The M4 is the main strategic route between London, the west of England and Wales. It connects people, communities and businesses, carrying on average 130,000 vehicles per day and is prone to congestion. Highways England is improving the M4 between junction 3 at Hayes and junction 12 at Theale by upgrading it to a smart motorway. Work is now underway on the M4 between junctions 3 and 12 to deliver 32 miles of new smart motorway, the longest project of its kind so far. Between now and March 2022 we will be installing 108 new variable message signs, 131 new gantries, replacing 11 bridges, widening 4 bridges, and expanding 2 subways. We will also be putting in 17 miles of new or upgraded environmental noise barriers, 139 new CCTV cameras, and new lower noise surfacing along the route. The project will create an additional traffic lane and introduce new technology - increasing capacity, reducing congestion and delivering more reliable journeys.
The M4

The M4 forms part of the Strategic Road Network, linking London to Wales. As well as London, other urban areas in the region rely on junction 3 to 12 for connectivity, including Reading, Maidenhead, Windsor, Slough and Hayes. Other transport hubs and tourist attractions also rely on this stretch of the M4, for example Heathrow Airport, Windsor Castle and Legoland Windsor. It is a vital transport link for the local area and the UK as a whole.

The M4 dates back to 1959 when the first section opened as the Chiswick Flyover at what is now junction 1. In 1961 the Maidenhead bypass opened, part of which would become the M4, then junctions 1 to 5 in 1965. Various sections of motorway roads were built from then until the English M4 in its current form was completed in 1971, followed by the Welsh M4 in 1993. The smart motorway between junction 3 to 12 is the next step in the evolution of the M4 and is part of the Government’s smart motorways programme.

Highways England delivery director Mike Grant said:

“Upgrading the M4 to a smart motorway between junctions 3 and 12 is a massive job and will provide huge benefits not only to the 130,000 drivers using it each day by tackling congestion and improving journey times, but also for business travellers and holiday makers using the corridor to get to and from the airports in the south, as well as residents and businesses based in the area.

Smart motorways add vital capacity to our motorway network and are central to our ambitious plans for modernising the motorway network, adding 120 miles of new lanes to motorways in the South East by 2020. Drivers will also see better information about conditions through new smart motorway technology which helps us to manage incidents, smooth traffic flow, make journeys more reliable and improve journey times, while maintaining high levels of safety.”

The project

This is the longest section of smart motorway so far and part of the Government’s investment in our roads which aims to promote economic growth and employment at the national and regional level, while continuing an excellent safety record.
What is a smart motorway?

Smart motorways are a technology driven approach to the use of our motorways, increasing capacity and relieving congestion while maintaining safety.

Smart motorways help make journey times more reliable, at less cost than traditional widening schemes, meaning better value for the tax payer.

Key features of a smart motorway include:

**Variable mandatory speed limits**
- Speed limits will be set to smooth traffic flows.
- The limits will be clearly displayed on overhead gantries and roadside signs.
- Signs will be used to inform drivers of conditions on the network and when variable speed limits are in place.

**All lane running**
- The hard shoulder will be permanently converted into a traffic lane.
- Drivers should obey all signs, including speed limits and lane closure instructions and should not stop on the motorway except in an emergency.

**Emergency areas**
- There will be highly visible emergency areas.
- There will be an emergency telephone in each emergency area.
- This will connect you to Highways England’s Regional Control Centres and will pinpoint your location.
Talking to our customers
Following on from the Public Information Events we hosted in July, our communications team have been out to talk to customers at Motorway Service stations along the M4 smart motorway route. The team have so far visited both Reading and Chieveley services and businesses at Thames Valley Park and Green Park, talking to road users about the construction works. This is part of the engagement and communications programme that will run throughout the project focused on our customers in the local community, businesses and users of the motorway travelling from across the country. We will be visiting these and other service stations, business parks, shopping centres and community events to meet more of our customers over the next few months.

Encouraging careers in engineering
Balfour Beatty, one half of the Joint Venture building the project, is a leading member of The 5% Club - the employer-led movement which champions investment in the next generation through workplace training. This aims to inspire, educate and retain a growing body of people into “earn and learn” placements in order increase the employment and career prospects of today’s youth and equip the UK with the skilled workforce it needs to safeguard Britain’s economy.

