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A14 TO M1-A1 LINK  
HUNTINGDON

PRELIMINARY ENVIRONMENTAL  
IMPACT ASSESSMENT

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## A14 TO M1-A1 LINK HUNTINGDON

### PRELIMINARY ENVIRONMENTAL IMPACT ASSESSMENT OF ROUTE OPTIONS

#### 1.0 AGRICULTURE (RPS Clouston Didcot Office)

#### 1.1 Land Quality (see separate plan)

The proposals will affect Grade 2 and 3 land. The brown route and yellow route are preferable in this context as they require much less good quality farmland.

The red, green and blue routes would involve a much greater take of good quality farmland. In view of the generally high quality of farmland in the study area a detailed survey of land quality is justified.

Information collected by RPS in 1983/84 for the M1-A1 link road does not cover the entire study area but is sufficient to warrant the preliminary recommendations given above.

#### 1.2 Effect on Farms

The study area is an important farming area. Much of the M1-A1 link road inquiry was taken up by debates on the impact on farms. Details of farms in the Brampton area surveyed in 1983/84 are available. The viability of these farms is already affected by the M1-A1 link road.

A detailed survey of the potential effect on farms is required before announcement of a preferred route, including farms adjacent to the proposed on-line improvement.

Special consideration should be given to the preferred route and main alternatives. The relative merits of each alternative are likely to be debated at any future inquiry.

Preliminary assessment indicates that the brown and yellow routes would have less impact on farms than the red, green and blue routes.

- 1.3 Manor Farm, Ellington, Would not be affected by the brown route or yellow route, but would be affected by the junction works for the red, green or blue routes.
- 1.4 Meadow View Farm, Brampton, would be affected by the brown and yellow routes but not by the red, green and blue routes.
- 1.5 Park Farm, Brampton, is a large holding. This would not be affected by either the yellow or brown route. The farm would be severely affected by the red, green and blue routes.
- 1.6 Details of other farms south of Huntingdon are not known at this stage but should be assessed in detail before any decision on a preferred route is taken. On line improvement may increase farm severance. Survey of adjacent farms should be undertaken.

## 2.0 ARCHAEOLOGY

(Information from RPS Clouston Didcot Office)

### 2.1 On-Line Section

The on-line section follows the line of a Roman road throughout. No Scheduled Ancient Monuments (SAM's) are likely to be affected by on-line improvements. A moated site of some interest at Fenstanton should be avoided. Because of the alignment along a former Roman road there are likely to be features such as burial mounds, dwellings, etc, that will require evaluation during construction.

### 2.2 Off-Line Section

Archaeological records in the off-line study area have been collected and mapped. There are two Scheduled Ancient Monuments north of Brampton. The first of these is north west of Meadow View Farm and has already been excavated prior to construction of the M1-A1 link road. it is a former settlement site but no longer represents a constraint. The second SAM is Nun's Bridge east of Brampton. No route options have a direct impact on this bridge.

- 2.3 Other archaeological features in the study area include crop marks, ridge and furrow field patterns and isolated 'Sites and Monuments Record' (SMR) entries. Ridge and furrow is indicative of intact remnants of Medieval field systems. They are not themselves a constraint on route alignment, but would require field recording during or prior to road construction.
- 2.4 Godmanchester is the site of a Roman town with numerous crop marks indicating previous settlements to the north east of the town. A spread of archaeological recordings to the south is an area of potential interest but decreasing with distance from the town.
- 2.5 Because of the known potential archaeological value of the study area once a preferred route is chosen further evaluation should be undertaken to identify areas which require excavation prior to road construction.
- 2.6 The green route has the least impact on areas of archaeological interest. The route clips the corner of one area of ridge and furrow (ref: 2528) near Bears Croft Farm. However, this section of the route is common to all route options.
- 2.7 The red route has the second lowest impact on known archaeological sites. At the proposed location of the red route/existing A1 junction, a series of crop marks (ref: 5765) merit further evaluation if this route is considered a potential preferred route.
- 2.8 The blue route has a direct impact on a large area of ridge and furrow south of Brampton and a cluster of SMR sites south of Godmanchester. This alone is not a constraint, but the route also has a direct impact on part of the conservation area of Brampton and would require demolition of property in Brampton. These are major constraints.

