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13 January 2015

Dear

Archway gyratory consultation; Islington Council's technical response

This letter forms Islington Council's technical response to Transport for London's (TfL) recent public consultation on the proposals for Archway gyratory. This is in addition to the Council's formal response letter to the Mayor of London from Councillor Claudia Webbe.

As set out in the letter to the Mayor of London, the Council continues to support the removal of the gyratory and looks forward to working with Transport for London to further refine these proposals and take them forward. In particular, we look forward to working with Transport for London to develop detailed plans for the new public space outside the station. However, we also hope that Transport for London will address the concerns raised by local people and groups as the scheme progresses, although we recognise that in many cases this will be extremely difficult.

These concerns are set out in more detail below.

1. Additional traffic in local streets due to changed/banned traffic movements

We understand that the new road layout would still need to carry large volumes of traffic, and that therefore some traffic movements would have to be banned or changed to make the new road layout cope with the levels of traffic.

The changed/banned traffic movements are likely to result in some additional traffic in surrounding streets. Although it can't be predicted where exactly this traffic would displace to in the local and wider area (and to what extent traffic would disperse over many different routes), many residents are concerned that their local streets would become logical alternative routes.

In addition to the specific points mentioned below, in general we recommend that traffic counts be carried out a year after the proposals are implemented, to see if any particular roads take the hit of additional traffic, and allocate funding to improve these streets, e.g. by introducing traffic calming measures.

a. Banned right turn from St John's Way to Archway Road and Highgate Hill

To make the junction of St John's Way and Archway Road work in traffic terms, it would be required to ban the right turn from St John's Way to Archway Road / Highgate Hill (based on traffic counts this is the least frequently used route, which is understood to be an average of two vehicles per minute in the morning peak hour, and one vehicle per minute in the lunchtime and evening peak hours).

Many residents are concerned about the impact this would have on their local streets – in particular Cressida Road, Hornsey Lane, and other streets in Haringey. We ask that TfL investigate these concerns and work with the affected residents to see if any measures could be implemented in the wider area to minimise this impact.

The traffic counts carried out a year after construction will help to pinpoint further improvements for streets in the surrounding area. We also recommend that the junction capacity is assessed at this time, to see if the right turn could be implemented at a later time (if traffic levels go down).

b. Reversal of Vorley Road / MacDonald Road

Due to the above mentioned banned right-turn from St John's Way, Vorley Road and MacDonald Road (a one way road) is required to be reversed to enable the bus routes from St John's Way (41 and 210) to continue to serve the local area. Some of the general traffic from St John's Way is also likely to use Vorley Road to reach Highgate Hill.

As a result, it would also be possible for traffic travelling from Junction Road to Highgate Hill (and to a lesser extent traffic from Junction Road to Archway Road) to use Vorley Road and MacDonald Road as a shorter and quicker alternative to remaining on the main road network; i.e. travelling via St John's Way, Archway Road and Tollhouse Way to Highgate Hill.

We are extremely concerned about the impact that these changes to traffic would have on the Vorley Road Children's Centre; a cherished local facility, and residents on the Girdlestone Estate. Any increase in traffic would increase the risk of traffic accidents. It could also have environmental impacts on local residents the centre's children in terms of noise and air pollution.

We ask that TfL investigates any measures to prevent traffic short cuts using Vorley Road / MacDonald to minimise impacts on the nearby Vorley Road Children's Centre and Girdlestone Estate. This includes the following:

- Reviewing the junction of Archway Road and St John's Way to see if it is possible for all traffic, and at the very least buses, coming from St John's Way to turn right into Archway Road. This would eliminate the need for Vorley Road / MacDonald Road to be reversed in direction. We understand that this would be challenging, but nonetheless we ask that it be investigated in full. If this alteration would not be possible now based on the current traffic flows, we think that it should be reconsidered at a later date.
- Investigate if a U-turn could be introduced on Sandridge Street to allow traffic and buses from St John's Way to make a right-turn towards Archway Road and Highgate Hill via the U-turn.

- If it is not possible to achieve the abovementioned changes, the Council is considering introducing a left-turn ban from Junction Road into Vorley Road, to eliminate this as a cut through.

c. *No ability to turn from Holloway Road to Junction Road, and vice versa*

The road layout currently allows traffic to access Holloway Road from Junction Road and vice versa by looping around the gyratory. It would no longer be possible to do this under the new proposals. We understand from the traffic counts that this is only a small amount of traffic (for example up to a vehicle every two minutes in the busiest hours of the day), as many vehicles already use St John's Grove, Pemberton Gardens and Hargrave Road to bypass the gyratory. Nonetheless we would like to see the traffic counts carried out a year after implementation to see if these streets will experience much additional traffic, and whether any mitigating measures would be required, but also to assess how this may impact on businesses in terms of a reduction in passing trade.

d. *Removal of Archway Close and changes to Flowers Mews*

The Council supports the stopping up of Archway Close, providing parking and loading facilities are reprovided within the vicinity (see also section 7 below). The Council would like traffic leading Flowers Mews to be able to turn both left and right into Tollhouse Way.

2. Public transport interchange and access

a. *Relocation of bus stops*

The closure of the road between the station and the businesses on the island (Lower Highgate Hill) would require some of the bus stops to be relocated to other nearby locations. Some residents are concerned about the increase walking distance between bus stops and that some bus routes are split over more than one stop. We therefore ask that you investigate whether any alterations can be made (as suggested by the local community) to minimise impacts on public interchange as much as possible. This includes the following:

- Facilitating the right turn for the 41 and 210 buses coming from St John's Way (as mentioned under section 1b). This would allow the 210 to stop next to the Archway Tavern, along with the other buses heading to Highgate Village.
- Introducing a new bus stop on St John's Way (outside the optician) to see if it is at all possible to bring these stops together. We understand that this may not be possible due to the geometry and space restriction of this section, but nonetheless we would like this to be properly looked into.
- Improving wayfinding and signage to all bus stops, in particular those where all routes cannot all be together at one bus stop.

b. *Minimise the running of empty bus routes*

The local community has suggested that some bus routes that currently terminate in Archway could be extended north to terminate at Whittington Hospital and south to terminate at Upper Holloway Station. We think this is a suggestion worth investigating, as it might bring additional benefits for people who need to reach these destinations and have to change bus routes in Archway.

3. Cyclist access and infrastructure

We welcome the vast improvements that have been proposed so far in terms of cycling. During the consultation we received some useful feedback from people who cycle through the area, and you will be aware that Islington Cyclist Action Group (ICAG) has launched a campaign for further improvements to be made to the proposed road layout. We encourage you to engage further with ICAG to investigate all the suggestions made to see what can be achieved. This includes the potential to extend the off-road cycle tracks further up Archway Road (in both directions), addressing potentially dangerous spots for cyclists and improving cyclist connectivity through the wider area.

Whilst lots of investment is proposed to give cyclists greater priority, we want to make sure that as the project moves forward, the design ensures that pedestrians are adequately considered, and the design ensures that any conflict between pedestrians and cyclists are avoided. This includes the cycle track through the new public space, cycle tracks past bus stops (floating bus stops) and shared pedestrian/cyclist crossings (toucan crossings).

The Council is in particular concerned about southbound downhill cyclists on the cycle track through the new public space, because of the risk of conflict with pedestrians strolling across the new public space. We would like further thought to be given to this cycle movement, including by improving the alternative cycle route via Tollhouse Way, Archway Road and St John's Way.

4. Pedestrian access and infrastructure

The proposals bring some major benefits for pedestrians, in particular providing improved access from the station to the businesses on Archway Close (pedestrians have to currently cross over three busy roads to get there).

As the design progresses, we ask that pedestrians are adequately catered for, including the areas shared with cyclists (as mentioned in Section 3). We also ask that any opportunities to widen and de-clutter the footways should be pursued. This includes along Holloway Road towards Upper Holloway Station and along St John's Way (although we recognise that this is difficult given the width of the road). Through this process, there should be more focused engagement with stakeholders, including representatives from disability groups, and there should be an access audit carried out of the area.

5. Traffic

a. Traffic calming and 20mph

You will be aware that Islington is a 20mph borough, with this speed limit in place on all borough roads. We consider that this speed limit should be extended to cover all TfL controlled roads as well (including along Archway Road and Holloway Road through Archway). Any further measures to slow down traffic are welcomed.

b. Delays to traffic

The area already faces queuing and delays to traffic, and this is expected to get worse as a result of the proposals. We encourage TfL to continue to work on mitigating these impacts as much as possible.

c. Wayfinding

It is important that the changes to the road system support local businesses. The changes to the gyratory should therefore be accompanied by appropriate wayfinding, visible to pedestrians, cyclists and motorists, that highlights where shops and services are.

6. Environmental impacts

The changes to the road layout, including rerouting the northbound A1 traffic on the eastern side of the island) and the introduction of off-road cycle tracks would bring some big benefits, but also some impacts that would need to be mitigated.

We understand that TfL is currently preparing its environmental assessment and we would like the opportunity to review this before it is signed off, to ensure that appropriate steps are taken to minimise and mitigate any impacts.

a. Trees and greenspace

The realignment of the road and introduction of off-road cycle tracks would require the removal of a large number of trees. We understand that some trees would have to be removed because of their position in the new road layout, and a number of other trees may be affected by the works around the roots and canopy.

