

# M20 J3-5 Smart Motorway

Construction Show & Tell Event

Ryarsh

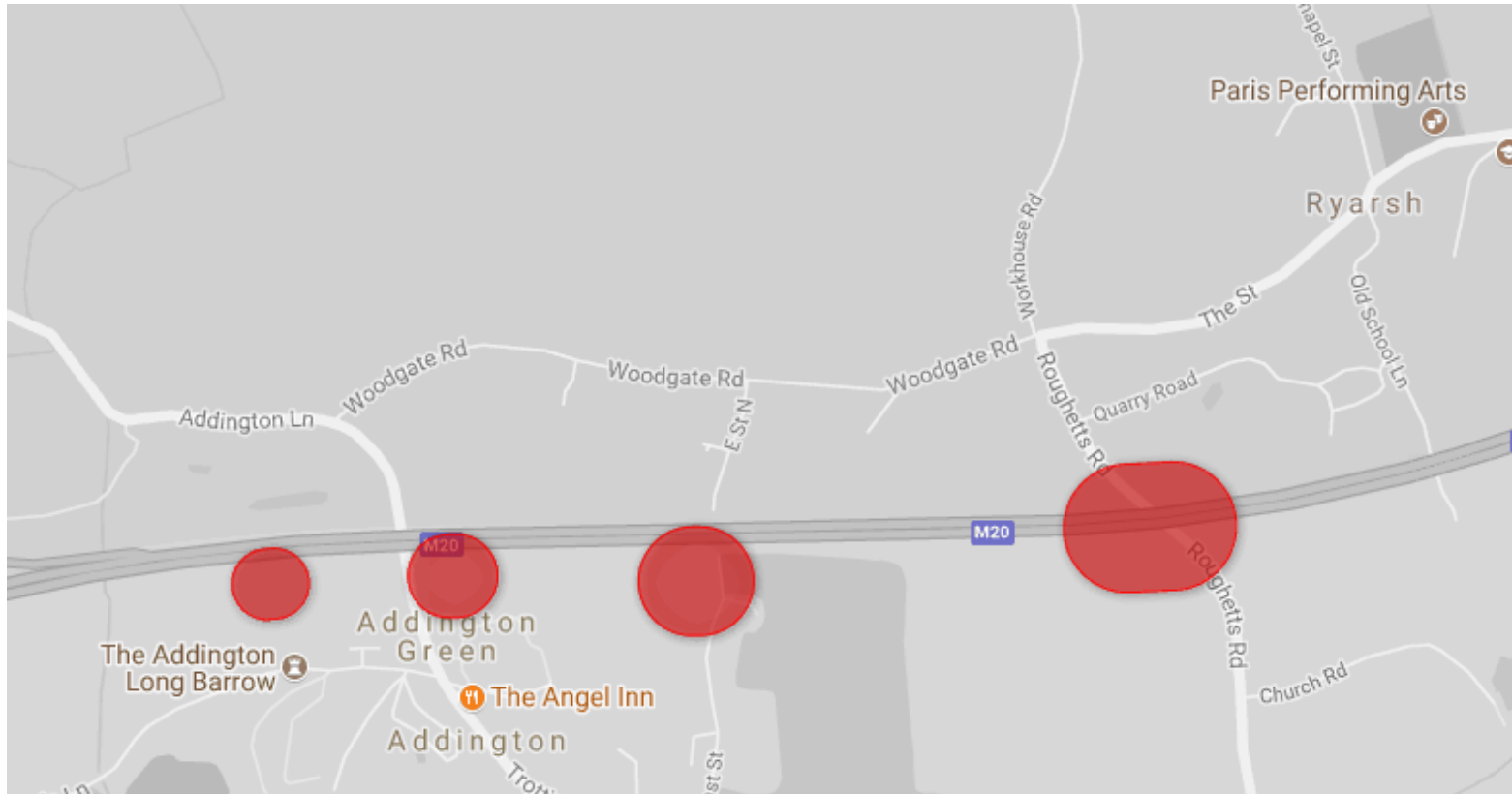
26 July 2018

# **KALUBA KAMPANDILA: HIGHWAYS ENGLAND PROJECT MANAGER**

# Headline updates for M20 J3-J4

- **Lower noise resurfacing** to be applied to **all lanes** in areas around noise important areas between J3 and J4.

