

CROYDON ADDISCOMBE AREA

Preliminary Traffic Assessment

APRIL 2020



CONTACTS



DAVID CARRIGNON
Technical Director – Data
Analytics & Traffic Modelling

dd
e

Arcadis.
12th Floor
Bernard Weatherill
House
8 Mint Walk
Croydon
CR0 1EA

CROYDON ADDISCOMBE AREA

Preliminary Traffic Assessment

Author Maria Rosa Gallego

Checker David Carrignon

Approver David Carrignon

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1 INTRODUCTION

1.1 Context

Arcadis has been commissioned by FM Conway and the London Borough of Croydon to undertake a preliminary traffic assessment in the Addiscombe area. Image 1 below shows the location of the study area.

Image 1. Addiscombe Area location



As shown in image 1, the study area, the Addiscombe Neighbourhood, is located East of East Croydon train station. The tramway line goes through this Neighbourhood, which is bordered by:

- The A222 Lower Addiscombe Road to the North; and □
- The A232 Addiscombe Road to the South.

1.2 Study Purpose

The purpose of this preliminary assessment is to:

- Perform an independent review of exiting traffic conditions within the Addiscombe area; and
- Provide a high-level assessment of changes to the street pattern, including proposals from local HOME resident's associations.

1.3 Content

This report is composed of:

- Chapter 2, listing the available data;
- Chapter 3, describing the local area;
- Chapter 4, detailing the traffic impact of historical change;
- Chapter 5, analysing existing traffic conditions;
- Chapter 6, assessing the proposed situation; and
- Chapter 7, containing the conclusions and recommendations.

2 AVAILABLE INPUT DATA

2.1 Data for Preliminary Assessment

As part of this preliminary assessment, data collection has focussed on making the best use of available information. Except for site visits, all the information used for this study was readily available at its inception.

2.2 Data Sources

The road network data sources are:

- Identification of roads authorities - geoportal.statistics.gov.uk
- Road hierarchy - <https://tfl.gov.uk/modes/driving/red-routes/red-route-maps> □ Network conditions - <https://www.google.com/maps>

Public Transport

- Public transport services - <https://tfl.gov.uk/maps>

Cycle Network

- Cycle network - <https://www.openstreetmap.org>

Collision Analysis

- Traffic collision data - <https://www.crashmap.co.uk>

Typical Traffic Conditions

- Google typical traffic conditions - <https://www.google.com/maps>

Historical Traffic Count Data

London Borough of Croydon provided the following traffic counts:

- Automatic Traffic Counts carried out during June 2019 on Thursday 13th, Friday 14th, Saturday 15th, Sunday 16th and Thursday 21st, Friday 22nd, Saturday 23rd and Sunday 24th; and
- Classified turning counts on Addiscombe Road and Cherry Orchard Road junction, carried out on Thursday 21st, Friday 22nd, Saturday 23rd and Sunday 24th June 2019.

Census and land-use data

- Census and land-use data - <https://maps.cdrc.ac.uk>

Future Local Infrastructure Schemes

- Planned projects register - <https://maps.cdrc.ac.uk>

2.3 Important Remarks on Available Data

The available traffic data is of sufficient level of accuracy for the purpose of this preliminary assessment. Key remarks are:

- Traffic counts disruptions: it is known that the traffic survey from June 2019 was disrupted. Survey equipment was impaired at some locations. The impacted data was removed from the dataset by the survey company; and
- Coronavirus impact: site visits took place at the start of the Coronavirus pandemic. Data from the TomTom traffic index shows that congestion on Tuesday the 17th of March was lower than average.

3 LOCAL AREA DESCRIPTION

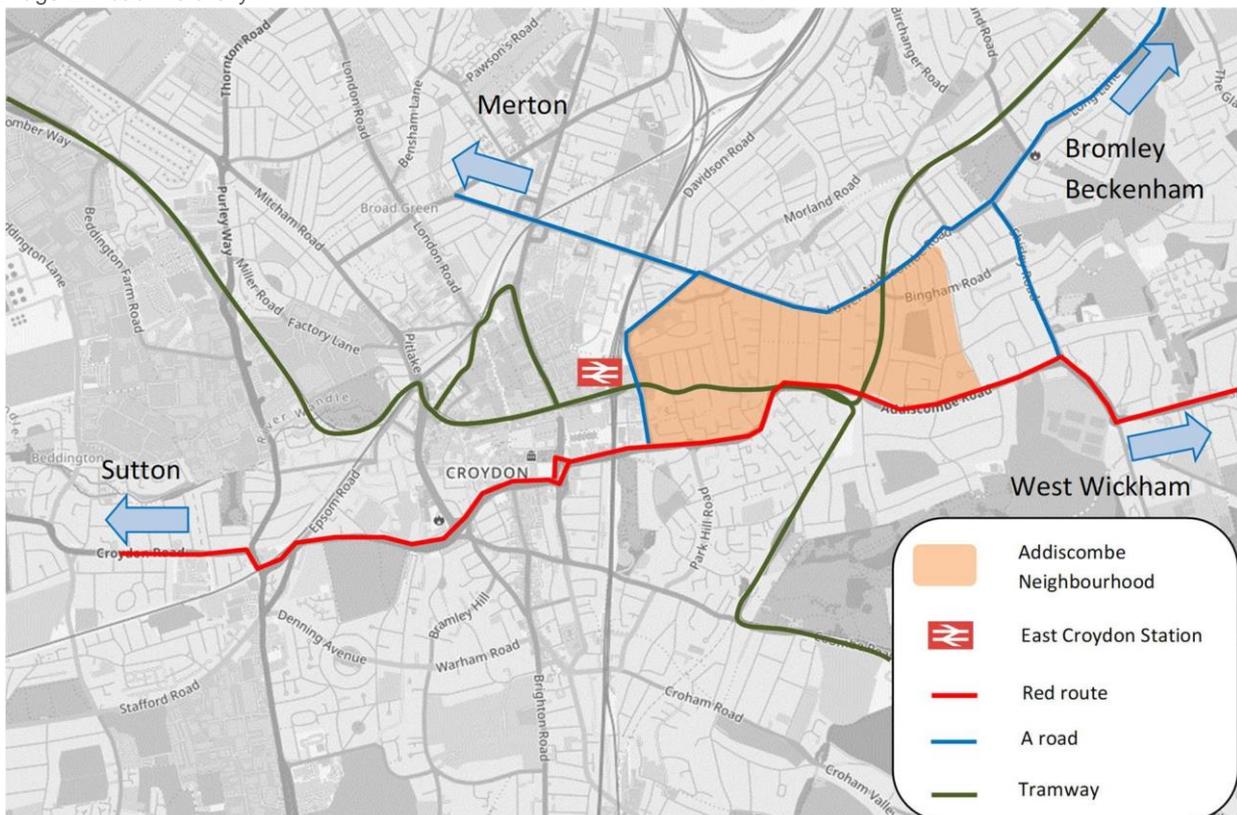
3.1 Transportation - Road Hierarchy

Image 2 shows the location of the Addiscombe study area. The principal road network in the vicinity of the study area is composed of:

- To the South, A232 Addiscombe Road which is a TfL red route linking West Wickham to the East and Sutton to the West (shown in red);
- To the North, A222 Lower Addiscombe Road which is a collector road linking Bromley/ Beckenham to the East and Merton to the West (shown in Blue); and
- Two minor collector roads also connect these two corridors, Addiscombe Grove / Cherry Orchard Road on the west and A215 Shirley Road on the east (shown in blue).

