M40 Junction J3 to J8 Road Noise

M40 CEG AGM

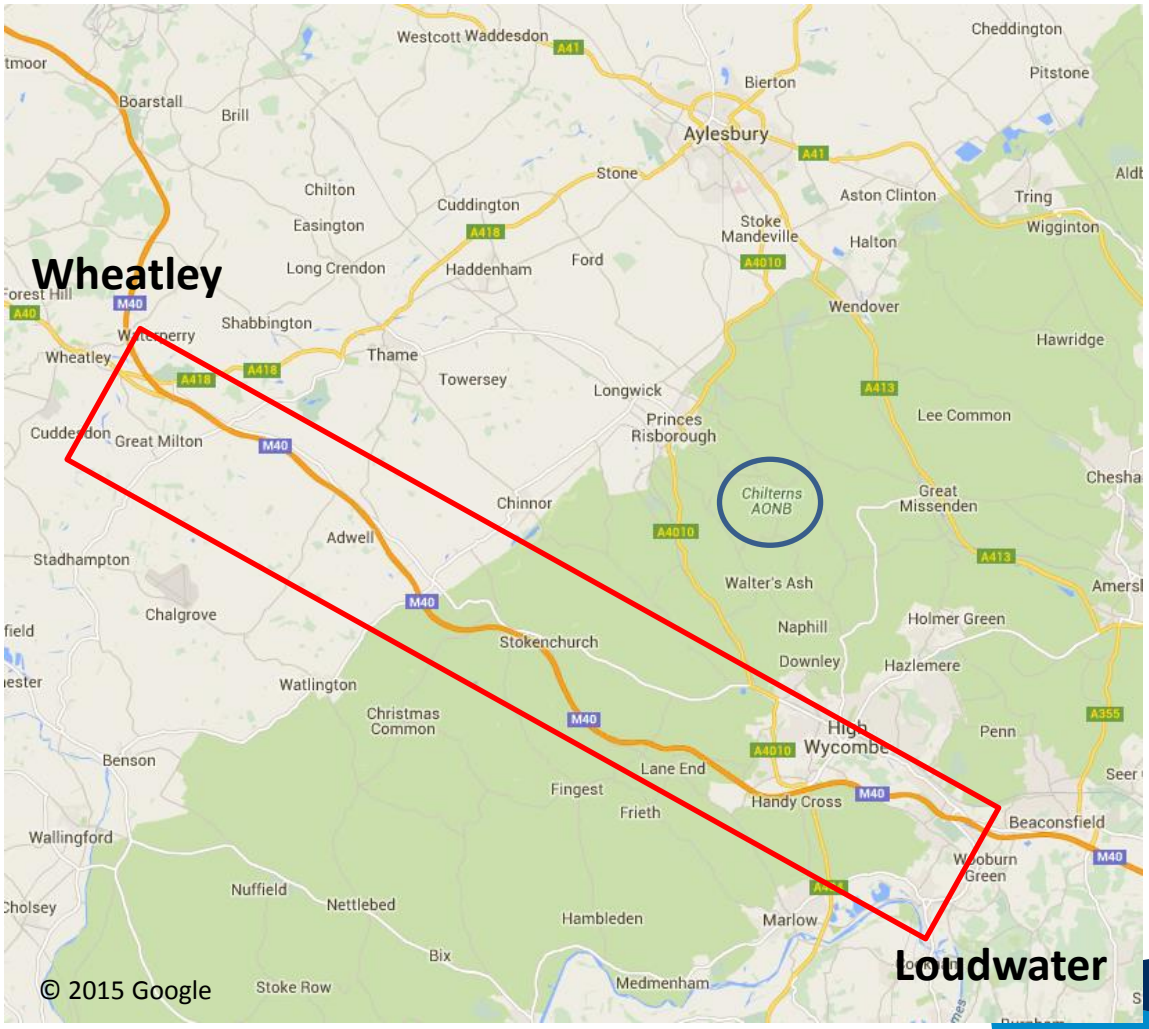
15 February 2017

We are

- Improving the environment as a key outcome of our Strategic Business Plan (SBP) and the Roads Investment Strategy (RIS)
- Key Performance Indicator to mitigate 1,150 noise important areas by 2020
- We have identified 45 sites for noise mitigation across England to receive noise mitigation measures in 2017/18
- This work will include a mixture of:
  - Low Noise Surfacing
  - Noise Barriers
- We are spending around £20M on noise barriers, of which the M40 could account for about 25% (£5M), subject to funding

Location

- M40 J3 to J8
- DBFO route operated by UK Highways
- Chiltern Area of Outstanding Natural Beauty (AONB)
- Defra noise mapping identified 21 ‘Important Areas’



Scheme History

- Highways England have been liaising with the M40 Core Group since 2005 over road noise and the M40
- 2013 - Report into the business feasibility of providing Photovoltaic Enabled Noise Barriers
- 2014 - Report into the technical feasibility of combining PV panels with noise barriers
- December 2014 – Highways England asked suppliers to develop more cost affordable noise barriers through use of renewable energy technologies

M40 PVNB Trial Scheme 2015/16

- Commenced in November 2015
- Considered locations between J3 and J8
- Focused on using solar energy to offset costs
- Discontinued in July 2016 as unsuitable to M40 due to low energy needs on that stretch, and that the learning will be applied to possible future projects
- Scheme amended in September 2016 to focus on traditional noise barriers at most cost effective sites and low noise surfacing.