- 2.9 The yellow and brown routes have a direct impact on ridge and furrow areas north and east of Brampton and a cluster of archaeological sites south of Godmanchester. Further evaluation of these areas of archaeological interest is required before these routes are adopted as preferred routes or major alternatives.
- 2.10 The attached 'Archaeology Appendix A' is a policy statement by Cambridgeshire County Council setting out archaeological policy for County roads. The policy indicates the serious approach made by the County to the archaeological impact of road construction. The policy has been borne in mind in this appraisal.
- 2.11 Information on listed buildings has not yet been collected, but the impact of route options on listed buildings will be assessed as soon as possible.
- 3.0 FOOTPATHS, BRIDLEWAYS AND PUBLIC BYWAYS  
(Information collected by RPS Clouston  
Cambridge Office)
- 3.1 The brown route affects a number of footpaths and a byway in the area north and east of Brampton which is a focus of recreation. Footpath BR17 leaves the north of Brampton and crosses the racecourse. Provision must be made to maintain this footpath. Subject to consultations with the Ramblers Association and general public to ascertain usage rates of footpaths, the following footpaths in the water meadow area around 'The Old Mill' Restaurant and marina on the River Great Ouse appear to be well used and provision should be made to maintain footpath connections: BR24, BR10, BR7, BR22, BR11 (byway).
- 3.2 The comments in 3.1 above apply equally to the yellow route.
- 3.3 Surprisingly, there are no statutory footpaths south of Godmanchester. However, field survey revealed that even in cold weather in January the lanes south of Godmanchester are well used by local residents for walks out of the village, for example, 'Silver

Street'. All the route options cross these lanes at some point and provision must be made for walkers to cross routes as well as vehicles.

- 3.4 The blue route crosses footpath BR4 and BR7. Provision must be made to retain footpath links across the route.
- 3.5 The red route and green route both cross footpath BR19 which links to Brampton Wood. With either of these route options a footpath link should be maintained between Brampton Wood and Brampton village.
- 3.7 The red route also crosses footpath BR7 adjacent to the River Great Ouse. This footpath should be preserved and provision made for it to cross under the route.
- 3.8 The green route has the least impact on statutory footpaths, the red route has the second least impact. The blue, yellow and brown routes have greater impact on footpaths.

#### On-Line Section

- 3.9 Further research is required into usage of footpaths meeting or crossing the on-line improvement. Generally where a footpath links villages on each side of the improved road provision should be made for footpath links associated where possible with a road crossing or farm crossing. Footpaths which appear on first appraisal to provide important links are: HG9/HG10 connecting Hemingford Grey and Hilton; FN6/C01 connecting Fenstanton and Connington; FD3/CO2 connecting Fen Drayton and Connington; LO10/BH1 potentially connecting Longstanton and Bar Hill.
- 3.10 Other footpaths follow agricultural drove tracks such as S14/S15/S16. Improvements may affect the value of these drove roads. This should be considered at detailed design and CPO stage.



## Conclusion

3.11 Generally there are few footpaths in this open agricultural landscape and impact on footpaths is low except where route options are close to footpaths in Brampton and lanes near Godmanchester.

### 4.0 LAND USE

4.1 Information on land use has been obtained from aerial photographs by RPS Clouston Cambridge office.

4.2 The study area is predominantly agricultural and potential impact on agriculture has been assessed in section 1.0.

4.3 The brown route crosses former gravel workings north of Brampton and the grounds of a water treatment plant. This reduces the amount of agricultural land take. The brown route also crosses meadows closely adjacent to well used recreational areas adjacent to the River Great Ouse.

4.4 The yellow route clips the north east corner of Brampton village and would require some demolition of property. It would lie close to remaining residential property at this point.

4.5 The blue route has a major impact on farmland and would require demolition of property in Brampton. It would lie within 200 metres of many properties on the southern edge of Brampton. It would have a direct impact on recreational land between Brampton and the River Great Ouse.