As part of this exciting movement, two local apprentices have joined the M4 smart motorway project team. Ella Northey (18, from Twickenham) and Lukasz Wardega (20, from Basingstoke) are beginning a 6-year programme of work and education which will result in a BEng Honours degree in Civil and Infrastructure Engineering and Incorporated Engineer status, while gaining valuable work experience across several disciplines. Ella and Lukasz will spend one day a week at Kingston University and the rest of the week based at the M4 project office.
Archaeology

Civil engineering and construction projects provide excellent opportunities to look into the past. The main project office and construction compound are currently being built on a site on the north side of the M4 near junction 10. During site clearance and preparation works, our archaeology consultants discovered the remains of a small Iron Age settlement. Starting in July, trail trench evaluation of the compound site to identify any potential archaeological evidence revealed the 5100 m² site.

The investigation of the remains has revealed several round houses (possibly seven), storage and refuse pits. While isolated settlements of one or two Iron Age round-houses are known within the vicinity of the site, nothing of this scale has been identified before. Artefacts recovered from the site included pottery dating to the early to middle Iron Age (700 – 400 BC) and a possible loom weight suggesting the production of textiles on site. The artefacts are being assessed and analysed by our experts and we expect them and any further finds to be transferred to a local museum.
Key changes to the motorway

All lane running
Between junctions 3 and 12 the hard shoulder will be converted to a traffic lane, so that there are four lanes available for use by road users. Between junctions 4 and 4b, there will be five lanes. Where a hard shoulder does not currently exist, the motorway will be adapted to create a minimum of four lanes. The barrier in the central reservation will be replaced by a new concrete barrier.

Through junction running
This enables a consistent number of lanes to pass through the junction, reducing the need to change lane for vehicles staying on the motorway. Through-junction running will be in place at junctions 4, 5, 6, 7, 8/9 and 11 and at the Reading motorway service area.

Bridge works
To accommodate the new smart motorway:
- 11 bridges carrying local traffic over the motorway will need demolition and replacement.
- 4 bridges that carry the motorway over roads, railways and rivers will need widening.
- 2 subways under the motorway will also need lengthening.

Emergency areas
There will be new high visibility emergency areas between junctions 3 and 12. Places of relative safety will be every 1.12 miles on average and no more than 1.6 miles apart. If you are driving at 60mph you will pass one approximately once a minute.
What to do if you break down

If you need to stop in an emergency on a smart motorway:

- Use an emergency area and the emergency telephone.
- If you can, leave the motorway at a motorway service area, or the next junction.

If you have to stop in a live lane:

- Put your hazard warning lights on to help other drivers see you and help our control room staff spot you on CCTV.
- If you are in the left hand lane and it is safe to do so, exit the vehicle via the left hand door. Wait behind the barrier if possible.
- If you cannot exit the vehicle, do not feel it is safe to do so or there is no other place of relative safety, remain in the vehicle. Keep your seat belt on and dial 999.

Safety, red symbol and incidents

We use a red symbol to show that a lane is closed because of an incident or people working on the road:

This provides access for emergency services.

- You will see red symbols on a gantry sign over the motorway or on a gantry sign at the side of the motorway.
- Driving in a lane with a red symbol is dangerous and drivers must not use it.

- Incident management is controlled by teams in our control centres:
- Incidents will be detected by traffic sensors, CCTV or calls from the public.
- The control centre will set signs to protect incidents and clear an access route for emergency vehicles.
- Control centre staff will monitor traffic conditions throughout each incident, ensure signs are set to manage traffic, and will reopen lanes as soon as it is safe to do so.

As soon as Highways England is alerted, our Regional Control Centre will close lanes to protect you and your vehicle until help arrives.
During construction, narrow lanes and reduced speed restrictions will be put in place to create a smooth and safe flow of traffic through the works and to protect workers. Additionally, traffic management barriers will be needed. Three narrow lanes will be available for road users during peak hours.

Wherever possible, noisier works will be undertaken during daytime hours to reduce disturbance. There will be temporary closures of the carriageway and slip roads on some occasions (mostly at night) with advance warning signs and clearly signed diversions put in place.

Find out more

You can find out more about the plans and forthcoming works by visiting our website at: www.highwaysengland.co.uk/m4j3to12 or following the South East regional twitter feed: @highwaysSEAST

Closure information is available at the Traffic England website: www.trafficengland.com
Please check before you travel.

You can also email us at: M4J3to12smartmotorways@highwaysengland.co.uk
Phone: 0300 123 5000 or write to: M4 J3-12 Smart Motorway, Highways England, 2 Colmore Square, Birmingham B4 6BN.