The Moseley Forum

Moseley Public Realm Design Group

Moseley's Beating Heart

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1 Summary

1.1 Purpose

1.1.1 This document summarises the objectives and design principles for streetscape improvements in the heart of Moseley village. It reflects the evolving concepts developed in community design process with members of the community who attended the Moseley's Beating Heart design workshop on 12th June 2018. This document is therefore a frame of reference against which to contextualise PJA's design, and a tool to communicate the design principles to a wider audience.

1.2 Context

1.2.1 Moseley's Beating Heart is the epithet given by Moseley Forum to their initiative to redevelop the streetscape to better support the residential and shopping environment at and around the crossroads and village green at the heart of Moseley. This initiative seeks to deliver the objectives set out in the 2014 Moseley Supplementary Document (SPD), which is officially adopted planning policy of Birmingham City Council (BCC).

1.3 Key principles

1.3.1 The key principles of the design reflect the priorities set out on the SPD:

- Address the negative perception of traffic levels
- Address the concerns about speeding, and a sense of danger and nuisance

1.3.2 The SPD describes the preferred approach as being a "traffic-calmed village centre".

2 Context

2.1 Moseley

2.1.1 Moseley is a suburb in the south of Birmingham, situated on the A435 Alcester Road, which is one of many busy radial corridors into the city centre. The commercial centre of Moseley is largely focused on Alcester Road, and the triangular village green of St Mary's Row that intersects it at the heart of the suburb. St Mary's Row is also part of the B4217 classified route, which informally acts as an additional orbital route around the south of Birmingham city centre, providing a link between the A41/A34 to the east, and the key employment destination of Edgbaston and Five Ways to the west, which encompasses the University of Birmingham and Queen Elizabeth Hospital.

2.1.2 The high volume of traffic in both the east-west and north-south axes contributes to a sense of vehicular dominance in the village, and the streetscape is largely optimised for people passing though rather than those who are living or spending money/time locally.

2.1.3 The community of Moseley have a longstanding desire to change the streetscape of the village, and this is expressed in the 2014 Moseley SPD.

2.2 Alcester Road corridor

2.2.1 The adjacent suburb of Kings Heath – about a mile further south along the A435 Alcester Road – is a more significant economic centre than Moseley, but one that has suffered from the decline in traditional retailing compared to Moseley's thriving evening economy scene. Much work has been done locally on making the case for streetscape improvements in Kings Heath, and the area was subject to a DIY Streets initiative led by Sustrans in 2015, which included the temporary removal of parking spaces on the main road to demonstrate the scope to re-purpose road space which in turn showed a benefit to traffic flow. The Kings Heath neighbourhood was also subject to a trial removal of parking spaces again in 2018 as part of the BBC's "Fighting for Air" documentary.

2.2.2 Balsall Heath, to the north of Moseley, also enjoys a burgeoning evening economy scene. The community of Balsall Heath recently organised a Sunday street closure event on Alcester Road.

2.2.3 In general, there appears to be an appreciation among these three communities that streets can be re-purposed to become the heart of the neighbourhood, rather than simply vessels for the movement of vehicles. However, this is somewhat at odds with the recently designated West Midlands Key Route Network, which includes the A435 Alcester Road as part of its Birmingham Cross-City route (along with the parallel A441 and A38 corridors).

2.2.4 The A435 corridor is also the route of the No. 50 bus between the City and Maypole via Moseley and Kings Heath. With a daytime frequency of one bus every 4-5 minutes operated by National Express Travel West Midlands (NXWM), and a further 6 buses an hour (bph) operated by rival

Diamond Buses, it is believed to be the busiest bus corridor in Europe. Part of Alcester Road is also served by the No. 35 (City – Moseley – Kings Heath – Hawkesley), and St Mary's Row is served by the No. 1 (Five Ways/University – Moseley – Acocks Green) route. Both have a daytime headway of 6 bph and are operated by NXWM. Route 1 has recently been split so that alternate buses serve the University instead of its usual terminus of Five Ways. This should help to resolve the longstanding difficulty in east-west connectivity by public transport in this area, which is perhaps a contributory factor in significant volumes of private motor traffic passing through Moseley along St Mary's Row, especially as Moseley is a popular suburb for staff based at the Hospital and University.

2.2.5 Moseley and Kings Heath Ward has the highest rate of commuter cycling in Birmingham (Census 2011). This potentially reflects the absence of east-west connectivity by public transport and the lack of rail access compared to other similar suburbs – e.g. Selly Park and Wylde Green – but may also be accounted for by demographic factors.

2.3 Camp Hill railway line

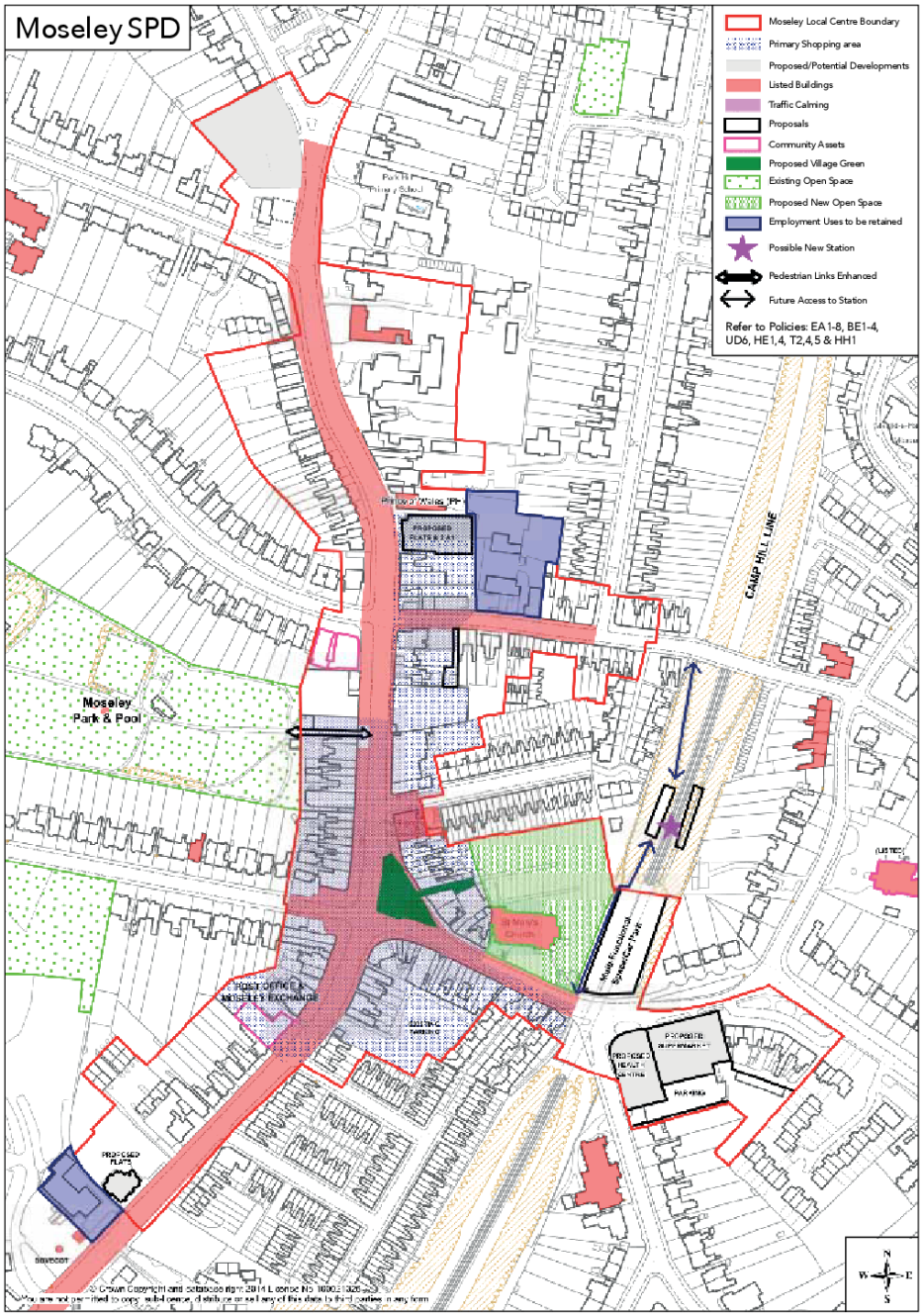
2.3.1 Balsall Heath, Moseley and Kings Heath are all situated on the Camp Hill railway line, which is currently used for freight and long-distance passenger services. There has been a longstanding campaign to re-open stations on this route for local passenger services, and this desire is now planned to be met as HS2 Connectivity Funding has been allocated by Transport for the West Midlands to re-open stations at Moseley, Kings Heath and Hazlewell. Further feasibility work is required to determine the case for an additional station at Balsall Heath. Initial expectations are that an infrequent service will operate by diverting the existing hourly Hereford – Birmingham New Street service via Camp Hill, until a new connection into Birmingham Moor Street permits a more intensive shuttle service to operate between the City and Kings Norton.

