

London Borough of Southwark



Crystal Palace Parade Junction Improvement Scheme

Consultation Summary

January 2015

London Borough of Southwark

Crystal Palace Parade Junction Improvement Scheme

Public Consultation Summary

Contents

List of Figures	2
List of Tables	3
1.0 Introduction	4
1.1 Background	4
1.2 Project and Objectives	4
1.3 Consultation Procedure	6
2.0 Consultation Responses	6
2.1 Response Rate and Distribution	6
2.2 Questionnaire Analysis	7
2.3 Additional Comments	8
2.4 Levels of Consensus	17
2.5 Statutory Consultee Replies	17
3.0 Recommendations	18
Appendices	19
Appendix A: Initial Scheme Design	20
Appendix B: Consultation Documents	21
Appendix C: Location Plan and Extents of Consultation	22
Appendix D: List of Addresses within Distribution Area	23
Appendix E: Modelling Results	22

List of Figures

Figure 1:	Location of proposed scheme	4
Figure 2:	Graphical representation of consultation data for question 2	7

List of Tables

Table 1:	Returned questionnaire results for question 2	7
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1.0 Introduction

1.1 Background

1.1.1 This document report has been produced by the London Borough of Southwark Public Realm Projects Group, to provide a summary of the consultation exercise for the junction improvement scheme on Crystal Palace Parade with Westwood Hill, Fountain Drive and Sydenham Hill. The measures are being drafted by the Public Realm Projects Team, with the project manager for this scheme being Chris Mascord (Senior Engineer).

1.1.2 The area under consideration is located within the SE19 and SE26 district (College Ward) in the south of the borough. See figure 1 below.

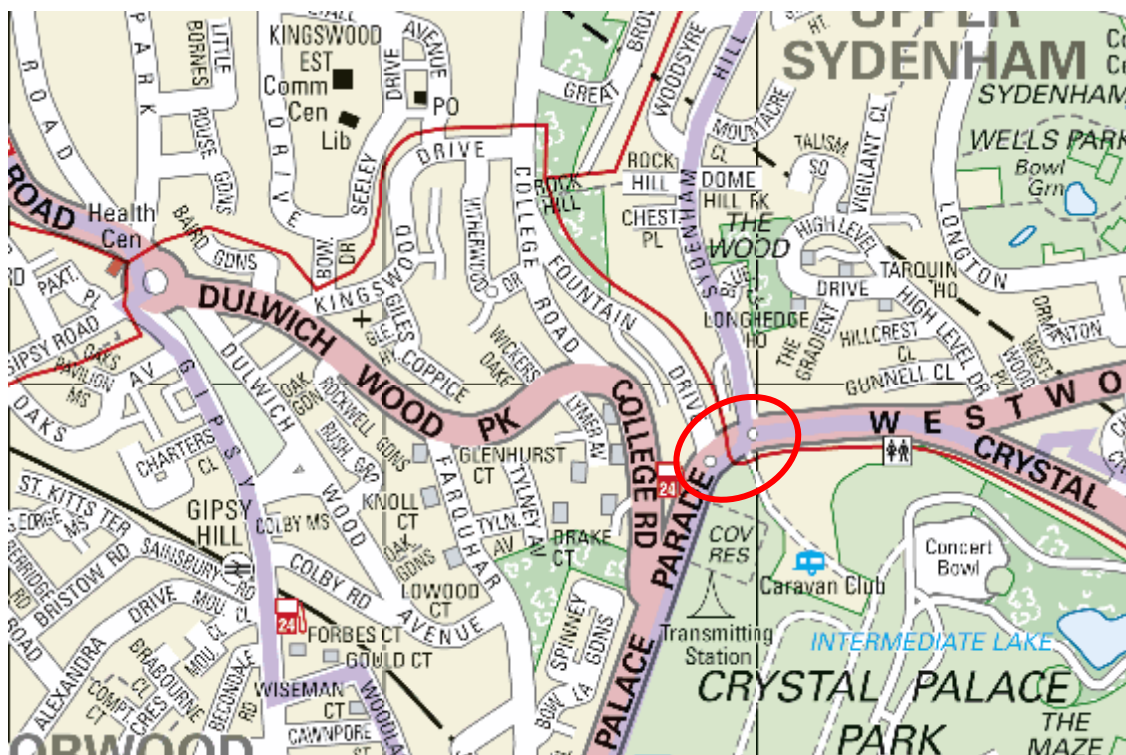


Figure 1: Location of proposed scheme

1.2 Project and Objectives

1.2.1 The measures proposed in this consultation are part of the Council's on-going commitment to make Southwark's streets safer and more accessible for all. The proposed measures will enhance the environment for all road users, reducing traffic speeds and improving pedestrian safety. Cycling proposals also have the added health benefits of improving the environment through reducing carbon emissions and getting more people onto bikes which in turn enhances their fitness and health.

1.2.2 The junctions provide a key pedestrian route and cycle route to nearby train stations, schools, and recreational amenities such as Crystal Palace Park. Both junctions are dominated by multiple traffic lanes, heavy vehicle volumes and high

speeds. There are no formal pedestrian crossings to ensure pedestrians can cross the junction arms safely and there have been numerous recorded accidents involving cyclists, particularly when turning right from Crystal Palace Parade into Fountain Drive. The project aims to improve pedestrian and cyclist accessibility and safety, whilst ensuring minimal delay to traffic flow.

1.2.3 The following measures were consulted upon to improve cycling and pedestrian accessibility and enhance the streetscape:

- Five new parallel priority crossings for pedestrians and cyclists to improve safety and accessibility. The crossings will be provided on the four main arms of the junctions as well as between the two roundabouts to provide a much needed link to Crystal Palace Park.
- The parallel crossings are scheduled to be approved for use by the Department for Transport in April 2015 and allow both cyclists and pedestrians to have priority over traffic which will give way to allow them to cross the carriageway (similar to zebra crossings).
- Fully segregated cycle tracks adjacent to the roundabouts. The cycle tracks will allow cyclists to bypass interaction with general traffic at the roundabouts and will directly access the proposed parallel priority crossings. These measures will ensure that cyclists can negotiate both roundabouts separated from general traffic, which will greatly improve safety and accessibility, particularly for less confident cyclists.
- A segregated westbound traffic lane is to be provided adjacent to the Fountain Drive roundabout so that westbound traffic traversing along Crystal Palace Parade does not have to interact or give way at the roundabout. It is anticipated that this measure will reduce congestion in the morning peak, particularly in Westwood Hill.
- The carriageway width of Sydenham Hill on approach to the mini roundabout will be widened to remove the existing pinch point adjacent to the traffic island and to ensure there is enough width for two lanes to access the give way line at the roundabout. This will improve traffic flow and reduce potential conflict at this location.
- Carriageway overrun areas are to be provided at both roundabouts to ensure that larger vehicles can still undertake turning manoeuvres without obstruction.
- All footways are to be improved with better quality materials and widened in places to ensure adequate widths are maintained.
- Lighting will be upgraded to ensure better visibility at night, partially adjacent to the proposed parallel crossing locations.
- The existing poor carriageway surface will also be renewed to improve safety and allow for high friction surfacing to be installed on approach to the parallel crossing locations.

(See Appendix A – Initial Scheme Design)

1.3 Consultation Procedure

- 1.3.1 The views of the local community and those of statutory consultees have been sought, prior to the development of measures to a detailed design stage. Active community participation was encouraged through the use of a consultation document and questionnaire (see Appendix B – Consultation Documents).
- 1.3.2 The consultation document included a covering letter describing the proposals and a request for comments (including information to assist in translation and large print versions of the consultation document), preliminary design drawings (A3 size) and a questionnaire/comment form that could be sent to the Public Realm Projects Group with a pre-paid address reply.
- 1.3.3 The consultation document was delivered to a geographical area centred on the junctions of Crystal Palace Parade / Westwood Hill / Sydenham Hill and Crystal Palace Parade / Fountain Drive, using strategic roads and pedestrian desire lines as defined cut off points (See Appendix C – Location Plan and Extents of Consultation).
- 1.3.4 The distribution area was large enough to gain views from the wider community that may be considered to be affected by the proposed measures. A mailing list was established for the area by way of the Council's GIS database. In addition, the consultation documents and plans were supplied to the Council's established list of statutory consultees including London Buses, cycle groups and the Metropolitan Police. Please see Appendix D of list of addresses within the distribution area.
- 1.3.5 As the site forms the borough boundary between Southwark, Lewisham and Bromley, the consultation documents were hand delivered to affected frontages in Bromley and Lewisham that were located within the defined consultation area, as the council's GIS database does not have registered addresses outside of the borough boundary.
- 1.3.6 The consultation documents were delivered by Royal Mail to 188 addresses detailed within the distribution list located within the highway boundary of Southwark. As further 155 documents were hand delivered to addresses in Lewisham and Bromley. The documents were delivered on the 10th December 2014, with a return deadline of the 5th January 2015, allowing 4 weeks for the consultation period
- 1.3.7 The proposals were also available to view online using consultation section of the council's website, with an e-form questionnaire provided in order to capture responses.

