

HS2 in the Chilterns

**Route Revisions
January 2012**

- At Grade
- Cutting
- Embankment
- Green Tunnel
- Retained Cutting
- Tunnel
- Viaduct
- Chilterns AONB

General Facts

[Crossing beneath Shardeloes Lake](#)

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M25

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HS2 within the Chilterns Route Revisions – January 2012

General Facts

Total length of route within AONB = 20.83km

Twin bore tunnel = 9.43km
(13.22km total length to just beyond M25)

Cuttings = 6.22km

‘Green tunnels’ = 2.38km (1.1km + 1.28km)

Embankments = 1.78km

Viaducts = 1km (2 x 500m)

i.e. 9km, nearly half, of the route within the AONB is neither in bored or ‘Green tunnel’

Height of Viaducts (maximum)

Wendover Dean = 16.4m

Wendover (A413) = 12m (previously 8.5m)

N.B. the maximum heights of the embankments either side of the Wendover viaduct are 9.8m and 11.5m.

Visibility

HS2 Ltd have stated that just over 1.5 miles within the AONB will be visible.

In fact:

- 1.84 miles of embankments and viaducts will be visible
- Plus 1.95 miles of shallow cutting – less than 8m deep (the height of the gantries).
- i.e. **at least 3.79 miles will be clearly visible.**
- Plus 13 roads and 13 rights of way cross cuttings.
- Plus the route (both within and outside Chilterns) will be visible from numerous other locations in AONB.

In the December 2010 revision cuttings were deepened to reduce visual and noise impact. The cutting running north of the ‘Green Tunnel’ at South Heath, is now some 7-8m shallower – in places only 2m deep! Gantries and, in places, trains will be visible in this section along the top of the valley side raising prospects of considerable and far reaching visual and noise impact.

Continues Over.

Ancient Woodland

HS2 Ltd are still saying that areas of Ancient Woodland felled will be replanted. Ancient woodlands are over 400 years old. The government themselves state that it is impossible to replace Ancient Woodland (DEFRA: 'Biodiversity Offsetting – Technical Paper' July2011).

Of the 4 ancient woodlands still directly impacted, we expect 2 will suffer greater impact and fragmentation as a result of the revised route. Also, as one of the biggest threats to ancient woodlands results from changes in hydrology, we do not know what impact the sections in tunnels and cuttings will have on the woodlands.

Avoiding the Aquifer

HS2 Ltd say that the revised route avoids the aquifer. This is impossible. The entire bored tunnel is within the aquifer from where our drinking water is taken. It would be true to say that moving the tunnel, up to 1.25km to the SW at one point, should avoid much of the water infrastructure (water mains, sewage pipes etc.).

Depth of route (approximate - metres above sea level)

The route enters tunnel before the M25 at	58m.
It crosses beneath the River Misbourne at Chalfont St Giles at	52m.
It crosses beneath the River Misbourne at Shardeloes Lake at	78m.
The route climbs steeply to South Heath at	188m.
It leaves the AONB just beyond Nash Lee Lane at	108m.

The steep incline to South Heath forms a gradient of 2.2% (1:45).

We understand that the Lickey Incline - currently the steepest British rail gradient - is 2.65% (1:37).

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A413 By-pass north of Wendover



