveries, there have also been occasions when the bus was deemed full due to the then in place social distancing and capacity restrictions. Fixed stops would help the situation, and this is being actively looked at in a number of locations (see above).



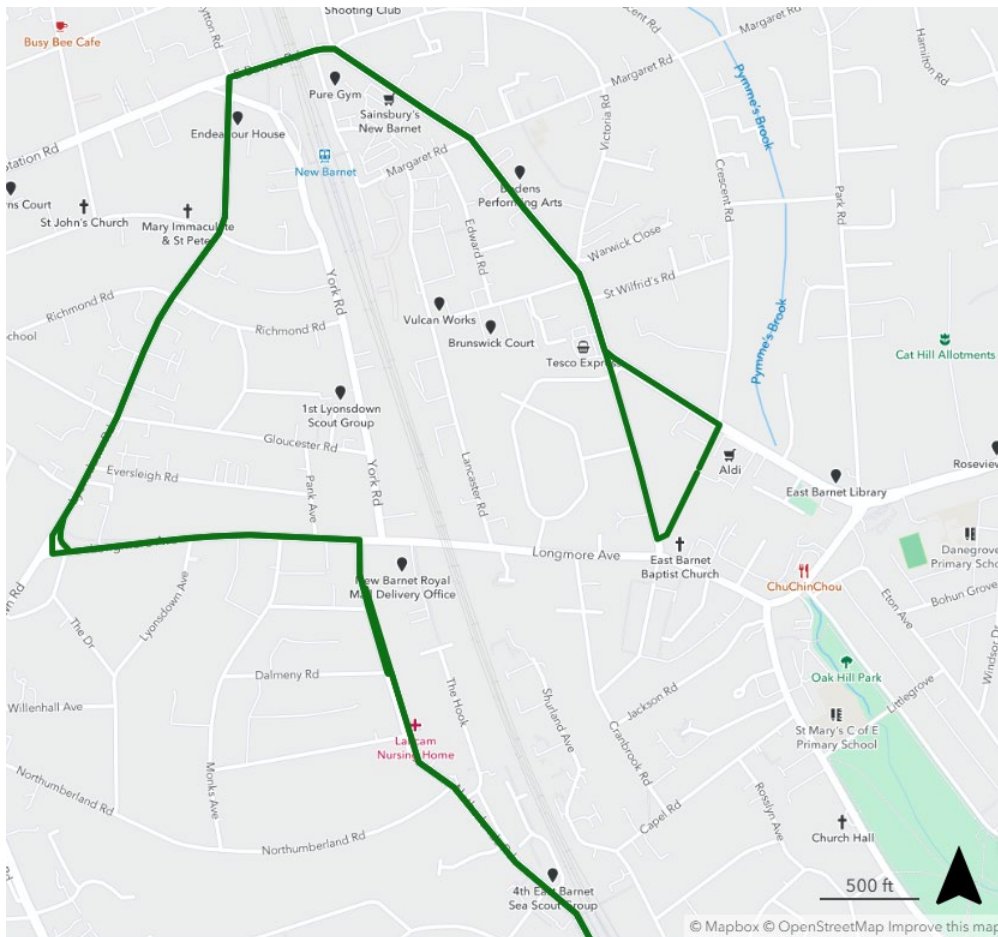
## Options Reviewed

27. A number of options to serve the withdrawn sections of route 384 have been considered. In addition, the westbound rerouting via Salisbury Road continues to be an issue and alternatives have been examined.

### Option 1 – reroute the 383

#### Option 1A

28. The 383 would operate as now from Finchley Memorial Hospital to Netherlands Road then would be re-routed to go left at Longmore Avenue, right Lyonsdown Road, right Station Road, right East Barnet Road, left Brookhill Road and right Crescent Road to terminate next to ALDI – see Map 1. It would then depart via Crescent Road to East Barnet Road and the reverse of the above. This would serve the Lyonsdown Road / Gloucester Road area. Not serving this area was a particular concern raised in consultation.