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We have

- Resurfaced a 4.3 mile (7km) stretch of the M40 in Oxfordshire, between junction 6 (Adwell) and junction 8 (A40 Oxford spur)
- Completed in December 2016 and noise reduced at source by a minimum of 3dB(A)
- Benefitting over 190 properties

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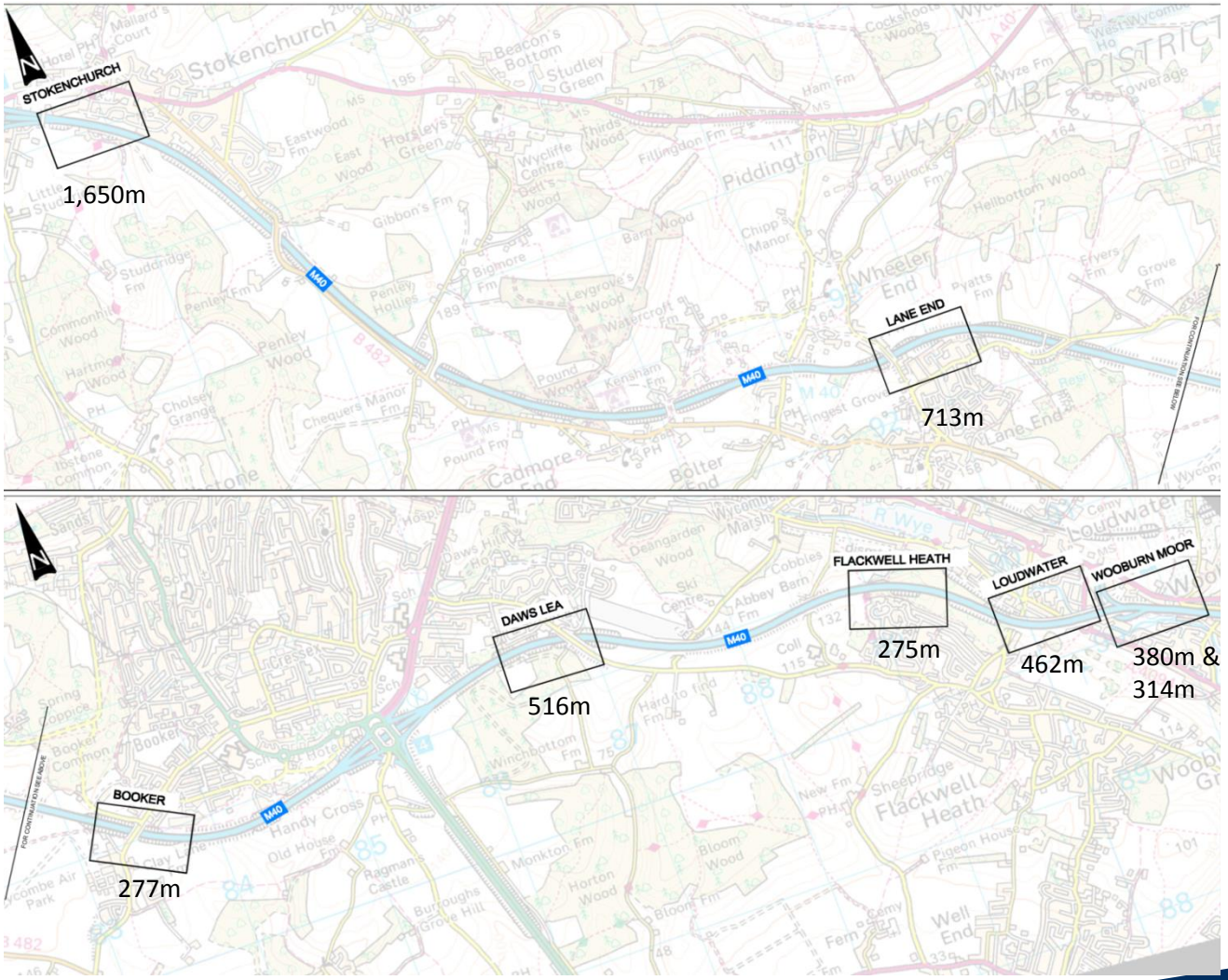
We are looking at



- 4m target height
- Recycled plastic or timber
- Absorptive/ reflective by location
- Solid infill parapet - Loudwater
- Over 2,000 receptors
- 4.6 kms of barrier
- Avg. benefit 1 to 3.1 dB(A)
- Max. change = 11.8dB(A)
- Over £5M est.