2.0 Consultation Responses

2.1 Response Rate and Distribution

- 2.1.1 A total of 85 responses were received during the consultation period (43 returned questionnaires, 40 online responses and two formal responses by email), equating to a 25% response rate.

2.1.2 Three responses were received from Statutory Consultees (Southwark Living Streets, Southwark Cyclists and the London Borough of Bromley).

2.2 Questionnaire Analysis

2.2.1 The questionnaire element of the consultation document contained the following key questions and associated tick box options:

Q1. Are you a resident or business?

Q2. What do you think of the proposals?

2.2.2 In relation to question one, all responses received during the consultation period were from local residents, with no businesses formally replying to the consultation.

Question 2 – Do you support the proposals?

	Support	Opposed	No Opinion
Replies	68	15	2
Total	80%	18%	2%

Table 1: Returned questionnaire results for question 2

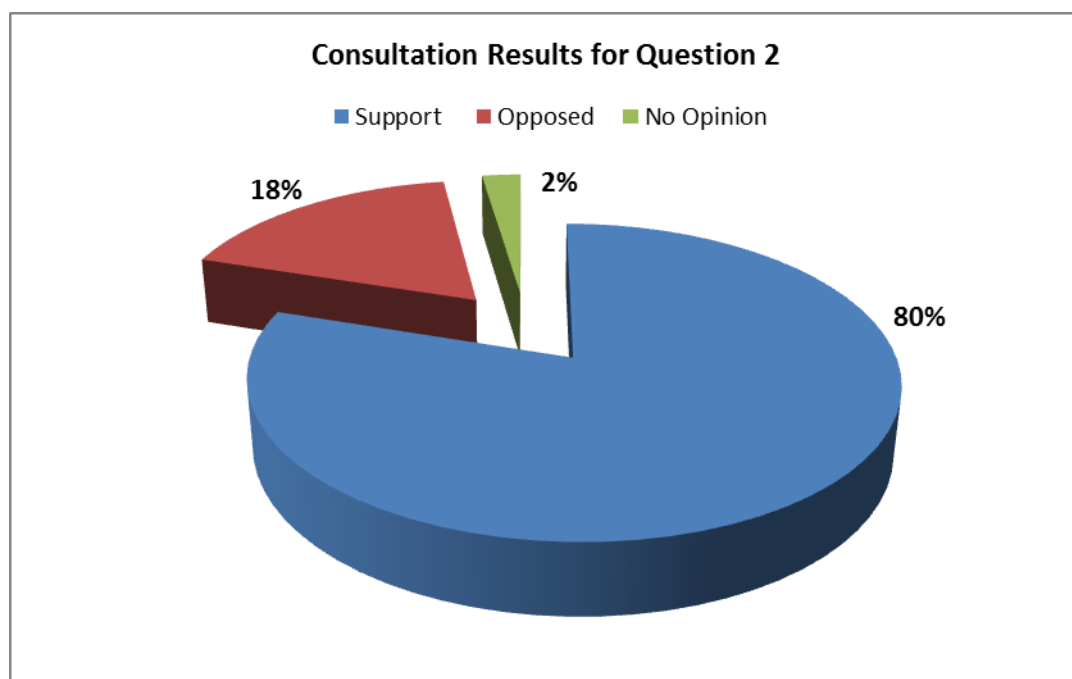


Figure 2: Graphical representation of consultation data for question 2

2.2.4 Table 1 and figure 2 indicate a majority of support for question 2, with 80% welcoming the proposed measures.

2.3 Additional Comments

2.3.1 The questionnaire element of the consultation document invited consultees to attach any additional comments they may have on the proposals when returning the reply-paid questionnaire. Consultees were also able to reply to the consultation online using the council's website.

2.3.2 The majority of respondents (80%) indicated support for the proposed measures, indicating that it was about time something was done at these dangerous junctions and that crossings were badly needed.

2.3.3 A respondent commented that they were thankful to the council for designing such as safe junction for walking and cycling. It will encourage more people to walk and cycle instead of driving short journeys.

2.3.4 A local resident discussed that they often run, walk and cycle to Crystal Palace Park or Crystal Palace Town Centre from Fountain Drive and the junctions are horribly dangerous. This looks like a massive improvement.

2.3.5 A number of respondents commented that they regularly cycle through the junctions and the cycle lanes that avoid interaction with traffic are very welcome.

2.3.6 A respondent commented that the scheme is a ground breaking proposal offering an excellent safety standard. Parallel crossings are common in other countries and it is about time they were adopted in the UK.

2.3.7 Number of responses commented that the junction is hazardous and a death trap for pedestrians and is totally dominated by traffic. The proposals redress this balance by making pedestrians and cyclists priority users.

2.3.8 A number of requests were made to raise the proposed crossings on Crystal Palace Parade to improve pedestrian and cycle safety further. *

* In response, this option is still being considered as part of the final design of the scheme. Whilst traffic speeds are not excessive, the introduction of a totally new type of controlled crossing facility in addition to heavy traffic volumes, may warrant the additional safety benefits that a raised carriageway table has in reducing vehicle approach speeds to the crossing locations.

2.3.9 A concern was raised by a number of respondents about the use of multiple lane zebra / priority crossings. *

* In response, there are many examples of multiple lane zebra crossings in the borough that work effectively. Such examples include Paxton Green roundabout, Goose Green roundabout and Newington Causeway. The final scheme design will be fully safety audited before implementation to ensure that there are no major safety issues associated with the proposed highway layout changes or infrastructure.

2.3.10 A request was made to extend the scheme, including segregated cycle lanes to Crystal Palace Bus Garage and down Fountain Drive and Westwood Hill. *

* In response, there is currently no funding to increase the scope of the scheme. It must be noted Crystal Palace Parade to the west of College Road is under the remit of LB Bromley and Westwood Hill is maintained by LB Lewisham. Therefore the borough is unable to propose highway layout changes on these sections of carriageway. However, it is hoped that following the implementation of improvements to the Fountain Drive and Sydenham Hill junctions, other boroughs will take the initiative and introduce further measures on their highway that provide continuity between pedestrian and cycle facilities being introduced by Southwark and other key junctions on their highway.

- 2.3.11 A request was made for a box junction or keep clear marking at the Sydenham Hill roundabout to ensure that vehicles turning right out of Sydenham Hill are able to exit without being blocked by eastbound traffic accessing Westwood Hill. *

* In response, this request will be considered as part of the detailed design process to ascertain if the introduction of this measure would be beneficial to assisting vehicles exiting Sydenham Hill. However, it is noted by the modelling results for the scheme that queue lengths in Sydenham Hill in peak periods are manageable, with no major delays or excessive queue lengths.

- 2.3.12 A number of comments highlighted that the cycle track should extend all the way around the Sydenham Hill roundabout to remove the shared area which risk conflicts with pedestrians. *

* In response, there are carriageway constraints at the junction that prevent extension of the footway to accommodate a segregated cycle lane. Building out the footway and reducing the corner kerb radius would force larger vehicles turning left from Sydenham Hill into Westwood Drive to potentially conflict with the pedestrian refuge island associated with the parallel crossing facility in Westwood Hill.

It must be noted that this section of shared footway is short in length and still provides opportunity for cyclists to be separated from vehicular traffic, thereby removing the risk of left turn hook collisions, which are the most common type of collision for cyclists at busy junctions. In addition the pedestrian footfall at this location is low and there is still approximately 3m of footway width, which provides enough room for a cyclist to pass a pedestrian without conflict.