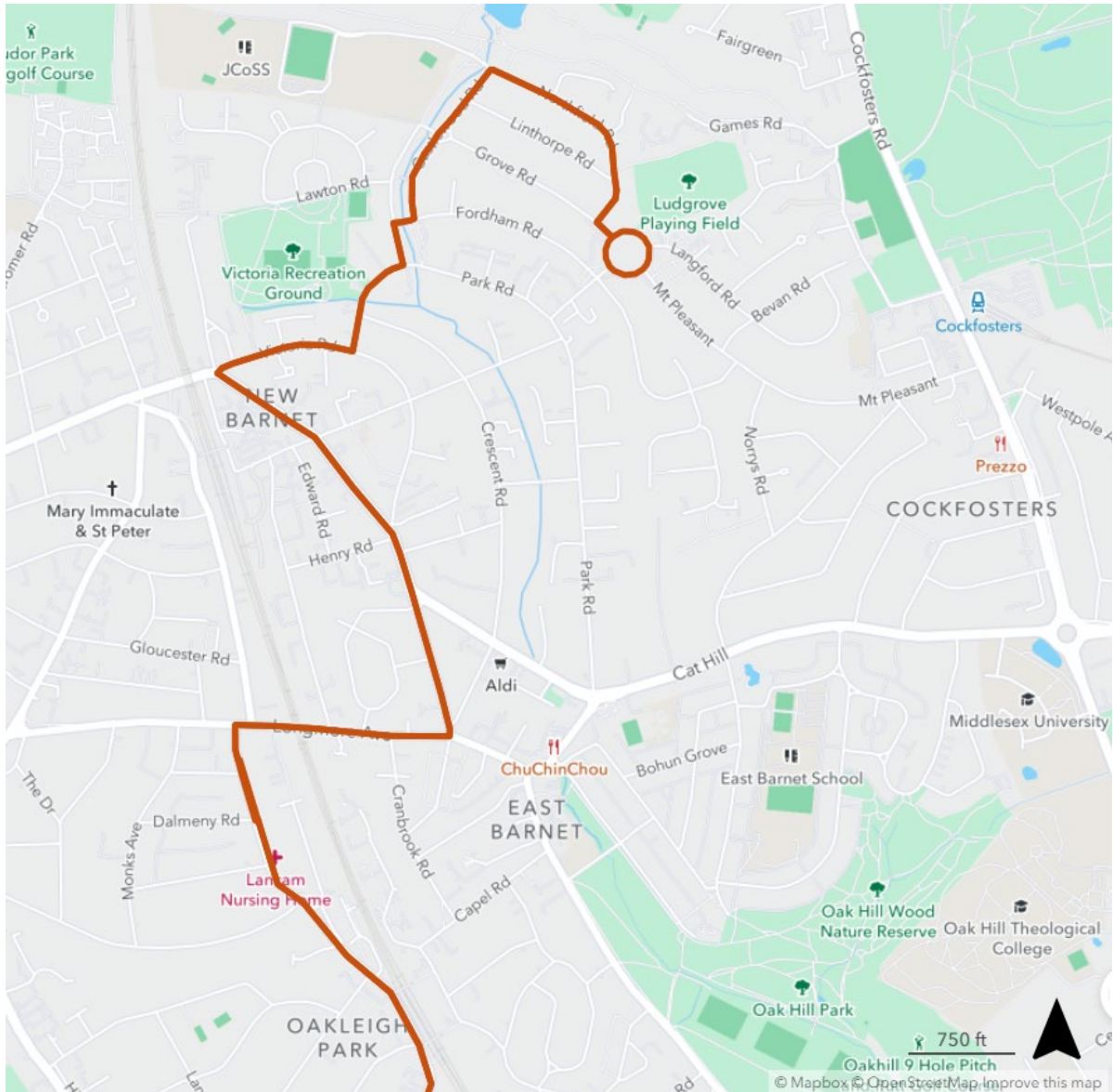
Map 2

29. If Option 1 were introduced it would mean that 390 route 383 users a day would be required to change buses to still make their journey. Usage data for the 384 prior to the changes shows that there were 280 trips in total to or from Lyonsdown, Gloucester

and York Roads. Some of these will have transferred to other services as they are within walking distance – less than 400m. Therefore, this option would lead to an overall decrease in usage on the bus network and as there would be no significant change to the cost of operating the 383 it does not represent good value for money.

**Option 1B**

- 30. The 383 would operate as now from Finchley Memorial Hospital to East Barnet Road then would be re-routed to go right at Victoria Road, left Park Road, left Baring Road, right Fordham Road, left Castlewood Road, right Northfield Road, left Grove Road to terminate at Mount Pleasant roundabout - see Map 2. It would return via the reverse of the above.



