

A404 Bisham Roundabout Improvement Public Consultation Report

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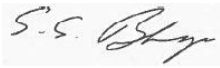

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Executive Summary

Highways England promoted a scheme to improve A404 Bisham Junction in the Government's Pinch Point Programme. However, following initial consultation, it was decided that no scheme should be taken forward without further development work and a full consultation involving local residents, stakeholders and motorists.

A public consultation was held between the 19 June 2015 and the 12 September 2015 on three options. It gave an opportunity for all to express their views on the proposed improvement options.

The three options were:

- Option 1: Partial Signalised Roundabout
- Option 2: Left In/Left Out
- Option 3: Signalised Junction

This report outlines how the public consultation was planned, carried out and its feedback reviewed.

Exhibitions were held locally over 2 days with; one day at Bisham Abbey and the second at Bisham Church of England (C of E) Primary School. 424 people attended the Exhibitions, submitting over 160 feedback forms. During the 12 week consultation period, a total of 659 responses were received by Highway England.

All responses were reviewed and collated. The survey confirmed that 77% of the respondents agreed something needed to be done to improve the present roundabout whereas 23% of respondents preferred no improvement or did not respond to the question.

Of the options tabled, Option 1: Partial Signalised roundabout was the most popular option with the respondents, drawing 25%. This was in line with the feedback received at the exhibitions and in discussions with the members of public. Generally those living locally favoured the Partially Signalised Roundabout option. However, there was a general reservation about all three options and a preference for a longer term solution, such as a flyover or other form of grade separation of this junction.

Throughout the build-up and during the consultation period we engaged with the Local Authorities and other prominent stakeholders around Bisham. There was a general opposition to all three options and a consensus that Highways England look at the A404/A404M corridor as a whole in developing a longer term solution. The local authorities were particularly concerned by the impact of the three options on the local road network and developments.

A number of alternatives have been put forward as a result of the consultation which underlines the disaffection with the proposed options. It has not been possible to consider these in detail at this stage.

Highways England have, therefore, decided that none of the three proposed options should be taken forward in their present form. Further work should be undertaken to develop longer term schemes, in the context of the A404/A404(M) corridor as a whole and working closely with the local highway authorities and other stakeholders.

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List of Abbreviations

ARCADY	Assessment of Roundabout Capacity and Delay
BCC	Buckinghamshire County Council
BTV	Buckinghamshire Thames Valley
C of E	Church of England
DMRB	Design Manual for Roads and Bridges
MOVA	Microprocessor Optimised Vehicle Activation
NMU	Non Motorised User
PPP	Pinch Point Programme
Q&A	Question and Answer
RBWM	Royal Borough of Windsor and Maidenhead
SAC	Special Area of Conservation
SRN	Strategic Road Network
SSSI	Site of Special Scientific Interest
TM	Traffic Management
WDC	Wycombe District Council

1. Introduction

The A404 forms a part of Highways England Area 3 strategic highways network and runs from north to south connecting the M40 (Junction 4 at Handy Cross) and the M4 (Junction 8/9 at Maidenhead). It also forms an important part of the Strategic Diversion Network for incidents on the M4, M25 and M40.

The Bisham Roundabout is the only at grade junction along the A404 providing local access to Bisham and Marlow to the west and Maidenhead via the A308 to the east. The junction is operating at, or above, capacity and high levels of congestion and delays are experienced on a daily basis, especially during peak hours and with seasonal peaks.

A scheme to improve the junction was included in Tranche 2 of the Pinch Point Programme (PPP), which formed a part of the UK Government's growth initiative, outlined in the Chancellor's Autumn Statement in November 2011.

The initial proposed scheme was to convert the roundabout to a Signalised Junction. However, following initial consultations, we decided that no scheme should be taken forward without further work on options and a full consultation involving local residents, stakeholders and road users.

2. Public Consultation

The aim of the consultation was to seek views from local residents, stakeholders, road users and the general public on three possible options for improvement of the roundabout and to inform Highways England's decision on which option to take forward.

The consultation took place over a 12 week period, starting on 19 June 2015 and finishing on the 12 September 2015. The consultation began with two exhibitions located at:

Bisham Abbey
Bisham Village
Marlow Road
Bisham
Marlow SL7 1RR
19 June 2015, 1pm to 8pm

and

Bisham C of E Primary School
Church Lane
Marlow SL7 1RW
20 June 2015, 9am to 1pm

This report provides an analysis of the views obtained during the consultation from postal and internet responses, and those given at the two exhibitions.

Public Consultation Options

The three proposed improvement options presented at the exhibitions were:

- Partial Signalised Roundabout
- Left In/Left Out
- Signalised Junction

See Appendix A for outline drawings

In addition to the above, other options considered by Highways England but not progressed were also presented. These options were:

- Grade Separated Junction (Flyover)
- Hamburger Junction
- Signalising the Existing Roundabout
- Part-time Traffic Signals on Existing Roundabout
- Light Vehicle Subway Option

See Appendix D for Exhibition Panels

Partial Signalised Roundabout

The Partial Signalised option entails a larger roundabout which features two sets of traffic signals located on the A404 approaches. The advantages include:

- Reduced queuing and delays for local traffic entering and exiting the junction
- Improved and safer access and egress to and from Under the Wood
- Ability to amend traffic signal timings to suit future traffic flow changes
- 50 mph speed restriction on main line approaches
- Maintains a roundabout junction at Bisham
- Safer right turn movements
- Allows pedestrians, cyclists and equestrians to cross the junction

The disadvantages of Partial Signalisation are:

- Visual impact to surrounding area
- Additional land-take outside existing highway boundary
- Moves traffic closer to residential properties at Under the Wood
- Impact on environmentally sensitive landscape including an ancient woodland
- Lighting impact

Left In/Left Out

The Left In/Left Out option would result in the removal of the Bisham Roundabout and the A404 north and southbound carriageways continuing straight through the junction. Only left turn movements would be permitted, as such, there would be no right turn movements at the junction. The advantages of the Left In/Left Out option are:

- Aesthetically pleasing, minimising visual impact to the surrounding area
- Separation of the mainline and side road traffic
- No traffic signals required
- No delay to mainline through traffic movements
- Separate structure to be provided for pedestrians, cyclists and equestrians

The disadvantages of the Left In/Left Out option are:

- Restricted traffic movements to and from the A308 and Marlow Road
- Right turn traffic movements diverted to full movement junctions (Westhorpe and Burchetts Green)
- Additional works required at adjacent junctions to cope with extra demand
- Limited access to and from Under the Wood

Signalised Junction

As traffic flows continue to rise, delays at Bisham Roundabout are increasing. The Signalised Junction was considered at scheme assessment stage in an effort to reduce delay and increase capacity. The advantages of this option are:

- Ability to adapt traffic signal timings to suit future traffic flow changes
- All traffic movements catered for
- Allows pedestrians and cyclists to cross the junction
- Safer right turn movements
- 50 mph speed restrictions on the A404 mainline approaches
- Potential benefit from incorporation into a linked system

The disadvantages of the Signalised Junction are:

- Visual impact of traffic signals
- 24 hour working for traffic signals
- Large expanse of pavement construction
- Additional land-take outside existing highway boundary

3. Public Consultation Methodology

Publicity

An information leaflet was produced for distribution to the public and Stakeholders to provide information and publicise the exhibitions and the consultation process.

The leaflet, a copy of which is included in Appendix B, outlined the proposals for improvement and included an invitation to the exhibitions. The leaflet was distributed to over 700 stakeholders, 2000 local businesses and 1700 local residents. Leaflets were also deposited at local libraries, leisure centres and council offices in Marlow, Maidenhead and Wycombe.

The leaflet was split into five sections comprising two pages. The front page acted as an introduction explaining why the improvements were required and the implications of not doing anything. The second page described the options considered, dates of the exhibitions, method of submitting feedback and impact on non-motorised users (NMUs).

Local media outlets were advised on the consultation and the exhibitions.

Temporary Traffic Signs

Temporary traffic signs were installed along the A404 to invite road users to the exhibitions. The signs gave information on venues and dates of the exhibitions and were located as follows:

- 2 on the Southbound Carriageway of the A404
- 2 on the Northbound Carriageway of the A404
- 2 on the A308/Marlow road

The signs were installed on Friday 12 June 2015 and removed after the exhibitions.

Posters and Publications

Posters and publications promoting the public exhibitions were provided to stakeholders.

Websites

The following dedicated websites were set up:

- <https://www.gov.uk/government/consultations/a404-bisham-roundabout-design-options>
- <http://www.highways.gov.uk/roads/road-projects/a404-bisham-roundabout-improvement/>

A dedicated page was set up on the BCC website:

- <https://democracy.buckscc.gov.uk/mgConsultationDisplay.aspx?ID=1037>

The GOV.UK website provided details on:

- Public exhibition panels
- Information leaflet
- Consultation description
- Responding to the public consultation and the option to submit a response online
- Dates and venues of the public exhibitions

The Highways England website provided information on:

- Scheme background
- Start and end dates of the public consultation
- Dates and venues of the public exhibitions
- Why improvements are required, including benefits
- How to obtain information on the scheme including response forms

The BCC website provided information on:

- Purpose of the public consultation
- Why improvements are required at the roundabout
- The three improvement options considered by Highways England
- Dates and venue of the public exhibitions
- How to obtain additional information on the scheme including response forms
- End date of the public consultation period

Response Form

A standard response form was made available on-line at the GOV.UK website. Respondents could either complete and submit the form online or return a printed copy to Area 3 Communications, EM Highway Services, M3 Junction 9, Winchester, Hampshire, SO23 7TY.

The response form included four questions for the respondents to answer:

- Question 1 – How they used the junction i.e. Car, Bus, Cycle, Walk or Other
- Question 2 – Their preferred improvement scheme
- Question 3 – A reason for their response to question 2
- Question 4 – For their further comments or suggestions

The closing date for receipt of comments was Saturday 12 September 2015, the last day of the consultation period.

The results from the response forms are summarised and analysed as shown in section 4 of this report.

See response form at Appendix C.

Public Consultation Exhibitions

The exhibitions were advertised by Press Releases in the local media and with a document drop (Information Leaflet) in the locality. The leaflet and posters were also placed in local businesses venues, on Friday 29 May 2015.

Invitations were sent to key Stakeholders, including local Parish, Town, County and District Councillors. The local Members of Parliament and representatives from the Local Enterprise partnerships were also invited.

The exhibitions were held at Bisham Abbey on Friday 19 June 2015 from 1.00pm until 8.00pm and at Bisham C of E Primary School on Saturday 20 June 2015 from 9.00am until 1.00pm.

The locations for the exhibitions were chosen due to:

- Close proximity to the A404 Bisham Roundabout
- Easily accessible by all sectors of the local community

Exhibition Panels

The exhibitions consisted of 11 panels, mounted vertically, and numbered with a title panel.

Refer to Appendix D for a copy of the panels at a reduced size.

A description of the exhibition panels is given below:

- Panel 1 – ‘Welcome’ stated the scheme name, aim of proposed improvement, purpose of the public consultation and the dedicated Highways England scheme website.
- Panel 2 – ‘Why improvements are required’ described a brief history of the A404, the current situation and the improvement options considered.
- Panel 3 – ‘Option 1: Partial Signalised Roundabout’ described the option which featured partial traffic signals at the junction, including advantages and disadvantages. A drawing was included.
- Panel 4 – ‘Option 2: Left In/Left Out’ described the option which featured no right turns at the junction, including advantages and disadvantages. A drawing was included.
- Panel 5 – ‘Option 3: Signalised Junction’ described the option which featured full traffic signalisation at the junction, including advantages and disadvantages. A drawing was included.
- Panel 6 – ‘Do Nothing’ described the implications of no improvement at the junction.
- Panel 7 – ‘Other Options Considered’ described the previous options considered to improve the junction i.e. Grade Separated Junction (Flyover), Hamburger Junction and Signalising the existing roundabout.
- Panel 8 – ‘Other Options Suggested’ described the Part-time traffic signals on existing roundabout and Light Vehicle Subway options.
- Panel 9 – ‘Environment’ described how the environmental impact would be minimised with the proposed improvements at the junction.
- Panel 10 – ‘Non-Motorised Users (NMUs)’ described how NMUs would be catered for each of the proposed improvements.
- Panel 11 – ‘What Happens Next’ was a schematic representation of the future processes leading to the start of works. Invited feedback by completing the response form and provided information on the dedicated scheme webpage.

Additional Documents Made Available at the Exhibitions

Highways England presented a number of technical standards to the public at the exhibitions. These documents were used in the design of the various improvement options and presented advice and standards for:

- Geometric design of roundabouts and carriageways
- Design and provision of various types of Road Restraint Systems
- Geometric design and layout of grade separated junctions
- Dimensional requirements for the highway cross-sections for all-purpose and motorway trunk roads
- Geometric design of major / minor priority junctions with regard to traffic operation and safety
- Environmental information

Attendance Record

The attendees were asked to provide their postcode and email address. A summary of the attendance record over the two days of the exhibitions is detailed in Table 1 below.

Results from Bisham were split in to west and east, the demarcation line was A404; postcodes found on the west were categorised as Bisham (West) and to the east were set as Bisham (East).

Region	Number of Attendees		Total	Percentage
	19 June 2015	20 June 2015		
Bisham (West)	76	38	114	27%
Bisham (East)	6	-	6	1%
Marlow	118	60	178	42%
Maidenhead	48	33	81	19%
High Wycombe	17	3	20	5%
Wokingham	4	-	4	1%
Reading	4	-	4	1%
Other Regions	9	8	17	4%
Total	282	142	424	100%

Table 1. Attendance Record A404 Bisham Roundabout Public Exhibition

Liaison with Local Authorities

In addition to the exhibitions, a number of daytime meetings were undertaken by Highways England with the Royal Borough of Windsor and Maidenhead (RBWM), BCC and Local Enterprise Group in the run up to the consultation.