2.4 Moseley Supplementary Planning Document

2.4.1 The Moseley SPD of 2014 recognises the conflict between the 30,000 vehicles passing through Moseley and the 5,000 plus pedestrians contributes to negative perception of the area, particularly traffic speed and a sense of danger. The SPD includes requirements that new developments should contribute to a public realm and traffic calming scheme – sometimes referred to as 'shared space' – throughout the centre of Moseley, which would help address the negative concerns and perceptions around road traffic and road danger. The extents of the proposed scope of the scheme are shown in Figure 1 below.

2.4.2 Parking is also recognised as a contentious issue. Some residents and traders believe more parking is required if the shopping area is to be viable. Others, however, feel that the existing car park combined with the street parking is sufficient, and that encouraging car use will lead to greater congestion and pollution, particularly on the side roads adjacent to the shopping area.

Figure 1: Village Centre Proposals as per Moseley SPD, 2014



2.5 Car parking

2.5.1 The SPD pre-dates the construction of the M&S store on the corner of B4217 Wake Green Road and Oxford Road. This site includes a free car park with no restriction on duration of stay. Otherwise the main car park in Moseley, to the south of St Mary's Row, operates Pay & Display 24 hours a day and is operated by BCC. On-street parking is available with limited duration of stay close to the shops, and parking is otherwise uncontrolled in residential streets.

2.5.2 Some street parking on main roads is restricted by yellow lines at peak hours. This results in Alcester Road operating with two lanes in each direction during peak times, and one lane in each direction off-peak. Alcester Road operates single lane through Kings Heath and parts of Balsall Heath.

2.6 Mosely Public Realm Design Group

2.6.1 The Mosely Public Realm Design Group (MPRDG) – organised by Moseley Forum (MF) – has been engaging for several years with BCC and consultants to develop improvements to the streetscape in line with the SPD aspiration. In 2017, MPRDG approached PJA to assist them with a bid for Local Innovation Funding (LIF) from BCC, which would provide a budget for technical support to the design group. That funding bid was successful, and in 2018 PJA facilitated a community design process with MPRDG, informed by analysis of traffic surveys.

2.7 Moseley's Beating Heart

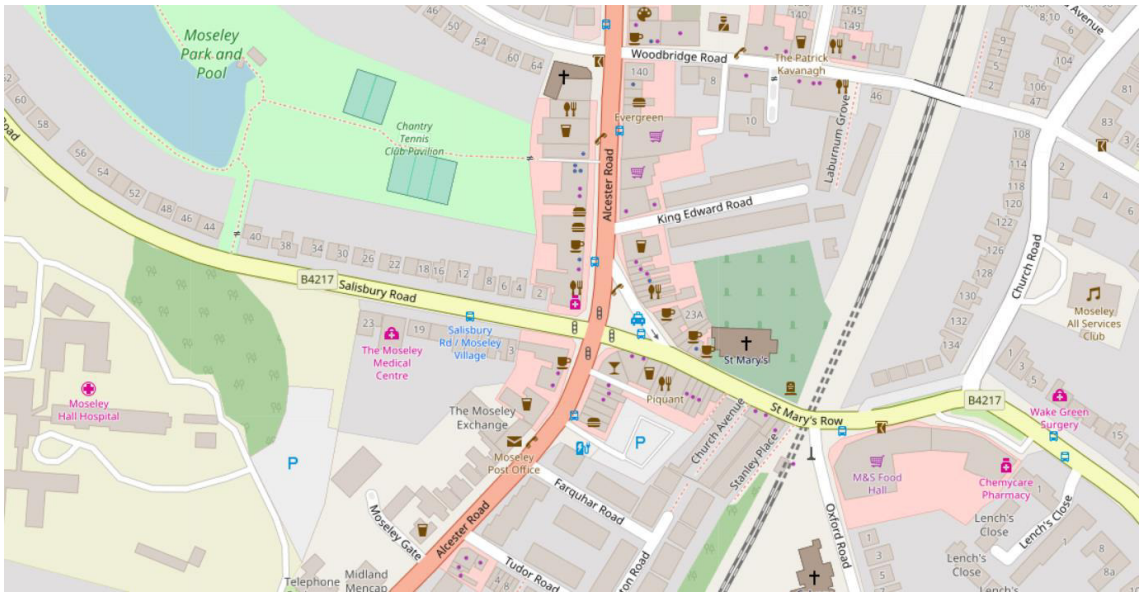
2.7.1 The successful LIF allocation coincided with the announcement of funding to re-open local passenger services on the Camp Hill Line. As such, BCC directed that the public realm design scheme should pay particular attention to the amended movement patterns that result from the 'new' station being opened.

2.7.2 Moseley's Beating Heart centres on the signalised crossroad junction of A435 Alcester Road and B4217 St Mary's Row / Salisbury Road, shown below in Figure 2. Some 30,000 vehicles pass through this junction every day. The triangular form of junction means that vehicular traffic moving from north to east does not pass through the main crossroads, but instead around the outside of the green. Vehicular right turns from south to east are banned, both at the main crossroads and at the northern end of the traffic. Vehicular traffic is also not permitted to turn right out of the "slip road" onto St Mary's Row westbound, except taxis.

2.7.3 The new station on the Camp Hill Line will be located between Woodbridge Road and St Mary's Row, with pedestrian access expected to be provided at both. A vehicular drop-off area is expected to be created off St Mary's Row, in place of an existing abandoned surface car park which sits above track level on a deck.

2.7.4 A locally-led scheme to improve access via St Mary's Churchyard is expected to deliver opportunity for a more direct walking route between Alcester Road and the new station forecourt, making use of steps between the Churchyard and the station front.

Figure 2: Moseley's Beating Heart study area



3 Concept design

3.1 Initial concept work

3.1.1 In addition to developing an SPD, led by the Moseley Community Development Trust, the community had previously engaged Ben Hamilton-Baillie (BHB) to develop with community involvement a concept design for a reimagined Moseley crossroads and village green, as shown in Figure 3 below.

3.1.2 This proposal advocated the principles of self-explaining road layouts with less reliance on traffic control, and reducing Alcester Road to a single lane in each direction. This considers the experience of other locations where similar treatments have been introduced, where previously large or complex signalised traffic junction have been reduced in scale by employing roundels, tighter geometry and narrow traffic lanes. These induce a slower but steadier pace of traffic flow through a junction, with drivers adopting give way to the right protocols based on the junction design. The introduction of central medians allows pedestrians to cross the road in two stages, and thus reduces the reliance on formalised controlled crossings, although the retention of these in strategic locations may still be welcomed by some.