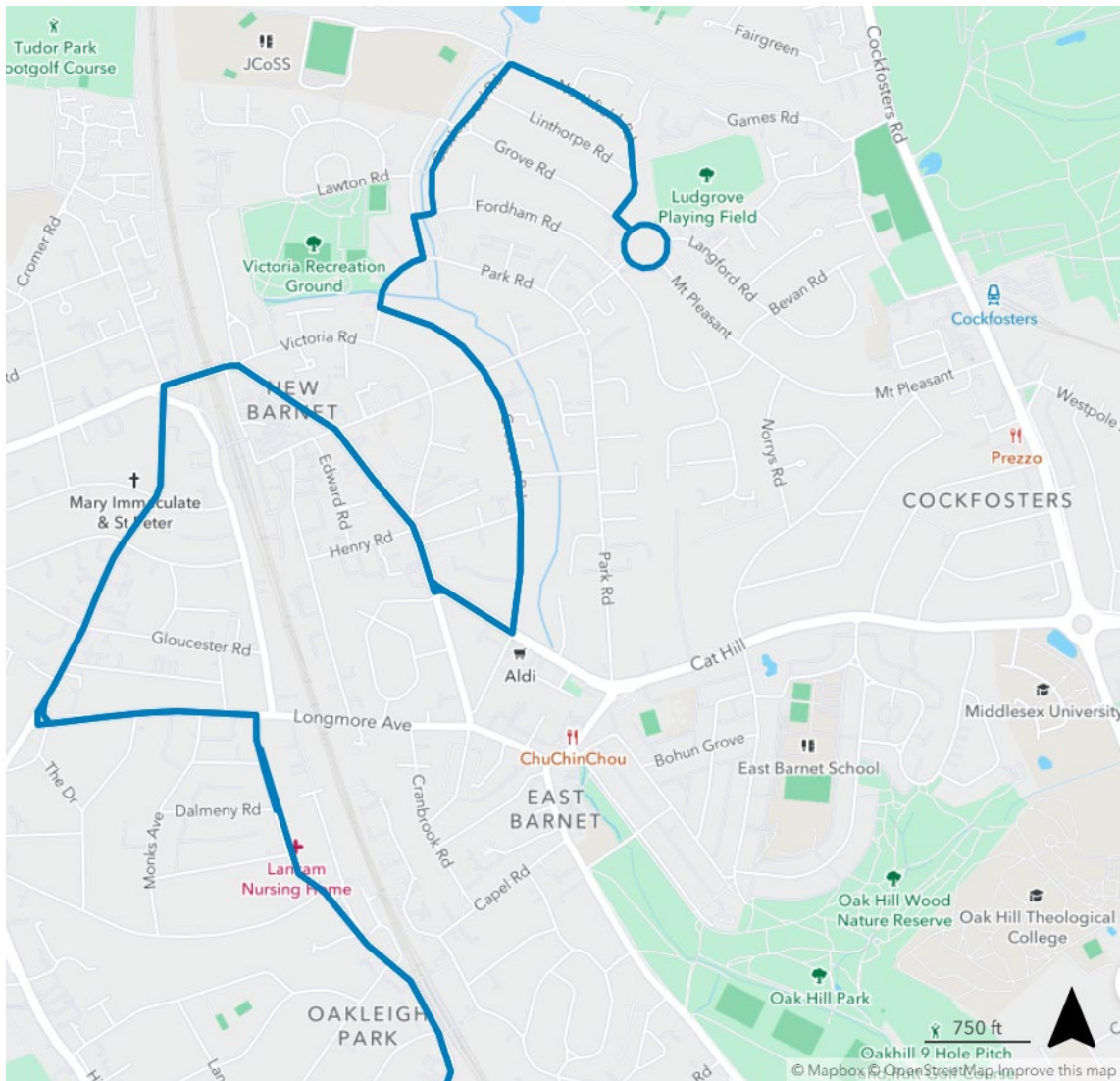
Map 3

- 31. If Option 2 were introduced 590 route 383 users a day would be required to change buses to still make their journey. Usage data for the 384 prior to the changes shows

that there were 275 trips per day to or from Castlewood and Northfield Roads on route 384. Many of these people are still within 400m of route 384. There would be no significant change to the cost of operating the 383. As there would be a loss of revenue arising from this change, the option does not represent good value for money.

