

RIS SCHEMES A47 Improvements

Minutes of Meeting v.8

Meeting	A47 Preferred Route Decision – North Tuddenham to Easton	
Venue & Date	Woodlands Oak 14 June 2017 9am-1pm	
	Role	
Chairperson	Phil Davie HE Programme Leader	
Attendees	HE Project Manager	
	HE Senior Project Manager	
	HE Project Support	
	HE Senior Environmental Advisor	
	Amey Programme Manager	
	Amey Project Manager	
	Amey Stakeholder Manager	
	Amey Environmental Coordinator	
	Amey Environmental Coordinator	
	Amey Highway Technical Lead	
	MMS Project Manager	
Apologies		
Distribution		
Acronyms		
	Preferred Route Decision	PRD
	Product Control Framework	PCF
	Preferred Route Announcement	PRA
	Appraisal Specification Report	ASR
	HSE works duration notification form	F10
	Department for Transport	DfT
	Road Investment Strategy	RIS
	Key Performance Indications	KPI's
	Site Special Scientific Interest	SSSI
	Light Detection and Ranging	LiDAR
	Non-Motorised Users	NMU's
	Appraisal Summary Table	AST
	Benefit Costs Ratio	BCR
	Value for Money	VfM

Minutes

		Action by	Date
1.0	<p>Introductions</p> <p>Chair, Phil Davie, thanked everyone for attending, adding that the previous day's PRD Meetings with AECOM went well and gave confidence for going forward.</p> <p>The Chair highlighted that the discussions and outcome would be based not on PCF Stages running consecutively as time constraints have resulted in some overlapping of the PCF Stages and that this approach was instigated by Highways England.</p> <p>As a result, some of the information being presented and discussed will be incomplete and/or have limitations. Highways England acknowledged that this is a risk but are prepared to accept that risk in order to deliver to the required timescales.</p> <p>The Amey team highlighted these areas as information was presented and discussed (see also section 4.0).</p> <p>Everyone introduced themselves in the room</p>		
2.0	<p>Health & Safety Moment</p> <p>Fire in London Tower block – reminding ourselves to what the fire regulations are within the HE Woodlands office. Discussed fire exits. No alarm test due today.</p>		
3.0	<p>Purpose of PRD Session</p> <p>Ensure all evidence presented and discussed with all views aired and recorded, including expectations for PRA.</p> <ul style="list-style-type: none"> ○ The meeting should conclude with an unqualified decision on the preferred route ○ Last opportunity to ensure all views are aired prior to route decision being made 		
4.0	<p>Available Information to Inform Decision</p> <p>Due to the timing of the PRD being part way through PCF Stage 2 all of the PCF Stage 2 information assessments and reporting were not available to inform the meeting. A list of PCF Stage 2 Products and their status was tabled and discussed. The table shows the status of each of the products which are complete or incomplete, including limitations. <u>See Attachment A - Exceptions and Limitations Document -A3 - Rev A</u></p>		

	<p>A review took place of the available information at PRD. Apart from the ASR and F10 notification of construction project all other PCF products are incomplete. Some have used PCF Stage 1 data, including critical products SAR, AST and parts of the EAR.</p> <p>It was also noted that the NATS transportation model was not yet complete although the model had now been validated and do-min scenarios were being run. There are no forecasting results for the 4 options and the BCRs reported are derived from PCF Stages 0 and 1 transportation assessments. A single representative forecast model run and benefits derived from it will be available for interim SGAR in July but this will not include for construction delay effects. (see also section 6.5)</p> <p>The air and noise quality assessment information presented in section 6.4 is not based on a full air and noise assessment modelling based on traffic forecasting results, as the strategic transport model is not yet available. .</p>		
5.0	Present Information		
5.1	<p>Supplier Scheme Overview</p> <p>A brief overview of the scheme to date was provided (see slides pages 7 to 15 of <u>Attachment B - Tuddenham PRD Slides - 14 -06-2017</u>).</p> <p><u>RIS Statement</u></p> <p>Dualling of the single carriageway section of the A47 between Norwich and Dereham, linking together two existing sections of dual carriageway</p> <p><u>Scheme Overview</u></p> <p>Travelling from west to east towards Norwich the A47 narrows from dual carriageway to single carriageway at the eastern outskirts of the town of North Tuddenham.</p> <p>The 7.8 km section of rural all-purpose single carriageway passes to the south of the village of Hockering and to the north of the village of Honingham returning to dual carriageway to the north west of the village of Easton. The section of single carriageway road is generally between 7.3 and 7.9m with central marking.</p> <p>The proposed dual carriageway section is 7.8km in length.</p> <p>There are 17 junctions with local side roads along the scheme extents.</p>		