- 2.3.13 A comment was received stating that all kerbs in the cycle lanes should be angled to maximise space. *

* In response, all cycle lanes will be in accordance with the design requirements set out in the new LCDS, with a minimum width of 1.5m. The height of the kerbs will range between 100mm to 150mm and therefore will not provide an obstruction to cyclists or conflict with foot pedals.

- 2.3.14 A Number of comments were received stating that the angles the cycle lanes meet the carriageway should be less severe. Longer feeder space is required for cyclists to rejoin the road. *

* In response, this will be considered as apart of the final design. However it must be noted that best practice in Europe highlights that the angle of cyclists when approaching controlled crossing facilities should be at 90 degrees to the

carriageway in order to slow cyclists down and for them to be able to effectively engage with oncoming vehicles. This principle has been applied to exiting on to the general carriageway as well, which forces cyclists to slow down and check it is safe for them to merge with traffic without conflict.

- 2.3.15 A comment was made that there should only be a single lane each way between the two junctions, as two lanes are not needed and this would allow the junctions to be tightened further to reduce speed. *

* In response, this option which mirrored a typical Dutch style roundabout layout with single lane approaches on all arms was designed and modelled during the feasibility stage of scheme development. Unfortunately this option resulted in unacceptable levels of congestion on all arms of the junctions, as stacking capacity between the two roundabouts was reduced from three lanes to one lane. The most problematic delays were evident in Westwood Hill and the western approach of Crystal Palace Parade, which are part of the Strategic Road Network. As a result, a design of this nature would not receive approval from Transport for London who is responsible for maintaining traffic flow on the Strategic Road Network. This proposal would also have adverse effects on local bus routes by significantly increasing journey times and reducing service reliability, which has financial implications for bus operators and consequences for public transport users.

It must be noted that the current scheme is already removing two lanes of traffic in the central section between the roundabouts, thereby reallocating a significant amount of road space to pedestrians and cyclists, as well as reducing the fastest approach on Crystal Place Parade down to one lane before entering the roundabout at Fountain Drive.

- 2.3.16 A number of requests were made to consider giving cyclists priority over motor vehicles at the junction of Old Cople Lane. *

* In response, this request will be considered as part of the final design. However it must be noted that there is minimal traffic movement at this side road turning due to it primarily servicing a caravan park and therefore it is anticipated that delays to cyclists having to give-way is insignificant. The low vehicle volumes at this junction set it apart from the other side roads within the scheme extents such as Fountain Drive and Sydenham Hill. These junctions have thousands of vehicle movements a day, therefore justifying the introduction of controlled carriageway crossing facilities for pedestrians and cyclists.

In line with the above, providing a parallel priority crossing at this side road would be overstated and would have to be situated back at least 10m from the junction headway in order to accommodate a waiting vehicle with caravan (so that it would not block the crossing location when waiting to turn out into Crystal Palace Parade). It is also noted that there is not enough room to the rear of the highway boundary to accommodate this facility and setback from the junction headway.

A more appropriate solution would be to potentially install a raised carriageway table across the junction headway, which would provide a level crossing surface for pedestrians and cyclists. Whilst pedestrians and cyclists would still need to give-way to vehicles entering and exiting Old Cople Lane, this facility could be made to look like an extension of the footway, which would make drivers more

aware of cyclists and pedestrians, as well as providing more continuity between the cycle lane facilities either side of the junction.

2.3.16 Analysis of the additional comments from respondents that objected to the scheme highlighted the following concerns:

A number of objections were received stating that the changes are a waste of money, the junctions work well and keeping the roads clear of potholes would be better. *

* In response, the proposed measures align with the council's Cycling Strategy, Mayor's Vision for Cycling and prescribed road user hierarchy. The Mayor has commitment to invest total of £913m over the next 10 years in cycling safety and infrastructure development to significantly increase the modal share in cycling as a safe, healthy and sustainable form of transport in London.

The London boroughs will play a central role in delivering this vision, by helping to develop, fund and deliver better and safer routes for cycling and pedestrians.

The council welcomes significant investment from Transport for London to improve both junctions that are currently traffic dominated with no formal pedestrian facilities and have collision cluster sites involving cyclists. The potential collision savings associated over a three year period as a result of the proposed junction layout and infrastructure changes would far outweigh the initial capital expenditure for implementation.

Whilst the junctions effectively cater for high volumes of vehicle traffic, there are still delays in peak times, particularly in Westwood Hill and the excessive carriageway width of up to three lanes is not required or fully utilised in order for the junctions to operate efficiently. This is particularly evident on the eastbound approach to the Sydenham Hill roundabout where there are three approach lanes to the roundabout and only a single exit lane into Westwood Hill. In addition, pedestrians and cyclists experience difficulty crossing every arm of both junctions due to the lack of appropriate crossing facilities.

The junctions provide a gateway into Southwark, Lewisham and Bromley and therefore are of significant importance, both strategically and visually, providing convergence of main arterial routes for traffic and access to the Crystal Place Park and recreation areas. The proposals will significantly upgrade the street environment at this location, including lighting which will improve safety and security at night, footway and carriageway surfacing and introduction of planting areas to gentrify the streetscape. This is in addition to reducing traffic speeds and significantly improving pedestrian accessibility and cycling safety. Therefore the scheme provides a step change in that will be to the benefit of all road users.

It must be noted that the funding for this scheme provided by Transport for London can only be spent on improvements at this location and it is proposed that the carriageway within the scheme extents will be resurfaced as part of the package of measures to be implemented. In addition, the council has a comprehensive annual road renewal programme for both principal and non-principal roads that is separately funded.

A respondent objected stating that the council needs to consider traffic volume and speeds and adding zebra crossings at the junctions will force further traffic down Fountain Drive.*

* In response, the scheme has been modelled to ascertain the proposed effects to traffic flow and saturation levels. Crystal Palace Parade and Westwood Hill form part of London's Strategic Road Network and therefore maintaining traffic flow, especially in peak periods, is essential. If a scheme results in excessive congestion and delay to this road network, then it is highly likely that it will not be approved for implementation by Transport for London. It is therefore imperative that the design of the proposed measures takes into account the requirement to maintain traffic flow.

In comparison to the existing base model, the morning peak queue in Westwood Hill will be reduced by over 100m in length, which will result in significant journey time savings to general traffic and bus routes that traverse this carriageway. Sydenham Hill and Fountain Drive will operate effectively without any delay. Eastbound traffic on Crystal Palace Parade on approach to Fountain Drive will experience slightly longer queue lengths (mainly associated with the reduction to one lane). This will equate to approximately 5 additional vehicles in the queue. The afternoon peak analysis indicates that there are no major delays or queuing over and above the base model for both junctions. Please refer to Appendix F for further information on the proposed traffic model. Therefore overall the proposals are anticipated to have a net improvement in traffic flow and reduction in delays compared to the current situation.

The proposed road layout changes and reduction in the number of lane approaches, particularly to the Fountain Drive roundabout, will assist with curtailing traffic speeds. Where possible, vehicle overrun areas are being introduced to tighten left turning movements into side roads, which will also reduce vehicle speeds. The implementation of parallel priority crossings on all arms of the junctions will also potentially reduce vehicle speeds, as drivers will be more cautious in case pedestrians or cyclists are using these facilities.

The lane approaches to both roundabouts have designed to maximise the angle of deflection for vehicles so that they are forced to slow down before traversing past the roundabouts. This is a clear improvement of the existing situation where due to there being three lanes on Crystal Palace Parade in both directions; drivers in the offside lanes do not have to interact with the roundabouts.

There is no evidence to suggest that the introduction of parallel priority crossings will result in additional traffic volumes in Fountain Drive. The crossings will not result in any major delays to traffic on Crystal Palace Parade or adjacent side roads and therefore it is expected that traffic volumes on all roads surrounding the junctions will remain unchanged and not be displaced.

An objection was received stating that implementing more crossings will not improve anything at all and drivers will not obey them.*

* In response, there are no existing controlled facilities for cyclists for pedestrians at either junction. There is a number of existing pedestrian desire lines across Crystal Palace Parade and Westwood Hill and between the two junctions. Pedestrians currently are forced to traverse up to six lanes of traffic in order to cross the Crystal Palace Parade and do so by taking refuge on the central

reservation on the middle of the carriageway. Considering that there is a major recreational park adjacent to the junction and the area is in close proximity to Sydenham Hill Station and numerous bus stops, it is essential that measures are introduced to cater for existing and future pedestrian demand at the junction that not only improve accessibility, but also ensure the safety of pedestrians and cyclists crossing the carriageway.