The proposals were presented to these organisations to elicit their views on the implications of the proposed improvements. A question and answer session was provided and the organisations were also invited to express their views on the proposals as a part of the consultation.

Question and Answer Sheet (Q&A)

A Q&A sheet was produced to answer some of the questions that were considered most likely to be asked about the scheme. The Q&A was distributed to RBWM to address concerns raised by Parish Councils. The key elements included; improvement options considered including benefits, traffic modelling requirements and impact on the environment. This Q&A sheet was later updated.

See Appendix E.

Press Release

A press release announcing the consultation was issued by our South East region press office on Monday 15 June 2015.

A follow-up news release was issued on Thursday 3 September 2015 reminding the community of the time remaining to submit their feedback before the close of the consultation period.

Media Coverage

Following the news releases issued by our South East press office, a number of articles were published by media outlets in the Berkshire and Buckinghamshire areas that provided information on the exhibitions. These were:

- Monday 8 June 2015 – Bucks Free Press. This press release provided information on details of the proposed improvement options, date and venue of the public exhibitions.
- Thursday 25 June 2015 – Maidenhead Advertiser. This press release presented information that was given at the public exhibitions.
- Thursday 25 June 2015 – Maidenhead Advertiser. This press release provided a discussion to consider replacing the A404 Bisham Roundabout with a bridge south of the roundabout.
- Thursday 25 June 2015 – Bucks Free Press. This press release provided details of plans to consider the whole A404 route for full scale review.

As a result of media releases, the scheme was featured on local radio.

4. Response Analysis

Methodology

A database was established to store and handle the response data received during the public consultation period. All responses received were entered into this database with a unique reference number assigned to each. Personal details such as the respondents name and address are excluded from this report.

Error definition

A number of response forms were found to contain errors in the way they had been completed. For accuracy and consistency a definition of what is classed as an 'error' was established. An error did not invalidate the entire response form. A response was considered an error if the respondent did not provide information to a question.

Response Rates

659 responses were received following the public consultation; of these responses:

166 (25%)	were response forms given at the Exhibitions
79 (12%)	were postal returns of the response form
4 (0.5%)	were postal returns of the response form with a letter attached
3 (0.5%)	were postal returns in letter format (no response form attached)
57 (9%)	were responses received through email
3 (0.5%)	were responses received through email with a response form attached
2 (0.5%)	were responses received through email with a letter attached
345 (52%)	were responses received through GOV.UK website

Analysis of Results

All figures are quoted as a percentage of the total number of responses unless stated otherwise.

Postcode Analysis

Of the 659 respondents, 648 (98%) provided a postcode, or at least the first three digits of a postcode. Analysis of the postcodes found that 317 respondents (48%) were identified as living in the 'SL7' postcode area. A summary of the geographical spread of respondents is detailed in Table 2.

Region	Number	Percentage
Bisham (West)	59	9%
Bisham (East)	12	2%
Marlow	246	37%
Maidenhead	201	30%
High Wycombe	50	8%
Wokingham	4	1%
Reading	21	3%
Other Regions	55	8%
No Postcode	11	2%
Total	659	100%

Table 2. Geographical Spread of Respondents

The 317 respondents in the 'SL7' postcode area were further categorised into different areas. Refer to summary in Table 3 below.

Area	Number	Percentage
Bisham (West)	59	19%
Bisham (East)	12	4%
Little Marlow	1	<1%
Marlow	242	76%
Medmenham	3	1%
Total	317	100%

Table 3. Respondents in the 'SL7' Postcode Area

The 201 respondents in the 'SL6' postcode area were further categorised into different areas. Refer to summary in Table 4 below.

Area	Number	Percentage
Burchett's Green	2	1%
Cookham	32	16%
Holyport	1	1%
Hurley	3	1%
Littlewick Green	1	<1%
Maidenhead	160	79%
Taplow	1	1%
White Waltham	1	1%
Total	201	100%

Table 4. Respondents in the 'SL6' Postcode Area

Question 1: How do you use this junction?

The results of Question 1 found that in terms of use of the junction, a majority of respondents accessed the junction by car, however, some respondents used the junction in more than one way. The results are detailed in Table 5 below.

Use	Number	Percentage
Car Only	591	90%
Car & Bus	1	0.5%
Car & Cycle	17	2%
Car & Horse	2	0.5%
Car & Motorcycle	6	0.5%
Car & Walk	12	2%
Car & Other	2	0.5%
No Response	28	4%
Total	659	100%

Table 5. Use of Junction A404 Bisham Roundabout

Question 2: Which is your preferred improvement scheme?

As part of the consultation process, respondents were asked to choose a preferred improvement scheme for the junction (including Do Nothing) or specify other preferences.

The responses were categorised into the following options:

- Partial Signalised Roundabout
- Left In/Left Out
- Signalised Junction
- Do Nothing Option
- Grade Separated Junction (Flyover)
- Tunnel / Underpass
- Part-time Traffic Signals
- All Other Options
- No Response

659 respondents participated in the consultation of which 540 (82%) provided a response to Question 2.

56 (10%)	were from Bisham (West)
12 (2%)	were from Bisham (East)
217 (40%)	were from Marlow
145 (27%)	were from Maidenhead
37 (7%)	were from High Wycombe
2 (0.5%)	were from Wokingham
19 (4%)	were from Reading
52 (9.5%)	were from other regions
540 (100%)	Total

The majority of respondents preferred the Partial Signalised Roundabout for improvement of the junction. Refer to Table 6 for a summary of results:

Option	Number	Percentage
Partial Signalised Roundabout	168	25%
Left In/Left Out	57	9%
Signalised Junction	69	10%
Do Nothing	30	5%
Grade Separated Junction (Flyover)	132	20%
Tunnel / Underpass	24	4%
Part-time Traffic Signals	34	5%
All Other Options	26	4%
No Response	119	18%
Total	659	100%

Table 6. A404 Bisham Roundabout Preferred Improvement Schemes

The pie charts in the following Figures 1 to 9 breakdown the results shown in Table 6, into the preferred option by location.

Partial Signalised Roundabout

58% of the 168 respondents that preferred the Partial Signalised Roundabout were from Marlow, 19% from Maidenhead, 14% from Bisham (West), 4% from High Wycombe, 2% from Reading and 3% from other regions.

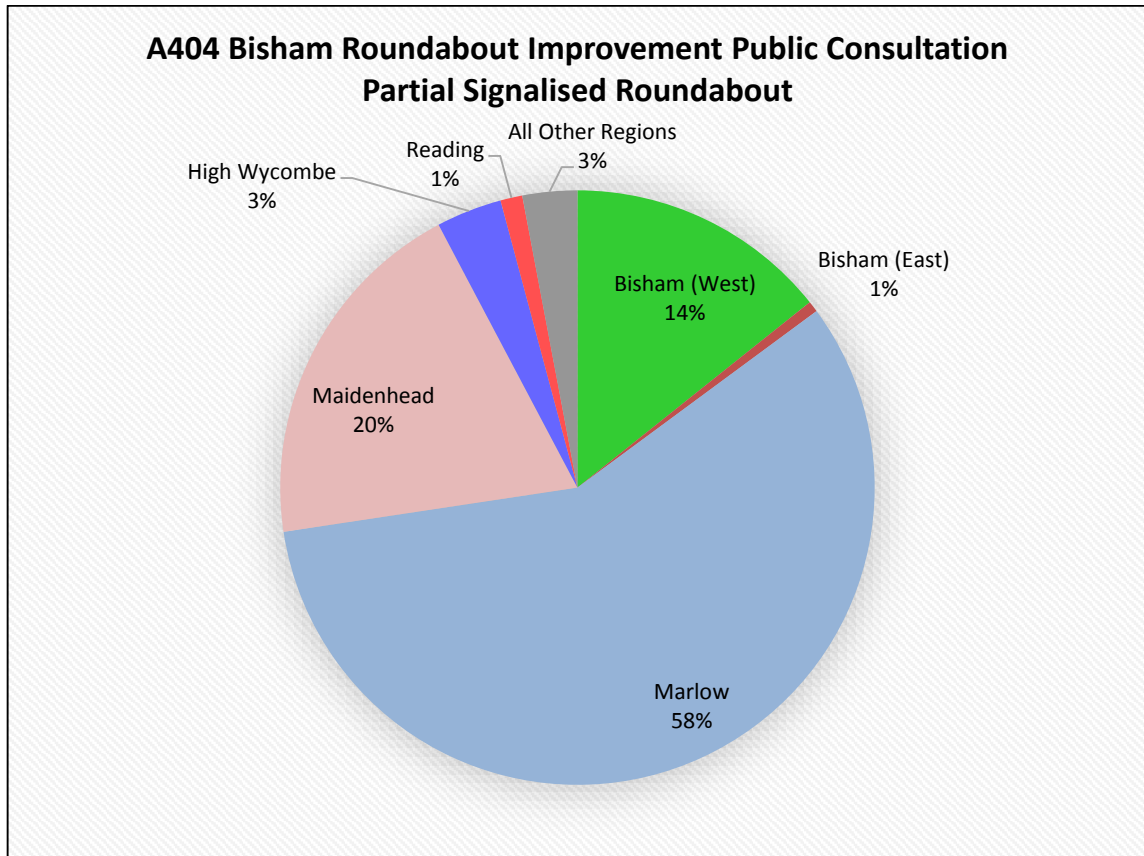


Figure 1. Partial Signalised Roundabout Location Analysis

Left In/Left Out

25% of the 57 respondents that preferred the Left In/Left Out option were from Marlow, 17% from Maidenhead, 16% from High Wycombe, 5% from Bisham (West), 5% from Reading and 32% from other regions.

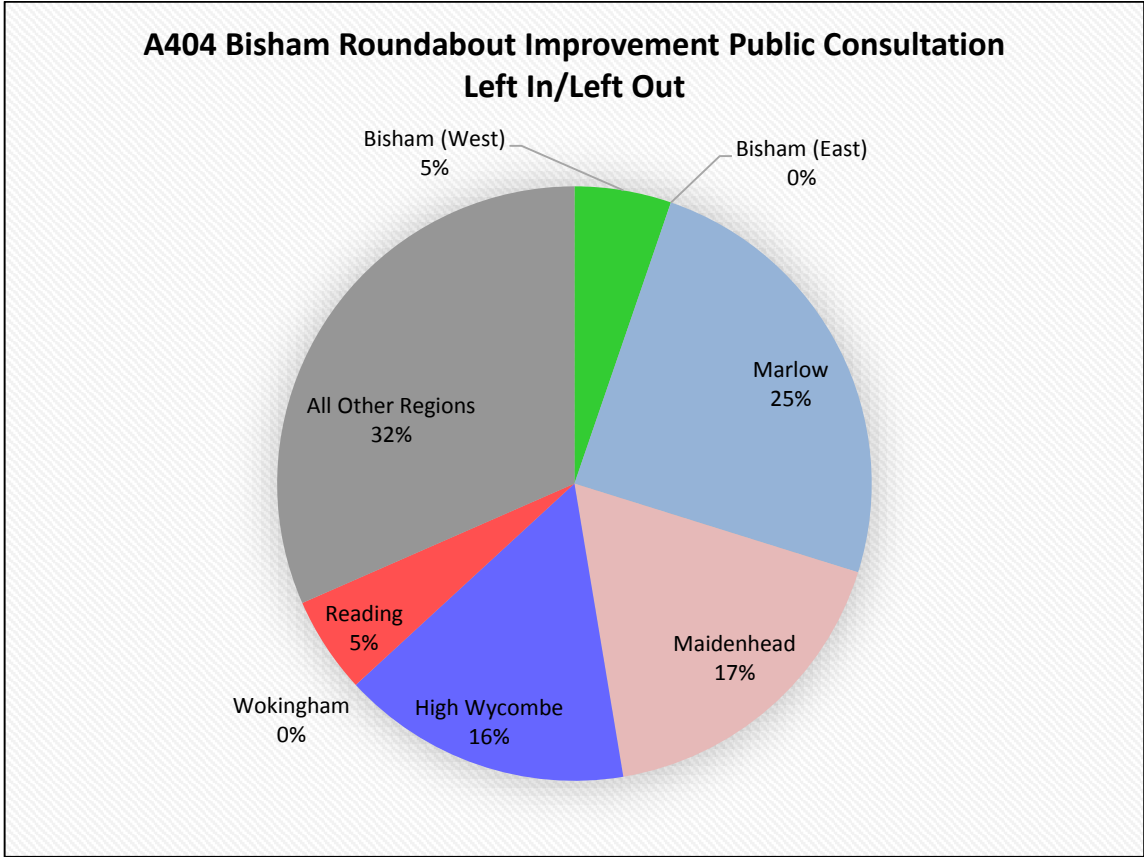


Figure 2. Left In/Left Out Location Analysis

Signalised Junction

46% of the 69 respondents that preferred the Signalised Junction were from Marlow, 29% from Maidenhead, 12% from Bisham (West), 3% from Wokingham, 1% from High Wycombe and 9% from other regions.