# Noise Important Areas J3-J4



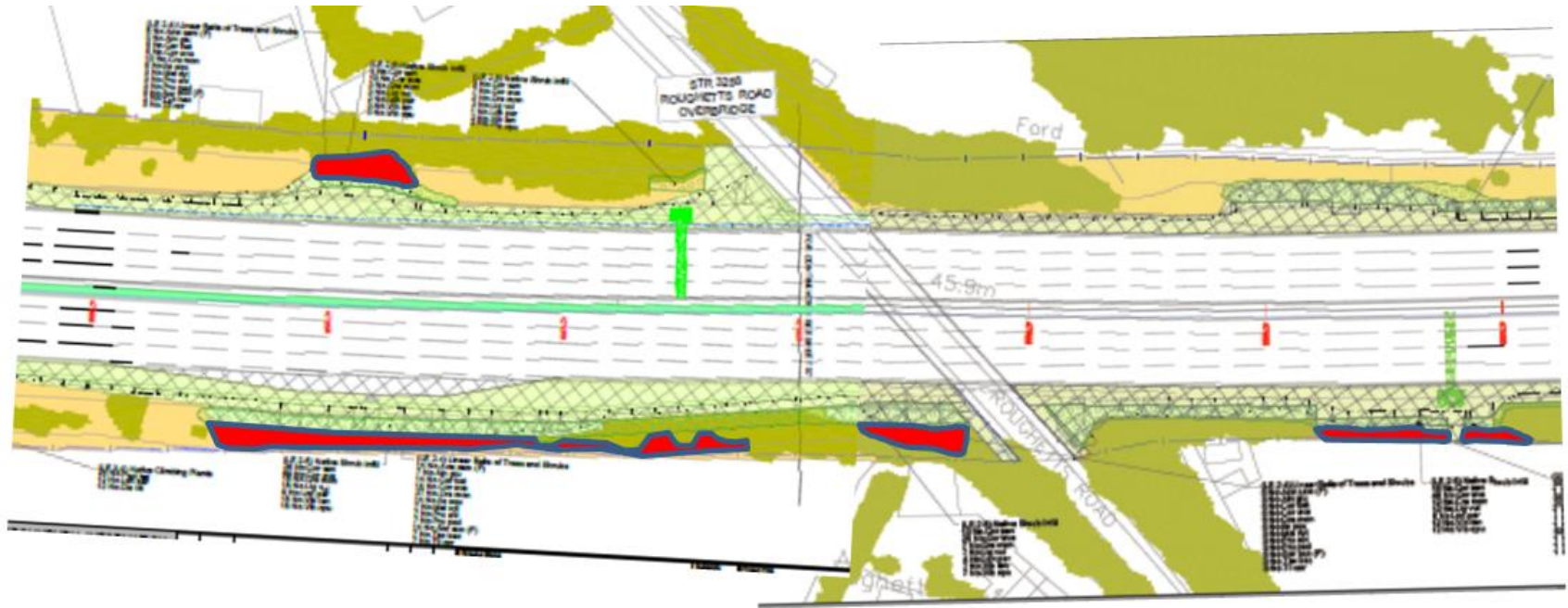
# Headline updates for M20 J3-J4

- Ryarsh area: **planting semi-mature** trees: 4-5 metres high. Species could include oak, maple, cherry, chestnut and birch.
  - Timing: after construction in the verge is complete: likely Spring 2019 onwards

# Semi mature trees – a big difference!



# Semi mature trees – indicative locations marked in red\*



Locations will be determined by landscape specialists as part of a revised design of the landscape planting scheme

# Noise barriers

- Request for noise barriers discussed with MPs
- Reason for not providing them still stands as not being economically sustainable due to relatively small number of homes.



