



**Weybridge Railway Station,
Station Approach,
Weybridge, KT13 8UD**

**Area wide Highway Safety Improvements
Feasibility / Outline Design Report**

March 2015

Project Title: Weybridge Railway Station, Station Approach, Weybridge
Area wide Highway Safety Improvements

Document Title: Feasibility / Outline Design Report

Client Reference: PC0284

Date: March 2015

Prepared By: Print Jamie Daly
Sign

Authorised By: Print Michelle Armstrong
Sign

Amendment List

Iss. / Rev.	Iss. / Rev Date	Amendments details			

CONTENTS

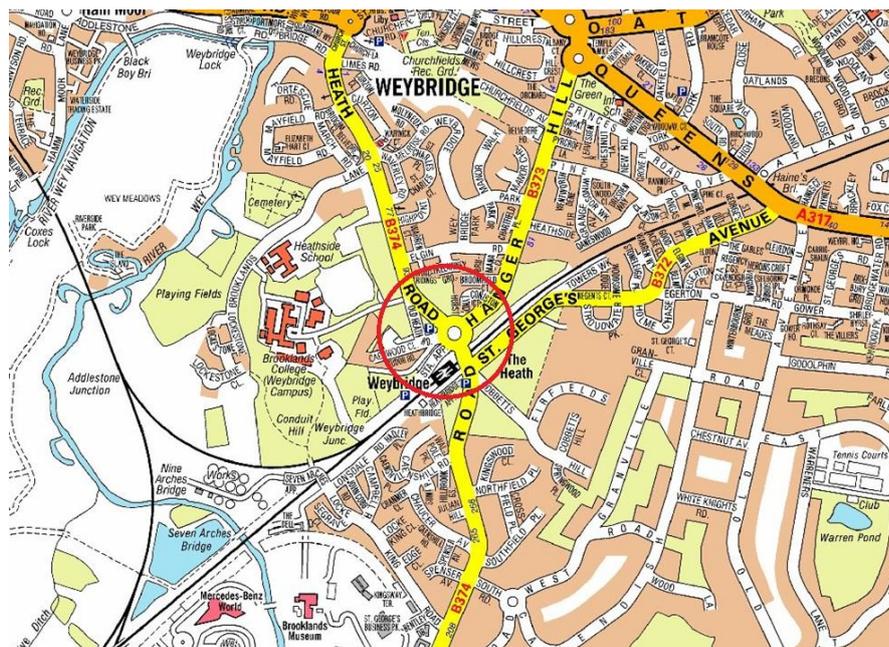
- 1. INTRODUCTION**
- 2. SITE ANALYSIS**
- 3. DATA COLLECTION**
 - 3.1. Statutory Authorities Plant Request
 - 3.2. Vehicle Survey Analysis
 - 3.3. Pedestrian Analysis
 - 3.4. Collision Data
- 4. DISCUSSION AND OPTIONS**
 - 4.1. Improving the unmade footway link along Heath Road
 - 4.2. Improving the parking lay by north of the unmade footway in Heath Road (opposite St Charles Borromeo RC Church)
 - 4.3. Improving the junction into Brooklands College
 - 4.4. Creating a one way system on Old Heath Road and improving the pedestrian crossing facilities across Old Heath Road and Station Approach
 - 4.5. Providing a pedestrian refuge island across Heath Road at its junction with the roundabout
 - 4.6. Marking out two vehicular lanes on the Hanger Hill approach to the roundabout
 - 4.7. Resurfacing the carriageway across the railway bridge on Brooklands Road
- 5. RECOMMENDATION**
- 6. APPENDICES**
 - A) 2no. plans showing the extent of the public highway
 - B) Drawings showing proposed options:
 - Dwg PC0248_09 – Feasibility study general arrangement (1of2)
 - Dwg PC0248_09 – Feasibility study general arrangement (2of2)

1. INTRODUCTION:

Weybridge Railway Station is located immediately southwest of the junction where Heath Road, Hanger Hill and Brooklands Road meet. All three of these roads are B classification single carriageway roads with one lane in each direction and all three are subject to a speed limit of 30mph by virtue of a continuous system of street lighting.