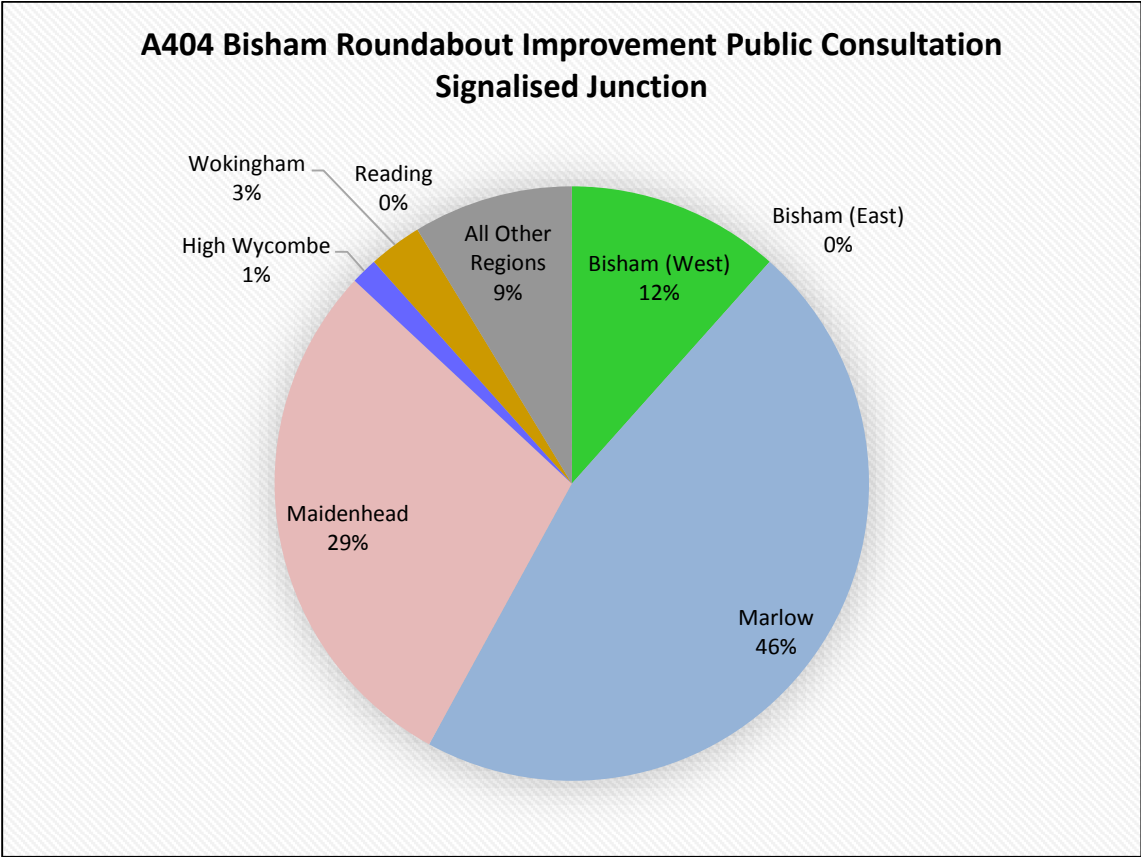


Figure 3. Signalised Junction Location Analysis

Do Nothing Option

34% of the 30 respondents that preferred no change to the existing junction were from Bisham (East), 27% from Bisham (West), 20% from Marlow, 13% from High Wycombe, 3% from Maidenhead and 3% from other regions.

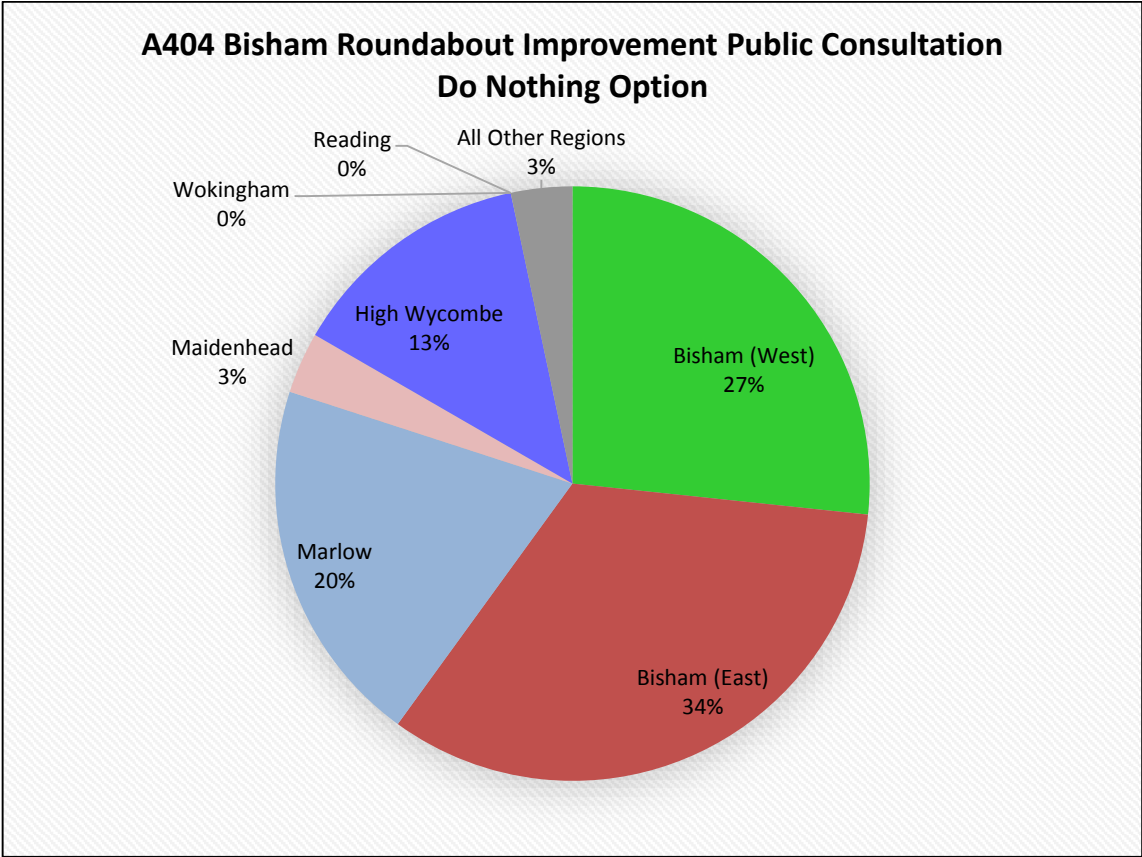


Figure 4. Do Nothing Option Location Analysis

Grade Separated Junction (Flyover)

36% the 132 respondents that preferred the Flyover were from Maidenhead, 33% from Marlow, 11% from High Wycombe, 7% from Reading, 3% from Bisham (West) and 10% from other regions.

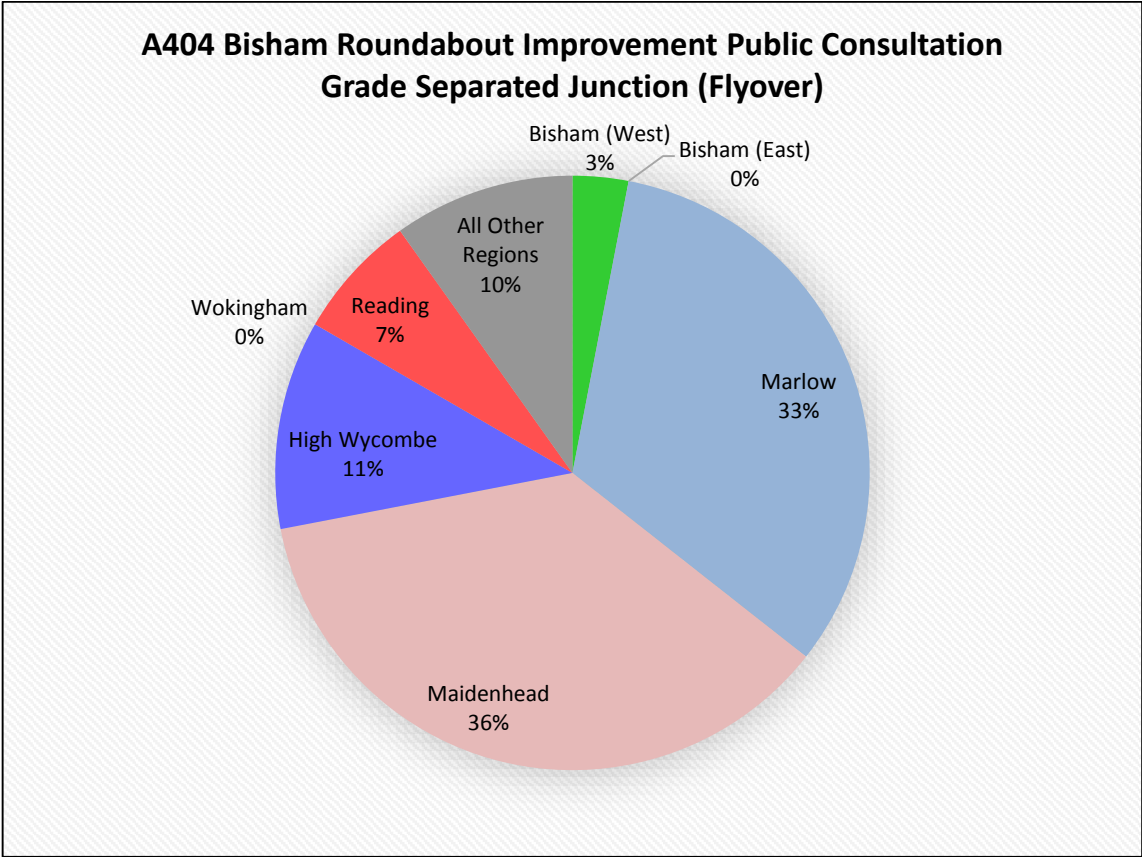


Figure 5. Grade Separated Junction (Flyover) Location Analysis

Tunnel / Underpass

42% of the 24 respondents that preferred a Tunnel / Underpass at the Junction were from Marlow, 33% from Maidenhead, 4% from Bisham (West), 4% from High Wycombe and 17% from other regions.

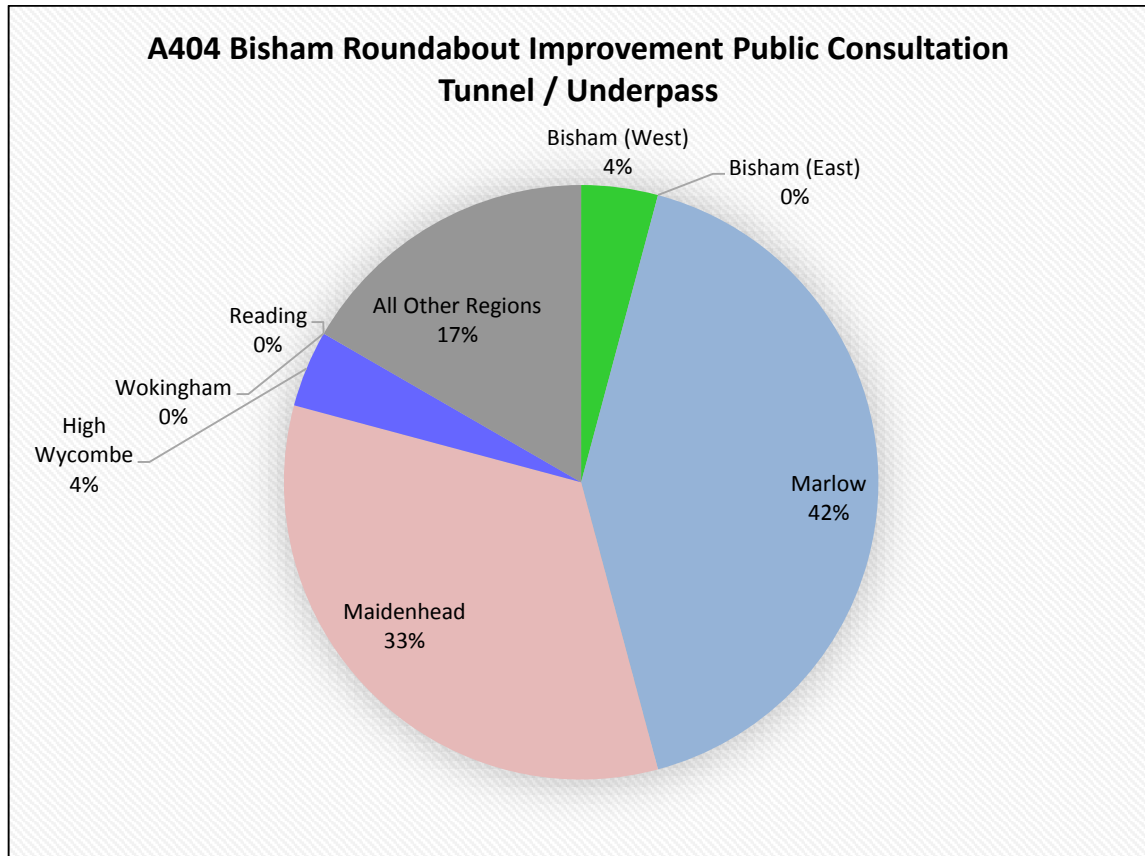


Figure 6. Tunnel / Underpass Location Analysis

Part-time Traffic Signals

41% of the 34 respondents that preferred Part-time Traffic Signals were from Maidenhead, 26% from Marlow, 15% from Bisham (West), 9% from Reading and 9% from other regions.