	<p>In addition to these side roads along the length of road there are direct accesses onto the A47 for a number of commercial units / residential properties /churches and field accesses</p> <p>The A47 North Tuddenham to Easton has average speeds significantly lower than the daily average during the AM and PM peaks.</p> <p>This is an indicator of congestion and affects journey reliability on the link.</p> <p><u>Summary of the key transportation problems on the link</u></p> <ul style="list-style-type: none"> • Capacity - Peak period congestion, • Link at or reaching capacity • Poor accident record compared to the route averages- (last 5 years) <ul style="list-style-type: none"> 3 fatal 9 serious 44 slight • Poor route resilience • Poor journey time reliability <p><u>Constraints - overview</u></p> <ul style="list-style-type: none"> • Existing properties and buildings • Existing local access roads and property access • Historic and listed buildings • Areas of nature conservation • Areas of potential ecological importance • River and water bodies • Statutory Undertakers • Ground conditions, ground conditions generally worse towards river, some areas of locally infilled historic excavations, see section 5.2 <p><u>In PCF Stage 1 Development of Route Option</u></p> <p>In PCF Stage 1,</p> <p>14 potential route options were identified.</p> <p>Each of the options were assessed using the Highways England objectives and KPI's to ensure that they represented solutions which would solve the transport problem based on the desktop information available and a site walk through.</p> <p>The results of these assessments showed very little difference between the options, therefore a more detailed assessment was carried out using Engineering parameters., Environmental factors, Transportation and high level Economics.</p>		
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	<p>Option sifting resulted in 4 options - options 1, 3, 4 and 6 being taken forward to Stage 2.</p> <p>In PCF Stage 2 –</p> <p>The 4 sifted route options from PCF Stage 1 (Option numbers 1, 3, 4 and 6) were renumbered 1, 2, 3 and 4 and taken forward for public consultation at the non-statutory Public Information Events in March/April 2017</p> <p><u>At the end of PCF Stage 1</u></p> <p>A single HE Commercial Estimate (Options Estimate) for a representative option gave a cost estimate of £199.505M and a BCR based on Stage 0 Transportation and Economics of 2.62 (High VfM)</p> <p><u>Affordability Deep Dive</u></p> <p>The Options Estimate at the end of Stage 1 was in excess of the scheme budget and prior to Public Consultation an exercise was undertaken to ensure the scheme could be delivered within or close to the available budget.</p> <p>The results from the value engineering exercise and estimate based on the single estimate from Stage 1 adjusted to take into account VE suggestions including at grade roundabouts (unassured estimate) gave an estimate figure of £131.3M against a budget of £130.9M which allowed the scheme to progress to non-statutory public consultation</p>		
5.2	<p>Identify Constraints</p> <p>Environmental Coordinator presented the environmental constraints using a series of environmental plans pointing out the key constraints which have informed the current Environmental assessment of the options</p> <p><u>Overall Study Area and environmental constraints</u></p> <p>Refer plan Attachment <u>C1 - HE551489-AMY-EGN-TE STG2-DR-EN-0003 STUDY AREA AERIAL</u></p> <p>The land is mostly arable, agricultural with areas designated as open space. There are numerous ponds and with great crested newts present along with habitat suitable for numerous protected species, including bats</p> <p><u>Existing Properties and Buildings</u></p>		