**Option 1C**

32. The 383 would operate as now from Finchley Memorial Hospital to Netherlands Road then would be re-routed to go left at Longmore Avenue, right Lyonsdown Road, right Station Road, right East Barnet Road, left Brookhill Road, left Crescent Road, right Park Road, left Baring Road, right Fordham Road, left Castlewood Road, right Northfield Road, left Grove Road to terminate at Mount Pleasant roundabout – see Map 3. It would return via the reverse of the above.



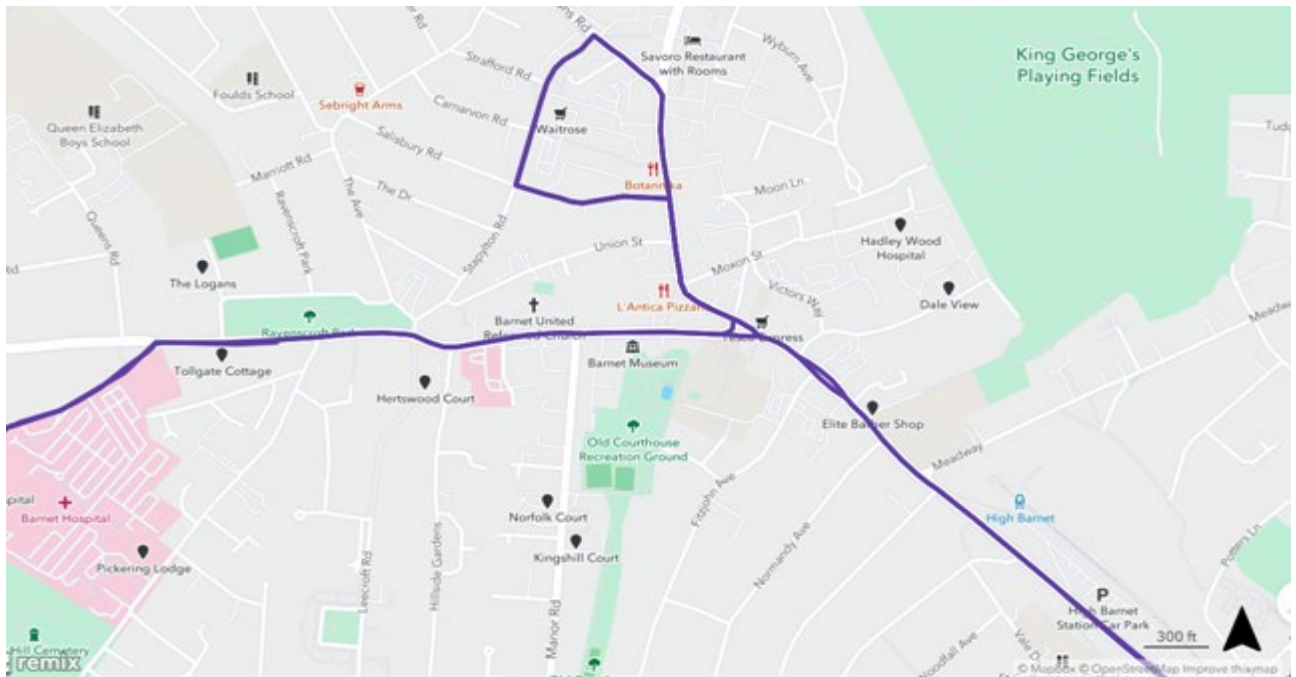
Map 4

33. If Option 3 were introduced 725 route 383 users a day would be required to change buses to still make their journey. Usage data for the 384 prior to the changes shows



**Option 2C**

37. Rerouting the 384 via Wood Street, but still serving the High Street area has also been considered. This is shown in Map 5.



Map 6 - 384 via The Spires

38. This would have less disbenefit than Option 2B as much of the area would still be within 400m of a bus service. Overall, the scheme produces more benefit than disbenefit. However, there is also a small increase in operating costs and an additional 150 – 200 households would be more than 400m from a bus service.

**Option 3 – using smaller buses**

39. It has been suggested that the 384 uses smaller buses than those currently operating on the route. It has been suggested that these would be more suitable for a number of the roads served by the 384. It currently uses 9.6m long buses. Smaller buses that are 8.9m long operate on route 383. They are the same width. If these size buses were used on the 384 it would reduce capacity from 60 to 48 per bus, which could create capacity problems at peak times. It could reduce TfL operating costs by a relatively small amount, and this will be explored when the contract is renewed.