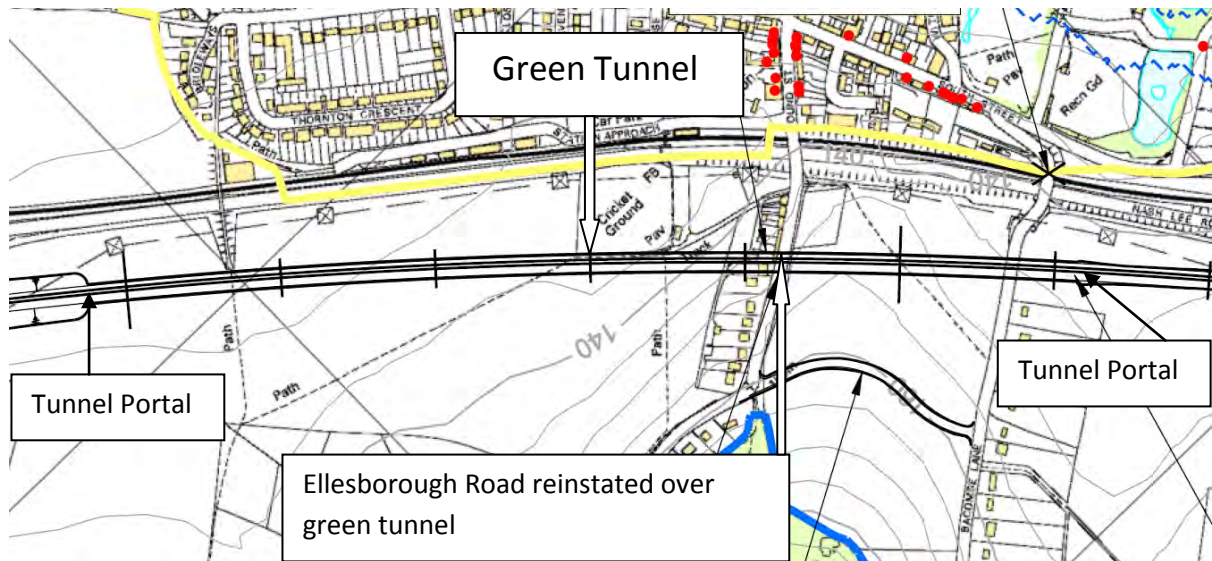
- Route running up to AONB boundary now in shallow cutting rather than embankment.
- Much of cutting is less than 8m.
- Gantries and trains will be clearly visible, especially from higher ground such as Coombe Hill.

Visibility

- HS2 have said that just over 1.5 miles will be visible.
- 1.84 miles of embankments and viaducts will be visible
- Plus 1.95 miles of shallow cutting.
- Plus 13 roads and 13 rights of way cross cuttings.
- Plus route (both within and outside Chilterns) will be visible from numerous other locations in AONB.

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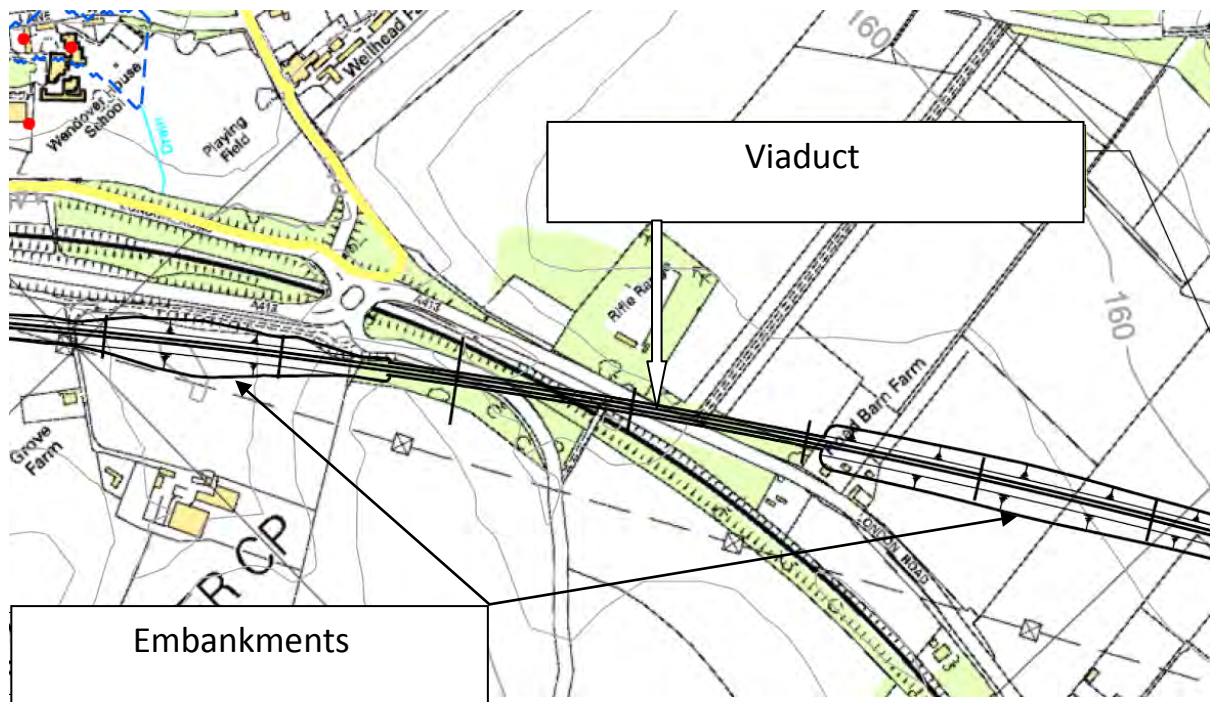
Wendover – Ellesborough Road Green Tunnel