Whilst we understand that some tree loss cannot be prevented, the Council is extremely concerned about the massive impact of the proposals on the existing tree stock, the lack of arboricultural assessments, the limited information provided during the public consultation, and the absence of a mitigation strategy to compensate for any loss of trees and tree canopy cover.

The current proposals could lead to a loss of approximately twenty-five trees that materially contribute to the amenity of the area. These trees play a vital role in the management of pollutants in an area with a raised level of pollution, and in terms of visual and acoustic screening of the highway. The final number of trees proposed for removal is unclear, and due to the lack of consideration given to the existing tree stock, the number of trees affected may increase further during the next stage of design.

For a proposal with such a significant impact on trees, there is a lack of supporting arboricultural detail, such as a tree survey and an arboricultural impact assessment to accompany a proposal. There is also no clear justification for the loss of trees and a lack of information about any attempts made to amend the design to retain some of the trees. We expect both to be undertaken as part of the next stage of design to get a full picture of the impacts and the necessary mitigation strategy.

Furthermore, insufficient clarity has been provided during the consultation about the loss of trees. Trees impacted by the proposals were not marked on the plan, and no detail in the supporting text was provided about the magnitude of the impact on trees.

To make the proposals acceptable to the Council, we expect TfL to make every attempt to ensure that there is no net loss of tree canopy cover as a result of the proposed changes and seek to increase the canopy cover where possible. This includes developing a replanting scheme for both the public highway and the new public space. To ensure that there is no net loss in canopy cover, we recommend that TfL replace the removed trees with new semi-mature trees in nearby locations. Furthermore, adequate

work needs to be done to identify suitable locations early on, to ensure that the trees' chance of survival is maximised. This may include excavations to create a rooting environment in which the trees can reach their full canopy potential, rather than their growth being constrained by the limited size of a tree pit. We recommend that TfL also investigate the utilisation of modular systems and the integration of this into the SUDS design.

We note that the realignment of the road along St John's Way and Sandridge Street (southbound) would require the edge of Archway Corner (a small TfL owned park) to be cut back slightly. This is generally against the Council's policies, which seek to ensure that there is no net loss of greenspace in the borough. Any further changes to the road layout should minimise impacts on this park as much as possible, and we encourage TfL to improve the accessibility and amenity of this small park so that it can be enjoyed by the local community.

b. Air quality

The removal of the road between the station and the island would remove traffic from the busy areas around Archway Station where most people are, which would bring air quality benefits. Cyclists would also benefit from the off-road cycle tracks which would keep them away from the tailpipes of cars.

However, there would be some areas that would see a reduction in air quality, and we want to make sure that the appropriate steps are taken to minimise these impacts and provide suitable mitigation measures. This includes making sure that the signals are timed to ensure the smooth running of traffic (avoiding stop-start traffic), to providing screening measures to absorb pollution at the roadside.

The air quality assessment should not only cover the main roads directly affected by the proposals, but should also consider surrounding areas that will be affected by the changed traffic flows (e.g. the Vorley Road Children's Centre).

c. Noise

Any noise impacts should be minimised as much as possible. In particular, the bus stands should be adequately managed, and any opportunities to reduce the need for emergency vehicles to use sirens through the area should be explored

7. Parking and loading

The proposal includes the removal of Archway Close, which requires the relocation of parking and loading bays. It is understood that the parking can be adequately reprovided on Junction Road (by shortening bus stop V), which is acceptable. In terms of loading, suitable locations for a new loading bay should be investigated and discussed with the businesses and the church on the island. Alternatives may be the northern end of Junction Road (in front of bus stop V) or by providing two loading bays on Flowers Mews.

Overall, there should be no net loss of car parking or loading bays as the proposals are developed.

8. Design of new public space

The proposals bring a rare opportunity to create a brand new public space in Archway (Islington's first new public square this Century). This is a very exciting opportunity for Islington, a borough with one of the lowest percentages of open space compared to other London boroughs.

To ensure the success of this space, it is essential that the design is thoughtfully done, is developed with input from stakeholders and interested members of the local community, is flexible so that it can be adapted to suit a variety of needs, and is welcome to all members of the community. Given the Council's investment in arts led-regeneration programmes in the area over the past seven years, and to ensure the delivery of a high quality, successful, original and exciting new public space, we ask that TfL consider appointing an artist as part of the design team.

We welcome further workshops to discuss ideas for the design and use of the new space and expect the Council and local community to be closely involved in the redesign of the space.

9. Ownership and ongoing maintenance/cleaning of roads and public spaces

It needs to be established from the outset where the property and maintenance boundaries lie between TfL and Islington Council.

As a general principle, it is our preference that:

- the highway along the A1 is maintained by TfL;
- Tollhouse Way (no longer part of the A1) becomes a borough road and is therefore maintained by the Council, and
- the new public space is maintained by the Council.

For any part that the Council is required to maintain by cleaning, the layout and materials should be designed for ease of maintenance and cleansing (and accommodate precinct sweepers).

It should also be clarified who will be responsible for the underground subway complex.

We want to continue to be involved with the project, to monitor any other highways related issues with TfL, and ensure that issues are resolved early on (for example, making sure that the utility companies are consulted about access to their underground plant and equipment).

10. Employment and training

I would also like to take this opportunity to draw another matter to your attention. It is vitally important that the construction of this infrastructure project provides employment and training opportunities for local people. I therefore urge you to provide us with detail on how the construction phase of this project will provide Islington residents with opportunities for employment and training.

11. Further consultation and engagement with stakeholders

As the project moves forward, we consider it essential that more focused engagement with stakeholders is carried out to ensure that the proposals maximise the benefits for all users. This includes the following:

- Islington Cyclists Action Group (ICAG)
- Better Archway Forum (BAF) and Living Streets
- Archway Town Centre Group, including the businesses on Archway Close (in particular the Archway Methodist Church and the Archway Tavern)
- Resident groups concerned about additional traffic in local streets
- Representatives from disabled groups
- Adjacent land owners

As mentioned in section 8, it is integral that further workshops are held for the design of the new public space, with various stakeholders (including those mentioned above) and other interested people.

We hope that the above issues can be adequately addressed, and we welcome a meeting with you to discuss the next steps of the project. Provided that all of the TfL and Council approvals are secured, we look forward to working with you and relevant stakeholders through the detailed design and delivery of the project.

Yours sincerely

Team Leader Planning and Projects (East-West)



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28 June 2013

Dear *Catherine*

RE: LB Islington/ GLA/ TfL Meeting – 4 June 2013

Following our recent meeting with [redacted] and myself, I am writing to thank you for your hospitality and the very useful discussion we had about a number of transport issues in Islington. I agreed to write back to you with our understanding of the key points.

Traffic and Highway Engineering resources in the boroughs

I note your concern about the decreasing numbers of traffic and highway engineers employed across London local authorities. It is worth noting that TfL already does provide a lot of support to the boroughs to deliver their LIP schemes and we have also developed a borough apprenticeship scheme. We have asked [redacted] to meet with [redacted], the CELC representative on transport issues, to discuss the current initiatives to help address this issue and what more could be done (eg more graduate scheme placements). [redacted] will provide an update following these discussions.

Archway

You emphasised that the regeneration of the Archway area is a top priority for the Council. We discussed the proposed design of the gyratory, which includes a bus and cycle only section adjacent to the Archway Tower and two way working for the remainder of the gyratory. TfL have modelled this scheme and are satisfied that it works in traffic terms. It also provides continuous cycle lanes and strengthens the link between the island in the centre of the current gyratory and the retail area and tube station entrance.

We note your desire to progress with this scheme and to commence public consultation in the Autumn. Following your request we are confident that TfL will continue to work swiftly to enable you to hit your target consultation date.

[redacted] queried whether you thought the scheme was ambitious enough and whether more could be achieved and invited you to reply to her letter about further priorities for highway schemes, which you have now done.

We also touched on the land to the rear of the Archway Tower which is used for a bus standing area. The bus standing area in Vorley Road is a protected use under the London Plan. However we can consider alternative uses if it can be demonstrated that adequate capacity for bus standing can be accommodated elsewhere. The plans supplied at present include several new stands adjacent to residential and retail premises and we would appreciate confirmation that the borough will support the traffic order processes needed to implement these new stands on street. There will also be a requirement to provide toilet facilities and other drivers' facilities for these new stands as well.

Cycling

You confirmed that you had recently met with Andrew Gilligan and that your priority is to deliver significant changes to the Archway roundabout (as discussed above) that improve conditions for cyclists.

We also discussed the various funding pots for new cycling projects and we confirmed that there is a step change increase in funding for cycling initiatives across the capital. I know your officers are involved in the central London cycling grid meetings. If they want to discuss this in more detail I suggest they contact _____ at: _____@tfl.gov.uk.

Investing in Our Road network

Thank you for your response to the letter from _____, indicated above, requesting your ideas for future priorities for expenditure on highways schemes. We are reviewing all of the responses, which we wish to reflect in our response to the Roads Task Force report.

LB Islington 20 Mph Zone

We discussed the recent designation of the borough as a 20 mph borough and as you are aware we are generally supportive of 20 mph zones in residential areas, as evidenced by our financial support through the LIP process for 20 mph zones across the capital. TfL will consider inclusion of the TLRN or sections of the TLRN on their respective merits. We will have on-going dialogue with the borough on this issue and the lead contact at TfL on the roads in Islington is _____ at: _____@tfl.gov.uk.