An area wide feasibility study was undertaken circa 2002/03 to look at road safety generally in the south Weybridge area and although much of the work identified has since been undertaken, the area still experiences a number of problems. In particular, the outstanding problems include the junction in front of the station, the railway bridge and pedestrian facilities on the approaches to the station and to Brooklands College. It is difficult to cross the road to access the station and local children and students use Heath Road to walk to school / college. They often use the adjacent common land, rather than crossing to the footway on the opposite side of the road. Additionally, there is no continuous footway link along the western side of Heath Road to the north of the College despite there being a bus stop located along this section.

Over 10 years has elapsed since the original area study and the traffic and pedestrian flows have undoubtedly changed. The purpose of this report therefore is to take a fresh look at the area and to compile a package of improvements to tackle not only the known problems but any that may have manifested themselves since the original study. The main focus of this report is on the area around the railway station highlighted below.



2. SITE ANALYSIS:

The Railway Station is accessed via Station Approach, which joins the junction of Heath Road, Hanger Hill and Brooklands Road. Station Approach measures approximately 7.5m wide before it increases towards the station entrance to accommodate some short term parking and a taxi rank. There is a footway along the southern side of Station Approach linking to the main entrance into the station building. Station Approach itself does not form part of the public highway and is presumably owned by South West Trains who operate Weybridge Railway Station.

To add further complexity to the road layout in this area, Old Heath Road also joins this already busy junction. Old Heath Road provides access to a pay and display car park, Veterinary Surgery, Public House and a small number of private dwellings. There are footways along both sides of Old Heath Road up to the western end of the car park at which point the footway on the northern side ends but the one on the southern side continues up to the access into Caenwood Close. At Caenwood Close the road turns through 90 degrees and travels north to link with the access road to Brooklands College. There are no footways along this length, which goes through common land. The road width measures 6.0m near its junction with Heath Road before narrowing to around 5m as it runs past the car park. After turning through 90 degrees the road widens to around 9m outside the Public House before narrowing back down to 3.75m for the rest of its length.

Heath Road measures approximately 7.0m wide and has a continuous footway all the way along its eastern side. There is also a footway link on the western side but this only extends from the railway station to the access road to Brooklands College. North of this access road there is no paved footway on the western side of Heath Road although there is a timber footway edging that seems to delineate the extent of an un-surfaced footway. A bus stop for the northbound service is located within this un-made strip and whilst there is strong evidence of pedestrians using this strip, it is uneven, muddy and slippery so far from ideal. Further north, towards its junction with Brooklands Lane is a Puffin crossing.

With regard to the access road to Brooklands College, this measures around 5.0m and benefits from footways on both sides. The road is not part of the highway network but does form part of the Common Land.

Hanger Hill benefits from continuous footways along both sides for its entire length all the way from the railway station up to its junction with the A317 Queens Road. It measures circa 7.0m wide for the majority of its length and within that it accommodates central hatching and a number of

traffic islands. Towards the northern end, near Pycroft Lane is a Puffin crossing.

Brooklands Road approaches the station from over the railway line to the south. The road as it crosses the railway bridge measures approximately 7.0m wide and there is a footway on the western side that averages 1.8m wide. There is no footway link on the eastern side. Both lanes have been treated with buff coloured high friction surfacing, but at the junction where Brooklands Road meets the roundabout this has the potential to cause confusion. The reason for this is because the buff coloured surfacing ends at the point drivers would usually expect the give way markings to be but at this particular location, traffic on Brooklands Road has priority to continue.

Immediately to the south of the railway bridge is another busy area where St George's Avenue and Cobbetts Hill join from the east and there is access to and from a pay and display car park joining from the west. There is a no right turn into St George's Avenue from Brooklands Road and vehicles exiting the pay and display car park are forced to turn left (i.e. southbound vehicles must travel a short distance north, to the roundabout then back on themselves in order to travel south). There is a pedestrian refuge located between St George's Avenue and Cobbetts Hill to assist pedestrians crossing Brooklands Road and there is a right turn ban into St Georges Avenue from Brooklands Road.