4.6 The red route has a major impact on farmland. It lies close to residential quarters at RAF Brampton. It crosses an area of landfill south of RAF Brampton close to a new golf course.

4.7 The brown, yellow, blue and red routes are close to new housing development on the southern edge of Godmanchester.

- 4.8 The green route has a major impact on farmland but is away from residential and major recreational areas. The green route is slightly further from the new housing south of Godmanchester.
- 4.9 All routes are close to new industrial development east of Godmanchester.

#### On-Line Section

- 4.10 Between Godmanchester and Fenstanton land use is predominantly arable farming. Isolated individual farm houses and residential properties would be adversely affected. Commercial land use consists of individual filling stations, service areas, a small new lodge type motel and a golf driving range. Former gravel pits, now flooded, lie adjacent to the road in four locations.
- 4.11 At Fenstanton the road has been re-aligned south of the settlement. The existing line is closely adjacent to residential property, commercial property, allotments, a golf range and a landfill site. There is potentially an adverse impact on several land uses in this location. The area should be subjected to a detailed assessment of potential environmental impact and an alternative route option further to the south of the settlement should be considered if adverse effects cannot be successfully mitigated. Any alternative route to the south would however have an adverse impact on farms and farmland.
- 4.12 Between Fenstanton and the south eastern end of the proposed improvement land use is predominantly arable farmland with one large area of 'set aside' south of 'Trinity Foot' public house. There are also a small number of isolated houses adjacent to the road such as Hill Farm Cottages. There are also isolated commercial uses such as garages.
- 4.13 At Bar Hill there is a motel and garage adjacent to the road and a mixed commercial area, large hotel and golf course adjacent to the road but set behind earth mounds. South east of the golf course and adjacent to the road is the Cambridge crematorium.

4.14 In summary land use is not a major constraint in the on-line improvement section, but there are localised areas where there is potential adverse impact and these should be assessed in more detail.

#### 5.0 LANDFORM AND LANDSCAPE QUALITY

5.1 The geology of the study area consists of Jurassic sands and clays. Most of the area is covered with boulder clay. In this predominantly arable farming landscape with relatively few woodlands and hedgerows landform becomes the main determinant of landscape quality.

5.2 The major feature of the area is the valley and flood plain of the River Great Ouse. This flows into the study area from the south past 'The Offords' flowing northwards towards Huntingdon. East of Brampton the river turns to flow east in a series of wide irregular meanders. Between Godmanchester and Huntingdon is a historic bridging point over the river. Beyond this the river continues east through a line of settlements such as Houghton, Hemingford Grey and St Ives. The flood plain, lower slopes and river are considered to be the 'area of best landscape' locally and this is reflected in the local plan. Settlements such as Brampton and Godmanchester and Huntingdon have arisen on higher ground on the edges of the flood plain. The combination of a series of old settlements near or on a wide meandering river in a wide flood plain is perceived as the most important aspect of local landscape quality. Generally the ridgelines outside the river valleys are not perceived as valuable. They are predominantly broad open ridges, with few woodlands or hedgerows, utilised for arable farming.

5.3 Therefore local planning policies generally seek to protect the quality of the towns, villages and river valley and not the open ridgelines south of Brampton and Godmanchester. Recreation and leisure pursuits also focus mainly on the river valley and villages.