In addition, there are also pedestrian desire lines across Sydenham Hill and Fountain Drive which are currently not catered for. These routes are used by local residents from the surrounding area to access, Crystal Palace town centre, local transport facilities and Crystal Palace Park.

Reviewing recorded accidents at the junctions over the last 3 years highlights an above average number of collisions involving cyclists, particularly when turning right from Crystal Palace Parade into Fountain Drive. Cyclists experience difficulty traversing the junction due to the number of carriageway lanes and volume of vehicles. There is currently no provision for cyclists to undertake turning manoeuvres without interacting with general traffic and as a result, the potential for conflict is quite high; which is quantified by reviewing previous collision data. In fact, it can be argued that the existing layout of the junctions is prohibitive to encouraging cycling, which is of particular concern, as the junctions provide direct access into Crystal Palace Park.

Therefore the implementation of new parallel priority crossings will significantly improve the safety of pedestrians and cyclists as well as enhancing access to local recreation and public transport facilities. The crossings will have the same regulations as normal zebra crossings, whereby drivers give way to pedestrians and the driver / crossing user interaction makes them statistically safer than signalised facilities, such as pelican or toucan crossings.

A respondent opposed the scheme on the grounds that the roads around the junction do not have cycle lanes. *

* In response, this is outside the scope of the current scheme. Westwood Hill is maintained by Lewisham and is therefore the road layout is unable to be revised by Southwark. It must be noted that the western section of Crystal Palace Parade has bus lanes in both directions that can be used by cyclists. The bus lanes allow cyclists to be separated from general traffic which reduces the risk of collision. Cyclists travelling in the eastbound bus lane can enter directly into the proposed segregated cycle lane on approach to the Fountain Drive roundabout and the westbound segregated cycle lane on the southern side of Crystal Palace Parade links directly into the westbound bus lane that heads towards Crystal Palace. Therefore cyclists will be separated from general traffic along Crystal Palace Parade and through both junctions.

Likewise there is a peak time southbound bus lane on Sydenham Hill that can be used by cyclists which assists access to the mini roundabout at Westwood Hill. Due to general carriageway width constraints of Sydenham Hill, it would not be possible to install cycle lanes, particularly northbound, as the width of the general traffic lanes would be reduced below minimum requirements, which would lead to potential for vehicles either overrunning the cycle lanes or result in head on conflict with opposing vehicle flows.

There is an existing mandatory cycle lane leading up the hill in Fountain Drive to assist cyclists with the steep climb from College Road and Sydenham Hill Station. There are no plans to alter this facility as part of these proposals. There is no justification to introduce a cycle lane in the opposite direction as there is no history of collisions involving cyclists and existing traffic calming curtails traffic speeds in line with the 20mph speed limit. Mandatory cycle lanes and segregation is not encouraged for 20mph carriageways unless there is a warranted safety reason for doing so.

A number of objections were received stating that the reduction to one lane on Crystal Palace Parade on approach to the Fountain Drive roundabout will result in increased congestion. 'Stop trying to make so many drivers' lives more difficult to try and make a few pedestrians around here happier.'

*

* In response, as mentioned previously, the scheme has been modelled with the proposals not resulting in excessive congestion in peak periods on the Crystal Palace Parade approach to Fountain Drive. Whilst there is a slight increase in queue lengths in peak periods, the increase will not result in adverse effects on journey times.

It is evident that the majority of delays to eastbound traffic are the result of the signalised junction located on Westwood Hill within the borough of Lewisham. In peak periods, these signals result in congestion that extends back to the Sydenham Hill junction and results in queuing through the roundabouts into Crystal Palace Parade. As there is only a single lane exit into Westwood Hill from Crystal Palace Parade there is little point having multiple lanes approaching Fountain Drive, as the traffic has to merge into a single lane to enter Westwood Hill. This is the primary reason why revising the Crystal Palace Parade approach to one lane has not resulted in excessive queuing over and above the base model.

A respondent objected highlighting that it will be more difficult to turn right into Fountain Drive. *

* In response, it can be argued that the proposed highway layout changes will make turning right into Fountain Drive from Crystal Palace Parade safer and easier. The reduction of Crystal Palace Parade to one lane on approach to the Fountain Drive roundabout will rationalise traffic flow entering the roundabout and reduce the potential for collisions associated with three lanes of traffic entering the roundabout and potentially crossing the path of a right turning vehicle.

Likewise, reducing the exit of Fountain Drive from three lanes to one lane will also potentially improve safety for right turning vehicles into Fountain Drive, as two lanes of traffic will no longer be able to turn right out of Fountain Drive simultaneously. The single lane exit will ensure that right turning vehicles will only have to give way to a single lane of traffic, which considerably simplifies the operation of the roundabout circulatory movements.

In addition, the provision of the westbound roundabout bypass lane will ensure the majority of vehicles accessing the nearside lane after Sydenham Hill are primarily turning right into Fountain Drive. Therefore it is likely that delays to right turning vehicles will be reduced, as they no longer have to share the nearside lane with vehicles wishing to traverse westbound towards Crystal Palace.

Reviewing historic collision data highlights that the right turning movement into Fountain Drive is currently the most problematic, with a cluster of collisions recorded. It is anticipated that the proposed scheme which simplifies the operation of the roundabout, will significantly reduce the number and severity of recorded collisions associated with this turning manoeuvre.

Various objections were received relating to the effect the scheme will have on traffic flow. *

* In response, as mentioned previously, the effects of the scheme on traffic flow and delays have been modelled, with the modelling results concluding that there will potentially be significant improvement to the congestion levels in Westwood Hill, which is the most saturated arm of the junctions in peak periods. All other arms will still operate effectively with any major delay or increase in journey times.

A number of respondents objected stating that the zebra crossings are far too close to the roundabout and five are not necessary and cutting back vegetation to allow for cycle paths is unacceptable. *

* In response, the parallel priority crossings are located on pedestrian desire lines to ensure that they effectively cater for present and future pedestrian demand at both junctions. Placing the crossings further away from the junctions would potentially result in pedestrians crossing in the 'shadow' of the crossings, unprotected. Previous studies on zebra crossings have shown that zebra crossings placed away from pedestrian desire lines are poorly used and have higher than average recorded collisions located away from the pedestrian crossing location.

It must be noted that whilst the crossings are located close to the junctions, they have been set back from the give way lines at the roundabouts to ensure that there is room for at least one vehicle to stand between the give way line and the crossing location, which will reduce the likelihood of the crossing area being obstructed by waiting vehicles.

As started earlier, five crossing facilities are required to cater for pedestrian movements across the four main arms of the junction and to cater for the pedestrian desire line from the northern side of Crystal Palace Parade to the entrance into Crystal Palace Park.

In order to create adequate footway width for pedestrians and to install 1.5m wide segregated cycle lanes, a small section of a planted retaining wall on the northern side of Crystal Palace Parade and a number of exiting shrubs and bushes on the southern side of Crystal Palace Parade need to be removed. It must be noted that no existing mature trees are proposed to be removed as part of the current design and the majority of additional footway and cycle lane width is being created from removing the offside carriageway lanes on Crystal Palace Parade. In addition, there are a number of new proposed planting areas that will offset any loss of existing vegetation, which will improve the visual amenity of the streetscape and new junction layouts.

A number of objections were received indicating that the sites are too busy to test currently unapproved priority crossings and the junctions should be signalised. *

* In response, the council has attended numerous site meetings with various stakeholders including TfL's London Cycle Design Unit and consulted the Department for Transport during the scheme development stage, and following an internal review by Transport for London, agreement was forthcoming to consult on the proposed junction improvements.

Whilst Crystal Palace Parade and Westwood Hill have heavy traffic flow, being part of the Strategic Road Network, recorded speeds through the junctions are not excessive. The fastest approach has been redesigned from three lanes into one lane, which will assist with curtailing traffic speeds and improve safety and crossing distance for pedestrians. Lane rationalisation on other junction approaches has also reduced crossing distances for pedestrians and legible lane discipline markings will be installed to improve traffic flow and separate / remove existing conflicting movements, which will also assist safety for all road users.