Figure 3: Ben Hamilton-Baillie concept design for Moseley crossroads and village green

3.2 Concept development

3.2.1 The concepts of the public realm improvement and traffic calming scheme were discussed with BCC. These discussions highlighted that regardless of the SPD, the primary obstacle to overcome is ensuring any scheme can sufficiently cater for vehicular traffic movements. The challenge is therefore to come up with a design that does this in a way that positively contributes to the shopping environment, and improves conditions for walking and cycling as per the aims of the SPD. To develop a concept further, MPRDG required traffic analysis and advice from PJA. This was secured by granting of LIF by BCC in 2018, following a bid in 2017.

3.3 Community-led design 2018

3.3.1 The "Moseley Beating Heart" initiative was launched at the Moseley Forum AGM on 23rd February 2018. PJA presented the concept design previously developed, and suggested learning from other similar locations and floated the idea of a "double roundel" as an alternative to the single roundel concept by BHB above. However, it was reiterated that any layout proposal would need to be informed by traffic modelling, analysis, and community input. A working group was then selected after the meeting from people who had registered an interest in participating. The group was selected to represent a broad section of the community, and included a representative of the shop traders. This group would participate in a community design workshop, which would be informed by traffic analysis. The traffic analysis and community design workshop are explained in the following two sections of this report.

Figure 4: PJA's comparison between the existing double-roundel layout in Poynton (left), and the similar space available in Moseley (right)

4 Traffic analysis

4.1 Data collection

4.1.1 To inform the community design group, and the traffic modelling, traffic data was collected by students from University of Birmingham in April 2018. This consisted of:

- Junction turning counts – recording the movements of vehicles through the junction during the weekday morning, weekday evening and Saturday daytime peak hours.
- Pedestrian crossing counts – recording the number of pedestrians crossing at the main signalised junction, the pedestrian crossing on St Mary's Row west of Oxford Road, and across Oxford Road itself during the same time periods
- Vehicle journey times – recording the length of sample journeys through the network during the same time periods

4.1.2 This information is sufficient for the purposes of PJA developing a traffic model. A traffic model for the existing junction network was also obtained from BCC, which had been built by consultants working on the development of the M&S store on Wake Green Road. This traffic model is in LINSIG format. LINSIG is the industry standard traffic modelling software for traffic signal junctions, and small networks of junctions that include traffic signal junctions. The LINSIG model included the main cross roads junction, and also the junction of Oxford Road / Wake Green Road and the adjacent pedestrian crossing.

4.1.3 The traffic data collection process was supervised by PJA, and this allowed the context of the location to be closely observed for the same time period for which the traffic would be modelled. It was evident that during the evening peak period in particular, the yellow line parking restrictions were largely ignored on Alcester Road, leading to the road operating largely as single lane in both directions, rather than two lanes in each direction that might otherwise be assumed.

4.1.4 This observation was tested by PJA by adjusting the existing signal junction traffic model to operate with single lanes, except at the immediate approaches to the junction where the parking restrictions appeared to be better-respected. This process concluded that the parking restrictions had no effect on vehicular capacity at the junction, and that in principle parking could operate at all times, or carriageway space could be reallocated to footway or other features supporting the activity of shoppers and local residents, e.g. benches, landscaping, cycle tracks or parking, wayfinding, public art.

4.1.5 Further historic data collected by Moseley Forum was also used by PJA to inform the community design, in particular a pedestrian desire line survey from 2014 and a pedestrian footfall survey from 2010.

4.1.6 The pedestrian footfall surveys show a large mismatch in pedestrian comfort throughout the heart of Moseley Village. A heat map scoring matrix is shown below in Table 1 reflecting the data observed on a Friday afternoon during school holidays in 2010. While a pedestrian comfort score of less than 3 pedestrians per minute per metre width (ppmmw) is considered a reasonably good score, the rather higher footfall expected on a busy weekend day or during school times would mean that the congested parts of Moseley would start to feel much more uncomfortable in these locations.

4.1.7 The surveys were undertaken before the No. 35 city-bound bus stop was moved from Salisbury Road (south side) to Alcester Road South (west side), and thus the footfall for these two sites should now effectively be reversed.

Table 1: Pedestrian comfort assessment based on sample counts in the afternoon of Friday 30th July 2010

		Pedestrians			
	Section of Footway	**Observed in 5 mins**	**Hourly total**	**Width (m)**	**ppmmw**
A	Salisbury Road - north side	13	156	2.6	1.00
B	St Mary's Row - north side (Alcester Road to slip road)	16	192	1.9	1.68
C	Slip street	18	216	2.3	1.57
D	Alcester Road South - east side	36	432	3.4	2.12
E	St Mary's Row - north side (Slip road to Oxford Road)	34	408	2.6	2.62
F	Salisbury Road - south side	32	384	2.6	2.46
G	St Mary's Row - south side	35	420	2.6	2.69
H	Alcester Road South - west side	12	144	3.2	0.75
I	Alcester Road North - east side (at the Green)	12	144	4.2	0.57
J	Alcester Road North - west side	30	360	8	0.75

4.1.8 When this table was presented to the community design group in June 2018, one member reported that the south side of St Mary's Row, where pedestrian congestion was highest, is also where traditionally shops have struggled the most.

4.1.9 The pedestrian desire line survey from 2010, Figure 5 below, indicates that about the same number of people cross away from formalised crossing as those that use the signals. This is not unsurprising for a shopping area, as people wish to visit more than one shop, and move between different locations as quickly as possible.

4.1.10 During the supervision of the traffic surveys, it was observed that during periods when both the traffic signals and adjacent signalised pedestrian crossing were on red, the intermediate section of carriageway was almost entirely free of moving vehicles, and people would be able to cross freely and at will.

4.1.11 Pedestrians, particularly the less able, are deterred from crossing the road because of the four-lane width of the carriageway. This width of the carriageway also means the pedestrian crossings display

a red to vehicles for a longer period than would be the case for a narrower street. This is because of the longer amount of time needed for pedestrians to cross 12 metres of carriageway rather than 6 or 7, and then the subsequent "intergreen" period that provides a margin of safety before letting traffic move off again.

Figure 5: Pedestrian desire-line observations, 2010

4.1.12 The traffic data collected in April 2018 showed some interesting results, see Table 2 below.

Table 2: Summary of observed 1-hour peak traffic count data

		AM weekday peak hour		PM weekday peak hour		Saturday peak hour	
Ref	**Location**	**Peds**	**Veh**	**Peds**	**Veh**	**Peds**	**Veh**
1	Alcester Road (S) - to/from Kings Heath	56	1343	89	1104	143	1052
2	Salisbury Road - to/from Edgbaston	118	891	108	1082	180	1042
3	Alcester Road (N) - to/from City	79	1416	69	1089	132	1104
4	St Mary's Row - main road	115	1025	157	1051	232	929
5	St Mary's Row - crossing by church	148	1309	139	1692	170	1319
6	Oxford Road - side road (M&S)	80	327	152	459	208	331
	Total	*596*	*6310*	*714*	*6478*	*1065*	*5777*

4.1.13 While roughly the same number of vehicles were observed to pass through the area in each weekday peak hour (over 6,000 at all observations points), there were 20% fewer vehicles on the A435 in the evening peak compared to the morning, and 20%-30% more vehicles on the B4217 in the evening peak compared to the morning.

4.1.14 There was 40% more traffic observed on Oxford Road in the evening compared to the morning (120 vehicles difference). This may be partially explained by people visiting M&S on the way home to pick up a food for their evening meal. Oxford Road is also believed to be a popular "bypass" to

Kings Heath and Moseley village centres. There may also be a slight effect of the banned right turn from Alcester Road (S) into St Mary's Row.