LIP Funding

You asked for an update on LIP funding allocations for the next few years. We confirmed that the LIP Guidance for the next three years has recently been issued and this includes the LIP budgets for the next few years subject to CSR outcome and the allocations through the funding formula for each borough as well. We have updated the data used in the formula to take account of the latest data (eg the 2011 Census data) and this has not resulted in any many significant changes in the level of funding received by LB Islington.

Arsenal Match Day Travel

We discussed the Section 106 from the Emirates Stadium and we can confirm that the transport funding has been used to fund the following projects:

- Highbury and Islington Station: £2.55 million for works designed to increase the major event capacity at Highbury and Islington Station providing a second entrance / exit and additional gateline capacity at the station.
- Crossings on the TLRN: A sum of £745,000 was provided for junction / crossing improvements in the following locations:
 - Holloway Road, Hornsey Street and Hornsey Road.
 - Holloway Road, Madras Place and Fieldway Crescent
 - Seven Sisters Road and Rock Street adjacent to Finsbury Park Station

We were also pleased to be able to confirm that the programme to refurbish escalators at Highbury & Islington station is now scheduled to conclude in October rather than December, as previously programmed. We will examine whether there is potential to revisit plans to increase capacity at Holloway Road tube station and inform Karen Sullivan directly.

Old Street

Finally we also discussed the current proposals for a new Open Institute at Old Street. As we stressed at the meeting, we are keen to see a radical improvement to the station and public realm at Old Street roundabout. We believe there is scope to greatly enhance the station entrance and provide significant benefits for people using the station and we are considering whether there are new development opportunities, linked to the Open Institute, which can help fund this. When we have more detailed plans I have asked TfL staff to meet with [redacted] and her counterparts in LB Hackney to discuss them in more detail.

Yours sincerely

Managing Director, Planning

[\[redacted\]@tfl.gov.uk](mailto:[redacted]@tfl.gov.uk)

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3 March 2011

Dear

Archway Bus Stand

I write further to our meeting of 17th February. I thought it useful to set out some points coming out of our discussion.

TfL's attachment to the bus stand entirely relates to its vital transport function. It provides bus stand space that enables us to continue to provide a frequent and reliable bus network. I am concerned at the representation of us somehow being a "barrier" to the redevelopment of the Archway area. Provision of appropriate public transport infrastructure underpins and enables sustainable development. If the intention is to more intensively develop Archway then necessary to that is the infrastructure that supports public transport.

I share your reluctance to see two public bodies incurring costs related to one taking legal action against the other. Given this I cannot understand your reluctance to grant us the lease to which we are legally entitled.

As I explained when we met, we are happy to discuss including appropriate clauses to allow the lease to be terminated under certain circumstances. This would allow for a process to agree suitable alternative stand provision in the Archway area. You must understand, however, that we could only agree to vacate the existing stand if alternative stand provision, cost neutral in terms of running the bus network, can be agreed with us.

London Bus Services Limited
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whose registered office is
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Company number 3914787

VAT number 756 2770 08

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authority is Transport for London.



Granting a lease on these terms would accord with your own core strategy which reads "Any redevelopment should maintain provision of infrastructure for buses that is reasonably required to support Archway's role as a transport hub."

In terms of a study to consider alternative locations, TfL will, obviously, cooperate with you if you wish to commission such a study. I do question if this is a suitable use of public money in a time of austerity. Would it not be more appropriate for Islington officers (who are likely to have a better knowledge of the area than outside consultants) to identify locations that would be acceptable to Islington in both highway and in planning/urban realm terms? These could then form the basis of a discussion with TfL.

With regard to the number of routes that stand at Archway, I must stress that this is a result of us implementing a bus network that meets passenger demand. We regularly consult on a route-by-route basis on changes to the network. We would welcome consultation responses from Islington that identified valid alternative termini for the routes that terminate at Archway, and would give due consideration to any proposals made by yourselves.

Given our willingness to cooperate with you in considering alternative locations I hope you will feel able to instruct your legal advisors to enter into substantive discussions with us to agree the wording of a lease agreement. I think we both agree it would be unfortunate if you placed TfL in a position where we had no alternative but to seek a legal resolution to this matter.

I note we have now received draft minutes of our meeting for our review. We will respond in detail on these, but I wanted to set out these key points clearly to avoid any possibility of misunderstanding. I look forward to your response.

Yours sincerely

Head of Infrastructure

Copy to:

- Operations Director –TfL Surface Transport
- TfL Borough Relationship Manager
- TfL Land Use Planning

Archway

Proposals to introduce two-way traffic at Archway gyratory and relocate the Vorley Road bus stand

Note for London Buses

Introduction

- 1 This note provides information about the Council's latest proposals to introduce two-way traffic at Archway gyratory and relocate the bus stand in Archway from its current location at Vorley Road to multiple locations on the public highway in the direct vicinity of Archway roundabout.
- 2 It follows Transport for London's (TfL) Network Management Group meeting held on 22 May 2012 where the Council presented the proposals so far. Further design and modelling work has since been carried out to address the issues raised by TfL, which include impacts on bus journey times and operating costs.

Archway proposals presented to Network Management Group

- 3 The designs presented at the Network Management Group proposed to close the Lower Highgate Hill arm of the existing gyratory and the northern end of Holloway Road to general traffic (providing northbound bus and cycle access only). Two-way traffic would be introduced on the other sides of the gyratory, and the A1 (Archway and Holloway Roads) would be aligned on the eastern side of the gyratory. The layout for this option (also known as SDG10) is shown at Appendix 1.
- 4 At this meeting we also expressed our aspiration to relocate the bus stand, including identifying new locations for bus stands.
- 5 TfL raised the following concerns about the proposals relating to buses:
 - Although the proposals (with and without the bus stand) would provide journey time savings to some bus routes, a number of bus routes would experience delays, some in excess of 90 seconds. If additional buses need to be added to the service because of the delays, this would result in a substantial increase in cost to TfL per additional bus (purchase cost plus additional operating cost).
 - The relocation of the bus stand removes the operational benefits that TfL currently has with using one bus stand site for all terminating bus routes, such as toilet facilities and space/flexibility to manage additional buses that may arrive unexpectedly.

Revised proposals

- 6 Following the Network Management Group meeting, the Council has undertaken further design work and traffic modelling in an attempt to reduce the delay to buses and to better understand the impacts of relocating the bus stand on bus journey times. The Council has been testing different variations of the design proposal presented in May (SDG10), of which the ones with the most

favourable results for buses (Variations SDG13a, SDG14a and SDG14c) are explained below.

- 7 Variation SDG13a (refer to Appendix 2) proposes to:
 - change the layout and signal timings of the junction of Lower Highgate Hill / Tollhouse Way to split ahead and right-turning buses travelling from Lower Highgate Hill to Highgate Hill or Tollhouse Way.
 - change the layout and signal timings of the Archway Road / Tollhouse Way junction to split the left-turning and right-turning movements from Tollhouse Way into Archway Road.
 - improve the southbound bus gate on Archway Road to provide more bus priority.
- 8 Variation SDG14a (refer to Appendix 3) proposes the same above changes as SDG13a, but with the relocated bus stand. It is proposed to move bus stands to the following locations (refer to Appendix 4):
 - Archway Road northbound (replacing the bus stops): Routes 17 and 390 (introducing a bus U-turn on Archway Road)
 - Archway Road southbound (replacing the bus stops): Route 143 (introducing a bus U-turn on Archway Road)
 - Highgate Hill southbound: Route W5
 - MacDonald Road along leisure centre: Routes 4 and C11
 - Junction Road behind the northbound bus stop: Route 41
- 9 Variation SDG14c is the same as SDG14a, but proposes to swap the bus stand locations of Routes 4 and 143, so that Route 4 is on Archway Road (southbound) and Route 143 is on McDonald Road. As part of this variation, it is proposed to re-route Route 4 (along Junction Road instead of Magdala Avenue) to deliver further journey time savings. Please note that the impact on the Dartmouth Park Hill and Magdala Avenue area of this re-routing has not been assessed.

Revised proposals – impacts on bus journey times

- 10 The design changes (which include an improved southbound bus gate on Archway Road and changes to the junctions of Lower Highgate Hill / Tollhouse Way and Tollhouse Way / Archway Road) have improved bus journey times both with and without the relocation of the bus stand.
- 11 Interestingly, bus journey times of the proposals for changes to Archway roundabout are better with the relocated bus stand than without. The main reason is that buses 17 and 390 would be standing on Archway Road. Their journey would be much shorter as they do not have to make the 8-shaped movement around Vorley Road and the roundabout to access the Vorley Road bus stand and return into service.