The final design will also undergo a full road safety audit to ensure that there are no major safety implications associated with the proposed highway layout or design of the infrastructure.

The formal use of the parallel priority crossings is due to be approved by the Department of Transport in April 2015 and therefore the measures can be implemented after this approval date.

Signalisation of both junctions was investigated as part of the feasibility stage of the project. This included looking at signalising both Sydenham Hill and Fountain Drive junctions together and signalising the Sydenham Hill / Westwood Hill junction and keeping the roundabout configuration at Fountain Drive.

When modelled using the existing traffic volumes, queue lengths and degree of saturation, it was evident that the first option was simply not feasible due to the closure proximity of both junctions. There is not enough stacking space between the junctions in order for them to operate individually and thus signals would have to operate in tandem which would result in long inter-green times to allow traffic to clear the sections of carriageway between the junctions. This ultimately resulted in fully saturating the network with large queues in Westwood Hill and Crystal Palace Parade extending back to the preceding signalised junctions and beyond.

Signalising Sydenham Hill junction and retaining the Fountain Drive roundabout also resulted in significant delay over and above the existing situation. Using an optimal cycle time of 90 seconds and a three phase junction operation still resulted in large queues and journey time delay in peak periods on the Strategic Road Network and side roads.

In accordance with the above modelling results and estimated delay to vehicles on the Strategic Road Network, both signalisation options were discounted. It must be noted that Transport for London would also object to these options if they were presented for consultation, primarily due to journey time delays and associated costs to local bus routes. Therefore the best option for all road users that ensures traffic congestion is not adversely affected and creates significant

improvements safety and accessibility for cyclists and pedestrians is the current option that involves retaining the two roundabouts and installing parallel priority crossings.

An respondent objected stating that they do not want to have pathways shared with cyclists as they are unruly and have no regard for pedestrians.*

* In response, all proposed cycle lanes will be segregated from adjacent pedestrian footways. The cycle lanes will be at carriageway level with an adjacent 150mm up-stand to ensure cycles will not encroach onto pedestrian areas. There is only a short section of shared footway located on the corner of Sydenham Hill and Westwood Hill, as there is not enough carriageway space or footway width to install a fully segregated cycle track. However there is good visibility and pedestrian flows on this section of footway are minimal.

2.3.17 16% respondents did not submit a further comment.

2.4 Levels of Consensus

2.4.1 The following majority levels of agreement have been given in relation to the questions contained within the consultation document:

- 80% of respondents support the implementation of the junction improvement scheme;
- 18% of respondents are opposed to the proposals; and
- 2% of respondents had no opinion.

2.5 Statutory Consultee Replies

2.5.1 Three statutory consultees provided a reply to the consultation.

- a) **Southwark Living Streets** replied indicating strong support for the scheme
- b) **Southwark Cyclists** replied indicating support for the scheme indicating that it is a huge improvement on what's there at present and represents for the most part a well balanced allocation of road space between competing modes.

They highlighted a number of issues they would like to be considered further as part of the final design which include;

- Fountain Drive entrance geometry.
- Installation of additional traffic splitter islands on crossings that have multiple lane approaches.
- Possible two way operation of sections of cycle track to assist accessibility too and from Crystal Place Park.
- Remove the shared space on the corner of Sydenham Hill and Westwood Hill.
- Cycle priority over Old Cople Lane.

** It must be noted that these issues have already been discussed previously in the report and will be investigated as part of the final design process.*

- c) **London Borough of Bromley** replied requesting further meetings to discuss elements of the design further, particularly measures proposed on Bromley maintained highway.

Officers are in a dialogue with LB Bromley and anticipate getting its support. Scheme implementation will only commence with LB Bromley's approval.

- 2.5.2 No objections were received from Ward Members throughout the consultation period.

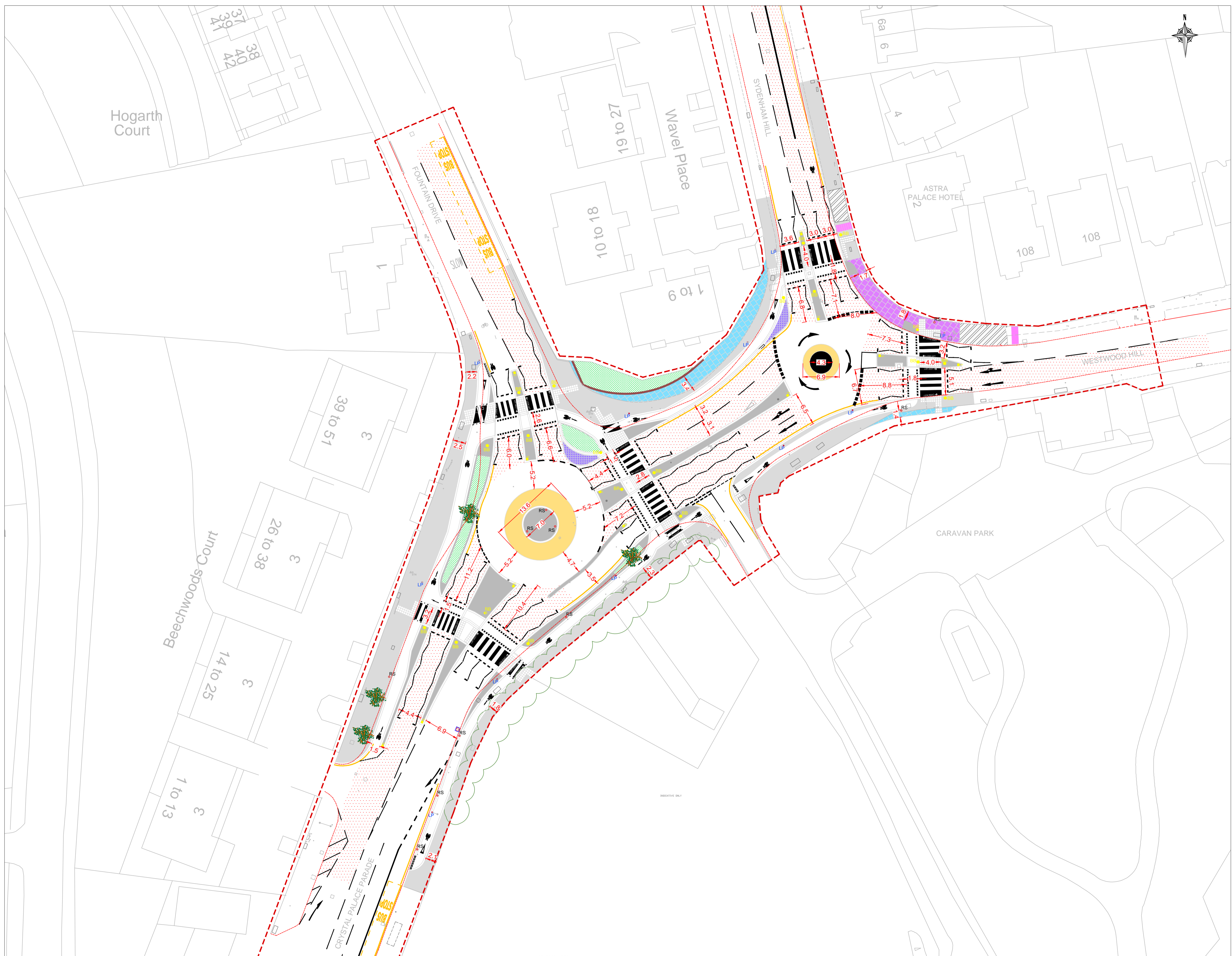
3.0 Recommendations

- 3.1 Due to a significant majority of respondents supporting the scheme and Southwark's on-going commitment to improve and promote cycling and pedestrian safety in the borough, it is recommended that the scheme proceeds to implementation.

Appendices
























Appendix A:	Initial Scheme Design
Appendix B:	Consultation Documents
Appendix C:	Location Plan and Extents of Consultation
Appendix D:	List of Addresses within the Distribution Area
Appendix E:	Modelling Results

Appendix A: Initial Scheme Design



LEGEND / NOTES.