	<p>In terms of buildings, there are numerous listed buildings, isolated properties, part of newly planned developments and a school for vulnerable children at Honingham.</p> <p>Easton Estates (including Honingham Hall) is owned by one landowner for agricultural and woodland purposes with large areas of priority habitat and associated wildlife. Two of the options being considered affect Easton Estates and so they have commissioned their own environmental surveys/assessment and submitted a detailed response to the consultation with environmental attachment. They are commissioning further surveys.</p> <p>The consultation found that property owners considered village access and noise to be important and were largely driven by a feeling of 'cocooning' between two roads.</p> <p><u>People and Communities</u></p> <p>Refer plan <u>Attachment C2 - HE551489-AMY-EGN-TE STG2-DR-EN-001 PEOPLE AND COMMUNITIES</u></p> <p>There are four Noise Important Areas on the A47 where the impact of noise levels must be mitigated should the Preferred Route pass close to them.</p> <p>The following key features were pointed out</p> <ul style="list-style-type: none"> • Noise Important Areas • Waterbodies • Listed buildings • Public rights of way/ bridleways / footpaths <p>Also on the plan are the areas of development land identified at Easton and in and around Hockering</p> <p><u>Ecology</u></p> <p><u>Attachment C3 - HE551489-AMY-EGN-TE STG2-DR-EN-0001 ECOLOGY</u></p> <p>Surveys carried out in summer 2016 identified priority habitats, ancient woodlands, ponds with great crested newts, otter and water vole, buildings and mature trees with high bat potential. Surveys for snails plus any additional ecological surveys for watercourse crossings associated with the side roads are outstanding.</p> <p><u>Engineering Constraints</u></p> <p>All route options cross the River Tud. Areas of flood risk have been identified along the river with some existing properties in Honingham potentially at risk.</p>		
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	<p>In terms of drainage, several attenuation ponds may be required.</p> <p>There is currently no side road or junction strategy and this will be considered during PCF Stage 3. For pricing purposes two roundabouts and indicative connections to the local road network have been assumed.</p> <p>The meeting also noted that the proposed food hub near Easton may receive a Local Development Order (LDO) between now and the PRA. HE has not considered the hub as part of option selection due to it going to committee at the end June 2017, however transportation assessments will include it within the uncertainty log. The delivery team have met with Broadland District Council Planners and the developer to better understand the proposal and the LDO application.</p> <p>The onshore connection to the grid for Hornsea Project 3 offshore wind farm may also impact upon land. HE is liaising with the developers (Dong Energy) of the wind farm in regard to cables to be laid which cross the route to the west of the Easton Roundabout. They are currently consulting on the route and likely to get to the site before HE.</p> <p>In terms of topography, the ground generally rises away from the river which will affect earthworks quantities and the width of the road corridor in various degrees for the options but vertical alignment is not considered a key differentiator. There is potential for increased cut and fill volumes at the eastern end of Options 1 and 3 as a result of the sidelong ground.</p> <p>Utility cables mainly follow the existing A47. A high pressure gas main crosses north to south but it affects all route options similarly.</p> <p>A Geotechnical desk study showed some historic areas of made ground where material had been extracted locally and pits backfilled. There are potential for areas of compressible materials and localized running sands. It is anticipated that the ground conditions will be worse adjacent to the River Tud (ie for Option 4). There have been no ground investigations to date and these would be undertaken post PRA decision in PCF Stage 3.</p> <p><u>Stakeholder Constraints</u></p> <p>Feedback from the public consultation and from organisations is covered in the PIE summary (see section 6.3)</p> <p>A link from the Northern Distributor Road (NDR) to the North Tuddenham to Easton section of the A47 will</p>		
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	<p>potentially be located approximately 10 kilometres to the west of Norwich. The 7.8km single carriageway section of the A47 forms a part of the main arterial highway route connecting Norwich to the west.</p> <p>The approximate route of the Norwich NDR, that is currently under construction, is shown as a red line on Attachment B slide 7 (to the north west of Norwich). In addition to this shown on the slide is the aforementioned NDR Western Link Road scheme being promoted by Norfolk County Council to link the NDR to the A47</p> <p>The NDR Western Link scheme is currently behind the HE's dualling scheme in programme terms and a number of routes are being considered. It is likely that this link will tie into the A47 scheme somewhere between woods lane and Easton</p> <p>The current uncommitted status of the Western Link Road means that it will not be included in the transportation modelling for this scheme in the current PCF Stage, but sensitivity testing will be required to understand the potential influence of the route on the proposals.</p>		
5.3	<p>Description of Each Option</p> <p>Amey Project Manager Presented the route options utilising a printed copy of the route option plan (<u>Attachment D - Options 1-4 North Tuddenham to Easton</u> - showing the 4 route options which had been taken to public consultation.</p> <p><u>Note: the Options were renumbered 1 – 4 prior to public consultation (rather than using the PCF Stage 1 references 1, 3, 4 and 6).</u></p> <p>Option 1 is an offline dual carriageway to the north of the existing A47 route.</p> <p>Option 2 comprises a dual carriageway following, as closely as practical, the existing A47 route corridor.</p> <p>Option 3 is an offline dual carriageway to the south of the existing A47 for the western part of the route and to the north of the existing for the eastern part of the route.</p> <p>Option 4 is an offline dual carriageway to the south of the existing A47 route.</p>		
6.0	Assessment of the Options		