St George's Avenue goes off to the east, where it eventually meets the A317 Queens Road. It runs immediately parallel with the railway line for approximately 300m before turning off to the east around its junction with Towers Walk. The section of St George's Road running parallel to the railway line measures approximately 7.0m wide and there is a footway on the south eastern side that averages 1.8m wide. There is no footway link on the north western side of this section. The remaining section of St George's Avenue has more of a residential feel about it with properties and footways along both sides. This section measures approximately 8m wide with both footways varying but averaging in the region of 1.8m. It is worth noting that further road onto rail mitigation measures are planned for St Georges Avenue during 2015.

Immediately south of St George's Avenue is a centrally located pedestrian crossing island to assist pedestrians across Brooklands Road. To the south of the crossing island is the junction with Cobbetts Hill. Cobbetts Hill runs south east and serves as access to a housing estate. It measures at an average of around 4.5m wide and benefits from a footway along the south western side, which is approximately 1.5m wide.

Opposite the junction of Cobbetts Hill is the entrance to the railway stations southern car park. Access is gained in and out directly from

Brooklands Road but there is a no left turn ban on vehicles exiting back on to Brooklands Road. Immediately to the south of Cobbets Hill and the car park entrance there is a bus stop on both sides of the road. All roads within the study area are subject to a speed limit of 30mph.

It is worth noting that the wooded areas, including the unmade footway link along Heath Road and the unmade parking layby form part of the Heath and are subject to Common Land rights. Areas of public highway can also be designated as Common Land and in these instances the guidance is unclear so it is considered that Common Land rights prevail. In order to undertake works on Common Land it is necessary to submit an application for consent to the Planning Inspectorate. Such applications are time consuming to prepare.

3. DATA COLLECTION:

3.1 Statutory Authorities Plant Request;

The following Statutory Authorities were approached with a level C2 Enquiry in February 2014. It should be noted that C2 enquiries are preliminary enquiries only and that depth of cover and possible costs of diversion would have to be established at the detailed design stage, prior to construction:

- Scotia Gas Networks
- BT
- UK Power Networks (electricity)
- Affinity Water
- Thames Water
- Traffic Signals (SCC)
- Virgin Media
- Linesearch (petroleum and high pressure gas)

The following Statutory Authorities do not have any apparatus in the area:

- Scottish and Southern (electricity)
- South East Water
- Sutton and East Surrey Water

Referring to the Statutory Authority plans, there could potentially be diversionary or protective works for all of the authorities who have apparatus in the area apart from Traffic signals. Some of the conflict could potentially be overcome at the detailed design stage but there is the potential for significant additional costs. Costs for such works can only be identified at the detailed design stage. Copies of the C2 replies are available upon request.

3.2 Vehicle Survey Analysis;

3.2.1 Speed and volume surveys

Full automatic traffic speed and volume surveys were carried out at seven separate locations on the approaches to the railway station between 27th March 2014 and 2nd April 2014. The table below shows the 85%ile and mean speeds and the overall daily volume of vehicles.

Location 1 – Heath Road, between the roundabout at the railway station and the road leading to Brooklands College.

N/W bound 85%ile	S/E bound 85%ile	N/W bound mean	S/E bound mean	N/W bound daily flow	S/E bound daily flow
35	35	30.7	29.7	6180	5734

Location 2 – Heath Road, just north of Highpoint.

N/W bound 85%ile	S/E bound 85%ile	N/W bound mean	S/E bound mean	N/W bound daily flow	S/E bound daily flow
37	35	31.5	30.6	6948	6548

Location 3 – Hanger Hill, between the roundabout at the railway station and the bend south of Broomfield Court.

N/E bound 85%ile	S/W bound 85%ile	N/E bound mean	S/W bound mean	N/E bound daily flow	S/W bound daily flow
32	32	28.3	28.1	5892	5024

Location 4 – Hanger Hill, between Heathside and Weybridge Park.

Northbound 85%ile	Southbound 85%ile	Northbound mean	Southbound mean	Northbound daily flow	Southbound daily flow
35	35	30.1	29.9	6749	6107

Location 5 – St Georges Avenue, just south west of The Heath.