The Addiscombe study area has the most direct connection for traffic transiting from one principal road corridor to the other. This is the direct consequence of the presence of Croydon Town Centre and the limited number of train track crossing points.

Image 2. Road Hierarchy



3.2 Transportation - Public Transport

As presented on image 3, the public transport provision in the study area is characterised by:

- The presence of the tramway, which mostly interacts with traffic on Addiscombe Road;
- The presence of several bus routes on the principal road network; and
- The absence of public transport on local streets.

Image 3. Bus Network



3.3 Transportation - Cycle Network

Image 4 below shows the local and national road network. Unlike the bus network, local streets within the study area are recommended for use to cyclists.

Image 4. Local and National Cycle Network



3.4 Transportation – Local Roads

Traffic is controlled on the local road network using:

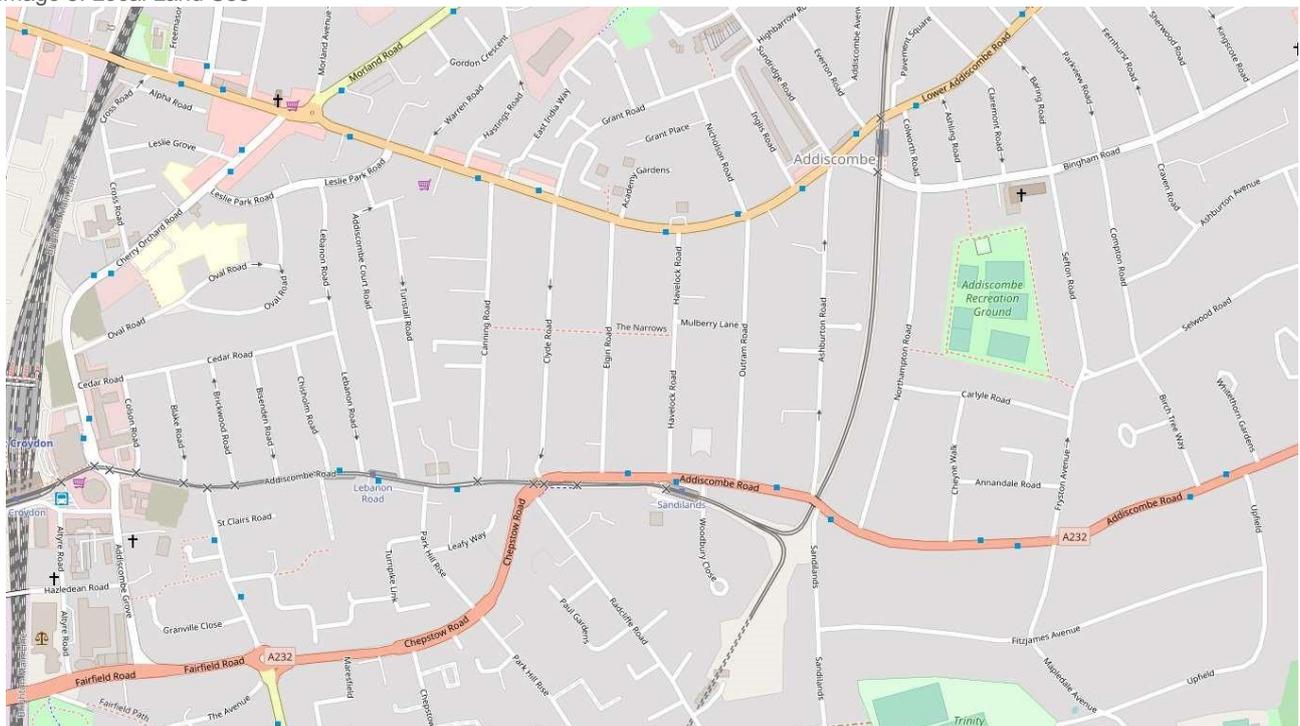
- 20 mph speed limit;
- No good vehicles over 7.5 tonnes except for loading;
- Road humps; and
- Controlled parking zone Monday – Friday 9 am – 5 pm in Elgin Road, Havelock Road, Outram Road, Ashburton Road, Northampton Road and Fryston Avenue between A232 Addiscombe Road and Annandale Road.

These traffic control measures are typical of local roads near public transport stations in London.

3.5 Land-Use – Local Conditions

As shown in image 5, the local land use of the area, is dominated by residential activity. There are some retail activities along Lower Addiscombe Road in the North as well as Addiscombe Recreation Ground in the East. None of the current land use would be expected to generate significant vehicular trips that would impact traffic conditions within the study area.