# Headline updates for M20 J3-J4

- **East Street Footbridge:** likely to rebuild it as part of this scheme.
  - Timing TBC



# Highways England



# Highways England operates, maintains and improves the Strategic Road Network

£15bn  
investment  
2015 - 2020

Operational  
network  
24/7

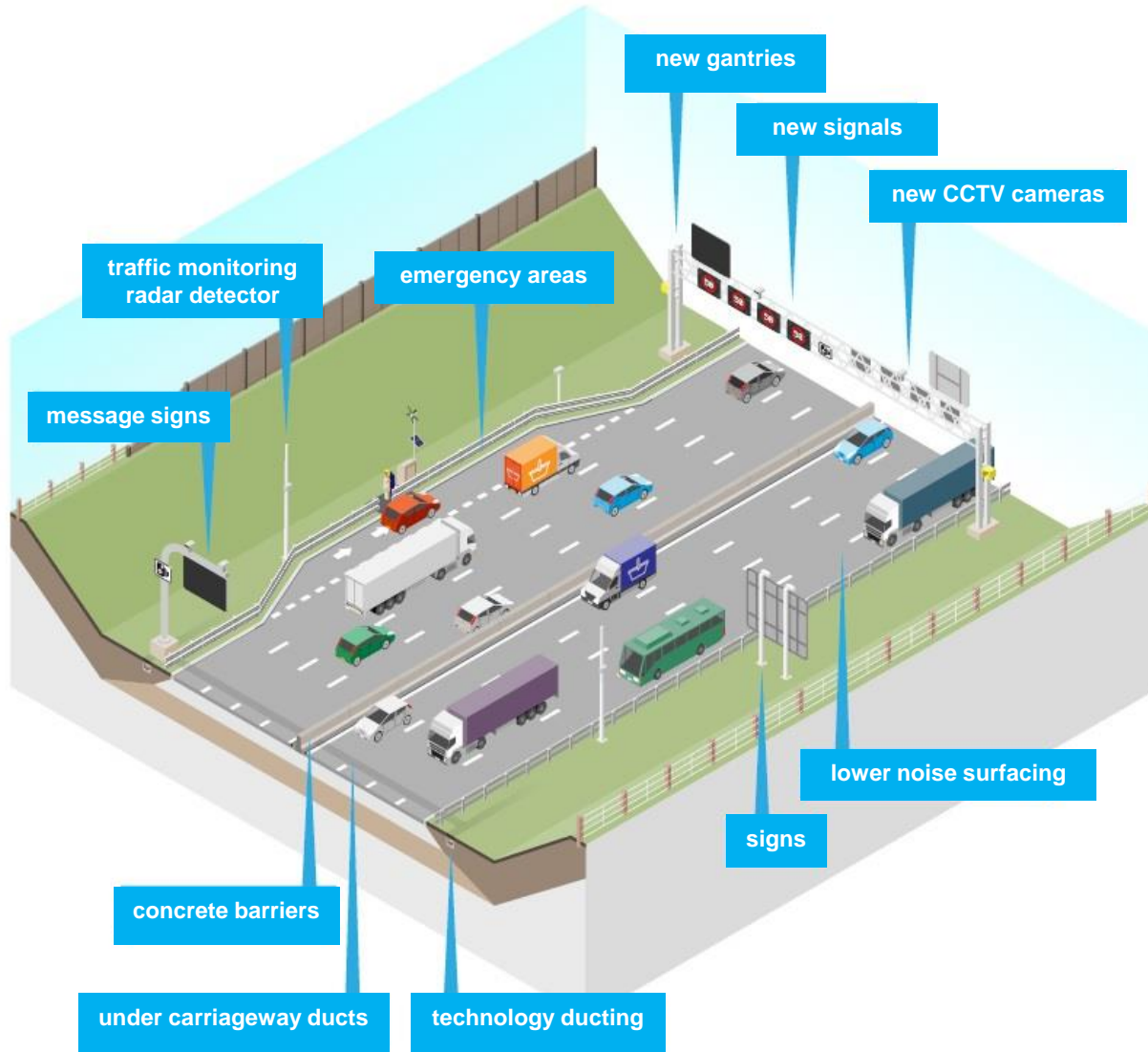
Economic backbone of the country

4,300 miles  
of road

2% of road network

Carrying  
33% of  
traffic

# What is a Smart Motorway?



Technology driven approach to improve capacity and relieve congestion.