N/E bound 85%ile	S/W bound 85%ile	N/E bound mean	S/W bound mean	N/E bound daily flow	S/W bound daily flow
35	35	30.2	30.0	2815	3414

Location 6 – St Georges Avenue, just south west of Outram Place.

N/E bound 85%ile	S/W bound 85%ile	N/E bound mean	S/W bound mean	N/E bound daily flow	S/W bound daily flow
34	35	28.0	29.9	2130	2931

Location 7 – Brooklands Road, between Cobbetts Hill and Caenshill Rd.

Northbound 85%ile	Southbound 85%ile	Northbound mean	Southbound mean	Northbound daily flow	Southbound daily flow
34	35	28.4	30.4	11194	10582

The speed information above was collected during free flowing traffic in order to provide an accurate insight into speeds approaching the railway station area. Surrey County Council adopted a new speed limit policy on 3rd July 2014, which places a greater emphasis on the mean speed of vehicles and when compared to this, the existing mean speeds are well within the allowable thresholds.

In terms of vehicle flows, the main indications are that the Brooklands Road has by far the highest volume of traffic and St Georges Avenue has the lowest. The other roads surveyed appear to accommodate similar volumes of traffic in all directions. Traffic volumes and turning movements are discussed more detail in section 3.2.2.

3.2.2 Turning count information

Classified turning counts were undertaken on 15th May 2014 (Thursday) and 17th May 2014 (Saturday) in order to assess vehicle movements around the roundabout at the front of the railway station (site 1) and also around the St Georges Avenue junction (site 2).



SITE 1 - With regard to vehicles entering the roundabout at site 1, the surveys show that the highest number of vehicles approaches from over the railway bridge (C). In excess of 50% of that figure continues North West into Heath Road (A) so it is understandable that a straight through lane has been provided to aid this movement. The majority of the remaining vehicles travelling over the railway bridge leave the roundabout via Hanger Hill (B). $C \rightarrow A + B$.

In terms of vehicles exiting the roundabout at site 1, the highest number exits to the south to travel over the railway bridge. The vast majority of the traffic taking this route is a combination of vehicles entering the roundabout from Heath Road and Hanger Hill. $A + B \rightarrow C$.

Old Heath Road (E) accommodated the lowest number of vehicles exiting the roundabout with Station Approach (D) taking the next lowest.

SITE 2 - With regard to vehicles entering site 2, the surveys show that the highest number of vehicles approaches from Brooklands Road (D). Additional vehicles join this flow from B, C and E leading to an even higher figure leaving site 2 over the railway bridge (A). The highest number of vehicles leaving site 2 is over the railway bridge so $D \rightarrow A$ is the majority movement. There is also a high volume of vehicles travelling through site 2 from A to D.

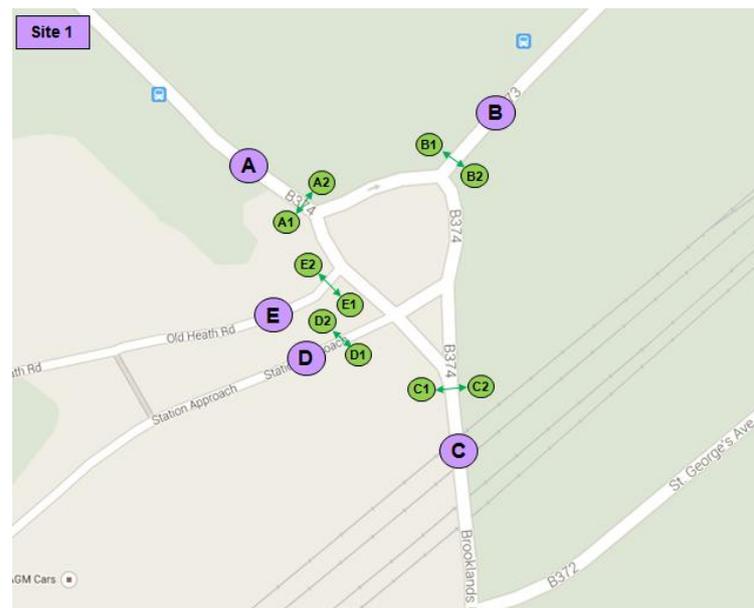
The lowest number of vehicles exit site 2 via Cobbetts Hill (C) and the stations southern car park (E). It is also worth noting that across the two days, a total of 185 vehicles turned into St George's Avenue against the existing right turn ban.