	AM	IP	PM
SDG10 (without relocated bus stand)	17%	1%	19%
SDG13a (with bus stand on Vorley Road)	13%	-3%	8%
SDG14a (with relocated bus stand)	7%	-6%	1%
SDG14c (with relocated bus stand)	3%	-9%	0%

Table 1: Cumulative delay to buses as part of the Archway roundabout proposals compared with the current road layout (base case)

- 12 In terms of changes to bus journey times for individual routes, for the proposals without the relocated bus stand (SDG13a), the delays of over 90 seconds are:
- Route 17 (southbound): 136 second delay in the AM peak
 - Route 390 (southbound): 120 second delay in the AM peak
 - Route 17 (southbound): 91 second delay in the PM peak
- 13 However, in the interpeak overall bus journey times are reducing and a number of bus routes have journey times savings in excess of 90 seconds:
- Route 210 (westbound): 91 second saving
 - Route 271 (northbound): 110 second saving
- 14 The proposals with the relocation of the bus stand (SDG14a) perform better in terms of delays/savings to individual routes. All bus journey time increases are comfortably below 90 seconds, with the exception of one:
- Route 143 (westbound): 97 seconds delay in the AM peak only (please note that this is a low frequency route: 5/hour)
- 15 The following bus routes experiences journey time savings of over 90 seconds :
- Route 17 (southbound): 110 second saving in the AM peak
 - Route 271 (northbound): 103 second saving in the interpeak
- 16 The proposals with the relocated bus stand and realignment of Route 4 (which requires the bus stand locations of Routes 4 and 143 to be swapped) offer further improvements to bus journey times overall. In this variation (SDG14c), all increases in bus journey times are below 90 seconds, and the following savings (over 90 seconds) are made:
- Route 4 (westbound): 101 seconds in the AM peak
 - Route 17 (southbound): 98 seconds in the AM peak
 - Route 4 (westbound): 172 seconds in the interpeak

-
- Route 210 (westbound): 91 seconds in the interpeak
 - Route 271 (northbound): 116 seconds in the interpeak
- 17 Tables showing the changes to individual bus routes and overall changes are included at Appendix 5.

Revised proposals – impacts on operation of the bus stand

- 18 TfL raised concerns about the need and cost to provide multiple toilet/rest facilities. We believe that only the buses standing on Archway Road would require a separate facility that the three bus routes that would stand there can share. The pavement would be wide enough for a public toilet or similar. The remaining bus routes could share facilities near or at the original bus stand on Vorley Road, e.g. at the leisure centre or as part of the Council's desired housing development on the current Vorley Road bus stand site.
- 19 TfL requested that 15 stands be provided to accommodate the seven terminating bus routes. TfL also raised concerns about the loss of flexibility resulting from splitting up the bus stands – at the moment the Vorley Road bus stand provides ample space to manage additional buses that may arrive unexpectedly. The proposals provide 15 bus stands for the routes, with each bus route having space for at least two buses standing. The bus stands on McDonald Road and Archway Road (northbound) are grouped, which provides for greater flexibility for managing buses. The provision of on-street bus stands is a common arrangement for many bus routes across London.

Revised proposals – impacts on bus stops

- 20 As a result of the relocation of stands for routes 17, 143 (or re-routed 4) and 390 to Archway Road, the current Stops G (northbound) and K/L (southbound) would have to be removed due to lack of space for both bus stop and bus stands. Therefore, services which currently use Stop G and K/L (Routes 43, 134 and 263) will no longer stop in these locations and will instead need to continue further north-westbound (stops X or Q) or southbound to the next stop (stops D, R or W). Whilst some small areas will be affected, the impact is very limited.
- 21 Stop X is the next available stop in the north-westbound direction and is a further 180 metres along Archway Road (near Despard Road). This will impact on those catching a north-westbound bus from Middlesex Archway Campus who will instead walk a further 135m to Stop X. However, the campus exit on Archway Road is predominantly for car park access and does not provide a main pedestrian access. From the main entrance to the Campus on Highgate Hill, stop D is at a similar distance as stop G, so removal of stop G will not lead to a longer walking distance from the Campus. For those from the Pauntley Street area catching a north-westbound bus on Archway Road, stop X is currently and will remain the closest bus stop (taking into account the underpass on Archway Road).
- 22 In the southbound direction, buses 43, 134 and 263 will continue to stop at stop W (134) or stop R (43 and 263), which will impact on relatively few residences.

The most affected residents are around Pauntley Street, who would need to walk a further 80m to stop Q (further up Archway Road) to catch a southbound service. Also users of the UCL Campus will experience a slightly longer walk to the southbound bus stop on Junction Road (W).

- 23 There is no increase in the number of buses stopping at existing stops as a result of the proposals to relocate the bus stand, although the dwell time at existing stops may increase at some stops (this has been considered in the modelling).
- 24 A map showing the above mentioned areas around bus stops G and K/L is attached at Appendix 6.

Revised proposals – impacts on general traffic

- 25 As shown in the table below, the impacts of the proposals on overall network performance are minimal. More detailed figures showing the changes to general traffic are included at Appendix 7.

	AM	IP	PM
Base case	310.0	165.3	179.8
SDG10 (without relocated bus stand)	302.3	165.5	197
SDG13a (with bus stand on Vorley Road)	299.7	162.7	189.1
SDG14a (with relocated bus stand)	304.6	166.3	191.9
SDG14c (with relocated bus stand)	300.6	165.4	192.5

Table 2: Overall Network Performance (total travel hours)

Appendix 1

SDG10

Notes

General arrangement drawing

DRAFT

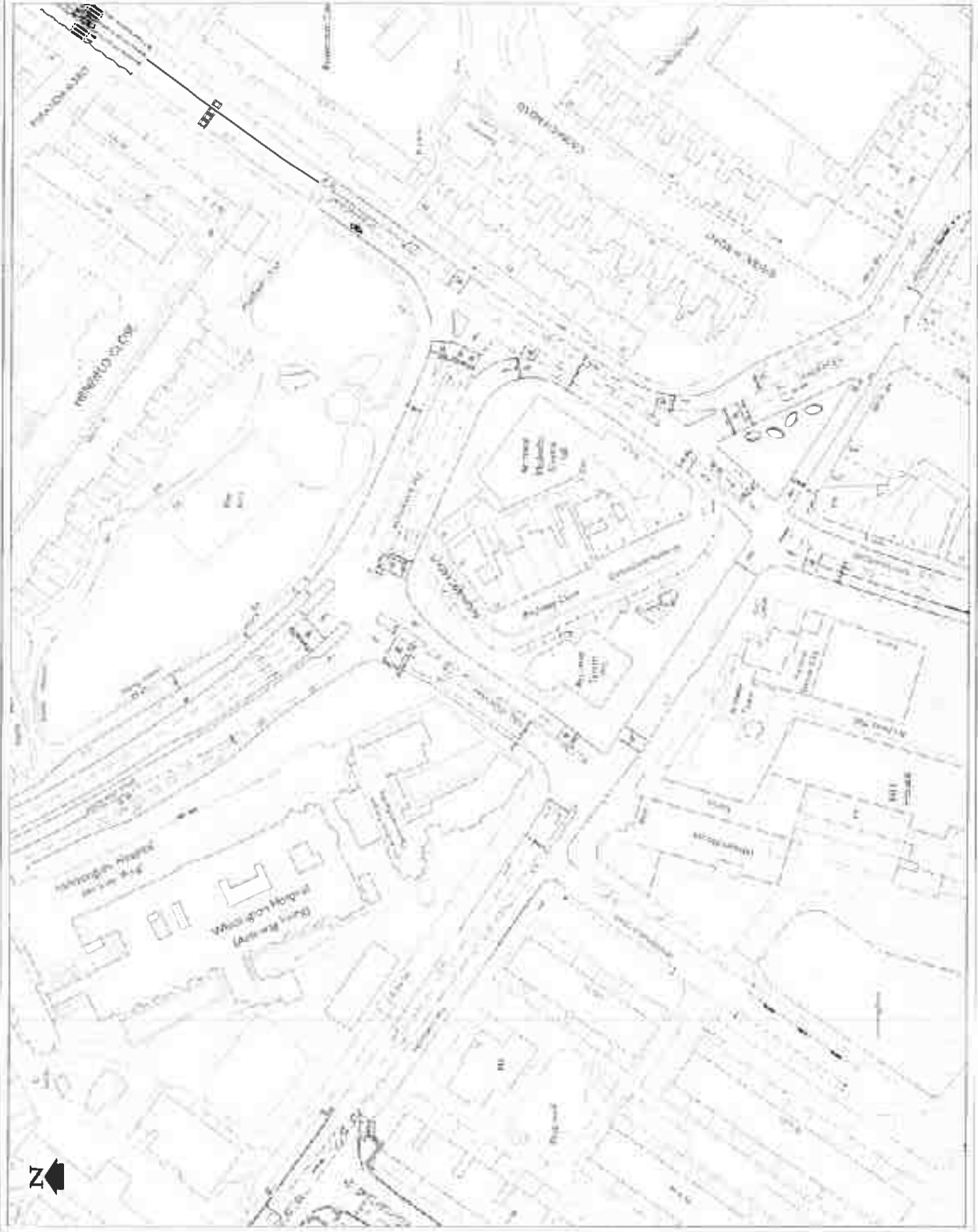
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Islington Council

The Archway Gyrotyro
Feasibility Study
Option M21 One-way Bus Only
Section of Archway Station