Convert hard shoulder into a permanent traffic lane, widening the motorway.

New gantries and electronic road signs to give information about road conditions and speed limits to help smooth the flow of traffic.

New high visibility emergency areas to provide an area of safety in event of breakdown.

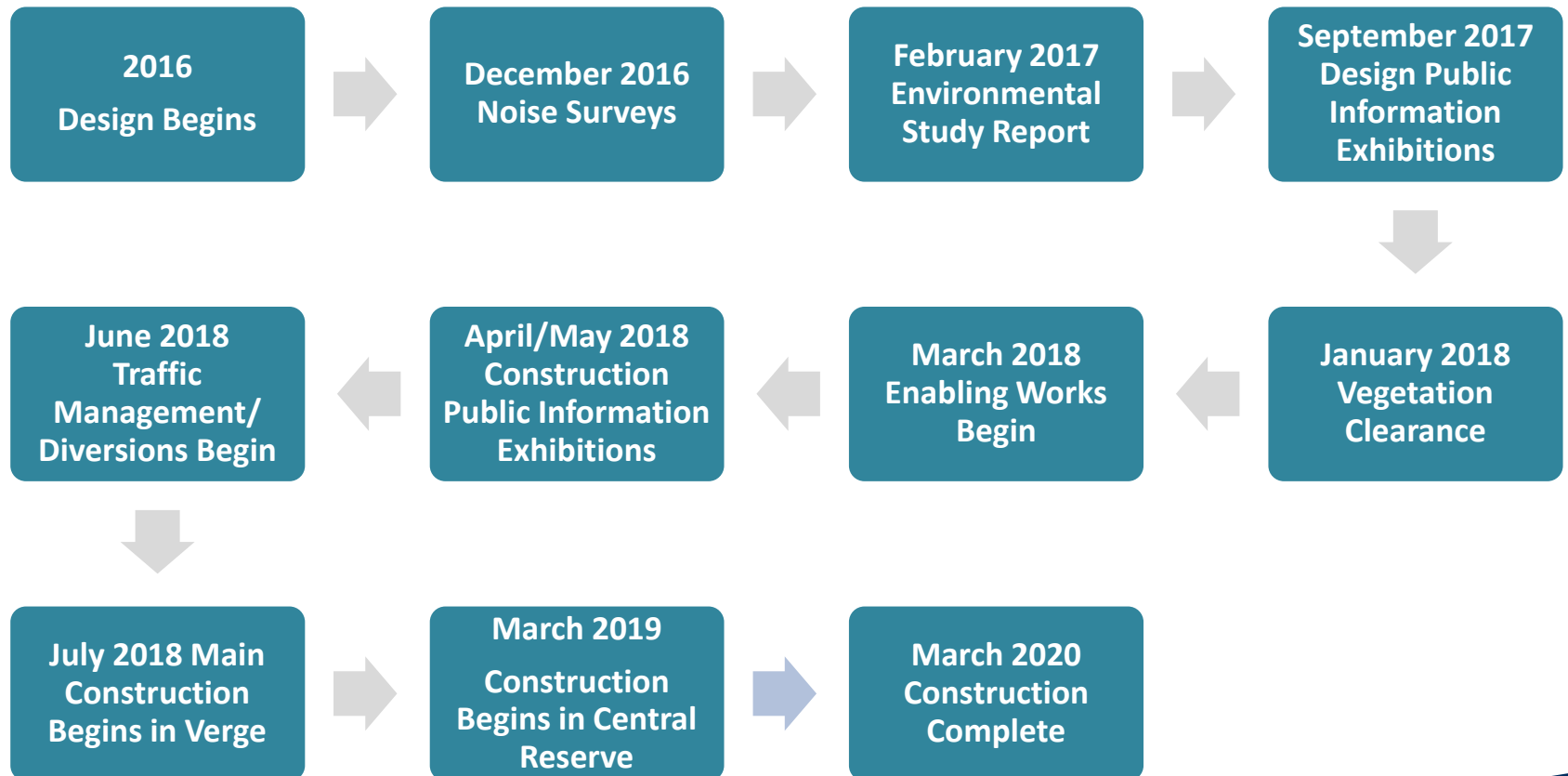


# Smart Motorway benefits

- 33% additional capacity to ease congestion.
- Technology creates more reliable journey times.
- Facilitates economic growth.
- Improved customer experience through provision of journey information.
- Significantly less cost, disruption and environmental impact than traditional widening scheme.
- At least as safe as existing motorways, which are some of the safest in the world.



# M20 J3-5 timeline



# **CONSTRUCTION OVERVIEW & ACTIVITY: STEVE MACK, PROJECT DIRECTOR, KIER**

- Design Team

**JACOBS**

**ATKINS**

- Construction Team



# Current construction activity

- Vegetation clearance
- Traffic management installation
- Drainage surveys
- Ground investigations