OVERVIEW – The majority northbound movement is vehicles travelling from Brooklands Road, over the railway bridge and into Heath Road. The majority southbound movement is the opposite of this i.e. vehicles travelling from Heath Road, around the roundabout, and over the railway bridge into Brooklands Road.

3.3 Pedestrian Analysis;

Pedestrian counts were undertaken on 15th May 2014 (Thursday) and 17th May 2014 (Saturday) in order to assess pedestrian movements within the same areas as the vehicle turning counts. I.e. around the roundabout at the front of the railway station (site 1) and also around the St Georges Avenue junction (site 2).

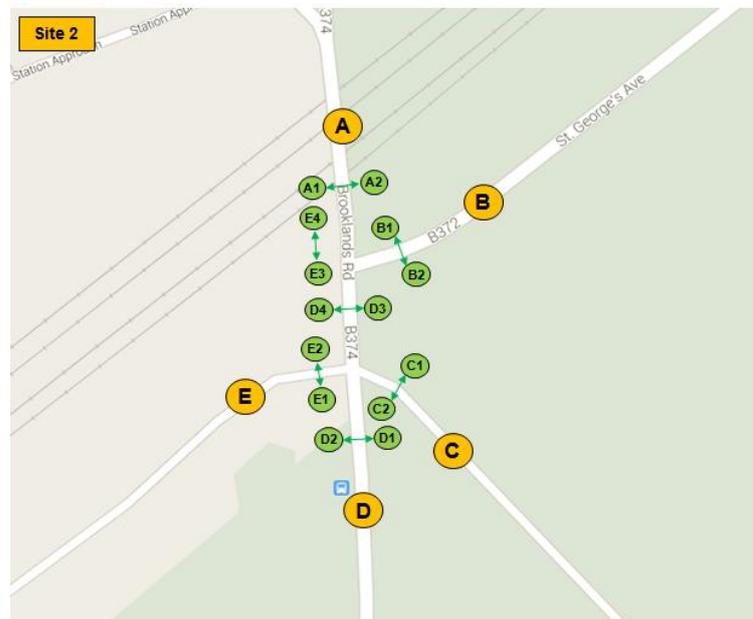
SITE 1 – A summary of the pedestrian crossing movements is as follows;



Location		15/5/2014 (Thursday)		17/5/2014 (Saturday)	
A	A1 to A2	116	293	55	121
	A2 to A1	177		66	
B	B1 to B2	10	15	8	12
	B2 to B1	5		4	
C	C1 to C2	371	649	153	291
	C2 to C1	278		138	
D	D1 to D2	266	645	156	344
	D2 to D1	379		188	
E	E1 to E2	234	590	140	290
	E2 to E1	356		150	

The surveys show that the highest level of pedestrian movement is across the northern end of Brooklands Road (C), Station Approach (D) and Old Heath Road (E). The highest recorded individual pedestrian flows were across Station Approach (D2 to D1) and the lowest were across Hanger Hill (B).

SITE 2 – A summary of the pedestrian crossing movements is as follows;



Location		15/5/2014 (Thursday)		17/5/2014 (Saturday)	
A	A1 to A2	0	0	0	0
	A2 to A1	0		0	
B	B1 to B2	29	49	10	16
	B2 to B1	20		6	
C	C1 to C2	50	93	23	40
	C2 to C1	43		17	
D	D1 to D2	11	28	8	19
	D2 to D1	17		11	
	D3 to D4	408	766	161	282
	D4 to D3	358		121	
E	E1 to E2	633	1259	157	276
	E2 to E1	629		119	
	E3 to E4	367	711	129	227
	E4 to E3	344		98	

The surveys show that the highest level of pedestrian movement is across Brooklands Road (D) and the stations southern car park (E). The highest recorded individual pedestrian flows were across the entrance to the stations southern car park E1 to E2 and the lowest were between D1 and D2.