4.1.15 Overall, there were 20% more pedestrians observed in the evening peak compared to the morning peak, which is consistent with Moseley having a strong evening economy. Traffic dominance is less on Saturday compared to during the week. Vehicles outnumber pedestrians in the AM weekday peak by around 10:1, but only about 5:1 on a Saturday.

4.2 Traffic modelling

4.2.1 In addition to adjusting the existing signal junction traffic model (LINSIG) supplied by BCC, PJA built bespoke traffic models in VISSIM to reflect the roundel concept design presented by BHB, and an arrangement that corresponds to the double-roundel junction at Poynton, Cheshire.

4.2.2 VISSIM is an interaction-based traffic modelling software that permits more sophisticated modelling than is permitted by programmes such as LINSIG. Individual conflicts are modelled to build up a visual simulation of how vehicles and pedestrians behave in an environment, according to a set of rules of behaviour usually derived from observation. PJA commissioned an interaction study of a "similar self-explaining junction" we had designed in Bexleyheath, SE London, to derive interacton parameters that allowed us to model with significant confidence how vehicles would interact with each other, and how pedestrian and vehicles would interact, if this context were applied in Moseley.

4.2.3 The double-roundel is assumed to have better traffic performance that the four-arm roundel because it limits the number of conflicting movements at each sub-junction, and therefore provides scope for more movements to be undertaken simultaneously. However, the double-roundel layout requires more space, and may compromise or relocate provision of green space at the heart of Moseley.

4.2.4 These traffic models made some basic assumptions about junction layout so that a "canvas" for a public realm design can be informed by workable traffic solutions. All roundel options assumed all movements would be permitted at the junction, and thus the slip road would not be required so space could be re-purposed for public realm improvements, mitigating the effect of the junction reconfiguration. Flows for the banned right-turn movement were assumed on the basis of reversing the corresponding left-turn movement.

4.2.5 The three options tested in VISSIM were:

- Flared double-mini roundel – similar to the Poynton layout; double lane approaches to the junction on arms to maximise traffic capacity, but with more limited comfort for pedestrians crossing

- Double-mini roundel – as above, but with strictly single lane approaches more navigable by pedestrians
- Roundel – four arm roundel in place of the existing signalised cross roads, with single lane approaches to maximise pedestrian crossing opportunities

4.2.6 In terms of comparison to existing journey times, the roundel options compared favourably or closely to the current arrangement for most movements. However, journey times were predicted to increase southbound by up to two and a half minutes in the single lane options. The results are summarised in Table 3 below.

4.2.7 Furthermore, overall network performance appears to conclude that a flared option (two lane approaches to the junction) is favourable. Table 4 below shows that delay is worse in the single lane options, compared to the flared approaches.

Table 3: Comparison of local network journey times – existing and modelled options

Existing Arrangement		Flared Double Mini		Single Lane Double Mini		Roundel	
West to East		**West to East**		**West to East**		**West to East**	
Observed		**VISSIM**		**VISSIM**		**VISSIM**	
From	**Journey Time**	**From**	**Journey Time**	**From**	**Journey Time**	**From**	**Journey Time**
17:15-17:30	00:05:47	*17:15-17:30*	00:02:29	*17:15-17:30*	00:02:37	*17:15-17:30*	00:03:12
17:30-17:45	00:04:02	*17:30-17:45*	00:02:24	*17:30-17:45*	00:02:33	*17:30-17:45*	00:02:52
17:45-18:00	00:04:02	*17:45-18:00*	00:02:09	*17:45-18:00*	00:02:28	*17:45-18:00*	00:03:13
18:00-18:15	00:03:21	*18:00-18:15*	00:02:42	*18:00-18:15*	00:03:02	*18:00-18:15*	00:04:00
East to West		**East to West**		**East to West**		**East to West**	
Observed		**VISSIM**		**VISSIM**		**VISSIM**	
From	**Journey Time**	**From**	**Journey Time**	**From**	**Journey Time**	**From**	**Journey Time**
17:15-17:30	00:00:57	*17:15-17:30*	00:00:54	*17:15-17:30*	00:01:06	*17:15-17:30*	00:00:50
17:30-17:45	00:01:15	*17:30-17:45*	00:00:51	*17:30-17:45*	00:00:55	*17:30-17:45*	00:00:49
17:45-18:00	00:03:10	*17:45-18:00*	00:00:54	*17:45-18:00*	00:01:14	*17:45-18:00*	00:00:56
18:00-18:15	00:02:03	*18:00-18:15*	00:00:52	*18:00-18:15*	00:00:58	*18:00-18:15*	00:00:50
South to North		**South to North**		**South to North**		**South to North**	
Observed		**VISSIM**		**VISSIM**		**VISSIM**	
From	**Journey Time**	**From**	**Journey Time**	**From**	**Journey Time**	**From**	**Journey Time**
17:15-17:30	00:02:03	*17:15-17:30*	00:00:44	*17:15-17:30*	00:00:51	*17:15-17:30*	00:00:44
17:30-17:45	00:01:53	*17:30-17:45*	00:00:43	*17:30-17:45*	00:00:46	*17:30-17:45*	00:00:46
17:45-18:00	00:01:52	*17:45-18:00*	00:00:50	*17:45-18:00*	00:00:57	*17:45-18:00*	00:00:57
18:00-18:15	00:01:28	*18:00-18:15*	00:00:41	*18:00-18:15*	00:00:48	*18:00-18:15*	00:00:46
North to South		**North to South**		**North to South**		**North to South**	
Observed		**VISSIM**		**VISSIM**		**VISSIM**	
From	**Journey Time**	**From**	**Journey Time**	**From**	**Journey Time**	**From**	**Journey Time**
17:15-17:30	00:01:52	*17:15-17:30*	00:01:50	*17:15-17:30*	00:04:02	*17:15-17:30*	00:03:41
17:30-17:45	00:01:12	*17:30-17:45*	00:02:11	*17:30-17:45*	00:04:06	*17:30-17:45*	00:03:48
17:45-18:00	00:02:35	*17:45-18:00*	00:02:13	*17:45-18:00*	00:03:38	*17:45-18:00*	00:03:14
18:00-18:15	00:02:27	*18:00-18:15*	00:02:18	*18:00-18:15*	00:04:08	*18:00-18:15*	00:03:43

Table 4: Comparison of delay and latent demand for the three modelled options

Double Roundel – Flared Approaches

Avg Delay per veh (s)	Avg Speed (mph)	Total Travel Time (hrs)	Total Delay (hrs)	Latent Delay (hrs)	Latent Demand
46.05	13.69	3.56	1.64	0.15	13.40

Double Roundel – Single Lane Approaches

Avg Delay per veh (s)	Avg Speed (mph)	Total Travel Time (hrs)	Total Delay (hrs)	Latent Delay (hrs)	Latent Demand
77.91	16.53	4.33	2.58	9.62	368.50

Single Roundel – Single Lane Approaches

Avg Delay per veh (s)	Avg Speed (mph)	Total Travel Time (hrs)	Total Delay (hrs)	Latent Delay (hrs)	Latent Demand
79.83	16.15	4.47	2.70	6.93	274.10

4.2.8 PJA therefore recommended that the flared, double-roundel option was likely to be the most favourable option in traffic terms to transform the space at the heart of the village.

5 Community design workshop

5.1 Key themes

5.1.1 The above traffic analysis and modelling was reported to the design working group on 12th June 2018.

5.1.2 The working group were first taken out on site walk to experience the space and observe the tail end of the evening rush hour. Although all members of the group were locally based, this was an opportunity to view the site together, and discuss their experiences afresh and in view of others' perspectives. A representative from BCC was also on hand to explain the current constraints and expectations for the new station site.