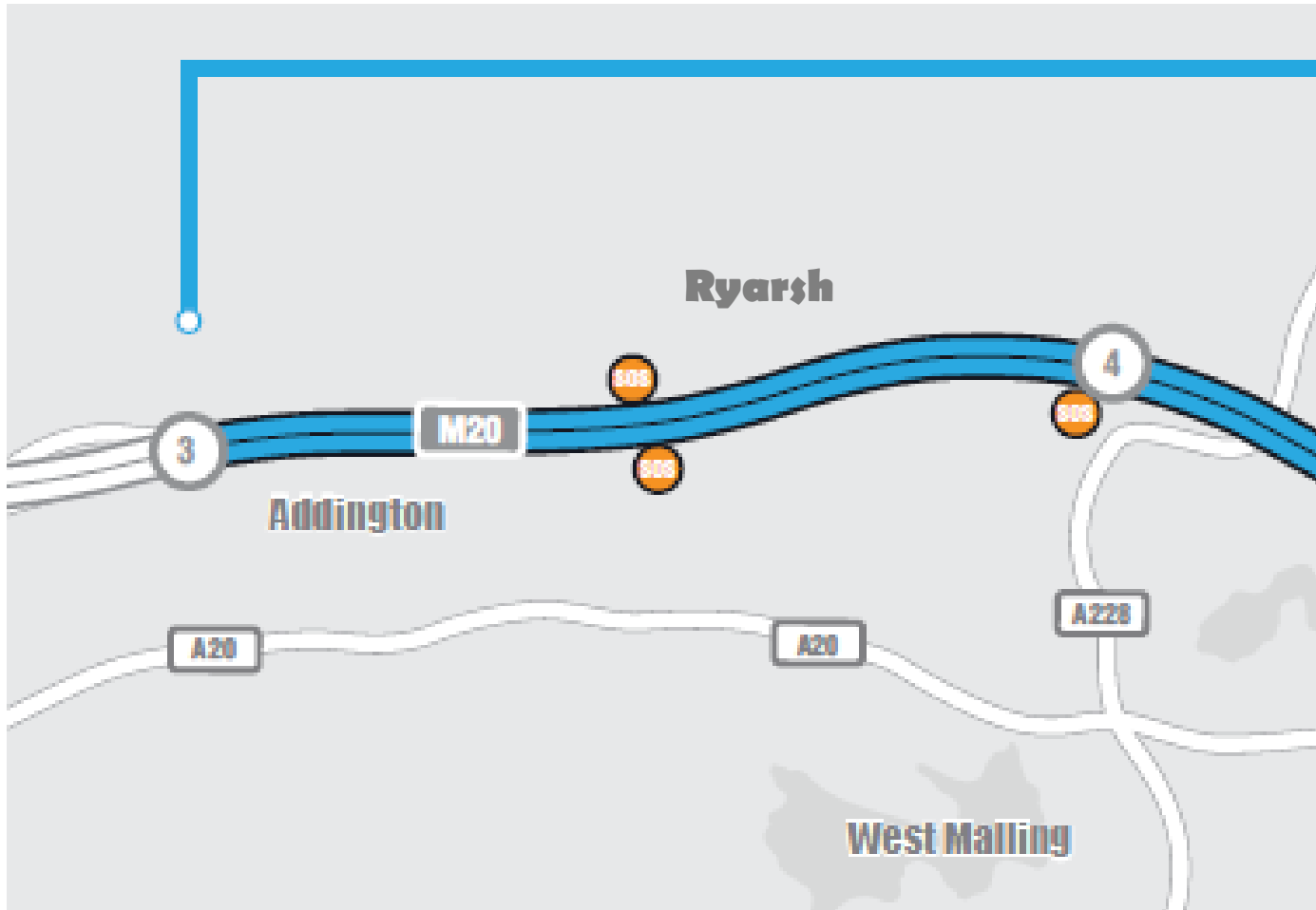




# Emergency Areas



# Emergency Areas



# Emergency Areas

- **5** new emergency areas: **3** between J3 and J4
- **100 m** long
- Construction will be approximately **5-7 weeks** (varies by each location)
- Construction includes:
  - Excavation/re-shaping slopes
  - Concrete footings for new retaining wall
  - Construction of modular block retaining walls – up to 3m in height
  - Barriers and fencing
  - New emergency phones / communications