Drawn LMD 1:500 @ A1

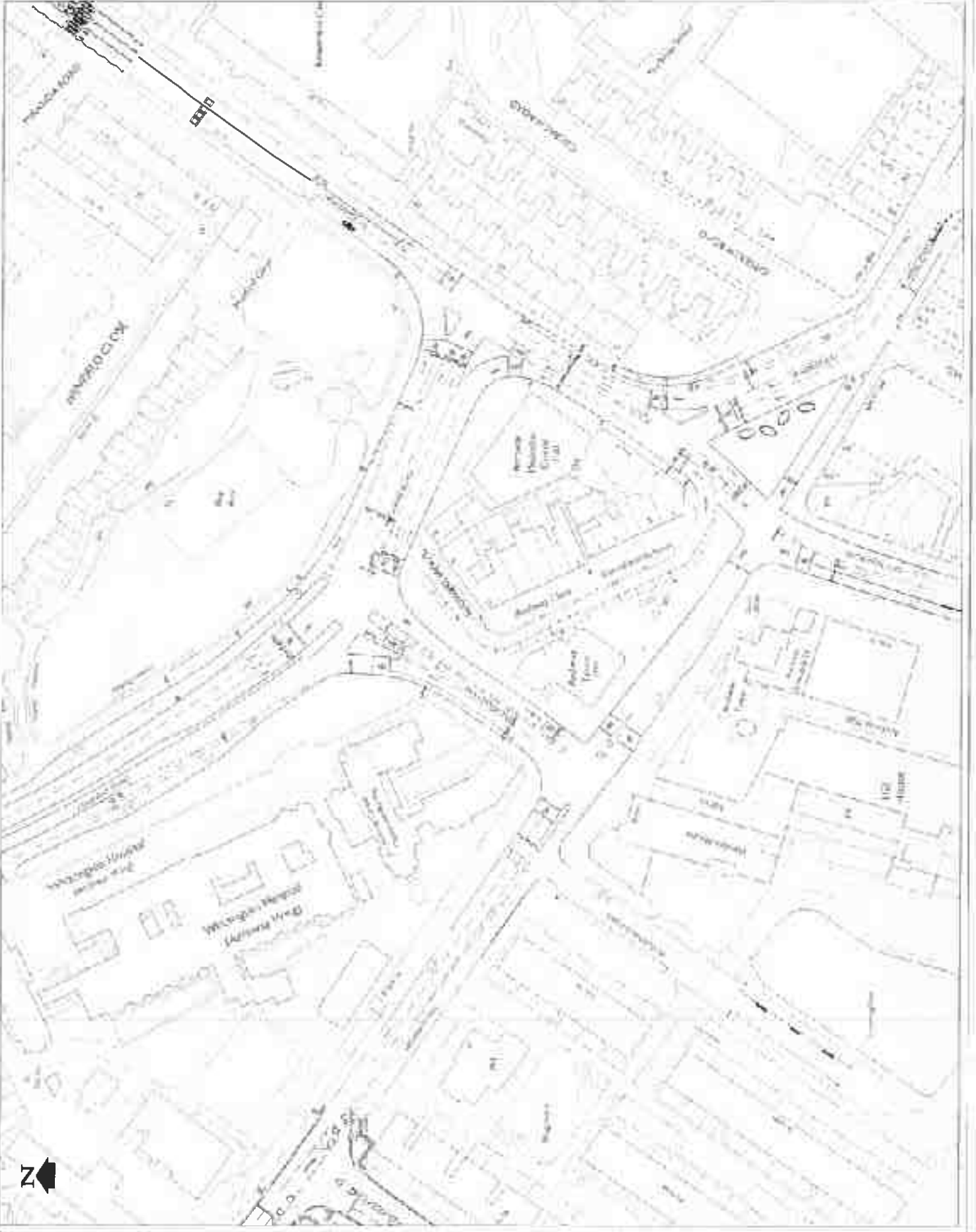
Sheet No. 01 of 01



Appendix 2

SDG13a

Notes
General arrangement drawing

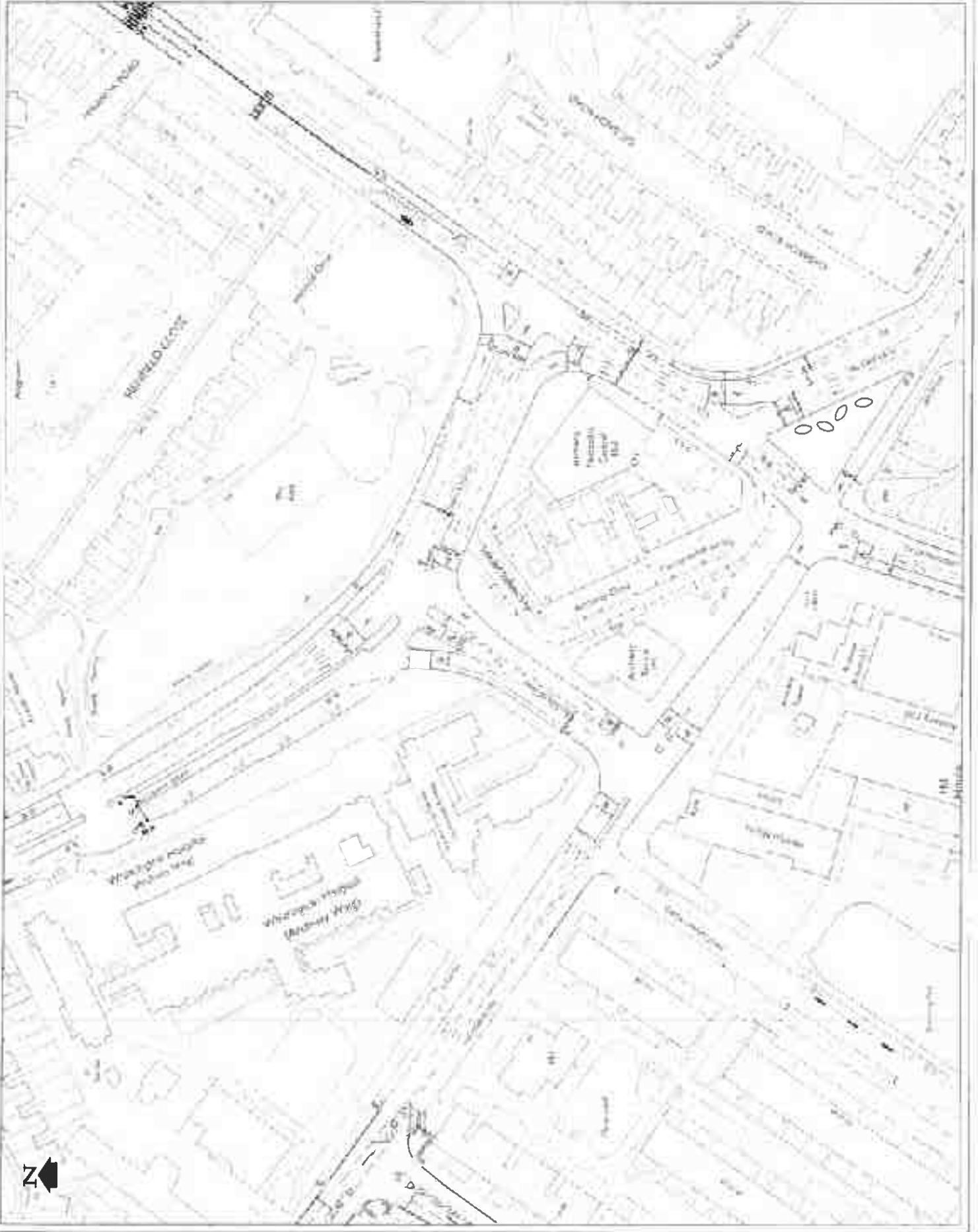


Date	Comments	City App
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Islington Council		
The Archway Oryatory Culinary Study Option 12 (SD013) One-way Bus Only Section of Archway Station		
Drawn	Scale	Rev
LMD	1:1000	A1
Drawn by	Sheet No.	01 of 01
22/10/19	0130	

Appendix 3

SDG14a

Notes
General arrangement drawing



Date	Comments	City App

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Islington Council

The Archway Gyratory
Feasibility Study
Option 12 (BDD14) One-way Bus Only
Section 04 Archway Station

Drawn: LMD
Scale: 1:1000
Sheet: 01 of 01

Appendix 4

Proposed bus stand locations



Notes
 Consult Wolverhampton Planning

Client	Wolverhampton City Council
Project	Vorley Road
Drawn	[Name]
Checked	[Name]
Scale	1:1000
Date	12/11/11

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 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000

Appendix 5

Bus journey times for individual routes and overall

Archway Gytratory - Bus Journey Time Analysis (s)