**Option 4 – running 1 route as now and 1 following the previous 384 routing. They would run every 30 minutes but be timed to provide a 15-minute service on the common section**

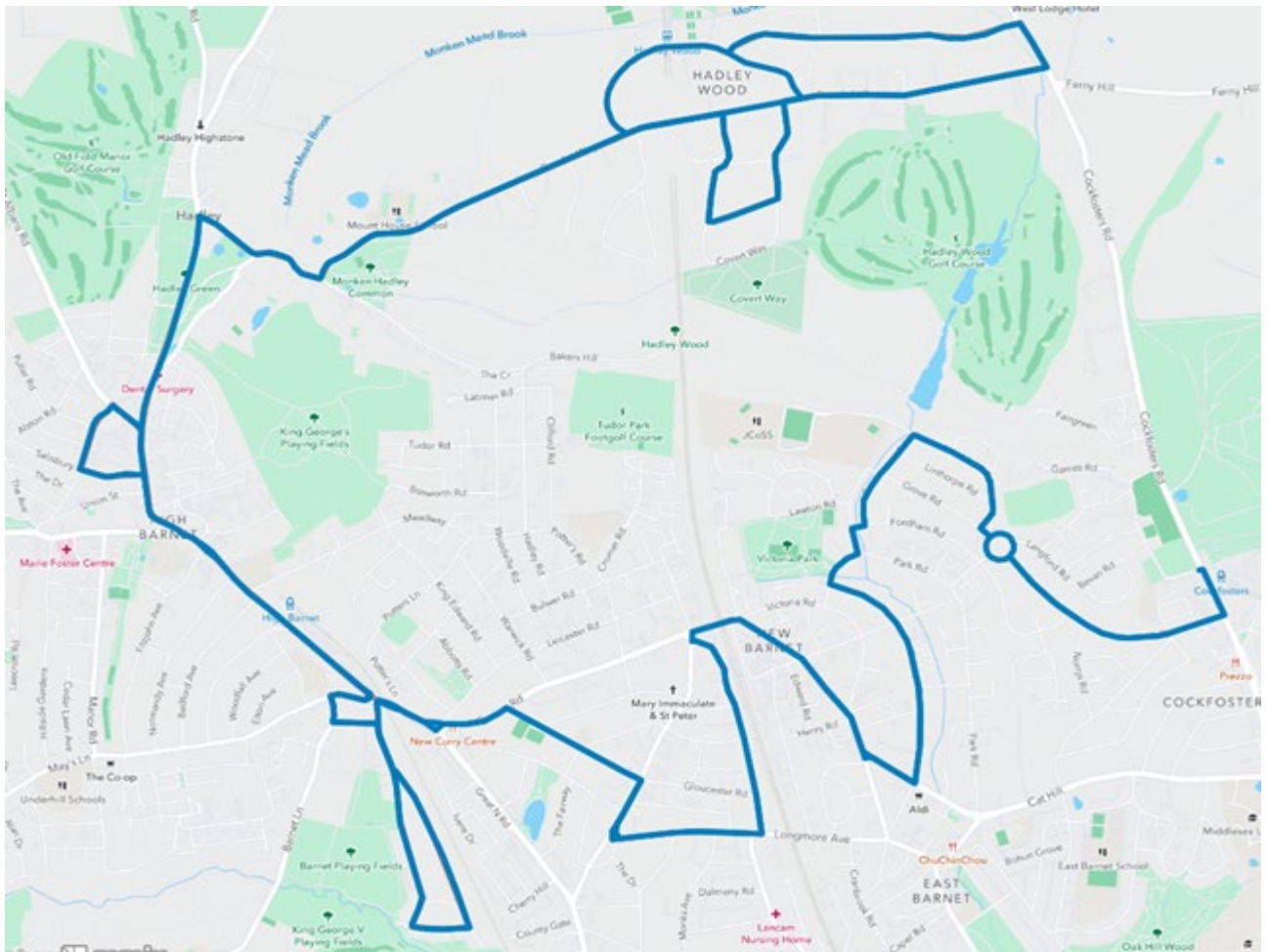
40. This has been examined. However, the time taken to run between common sections of the suggested routing means that regular gaps cannot be provided between the 2 services. For example, if buses left Cockfosters at regular 15-minute intervals they

would arrive at Barnet Church with gaps of 7 and 23 minutes for much of the day. It would also increase the cost of operating the service by around £250,000 per annum, an increase of 15%.