	<p>A number of assessments have been made of the 4 options in order to inform the meeting and assist in the choice of a preferred route</p> <p>The results of these assessments were presented and discussed sections 6.1 – 6.6 below</p>		
6.1	<p>Strategic Outcomes</p> <p>The high level strategic KPIs aligned to the Delivery Plan for each option have been assessed to give a measure of the likely strategic outcomes.</p> <p>A table showing how the 4 options had been scored against each of the national high level KPIs was presented see <u>Attachment E - KPIs - Assessments - 11-06-2017 Tudd Options 1,2,3,4</u></p> <p>Each KPI for each option had been scored and the table RAG rated. KPIs have been scored 1 to 5 (1 being low and 5 being high)</p> <p>It was noted that there was no real discernible differences between any of the 4 options using the assessment of HE KPIs, other than a slightly higher score being awarded to Option 2 due to its slightly better performance in Environmental terms</p> <p>The KPIs have been scored as described at national high level rather than at a regional / local level.</p>		
6.2	<p>Appraisal Summary Table (AST) for Each Option</p> <p>The AST for each of the route options were available, (see Attachment F1 - A47IMPS2-AMY-TE-ZZ-DO-L-0004 AST A47 North Tuddenham Options 1, 2, 3, 4v2)</p> <p>It was noted that these ASTs were compiled for the PRD and for the upcoming interim SGAR and are incomplete. HE noted that the language in the ASTs should be reviewed and updated. [post meeting action to review wording and assessments based on the discussion in the meeting and update AST tables]</p> <p>The assessment information on the 4 ASTs has been extracted into a summary table in order to make comparison between the 4 options. This summary table has been R-A-G rated to enable the options to be compared against each other, this was presented to the meeting see <u>Attachment F2 - COMPARISON TABLE A47 North Tuddenham Options 1 2 3 4</u></p> <p>The AST comparison table was reviewed line by line in the meeting key points of note:</p>		