Image 5. Local Land Use

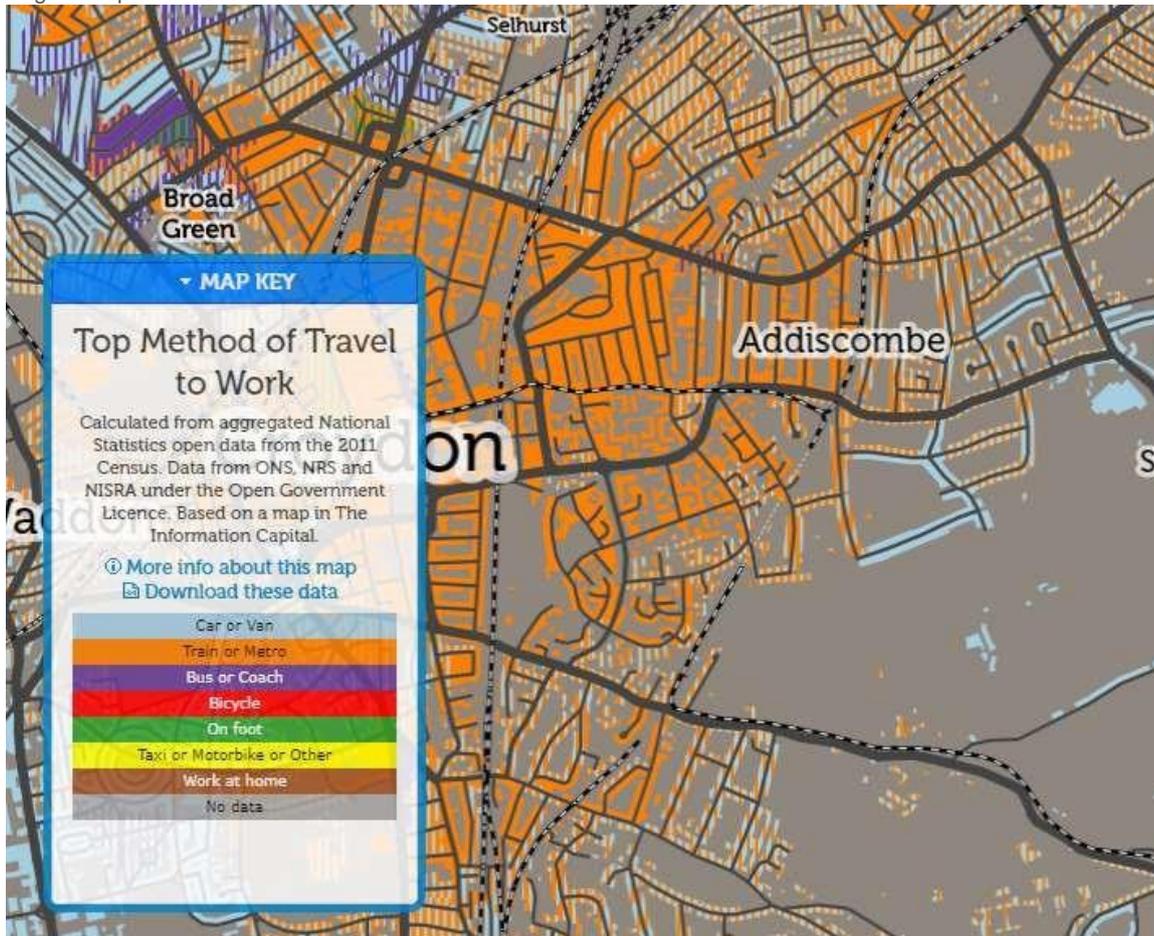


3.6 Transportation - Method of Travel to Work

Image 6 shows information from the 2011 Census related to “Top Method of Travel to Work”. The main method of travel for the Addiscombe area is rail public transport. To the East of the Addiscombe Tram stop, the main method of travel is split between rail public transport and car or van.

Based on this information, it is possible to speculate that residents have a lower than usual personal interest in local traffic conditions at peak hours.

Image 6. Top method of travel to work



3.7 Local Area Conclusion

The key conclusions regarding the local area are:

- The area is residential, and even though limited in size, the Western half is walking distance to East Croydon station and therefore residents are much less dependent on car commute than in a typical suburb;
- The road network in the area, combined with the constraint of crossing the railway track and the presence of Croydon Town Centre, make the Addiscombe area a natural place to transit from one principal road network corridor to another;
- The bus network is located exclusively on the principal road network, making it particularly vulnerable to congestion on these corridors; and
- The local cycle network recommends the usage of local streets.

4 HISTORICAL TRAFFIC IMPACT OF CHANGE

4.1 Street Pattern Change

A series of street pattern changes were introduced in recent years, these include:

- In January 2016, Lebanon Road becoming one-way southbound; and
- In June 2017, a southbound one-way system restricting the entry to Canning Road and Addiscombe Court Road from Addiscombe Road.

4.2 June 2017 Impact Analysis

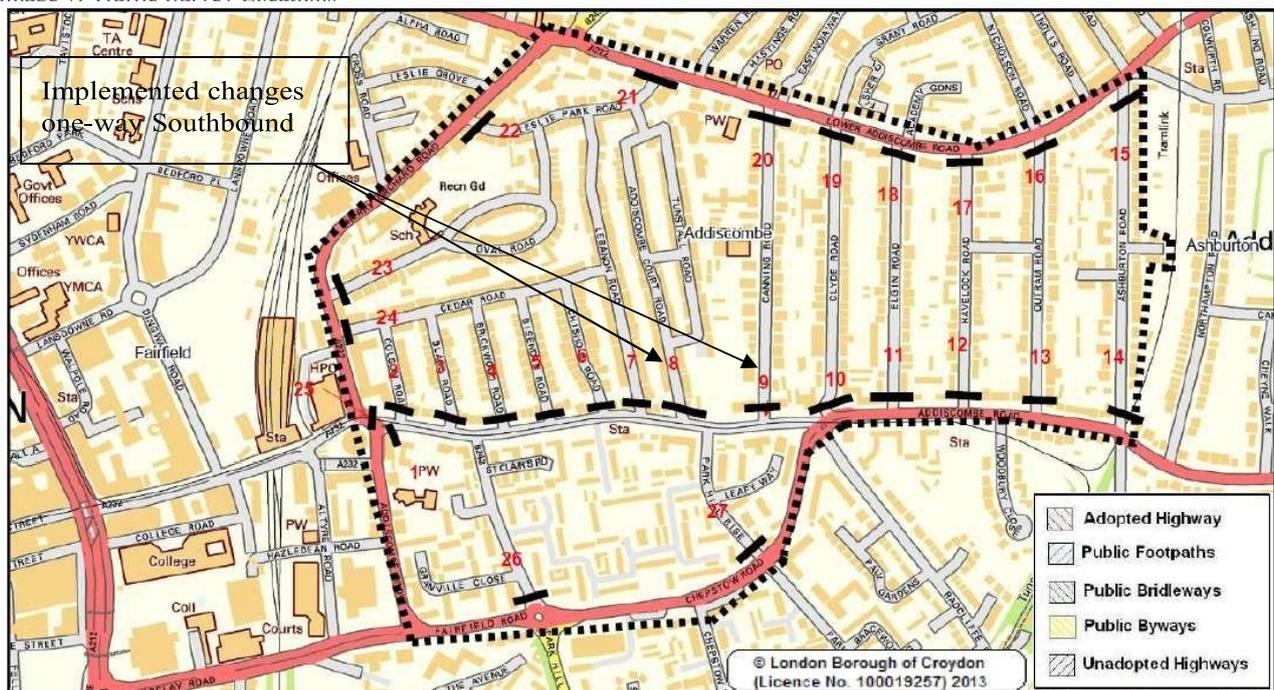
Traffic Survey

Regarding the second change in street pattern that took place in June 2017, traffic surveys were undertaken before and after the change on Canning Road and Addiscombe Court Road. The survey dates were:

- Before the change: 4 days starting on Thursday the 15th of June 2017 and finishing on Sunday the 18th of June 2017; and
- After the change: 7 days starting on Monday the 7th of May 2018 and finishing on Monday the 11th of June 2018.