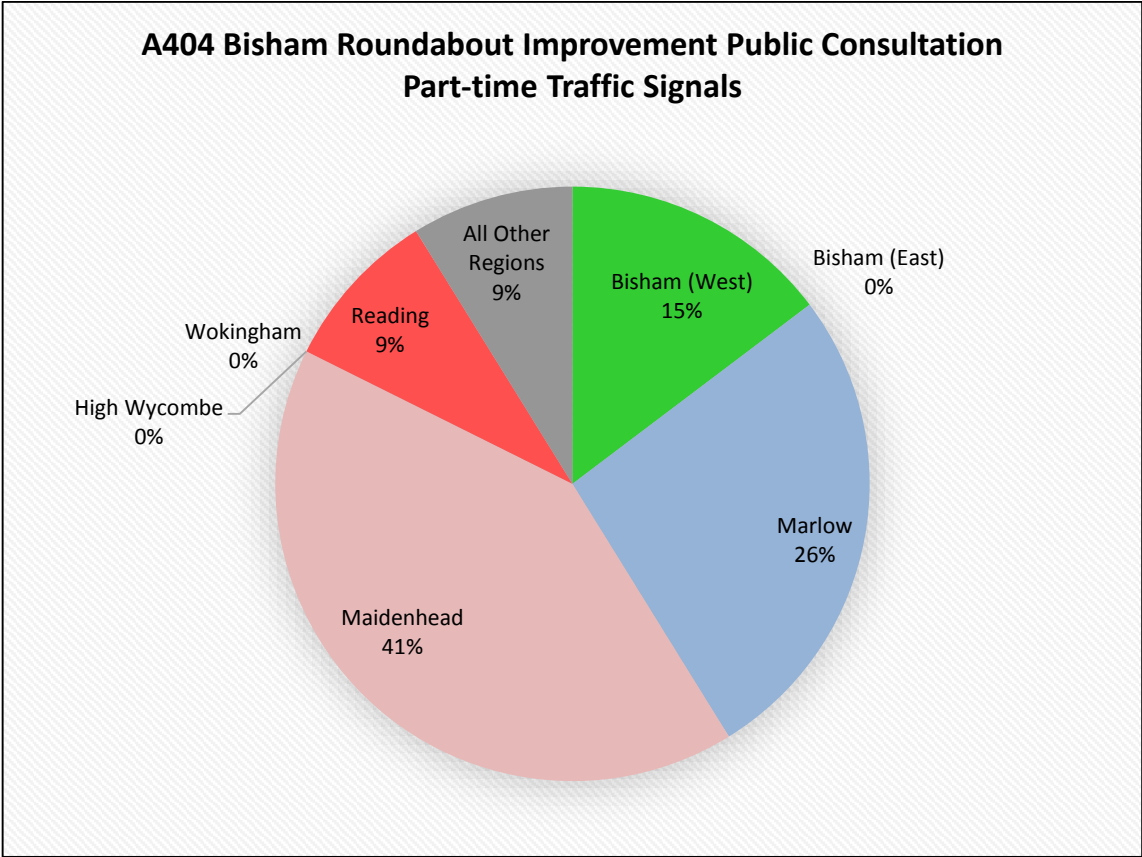


Figure 7. Part-time Traffic Signals Location Analysis

All Other Options

The options suggested by respondents that were categorised as other included:

- Widening into the centre of the roundabout i.e. making the roundabout smaller to give 3 lanes each side of the A404
- 40 mph speed limit monitored by enforcement cameras for 300 metres each side of the roundabout
- Dedicated left turns from the A308/Marlow Road from Maidenhead and Bisham with a long entry onto the A404
- Dedicated left turn with a long entry from the northbound A404 onto the A308/Marlow Road toward Bisham
- Retaining the existing roundabout and elongating toward the minor roads to slow the A404 traffic, improving the chance of right turn access from the A308/Marlow Road from Bisham and Maidenhead
- Retracting the central reservation on the minor roads to facilitate roundabout modification
- Increasing the length of additional traffic lanes from Bisham (A308/Marlow Road) by taking extra land from both sides to facilitate extra lanes whilst allowing left turn flow
- Peak time only Partial Signalised Roundabout
- Rather junction improvements look at a solution to improve public transport.

46% of the 26 respondents that preferred other options were from Maidenhead, 19% from Marlow, 11% from Bisham (West), 8% from Reading, 4% from High Wycombe, 4% from Bisham (East) and 8% from other regions.

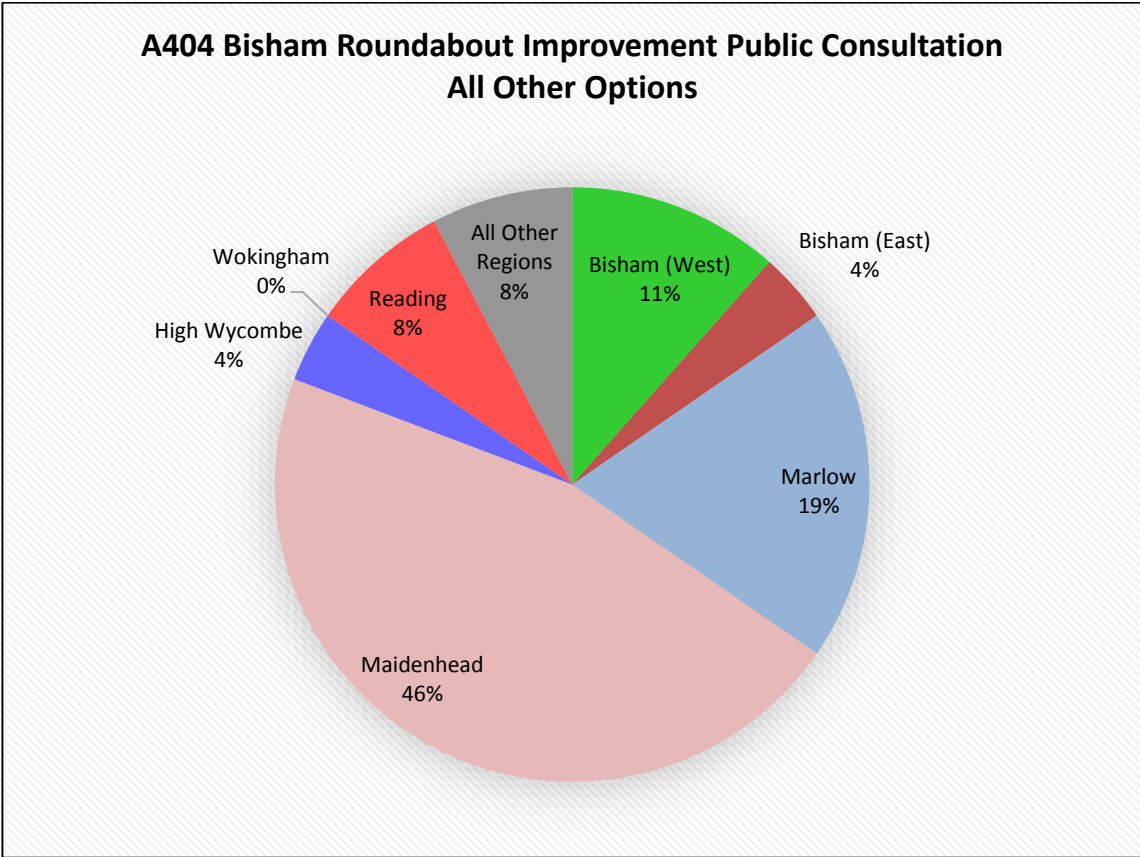


Figure 8. All Other Options Location Analysis

No Option Selected

46% of the 119 respondents that did not provide a response to question 2 were from Maidenhead, 25% from Marlow, 11% from High Wycombe, 2% from Bisham (West), 2% from Reading, 2% from Wokingham and 12% from other regions.

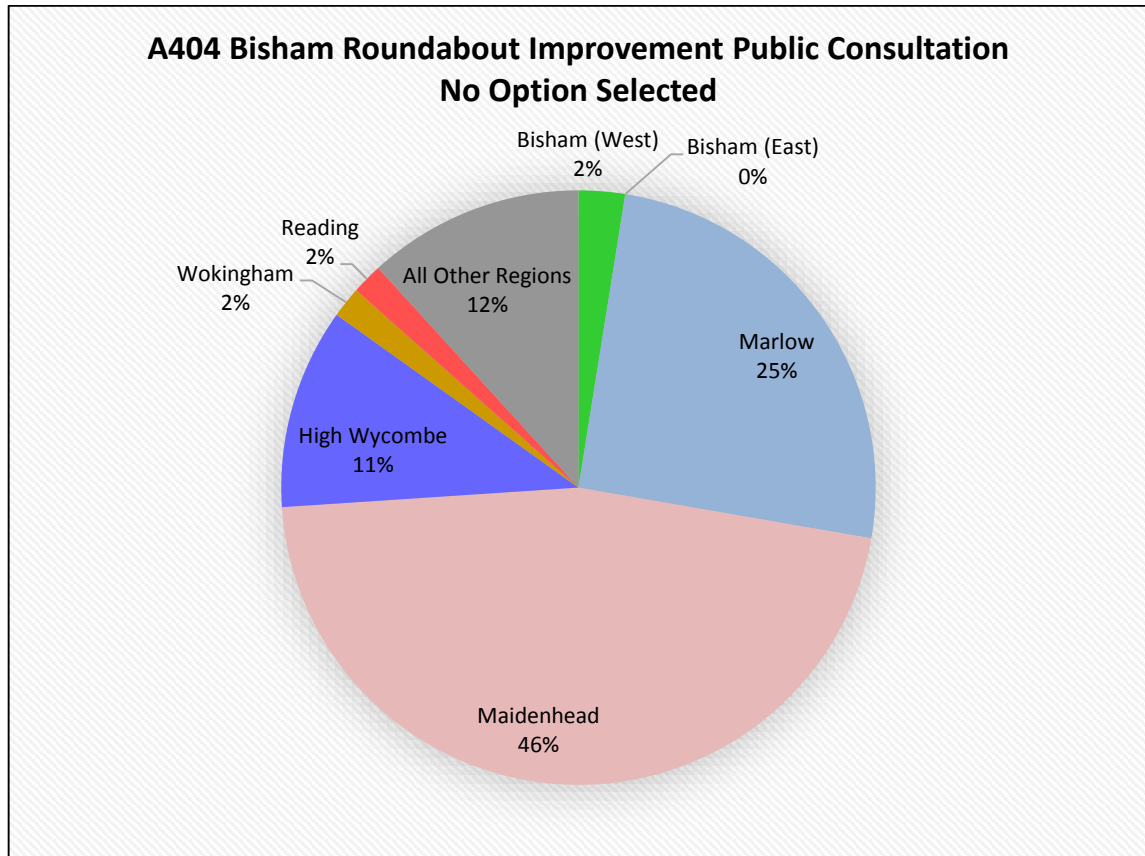


Figure 9. No Option Selected Location Analysis

Question 3: Please explain the reasons for your response

As part of the consultation process, respondents were requested to explain the reasons for their preferred option. 659 respondents participated in the consultation of which 96% (629) provided a response to Question 3.

The aim of the A404 Bisham Roundabout improvement is to:

- Relieve congestion at the roundabout
- Improve traffic flows
- Improve road user safety and reduce accidents at the junction and on approaches
- Improve user movements through the junction
- Facilitate local economic growth

The responses to Question 3 were measured to the five metrics above. Responses that could not be categorised into these metrics were classed as 'Other'.

Relieve Congestion at the Roundabout (Metric 1)

141 respondents (21%) considered improvement at the junction would relieve congestion. Of these respondents, the majority preferred a Flyover at the junction. Refer to Table 7 for a summary of the location analysis for Metric 1.

Region	Respondents			Most Preferred Option
	Total	Relieve Congestion	Percentage	
Bisham (West)	59	9	15%	Partial Signalised Roundabout
Bisham (East)	12	1	8%	Other Option
Marlow	247	49	20%	Flyover
Maidenhead	200	48	24%	Flyover
High Wycombe	50	13	26%	Flyover
Wokingham	4	-	-	-
Reading	21	4	19%	Flyover
Other Regions	66	17	26%	Left In/Left Out & Flyover
Total	659	141	21%	Flyover

Table 7. Relieve Congestion at Roundabout (Metric 1) Location Analysis

Improve Traffic Flows (Metric 2)

232 respondents (35%) considered improvement at the junction would improve traffic flows. Of these respondents, the majority preferred a Flyover at the junction. Refer to Table 8 for a summary of the location analysis for Metric 2.

Region	Respondents				Most Preferred Option
	Total	Improve Traffic Flows	Percentage		
Bisham (West)	59	14	24%		Partial Signalised
Bisham (East)	12	1	8%		Other
Marlow	247	90	36%		Partial Signalised
Maidenhead	200	71	36%		Flyover
High Wycombe	50	18	36%		Flyover
Wokingham	4	2	50%		Signalised Junction
Reading	21	10	48%		Flyover
Other Regions	66	26	39%		Left In/Left Out
Total	659	232	35%		Flyover

Table 8. Improve Traffic Flows (Metric 2) Location Analysis

Improve Road User Safety and Reduce Accidents at the Junction and on Approaches (Metric 3)

The proposed improvements at the roundabout will improve road safety and reduce accidents by:

- Incorporating crossing facilities for pedestrians and cyclists with the Partial Signalised Roundabout option
- Providing a separate structure for pedestrians, cyclists and equestrians as part of the Left In/Left Out option
- Installing signal controlled crossing facilities for pedestrians and cyclists as part of the Signalised Junction

121 respondents (18%) considered improvement at the junction would improve road user safety and reduce accidents at the junction and on approaches. The majority preferred the Partial Signalised Roundabout. Refer to Table 9 for a summary of the location analysis for Metric 3.