# Gantry installation





# Gantry types: MS4



# Gantry types: Superspan

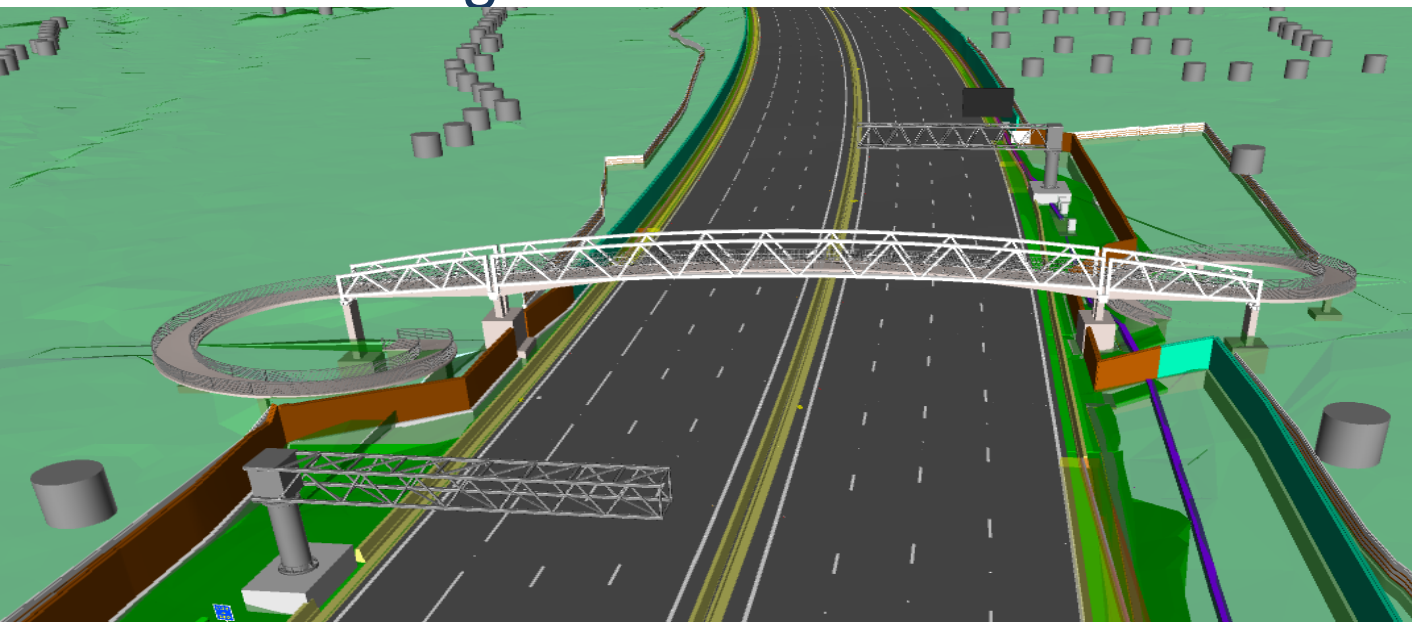


# Gantry installation:

- **27** new gantries: **13** installed between J3-4 (3 removed)
- Construction takes **4-5 weeks**
- Temporary working platforms
- Augered piling
- Excavation
- Drainage/ducting
- Installation of steelwork
- Electrical installations
- Sign face installations
- Lighting

# Teapot Lane Footbridge

- Bridge demolition postponed due to traffic volumes and continued hot weather
- Increasing height by 75cm to allow headroom for vehicles to use the converted hard shoulder as a driving lane.
- New bridge deck will be made of steel and enclosed





# Building the centre reserve:

- Centre reserve works will be constructed after we have amended the narrow lanes TM, so that traffic is running on the new nearside lanes.
- Works includes:-
  - Removal of the existing steel barrier
  - Excavation
  - Drainage/ducting
  - New road construction
  - New concrete barrier
  - New surfacing



# **REDUCING THE IMPACT ON NEIGHBOURS: EAMON MULHALL, KIER**

# No sheet pile driving

- Driving sheet piles can create noise and vibration nuisance
- No sheet piling on M20 SMP
- Solution using modular blocks which are lifted into place – virtually silent



# Mist cannon suppressing dust





# Vegetation clearance & planting

- Clearance necessary to build gantries, emergency areas and other infrastructure.
- Natural England monitored and approved our vegetation removal plans; planned around native & protected species (e.g. dormice and nesting birds)
- To encourage wildlife and reduce visual intrusion, we will plant over 20,000 trees and shrubs and 4,000 climbers and will enhance 7.4 ha of habitat (e.g. topsoil, seeding) along the 6.5 miles of the scheme.
