

Customer Story

Automatic Diversion Routes: making Hertfordshire County Council 50% more efficient

About Hertfordshire & Hertfordshire County Council

Hertfordshire, a diverse county, boasts a mix of bustling garden cities, post-war new towns, quaint historic market towns, and picturesque villages. Hertfordshire County Council (HCC) oversees the maintenance of an extensive network of 3,000 miles (about the width of the United States) of roads and pavements and handles more than 2,500 Temporary Traffic Regulation Orders (TTROs) annually.

! The Challenge

Amid an industry-wide race to invest in and enhance infrastructure, there has been a **45% increase in road and street works (2018-2023)**. HCC, like other local authorities, has been facing the challenge of completing a significant volume of internal projects, amongst demand for crucial initiatives such as fibre rollout, electric vehicle charging installation and water infrastructure improvements.

In 2023, HCC plotted over 3,700 road closures using Causeway one.network's Traffic Management solution. Despite having a dedicated team of 10 officers, the process of planning and mapping these closures and diversions consumed considerable time for the team, with each diversion taking up to 4 minutes.



The Solution

Since 2014, HCC has been using Causeway one.network to digitalise traffic management planning. The platform has enabled them to effectively plan, coordinate, and communicate roadworks and closures throughout the county.

In late 2023, Causeway introduced a new feature for the Causeway one.network Traffic Management Module: **Automatic Diversion Routes (ADR)**.

The screenshot illustrates the workflow for creating an Automatic Diversion Route (ADR) on the Causeway one.network platform. It shows a map where a road closure is identified, leading to a list of suggested diversion routes. Each route is evaluated based on various factors such as road class, distance, and proximity to sensitive locations like schools and churches. The user can then select a route and plot it onto the map.

Route Type	Distance	Key Features / Risks
Closure	38.60 m	Secondary
Diversion	166m	Residential, 1 bridge restriction, 2 road closures, 4 others
Diversion	11.59km	Secondary & More, 12 bridge restriction, 3 diversion routes, fire station, 9 road closures, 3 roadworks, 1 school, 36 others
Diversion	11.33 km	Secondary & More, 12 bridge restriction, 3 diversion routes, fire station, 11 road closures, 4 roadworks, 2 schools, 42 others
Diversion	14.51 km	Tertiary & More, 15 bridge restriction, 3 diversion routes, 2 fire stations, 1 level crossing, 9 road closures, 4 roadworks, 3 schools, 47 others

This innovative tool generates a list of optimal diversion routes based on your road closure and plots it automatically for you on Causeway one.network. Factoring in road class, planned roadworks, proximity to schools, bridges, weight limitations and more, it highlights all potential diversion risks that might influence the selection of the most suitable route.

“ The Automatic Diversion Routes feature on Causeway one.network saves me a lot of time, especially when we have big programmes of internal surfacing works. I can get through a batch of 15 or so servicing jobs in half the time now, and each diversion takes just a single click to create.

Tom Cole
Network Officer, Hertfordshire County Council

HCC has embedded this new feature into its network coordination workflow, enabling smarter, faster, more informed decision-making. The team use ADR to support planning and coordination for both planned and emergency roadworks and have noted a significant increase in efficiency – particularly in urban areas and for surfacing programmes.



Where our team is so busy, any time we can gain back is invaluable. The Automatic Diversion Routes feature significantly speeds up our urban diversion planning, allowing us to process more permits, respond to more enquiries and attend important on-site meetings

Tommy Clee

Assistant Network Manager, Hertfordshire County Council



The results

By using ADR, HCC can now create and plot urban road closures and diversions in just **two minutes**. This **50% reduction** in planning time has not only sped up roadworks coordination, but also liberated time for the team to focus on other crucial tasks

After seeing such success, HCC's Network Management team is now collaborating with Causeway to enhance and optimise the ADR functionality for rural diversion planning and working with other team members and council departments to expand the use of Traffic Management and ADR.

For further insight into how **Causeway one.network** can help save your team time and effort...

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