Region	Respondents			Most Preferred Option
	Total	Improve Road Safety	Percentage	
Bisham (West)	59	18	31%	Partial Signalised
Bisham (East)	12	2	17%	Partial Signalised & Other
Marlow	247	64	26%	Partial Signalised
Maidenhead	200	28	14%	Signalised Junction
High Wycombe	50	1	2%	Signalised Junction
Wokingham	4	-	-	-
Reading	21	3	14%	Part-time Traffic Signals
Other Regions	66	5	8%	Signalised Junction
Total	659	121	18%	Partial Signalised

Table 9. Improve Road Safety and Reduce Accidents (Metric 3) Location Analysis

Improve User Movements through the Junction (Metric 4)

91 respondents (14%) considered the proposals would improve user movements through the junction. The respondents preferred the Partial Signalised Roundabout. Refer to Table 10 for a summary of the location analysis for Metric 4.

Region	Respondents			Most Preferred Option
	Total	Improve User Movements	Percentage	
Bisham (West)	59	13	22%	Partial Signalised
Bisham (East)	12	1	8%	Other Options
Marlow	247	32	13%	Partial Signalised
Maidenhead	200	26	13%	Partial Signalised
High Wycombe	50	5	10%	Left In/Left Out
Wokingham	4	1	25%	Signalised Junction
Reading	21	5	24%	Left In/Left Out & Flyover
Other Regions	66	8	12%	Left In/Left Out
Total	659	91	14%	Partial Signalised

Table 10. Improve User Movements through the Junction (Metric 4) Location Analysis

Facilitate Local Economic Growth (Metric 5)

None of the respondents considered improvements at the junction would facilitate local economic growth.

Other Reasons for Preferred Options

Respondents considered an improvement at this junction would result in other benefits not classed under the five metrics. These included:

- No disruption to existing layout with the Do Nothing Option
- Ability to alleviate both traffic and noise problems with the Tunnel Solution
- No disruption to mainline flow with the Flyover option
- Better long term solution with the Flyover option
- Less land-take than other options
- Existing roundabout maintained with the Partial Signalised Option

Question 4: Further Comments or Suggestions

As part of the consultation process, respondents were given the option to provide further comments or suggestions. 659 respondents participated in the consultation of which 421 (64%) made further comments or suggestions.

A number of common themes were identified and the analysis involved categorising the comments or suggestions into the following themes:

1. Suggestions:
 - A. Better provision for NMUs
 - B. Speed restriction measures
 - C. Long term solution for the A404 Bisham Roundabout
 - D. Full scale review to include the whole A404 route

2. Objections:
 - A. Traffic diverted to local roads and other junctions
 - B. Removal of right turn movements at the junction
 - C. Environmental impact
 - D. Financial costs

3. Other (reserved for any comments that could not be categorised into the themes listed above)

Some of the respondents provided multiple comments or suggestions as part of Question 4 as such the following percentages add up to more than 100%.

An analysis of the main suggestions and objections is provided below:

1. Suggestions

A: Better Provision for NMUs - Pedestrians, Cyclists and Equestrians

The NMU objectives for the A404 Bisham Roundabout improvement are:

- Providing a safe means of crossing the carriageway by mitigating any risks to NMUs
- Ensuring any at grade facility provides for users of all abilities
- Considering possible improvements that might negate accidents to cyclists

Analysis

21 respondents (3%) requested better provision for NMUs. Refer to Table 11 for a summary of results.

Region	Respondents		
	Total	Better Provision for NMUs	Percentage
Bisham (West)	59	2	3%
Bisham (East)	12	2	17%
Marlow	247	5	2%
Maidenhead	200	6	3%
High Wycombe	50	2	4%
Wokingham	4	-	-
Reading	21	-	-
Other Regions	66	4	6%
Total	659	21	3%

Table 11. Better Provision for NMUs

B: Speed Restriction Measures

The national speed limit of 70 mph applies along the A404 for both directions in the vicinity of the site. The A308 to Marlow is subject to 30 mph speed restriction, and the A308 to Maidenhead is subject to a 50 mph speed restriction.

The design and operation of traffic control on high speed roads is based on a balance between three objectives namely:

- To improve efficiency – reducing congestion and journey times
- To improve safety – reduce the number and severity of accidents
- To produce environmental benefits – reduce emissions

The speed restriction measures suggested by the respondents included:

- 40/50 mph speed limit on approach to the roundabout including traffic enforcement cameras
- Variable mandatory speed limit
- Calming measures on the main carriageway of the A404

Analysis

24 respondents (4%) requested speed restriction measures to be introduced on the A404 at Bisham. Refer to Table 12 for a summary of results.

Region	Respondents		
	Total	Speed Restriction	Percentage
Bisham (West)	59	4	7%
Bisham (East)	12	1	8%
Marlow	247	12	5%
Maidenhead	200	5	3%
High Wycombe	50	-	-
Wokingham	4	-	-
Reading	21	-	-
Other Regions	66	2	3%
Total	659	24	4%

Table 12. Speed Restriction

C: Long Term Solution for the A404 Bisham Roundabout

Analysis

83 respondents (13%) requested a long term solution for the A404 Bisham Roundabout. Refer to Table 13 for a summary of results.

Region	Respondents		
	Total	Long Term Solution	Percentage
Bisham (West)	59	4	7%
Bisham (East)	12	1	8%
Marlow	247	27	11%
Maidenhead	200	24	12%
High Wycombe	50	10	20%
Wokingham	4	-	-
Reading	21	3	14%
Other Regions	66	14	21%
Total	659	83	13%

Table 13. Long Term Solution for the A404 Bisham Roundabout

D: Full Scale Review to Include the Whole A404 Route

21 respondents (3%) requested a full scale review of the whole A404 route. This would include an assessment of the consequential impacts of the proposed improvement at the A404 Bisham Roundabout on the M40 Junction 4 (Handy Cross) to the north and M4 Junction 8/9 to the south. Refer to Table 14 for a summary of results.

Region	Respondents		
	Total	Full Scale Review of A404 Route	Percentage
Bisham (West)	59	1	2%
Bisham (East)	12	-	-
Marlow	247	9	4%
Maidenhead	200	4	2%
High Wycombe	50	2	4%
Wokingham	4	-	-
Reading	21	1	5%
Other Regions	66	4	6%
Total	659	21	3%

Table 14. Full Scale Review to Include the Whole A404 Route

2. Objections

A: Traffic Diverted to Local Roads and other Junctions

The Left In/Left Out option would result in traffic diverted to other junctions and local roads.

Analysis

139 respondents (21%) objected to the proposals as they considered this would result in traffic diverted to other junctions and local roads. Refer to Table 15 for a summary of results.

Region	Respondents		
	Total	Traffic Diverted	Percentage
Bisham (West)	59	6	10%
Bisham (East)	12	-	-
Marlow	247	52	21%
Maidenhead	200	64	32%
High Wycombe	50	6	12%
Wokingham	4	1	25%
Reading	21	1	5%
Other Regions	66	9	14%
Total	659	139	21%

Table 15. Traffic Diversion to Other Junctions and Local Roads

B: Removal of Right Turn Movements at the Junction

The Left In/Left Out option would remove right turn movements at the junction.

Analysis

90 respondents (14%) objected to the proposals as they considered this incur longer journey times. Refer to Table 16 for a summary of results.

Region	Respondents		
	Total	Removal of Right Turn Movements	Percentage
Bisham (West)	59	8	14%
Bisham (East)	12	-	-
Marlow	247	25	10%
Maidenhead	200	48	24%
High Wycombe	50	1	2%
Wokingham	4	1	25%
Reading	21	1	5%
Other Regions	66	6	9%
Total	659	90	14%

Table 16. Removal of Right Turn Movements at the Junction

C: Environmental Impact

An environmental assessment was undertaken in accordance with the Design Manual for Roads and Bridges (DMRB) Volume 11 to determine the impact of the proposed improvements at the junction.

Environmental guidelines will be adhered to as part of the proposed improvements. This will be achieved by:

- Relocating protected species before the start of any works
- Planting replacement trees and shrubs at the end of the construction period
- Installing new drainage channels to reduce the risk of flooding
- Undertaking noise and vibration assessments prior to any works
- Liaising with the RBWM and BCC to agree works construction methods
- Installing temporary acoustic screening during the works
- Ecological supervision during the proposed works

The objections were as follows:

- Impact on the historic village of Bisham
- Effect on grade 2 listed properties near the roundabout
- Noise pollution for local residents as a result of the proposals
- Light pollution for local residents as a result of increased street lighting as part of the Signalised Junction improvement option

Analysis

15 respondents (2%) objected to the proposals as they considered this would result in environmental impacts at Bisham. Refer to Table 17 for a summary of results.

Region	Respondents		
	Total	Environmental Impact	Percentage
Bisham (West)	59	7	12%
Bisham (East)	12	3	25%
Marlow	247	3	1%
Maidenhead	200	1	1%
High Wycombe	50	-	-
Wokingham	4	-	-
Reading	21	-	-
Other Regions	66	1	2%
Total	659	15	2%

Table 17. Environmental Impact

D: Financial Cost

6 respondents (1%) objected to the proposed improvement at Bisham for financial reasons. The respondents were from Bisham (West) and Marlow.

3. Other (Comments or Suggestions)

The responses that could not be categorised were classed as 'Other'. These included:

- Compliments on the proposals to improve the junction
- General objections to the proposed improvement
- Preference for other options e.g. Hamburger Junction
- Impact on the High Wycombe housing plans
- Feedback on the public exhibitions and scheme webpage at GOV.UK
- Providing a solution around improving public transport

Analysis

131 respondents (20%) provided responses that were classed as 'Other'. Refer to Table 18 for a summary of results.

Region	Respondents		
	Total	Other Comments or Suggestions	Percentage
Bisham (West)	59	12	20%
Bisham (East)	12	8	67%
Marlow	247	48	19%
Maidenhead	200	30	15%
High Wycombe	50	14	28%
Wokingham	4	2	50%
Reading	21	8	38%
Other Regions	66	9	14%
Total	659	131	20%

Table 18. Other (Comments or Suggestions)

Responses Received through Website

345 (52%) of the total responses to the consultation were submitted through the GOV.UK website.

Responses from Local Highway Authorities

Various meetings and presentations were undertaken with different organisations that were either active or had interests in the local area including RBWM, BCC, Community Groups and Stakeholders.

Feedback received from RBWM and BCC support the Do Nothing option, with both organisations requesting a wider strategic improvement on the A404 corridor. They felt an improvement at Bisham would have a negative impact on the other junctions along the A404.

Other Local Authorities understood the need for an improvement of the junction. Farnham Royal preferred an Underpass. Little Marlow and Wooburn & Bourne End Parish Council supported the Flyover and requested the section of road between Handy Cross and Maidenhead Thicket to be upgraded to a motorway.

A number of groups felt that there were still local issues to be resolved before the proposals would be entirely satisfactory. Other concerns included:

- Route based improvement strategy i.e. wholesale improvements rather than technical improvements for individual junctions
- Other options need to be explored that would improve the current situation or would improve on the suggested proposals.
- RBWM suggested the impact of the proposed improvements on local roads to be assessed rather than considering the main carriageway in isolation
- Consider a grade separated junction as a potential long term solution for the A404 Bisham Roundabout (depending on funding available)

Responses from Local Communities

Collective feedback was received from the residents of Under the Wood and The Green in Bisham. Their responses drew similar conclusions resulting in their preferred option being no change to the existing junction. Both their responses raised concerns on a wider range of issues including risk of flooding, Marlow Bridge, local developments, loss of privacy and village property.

Petitions

There were no petitions received in relation to the proposals for improvement of the A404 Bisham Roundabout.

Summary of Data Analysis

Information about the sample group

659 responses were received during the public consultation period. Analysis shows that the sample group was predominantly made up of 96% Car Users that regularly travel along the A404.

37% of the total 659 respondents were from Marlow, 30% from Maidenhead, 9% from Bisham (West), 8% High Wycombe, 3% from Reading, 2% from Bisham (East), 1% from Wokingham and 8% from other regions. 2% of the respondents did not provide a postcode.

Public opinion of the proposed scheme

77% of the total 659 respondents preferred some form of improvement of the A404 Bisham Roundabout. Of these respondents 41% were from Marlow, 28% from Maidenhead, 9% from Bisham (West), 7% from High Wycombe, 4% from Reading, 1% from Bisham (East) and 10% from other regions (5% and 18%).

23% of the total 659 respondents either selected Do Nothing (5%) or provided No Response (18%) to an improvement at the junction.

5. Alternative Improvement Options

Options Considered by Highways England but not considered for the PPP Scheme

Alternative improvement options for the A404 Bisham Roundabout were considered by Highways England; these are listed below:

Grade Separated Junction (Flyover)

The grade separated junction was identified as a long term solution for the problems at the A404 Bisham Roundabout. This option was considered ideal for NMUs as it presented a safe and direct crossing route.

Why was the Grade Separated Junction (Flyover) not feasible at Bisham Roundabout?

The grade separated options were found to provide value for money in the long run but were discounted for the reasons shown below:

- Not within the scope of the PPP scheme
- Requirement for significant land outside the highway boundary
- Construction would involve significant disruption to road users
- Visual intrusion due to the height of the Flyover
- Longest construction period
- Considerable impact on environmentally sensitive area and landscape
- Involved moving the A404 carriageway closer to Bisham village
- High cost as the option exceeded financial limit set for PPP schemes

Hamburger Junction

The Hamburger Junction would introduce a part-signalised arrangement that would consist of a signalised dual carriageway through the roundabout for each A404 northbound and southbound ahead traffic and circulatory movements, and a 'Give-Way' priority for all other movements.