- Longer 'green tunnel' – 1.28km.
- Much of 'green tunnel' will be above existing ground levels.
- The route has moved further to south-west, into Bacombe Hill.
- Ellesborough Road re-instated over green tunnel.
- Permanent road link back from the truncated Bacombe Lane.

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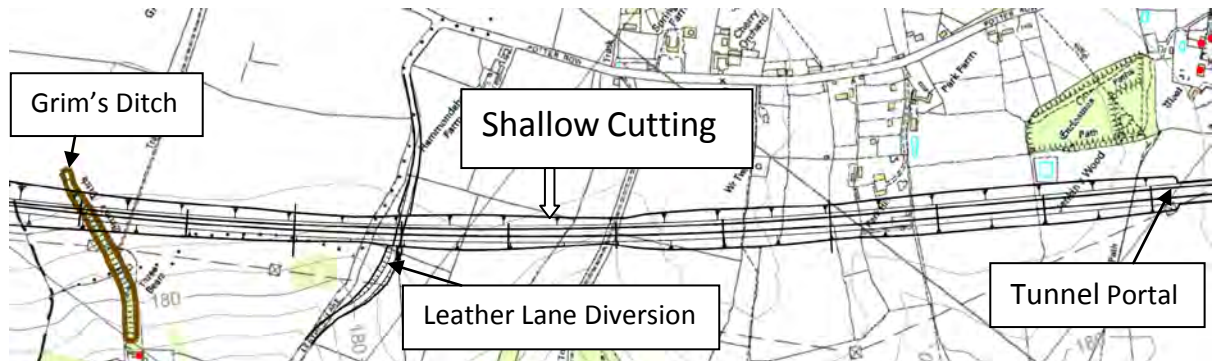
Viaduct over A413 South of Wendover



- Viaduct over A413 now higher – 12m.
- Road from Dunsmore now passes underneath viaduct.
- High embankments either side – 9.8m and 11.5m.

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Hunt's Green to South Heath – Shallow Cutting



- Cutting parallel to Potter Row now some 7-8m shallower – in places only 2m deep.
- Between Grim's ditch and tunnel portal, the cutting is mostly less than 8m deep (the gantry height).
- Ganties and, in places, trains will be visible on the skyline.
- Increased noise and visual intrusion.
- Section of the Grim's Ditch Scheduled Ancient Monument will still be destroyed.
- Permanent diversion and greatly increased degradation of historic Leather Lane.

