MANAGED LANES CASE STUDY

M20 OPERATION BROCK

POST-BREXIT TRAFFIC MANAGED WITH THE ROAD ZIPPER SYSTEM





Moving traffic between the United Kingdom and France has long been a challenge. Each day, motorists and more than 15,000 commercial trucks move along the M20 motorway to reach ferries or enter the Channel tunnel.

Prior to Brexit, traffic was managed through a program known as Operation Stack - a process for parking or "stacking" commercial trucks on the M20 when services across the English Channel were disrupted by bad weather, fire, and labor matters. With Brexit, Operation Stack would no longer be a viable option, because of extensive deployment time, logistics, the inability to contraflow local coastbound vehicles and commercial traffic that used to flow freely between the Port of Calais France and the Port of Dover in England would, under new British regulations, be required to stop for border inspections.

When Brexit took effect on January 1, 2021, a new congestion management plan known as Operation Brock, or "OpBrock," was instituted on the M20 between London and the Port of Dover. A key component of the OpBrock plan is Road Zipper[™] Moveable Barrier System - a forward-thinking solution that allows for future flexibility and readiness including the option to change the road configuration based upon traffic and port conditions.

On the M20, the Road Zipper System[™] is comprised of two primary components - one-meter long concrete reactive tension barriers that are hinged together to form a continuous wall and machines that lift and move the wall during active traffic. It's designed to ensure the motorway is kept open at times of disruption, while retaining three lanes, a hard shoulder and 70 mph speed limits in both directions during normal traffic conditions.

"This state-of-the-art technology can be deployed quickly, simply and safely, ensuring motorists across the country can get to where they need to be with minimum fuss, whatever the circumstances," said UK Department for Transport Secretary Grant Shapps.

The Road Zipper System was deployed in a single overnight, with minimal disruption in traffic flow. Previously used Operation Stack steel barriers would have taken four to six weeks of M20 disruption to deploy and set-up. The Road Zipper moveable barrier is stored on the hard shoulder or the central reserve and can be rapidly deployed as traffic conditions warrant, and will never be reset by hand again, unlike steel barriers.

In the initial phase, the Road Zipper provides a full contra-flow lane on the London-bound side of the M20 for motorists, creating capacity on the portbound side of the M20 for management of commercial traffic. Based upon real time conditions on the M20 and at the port, the system may be quickly adjusted to execute a new traffic configuration, such as 2x1 condition with a breakdown shoulder or a 2x2 condition for longer periods of disruption. Lindsay also provided custom-length S-A-B[™] steelreinforced barrier gates and TAU Tube™ attenuators to complete the turn-key system.

Successful deployment of the Road Zipper System, was achieved by working with Highways England, its design consulting firm and operational contractor. Lindsay also worked hand-inhand with its internal teams and global partner network to quickly and efficiently ensure and the project stayed on-time and on-budget - despite challenges presented by the global COVID-19 pandemic.





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