Why was the Hamburger Junction not feasible at Bisham Roundabout?

The reasons why this option was not considered for the A404 Bisham Roundabout improvement include:

- Enlargement of the existing roundabout would be required to make this option feasible
- There would be potential conflicts of movements because of see-through effects, in essence drivers would face complex changes to the road layout
- As part of the design process, a road safety audit was undertaken which identified road users seeking to turn right from Under the Wood would be forced to cross the exit to Marlow Road, and then wait within the space available to join the circulatory carriageway. It was likely therefore that any larger vehicles (HGVs) would overhang the Marlow Road carriageway leading to an increased risk of late braking on the roundabout exit, thus increasing the risk of shunt type and side impact collisions
- Significant construction costs and works required

Signalising the Existing Roundabout

Signalising the existing roundabout at Bisham would involve minimal land take requirements and minimal changes to the current layout. In addition, all existing traffic movements would be contained within the revised junction with dedicated green time and improved potential for pedestrians and cyclists. The traffic signals would operate using an advanced, dynamic and adaptive system known as Microprocessor Optimised Vehicle Activation (MOVA).

Why was signalising the existing roundabout not feasible at Bisham Roundabout?

This option was impractical and could not be implemented due to:

- The existing roundabout diameter being too small to make signalisation a workable solution. Signalised roundabouts require space at each signal location within the roundabout to accommodate the stacking of vehicles, without this space the vehicles would overspill on the roundabout causing gridlock, making the situation worse
- Making the existing roundabout larger in order to accommodate the traffic signals would have significant environmental, construction and cost implications

Part-time Traffic Signals on Existing Roundabout

Where problems occur at roundabouts only under certain conditions primarily at peak periods, it is common to implement traffic signal control on a part time basis.

Why were Part-time Traffic Signals not feasible at Bisham Roundabout?

The option for Part-time Traffic Signals was not feasible at Bisham Roundabout due to the following reasons:

- Requirement to enlarge the existing roundabout and additional lanes on the approaches
- Unable to provide safe pedestrian crossing facilities for visually impaired pedestrians, as there wouldn't be an effective way of indicating in a non-visual way when the traffic signals were not operational
- Highways England as a general rule do not promote the use of Part-time Traffic Signals

De-Scoped Scheme

The de-scoped junction design option involved carriageway widening on the A404 northbound and southbound to accommodate left turn flares onto Marlow Road and the A308 respectively, realignment of Under the Wood link road access from the A308 to tie in with the new junction layout and realignment of the uncontrolled pedestrian crossing point.

Following the recommendations from a Road Safety Audit, further re-evaluation and design to remove the southbound flare and add an improved exit from Marlow Road was considered.

The design for this proposed improvement option is shown in Appendix F.

This option was not taken further due to the following reasons:

- The de-scoped scheme would have limited benefits
- Concerns about the impact of the scheme on local traffic to and from Marlow Road

Options Suggested in response to the Public Consultation

Throughout the consultation period, a number of the respondents suggested alternative improvement options for the A404 Bisham Roundabout. Such ideas ranged from:

- Light vehicle subway option
- Part-time smart metering lights set back from the roundabout
- Compact grade separated junction
- Permanently blocking off the A308 from using the roundabout
- Making the A308 one way, only allowing access onto the A308 from the A404. Vehicles wishing to join the A404 would be taken on a one-way system to a newly built junction at Temple
- Introducing a toll on the Marlow Bridge to discourage motorists from using Bisham Roundabout to access Marlow
- Installing traffic signals on the A404 and creating extra internal stacking capacity by removing sections of the north and south of the existing roundabout
- Installing cameras to monitor driver behaviour, for example, to check vehicles are indicating correctly
- Improving public transport links within the Thames Valley
- Increasing the capacity of the A355 to relieve the congestion away from the A404

It was not possible to carry out a preliminary design of all of the suggestions, however three options were considered in more detail and preliminary layouts are included in Appendix G of this report.

Light Vehicle Subway Option

The light vehicle subway option would involve an Underpass for light vehicle traffic travelling across the A404 through Bisham junction, whilst restricting larger vehicles undertaking a left turn only movement onto the A404. Direct access to local traffic at the junction would be feasible in addition to giving full access for NMUs. This option was tabled at the exhibitions.

Part-time Smart Metering Traffic Signals Set Back from the Roundabout

Sets of traffic signals would be installed some 40 metres back from the current give way line of the roundabout on the A404 arms only. The purpose of the traffic signals being to create more gaps for vehicles using the A308.

Compact Grade separated junction

The compact grade separated junction would involve taking the A308 over the A404. This option would provide full movement to all users including NMUs.

6. Conclusions

The Public Consultation has been a very useful exercise with a wide range of views and preferences received to inform our consideration of the way forward.

We had well informed feedback from 659 respondents, the majority of which were received through the GOV.UK website. A summary of the preferred options follows below:

- 25% Partial Signalised Roundabout
- 20% Grade Separated Junction (Flyover)
- 18% Did not provide a response.
- 10% Signalised Junction
- 9% Left In/Left Out
- 5% Do Nothing
- 5% Part-time Traffic Signals
- 4% All Other Options
- 4% Tunnel / Underpass

The majority of respondent's fed back that improvement of the A404 Bisham Roundabout is required. The respondents felt the three options presented by Highways England only provided short term benefits and did not provide a long term solution to solve the wider issues that affect this junction and the overall route.

This view was also shared by the Local Authorities and stakeholders, who confirmed their opposition to the three options and are looking to us to consider Bisham in the context of the A404/A404M corridor as a whole.

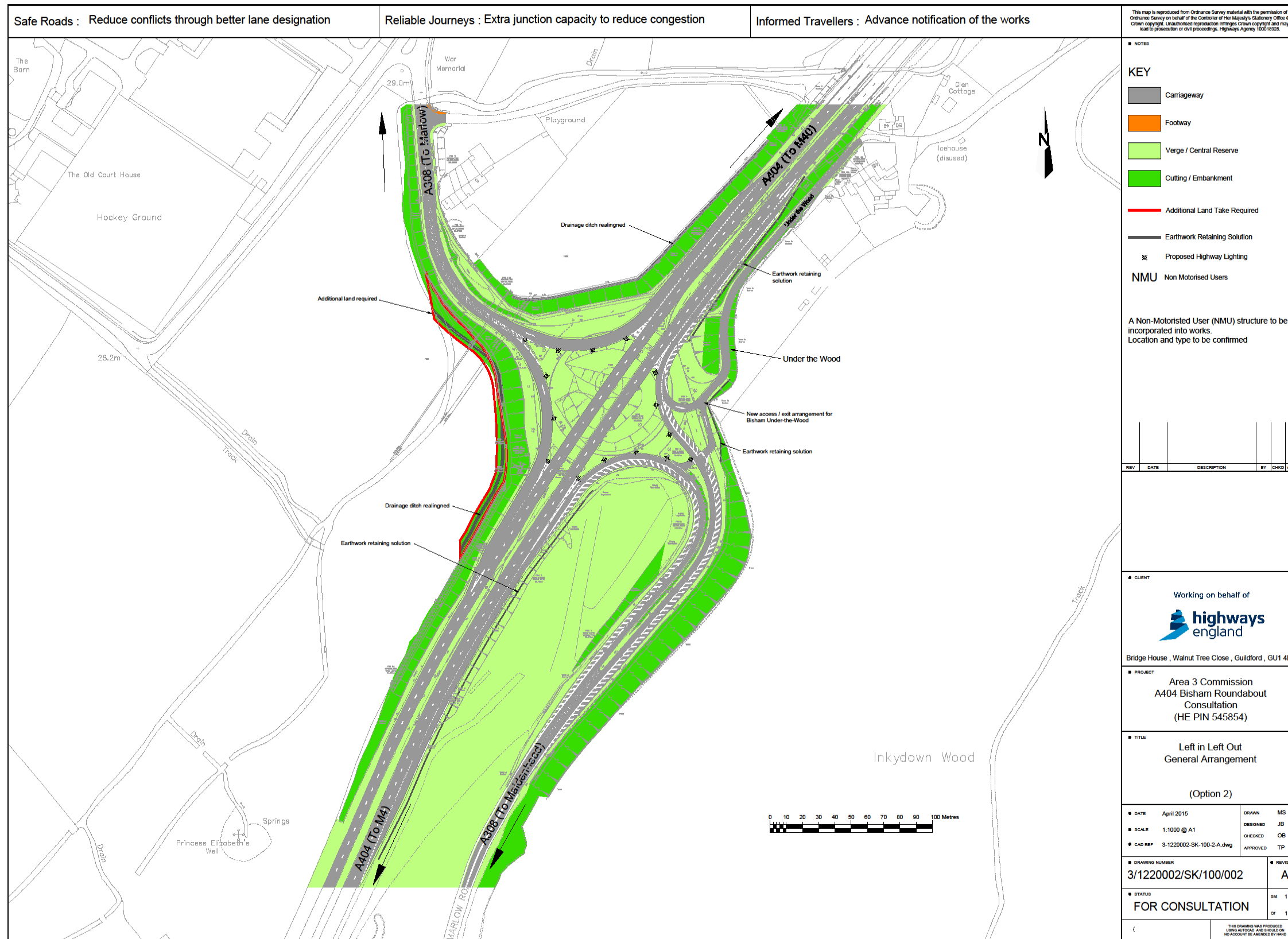
This view is understood by Highways England, who will seek to complete further studies within the A404 corridor working closely with Local Authorities and communities to address the various concerns raised during the consultation process.

The time frame for an improvement scheme to be completed under the PPP has now elapsed and any further study or scheme will be funded through the future investment programmes.

Meanwhile, the existing junction performance will remain under review to identify whether smaller scale interventions are required to deal with specific issues.

Appendix A: Scheme Drawings of the Three Improvement Options







Appendix B: Exhibition Leaflet



A404 Bisham Roundabout Public Consultation

Introduction

We are seeking your views on the proposed options for updating the A404 Bisham Roundabout Junction, with the aim of:

- relieving congestion at the roundabout
- improving traffic flows
- improving road user safety and reducing accidents at the junction and on the approaches
- improving user movements through the junction
- facilitating local economic growth

Your response to the consultation will help and inform us in reaching a decision on which option to take forward.

Why the improvements are required

The A404 forms part of the Area 3 network, connecting the M4 and the M40. It also forms an important part of the strategic diversion network for incidents on the M4, M25 and M40.

Bisham Roundabout is the only place on the A404 that drivers have to stop; providing local access to Bisham and Marlow to the west and Maidenhead via the A308 in the east. The roundabout is already operating at, or above capacity, with high levels of congestion. Delays are experienced along this section operating at, or above capacity, of the A404 on a daily basis.

Implications of not doing anything

- no easing of daily congestion at the junction
- detrimental to local economic growth
- possible tailbacks to Handy Cross Junction with the knock on effect to the M40
- no improvement to right-turn movements.
- no improvement to facilities for pedestrians, cyclists and equestrians

Other options which have been considered

- Grade Separated Junction (Flyover)
- Signalising the existing roundabout
- Hamburger junction
- Part-time signals at the existing roundabout

Non-Motorised Users (NMUs)

Surveys have been undertaken which show a very low number of pedestrian and cyclist movements at this junction. Both the signalised junction and larger signalised roundabout options will be able to cater for pedestrians and cyclists within the signal timings. The Left In/Left Out option will include a pedestrian and cyclist structure; the location of such a structure is yet to be confirmed.

It is the aspiration of Highways England to review the whole of the A404 but a large scale detailed study is required. The performance and connectivity of the A404/M25/M40 is to be reviewed as part of the M25 South-West Quadrant Study that was announced in last year's Autumn Statement.

Your feedback

We would like your views on the proposed improvements. You can do this by completing a questionnaire at either of:

- the public exhibitions (**Friday 19 and Saturday 20 June 2015**),
- online at:
www.highways.gov.uk/a404bisham
- by requesting a paper copy by emailing area3communications@emhighways.co.uk

Please return this questionnaire to:
Area 3 Communications, EM Highways Services, M3 Jct 9 Compound, Easton lane, Winchester, Hampshire, SO23 7TY
by **Saturday 12 September 2015**

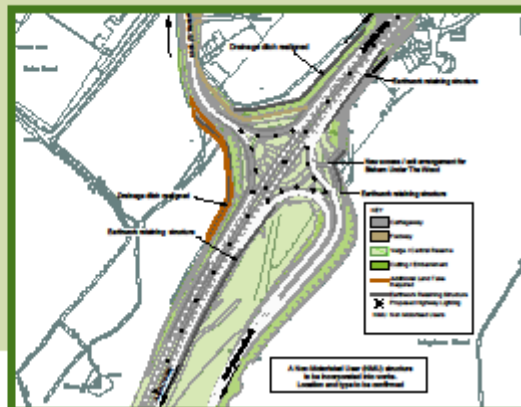
Option 1: Partial Signalised Roundabout

Roundabout featuring partial traffic signals



Option 2: Left In/Left Out

No right turns from Bisham



Option 3: Signalised Junction

Junction with traffic signals



Appendix C: Public Consultation Feedback Form



A404 Bisham Roundabout Public Consultation Feedback Form

You can complete this questionnaire online at www.highways.gov.uk/a404bisham or you can return this questionnaire to: **Area 3 Communications, EM Highway Services Ltd, M3 Jct 9 Compound, Winchester, Hampshire, SO23 7TY, by Saturday 12 September 2015.**

Please provide us with your name and address, or, if you would prefer your comments to be anonymous, your postcode only.