5.1.3 Upon returning from the site visit, participants were invited to summarise their experience of the walkover as part of their introduction to the rest of the group. The following common themes emerged from this process:

1 Moseley is noisy
2 It feels jaded
3 Traffic dominates
4 It is cluttered
5 It needs a vision / strategy
6 It needs an event space
7 Polluted / smelly
8 It is hostile
9 Shops are struggling – particularly on St Mary's Row
10 Disjointed environment for walking & cycling
11 The slip road should be pedestrianised
12 Not enough parking for Blue Badge holders
13 The place needs to be inclusive
14 Moseley is stressful
15 Footfall is important
16 The station is an opportunity for change
17 It needs calming – and a public space
18 A local revenue stream is needed for maintenance
19 Cars are not the enemy

5.1.4 The above key themes largely correspond to a typical design brief, and thus this naturally flowed into the design charette that followed.

5.2 Emerging principles

5.2.1 The design charette was able to identify locations for design interventions, and some overall key principles that should be incorporated into any design.

1 There was some disagreement about whether it was right or not to remove the traffic signals entirely, given that vulnerable pedestrians find the latter more helpful in establishing when it is safe and comfortable to cross the road.

2 The triangular green was found to be very strongly supported in its current location because of its favourable setting in terms of sun exposure. Therefore, the double-roundel option was not preferred as it would relocate the green to shadier, and less favourable location within the space. Retaining the green in situ would also tie in with the walking route through the churchyard currently under development.

3 Pedestrianisation around the green was strongly supported. It is suggested that the new station forecourt would be a suitable location to re-provide the taxi rank that would be lost. It is noted that the existing taxi rank already overflows regularly.

4 Carriageway narrowing was generally well-supported. Concerns about congestion led to an agreement that bus stops should be provided outside the flow of general traffic, to minimise stop-start disruption and consistent with the slow-but-steady progression of traffic through a roundel junction.

5 Along with carriageway narrowing, removal of parking along St Mary's Row was supported. These shops are immediately adjacent to the off-street car park, and it was suggested that parking charges could be amended to provide a short period free of charge to encourage better take up of the off-street parking. There is a longstanding desire locally for the local community to take over the running of this car park from BCC, which would increase the feasibility of introducing bespoke or flexible parking charges.

6 Gateway treatments were considered important, to ensure motorists would be slowing down sufficiently ahead of the conflict points with pedestrians. The gateway treatment should include a public realm treatment at the entrance to the station and removing the existing sweeping bends on the westbound approach to Moseley.

7 There were differing views about the desirability and practicability of providing dedicated space for cycling within the study area.

8 It is suggested that designs could be tested by means of temporary trials, e.g. closing the slip road and allowing the left turn at the main junction (which would require an easing of the existing tight radius) but with the traffic lights still in situ. The roundel option could similarly be tested before deciding which option the community prefers. Trialling these measures may provide a more accurate reflection of driver and pedestrian behaviour than what can be achieved through computerised modelling alone.

6 Developed design

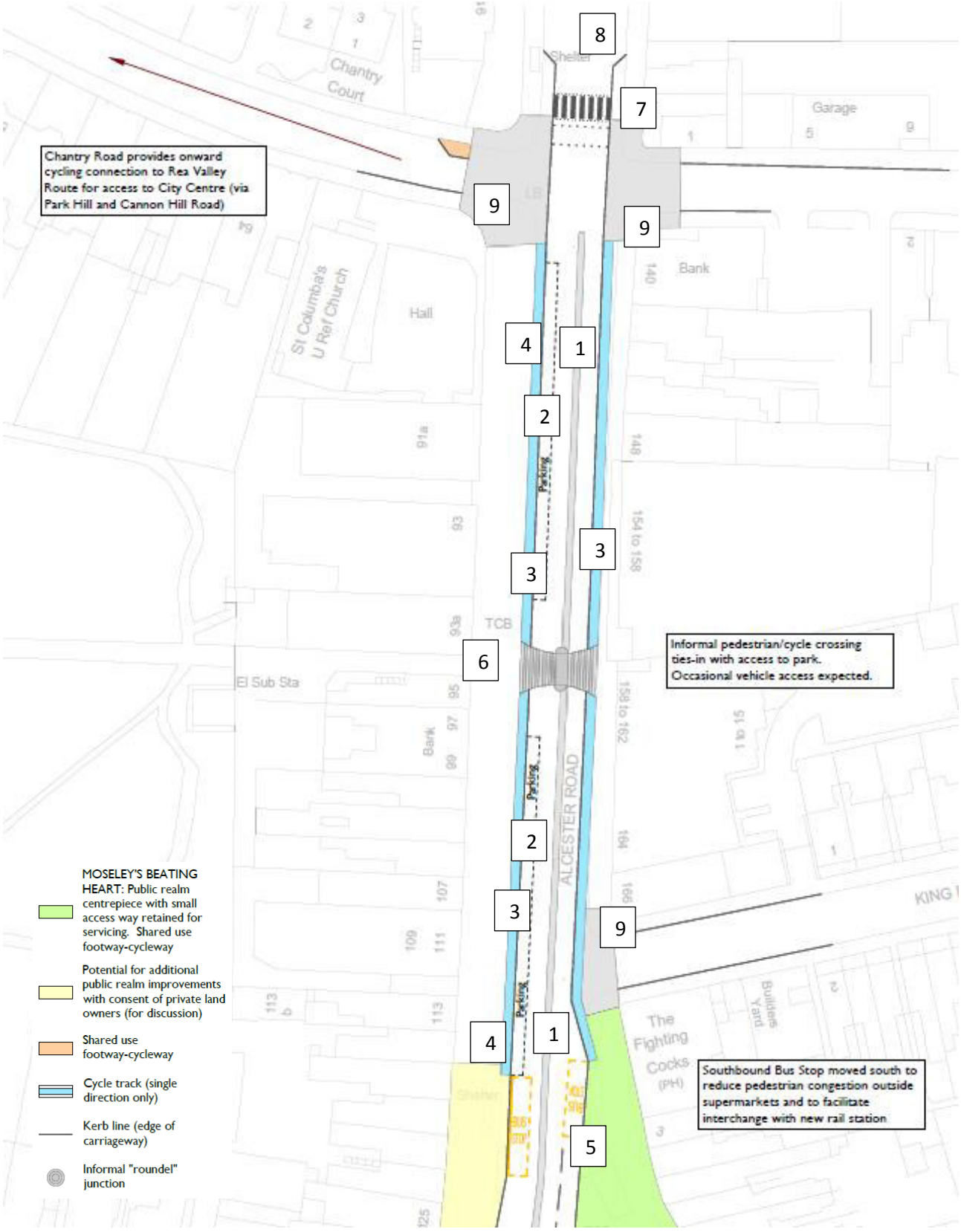
6.1 Key principles

6.1.1 With the design principles set by the workshop in mind, PJA have developed an outline design.

6.1.2 Throughout the scheme extents, a Restricted Parking Zone (RPZ) is recommended. This has the effect of obviating the need for yellow lines, so parking is banned unless specifically indicated otherwise. RPZs are extensively used in town centre and historically sensitive areas as they generally reduce the visual clutter of yellow lines, and thus create a "cleaner" visual environment. The absence of yellow lines also reinforces the notion that street space is not the sole domain of moving vehicles. However, RPZs do generally require repeater signs, so the location of these should be borne in mind when designing and specifying other street furniture (i.e. signs can be mounted on buildings or integrated into lamp columns, bollards, cycle parking, benches, etc. to reduce visual clutter).

6.1.3 The key proposals for each location are summarised below.

Figure 6-1: Extract from PJA design drawing 02873-P-02 for the section Woodbridge Road to St Mary's Row



6.2 Alcester Road – Woodbridge Road to St Mary's Row

1 The carriageway is narrowed to a single lane in each direction, with a central median to allow pedestrians to cross the road informally.