	<p>Economics</p> <p>There were no discernible differences between the 4 options in terms of economic categories; all options showing a beneficial rating when assessed against the economy criteria.</p> <p>Environment</p> <p>The sections of the AST comparison table were reviewed alongside the ranked Environmental sections of the EAR – see <u>Attachment F3 -Extract from Stage 2 EAR NT to E vol 1 Rev 0.1</u></p> <p>The meeting agreed that the EAR rankings were a better way of comparing options and that these rankings should be shown in a post meeting version of the Comparison Table [Post meeting update the table is included as <u>Attachment F4 Updated Summary Table</u>]</p> <p>Air quality - provides benefits with Options 3 and 4 as it is further away from Honingham. Option 1 will benefit residents in Honingham but may adversely affect residents to the north of Hockering. Option 2 will adversely affect air quality for properties at the north of Honingham, but will benefit properties to the south of Hockering. Option 3 was the preferred route in relation to air quality.</p> <p>Noise – broadly similar outcomes to the air quality impact assessment, with Option 3 being the preferred option.</p> <p>Cultural heritage – Option 2 has no direct impact upon listed buildings and churches in environmental terms with minor impacts on the setting of the St Andrew’s Church. Options 1 and 3 have significant impacts on archaeological sites and the setting of listed buildings, specifically the areas around Easton Estate associated within Honingham Park and St Andrew’s Church as it potentially severs the church from its visual and historical surrounding landscape. Option 4 has a significant impact on the listed Icehouse. Option 2 is the preferred option in terms of impact on cultural heritage.</p> <p>Nature conservation – all options have potentially significant impacts on the River Wensum SAC qualifying species (white clawed crayfish and bullhead), as it is unknown as yet how one or more river crossings affect SAC biodiversity (Although Option 3 scored worst with 2 potential crossings of the Tud). Options 1 and 3 significantly affect the priority habitat at Easton Estates with Option 4 affecting priority habitat along the river Tud. Option 2 had the fewest ecological impacts.</p>		
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	<p>The Geology assessment explored soils and grading of agricultural land with Option 2 being the preferred option.</p> <p>Water environment (river, stream, ditches & ponds considered). Options 1, 3 and 4 require new crossings of the river Tud and the loss of numerous ponds, with bridge widening required for Option 2. Option 3 potentially requires 2 new crossings. Option 2 is the preferred option in terms of impacts on the water environment.</p> <p>Landscape – the 3 offline options were considered to have significant impacts on landscape and visual receptors, with Option 2 preferred.</p> <p>People – Option 4 has significant impacts on Earthsea School and Ailwyn Hall, both properties have organisations with residential facilities with particularly vulnerable occupants The properties being close to the option route alignment.</p> <p>Overall, in terms of environmental assessment, the options ranked 2, 3, 1, 4, confirming Option 2 ranked highest and was the most preferable on environmental grounds, option 4 ranked lowest and was the least preferred on environmental grounds. The meeting agreed that it is reasonable to consider the long term impact alongside construction.</p> <p>Social</p> <p>AST Social criteria have not been formally assessed at this stage and the Summary sheet has been completed using a 3 point scale rating and RAG rated against this. The meeting agreed that the information should not be used in this format and some of the sections should be left blank and other should be ranked similar to the Environment Section to give a comparison – each topic was discussed and generally with the limited information it was felt that neutral ratings should be given at this stage – the table is to be updated post meeting see earlier minute</p> <p>The meeting reviewed the social sections and taking into account that none of the full WebTAG analysis has yet taken place the following was decided</p> <p>Physical Activity – was rated as beneficial for Options 1 and 4 as the routes left the old A47 intact which could potentially promote additional physical activity from its use by NMUs – the meeting decided Option 3 also offered this – action to rank Option 1, 3 and 4 as equal first and Option 2 behind.</p>		
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	<p>Access to Services was rated as adverse for Options 1,3 and 4 and neutral for Option 2 on the basis that buses may be discouraged from using the villages for routes away from the existing – the meeting decided that this scoring was not representative and that buses could be encouraged to serve the villages from all of the dualled schemes in a similar way – and all options should rank the same particularly noting that at this stage there is no junction or side road strategy</p> <p>Severance, Option 1 was rated beneficial and the other options rated neutral. This was due to Option 1 having some potential to allow better residual links within Hockering – the meeting decided that at this stage until side roads and junction strategy and NMU routes had been determined that severance should be rated equally</p> <p>Other categories within social ranked equal which was accepted at this stage as a reasonable assessment.</p> <p>Public Accounts</p> <p>The public accounts section has been completed using data from the ‘deep dive’ cost estimate and all options have been completed equally. The cost information is taken from the HE commercial estimates (PCF Options Estimates) which were made available the day before the PRD meeting on the 13th June in draft format and these are discussed below in additional information</p> <p><u>Additional Information - Cost Estimates</u></p> <p>Draft estimates for the 4 Options were received from HE Commercial on the 13th June 2017 and these were presented later in the meeting see section 6.6.</p>		
6.3	<p>PIE Summary</p> <p><u>Consultation</u></p> <p>Amey Stakeholder Manager presented the results from the Dialogue by Design (DbyD) analysis and assessment of the consultation responses received.</p> <p>There have been 530 responses received and these have been themed and reported on in detail in the “Report on Public Consultation” which has been produced by Dialogue by Design in draft and submitted to HE for review.</p> <p>Need for improvement – the majority of those who responded to the consultation questionnaire were in favour of some form of improvement on the A47 as 413</p>		