**Option 5 – amending routes 389 and 399**

41. It has been suggested that route 389 and 399 could be combined and extended to serve the removed sections of route 384 as shown in Map 6.

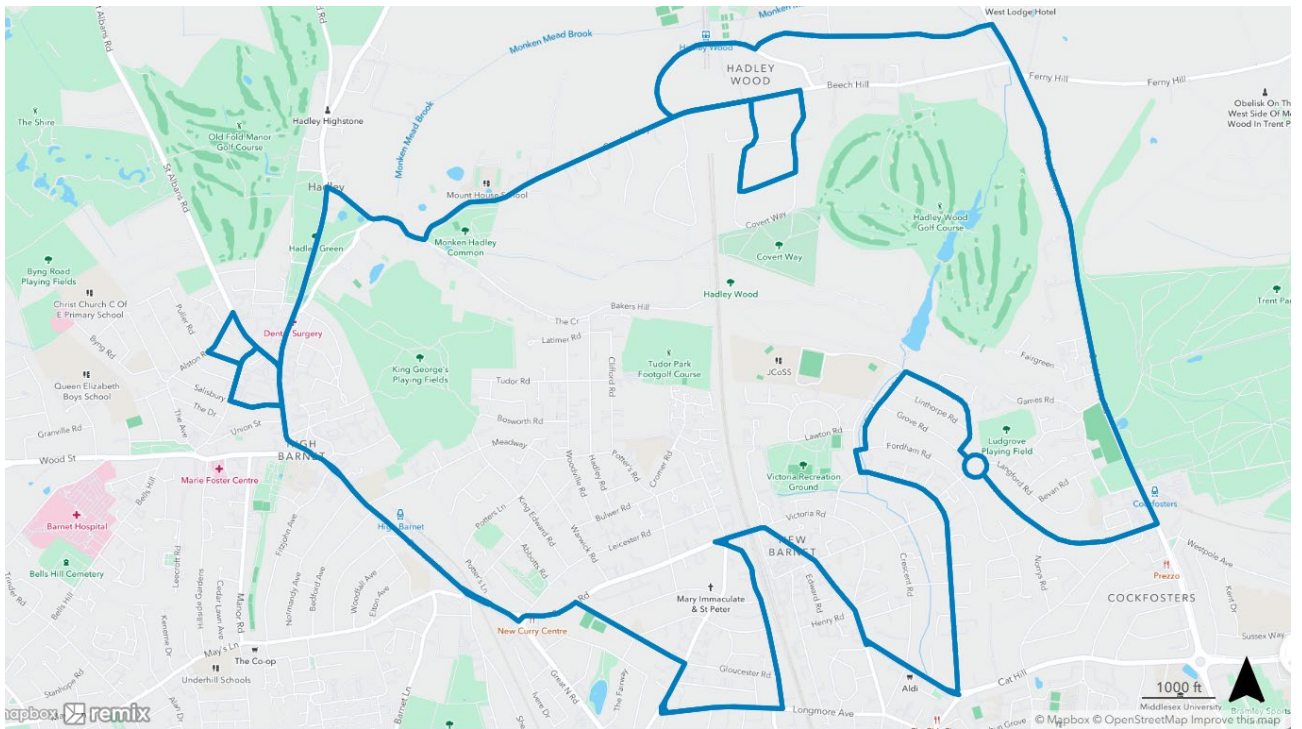


Map 7 – 389 & 399 combined

42. Currently both routes operate using 1 vehicle that operates on another route in the peaks but is not used during the middle of the day. This means the routes can be operated at a relatively low cost but can only provide a very limited service in terms of hours operated. Extending the service as suggested would require 2 buses to operate at hourly service, It is unlikely that a suitable bus would be available from another service and this would mean the annual cost of operating the extended service would require an extra vehicle at a cost of around £200,000 per annum rather than the current £75,000. The additional trips the extension would generate would not be sufficient to justify this expenditure.

