Ealing Council Conducts Innovation Trial with RoadMetrics AI

ABOUT EALING COUNCIL ⌄

Located in West London, the London Borough of Ealing is an iconic borough that has a large road network of over 600 km, and is home to famous landmarks such as the Ealing Studios, Pitzhanger Manor and the district of Southall.

The Highways Team works to maintain and deliver improvements to adopted highways around the borough. And this includes the maintenance of their carriageway network and other street furnitures.
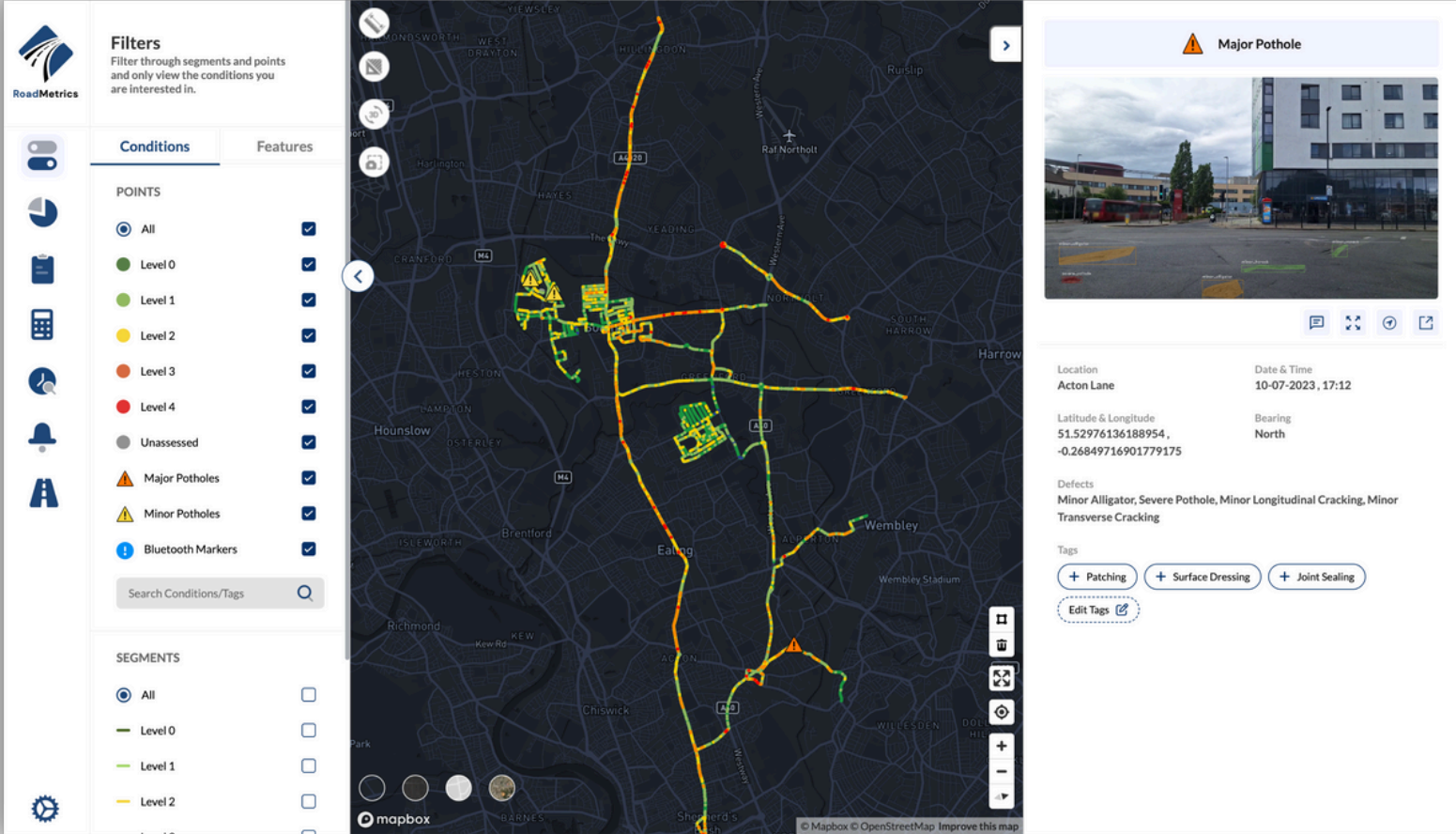
CHALLENGES ⌄

With the primary objective of enhancing highways service efficiency, Ealing Council were keen to explore an alternative approach to assessing road condition.

By using an AI method, Ealing Council can perform multiple ad-hoc surveys with an annual license through their in-house council vehicles.

Innovation trial evaluation factors:
- Accuracy and reliability,
- Ease of use and turnaround time,
- Meeting the DfT's New Data Standard for road condition reporting

IMPLEMENTATION

A total of 150 km in road network length was identified by Ealing Council's Highways Team, to be included in the trial.

This initiative, led by the council's Head of Highways, Tony Singh, was to explore the capabilities of the RoadMetrics AI system for accurate and cost-effective road condition assessments and to identify ways to leverage AI in their road maintenance efforts.

The driven condition surveys for this trial was performed by RoadMetrics in June of 2023, using the RoadMetrics Data Collection App.

SOLUTION

The RoadMetrics AI system provided a smartphone based approach for video based condition surveys, thus enabling cost-effective and on-demand surveys.

The system generated a comprehensive road condition analysis, identifying early stage and late stage road defects and over 65 types of highway assets with a quick turnaround speed.

The system's compatibility with UKPMS data standards and its ability to export data in popular formats such as HMDIF and GeoJSON, demonstrated the potential for seamless reporting and collaboration with their contractor.
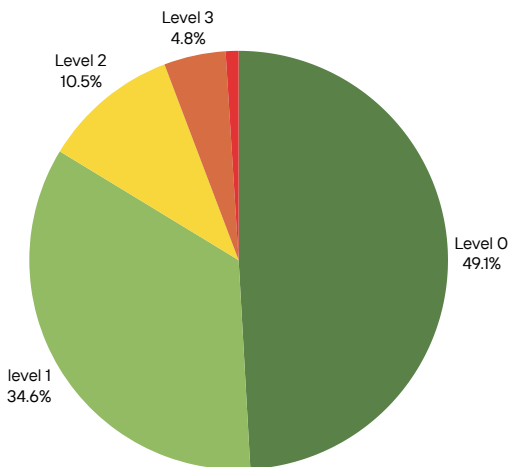
RESULTS ⌄

The RoadMetrics AI system provided a quick and effective analysis of Ealing's road network. Based on the road defects identified, a road condition rating was assigned on a 5-grade scoring criteria.

> " *Ealing Council carried out the audits through the Highway Inspectors to check for accuracy and the results came back with minimal discrepancies.* "
>
> TONY SINGH

Level 3
4.8%

Level 2
10.5%

Level 0
49.1%

level 1
34.6%

BENEFITS ⌄

- Digital record of Ealing's road network for future reference and comparison

- On-demand surveys for planned maintenance and support for highways safety inspectors

- Web-GIS platform for visualising and analysing Ealing's road network

- Compatibility with UKPMS data standards and seamless integration with asset management systems.

CONCLUSION ⌄

With the successful completion of the innovation trial, Ealing Council were able to identify the benefits of a smartphone based AI method for performing condition surveys.

Tony Singh

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"We particularly appreciate the RoadMetrics system's advantages in conducting on-demand surveys for planned maintenance, as well as the potential of serving as an aid to our highways safety inspectors."

—Tony Singh,
Head of Highways,
London Borough of Ealing

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