Route	Journey Time					Freq (bph)	JT Change from Base to...							
	Base	SDG10	SDG13a	SDG14a	SDG14c		SDG14c Adjust	SDG10	SDG13a	SDG14a	SDG14c			
E	188	195	193	195	173	-84	7	4%	5	7%	7	4%	-15	-8%
W	247	294	302	293	146	-84	47	19%	55	22%	46	19%	101	-41%
17 N	328	324	333	308	308	0	-4	-1%	5	1%	20	-6%	20	-6%
17 S	573	748	709	463	475	0	7	30%	11	24%	110	-19%	-98	-17%
18 N	243	234	236	227	229	0	-9	-4%	-7	-3%	-16	-7%	-14	-6%
18 S	306	309	321	305	310	0	3	1%	15	5%	-1	0%	4	1%
19 N	353	393	361	326	326	0	40	11%	8	2%	-27	-8%	27	-8%
19 S	455	574	525	526	532	0	119	26%	70	15%	77	16%	77	17%
134 N	253	350	311	270	263	0	97	38%	58	23%	17	7%	10	4%
134 S	240	336	290	312	321	0	96	40%	50	21%	72	30%	81	34%
143 E	137	141	140	154	136	0	4	3%	3	2%	17	13%	1	-1%
143 W	249	268	265	346	240	0	19	8%	16	6%	97	39%	9	-4%
210 W	281	318	322	352	312	0	37	13%	41	14%	71	25%	11	11%
210 E	233	264	270	279	261	0	31	13%	17	6%	46	20%	28	12%
263 N	354	393	361	326	326	0	39	11%	7	2%	28	-8%	28	-8%
263 S	455	574	525	526	532	0	119	26%	70	15%	71	16%	77	17%
271 N	334	321	320	330	319	0	13	-4%	14	-4%	-4	-1%	-15	-5%
271 S	511	620	587	585	566	0	109	21%	76	15%	74	14%	55	11%
390 N	168	198	201	216	199	0	30	18%	33	20%	48	29%	31	18%
390 S	261	388	381	269	314	0	117	49%	120	46%	8	3%	53	20%
C11 E	169	182	181	181	178	0	13	8%	12	7%	12	7%	9	5%
C11 W	226	289	290	272	265	0	63	28%	64	28%	46	20%	39	17%
W E	137	141	140	135	136	0	4	3%	3	2%	2	-2%	-1	-1%
W W	249	268	265	280	240	0	19	8%	16	6%	31	12%	-9	-4%
Total	53100	62385	59877	56904	54878	-	9285	17%	6777	13%	3804	7%	1778	3%

>1 and <2 minute JT increase
 >0 and <1 minute JT increase
 -1 and <1 minute JT decrease
 -1 and <2 minute JT decrease

AM Peak

Route	Journey Time (s)				Change to Base (s)			
	Base	SDG10	SDG13a	SDG14c	SDG10	SDG13a	SDG14a	SDG14c
From Holloway Road								
17 N	328	324	333	308	-4	5	-20	-20
43 N	353	393	361	326	40	8	-27	-27
271 N	334	321	320	319	-13	-14	-4	-15
263 N	354	393	361	326	39	7	-28	-28
From Junction Road								
134 N	253	350	311	270	97	58	17	10
390 N	168	198	201	216	30	33	48	31
From Highgate Hill								
143 E	137	141	140	154	4	3	17	-1
210 E	233	264	270	279	31	37	46	28
271 S	511	620	587	566	109	76	74	55
W5 E	137	141	140	135	4	3	-2	-1
4 E	188	195	193	173	7	5	7	-15
C11 E	169	182	181	178	13	12	12	9
From Archway Road								
43 S	455	574	525	526	119	70	71	77
134 S	240	336	290	312	96	50	72	81
263 S	455	574	525	526	119	70	71	77
From St John's Way								
41 S	306	309	321	310	3	15	-1	4
210 W	281	318	322	312	37	41	71	31
Change to Base (s)								
Route	Base	SDG10	SDG13a	SDG14c	SDG10	SDG13a	SDG14a	SDG14c
To Holloway Road								
17 S	573	748	709	463	175	116	-110	-98
43 S	455	574	525	532	119	70	71	77
271 S	511	620	587	566	109	76	74	55
263 S	455	574	525	526	119	70	71	77
To Junction Road								
134 S	240	336	290	312	96	50	72	81
390 S	261	388	381	269	127	120	8	53
To Highgate Hill								
143 W	249	268	265	346	19	16	97	-9
210 W	281	318	322	312	37	41	71	31
271 N	334	321	320	319	-13	-14	-4	-15
W5 W	249	268	265	280	19	16	31	-9
4 W	247	294	293	293	47	55	46	-101
C11 W	226	289	290	272	63	64	46	39
To Archway Road								
43 N	313	391	361	326	40	8	-27	-27
134 N	253	350	311	270	97	58	17	10
263 N	354	393	361	326	39	7	-28	-28
To St John's Way								
41 N	243	234	236	227	9	7	-16	-14
210 E	233	264	270	279	31	37	46	28

Archway Gytratory - Bus Journey Time Analysis (s)

Interpeak

Route	Journey Time				SDG14c Adjustment	Freq (bph)	JT Change from Base to...							
	Base	SDG10	SDG13a	SDG14a			SDG10	SDG13a	SDG14a	SDG14c				
1 E	215	197	197	182	-84	6	18	-8%	-18	-9%	-18	-8%	-33	-15%
1 W	304	257	251	132	-84	6	-47	-15%	-53	-18%	-56	-18%	-172	-57%
17 N	354	287	286	278	0	7	-67	-19%	-68	-19%	-64	-18%	-76	-21%
17 S	373	448	443	329	0	7	75	20%	70	19%	-39	-11%	-44	-12%
41 N	217	235	237	233	0	12	18	8%	20	9%	16	7%	18	8%
41 S	304	264	266	269	0	12	-40	-13%	-38	12%	-31	10%	-35	12%
43 N	354	367	338	314	0	9	13	4%	16	-5%	-40	11%	-49	-14%
43 S	274	344	296	288	0	9	70	26%	22	8%	14	5%	17	6%
134 N	242	317	285	261	0	12	75	31%	43	18%	19	8%	13	5%
134 S	256	285	269	279	0	12	29	11%	13	5%	19	7%	23	9%
143 E	182	153	154	147	0	5	-29	-16%	-28	-16%	-20	-11%	35	19%
143 W	280	230	232	223	0	5	50	-18%	-48	-17%	14	5%	-57	-20%
210 W	336	250	245	245	0	7	-86	-26%	-91	-27%	-42	-12%	-91	27%
210 E	212	235	225	223	0	7	23	11%	13	6%	13	6%	11	5%
263 N	354	368	338	314	0	6	14	4%	-16	-5%	-40	-11%	-49	-14%
263 S	274	344	296	288	0	6	70	26%	22	8%	14	5%	17	6%
271 N	398	290	288	295	0	7	108	-27%	110	-28%	-103	-26%	-116	-29%
271 S	324	384	365	377	0	7	60	18%	41	13%	63	19%	52	16%
390 N	208	202	201	193	0	7.5	-6	-3%	7	-3%	-5	-2%	-15	7%
390 S	298	347	335	299	0	7.5	49	16%	37	12%	-49	16%	1	0%
411 E	279	205	206	191	0	7.5	2	1%	3	1%	1	1%	12	-6%
411 W	279	240	237	238	0	7.5	-39	-14%	-42	-15%	-46	16%	-41	-15%
411 E	182	153	154	147	0	5	29	-16%	28	-16%	-25	14%	35	19%
411 W	281	230	232	223	0	5	51	-18%	-49	-17%	35	13%	-58	-21%
Total	50776	51157	49041	47910	46032	-	381	1%	1735	-3%	2866	-6%	-4744	-9%

>1 and <2 minute JT increase
 >0 and <1 minute JT increase
 <0 and <1 minute JT decrease
 >1 and <2 minute JT decrease

Interpeak

Route	Journey Time (s)				Change to Base (s)				
	Base	SDG10	SDG13a	SDG14a	SDG14c	SDG10	SDG13a	SDG14b	SDG14c
From Holloway Road									
17 N	354	287	286	290	278	-67	-68	-75	-76
43 N	354	367	338	314	305	13	-16	-46	-49
271 N	398	290	288	295	282	-108	-110	-113	-116
263 N	354	368	338	314	305	14	-16	-46	-49
From Junction Road									
134 N	242	317	285	261	255	75	43	10	13
390 N	208	202	201	203	193	-6	-7	-8	-15
From Highgate Hill									
143 E	182	153	154	162	147	-29	-28	-33	-35
210 E	212	235	225	223	223	23	13	10	11
271 S	324	384	365	387	377	60	41	47	52
W5 E	182	153	154	157	147	-29	-28	-33	-35
4 E	215	197	197	197	182	-18	-18	-18	-33
C11 E	203	205	206	202	191	2	3	-2	-12
From Archway Road									
43 S	274	344	296	288	291	70	22	64	17
134 S	256	285	269	275	279	29	13	33	23
263 S	274	344	296	288	291	70	22	64	17
From St. John's Way									
41 S	304	264	266	273	269	-40	-38	-35	-35
210 W	336	250	245	294	245	-86	-91	-84	-91
Journey Time (s)									
Route	Journey Time (s)				Change to Base (s)				
	Base	SDG10	SDG13a	SDG14a	SDG14c	SDG10	SDG13a	SDG14b	SDG14c
To Holloway Road									
17 S	373	448	443	334	329	75	70	-43	-44
43 S	274	344	296	288	291	70	22	64	17
271 S	324	384	365	387	377	60	41	47	52
263 S	274	344	296	288	291	70	22	64	17
To Junction Road									
134 S	256	285	269	275	279	29	13	33	23
390 S	298	347	335	249	299	49	37	-58	1
To Highgate Hill									
143 W	280	230	232	294	223	-50	-48	-54	-57
210 W	336	250	245	294	245	-86	-91	-84	-91
271 N	398	290	288	295	282	-108	-110	-113	-116
W5 W	281	230	232	246	223	-51	-49	-55	-58
4 W	304	257	251	248	132	-47	-53	-66	-172
C11 W	279	240	237	233	238	-39	-42	-54	-41
To Archway Road									
43 N	354	367	338	314	305	13	-16	-46	-49
134 N	242	317	285	261	255	75	43	10	13
263 N	354	368	338	314	305	14	-16	-46	-49
To St. John's Way									
41 N	217	235	237	233	235	18	20	17	18
210 E	212	235	225	225	223	23	13	10	11