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Changes since September ‘16

- Shortlisted 8 sites between Junction 3 (Wooburn Moor) and Junction 5 (Stokenchurch) for further consideration (up to 2,168 properties)
- Refined noise model to more accurately estimate the change in noise and therefore the lengths and heights of barriers
- Modelled survey information to help choose the line of the noise barrier
- Considered the visual impact and other environmental aspects of the work
- Assessed a number of structures such as Loudwater Viaduct for suitability to install a noise barrier

What might it look like?

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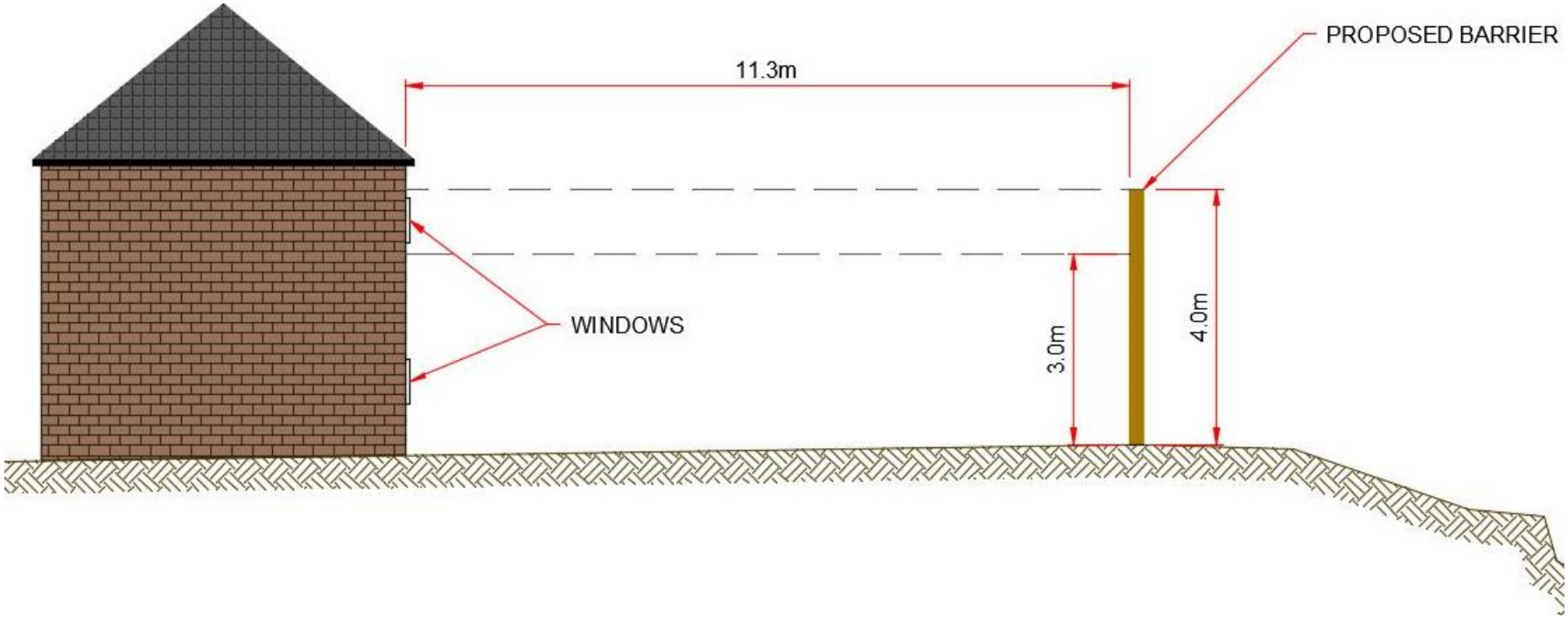
Barrier height



When will something happen?

- Ground Investigation – March 2017*
- Structural survey – April 2017*
- Tender main works – June 2017
- Public Information Event – June 2017
- Start on site - Summer/Autumn 2017
- Completion – Spring 2018

*The findings of the surveys and availability of funding may affect where we can deliver noise barriers and the type of barrier

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Risks to programme

- Affordability of scheme
- Suitability of existing structures to take additional loading
- Geotechnical survey laboratory testing
- Seasonal constraints in terms of protected species, i.e. bird nesting
- Extent of tree clearance
- Availability of road space

What next?

- Continue to progress the detailed design and construction of noise barriers, subject to funding
- Those who will not benefit from the current works and that are within a DEFRA Noise Action Planning Important Area (NAPIA) will continue to be reviewed as part of Highways England's national noise programme
- We will continue to work with UK Highways to encourage the use of quieter surfacing, where possible

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