LEGEND

-  Existing driveway
-  Existing hedges and tree branches to be trimmed back
-  Proposed footway paving
-  Proposed shared footway
-  Proposed footway widening into existing verge
-  Proposed vehicle overrun area (Buff HFS)
-  Proposed raised table
-  Proposed vehicle overrun area (Setts)
-  Proposed tactile paving
-  Proposed corduroy paving
-  Proposed high friction surfacing (Grey)
-  Proposed retaining wall
-  Proposed tree
-  Proposed realignment of existing kerbed roundabout
-  Proposed kerb line
-  Existing kerb line
-  Proposed white marking
-  Proposed yellow marking
-  Proposed Belisha Beacon
-  Lamp column location
-  Road signs location
-  Proposed non-illuminated traffic bollard
-  Proposed gully

No.	Date	Revision
2	30/10/14	Amendments to shared-use pedestrian/cyclist crossings
1	30/06/14	Raise tables removed and cycle ways amended
0	27/03/14	Initial Issue



Project		CRYSTAL PALACE PARADE	
Title		PROPOSED MEASURES OPTION 3	
Contract No.	-	Drawn	KA
Scale	NTS	Designed	KA
Drawing No.	13109-PR-GA-001	Checked	CM
Date Drawn	06/14	Approved	-
		Rev.	2
		Date Issued	30/10/14

Appendix B: Consultation Documents

- Carriageway overrun areas are to be provided at both roundabouts to ensure that larger vehicles can still undertake turning manoeuvres without obstruction.
- All footways are to be improved with better quality materials and widened in places to ensure adequate widths are maintained.
- Lighting will be upgraded to ensure better visibility at night, partially adjacent to the proposed parallel crossing locations.
- The existing poor carriageway surface will also be renewed to improve safety and allow for high friction surfacing to be installed on approach to the parallel crossing locations.

Crystal Palace Parade / Westwood Hill / Sydenham Hill / Fountain Drive

Junction Improvements

We want your views

It is important for all consultees to respond to the consultation. We would be grateful if you could take the time to review the proposals outlined in this document and provide a response using the pre-paid envelope and questionnaire provided by the **Monday 5th January 2015**.

Alternatively, you can view the proposals at www.southwark.gov.uk/consultations and complete the online questionnaire.

What happens next?

The responses to the questionnaire will be analysed and taken into account in the final design of the proposed works. As you will appreciate Southwark Council receives many comments from consultations and therefore is unable to respond personally to specific issues raised. However all comments and suggestions will be taken into consideration before a decision is made. The consultation results and recommendations are planned to be presented at Dulwich community council meeting on the 28th January 2015.

It must be noted that a number of proposed measures have yet to receive formal authorisation for use on the public highway. However, it is anticipated that governing bodies will issue formal authorisation for the use of facilities such as parallel priority crossings in April 2015.

Crystal Palace Parade and Westwood Hill also form part of London's Strategic Road Network and further modelling assessments may be required by Transport for London to quantify impacts on traffic flow and bus journey times, which may result in design revisions and delays to implementation.

The final decision on implementation of the scheme will be taken by the Cabinet Member for Regeneration, Planning, and Transport. This decision is planned for March 2015.

Should you require any further information regarding the proposed scheme please do not hesitate to contact Chris Mascord chris.mascord@southwark.gov.uk

Have your say

Southwark Council is holding a consultation to receive residents' and key stakeholders' comments regarding proposals to significantly improve the Crystal Palace Parade / Westwood Hill / Sydenham Hill and Fountain Drive road junctions.

Background

The junctions provide a key pedestrian route and cycle route to nearby train stations, schools, and recreational amenities such as Crystal Place Park. Both junctions are dominated by multiple traffic lanes, heavy vehicle volumes and high speeds. There are no formal pedestrian crossings to ensure pedestrians can cross the junction arms safely and there have been numerous recorded accidents involving cyclists, particularly when turning right from Crystal Palace Parade into Fountain Drive. The measures proposed as part of this consultation exercise aim to improve pedestrian and cyclist accessibility and safety, whilst ensuring minimal delay to traffic flow.

What are the proposed changes?

- Five new parallel priority crossings for pedestrians and cyclists to improve safety and accessibility. The crossings will be provided on the four main arms of the junctions as well as between the two roundabouts to provide a much needed link to Crystal Palace Park.
- The parallel crossings are scheduled to be approved for use by the Department for Transport in April 2015 and allow both cyclists and pedestrians to have priority over traffic which will give way to allow them to cross the carriageway (similar to zebra crossings).
- Fully segregated cycle tracks adjacent to the roundabouts. The cycle tracks will allow cyclists to bypass interaction with general traffic at the roundabouts and will directly access the proposed parallel priority crossings. These measures will ensure that cyclists can negotiate both roundabouts separated from general traffic, which will greatly improve safety and accessibility, particularly for less confident cyclists.
- A segregated westbound traffic lane is to be provided adjacent to the Fountain Drive roundabout so that westbound traffic traversing along Crystal Place Parade does not have to interact or give way at the roundabout. It is anticipated that this measure will reduce congestion in the morning peak, particularly in Westwood Hill.
- The carriageway width of Sydenham Hill on approach to the mini roundabout will be widened to remove the existing pinch point adjacent to the traffic island and to ensure there is enough width for two lanes to access the give way line at the roundabout. This will improve traffic flow and reduce potential conflict at this location.

Junction Improvement Scheme

Consultation questionnaire

The council would like to receive your views on the proposed junction improvement scheme at Crystal Palace Parade / Westwood Hill / Sydenham Hill / Fountain Drive

We would be grateful if you could answer some general questions so that we can find out what your views are towards the proposals. Please return completed questionnaires by the **5th January 2015**

Residents and Businesses:

1. Are you a resident or business? Resident Business

2. What do you think of the proposals? Support Opposed No opinion

Please use the space below for comments:

Continue overleaf if necessary.....

Please don't forget to fill in your personal details

Name

Address (essential)