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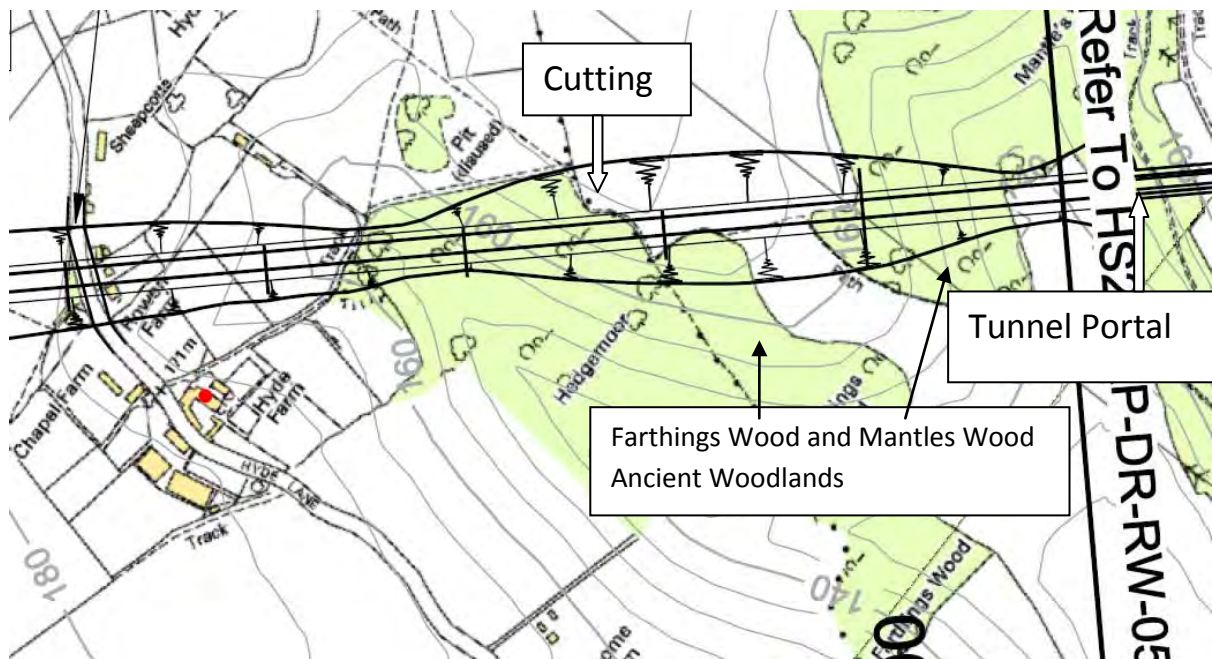
South Heath – Green Tunnel



- Longer Green Tunnel, 1.1km = 'Cutting with a lid'
- Closer to South Heath.
- More of Sibley's Coppice (Ancient Woodland) destroyed and fragmented.
- Impossible to 'replant Ancient Woodland'.
- A listed building is on the edge of the 'cutting'.
- Annie Bailey's and 'Weights and Measures' still demolished.
- Will there be a construction camp in this area?

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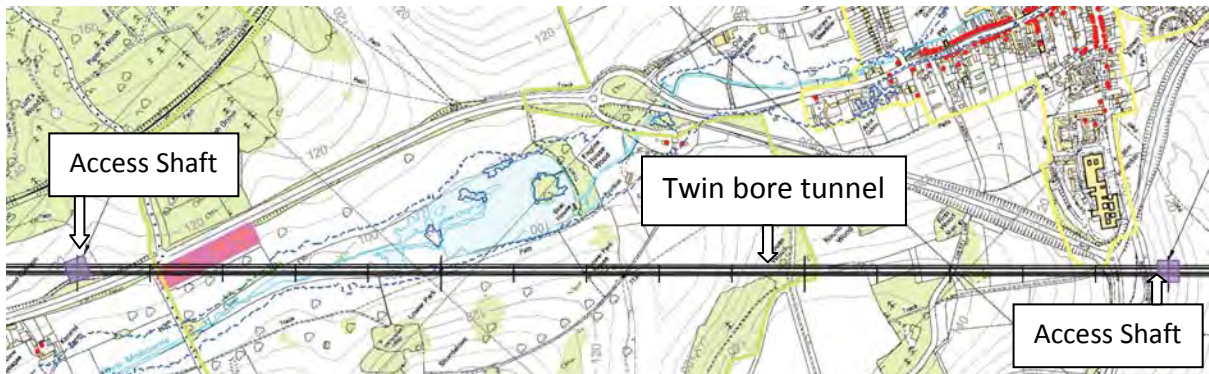
Hyde Lane and Mantles Wood