Archway Gytratory - Bus Journey Time Analysis (s)

PM Peak

Route	Journey Time				SDG14c Adjustment	Freq (bph)	-JT Change from Base to...							
	Base	SDG10	SDG13a	SDG14a			SDG14c	SDG10	SDG13a	SDG14a	SDG14c			
E	191	185	188	188	-84	6	-6	-3%	-4	-2%	-3	-2%	-11	-6%
W	196	253	217	199	-84	6	57	29%	22	11%	3	2%	-85	-43%
17 N	359	318	299	290	0	7	45	17%	26	10%	18	7%	21	8%
17 S	359	523	450	323	0	7	45	46%	91	25%	-36	-10%	-35	-10%
41 N	222	239	240	231	0	12	17	8%	18	8%	9	4%	16	7%
41 S	265	301	287	280	0	12	36	14%	22	8%	15	6%	15	6%
43 N	303	447	349	305	0	9	66	48%	46	15%	2	1%	7	2%
43 S	262	328	304	283	0	9	66	25%	42	16%	22	8%	23	9%
134 N	241	355	281	241	0	12	115	48%	40	17%	0	0%	2	-1%
134 S	249	269	277	233	0	12	20	8%	28	11%	17	-7%	11	-4%
143 E	157	142	144	162	0	5	-14	-9%	-12	-8%	6	-4%	-17	-11%
143 W	229	235	230	255	0	5	6	3%	1	1%	27	12%	-6	-3%
210 W	258	264	265	288	0	7	6	2%	6	2%	5	11%	5	2%
210 E	224	241	228	230	0	7	17	8%	4	2%	6	3%	5	2%
263 N	303	447	349	305	0	6	17	48%	46	15%	2	1%	7	2%
263 S	262	328	304	283	0	6	66	25%	41	16%	21	8%	23	9%
271 N	270	298	285	288	0	7	28	11%	15	5%	18	7%	14	5%
271 S	342	381	361	381	0	7	40	12%	19	6%	39	12%	39	11%
390 N	220	224	185	199	0	7.5	3	1%	-36	-16%	-22	-10%	-10	-14%
390 S	303	376	330	246	0	7.5	72	24%	27	9%	58	-19%	20	-7%
C11 E	190	192	193	193	0	7.5	2	1%	4	2%	3	2%	-4	-2%
C11 W	201	231	215	207	0	7.5	30	15%	14	7%	7	3%	5	3%
W5 E	156	142	144	139	0	5	-14	-9%	12	-8%	17	-11%	-17	-11%
W5 W	229	235	230	231	0	5	6	3%	1	1%	2	1%	-6	-3%
Total	45305	53849	49108	45832	-	-	8544	19%	3803	8%	527	1%	-149	0%

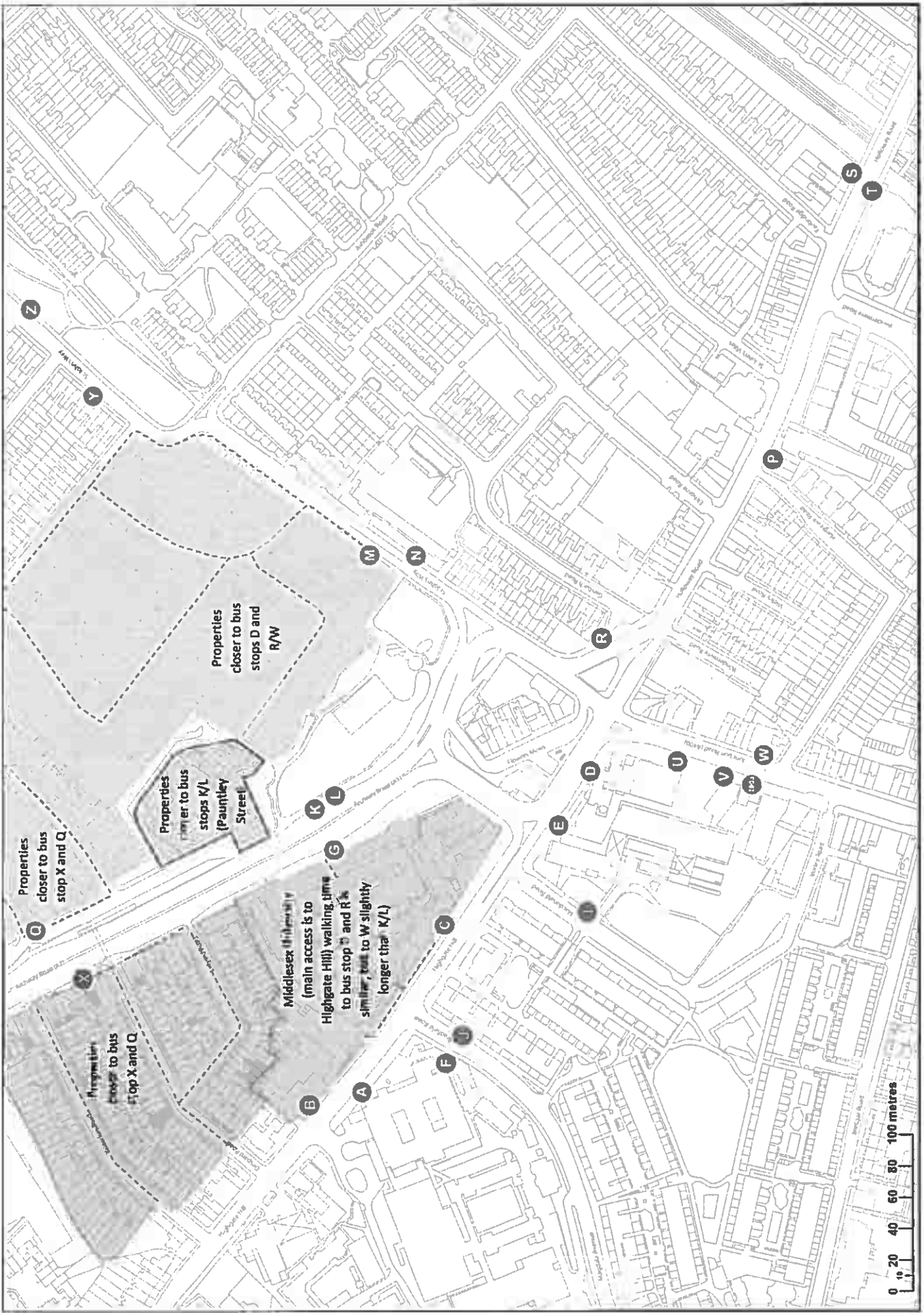
-1 and <2 minute JT increase
 >0 and <1 minute JT increase
 -1 and <1 minute JT decrease
 -1 and <2 minute JT decrease

PM Peak

Route	Journey Time (s)				Change to Base (s)			
	Base	SDG10	SDG13a	SDG14c	SDG10	SDG13a	SDG14a	SDG14c
From Holloway Road								
17 N	272	318	299	293	45	26	18	21
43 N	303	447	349	310	144	46	2	7
271 N	270	298	285	284	28	15	18	14
263 N	303	447	349	310	144	46	2	7
From Junction Road								
134 N	241	355	281	239	115	40	0	-2
390 N	220	224	185	191	3	-36	-22	30
From Highgate Hill								
143 E	157	142	144	139	-14	-12	6	-17
210 E	224	241	228	229	17	4	6	5
271 S	342	381	361	381	40	19	39	39
W5 E	156	142	144	139	-14	-12	17	-17
4 E	191	185	188	180	-6	-4	-3	-11
C11 E	190	192	193	186	2	4	3	-4
From Archway Road								
43 S	262	328	304	285	66	42	22	23
134 S	249	269	277	238	20	28	17	-11
263 S	262	328	304	285	66	41	21	23
From St. John's Way								
41 S	265	301	287	281	36	22	15	15
210 W	258	264	265	263	6	6	29	5
Journey Time (s)								
Change to Base (s)								
Route	Base	SDG10	SDG13a	SDG14c	SDG10	SDG13a	SDG14a	SDG14c
To Holloway Road								
17 S	359	523	450	323	164	91	-36	-35
43 S	262	328	304	285	66	42	22	23
271 S	342	381	361	381	40	19	39	39
263 S	262	328	304	285	66	41	21	23
To Junction Road								
134 S	249	269	277	238	20	28	17	-11
390 S	303	376	330	283	72	27	-58	-20
To Highgate Hill								
143 W	229	235	230	223	6	1	27	-6
210 W	258	264	265	263	6	6	29	5
271 N	270	298	285	284	28	15	18	14
W5 W	229	235	230	223	6	1	2	-6
4 W	196	253	217	199	57	22	3	-85
C11 W	201	231	215	206	30	14	7	5
To Archway Road								
43 N	303	447	349	310	144	46	2	7
134 N	241	355	281	239	115	40	0	-2
263 N	303	447	349	310	144	46	2	7
To St. John's Way								
41 N	222	239	240	231	17	18	9	16
210 E	224	241	228	230	17	4	6	5