2 Parking is provided alongside the northbound carriageway only, but available at all times and not just off peak.

3 Widening of the footways allows footway-level cycle tracks or shared footways to be provided. Footway widening is more need along the eastern side, where pedestrian congestion outside the Sainsbury's and Coop supermarkets is a particular problem.

4 There may be a need for selective tree removal to maximise parking or footway provision.

5 Bus Stops are provided without laybys, but the central median is over-runnable around Bus Stops so traffic can overtake stopped buses. Where provided, cycle tracks run behind the bus stop to avoid conflict with traffic, or merge into shared use footways. The southbound bus stop currently outside Coop is moved further south to reduce footway congestion.

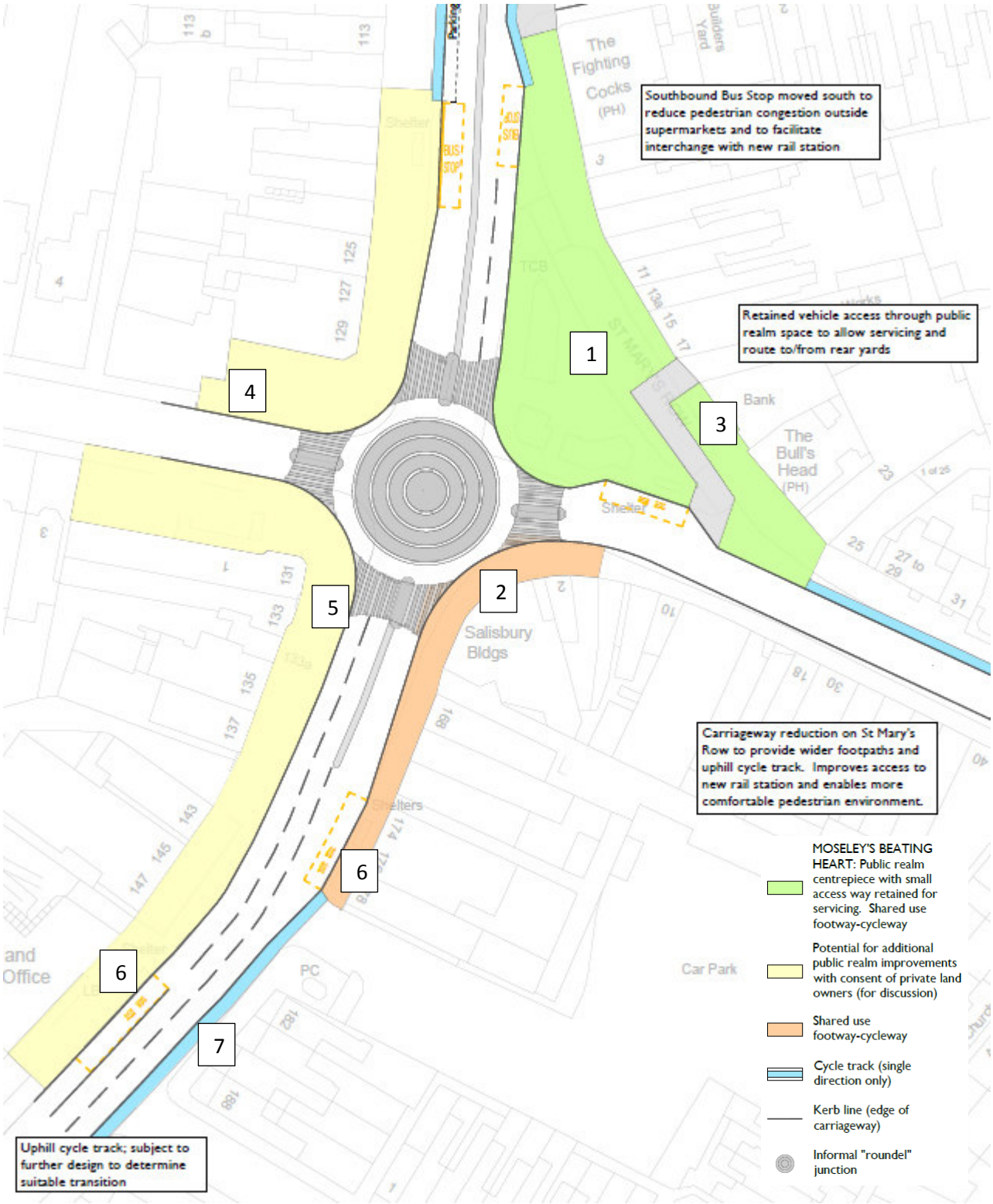
6 Implied crossings are provided across Alcester Road at the supermarkets (in line with the park access) and north of King Edward Road.

7 A formalised parallel Cycle-Zebra crossing north of Woodbridge Road forms the gateway feature. It should be placed on a raised table, subject to the views of emergency services and bus operators. This crossing helps cyclists' transition between the cycle tracks and Chantry Road, which provides onward connections to the Rea Valley Route to the city centre.

8 To manage the merge from two lanes to one as traffic approaches Moseley from the north, the waiting restriction on the southbound side of the road should be removed south of Park Hill (essentially the single lane uphill from Balsall Heath remains single lane as it enters Moseley). A comprehensive study of the Alcester Road corridor through Balsall Heath, Moseley and Kings Heath should be carried out.

9 Footways should extend across the Chantry Road, Woodbridge Road and King Edward Road side roads. This is called a "continuous footway" or "Copenhagen crossing" reflecting the standard practice in that city of side roads having to give way to pedestrians on main roads. This approach is also used increasingly in the UK - in Carlisle, Oxford, London, Sheffield for example. Further study may be required to determine if traffic volumes in Woodbridge Road may be too high to accommodate such a feature, but it is assumed that an all-movements roundel junction at the main crossroads would obviate the need for some movements to use Woodbridge Road as an alternative.

Figure 6-2: Extract from PJA design drawing 02873-P-02 for the section around the main village green



6.3 Main junction / village green

1 The preferred arrangement is to retain the existing triangular green, but to enlarge it by pedestrianising the “slip road”. Given the traffic modelling showed increased delay by the introduction of a 4-arm roundel with single lane approaches, our design suggests providing short lengths of two-lane approaches on the A435 arms. This will require further modelling and/or trialling.

2 There were some views expressed in the design workshop that retaining traffic signals would be preferred. The overall layout of the scheme works in both the signalised and roundel scenarios, but the effects of “self explaining roads” on driver behaviour would not be realised with the use of signalised traffic control, as drivers would regard a green signal as implying right of way. However, the design is easily switchable between signals and roundel; as such, we expect that further design, modelling and community engagement would allow MPRDG to decide on the most appropriate option. Nevertheless, our design reflects the roundel layout as this is the most transformational, and closest to the initial ideas already discussed by MF.

3 With the green pedestrianised, access to the service area behind the odd-numbered properties on St Mary’s Row can be accommodated by allowing vehicles to partial incur into the former slip road area from St Mary’s Row only.

4 In the roundel scenario, the approach to the junction from Salisbury Road should have a prominent speed-reducing feature as the roundel would not be visible because of the gradient.