- 5.4 Photographs 1 to 13 and 20 show the attractive quality of the villages of Brampton (20) and Godmanchester (1, 2) and the varied and attractive character of the river valley between Brampton and Godmanchester (3, 4, 5, 6, 9, 10, 13). Photograph 11 is a view from the edge of Huntingdon looking across the flood plain from Hinchbrook House. These photographs show the focal points for leisure, recreation and tourism.
- 5.5 Photographs 14 to 19 and 21 to 27 illustrate by contrast the agricultural land which rises gradually to broad ridges south of Brampton and Godmanchester. The landform in this area could be described in general terms as two shallow broad 'saucers' south of Brampton (shown in photographs 16, 19, and 21) and south of Godmanchester (shown on photographs 23 to 27). Between the two 'saucers' is the secondary ridge of Offord Hill, shown in photograph 18 (cut across by the railway line west of New Farm) and the River Great Ouse.
- 5.6 South east of Godmanchester the on-line section follows the historic line of the Roman road on higher ground with the River Ouse valley well to the north and a series of ridgelines to the south. Landform and landscape quality are not major constraints therefore along the on-line section.
- 5.7 The brown route is a low level route through the flood plain of the River Great Ouse which would have a major impact on the quality of the landscape in the recreational area east of Brampton around 'The Old Mill' (photographs 4, 6, 7, 8, 10). However, because the route is at low level and goes under the railway embankment it would be impossible to screen the road by earth bunds and fences and planting to mitigate the impact.
- 5.8 The yellow route is a high level route through the River Great Ouse flood plain. This would have to rise to over 15m above the flood plain to cross the railway line. It would be almost impossible to mitigate a road at this level and the road would be visible from recreational areas between Brampton and Godmanchester and also from the edge of Huntingdon.

- 5.9 The blue route has a major adverse impact on landform where it cuts through a major ridge east of Ellington at a depth of 8m with embankments up to the cutting of +7m (west) and +10m (east). It also rises to +15m to cross the railway line in a similar location to the yellow route with the same adverse impact on the quality of the river valley.
- 5.10 The red route also has a major adverse impact on the ridge east of Ellington cutting through at -8m depth with embankments of +7m (west) and +6m (east). However, this cutting is slightly curved which may help to reduce visual impact slightly, subject to later detailed study, by possibly avoiding a visual 'notch' in the skyline. The red route crosses the A1 at a height of +7m and the railway at a point where the railway is in cutting west of Offord Hill. Therefore the route only rises to +8m above ground level, but at the crossing point is -5m below existing ground level so the crossing point may be partially screened. The crossing point is also further away from well used recreational areas.
- 5.11 The green route also has a major adverse impact on the ridge east of Ellington. Because the route is curving more tightly it cuts into higher parts of the ridge up to a depth of -15m with flanking embankments of +7m (west) and +6m (east) because the route runs at a higher level in the local landscape and crosses the existing A1 at a height of +5m. The green route is curving along the middle slopes of the 'saucer' of land south of Brampton, described earlier. The green route avoids the recreational areas and high quality landscape of the river valley near Brampton and Godmanchester but it still has to cross the Great Ouse valley at a height of +9m which may have some adverse impact on properties on the north edge of Offord Cluny (conservation area).
- 5.12 The green route also has an adverse impact on the landform of Offord Hill Ridge which it cuts through at a depth of -6m, but this would help to screen the road from properties in the area. The green route then runs in a curve on the middle ground of the 'saucer' south of Godmanchester at a height of +9m, but in predominantly open farmland away from Godmanchester.

- 5.13 All routes converge south of Godmanchester. The brown, yellow, red and blue routes cut through the ridge east of Godmanchester at a depth of -8m to -9m. The green route cuts in at a shallower level of -2m. Whilst the deeper cutting has a major impact on land form it also serves to screen the route. The green route would also be at a much higher level than the other routes where the routes pass close to new housing on the south edge of Godmanchester. Further detailed work on alignment of the route in cutting may reduce the visual impact on landform by making the cutting a stronger 'S' shape to possibly avoid a ridgeline 'notch' on this prominent major ridgeline.
- 5.14 Attention should be given in detail design to mitigation of adverse visual impact by the use of 'false cuttings' or earth bunding where routes are at a relatively high level in the local landscape. However, such techniques do require additional land take and should be investigated early in the design process to allow accurate costing and consultation.

## 6.0 ECOLOGY

### Summary of Separate Ecological Report

- 6.1 A preliminary vegetation survey was undertaken in January 1991 by RPS Cambridge, of a 500m corridor either side of the on-line and off-line routes. Dominant species and approximate heights of trees and hedgerows are listed in a separate document. The information is marked on separate plans titled 'Vegetation Survey'.
- 6.2 Information regarding sites of nature conservation value was obtained from the Bedfordshire and Cambridgeshire Wildlife Trust and also the Rural Management team of Cambridgeshire County Council. Additional sites of potential nature conservation value were also identified on the survey. Brief descriptions of these sites are given separately. The sites are also marked on separate A0 plans titled 'Sites of Nature Conservation Interest'.
- 6.3 Full details of engineering proposals are not yet available; it has not been possible therefore to assess the full impact of the road proposals. The assessment of impact in this report is limited to the line of the road shown.

On-Line Route, Girton to Hemingford Grey

- 6.4 In considering the on-line route it is not possible to provide a conclusive assessment of the impact until more information upon the extent of the widening is received. It is recommended, however that the widening exercise avoids the following sites:

Arthurs Meadow SSSI

- 6.5 Other sites which require further assessment but should also be avoided as far as possible are:
- a) Site 2, the old mining works
  - b) Site 3, the Badgers Sett at Lolorth Spring
  - c) Site 6, the orchard
  - d) Site 10, the pasture and gravel pit at West End Farm
  - e) Site 11, old mineral workings and woodland at Galley Hill Farm
  - f) Site 15, the unit of grassland at Gore Tree Farm
  - g) Site 16, scrub and ponds

Off-Line Route, Hemingford to Ellington

- 6.6 All five options have to cross the Ouse Valley at some point and will have an impact on the complex of flood meadows and disused pits. As emphasised by the Wildlife Trust many of the sites listed contain little of particular interest. However, they have local importance attributable to the general lack of grassland in Cambridgeshire and Huntingdonshire.
- 6.7 Of the options the most damaging appear to be the yellow and brown routes. These pass close to two SSSI's at Port Holme and Brampton Racecourse and will also disrupt the unit of grassland and lakes at Hinchingsbrooke Park. This area has some nature conservation value, and is also locally important as an amenity resource.
- 6.8 The blue route will have an adverse impact which in nature conservation terms is probably equal to the yellow and brown routes. It will disturb units of flood meadow and disused gravel pits and it will also directly affect a unit of semi-improved grassland.

- 6.9 The red and green routes are probably least damaging; both will adversely affect river meadow and gravel pits but for a shorter length than the other routes. The only other potential impact is on the roadside verge at TL 183697, if possible this could be avoided. The red route crosses a landfill site which will have engineering implications.
- 6.10 The impact upon the river valley meadows of all proposed routes would be reduced if the proposed road is placed on a bridge rather than on embankment. This would help minimise potential ecological severance effects and also hydrological implications.



## 7.0 SUMMARY

- 7.1 In summary the brown and yellow routes are shorter and minimise impact on agricultural land but pass through a landscape of high quality and well used recreational areas near settlements.
- 7.2 The blue route has a major impact on farmland and also a major adverse impact on landform and the village of Brampton.
- 7.3 The red and green routes are longer and have a major impact on farmland but avoid high quality recreational areas near major settlements. These routes have a major impact on landform but the red route crosses the railway where the railway is in cutting, minimising visual impact at this critical point.

## 8.0 PRELIMINARY RECOMMENDATIONS

- 8.1 The blue route should not be retained as an option.
- 8.2 The brown route should be checked to ascertain if the river authorities will permit a low level crossing of the River Great Ouse.
- 8.3 If the brown route is acceptable to the river authorities and British Rail, it is suggested that this line is more acceptable than the yellow route to go forward to public consultation.
- 8.4 The red route should go forward to public consultation with refinements, in preference to the green route. But if there are other engineering problems with the red route, then both the red route and green route should go forward to consultations.
- 8.5 The on-line route should be refined to reduce or avoid conflict with residential/commercial properties and areas of ecological interest adjacent to the route.
- 8.6 The crossing of the River Great Ouse must be designed carefully to be visually attractive and sympathetic and to avoid disturbance to drainage patterns in areas of ecological interest.

## ARCHAEOLOGY: APPENDIX A

### PROPOSED ROAD IMPROVEMENT SCHEMES PROVISIONAL ARCHAEOLOGICAL ASSESSMENT

#### 1.0 Introduction

1.1 This short report has been drawn up in response to some 9 out of 28 road improvement schemes identified in the County Structure Plan. It is therefore part of an on-going archaeological response to the implications of new road schemes in Cambridgeshire.

#### 2.0 Archaeological Background

2.1 Cambridgeshire has a total of some 11630 entries recorded on the Sites and Monuments Record, varying from individual artifacts to extensive monuments and archaeological landscapes. Of these some 252 are currently recorded as being worthy of statutory protection and are designated by the Secretary of State for the Environment as Scheduled Ancient Monuments.

2.2 English Heritage, the national body responsible for the protection of these monuments, are currently undertaking a programme to increase the number of sites afforded statutory protection. Known as the Monuments Protection Programme, this project is likely to increase the number of scheduled sites in Cambridgeshire some three or fourfold within the next 10 years.

2.3 The majority of archaeological sites and monuments survive as below ground remains. Most have been located by aerial photography or field survey, both of which are conditioned by complex factors such as soil condition and survey method. The lack of recorded evidence for an area cannot be taken to indicate that archaeological sites are not present. New archaeological remains are continually being discovered in the County indicating that the SMR only holds a sample of the much larger total of ancient sites and monuments considered to exist. Many sites in Cambridgeshire have been masked by peat until recent years making identification of archaeological sites particularly difficult in some areas.

2.4 Road construction works are considered to be highly destructive to archaeological remains as they involve the removal of both topsoil and subsoil along the proposed routes as well as affecting wider areas by cuttings, embankments, service works and construction camps.

### 3.0 The County Archaeological Policy

3.1 The importance of archaeology is recognised by the Cambridgeshire County Council. It is the Council's policy to safeguard nationally important ancient monuments and other significant archaeological sites in the County by exercising their powers of development control.

3.2 Specific policies relate to the design of roads schemes:

"Account will be taken of these areas in the preparation of local plans and other policy documents, in development control and in the design of road schemes." (Structure Plan Policy 14.54)

3.3 Other important statements include the necessity to excavate and record sites; "where there is no overriding case for the preservation of an archaeological site," ensuring information loss is kept to a minimum.

### 4.0 The Provisional Archaeological Statement

4.1 This early consultation phase has enabled the County Archaeological Section to flag-up areas of archaeological interest and identify sites of national importance and those of regional or local significance.

4.2 Archaeological sites provisionally considered to be worthy of preservation or requiring excavation are highlighted and in some cases a preferred route recommended to avoid these sites.

4.3 Consultation with other officers in Rural Management will endeavour to identify common interests and resolve areas of potential conflict in the selection of preferred bypass routes.

- 4.4 A programme of archaeological fieldwork will be necessary once a route has been selected to assess the quality and extent of known sites and locate previously unrecorded remains and monuments.
- 4.5 This field evaluation will enable a full archaeological assessment to be drawn up specifying further excavation or survey work necessary to fulfil the County's archaeological policies.
- 4.6 Excavation and recording works need to be undertaken prior to development works.
- 4.7 Funds should be made available to cover the cost of the fieldwork evaluation and any excavation work on significant sites threatened by the proposed road schemes.
- 5.0 Bypass Schemes Comments
- 5.1 Each proposed road scheme should be accompanied by a map identifying the entries on the SMR with a cross and four figure reference. Existing Scheduled Monuments are marked in red and hatched. Other potentially significant sites are highlighted and extensive crop-mark complexes demarked by a broken line.
- 5.2 An accompanying list is provided identifying the site type and providing an NGR location for the highlighted sites. A short text section provides additional provisional judgements on some of the highlighted sites outlining the need for fuller field evaluations where necessary. Sites not likely to be affected such as village centre sites and churches are not highlighted.
- 5.3 Additional comments on blank areas may be made outlining the need for survey work, eg. in areas masked by peat. In other areas where sites are preserved under pasture rather than arable cultivation, the presumption is that archaeological remains are of a potentially higher quality and amenity value.