	<p>respondents answered “yes” compared to 43 who answered “no” (see graphic in <u>Attachment G1 - CONSULTATION OVERALL RESPONSES</u>).</p> <p><u>Route preference from questionnaire response</u></p> <p>The table from DbyD report is included in <u>Attachment G1 - CONSULTATION OVERALL RESPONSES</u> and was reviewed noting as follows</p> <p>Option 2 is the most favoured followed closely by Options 3 & 1. Option 4 was largely opposed.</p> <p>Option 2 received the highest proportion of support, with 160 respondents strongly in favour and 77 somewhat in favour.</p> <p>171 respondents say they are strongly or somewhat against Option 2, compared to 293 strongly or somewhat against Option 4,</p> <p>230 were strongly or somewhat against Option 1 and 195 strongly or somewhat against Option 3.</p> <p>Option 4 received by far the most opposition (strongly and somewhat against responses) from respondents.</p> <p>A similar number of respondents select the neutral choice for each of the four options.</p> <p>The following were also discussed in the meeting</p> <p>Option 1 would split Hockering in two, passing through development and playing fields and wildlife.</p> <p>Option 2 largely follows the present route so did not affect surrounding countryside as much. It also has less impact upon the community.</p> <p>Option 3 was considered over complicated with different groups and communities feeling less connected as a result. Concern was also raised regarding accessing side roads & the effect upon HGVs. Woodland & wildlife affected. Option 3 was seen as favourable because it avoids Hockering and Honingham, thus leaving the old route untouched.</p> <p>Option 4 passes through local roads so was considered both disruptive and impacting strongly on the landscape. Option 4 does, however, take traffic away from Honingham & Hockering and would be the least disruptive in terms of property.</p> <p><u>Route preferences from Organisations</u></p>		
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	<p>Those responses which were on behalf of organisations have been extracted from the database and were presented in a RAG table (see <u>Attachment G2 - Consultation from organisations RAG</u>)</p> <p>These were reviewed and discussed.</p> <p>The presentation showed statutory, parish and charitable status stakeholders' preference to be Option 3.</p> <p>The Dialogue by Design data is available for the team in the database and the "Report on Public Consultation" draft report is available for the team to review</p>		
6.4	<p>Buildability Analysis</p> <p>Taylor Woodrow have provided a high level overview of the buildability and construction programmes. Option 4 was identified as having the shortest construction programme at 22 months whilst Option 2 was the longest at some 30 months as a result of the large lengths of improvements that utilise the existing carriageway in some way. Options 1 and 3 were assessed as requiring 24 months to construct.</p> <p>The construction durations proposed by Taylor Woodrow are generally longer than those assumed in the cost estimates. As a result only Option 4 is anticipated to reduce in costs with Options 1, 2 and 3 costs are anticipated to increase due to the longer programmes. Taylor Woodrow figures are indicators to show the costs may vary. It was agreed that there was more risk with online scheme costs increasing than those offline.</p> <p>While the meeting could not quantify the difference in estimates, the additional time will have significant cost implications. Based on the assumption that project durations are still to be confirmed, it was agreed that we need to utilise the costs presented but with caveats.</p> <p>The meeting thus agreed to proceed with the costs presented in section 6.2 and accepted the risks associated with the likely cost increases.</p> <p>There would also likely to be reductions in BCRs if cost estimates were to increase.</p>		
6.5	<p>Key Risks & Opportunities</p> <p>It was assumed during the PRD discussions that as the routes are largely similar in length and all replace an existing single carriageway section of road with a dual carriageway section that from a traffic flow perspective</p>		