It should be noted however that since these pedestrian surveys were undertaken, the railway station have re-opened their subway leading from the southern car park to the station concourse so this will have undoubtedly reduced the number of pedestrians walking across the road bridge i.e. travelling E3 to E4 and visa versa.

3.4 Collision Data;

The recorded collision data shows that there were 16 collisions in the vicinity of Weybridge Railway Station in the 3 year period prior to February 2014. These are broken down as follows;

Location/near to	Collisions	Date	Nature
Brooklands Road near Cobbetts Hill	6	16/02/2011	Slight
		05/03/2011	Slight
		26/06/2011	Serious
		15/10/2011	Slight
		02/07/2012	Slight
		12/03/2013	Slight
Hanger Hill jct with roundabout	1	19/10/2011	Serious
Station Approach jct with roundabout	1	28/11/2012	Slight
Heath Road approach to roundabout	3	13/02/2012	Slight
		27/09/2012	Slight
		28/10/2013	Slight
Heath Road jct with access road to Brooklands College	3	16/05/2011	Slight
		15/08/2011	Slight
		04/05/2013	Serious
Heath Road southbound towards puffin crossing	2	18/06/2011	Slight
		28/06/2013	Serious

All of these collisions are random, unrelated and have not been recorded as speed related.

4. DISCUSSION AND OPTIONS:

The brief makes reference to providing improved pedestrian crossing facilities in the vicinity of Weybridge Railway Station, whilst being sensitive to the needs of other highway users. It also requested that all of the problems in the area around the Railway Station, including the junction in front of the station, the Railway Bridge, general pedestrian facilities around the station and the unmade footway on Heath Road near Brooklands College be looked at.

There are some major works that could be considered such as moving the railway bridge, closing the railway bridge to traffic in both or just one direction or moving the railway station itself but this study will principally focus on practical and affordable solutions that could make a difference in the short to medium term.

Starting with the existing unmade footway along Heath Road, there is certainly an opportunity to improve this link, which appears to be well used, particularly by students of Brooklands College. The existing path runs alongside Heath Road, between the college entrance and a point opposite Highpoint to the north. The engineering works required to upgrade this footway link are relatively straight forward but the land is designated as Common Land, meaning an application to the Secretary of State is likely to be required in order to gain approval for any improvements. Once approval in principle to any suggested improvements has been secured from all interested parties, the application can be made.

The northern end of the unmade path meets an unmade lay by, opposite St Charles Borromeo RC Church, which in turn connects to the existing footway network at a point approximately opposite Waverley Road. There is also an informal footpath link from the northern tip of the lay by into the open space. There would also be Common Land issues to resolve with any improvements to this parking layby but with similar issues to overcome regarding the unmade footway mentioned earlier, consideration should also be given to tackling the layby too in order to provide a holistic solution for pedestrians.

The other key areas investigated were the junction in front of the station, the railway bridge and the area immediately south of the railway bridge in order to see what pedestrian and / or vehicular improvements could be made.

With regard to the junction (roundabout) in front of the station, the volume of traffic flow is very high with most vehicles coming into this area from over the railway bridge before exiting via Heath Road and Hanger Hill. Add to that the junctions of Station Approach and Old Heath Road

joining the roundabout from immediately next to each other and high levels of pedestrian activity and it is clear that any improvements no matter how small would be welcome. The presence of a straight through lane to assist these movements is therefore understandable and still deemed as the most suitable arrangement for clearing vehicles as swiftly as possible. However, confusion was observed as to who had priority between vehicles coming over the bridge and those using roundabout in order to access Station Approach or turn right towards Heath Road. Whilst drivers unfamiliar with the area are likely to be cautious, this could also be attributed to the existing buff coloured anti skid surfacing stopping at the point you would expect a give way line to be for traffic coming over the railway bridge. The solution could be to extend the anti skid surfacing along Heath Road so it is continuous through the roundabout or to resurface the carriageway over the bridge with a high PSV surface course that does not require high friction surfacing.