**Option 6 – extend route 399 and introduce a new route.**

43. It has been suggested that route 399 could be extended to serve the removed sections of route 384 and introduce a new route in order to provide a 1 bus per hour service in both clockwise and anti-clockwise directions as shown in map 7.



Map 8 – 399 & new route.

44. Currently the 399 is operated using 1 vehicle that operates on another route in the peaks but is not used during the middle of the day. As described in option 5 this means the route can be operated at a relatively low cost but can only provide a very limited service in terms of hours operated. Again, it is not expected that a spare bus from another route will be available to operate the service and therefore we would expect an additional cost of around £200,000 per annum. It is estimated that the extension would generate around 440 trips which would not be sufficient to justify this expenditure.

#### Option 7 – extend route 377

45. Extending route 377 from Oakwood to New Barnet via Bramley Road, Cockfosters Road, Mount Pleasant, Northfield Road, Castlewood Road, Crescent Road, Brookhill Road and East Barnet Road has been examined. This would create some new links, primarily between the Cockfosters area and Enfield, as well as directly serving some roads previously served by the 384. However, it would cost around £400,000 per annum and there would be insufficient new trips to justify this expenditure.

#### Option 8 – High Barnet Station

46. Re-routing the 384 through the potential new development at High Barnet Station has been suggested. Design work for High Barnet is still ongoing. Consideration will be given to the costs and benefits of rerouting the 384 northbound through the site as this work continues.
47. Moving the northbound stop at High Barnet closer to the station has also been suggested. This is being considered. However, it would be very close to the current northbound stop. If this were removed, then there would be a big gap in stops as the next northbound stop is on the High Street just prior to the Barnet Church junction.

## Option 9 – retiming to meet trains at New Barnet station

48. It has been requested that we re-time the 384 to arrive at New Barnet Station in order to allow better interchange between train and bus. However, the timetables are incompatible during the daytime with trains every 15 minutes in both directions and buses every 20 minutes. They both operate every 30 minutes on evenings and on Sundays so it may be possible then. It is assumed that the most important connections are from the rail service to buses towards Cockfosters and from Cockfosters to the rail service. This assumption is made as many people wishing to transfer to or from the train and take the bus to or from the Edgware direction have alternative bus services they can use.

Northbound Train	Bus to Cockfosters	Bus to Edgware	Southbound Train
2058	2108	2027	2048
2128	2136	2057	2118
2158	2206	2127	2148
2228	2236	2157	2218
2258	2306	2227	2248
2328	2336	2257	2318
2358	2406	2307	2345
2428		2357	

Table 6 - Current timings at New Barnet Station

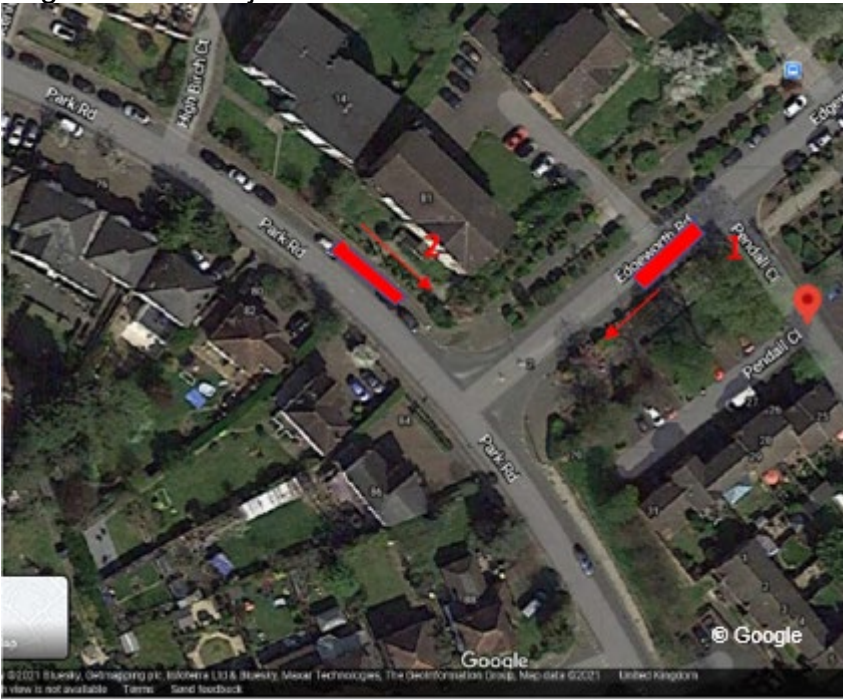
49. The time available to make a connection from the northbound rail service to the 384 is 8 to 10 minutes. This is probably slightly too much given the walk distance between platform and bus stop. It may be possible to reduce it to 6 to 8 minutes and this will be investigated. The timings are not as good in the other direction with 21 minutes between the bus arriving and the train departing. It may be possible to reduce this by reducing recovery time at Cockfosters by 5 minutes and increasing it at Edgware by the same amount. This will be investigated further with the operator. It should also be noted that the rail timetable can change, and this would mean that the 384's schedule would need to be changed as well if that happened.