	<p>there will be no discernable difference between the 4 options in terms of volumes of traffic movements and the way the options perform in terms of flow of traffic.</p> <p>It was agreed that traffic flow should not be a differentiating factor between the options for the PRD.</p> <p>The limitations of the information presented were also again noted and the meeting was reminded that the limitations of the information, assessments and the Stage 2 PCF Products prepared to date were highlighted in the table prepared and tabled in the meeting (<u>See Attachment A - Exceptions and Limitations Document - A3 - Rev A</u>).</p>		
6.6	<p>Cost</p> <p><u>As noted in section 5.1 above –</u></p> <p>The Options Estimate at the end of Stage 1 was in excess of the scheme budget and prior to Public Consultation an exercise was undertaken to ensure the scheme could be delivered within or close to the available budget.</p> <p>The results from the value engineering exercise and estimate based on the single estimate from Stage1 adjusted to take into account VE suggestions including at grade roundabouts (unassured estimate) gave an estimate figure of £131.3M against a budget of £130.9M which allowed the scheme to progress to non-statutory public consultation</p> <p><u>Current Estimate</u></p> <p>The bottom line figures from the current cost estimates had been received on the 13th of June by email. The range estimate figures from this email were discussed and are summarized in <u>Attachment H - ESTIMATES AND VFM Summary v1</u> which was presented to the meeting. It was noted that figures were draft issue from HE Commercial</p> <p>The most likely costs and the ranges given for the options are as follows</p> <p>Option 1 Min £ 101.86, Most Likely £ 151.02, Max £ 261.68</p> <p>Option 2 Min £ 92.76, Most Likely £ 138.80, Max £ 238.42</p> <p>Option 3 Min £ 89.53, Most Likely £ 133.16, Max £ 232.90</p> <p>Option 4 Min £ 88.48, Most Likely £ 131.87, Max £ 230.24</p>		

	<p>From a BCR perspective, assuming benefits generated are similar for all options, the comparative BCRs are likely to be based on the estimate figures</p> <p>Preferences based on BCR would be 4, 3, 2, 1, although benefits & costs are likely to change for all options, most significantly for Option 2.</p> <p>Additional information on BCR and costs is included in <u>Attachment H - ESTIMATES AND VFM Summary v1</u></p>		
7.0	<p>Scoring Matrix</p> <p>A discussion regarding the way in which the assessments and information presented could now be combined and used to best make an overall assessment was held.</p> <p>The assessments overall were discussed and the following were agreed in the room:</p> <p><u>Alignment to Strategic Objectives</u> The high level strategic assessment of KPIs aligned to the Delivery Plan showed little if no difference as all options were likely to meet the KPIs in a similar way (Option 2 had a very slight higher scoring than the other options which all scored equally).</p> <p><u>AST comparison</u> The only real differentiation from the AST was within the environmental section, the AST RAG showed that Option 2 is likely to have the least Environmental Impact. Although it is clear from the RAG table that Option 2 and 3 have less impact</p> <p>In terms of Environmental ranking the options ranked 2-3-1-4 in order of preference option 2 being the best</p> <ul style="list-style-type: none"> • Option 2 is the environmentally preferred option; • Option 3 is the second preferred option; • Option 1 is the third preferred option; and • Option 4 is the least preferred option. <p><u>Consultation Feed back</u> The overall impression from the consultation feedback with regard to route preference was that the options ranked 2-3-1-4, with Option 2 being favoured by more responses and having fewer responses against</p> <ul style="list-style-type: none"> • Option 2 is the preferred option based on consultation feedback; • Option 3 is the second preferred option; • Option 1 is the third preferred option; and • Option 4 is the least preferred option. 		