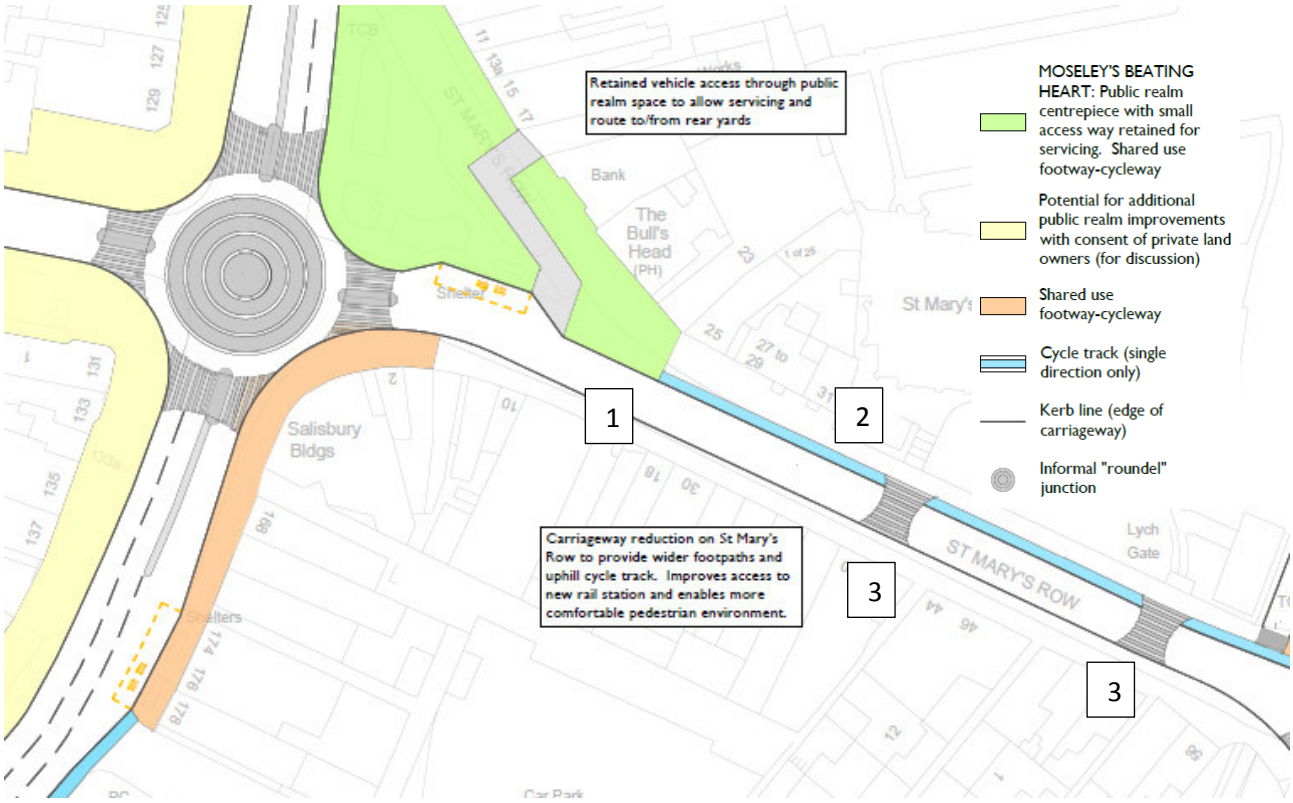
5 A raised table on Alcester Road (south) is also required to manage approach speed in the roundel scenario.

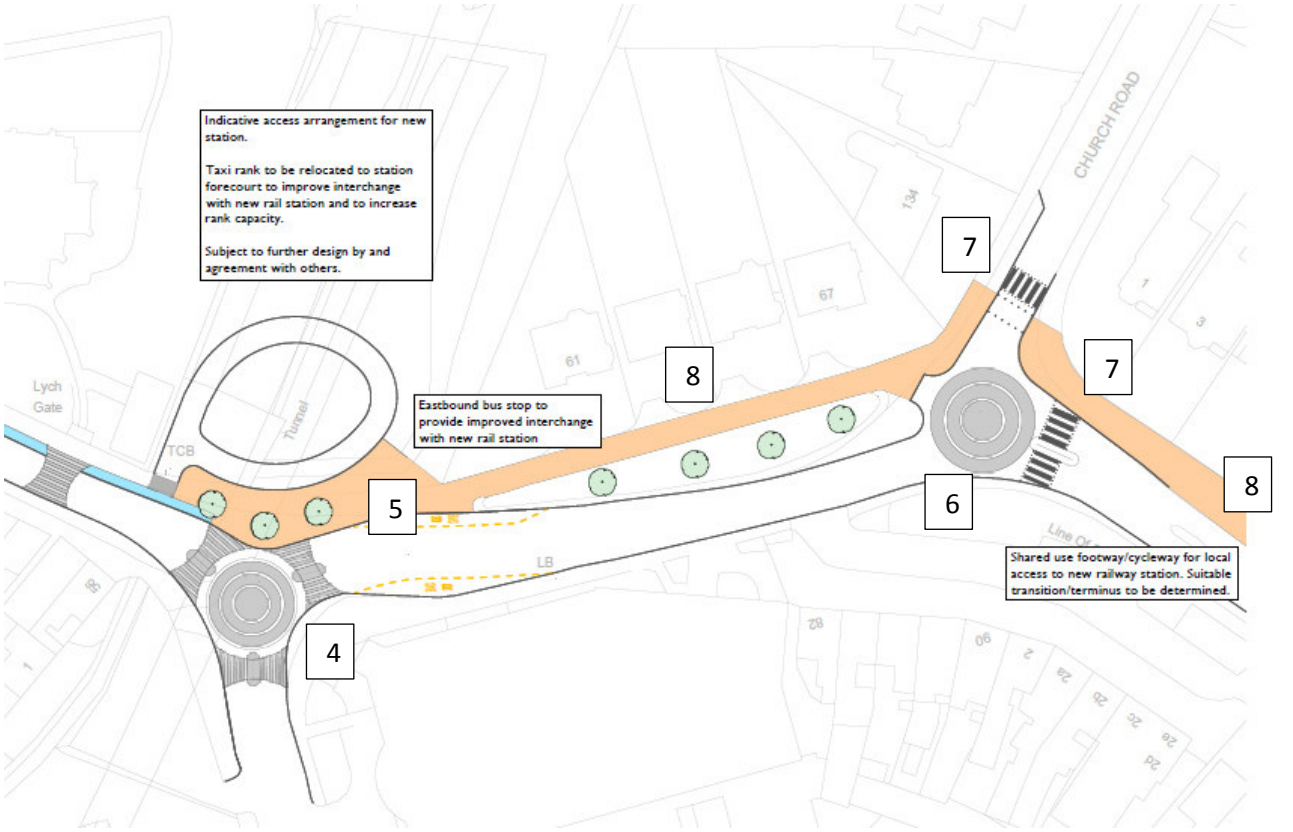
6.4 Alcester Road – St Mary’s Row to Farquhar Road

6 Bus Stops are provided without laybys, but the central median is over-runnable around Bus Stops so traffic can overtake stopped buses. Where provided, cycle tracks run behind the bus stop to avoid conflict with traffic, or merge into shared use footways.

7 An uphill cycle lane should be provided going south along Alcester Road from St Mary’s Row. The loss of parking on that side of the road can be compensated for by parking restrictions in the inbound bus lane being relaxed to just the morning (inbound) peak only. A comprehensive study of the Alcester Road corridor through Balsall Heath, Moseley and Kings Heath should be carried out.

Figure 6-3: Extract from PJA design drawing 02873-P-02 for the sections along St Mary's Row and Wake Green Road





6.5 St Mary's Row

1 The main carriageway of St Mary's Row would be reduced in width and the parking bays removed.

2 An uphill cycle track, level with the footway, would be provided for access to the station, Oxford Road and Church Road.

3 Implied pedestrian crossing points would be marked to correspond with the steps up to the church and the access to Stanley Place.

6.6 Station entrance

4 The junction of St Mary's Row and Oxford Road is excessively large and would be considerably shrunk in size to provide a large amount of footway space directly outside the station. This also has the effect of removing the gentle, sweeping bend that encourages traffic to speed on approach to Moseley downhill from Wake Green Road. The junction would also be laid out as a roundel, to reduce priority for through traffic.

5 A new bus stop would be provided eastbound on St Mary's Row outside the station, immediately east of Oxford Road (in a layby).