The dataset used for the comparison has been restricted to suitable days due to equipment damage on site. The traffic count location is shown in Image 7.

Image 7. Traffic Survey Locations



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London Borough Croydon



Table 1 on the next page presents the changes from traffic counts before and after the implementation of the one-way entrance at the Southern end of Canning Road and Addiscombe Court Road. Key observations are:

- The traffic on Canning Road Southbound drops by 26% Southbound, Addiscombe Court Road drops by 31%, despite street closures being Northbound. This gives a good indication of the range of day to day traffic volume variation on the network;
- Elgin Road, the next Northbound street has a traffic increase of 42% to 46%, suggesting that a lot of the traffic from Canning Road and Addiscombe Court Road re-routed locally. The original count on both streets was not provided, so it is not possible to compare traffic volumes.

Overall, traffic volumes are very low. Across all local roads, the busiest street is in the North part of the study area is Elgin Road, with approximately 2600 veh. in a 12 hour period. 2019 traffic counts showed that this corresponded to a peak hour in one direction of 200 vehicles per hour. An observer standing by the side of the road would not be able to notice the change in traffic volume for such low traffic levels.

4.3 Historical Changes Conclusion

The assessment of the changes made on the local streets in 2017 shows:

- That traffic volumes seems to have reassigned to the next available streets; and
- That the provision for cyclists has been maintained with the creation of a cycle lane entrance link at the bottom South of the street.

Table 1. 2017 Traffic Volumes Before and After (in Veh)

Site number	Direction	Total Before volume (7am-7pm) Average of 2 days)	Total After volume (7am-7pm) Average of 10 days)	Total After volume (7am-7pm) Average of 8 days)	Total Av Daily Increase (+) or decrease (-)	Total % increase (+) or decrease (-)
SITE 7 - Lebanon Road near junction with Addiscombe Road	Southbound	854	748		-106	-12
SITE 8 - Addiscombe Court Road near junction with Addiscombe Road	Southbound	293		202	-91	-31
SITE 9 - Canning Road near junction with Addiscombe Road	Southbound	500	367		-132	-26
SITE 20 - Canning Road near junction with Lower Addiscombe Road	Northbound + Southbound	1573	943		-630	-40
SITE 10 - Clyde Road near junction with Addiscombe Road	Southbound	1775	1678		-98	-5
SITE 19 - Clyde Road near junction with Lower Addiscombe Road	Southbound	1890	2093		204	11
SITE 11 - Elgin Road near junction with Addiscombe Road	Northbound + Southbound	1836		2598	762	42
SITE 18 - Elgin Road near junction with Lower Addiscombe Road	Northbound + Southbound	1769	2588		819	46
SITE 12 - Havelock Road near junction with Addiscombe Road	Northbound + Southbound	1683	1912		229	14
SITE 17 - Havelock Road near junction with Lower Addiscombe Road	Northbound + Southbound	1680	1876		196	12
SITE 13 - Outram Road near junction with Addiscombe Road	Northbound + Southbound	1631	1568		-63	-4
SITE 16 - Outram Road near junction with Lower Addiscombe Road	Northbound + Southbound	1564	1451		-113	-7
SITE 14 - Ashburton Road near junction with Addiscombe Road	Northbound	1074	1260		186	17
SITE 15 - Ashburton Road near junction with Lower Addiscombe Road	Northbound	891	1212		321	36
SITE 21 - Leslie Park Road near junction with Lower Addiscombe Road	Northeast + South-westbound	3424	2931		-493	-14
SITE 22 - Leslie Park Road near junction with Cherry Orchard Road	Eastbound + Westbound	1248	1106		-141	-11
SITE 23 - Oval Road near junction with Cherry Orchard Road	Eastbound + Westbound	547	744		197	36
SITE 24 - Cedar Road near junction with Cherry Orchard Road	Eastbound	724	573		-152	-21
SITE 26 - Park Hill Road near junction with Fairfield Road/Chepstow Road	Northbound + Southbound	6000	4723		-1277	-21
SITE 27 - Park Hill Rise near junction with Chepstow Road	Northbound + Southbound	373	394		21	5

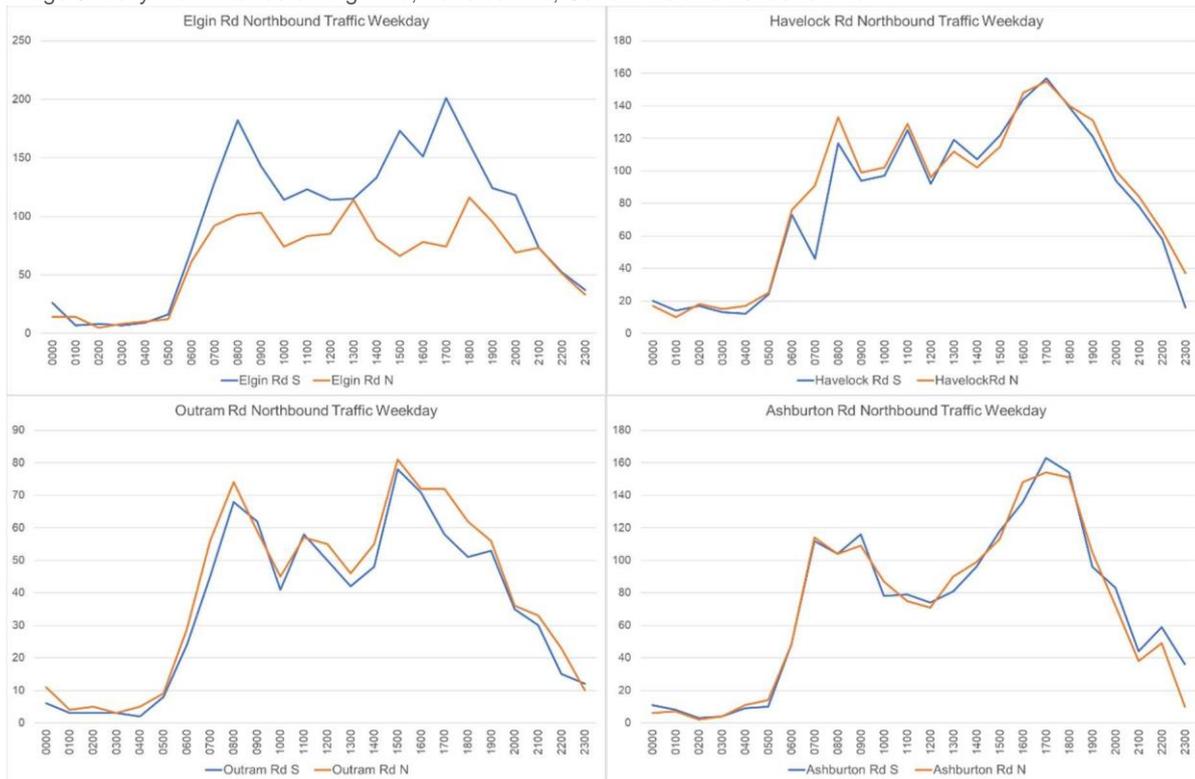
5 ANALYSIS OF EXISTING TRAFFIC CONDITIONS

5.1 Daily Traffic Flow Profiles

Image 8 shows 2019 daily flow profiles for:

- Elgin Road;
- Havelock Road;
- Outram Road; and □ Ashburton Road.

Image 8. Daily Flow Profiles on Elgin Rd, Havelock Rd, Outram Rd and Ashburton Rd¹



Based on 2019 traffic counts, the peak hours on local roads are:

- AM peak: 8:00 – 9:00; and □ PM Peak: 17:00 – 18:00.

These peak hours are typical of traffic conditions dominated by home-to-work traffic patterns, consistent with the residential nature of the area.

Elgin Avenue traffic counts were taken at different days, so they cannot be directly compared. However, at all other locations, the matching of the traffic counts, Northbound, at each end of the street, demonstrates that traffic is dominated by trips going through the area.

¹ Note that Elgin Rd north and south sections were surveyed on different days.

5.2 Traffic Volume Assessment

Table 2 and Table 3 show June 2019 traffic volumes on Elgin Road, Havelock Road, Outram Road and Ashburton Road. An indicative volume to capacity ratio (V/C) is also indicated considering a capacity of 500 vehicles/hour.

The key conclusions from Table 2 and 3 are:

- The range of traffic on local streets is between 50 and 200 vehicles per direction;
- Northbound and Southbound traffic volumes are comparable, even if Northbound is slightly higher;
- The volume to capacity ratio on each street corresponds to free-flowing traffic conditions; and
- The sum of all traffic in transit via four streets in one direction corresponds approximately to a busy one-lane stopline at a signalised junction.

Table 2. Traffic Volumes - Northbound traffic

Location	Road name	AM Peak		PM Peak	
		Total traffic (Veh/h)	v/c	Total traffic (Veh/h)	v/c
SouthSection	Elgin Road	182	0.36	201	0.40
	Havelock Road	117	0.23	157	0.31
	Outram Road	68	0.14	58	0.12
	Ashburton Road	121	0.24	132	0.26
Northsection	Elgin Road	101	0.20	74	0.15
	Havelock Road	133	0.27	155	0.31
	Outram Road	74	0.15	72	0.14
	Ashburton Road	127	0.25	132	0.26

Table 3. Traffic Volumes - Southbound traffic

Location	Road name	AM Peak		PM Peak	
		Total traffic (Veh/h)	v/c	Total traffic (Veh/h)	v/c
SouthSection	Elgin Road	65	0.13	50	0.10
	Havelock Road	81	0.16	86	0.17
	Outram Road	131	0.26	103	0.21
Northsection	Elgin Road	72	0.14	50	0.10
	Havelock Road	93	0.19	108	0.22
	Outram Road	131	0.26	117	0.23

On 17th March a site visit took place between 8-9 am on Elgin Road and Havelock Road. The weather was dry. Traffic volume counts were:

- Elgin Road: 157 vehicles Northbound, 87 vehicles Southbound; and
- Havelock Road: 92 vehicles Northbound and 96 vehicles Southbound.

The site visit counts demonstrate comparable traffic levels to the 2019 survey.

5.3 Peak Hour Local Traffic Conditions

Image 9 and Image 10 show typical traffic conditions as per Google Traffic for a Thursday, in the AM and PM peak periods. In general, the study area is congested during the AM and PM peak hours, with some delays at key junctions and main corridors. The key observations are:

- Traffic conditions are comparable between the AM and PM peak hours;
- The principal road network is congested, in particular at key junctions and where tramway tracks are; and
- Local streets are not equally impacted, despite having very similar street conditions (even comparing one-way streets against one-way street and two-way streets against two-way streets).

Image 9. AM Peak Google Traffic – Typical Thursday

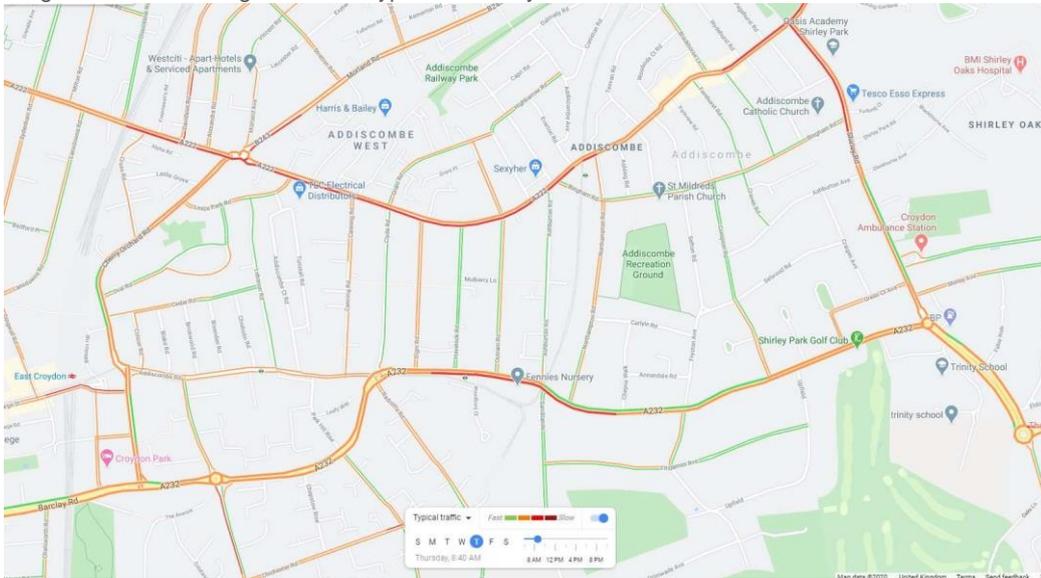
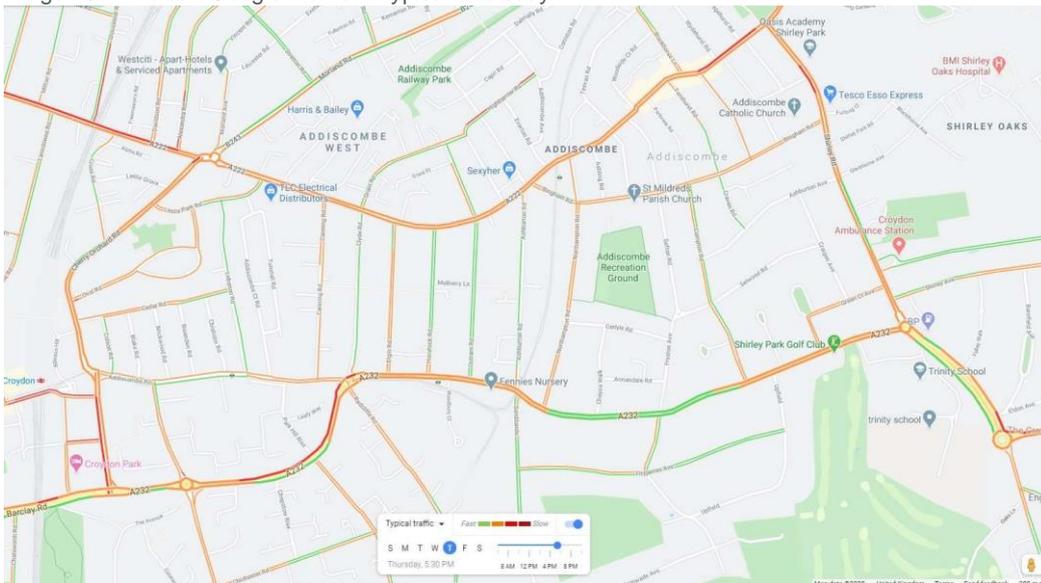


Image 10. PM Peak Google Traffic – Typical Thursday



5.4 Rat Running - Free Flowing Travel Time Sensitivity

Table 4 presents travel times in the road network from the Addiscombe study area extracted from Google Maps, in free-flow conditions. Highlighted in grey are routes using local streets, as opposed to staying on the principal road network in white.

We can observe that:

- Even in free-flow conditions, travel times between the local road and the principal road network are comparable; and
- Going towards the A222 Lower Addiscombe Road, the principal road network is even slower than local roads.

Overall, travel time differences are very small. To deter the use of local roads in free-flow conditions, several minutes delays would need to be achieved on local streets. Typical traffic calming measures (speed limit, humps, chicanes...) cannot generate such delays.

Table 4. Free flow Travel Times

From	To	Via	Travel time (min)	Distance (mi)
A232 Barclay Rd	Morland Rd	Cherry Orchard Rd	4	0.9
A232 Barclay Rd	Morland Rd	Elgin Rd	4	1.4
A232 Barclay Rd	Morland Rd	Northampton Rd	6	2.0
A232 Barclay Rd	Morland Rd	Ashburton Rd	6	1.9
Park Hill Rd	Morland Rd	Cherry Orchard Rd	4	1.0
Park Hill Rd	Morland Rd	Elgin Rd	4	1.2
Park Hill Rd	Morland Rd	Northampton Rd	6	1.9
Park Hill Rd	Morland Rd	Ashburton Rd	5	1.7
A232 Barclay Rd	A222 Lower Addiscombe Rd	Shirley Rd	6	2.2
A232 Barclay Rd	A222 Lower Addiscombe Rd	Elgin Rd	5	1.7
A232 Barclay Rd	A222 Lower Addiscombe Rd	Havelock Rd	6	1.6
A232 Barclay Rd	A222 Lower Addiscombe Rd	Outram Rd	5	1.7
A232 Barclay Rd	A222 Lower Addiscombe Rd	Ashburton Rd	6	1.7
A232 Barclay Rd	A222 Lower Addiscombe Rd	Northampton Rd	6	2
A232 Barclay Rd	A222 Lower Addiscombe Rd	Fryston Ave	6	1.9
A232 Barclay Rd	A222 Lower Addiscombe Rd	Compton Rd	6	2.1
Park Hill Rd	A222 Lower Addiscombe Rd	Shirley Rd	6	2.1
Park Hill Rd	A222 Lower Addiscombe Rd	Elgin Rd	5	1.5
Park Hill Rd	A222 Lower Addiscombe Rd	Havelock Rd	5	1.6
Park Hill Rd	A222 Lower Addiscombe Rd	Outram Rd	5	1.8
Park Hill Rd	A222 Lower Addiscombe Rd	Ashburton Rd	5	1.6
Park Hill Rd	A222 Lower Addiscombe Rd	Northampton Rd	6	1.8
Park Hill Rd	A222 Lower Addiscombe Rd	Fryston Ave	6	1.8
Park Hill Rd	A222 Lower Addiscombe Rd	Compton Rd	6	2.0

5.5 Rat-Running – Peak Hour GPS Driver Experience

Table 5 and Table 6 present typical travel time at peak hour in the AM and PM Peak. Congestion is observed along all routes, making local roads even more attractive than the principal road.

Table 5. AM Peak Travel Times

From	To	Via	Travel time (min)	Distance (mi)
A232 Barclay Rd	Morland Rd	Cherry Orchard Rd	8	0.9
A232 Barclay Rd	Morland Rd	Elgin Rd	10	1.4
A232 Barclay Rd	Morland Rd	Northampton Rd	12	2.0
A232 Barclay Rd	Morland Rd	Ashburton Rd	10	1.9
Park Hill Rd	Morland Rd	Cherry Orchard Rd	9	1.0
Park Hill Rd	Morland Rd	Elgin Rd	8	1.2
Park Hill Rd	Morland Rd	Northampton Rd	12	1.9
Park Hill Rd	Morland Rd	Ashburton Rd	9	1.7
A232 Barclay Rd	A222 Lower Addiscombe Rd	Shirley Rd	12	2.2
A232 Barclay Rd	A222 Lower Addiscombe Rd	Elgin Rd	9	1.7
A232 Barclay Rd	A222 Lower Addiscombe Rd	Havelock Rd	9	1.6
A232 Barclay Rd	A222 Lower Addiscombe Rd	Outram Rd	8	1.7
A232 Barclay Rd	A222 Lower Addiscombe Rd	Ashburton Rd	10	1.7
A232 Barclay Rd	A222 Lower Addiscombe Rd	Northampton Rd	11	2
A232 Barclay Rd	A222 Lower Addiscombe Rd	Fryston Ave	10	1.9
A232 Barclay Rd	A222 Lower Addiscombe Rd	Compton Rd	11	2.1
Park Hill Rd	A222 Lower Addiscombe Rd	Shirley Rd	12	2.1
Park Hill Rd	A222 Lower Addiscombe Rd	Elgin Rd	9	1.5
Park Hill Rd	A222 Lower Addiscombe Rd	Havelock Rd	11	1.6
Park Hill Rd	A222 Lower Addiscombe Rd	Outram Rd	8	1.8
Park Hill Rd	A222 Lower Addiscombe Rd	Ashburton Rd	9	1.6
Park Hill Rd	A222 Lower Addiscombe Rd	Northampton Rd	9	1.8
Park Hill Rd	A222 Lower Addiscombe Rd	Fryston Ave	10	1.8
Park Hill Rd	A222 Lower Addiscombe Rd	Compton Rd	9	2.0

Table 6. PM Peak Travel Times

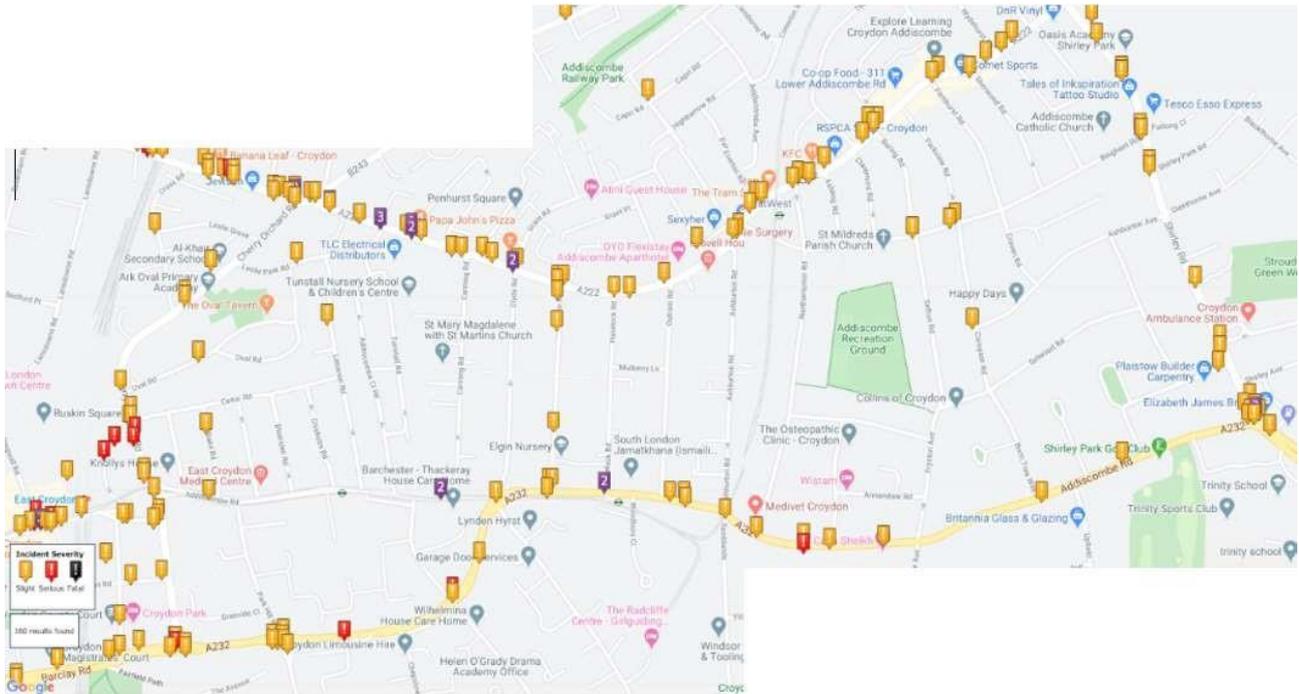
From	To	Via	Travel time (min)	Distance (mi)
A232 Barclay Rd	Morland Rd	Cherry Orchard Rd	8	0.9
A232 Barclay Rd	Morland Rd	Elgin Rd	9	1.4
A232 Barclay Rd	Morland Rd	Northampton Rd	11	2.0
A232 Barclay Rd	Morland Rd	Ashburton Rd	11	1.9
Park Hill Rd	Morland Rd	Cherry Orchard Rd	7	1.0
Park Hill Rd	Morland Rd	Elgin Rd	8	1.2
Park Hill Rd	Morland Rd	Northampton Rd	10	1.9
Park Hill Rd	Morland Rd	Ashburton Rd	9	1.7
A232 Barclay Rd	A222 Lower Addiscombe Rd	Shirley Rd	14	2.2
A232 Barclay Rd	A222 Lower Addiscombe Rd	Elgin Rd	12	1.7
A232 Barclay Rd	A222 Lower Addiscombe Rd	Havelock Rd	12	1.6
A232 Barclay Rd	A222 Lower Addiscombe Rd	Outram Rd	12	1.7
A232 Barclay Rd	A222 Lower Addiscombe Rd	Ashburton Rd	12	1.7
A232 Barclay Rd	A222 Lower Addiscombe Rd	Northampton Rd	12	2
A232 Barclay Rd	A222 Lower Addiscombe Rd	Fryston Ave	12	1.9
A232 Barclay Rd	A222 Lower Addiscombe Rd	Compton Rd	13	2.1
Park Hill Rd	A222 Lower Addiscombe Rd	Shirley Rd	13	2.1
Park Hill Rd	A222 Lower Addiscombe Rd	Elgin Rd	11	1.5
Park Hill Rd	A222 Lower Addiscombe Rd	Havelock Rd	11	1.6
Park Hill Rd	A222 Lower Addiscombe Rd	Outram Rd	11	1.8
Park Hill Rd	A222 Lower Addiscombe Rd	Ashburton Rd	11	1.6
Park Hill Rd	A222 Lower Addiscombe Rd	Northampton Rd	11	1.8
Park Hill Rd	A222 Lower Addiscombe Rd	Fryston Ave	11	1.8
Park Hill Rd	A222 Lower Addiscombe Rd	Compton Rd	12	2.0

5.6 Collision Data

Image 11 shows the location of the collision data for the period 2016 – 2018. The majority of collisions take place on the principal road network, with very few occurrences on the local streets.

The spatial distribution of collisions corresponds to what is expected based on traffic volumes.

Image 11. Location of collisions 2014 – 2018



5.7 Analysis of Exiting Traffic Conditions Conclusion

The analysis of existing conditions show that:

- Traffic using the local streets is dominated by through traffic;
- Traffic volumes on local streets, however, remain typical for a residential environment;
- The use of the local streets is a logical choice for drivers, it is quicker and sometimes more direct than the principal road network;
- The principal road network is congested;
- The cumulated traffic in transit via the local road network corresponds to between ½ a lane to 1 lane of equivalent traffic at key junctions on the principal road network.

6 PROPOSED SITUATION ASSESSMENT

6.1 Option 1 - Resident Proposal Description

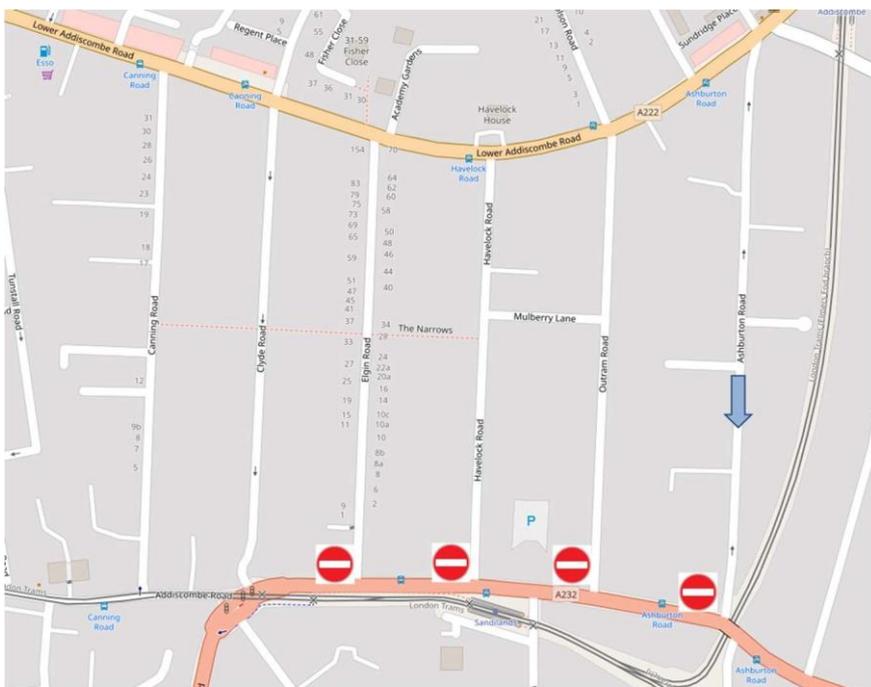
HOME residents' association

On Wednesday 29th January 2020 the HOME residents' association presented their suggested proposal in a meeting held with London Borough of Croydon. Their proposal recommends the following changes in the road network of the Addiscombe area to prevent rat-running Northbound:

- The introduction of plug no-entries at the junctions of Elgin Road, Havelock Road and Ouram Road, with the A232 Addiscombe Road. Elgin Road, Havelock Road and Ouram Road would remain twoway within their length; and
- To reverse the current one-way operation in Ashburton Road, from Northbound to Southbound.

Image 12 shows the proposal from HOME residents' association.

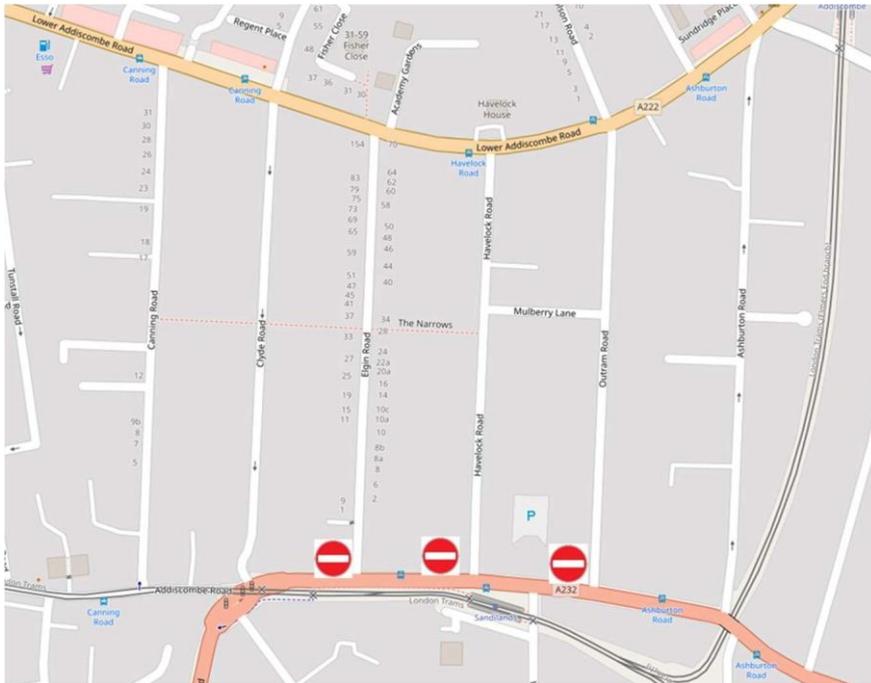
Image 12. Residents' proposal. Option 1



6.2 Option 2 - Alternative Proposal Description

On a meeting held with FM Conway and Croydon Council on the 2nd March, an alternative option to the residents' proposal was considered. This proposed option considers introducing plug no-entries at the junctions of Elgin Road, Havelock Road and Outram Road, with the A232 Addiscombe Road. These roads would remain two-way within their length.

Image 13. Residents' proposal. Option 2



6.3 Proposed Situation Assessment

Based on our overall understanding of the study area, our assessment of Option 1 and Option 2 are:

- Routing alternatives using the local street network will continue to be used. The principal road network is saturated and local detour alternatives would continue to be quicker than staying on the main road;
- The traffic volume on local roads is currently very small and in line with the expected traffic volumes on residential streets. The closure of traffic in one direction would not be perceived by an observer on the side of the road; and
- This restriction on the local street will encourage all local roads to request similar schemes, eventually worsening traffic conditions on the principal road network and impacting local bus services.

7 Conclusions and Recommendations

We conclude that the Addiscombe Area is dominated by a residential land-use in the vicinity of East Croydon Station. Residents have low car usage for commuting purpose and the traffic on local streets is dominated by through traffic, bypassing the congested principal road network.

Despite the above, traffic volumes on local streets is very low on each street, and this network is not showing any sign of having a collision record issue. The historical attempt to discourage through traffic only shifted traffic to the next available streets. Moreover, the local bus network is reliant on the principal road network, and the closure of local streets to vehicles in transit would require major junction widening at key intersections.

Finally, typical traffic calming measures would not achieve a sufficient level of delay to discourage the use of local roads. Making streets one-way only improve local traffic conditions and make these corridors more attractive.

Our recommendation is not to undertake the street-end entrance closure presented as Option 1 and 2. Such an intervention would only worsen the situation to the rest of the local street network, and eventually would impact negatively the local bus network.

Arcadis (UK) Limited

12th Floor
Bernard Weatherill House
8 Mint Walk
Croydon
CR0 1EA
T: +44 20 3014 9000

arcadis.com