Postcode

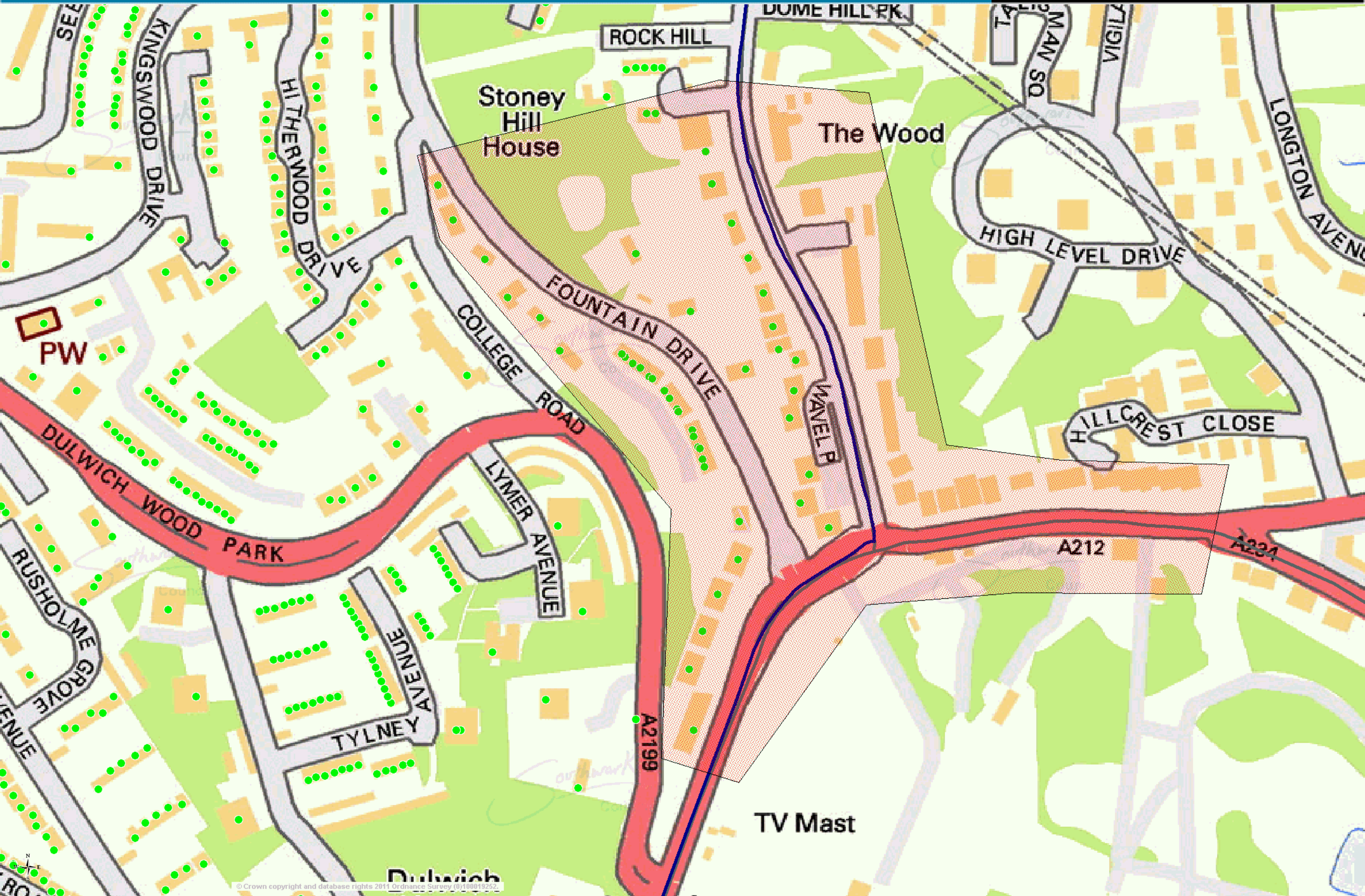
Date



Transport for London



Appendix C: Location Plan and Extents of Consultation



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Appendix D: List of Addresses within Distribution Area

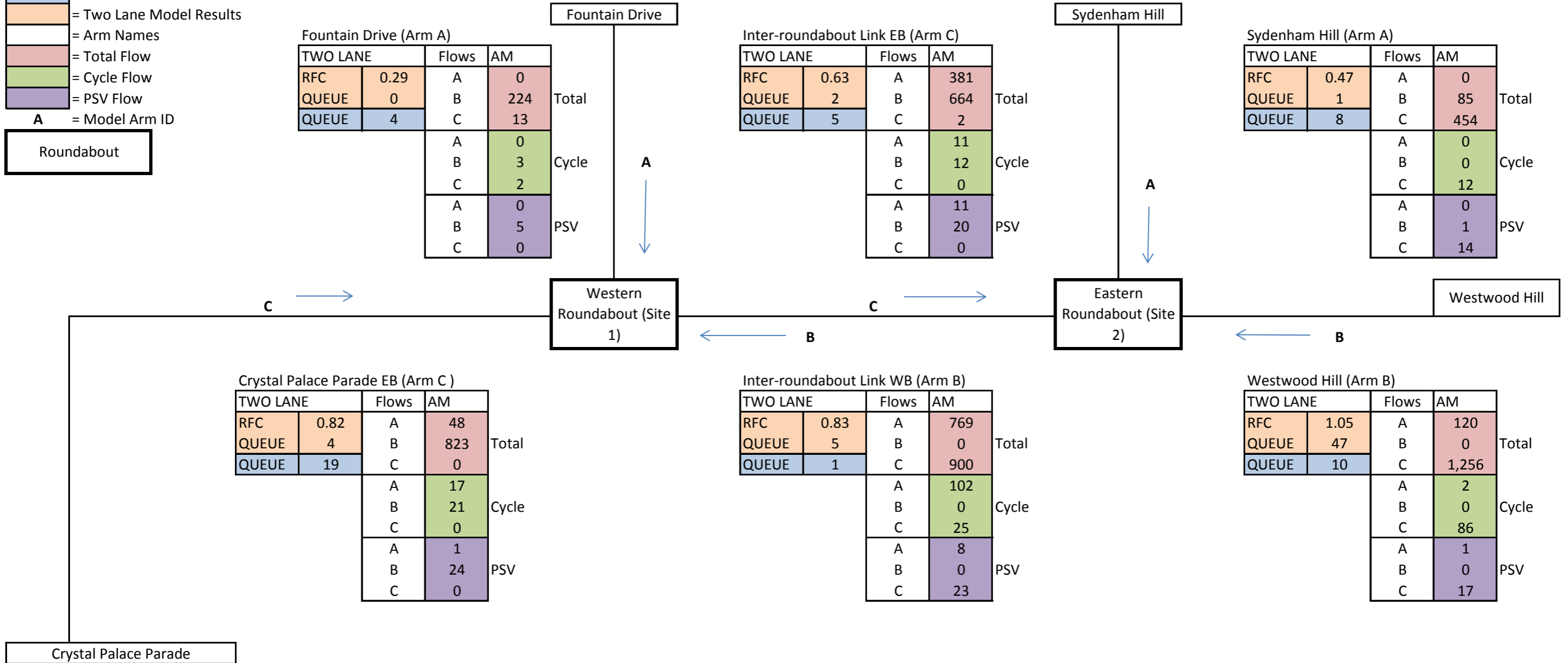
Crystal Palace Parade Roundabouts Results: AM

(AM: 07:30-08:30)

KEY:

- = Observed Queue
- = Two Lane Model Results
- = Arm Names
- = Total Flow
- = Cycle Flow
- = PSV Flow
- A** = Model Arm ID

Roundabout

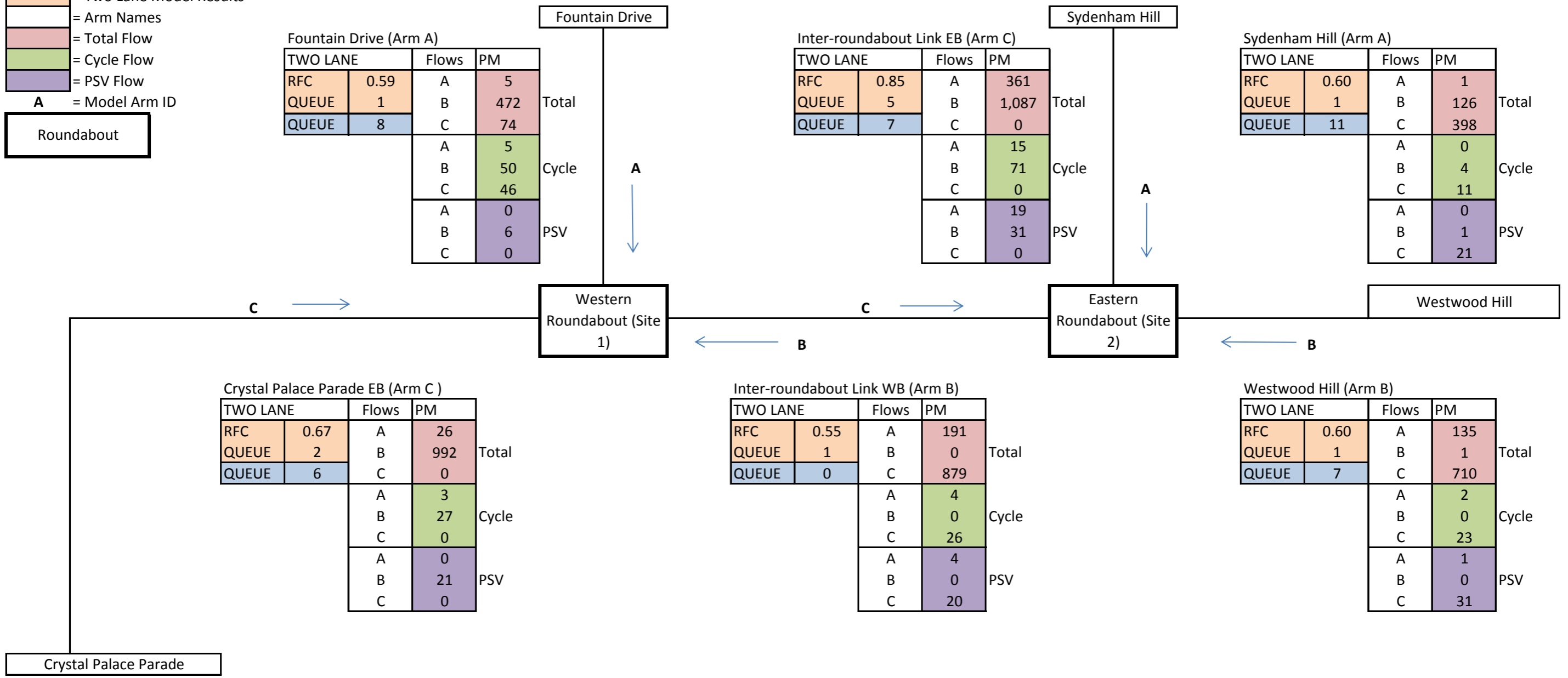


Crystal Palace Parade Roundabouts Results: PM

(PM: 17:30-18:30)

