Our ref: 100824
Your ref:

Highways England
Second Floor
Woodlands
Manton Lane
Bedford MK41 7LW

Email:

Telephone:

19 February 2020

Dear

Freedom of Information Request
M1 northbound towards junction 11 – speed limits

Thank you for your email of 10 February requesting information about speed limits sets on the M1 northbound towards junction 11 on 3 and 10 February 2020. You clarified your request on 11 February, confirming your journey times on both dates as being between 09:15 and 09:30. We have now completed our search for information.

I have extracted your requests and respond as follows:

I note that on Monday 3 February and 10 February the motorway was set to 60mph for the couple of miles leading up to junction 11 northbound in spite of traffic flowing freely. Please could you therefore confirm:

1. What the initial reason and time was for setting the 60mph limit?

The hard shoulder can be opened as an additional traffic lane during peak periods. It was opened as an additional traffic lane on both 3 and 10 February to help ease congestion and improve traffic flow. When the hard shoulder is opened to traffic, the speed limit is automatically reduced to 60mph.

On 3 February, the speed limit was reduced to 60mph at 07:49 when traffic flows increased and the hard shoulder opened for use as an additional traffic lane. The national speed limit was applied at 10:11 when traffic flows reduced and the hard shoulder was closed and its use as an additional traffic lane stopped.

On 10 February, the speed limit was reduced to 60mph at 07:41 when traffic flows increased and the hard shoulder opened for use as an additional traffic lane. The national speed limit was applied at 10:02 when traffic flows reduced and the hard shoulder was closed and its use as an additional traffic lane stopped.

2. What is the "test" for a road to be made 60mph (or is it human judgement)?

It will depend on what is causing congestion or traffic to otherwise slow and/or stop. To help manage busy traffic flows, variable speed limits and incident detection systems have been in operation since 1995. Smart motorways, like the M1 between junctions 10 and 13, are fitted with detectors that collect real-time data such as vehicle count, speed and traffic density. Signal gantries automatically display mandatory speed limits in response to the traffic data recorded by the loop detectors.

The speed control system creates an environment to reduce the stop/start effect of congestion, known as flow breakdown, reduce accidents which may happen because of flow breakdown, and produce more reliable journey times.

MIDAS (Motorway Incident Detection and Automatic Signalling) is the system we use to help us manage traffic on the M1. It uses 3 algorithms: 1) to detect slow traffic and set speeds and warning signs; 2) to detect downstream average speeds and slow the approaching traffic and 3) to detect traffic flow as congestion builds and slow the approaching traffic.

The whole system is dynamic and responds minute by minute to the current conditions anywhere within the controlled section. Sections are linked together to enable staged and smooth changes to the signals throughout a driver's journey. As traffic demand increases, inevitably we expect the signals to be on more often and for longer periods.

The signals and message signs can also be manually set by our experienced control room staff to complement or override automatic settings.

When speed limits are set, message signs display text to give further information to drivers, for example, '*CONGESTION*: *STAY IN LANE*', '*QUEUE AHEAD*' or '*QUEUE AFTER NEXT JUNCTION*'. Other messages such as '*OBSTRUCTION'* '*ACCIDENT'* can be set manually by control room staff.

3. What the frequency of checks is after reducing the limit to make sure it remains a suitable limit?

The motorway is monitored at our Regional Operations Centre at South Mimms where a scrolling feed of cameras for this motorway section is permanently on part of the big screen in the control room. Control room staff can manually set signals and override automatic settings in the event of an incident.

As you've shown an interest in how smart motorways operate, I'd like to invite you to our Regional Operations Centre in South Mimms so that you can see for yourself how our control room staff monitor roads across the region, including the M1. If this is something you would like to do, please contact [redacted], our Regional Operations Centre Business Manager, who will be pleased to give you the guided tour and answer your questions. You can contact [redacted] on [redacted] or email him at [redacted]

If you are unhappy with the way we have handled your request you may ask for an internal review. Our internal review process is available at: https://www.gov.uk/government/organisations/highways-england/about/complaints-procedure

If you require a print copy, please phone our Customer Contact Centre on 0300 123 5000; or email info@highwaysengland.co.uk. You should contact me if you wish to complain.

If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

Information Commissioner's Office
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF

If you have any queries about this letter, please contact me. Please remember to quote reference number 100824 in any future communications.

Yours sincerely

Business Services Manager (Customer)
Operations (East)
Email: