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**APPENDIX 5 - EXHIBITION PANELS & CD**

# Welcome to the Public Exhibition

The London to the South West and South Wales Multi Modal Study (SWARMMS), which was published in May 2002, recommended the improvement of the A303 to provide a second strategic route to the South West. This essentially proposed to upgrade all remaining lengths of single carriageway to dual carriageway.

The study looked at the issues of this route to the west of Ilminster, that is, dualling of the A303/A30 from Ilminster to Honiton. Because the route passes through the Blackdown Hills Area of Outstanding Natural Beauty, SWARMMS considered the alternative improvement to the A358 between Ilminster and the M5 at Taunton. SWARMMS recommended that on balance the A358 alternative should be the preferred route.

The South West Regional Assembly carried out a review of the SWARMMS findings. Following a debate in July 2002 the Assembly included in its recommendations to the Secretary of State for Transport that both the A303/A30 Ilminster to Honiton and the A358 Ilminster to M5 should be dualled. In a response to this and SWARMMS the Secretary of State for Transport asked in December 2002 that the Highways Agency carry out further technical work on the alternative options of widening the A303/A30 Ilminster to Honiton and the A358 Ilminster to M5 Taunton.

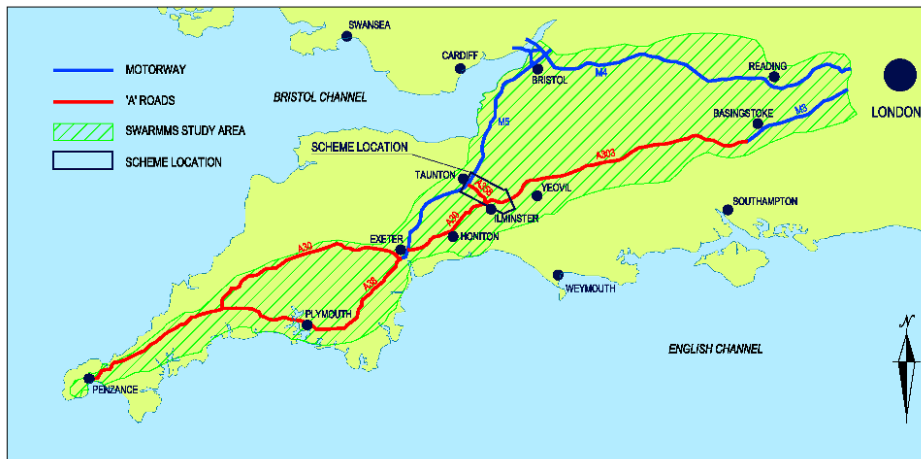
Following the completion of that technical work, an announcement of plans to upgrade the A358 from near Ilminster to M5 Taunton was made by the Transport Secretary on 29 November 2004.

Parsons Brinckerhoff was commissioned by the Highways Agency to investigate options for the dualling of the A358 and develop the 1996 proposals to widen the existing A303 Ilminster Bypass to dual carriageway standard.

The resultant scheme would provide a dual carriageway standard route from the existing dual carriageway east of South Petherton through to the M5 at Junction 25 near Taunton.

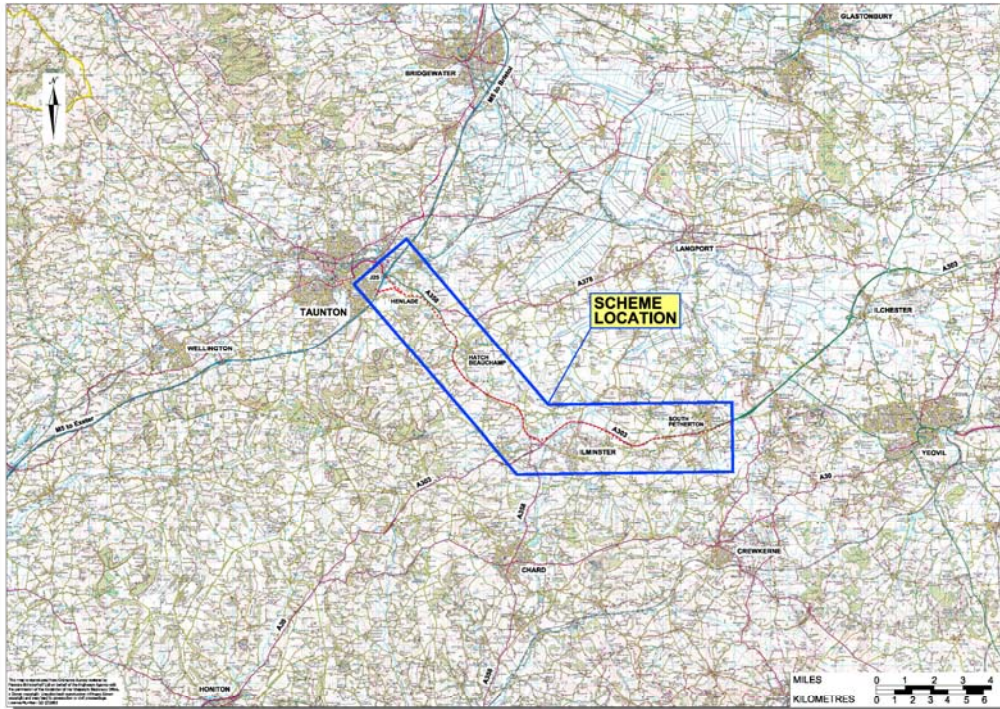
## The Purpose of the Public Exhibition

This exhibition presents an indication of the work undertaken so far. It is being held so that local people and other interested parties can view and comment on the route being proposed.



Panel 1 – Welcome to the Public Exhibition

## Location of the Scheme



Panel 2 – Location of the Scheme

## The Need for the Scheme

### Scheme Objectives:

- To provide part of the second strategic route between London and the South West.
- To provide an alternative trunk road route to the A303/A30 through the Blackdown Hills Area of Outstanding Natural Beauty for traffic travelling between Ilminster and Exeter.
- To improve safety for all road users, including pedestrians, equestrians and cyclists, and reduce the number of accidents occurring on the route.
- To reduce congestion and improve journey time reliability.
- To separate local and long distance traffic and remove slow moving vehicles by eliminating direct access on to the trunk road network where possible.
- To improve the environment within the village of Henlade by significantly reducing traffic-related problems of congestion, noise, air quality and community severance.
- To provide a highway improvement which embraces the environmental characteristics of the area and minimises the impact on the local flood plains.

### Panel 3 – The Need for the Scheme

Impacts, Benefits and Road Traffic Accidents

Predicted Traffic Flows With Scheme Constructed

Reference On Map Below	Road Location	AADT Existing Situation	AADT Forecast Average (2017)	AADT Forecast Average (2032)
A	M5 North of Junction 25	56,750	70,277	83,582
B	M5 South of Junction 25	55,600	66,921	81,045
C	Existing A358 Between junction 25 and Thomfacon (A378)	30,600	6,955	6,176
D	New A358 Between Junction 25 and Thomfacon	-	36,593	44,697
E	A358 Between Thomfacon (A378) and Southfields (A303)	21,800	31,202	37,867
F	A303 West of Southfields	13,000	14,588	15,680
G	A303 East of Southfields	25,200	33,319	39,538

AADT = Annual Average Daily Traffic Flow (no. of vehicles per day)



Existing Congestion



Existing Congestion Through Hardside

Programme

Construction of the 25km scheme is currently programmed to start in 2014. This will be dependent on decisions taken on the A303 Stonehenge project and further rounds of the regional prioritisation process (next review date July 2008).

Economic Performance

The economic performance of the scheme has been assessed using TUBA (Transport User Benefit Appraisal). The assessment assumes a 60 year appraisal period and standard economic parameters for values of time and vehicle operating costs. The result reported by the assessment is primarily the Benefits to Cost Ratio (BCR). Projects with a BCR greater than 1 have greater benefits than costs. The higher the ratio, the greater the benefits relative to the costs. Schemes with a BCR greater than 2 are considered to be good value for money.

The table below summarises the operational benefits of the scheme in terms of travel time saved and also incorporates the accident benefits to evaluate overall performance of the scheme.

	Low Traffic Growth	High Traffic Growth
Economic Benefits	£521,703	£1,036,052
Safety Benefits	£78,323	£74,550
Total Benefit	£600,026	£1,110,602
Scheme Costs (2007 Prices)	£186,177	£186,177
Maintenance Costs	£3,177	£3,177
Indirect Tax Costs	-£11,617	-£3,555
Total Costs	£177,737	£183,799
Benefit to Cost Ratio	3.376	6.042

Note: All Costs in £000s

Cost Estimate

For the purpose of this cost estimate it has been assumed that the start date for construction is April 2014 and the duration of the construction of the scheme is 3 years and 6 months.

Item	Cost (£M)
Base Estimate (works cost)	£155.69
Future non-recoverable V.A.T.	£11.41
Risk Allowance	£52.64
Total works costs estimate	£219.74
Inflation allowance	£107.57
Land and compensation costs	£24.94
Estimated total scheme cost	£352.25

Panels 4 & 5 – Impacts, Benefits and Road Traffic Accidents

**A303/A358  
South Petherton to M5 Taunton**

**Environmental Effects**

**Ecology**

No nationally or internationally designated sites would be affected by the proposed road improvements.

A total of sixteen County Wildlife Sites occur along the route corridor between South Petherton and Taunton. The route has been designed to avoid effects on these sites wherever possible.

The proposed route crosses an agricultural landscape, enclosed by predominantly species-rich hedgerows. Large swathes of the study area are however species-poor, being improved permanent pasture or arable farmland.



*Dormouse*



*Bluebells*

The network of hedgerows is an important biodiversity feature of the study area with many field hedgerows of moderate or high species richness, many with a ground flora including bluebells, ramsons and other associated ancient woodland indicator species.

Many of the woodlands present are ancient in origin and have associated ancient woodland indicator species.

Two watercourses notable for their biodiversity are the River Rag, which forms part of the upper reaches of the Fivehead River, and the River Isle. Both are crossed by the existing A303/A358 and the proposed route. The disused Taunton to Chard railway line forms a good wildlife corridor in an otherwise arable landscape.



*Otter*



*Pipistrelle Bat*

Preliminary surveys and consultations indicate that a number of protected or otherwise notable species have been recorded or are likely to be found within the proposed route corridor including badgers, reptiles, otters, dormice and bats. Further surveys would be undertaken at the next stage to confirm the presence of sensitive habitats and species.

Environmental mitigation measures would be designed to reduce or eliminate any potential adverse impacts on these habitats and species.



*Common Lizard*



*Badger*

**Archaeology**

The scheme design has been influenced by the need to avoid known archaeological impacts wherever possible.

The study corridor is rich in archaeological interest from prehistoric times to the industrial age although there are no archaeological sites that are protected as Scheduled Monuments in the area.



*A typical example of a historic / "important" hedgerow*

The landscape crossed by the route corridor comprises a mix of anciently enclosed land (pre 17th century), recently enclosed land (post 17th century) and post 1839/40 enclosures.

Some boundaries may be considered 'Important' under the Hedgerow Regulations (1997), Schedule 1.

There are numerous historic buildings within 1km of the proposed route, including five grade I listed buildings, eighteen grade II\* listed buildings and two hundred and sixteen grade II listed buildings.

The buildings comprise a diverse range of generally well-maintained examples of later medieval to modern rural architecture.



*Henlade House*



*Capland Farmhouse*

There are three Historic Designed Landscape Sites within 1km of the proposed route: Hatch Court Park, Jordans House, and Dillington Park.

The historic villages of South Petherton, Whiteclackington, Seavington St Mary and Hatch Beauchamp retain elements of their original medieval layout and setting.

The earthwork remains of three deserted (or shrunken) medieval villages are also present. Sites of local importance from prehistoric to modern ages are frequent.

None of the above historic buildings or features would be physically affected by the new road.

A mitigation strategy would be developed following further field survey that seeks to minimise archaeological impacts through pre-construction investigations.

In addition, a watching brief would be maintained during construction to record any areas of undiscovered archaeological deposits.



*Typical examples of field excavations that might be needed before construction of the road.*

**Panel 6 – Environmental Effects**

## Environmental Effects (continued)

### Air Quality

The proposed highway improvement would lead to a slight increase in regional air pollutant emissions of particulate matter and nitrogen dioxide. Overall greenhouse gas emissions would remain within the Air Quality Strategy Standards.

### Landscape Effects

The A303/A358 route passes through a mainly rural landscape with settlements of varying scale scattered along its length. Ribbon development, intensive farming and the M5 influence a large proportion of the landscape surrounding the A358. The main effect of the new dual carriageway on the landscape would be an increase in dominance of the road and traffic. The proposed scheme would improve the townscape of Henlade by provision of a bypass although Watergore would be affected by the construction of a new junction.

### Traffic Noise and Vibration

Road improvements would lead to an overall decrease in noise levels although this would be the result of a wide range of changes in noise levels involving both increases and decreases at individual properties, and the use of quieter road surfacing.

### Water Quality and Drainage

The existing highway drainage system would be maintained and improvements would be incorporated into the highway design. The works would be engineered in an environmentally sensitive manner to ensure maximum conservation interest. The improvements would provide pollution mitigation measures and flood attenuation measures. These would allow for the capacity to manage the rising flood levels that are predicted as a result of climate change.



Drainage Attenuation Lagoon

### Land Use

The highway improvement scheme is likely to affect more than approximately 44ha of high-grade agricultural land and there would also be an effect on other land holdings including the sports fields at Blackbrook Leisure Centre. The scheme does not require the demolition of any residential property.

## Environmental Mitigation Proposals

The route selection process has minimised the adverse impacts of the proposed road by avoiding sensitive environmental constraints as far as possible. Any remaining impacts would be reduced or eliminated with environmental mitigation measures. Details of the measures would be finalised later in the design process in consultation with the appropriate bodies.



Mitigation Measures :-  
Badger proof fencing  
being installed

The aim of environmental mitigation is to reduce adverse impacts of the scheme.

Examples include:

- Reinforcing local landscape character by using landscape features that are typical of the area such as woodlands and hedgerows.
  - Provision of animal-proof fencing and suitable over- or underpasses to safeguard wildlife.
  - Planting trees and shrubs to screen traffic and structures from local properties, including off site planting where appropriate
  - Creation of earthwork mounds, banks and false cuttings to reduce traffic noise.
  - Protecting the historic environment by avoiding sites of cultural interest and recording those sites that are likely to be affected.
  - Creating replacement habitat, for example woodland, hedgerows and grasslands.
  - Reinstating hedgerows using a wide mix of native shrubs.
  - Modification of properties eligible under the Noise Insulation Regulations.
  - Replacing equivalent flood plain storage in the immediate vicinity.
- Minimising the loss of agricultural land resources by flattening slopes and returning to agricultural use where possible.



Mitigation Measures Hedgebank :- under construction

## Panel 7 – Environmental Effects (Continued)

## A303/A358 South Petherton to M5 Taunton

### Disruption Due to Construction

Construction works would comply with a Construction Environmental Management Plan (CEMP) prepared by the appointed contractor. The CEMP would need to cover the following points:

#### **Air Quality**

During construction the main effect on air quality is likely to arise from the generation of dust during dry weather. Wetting the working area and wetting the tyres of construction traffic leaving the site would dampen dust and prevent it from becoming airborne.

#### **Cultural Heritage**

A construction traffic plan would ensure that no historic structures are put at risk from damage by vibration or collision. The movement of heavy plant during construction could have an adverse effect on buried archaeological deposits due to soil and subsoil movement. Construction activities would temporarily disrupt the settings of Listed Buildings and other historic features although these effects would be considered to be minor.

#### **Ecology and Nature Conservation**

Contractors need to comply with legislation and official guidance that protects animals and their habitats. To prevent damage, sensitive habitats near the highway boundary would be fenced before construction work begins. Construction works would be programmed to ensure that seasonal restrictions on species are observed. When species such as reptiles need to be re-located appropriate fencing would be installed along identified corridors to minimise re-colonisation of the construction site.



*New reptile fence on M4 Motorway*

#### **Traffic Noise and Vibration**

A baseline monitoring noise survey would be carried out before construction to establish acceptable noise levels. Conditions on working methods and construction times would be incorporated into the CEMP, and would be subject to the agreement of the local Environmental Health Officer.

#### **Landscape, Townscape and Visual Amenity**

Effects during the construction phase are generally more adverse than the operational phase due to vegetation removal, exposed earthworks and an enlarged site area, including contractor's compounds, haul routes and materials storage. As much existing established vegetation would be retained as possible to optimise screening.

Adverse construction effects on the adjacent townscapes would be minimised in the planning of the works. Any operational lighting to extend winter working hours would need to be carefully positioned and shrouded to avoid intrusion on residential properties.

#### **Water Quality Effects**

During the construction phase, storm water run-off would be treated using a number of methods that may include settlement lagoons, irrigation techniques, geotextile fences and straw filters.

The Environment Agency would set consent standards for discharges from the construction site that the contractor would be required to meet.



*Water discharging through a straw filter to maintain water quality*



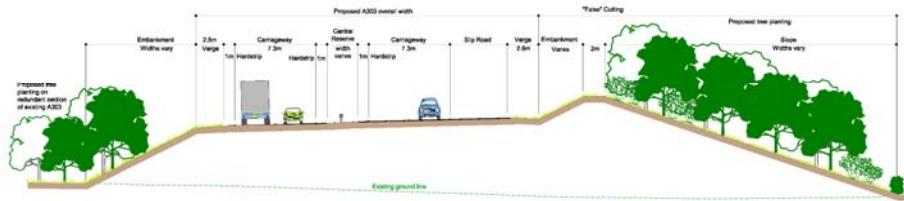
*Drainage lagoon preventing polluted run-off entering a water course*

The Environment Agency would set conditions requiring the storage of all potentially contaminating materials and contaminating activities on site, particularly fuels.

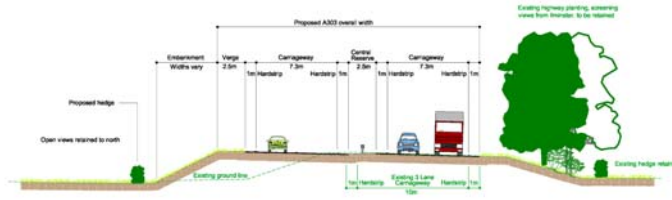
The contractor would be required to produce detailed method statements for construction activities to comply with the Environment Agency requirements that would be incorporated into the CEMP. Compliance with the method statements would be verified by auditing to ensure that impacts to the ground and groundwater would be avoided.

## Panel 8 – Disruption due to Construction

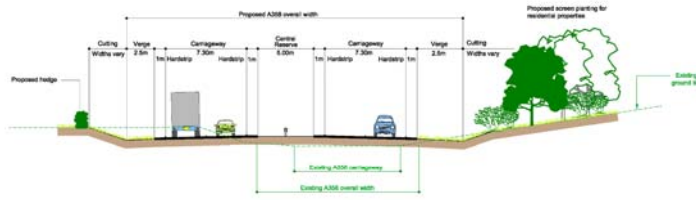
**Typical Cross-Sections of the Proposals**



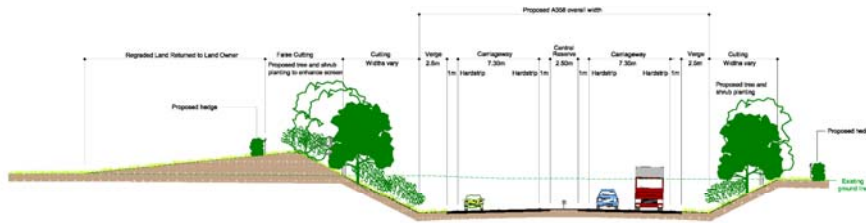
**A303**  
 View east at approximate chainage 24,400, near Yeasbridge, where the existing A303 dual carriageway is to be realigned further to the south.



**A303**  
 View east at approximate chainage 14,800, where the existing A303 is to be widened on the northern side to create dual carriageway



**A358**  
 View east at approximate chainage 10,700, where the existing A358 is to be widened to dual carriageway



**A358**  
 View east at approximate chainage 2,200, showing typical road layout and false cutting

The proposed cross sections are indicative and may change as detailed design progresses.

**Panel 9 – Typical Cross-Sections of the Proposals**