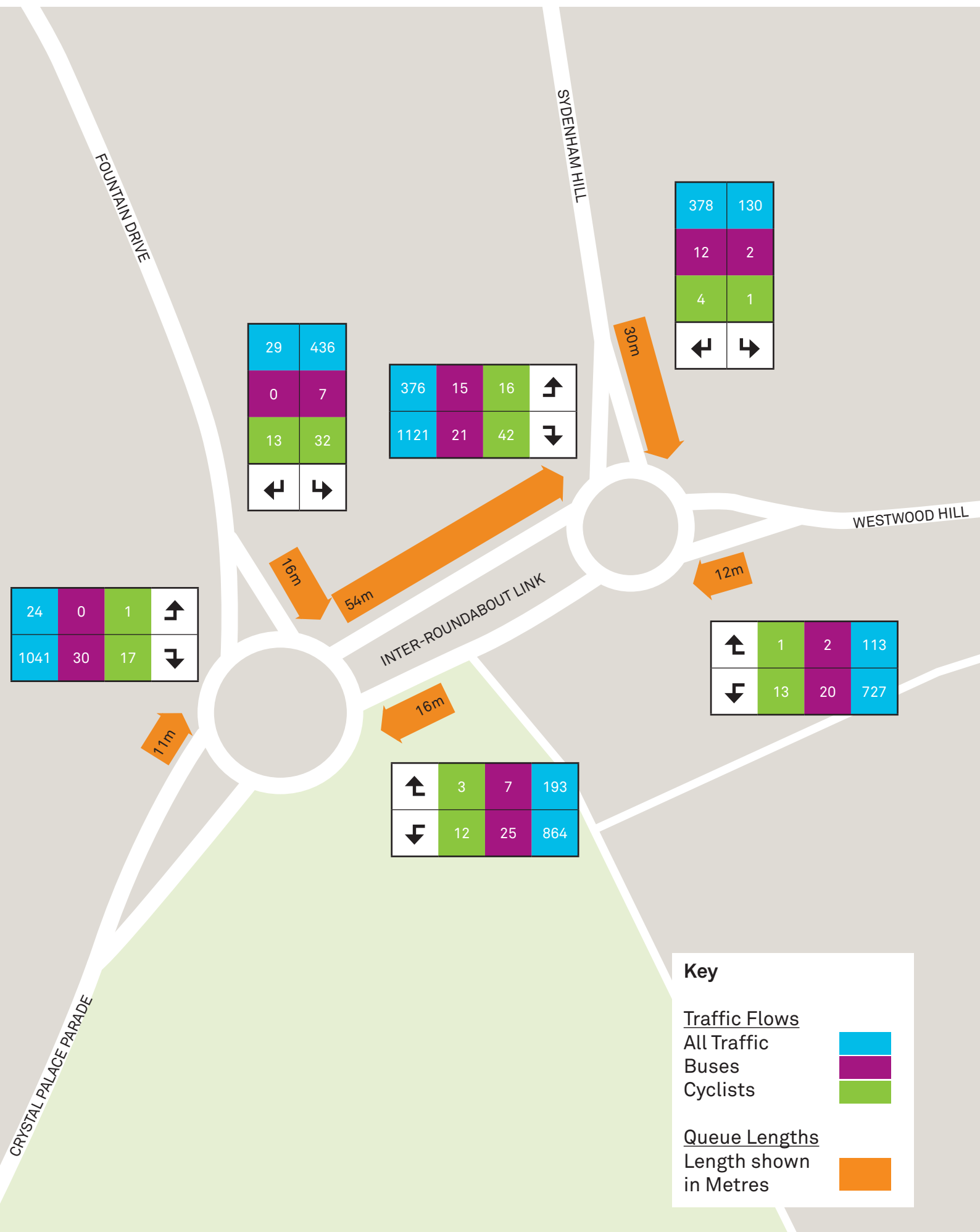
KEY:

- = Observed Queue
- = Two Lane Model Results
- = Arm Names
- = Total Flow
- = Cycle Flow
- = PSV Flow
- A** = Model Arm ID
- Roundabout



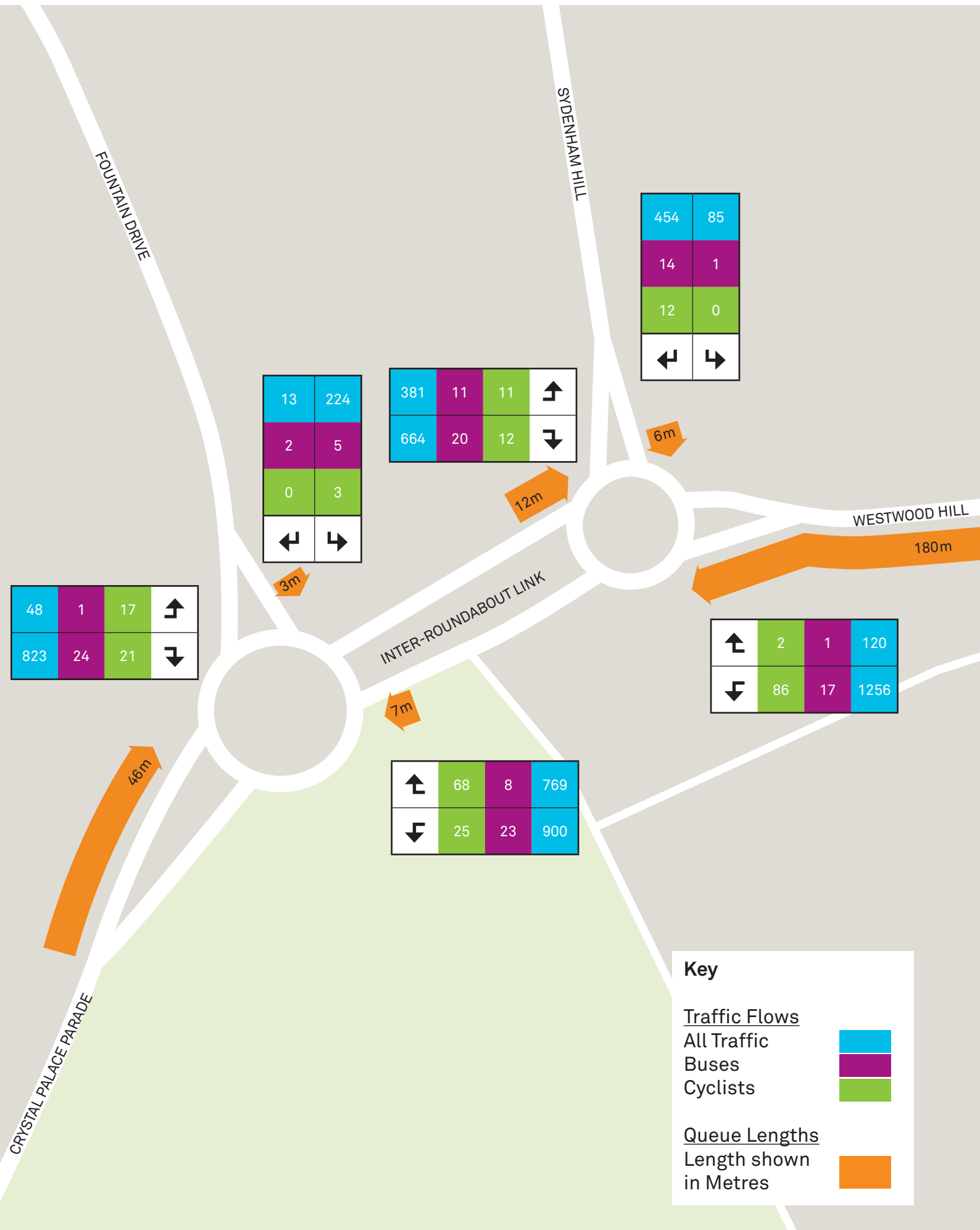
Crystal Palace Parade

PM Peak Proposed Scenario 3



Crystal Palace Parade

AM Peak Proposed Scenario 3



Appendix E: Modelling Results