6.7 Wake Green Road

6 This junction would also be modified to act as a gateway, but a much less prominent one than Oxford Road because of its more residential character. The junction would be laid out as a compact mini-roundabout, which allows access to/from the shared service road alongside St Mary's Row west of Church Row.

7 Zebra Crossing to be provided across Church Road and Wake Green Road as Gateway features.

8 The existing shared footway and vehicular driveway would also act as cycleway. The continuation of a cycleway along Wake Green Road should be explored further.

7 Next steps

7.1.1 This report and the accompanying outline design drawings can be considered the final output of the technical support provided by PJA. This note, and the design drawings, should be discussed with BCC. In addition, there are some other steps that would be beneficial, as set out below.

7.2 Further traffic modelling

7.2.1 It should be noted that the community design workshop scheme configuration differs from the scope of the traffic modelling undertaken, and therefore further modelling and design work should be undertaken to fully understand the implications and feasibility of the suggested changes to the street layout. However, we would expect that the single roundel option but with flared approaches would perform comparably with the double-roundel option with flared approaches, as it is entry and circulating geometry that has the most fundamental impact on roundabout and roundel capacity in vehicular traffic flow terms.

7.2.2 Furthermore, the proposed roundel junctions at St Mary's Row / Oxford Road and Wake Green Road / Church Road have not been tested by traffic modelling.

7.2.3 It is likely that a wider corridor approach may be required not only to understand the traffic impacts, but also to determine the scope of mitigations and complementary measures. Our model only focused on the main junction in the village centre, so the gating effect of other junctions and nodes on the network isn't fully taken into account.

7.2.4 Traffic modelling scope:

- Scheme – as designed, including approach corridors to better understand journey time impacts
- Corridor mitigation – see also "wider corridor studies" below.

7.3 Public perception surveys

7.3.1 Ahead of wider engagement on the scheme design, a public perception survey should be undertaken to validate the design objectives, i.e. to validate or disagree with the 19 common themes discussed in the design workshop (paragraph 5.1.3). Although a lot of engagement work has already taken place, attitudes to specific issues may still be unknown.

7.3.2 Another frequent difficulty in achieving radical street design changes is perception by traders that street parking is significantly valued by customers. A shopper survey should therefore be carried out to determine the actual proportion of footfall in Moseley that arrives by car (and other modes) to gauge how sensitive any changes to parking facilities would be, rather than supposing or assuming one way or another.

7.4 Funding

7.4.1 It is understood that Section 106 money from the Marks & Spencer development is available for highways improvements on the Wake Green Road / St Mary's Row corridor. These funds should be sought to deliver the scheme in part or in full.

7.4.2 The development of designs for the new Moseley station also presents opportunity for complementary funding streams to be determined, e.g. Section 278 or Section 106.

7.5 Parking study

7.5.1 The opening of a new railway station is likely to change some travel patterns. While the new rail service may encourage visitors to arrive by train rather than by car, the station itself becomes an attractor for car trips. Although TfWM do not propose to provide any station car parking facilities – as Moseley is recognised as a neighbourhood station and not a suitable park-and-ride side – some people may nevertheless drive to Moseley to pick up the train service. There may therefore be a need to consider how existing car parking is managed, and whether or not existing controls are still effective or sufficient.

7.5.2 It is also notable that there is little consistency in the provision of on-street car parking. For example, the parking bays on Alcester Road have a different period of control compared to the bays in the side roads. The two main car parks – BCC and M&S – also both operate under different systems.

7.5.3 Wayfinding to car parks is basic, and walking routes to and from car parks are also not well signed. The pedestrian walking route to the BCC car park is in fact quite unattractive, and may feel unsafe at night.

7.5.4 A parking study should therefore consider the following:

- The need for simplified on-street parking provision, including if appropriate sections of resident-only parking and short-stay parking
- The ownership and management of the M&S and BCC car parks, and whether these may more usefully operate under the same ownership, and how that may be delivered
- The provision of wayfinding to car parks, both for drivers and pedestrians. This may include variable message signs.
- The quality, safety and location of cycle parking
- The extent to which alternative modes of access to Moseley can be promoted collaboratively by the community, traders and BCC, to reduce the need for car parking, and to promote the use of official car parking locations for people that still needs to arrive by motor vehicle

7.6 Trial layouts

7.6.1 In addition to – or instead of – further traffic modelling, a trial of possible layouts could be undertaken. This could also be carried out incrementally – for example closing the slip lane (as per Farmers' Market days) but allowing the corollary left turn at the traffic lights by smoothing the radius.

7.6.2 With the radius easement in place, it would also be practical to trial the roundel by use of temporary materials, e.g. paint and stick-down kerbs. Temporary parking and taxi rank arrangements may be required during the trials.

7.7 Wider corridor studies

7.7.1 The scope of this study has been necessarily tight, as it focuses on Moseley Village Green and the station area. Given the conclusion of the traffic analysis suggested that the peak hour parking restrictions have limited effect on traffic capacity, the adjustment to waiting restrictions should be explored further along the A435 corridor. However, this should also be balanced against the desirability of re-purposing carriageway space for wider footways, bus lanes or cycle tracks.

7.7.2 The design drawings show an uphill (southbound) cycle lane on Alcester Road South. No specific termination point for this facility has been identified, as it could potentially extend far outside the study boundary.

7.7.3 The status of the A435 should also be reviewed in light of its inclusion in the Key Route Network. The terms of the latter could be loosened so that the corridor seen as being an important one for bus, pedestrian and cycle traffic, but that strategic vehicular traffic could be more usefully and sensitively routed along other corridors, e.g. A38 or A45, particularly as these have purpose-built by-passes of similar local centres.

7.7.4 The scope of the wider A435 corridor study should therefore consider:

- Reviewing parking restrictions
- Provision of bus and cycle lanes to improve the attractiveness of these modes
- Traffic reduction or displacement

Appendix A PJA design drawing 02873-P-02-A0-B

A1 1:250

Chantry Road provides onward cycling connection to Rea Valley Route for access to City Centre (via Park Hill and Cannon Hill Road)

Informal pedestrian/cycle crossing ties-in with access to park. Occasional vehicle access expected.

Southbound Bus Stop moved south to reduce pedestrian congestion outside supermarkets and to facilitate interchange with new rail station

Retained vehicle access through public realm space to allow servicing and route to/from rear yards

Carriageway reduction on St Mary's Row to provide wider footpaths and uphill cycle track. Improves access to new rail station and enables more comfortable pedestrian environment.

Uphill cycle track; subject to further design to determine suitable transition

Indicative access arrangement for new station.

Taxi rank to be relocated to station forecourt to improve interchange with new rail station and to increase rank capacity.

Subject to further design by and agreement with others.

Eastbound bus stop to provide improved interchange with new rail station

Shared use footway/cycleway for local access to new railway station. Suitable transition/terminus to be determined.

NOTES

These drawings have been produced with reference to the CDM Regulations 2015. Please note that these are pre-construction phase drawings and should be subject to further design risk management as required in accordance with Regulation 9

Key

- Continuous footway pedestrian-priority crossing at side roads / accesses
- Central median - informal crossing along whole length but low level to enable vehicles to overtake stopped buses
- Informal pedestrian & cycle crossing
- Zebra crossing
- Parallel cycle & Zebra crossing
- MOSELEY'S BEATING HEART: Public realm centrepiece with small access way retained for servicing. Shared use footway-cycleway
- Potential for additional public realm improvements with consent of private land owners (for discussion)
- Shared use footway-cycleway
- Cycle track (single direction only)
- Kerb line (edge of carriageway)
- Informal "roundel" junction

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CLIENT
Moseley Forum

PROJECT
Moseley's Beating Heart

DRAWING TITLE
Moseley Village Centre
Public Realm Scheme
Outline Design

DRAWING ISSUE STATUS
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