The Hanger Hill Approach to the roundabout is not currently marked as two lanes but is wide enough to accommodate them, which would serve the purpose of formalising what sometimes already happens and would also provide an area for straight over / right turning traffic to wait before committing to the roundabout, where they subsequently have to give way to vehicles travelling north over the railway bridge.

The Heath Road approach to the roundabout is also relatively wide but not enough to accommodate two lanes and that does not appear to be required anyway. The space could however be used to widen the existing traffic island into a pedestrian refuge.

The main area of vehicular conflict appears to be the between vehicles entering and exiting both station approach and Old Heath Road and this is because the junctions onto the roundabout are immediately adjacent to each other with no physical kerbed area to separate them. On top of this, there are also a lot of pedestrians who cross both junctions so a method of physically separating both junctions would not only help define both junctions but also provide a central island type facility for pedestrians to take refuge on. The creation of a one way system on Old Heath Road would allow some of the carriageway at its junction with the roundabout to be used as a kerbed pedestrian island between both junctions.

In terms of the area immediately to the south of the railway bridge, again vehicular flows are extremely high and there are many turning movements that need to be accommodated. As it stands, there is a no right turn restriction for vehicles exiting the railway stations southern car park and there is also a no right turn restriction into St Georges Avenue from Brooklands Road. Both of these assist with traffic flows and reduce conflicting movements but do inevitably send more traffic up to the roundabout directly outside the station.

A package of improvements could include:

4.1 Improving the unmade footway link along Heath Road;

In terms of the works, there is an existing line of timber edgings denoting the back of the footway for most of its length and those areas that are missing or damaged could easily be replaced or made good. With regard to the surface of the footway itself, considering the presence of a bus stop facility, it would be advantageous for this to be more of a bound material as that would be the most appropriate for disabled or elderly bus passengers. Bearing in mind the Common Land status, the recommendation is to resurface with a resin bonded product, which is ideal for situations where a hard wearing but natural appearance is required.

The opportunity should also be taken to provide two sets of dropped kerbs in order to assist pedestrian movements across Heath Road.

Note: The footway is not public highway but lies wholly within Common Land so it is likely to take one financial year to make the necessary application to work on Common Land and for the Planning Inspectorate to make their decision.

Guide price £25,000

4.2 Improving the parking lay by north of the unmade footway in Heath Road (opposite St Charles Borromeo RC Church);

Linked to point 4.1, consideration could also be given resurfacing the existing unmade parking layby. Whilst products such as resin bonded gravel have a shorter life expectancy when compared to a standard macadam finish, in order to retain the natural look of the area and again, to respect the Common Land status a resin bonded material could also be considered for this area.

Works to formalise the pedestrian link from the northern end of the layby into the open space could also be included in the form of re-grading the existing worn track to an acceptable gradient and / or providing steps. This could be done as an unmade surface with timber edgings and the steps, should they be required could be constructed using railway sleepers for example in order to respect the nature of the area.

Note: The layby is not public highway but lies wholly within Common Land so it is likely to take one financial year to make the necessary application to work on Common Land and for the Planning Inspectorate to make their decision.

Guide price £20,000

4.3 Improving the junction into Brooklands College;

Linked to point 4.1, it would also be advantageous to undertake junction improvements at the southern end of the existing unmade footway where the access road into Brooklands College meets Heath Road. The junction onto Heath Road currently has a central island, which appears to encourage vehicles to turn left onto Heath Road although there is no right turn ban in existence so as it stands this island in fact introduces confusion and makes turning harder. There are no pedestrian crossing facilities at this junction either so by removing this island and reducing the kerb radii on the northern side, a new footway link and dropped kerbs can be incorporated. This will provide a continuous footway link along the western side of Heath Road and will make crossing at the junction leading to Brooklands College easier for pedestrians.

Note: The majority of the junction is public highway but areas of Common Land would also be affected so it is likely to take one financial year to make the necessary application to work on Common Land and for the Planning Inspectorate to make their decision.