- Cutting deeper and wider.
- More Ancient Woodland destroyed and fragmented.
- Ancient Woodland cannot be 'replanted'.
- Hyde Farm listed building avoided but cottages to north removed.

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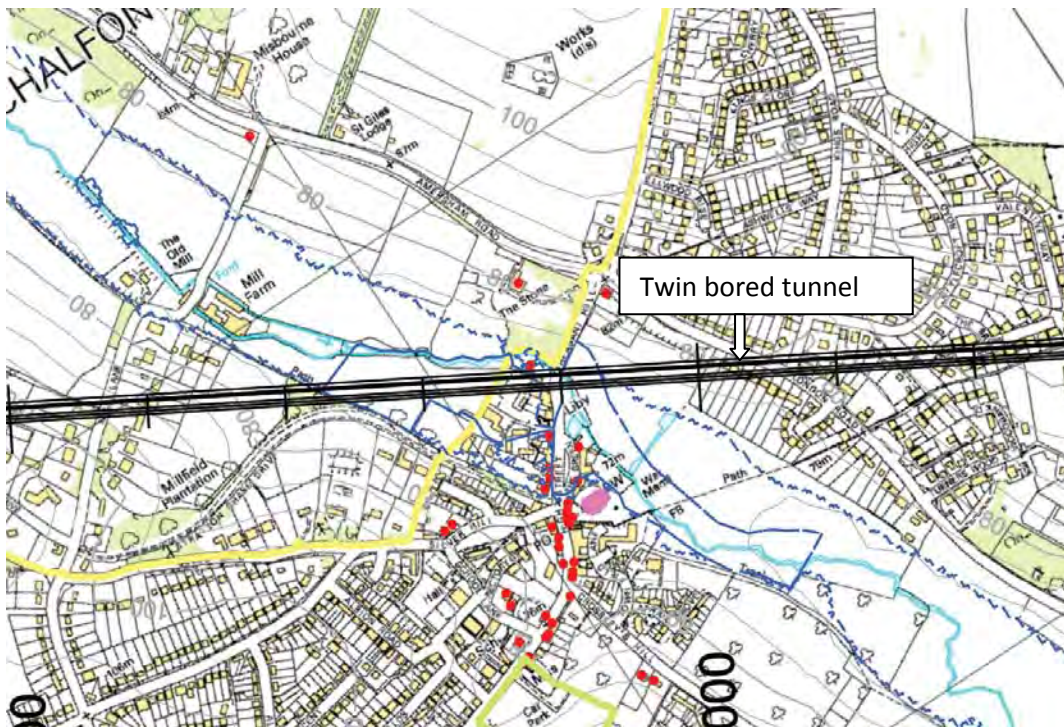
Shardeloes Lake



- Line has moved up to 1.25 km to SW to 'avoid aquifer'.
Water infrastructure (water mains, sewage pipes etc.) may be avoided but the aquifer cannot.
- Access shaft location above Amersham extremely visible.
- Line level 21m below Shardeloes Lake.
- Tunnel roof just over 10m below lake level.
- Tunnel within saturated zone – water flows below ground level within this zone.

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Chalfont St Giles – Twin bore tunnel crosses beneath River Misbourne



- Line level at 18.7m below ground level.
- Roof of tunnel less than 10m below River Misbourne.
- Tunnel within saturated zone.