Name

Address

Postcode

How do you use this junction? (Please tick all that apply)

Car Bus Cycle Walk Other (please specify)

Which is your preferred improvement scheme? (Please tick one option)

Partial Signalised Roundabout
Roundabout featuring partial traffic signals Do nothing
(I'd prefer no improvements were made at the junction)
Left in/Left out
No right turns from Bisham Other, please specify below
Signalised Junction
Junction with traffic signals

Please explain the reasons for your response

Please use this space to provide any further comments or suggestions

Thank you for taking the time to complete this questionnaire. A report on the consultation and details of the preferred option will be available on the scheme webpage in the Autumn 2015.

S140628

Appendix D: Public Exhibition Panels



The image shows a vertical public exhibition panel with a green and white color scheme. At the top left is the Highways England logo, which includes a stylized blue and green 'e' and the text 'highways england driving forward'. Below the logo, the word 'Welcome' is written in a large, bold, white font, followed by 'A404 Bisham Roundabout' in a smaller white font. A white circular icon with a central dot is positioned to the left of the main text block. The text block contains three paragraphs: the first explains the purpose of the consultation, the second states that the response will inform the decision, and the third mentions that details are available at the exhibition and on the website. The website URL 'www.highways.gov.uk/a404bisham' is provided in bold. At the bottom of the text block is a small aerial photograph of the roundabout junction, showing the road layout and surrounding greenery. The panel has a white border and a white background at the bottom.

highways england
driving forward

Welcome

A404 Bisham Roundabout



We are seeking your views on the proposed options for improving the A404 Bisham Roundabout Junction. The aim of the improvement is to provide additional capacity and ease congestion.

The response to the public consultation will help and inform us in reaching a decision on which option to take forward.

The details of the proposals can be seen at this exhibition and our representatives and specialist advisors are available to discuss their impact. The details of the proposals can also be seen on the Highways England website at:

www.highways.gov.uk/a404bisham





Why improvements are required

A404 Bisham Roundabout



The A404 forms part of the Area 3 network, connecting the M4 and the M40. It also forms an important part of the strategic diversion network for incidents on the M4, M25 and M40.

Bisham Roundabout is the only 'at grade' junction along the A404, providing local access to Bisham and Marlow to the west and Maidenhead via the A308 in the east.

The roundabout is already operating at, or above capacity, with high levels of congestion. Delays are experienced along this section of the A404 on a daily basis.

The aim of this improvement is to:

- relieve congestion at the roundabout
- improve traffic flows
- improve road user safety and reduce accidents at the junction and on approaches
- improve user movements through the junction
- facilitate local economic growth.

The options being considered for the improvements are as follows:

- **Partial Signalised Roundabout**
Roundabout featuring partial traffic signals
- **Left In/Left Out**
No right turns from Bisham
- **Signalised Junction**
Junction with traffic signals



Option 1: Partial Signalised Roundabout

Roundabout featuring partial traffic signals
A404 Bisham Roundabout



Advantages

- reduced queuing and delays for local traffic entering and exiting the junction
- improved and safer access and egress to and from Under-the-Wood
- ability to amend traffic signal timings to suit future traffic flow changes
- 50mph speed restriction on main line approaches
- maintains a roundabout junction at Bisham
- safer right turn movements
- allows pedestrians, cyclists and equestrians to cross the junction.



Disadvantages

- visual impact to surrounding area
- additional land-take outside existing highway boundary
- moves traffic closer to residential properties
- impact on environmentally-sensitive landscape including an ancient woodland
- lighting impact.





Option 2: Left In/Left Out

No right turns

A404 Bisham Roundabout



Advantages

- aesthetically pleasing, minimising visual impact to the surrounding area
- separation of the mainline and side road traffic
- no traffic signals required
- no delay to mainline through traffic movements
- separate structure to be provided for pedestrians, cyclists and equestrians.



Disadvantages

- restricted traffic movements to and from the A308 and Marlow Road
- right turn traffic movements diverted to full movement junctions (Westhorpe and Burchetts Green)
- additional works required at adjacent junctions to cope with extra demand
- limited access to and from Under-the-Wood.





Option 3: Signalised Junction

Junction with traffic signals

A404 Bisham Roundabout



Advantages


- installation of dynamic traffic signals to adapt to changes to daily traffic flows
- ability to adapt traffic signals timings to suit future traffic flow changes
- all traffic movements catered for
- allows pedestrians and cyclists to cross the junction
- safer right turn movements
- 50mph speed restrictions on mainline approaches.



Disadvantages

- visual impact of traffic signals
- 24 hour working for traffic signals
- large expense of pavement construction
- additional land-take outside existing highway boundary.





Do Nothing
A404 Bisham Roundabout

Implications

- no improvement to right-turn movements
- no easing of daily congestion at the junction
- no improvement to facilities for pedestrians, cyclists and equestrians
- detrimental to local economic growth
- possible tailbacks to Handy Cross Junction with knock on effects to the M40.



Other Options Considered

A404 Bisham Roundabout

Grade Separated Junction (Flyover)



Advantages

- Improves local connections either side of the A404
- separation of mainline and local traffic
- Improved crossing provision for pedestrians, cyclists and equestrians
- maintains access arrangement for Under-the-Wood.



Disadvantages

- requires significant third-party land outside the highway boundary
- construction will involve significant disruption to road users
- visual intrusion due to the height of the flyover
- most expensive option due to substantial construction works
- longest construction period
- considerable impact on environmentally sensitive area and landscape
- moving the road closer to Bisham village.

Hamburger Junction



Advantages

- minimises land take requirements.



Disadvantages

- drivers would face complex changes to the road layout
- enlargement of the existing roundabout is required to make this option feasible.

Signalising the existing roundabout



Advantages

- minimises land take requirements
- minimal changes to current layout.



Disadvantages

- the diameter of the existing roundabout is too small to make signalisation practical (insufficient internal stacking capacity).



Other Options Suggested

A404 Bisham Roundabout

Part-time signals on existing roundabout



Advantages

- no disruption to off-peak movements



Disadvantages

- enlargement of the existing roundabout is required to make this option feasible

Light Vehicle Subway option



Advantages

- This would be an additional feature of the Left In/Left Out option
- direct access for local traffic to either side of the junction
- gives full access to pedestrians, cyclists and equestrians




Disadvantages

- maintenance issues (i.e. prone to flooding; pumping required)
- introduces a public safety issue – lighting will be required
- will require additional land outside the current highway boundary
- only suitable for light vehicles
- additional mini roundabouts required either side of present junction
- high construction costs.



Considering the whole of the A404 Link

It is the aspiration of Highways England to review the whole of the A404 but a large scale detailed study is required. The performance and connectivity of the A404/M25/M40 is to be reviewed as part of the M25 South-West Quadrant Study that was announced in last year's Autumn Statement.



Environment

A404 Bisham Roundabout

The improvements will be designed to minimise the effect on the local environment.

Ancient woodland

The Chiffam Beechwood's Special Area Conservation (SAC) and Bisham Woods Site of Special Scientific Interest (SSSI) are located directly adjacent to the east of Bisham Roundabout.

Protected species

All protected species including slow worms will be relocated to a suitable environment before the start of any works. We will ensure that nesting birds are not present within the works area.

Topsoil

Rare species of grass and other plants were identified near the A404 Bisham Roundabout. Topsoil will be removed and carefully stored while the work takes place. This will be replaced once any junction improvements are complete.

Trees


Trees may need to be removed near the roundabout, depending on which option is progressed. Replacement trees and shrubs will be planted at the end of the construction period.

Drainage

Depending on which option is progressed, new drainage channels will be installed, reducing the risk of cartgeway flooding.


Environmental surveys

Noise and vibration assessments will be undertaken. Acceptable noise levels will be agreed with the Royal Borough of Windsor and Maidenhead and Buckinghamshire County Council. Temporary acoustic screening will be installed to minimise the impact of construction noise during the works.



Non-Motorised Users (NMUs)


A404 Bisham Roundabout



Pedestrians


Pedestrians, Cyclists and equestrians

There are existing NMU facilities which cross the A404 and provides access to Under-the-Wood.



Cyclists


Surveys have been undertaken which show a very low number of NMU movements at this junction.



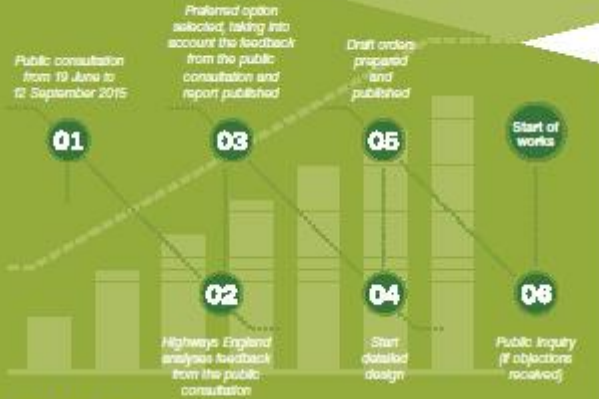
Equestrians

Both the signalised junction and larger signalised roundabout options will be able to cater for NMUs within the signal timings.

The Left In/Left Out option will include a NMU structure; the location of such a structure is yet to be confirmed.



What happens next? A404 Bisham Roundabout



Public consultation from 19 June to 12 September 2015

Preferred option selected, taking into account the feedback from the public consultation and report published

Draft orders prepared and published

Start of works

01

03

05

02

04

06

Highways England analyses feedback from the public consultation

Start detailed design

Public Inquiry (if objections received)

Your feedback

We would like your views on the proposed improvements. You can do this by either completing a questionnaire available here today or online at www.highways.gov.uk/a404bisham

A paper copy of the form can also be requested by emailing area3communications@emhighways.co.uk

Please return this questionnaire to us by **Saturday 12 September 2015**

Keeping up-to-date

To keep up-to-date please visit the dedicated scheme webpage at www.highways.gov.uk/a404bisham where you can subscribe to receive automated email alerts.

Thank you for taking the time to participate in this consultation.

Appendix E: Question and Answer Sheet

A404 Bisham Roundabout Improvements – Consultation Q&As

WHY

Why do you need to undertake improvements at the roundabout?

The A404 forms a part of Highways England Area 3 strategic highways network and runs from north to south connecting the M40 (Junction 4 at Handy Cross) and the M4 (Junction 8/9 at Maidenhead). It also forms an important part of the Strategic Diversion Network for incidents on the M4, M25 and M40.

The roundabout cannot cope with the existing peak period traffic demand on the A404 with the junction operating at or above capacity on a daily basis. This gives rise to significant queues during AM and PM peak periods both northbound and southbound. *During these peak periods journey time delay for traffic is on a daily basis and delays local traffic.*

Any increase in traffic demand will exacerbate the existing situation adding significantly to congestion and delay. As the traffic increases at Bisham, the queues will affect the Westhorpe and Burchetts Green Junctions immediately to the north and south of Bisham respectively.

A series of studies have been undertaken and various solutions investigated that could help to alleviate this problem. A scheme was originally developed to improve the junction as one of the Governments PPP schemes: announced in *October 2012*. The aim of these scheme was to deliver focused improvement to the Strategic Road Network (SRN) that would help stimulate growth to the local economy, relieve congestion and improve safety. However this scheme was not taken forward.

An improvement of the junction would relieve congestion at the roundabout, improve traffic flows and road user safety, and reduce accidents at the junction and on the A404 approaches. In addition user movements through the junction would be improved and local economic growth facilitated.

What would happen if no improvements were made?

If no improvements are undertaken, queuing traffic will continue to worsen. Congestion generated by the current Bisham junction will also affect the wider local road network and encourage rat running.

The improvements to the A404 would combat congestion and unlock growth in the region by supporting business and allowing new areas to be developed. In addition, the scheme would improve connections between people and communities, and create a safer road network. It would also provide a positive legacy for the region.

THE OPTIONS

Why can't you just signalise the existing roundabout?

Unfortunately this option is impractical and cannot be implemented due to the existing roundabout diameter being too small to make signalisation a workable solution. Signalised roundabouts require space at each signal location within the roundabout to accommodate the stacking of vehicles, without this space the vehicles would overspill on the roundabout causing gridlock, making the situation worse. In addition, making the existing roundabout larger in order to

accommodate the traffic signals would have significant environmental, construction and cost implications.

A Flyover is the best option, why can't this be taken forward?

A Flyover would require a large amount of land outside the highway boundary, construction would involve significant disruption to road users and there would be visual intrusion due to the height of the Flyover. In addition, this option would result in considerable impact on environmentally sensitive area and landscape, involve moving the A404 carriageway closer to Bisham village, the longest construction period and would exceed the financial limit set for PPP schemes. Due to these reasons, the Flyover option was not taken further.

What methods have been used to model existing and future traffic at the junction?

The existing roundabout was modelled using the industry standard ARCADY roundabout modelling software. The program is used by traffic engineers when assessing existing layouts or when analysing the impacts of proposed design changes.

The signalised options, tabled at the Public Consultation have been modelled using the industry standard LinSig traffic signal junction modelling software. VISSM traffic modelling software has been used to give a visual representation of the different options and are available to view at the presentation.

Future year traffic flows have been calculated by applying location growth factors to the observed traffic flows.

Will a speed limit be introduced at the junction?

Any form of traffic signal control will require a reduced speed limit on the mainline approach to the junction.

Will this speed limit be enforced?