Guide price £15,000

4.4 Creating a one way system on Old Heath Road and improving the pedestrian crossing facilities across Old Heath Road and Station Approach;

As well as being extremely busy in general, there is a clear conflict between vehicles turning in and out of Station Approach and those turning in and out of Old Heath Road, immediately in front of the railway station. This is at the very same point that some of the highest pedestrian flows have been recorded so by making Old Heath Road one way north to south, one of the vehicular movements at the eastern end of Old Heath Road is taken out of the equation and space is created to better separate Station Approach and Old Heath Road with a kerbed build out that can then also be used to provide a refuge area for pedestrians wishing to cross both junctions.

The new build out would link into the existing footway on the southern side of Old Heath Road so would provide an improved means for pedestrians walking south east along Heath Road towards the railway station to enter Old Heath Road and use the existing steps down into Station Approach if they wished.

This proposal would mean that rather than try to negotiate four lanes of traffic, pedestrians could cross one lane of traffic on Old Heath Road before crossing Station Approach separately, which should make it easier for both modes of transport to co-exist at this difficult site.

This would require detailed consultation with the properties and businesses accessed from Old Heath Road, particularly the Hand and Spear Hotel that are likely to have large deliveries.

Note: Old Heath Road is public highway but also falls within the local Common Land and the guidance on procedure where both 'ownerships' are present is unclear so it would be prudent to make an application to work on Common Land for this proposal, which is likely to take one financial year from start until a decision is received from the Planning Inspectorate.

Guide price £25,000

4.5 Providing a pedestrian refuge island across Heath Road at its junction with the roundabout;

The pedestrian flows recorded across this south eastern end of Heath Road were 293 weekdays and 121 at weekends and whilst these are by no means the highest recorded within the scope of this feasibility study, there is scope for a simple low cost improvement that should make crossing at this location safer. The existing traffic island could be widened and lengthened to incorporate pedestrian dropped kerbs making it a facility suitable for all highway users including the disabled. The dropped kerbs could be positioned such to tie in with the natural break in traffic queuing to enter the roundabout, which should assist crossing during busy periods and simply by having a more obvious 'formal' facility, vehicles may be more likely to give way to pedestrians waiting to cross.

Guide price £8,000

4.6 Marking out two vehicular lanes on the Hanger Hill approach to the roundabout;

This could be achieved using road markings only and would provide a dedicated lane for left turning traffic and the other lane would be for traffic turning right or going straight over into Station Approach. During site inspections, vehicles were observed naturally splitting into two lanes at this location on a number of occasions so in many ways, this would simply be a formalisation of what often happens naturally.

Guide price £5,000

4.7 Resurfacing the carriageway across the railway bridge on Brooklands Road;

The carriageway surface is in need of repair and as mentioned previously the buff coloured High Friction Surfacing finishes at the roundabout in the same location as you would normally expect to see the give way line and this does appear to be causing some confusion. Both lanes of Brooklands Road from the roundabout to the southern end of the northbound layby (south of the railway station car park) would benefit from being resurfaced with a high strength surface course material.

Guide price £35,000

Depending on the skid resistance (PSV) values achievable with such high durability surfaces, consideration could be given to the addition of a charcoal coloured High Friction Surface post resurfacing.

Guide price £15,000

5. RECOMMENDATION:

During year one it is recommended that:

- Items 4.1 to 4.4 be progressed through consultation and subject to general support being received the Common Land application process with a view to implementing them in year two if consent is gained from the Planning Inspectorate.
- Items 4.5 to 4.7 be promoted for construction.

The guide price for constructing items 4.5 to 4.7 is £63,000 (including High Friction Surfacing in 4.7) but it is recommended that a sum also be set aside for the work involved in making the various Common Land applications, say £10,000.

Total guide price for year one £73,000

During year two it is recommended that:

- Items 4.1 to 4.4 be constructed if consent is granted to work on the Common Land.

Total guide price for year two £85,000

Outline layout designs are attached as appendix B

6. APPENDICIES:

A) 2no. plans showing the extent of the public highway

B) Drawings showing proposed options:

Dwg PC0248_09 – Feasibility study general arrangement (1of2)

Dwg PC0248_09 – Feasibility study general arrangement (2of2)