## Conclusion

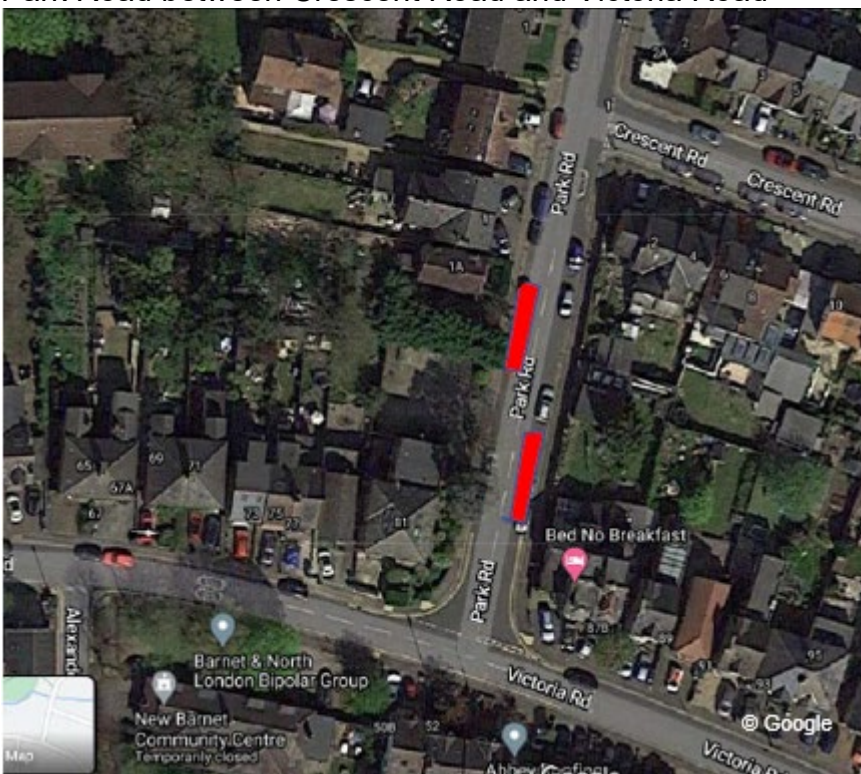
50. The data suggests that the restructured service introduced in August 2020 is performing as expected. Usage is in line with forecast and the service is operating reliably. The eastbound routeing via Salisbury Road is more reliable than the previous eastbound routeing.
51. A number of options to further reroute the 384 or other services to cover roads no longer served or to simplify the routeing further have been examined. However, they either produced more passenger disbenefit than benefit or increased the cost of operating the service but did not increase benefit to passengers sufficiently to justify the extra expense. Therefore, none of the options examined will be progressed.
52. Operating shorter buses may be possible. Costs for this will be sought as part of the contract renewal process that is underway. However further work will be needed to understand the ongoing capacity requirements as shorter buses may lead to crowding at peak times.
53. The possibility of rerouteing the northbound service to pass the entrance to High Barnet Station will be considered further. This is partly dependent on the exact layout of the proposed development, which is still evolving. An assessment of the benefits of serving the station directly compared to the delays of having to turn off and onto Barnet Hill will be undertaken as part of that work. Relocating the existing northbound stop on Barnet Hill nearer to the pedestrian crossing is also under consideration.
54. Retiming buses to better meet evening trains at New Barnet may also be possible. This will be reviewed with the operator.

### APPENDIX- Indicative locations for fixed stops

Edgeworth Road junction with Park Road



Park Road between Crescent Road and Victoria Road



Quinta Drive southbound



Quinta Drive junction with Aitken Road