Appendix 6

Areas around bus stops proposing to be removed (G and K/L)



Properties closer to bus stop X and Q

Properties closer to bus stops K/L (Pauntley Street)

Properties closer to bus stops D and R/W

Middlesex Hill (main access is to Highgate Hill) walking time to bus stop D and R similar, but to W slightly longer than K/L

Properties closer to bus stop X and Q



Appendix 7

Modelling results for general traffic

Overall Network Performance (total travel hours)

AM Peak

	Base	SDG10	SDG13a	SDG14a	SDG14c
Car	238.1	222.3	223.8	223.9	220.9
HGV	5.1	4.7	5.0	4.9	4.8
Bus	16.9	19.4	18.6	19.8	20.0
Cyclist	21.5	24.4	22.7	24.7	24.1
MC	15.0	19.1	17.7	18.8	18.7
MGV	13.5	12.4	12.0	12.4	12.1
Total	310.0	302.3	299.7	304.6	300.6

Base	Archway Rd	St John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	364	814	368	377
St John's Way	364	0	738	342	396
Holloway Road	209	263	0	289	250
Junction Road	86	135	556	0	111
Highgate Hill	111	158	673	179	0

SDG10	Archway Rd	St John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	315	770	304	255
St John's Way	0	0	658	193	0
Holloway Road	223	207	0	293	307
Junction Road	143	122	292	0	215
Highgate Hill	126	187	759	256	0

SDG13a	Archway Rd	St John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	183	755	225	191
St John's Way	0	0	700	261	0
Holloway Road	230	214	0	302	316
Junction Road	143	121	295	0	217
Highgate Hill	102	188	749	271	0

SDG14a	Archway Rd	St John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	324	764	283	221
St John's Way	0	0	693	270	0
Holloway Road	209	201	0	286	291
Junction Road	138	115	288	0	106
Highgate Hill	133	194	752	281	0

SDG14c	Archway Rd	St John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	316	753	265	213
St John's Way	0	0	701	271	0
Holloway Road	208	201	0	267	278
Junction Road	140	116	289	0	194
Highgate Hill	111	182	741	261	0

General Traffic Travel Times (s)	Base	SDG10	SDG13a	SDG14a	SDG14c
Archway Road	0	0	0	0	0
St John's Way	364	315	183	324	316
Holloway Road	814	770	755	764	753
Junction Road	368	304	225	283	265
Highgate Hill	377	255	191	221	213
Archway Road	364	0	0	0	0
St John's Way	0	0	0	0	0
Holloway Road	738	658	700	693	701
Junction Road	342	193	261	270	271
Highgate Hill	396	0	0	0	0
Archway Road	209	223	230	209	208
St John's Way	263	207	214	201	201
Holloway Road	0	0	0	0	0
Junction Road	289	293	302	286	267
Highgate Hill	250	307	316	292	278
Archway Road	86	143	143	138	140
St John's Way	135	122	121	115	116
Holloway Road	556	292	295	288	289
Junction Road	0	0	0	0	0
Highgate Hill	111	215	217	206	194
Archway Road	123	126	102	133	132
St John's Way	158	187	188	194	182
Holloway Road	673	759	749	752	741
Junction Road	179	256	271	281	261
Highgate Hill	0	0	0	0	0
TOTAL	5476	5385	5169	5161	5237

Overall Network Performance (total travel hours)

Interpeak

	Base	SDG10	SDG13a	SDG14a	SDG14c
Car	123.4	122.7	121.7	123.3	122.8
HGV	2.5	2.5	2.5	2.5	2.5
Bus	14.9	15.1	14.5	16.4	16.0
Cyclist	3.1	3.1	2.8	2.9	2.9
MC	12.7	13.3	12.6	12.4	12.2
MGV	8.7	8.8	8.7	8.9	8.9
Total	165.3	165.5	162.7	166.3	165.4

Base	Archway Rd	St. John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	85	196	131	238
St. John's Way	162	0	198	136	262
Holloway Road	181	201	0	208	308
Junction Road	130	150	260	0	226
Highgate Hill	113	128	237	170	0

SDG10	Archway Rd	St. John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	105	226	171	154
St. John's Way	0	0	179	113	0
Holloway Road	216	215	0	242	257
Junction Road	127	127	66	0	175
Highgate Hill	131	163	268	240	0

SDG13a	Archway Rd	St. John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	97	219	182	154
St. John's Way	0	0	184	115	0
Holloway Road	213	212	0	241	255
Junction Road	127	127	67	0	174
Highgate Hill	105	152	272	241	0

SDG14a	Archway Rd	St. John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	107	226	194	160
St. John's Way	0	0	185	115	0
Holloway Road	205	215	0	221	242
Junction Road	126	124	67	0	168
Highgate Hill	136	150	268	247	0

SDG14c	Archway Rd	St. John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	108	225	199	160
St. John's Way	0	0	184	115	0
Holloway Road	201	211	0	222	237
Junction Road	127	124	67	0	172
Highgate Hill	136	152	266	249	0

General Traffic Travel Times (s)	Base	SDG10	SDG13a	SDG14a	SDG14c
Archway Road	0	0	0	0	0
St. John's Way	85	105	97	107	108
Holloway Road	196	226	219	226	225
Junction Road	131	171	182	194	199
Highgate Hill	238	154	154	160	160
Archway's Way	162	0	0	0	0
St. John's Way	0	0	0	0	0
Holloway Road	198	179	184	185	184
Junction Road	136	113	115	115	115
Highgate Hill	262	0	0	0	0
Archway Road	181	216	213	205	201
St. John's Way	201	215	212	215	211
Holloway Road	0	0	0	0	0
Junction Road	208	242	241	221	222
Highgate Hill	308	257	255	242	237
Archway Road	130	127	127	126	127
St. John's Way	150	127	127	124	124
Holloway Road	260	66	67	67	67
Junction Road	0	0	0	0	0
Highgate Hill	226	175	174	168	172
Archway Road	113	131	105	136	136
St. John's Way	128	163	152	150	152
Holloway Road	237	268	272	268	266
Junction Road	170	240	241	247	249
Highgate Hill	0	0	0	0	0
TOTAL	3036	3109	3070	3090	3087

Overall Network Performance (total travel hours)
PM Peak

	Base	SDG10	SDG13a	SDG14a	SDG14c
Car	133.9	141.8	141.4	143.6	143.8
HGV	2.2	2.2	2.3	2.3	2.3
Bus	14.5	16.8	14.4	15.6	15.8
Cyclist	13.4	17.9	14.1	14.2	14.2
MC	11.6	14.0	12.6	11.9	12.0
MGV	4.1	4.3	4.2	4.3	4.3
Total	179.8	197.0	189.1	191.9	192.5

Base	Archway Rd	St John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	91	176	138	179
St John's Way	205	0	217	170	212
Holloway Road	197	185	0	0	192
Junction Road	182	197	283	0	181
Highgate Hill	153	182	251	208	0

SDG10	Archway Rd	St John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	113	236	156	152
St John's Way	0	0	193	123	0
Holloway Road	227	211	0	0	264
Junction Road	157	152	73	0	204
Highgate Hill	126	159	273	211	0

SDG13a	Archway Rd	St John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	113	240	166	152
St John's Way	0	0	195	131	0
Holloway Road	221	210	0	0	265
Junction Road	156	150	72	0	204
Highgate Hill	100	144	263	208	0

SDG14a	Archway Rd	St John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	138	250	175	158
St John's Way	0	0	191	132	0
Holloway Road	221	207	0	0	262
Junction Road	153	145	72	0	198
Highgate Hill	132	144	264	216	0

SDG14c	Archway Rd	St John's Way	Holloway Rd	Junction Rd	Highgate Hill
Archway Road	0	143	251	176	157
St John's Way	0	0	192	132	0
Holloway Road	221	207	0	0	261
Junction Road	154	147	71	0	198
Highgate Hill	131	148	263	215	0

General Traffic Travel Times (s)	Base	SDG10	SDG13a	SDG14a	SDG14c
Archway Road	91	113	113	138	143
St John's Way	176	236	240	250	251
Holloway Road	138	156	166	175	176
Junction Road	179	152	152	158	157
Highgate Hill	205	0	0	0	0
Archway Road	0	0	0	0	0
St John's Way	217	193	195	191	192
Holloway Road	170	123	131	132	132
Junction Road	212	0	0	0	0
Highgate Hill	197	227	221	221	221
Archway Road	185	211	210	207	207
St John's Way	0	0	0	0	0
Holloway Road	0	0	0	0	0
Junction Road	0	0	0	0	0
Highgate Hill	192	264	265	262	261
Archway Road	182	157	156	153	154
St John's Way	197	152	150	145	147
Holloway Road	283	73	72	72	71
Junction Road	0	0	0	0	0
Highgate Hill	181	204	204	198	198
Archway Road	153	126	100	137	131
St John's Way	182	159	144	144	148
Holloway Road	252	273	263	264	263
Junction Road	208	211	208	216	215
Highgate Hill	0	0	0	0	0
TOTAL	2898	2958	2918	2985	2995