- We will plant as soon as possible, but typically towards end of scheme to ensure new plants are not damaged.



# **COMMUNICATION & ENGAGEMENT: SUZANNAH KINSELLA, KIER**

# Communications & engagement to date

- Three public Information exhibitions held in autumn 2017 to communicate the design plans for the scheme
- Four public information exhibitions held in spring 2018 to show the final design and construction plans for the scheme
- Letters to stakeholders about the scheme:
  - Introduction to the scheme and its design August 2017
  - Consultation on variable mandatory speed limits March 2018
  - Update on the scheme and public information exhibitions April and June 2018
  - Start of works & road closure/diversion route timetables June 2018
- Letters and leaflets to residents:
  - Notification of vegetation removal: January and June 2018
  - Notification of PIEs and start of works: April and June 2018
  - Diversion route timetable letter to residents on diversion routes June 2018
  - Teapot Lane Footbridge and Construction Show & Tell events July 2018



# Other local engagement

- Aylesford Schools – Teapot Lane ‘Footbridge Closed’ - Poster Design Inter-schools Competition.
- Aylesford Scout Fun Day July 15
- STEM events with primary and secondary schools w/c July 16
- Construction show & tell events: using BIM imagery: July
- Building partnerships with KM Charity, Kent Wildlife Trust; Kent County Council, STEMHUB, Canterbury University and others.

Here's something to remember...



**Green  
Champion**

Banner designed by  
Cally Dellaway and Poppy Leach Evans,  
Aylesford School

Words by  
Briony Woolmer, Aylesford School



**THANK YOU:  
QUESTIONS?**