In consultation with Thames Valley Police and County, District and City Councils, Highways England will develop and agree a Traffic Management (TM) Plan. It is unlikely that the speed limit will be enforced by local Police.

THE A404 CORRIDOR

Is there benefit to improvements at the Bisham junction without the problems at Handy Cross and M4 Junction 8/9 being addressed?

There are individual problems at Bisham Roundabout which need to be addressed. The issues at Handy Cross and M4 Junction 8/9 are on a much larger scale and cannot be totally addressed under this scheme.

The junctions Handy Cross and M4 Junction 8/9 will form a part of the new generation of route-based strategies being developed by Highways England. These will identify need and determine the way forward in developing and progressing potential improvement schemes.

What improvements will there be for the A308 and Marlow Roads?

The Bisham Roundabout improvement will result in improved driver safety and journey reliability of Marlow and A308 roads approaching the junction. In addition, there would be improved safety for pedestrians and cyclists through new crossing facilities at the junction, linking Marlow Road with the A308 either side of the A404.

Are there any other improvements schemes planned for the A404/A404(M)?

It is the aspiration of Highways England to commission a full length study of the A404 and although Road Investment Strategy Phase 1 funding was applied for it was not successful. However; there is scope to apply for funding in the future.

Further studies will be undertaken on the A4155 junction north of Bisham which will take into account whatever scheme is proposed at Bisham.

A future Technology scheme will link the M4 and M40 motorway communications. Motorists using the A404 and A404(M) would be informed of the traffic conditions on these routes by Information Technology matrix signs thus improving reliability to journey times.

TRAFFIC SIGNALS

How will the traffic signals work?

The traffic signals which would be installed at the junction operate using an advanced, dynamic and adaptive system known as MOVA (Microprocessor Optimised Vehicle Activation). It is more responsive to traffic conditions and often leads to a significant increase in capacity at a junction. Induction loops would be installed within the carriageway surface to detect traffic flow on all roads. The loops transmit data to signal controllers which optimise traffic flow for all traffic movements through the junction by managing signal timings. This system would be used in place of a standard fixed-timing system which cannot adapt to periodic or sporadic traffic flow.

During heavily trafficked periods, such as weekday AM/PM peak, the large volume of traffic will saturate the junction along all approach roads. To avoid the signals favouring the A404 traffic, the signal controller will default to a fixed timing operation ensuring equal opportunity to enter the junction from all destinations.

The flow of traffic and junction operation will be monitored following construction. Further optimisation or adjustments to signal timings can then be undertaken from remote offices using wireless technology if required.

NOISE

Will any of the proposed options result in an increase in noise levels?

Base line noise studies will be undertaken, this will be compared with modelled noise levels once the works have been completed.

The carriageway is to be widened, moving vehicles close to residential properties. New quieter surfacing will be used to mitigate any noise increase. Whichever improvement option that is taken forward will involve substantial construction works; the majority of which will need to be undertaken at off-peak times; namely during the night.

Construction works

Noise generated by work on site is subject to a maximum level. We will make every effort to minimise noise and will monitor noise levels to ensure that we comply with the guidelines. Where out of hours works are required, we will consult local Environmental Health Officers prior to the commencement of these works.

DISRUPTION

What disruption can we expect during the construction phase of the improvements?

Working methods will follow latest accepted practices and will be designed to have the least impact on local residents, the environment and local infrastructure.

These would include using silenced and low-emission plant, minimising transport, screening temporary working lights to minimise light pollution to the surrounding areas, road-cleaning, prohibiting fires and providing noise screening where appropriate and feasible.

In addition, Highways England will limit full closures to the minimum and manage these closures to avoid local events.

Access to the local properties will be maintained during the construction phase.

VISUAL IMPACT

Will there be additional lighting included as part of these proposed options?

The Bisham Junction is already lit. The lighting design proposed for the scheme uses the latest LED lighting technologies, with light distribution control. The proposed lighting is of a type which produces significantly less light pollution, and reduces visual impact, in comparison with the existing lighting.

Additionally, for traffic signals, ELV LED signal heads will be used that offer huge benefits in reducing the number of maintenance generated trips as well as fault call-outs. Carbon emission savings will be achieved by using ELV technology.

How will the signalised crossroads affect the look of the surrounding area?

The signalised junction option will generally fit within the existing roundabout footprint and will allow landscaping to be developed around the junction, however the opportunity will be taken to minimise impact by purchasing land to limit the amount of retaining structures built and to give space for planting areas.

How will the larger signalised roundabout affect the look of the surrounding area?

This option will require additional land take around the junction; however it will be of a similar design to what is there at present.

Non-Motorised Users (NMUs)

What improvements will be made for NMUs?

This will be dependent on the option taken forward. The signalised roundabout and signalised options will allow for NMU movements at the controlled stop lines across the junction. The Left In/Left Out would require a separate crossing in the form of either a bridge or subway to allow for NMU wishing to cross the new junction.

Can a footbridge be placed over the top of the junction?

This would be reviewed for the Left In/Left Out option.

Can a subway be constructed below the junction?

Subways will prove difficult but not impossible; this is due to the existing ground condition. The roundabout is situated in a flood plain and there is a high water table. Any subway will require waterproofing and pumping equipment to deal with the water table and the possibility of flooding. This would probably mean that Headroom will be restricted and only suitable for light vehicles (cars). Access ramps will be quite long which will be difficult to fit in.

THE ENVIRONMENT

Have you undertaken any environment studies of the area?

Initial surveys have been undertaken for the scheme and are currently being reviewed. Along with the benefits that the proposed scheme will bring, there are likely to be some negative impacts on the environment. With this in mind, we will seek to ensure that the scheme is designed to avoid, reduce or offset these where possible. The environmental effects of the proposed scheme will be assessed and a range of mitigation measures will be identified during the next stage of the scheme's design.

The Environmental Screening Assessment confirmed the following;

- a) Bisham Abbey a Scheduled Ancient Monument (SAM) 200m to the northwest of scheme location.
- b) Chilterns Joint Character Area. As the scheme might alter the existing roundabout layout this could lead to additional view for local properties.
- c) Chiltern Beechwoods Special Area Conservation (SAC) is located directly adjacent to the east of Bisham Roundabout.
- d) Bisham Woods Site of Special Scientific Interest (SSSI) is located directly adjacent to the east of Bisham Roundabout.
- e) There are records of slow worm on the north eastern extend of the roundabout from 2009
- f) There are records of Great Spotted Woodpecker, Firecrest, Marsh Tit, Eurasian Hobby, Bluebell, Green Woodpecker, Military Orchid, Common Juniper, Great Burnet. Stinking Hawk's-Beard, Lesser Hairy Brome, Loddon Pondweed, Mountain Currant, Wood Barley and Divided Sedge 520m to the north east of the proposed site within Bisham Woods.
- g) There are records of Green Woodpecker, Mezereon, Black Poplar and Bluebell 925m to the south of the proposed site within Park Wood.
- h) 25 properties within 300m of the works area.
- i) Bisham Brook a main river as vested by the Environment Agency is situated approximately 50m to the west of the roundabout and may receive drainage water from the junction

Due to the sites proximity to a Natura 2000 site (an EU wide network of nature protection areas established under the 1992 Habitats Directive), a Record/Notice of Determination and full consultation with statutory bodies will be undertaken from an early stage.

Are there any protected species of animal or plant in the area?

In relation to protected species of animal, an Environmental Screening Assessment was undertaken for Bisham Roundabout which confirmed the following;

- a) Records of Great Spotted Woodpecker, Firecrest, Marsh Tit, Eurasian Hobby, Bluebell, Green Woodpecker, Military Orchid, Common Juniper, Great Burnet. Stinking Hawk's-Beard, Lesser Hairy Brome, Loddon Pondweed, Mountain Currant, Wood Barley and Divided Sedge 520m to the north east of the proposed site within Bisham Woods.

- b) Records of Green Woodpecker, Mezereon, Black Poplar and Bluebell 925m to the south of the proposed site within Park Wood.

In relation to protected species of plant, the A404 Bisham Roundabout National Vegetation Classification Survey Report confirmed the following;

- a) Two species within the Bisham Woods SSSI i.e. Wayfaring tree and guelder rose.
b) White helleborine *Cephalanthera damasonium* within the Bisham Woods SSSI Citation was found 100m north of the Roundabout earlier in 2013.

Whilst these plant species are included within the Citation for Bisham Woods SSSI, they are not subject to any specific protection under the Wildlife and Countryside Act however are likely to be impacted by the proposed works.

Due to the close proximity of this area to the Bisham Woods SSSI and Chilterns Beechwood SAC, Natural England will be consulted prior to the commencement of the proposed works to agree a methodology for ensuring that any potential impact to the designated areas are mitigated.

What will you do to protect the environment?

Environmental guidelines will be adhered to and assessments are being undertaken and relevant mitigation measures will be in place for the works. All works will be subject to ecological supervision.

Impact on the natural and built environment will be minimised in consultation with advice sought from Natural England.

Will more trees be planted after the improvements are completed?

Yes with whichever option is taken forward; landscaping and planting will form a large part of the works.

Lost areas of trees and shrubs would be replaced by planting on new embankments and junction layouts. Planting would comprise native broadleaved trees, including species with a range of heights and foliage density

In addition, areas of grassland lost would be replaced on new embankments and junction layouts by sowing with a seed mixture including native herb species characteristic of neutral grasslands in the Bisham area.

COSTS

What are the costs and who will be paying?

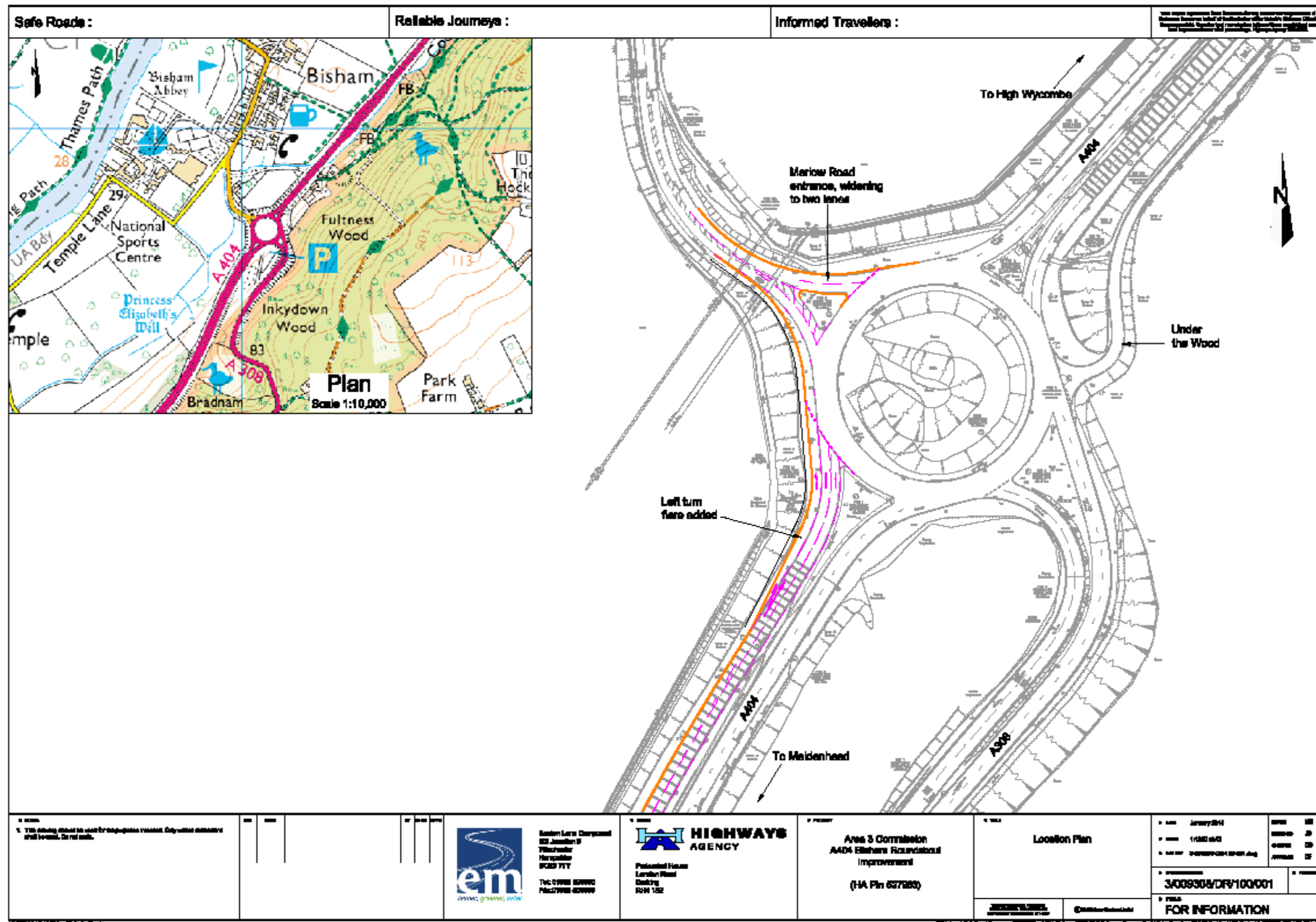
The cost of either one of the improvements will be between £8-10 million. The Left In/Left Out option will require an NMU structure and works to adjacent junctions which increase the cost of this option.

CONSTRUCTION PROGRAMME

When are these works likely to start?

Spring 2017 depending on Highways England and whether a Public Inquiry is required.

Appendix F: Drawings for the De-Scoped Scheme



Appendix G: Drawings for Other Options Suggested