	<p><u>Option 1 and 4 Discounted</u></p> <p>It was discussed and agreed that Option 1 and Option 4 should not be taken forward due to the way they ranked on environmental grounds and the high impacts on the environment and the local community.</p> <ul style="list-style-type: none"> • Option 1 - the route has been discounted - the western end of the route has large impacts as the route passes through the north of the village of Hockering, severing part of the village and passing through the now consented housing development land, local sports facilities and fishing lakes. The east of the route has large impacts on areas of woodland and on Easton estates. • Option 4 – the route has been discounted – it passes close to the River Tud and creates a new crossing of the river in the west. There are large impacts on East Tuddenham, Honingham, Earthsea House School, Ailwyn Hall and the Wood to the north of it (Warren Plantation). There are also impacts on the Icehouse listed building as well as the high risks associated with ground conditions and proximity to the river Tud. <p><u>Option 2 and 3 Comparison</u></p> <p>The meeting focused on the 2 remaining options and the relative merits of Options 2 and 3.</p> <p>Option 2 scores very slightly better than Option 3 in the alignment to strategic outcomes assessment.</p> <p>Due to it being online, Option 2 is predicted to take longer to construct (30 months rather than the 21 months included in the estimates) than Option 3.</p> <p>Option 2 is predicted to cost more (£138.80M compared to £133.16M) than Option 3.</p> <p>Option 2 has less environmental impact than Option 3</p> <p>Option 2 is more favoured by the respondents to consultation than Option 3.</p> <p><u>Preferred Route Decision</u></p> <p>Although there are pros and cons of both Option 2 and 3 the meeting felt that the higher environmental impact of Option 3 coupled with the higher public consultation preference for Option 2 outweighed the higher cost and</p>		
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	<p>longer programme and it was agreed that Option 2 should be taken forward in principle.</p> <p><u>The meeting agreed that Route Option 2 should be taken forward as the preferred route option</u></p> <p>.</p>		
8.0	<p>Preferred Route Viability</p> <p>Option 2 has been chosen as the preferred route option and there was a discussion regarding whether it is possible to develop Option 2 to overcome any of the likely issues with it. As Option 2 and Option 3 were close in overall terms, a discussion was held as to the viability of developing Option 2 in places along its route to remove or reduce some of the potential issues associated with it.</p> <p>HE DCO & Statutory Process Manager, joined the meeting for the discussion and advised the meeting expressing reservations of any strong variants on Options already consulted upon but agreed it was possible that the route could be developed.</p> <p><u>Option 2 is described in the consultation document as follows</u></p> <p><i>Option 2 proposes dualling of the existing A47.</i></p> <ul style="list-style-type: none"> <i>The new dual carriageway follows an alignment running as close as possible to the existing A47.</i> <i>Improvements to the existing alignment will be needed to bring the route up to dual carriageway standards. In places this will deviate from the existing alignment.</i> <i>Land would need to be acquired in order to widen the current route to a dual carriageway and accommodate the improvements.</i> <p>The meeting discussed and concluded that the route description gave sufficient scope to enable the route to be developed where necessary to an alignment that followed the current route corridor as close as possible but where beneficial to the scheme to meet current alignment standards, to maintain local access and to locally avoid key constraints along the existing road the route alignment could be alongside the existing or diverge slightly from the existing road.</p> <p>The areas which were identified as potential for developing option 2 were</p> <ul style="list-style-type: none"> minimising the impact at the western end on Oak Farm 		

	<ul style="list-style-type: none"> • minimizing the impact on the existing properties on Matishall Lane. • minimising the impact on the properties on Gypsy Lane • minimising the impact of the crossing of the River Tud • keeping the route to the north side of the corridor as it passes Honingham to achieve noise and air quality benefits • keeping the route to the north at the tie in at Easton to maximize the chance of the local road reconnection being alongside and to the north of the church at Easton <p>The meeting discussed that these developments would potentially make the route easier to construct and that some of the existing route would then be able to be retained for local access. It was felt that this would lead to a reduction in the construction period that was advised by Taylor Woodrow.</p> <p>Prior to announcing the preferred route the alignment of route Option 2 is to be reviewed and developed in order that the route announcement will be able to give the public a better understanding of which sections of the route will be built over the existing road and which sections will deviate from the existing roadway.</p> <p>[Post meeting note – Option 2 has been reviewed and the alignment has been amended in line with the comments made at the meeting. The first iteration of the preferred route is shown as a red route overlaid with Options 2 and 3 for comparison see <u>Attachment J Tuddenham Initial Preferred Route (overlaid Option 2 and 3) - 22-06-2017</u></p> <p>The initial preferred route was reviewed at the project progress meeting held on the 22-06-2017 and it was agreed that the red route should be taken forward as the preferred route.</p>		
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