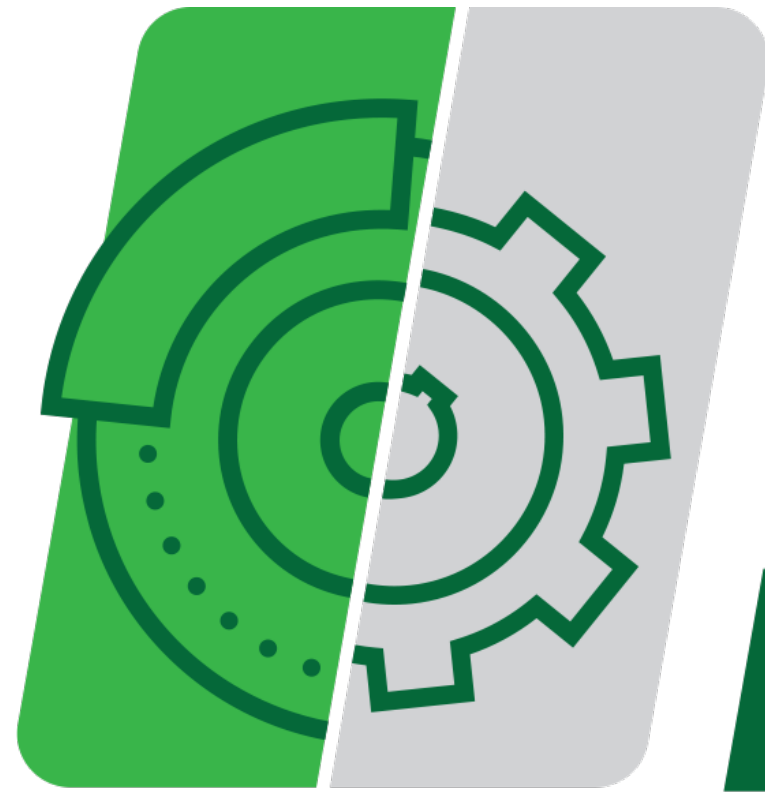




ENRICH BRAKES & GEARS

Case Study



INTRODUCTION

Enrich Brakes & Gears' client tracked the long term benefits of treated brakes in the field.

Over a 3 year period, the case study investigates the performance of brakes on the controlled yet real-life application of a delivery service vehicle.

The Vehicle Maintenance Facility (VMF) monitored the performance of untreated vs. treated off-the-shelf OEM parts:

- Rotors & pads for the front axle.
- Drums & shoes for the rear axle.



METHODOLOGY

Type of delivery route: **Rural** vs. City

City routes historically see less wear on the brakes.

Therefore, the performance of the rural route was chosen for the increased amount of brake wear.

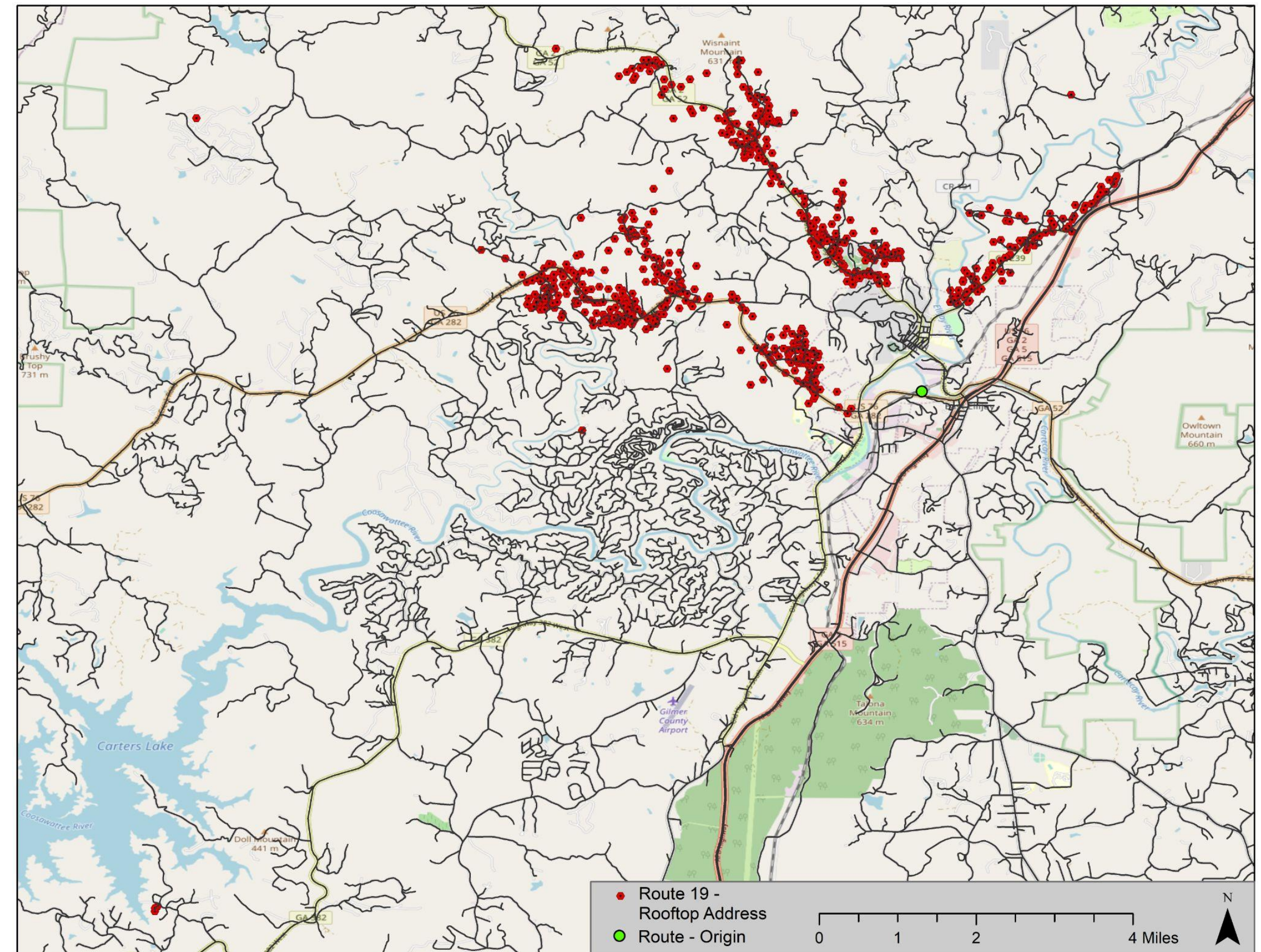
Location: The Blue Ridge Mountains, Georgia
(Historically, the harshest conditions operated for this VMF.)

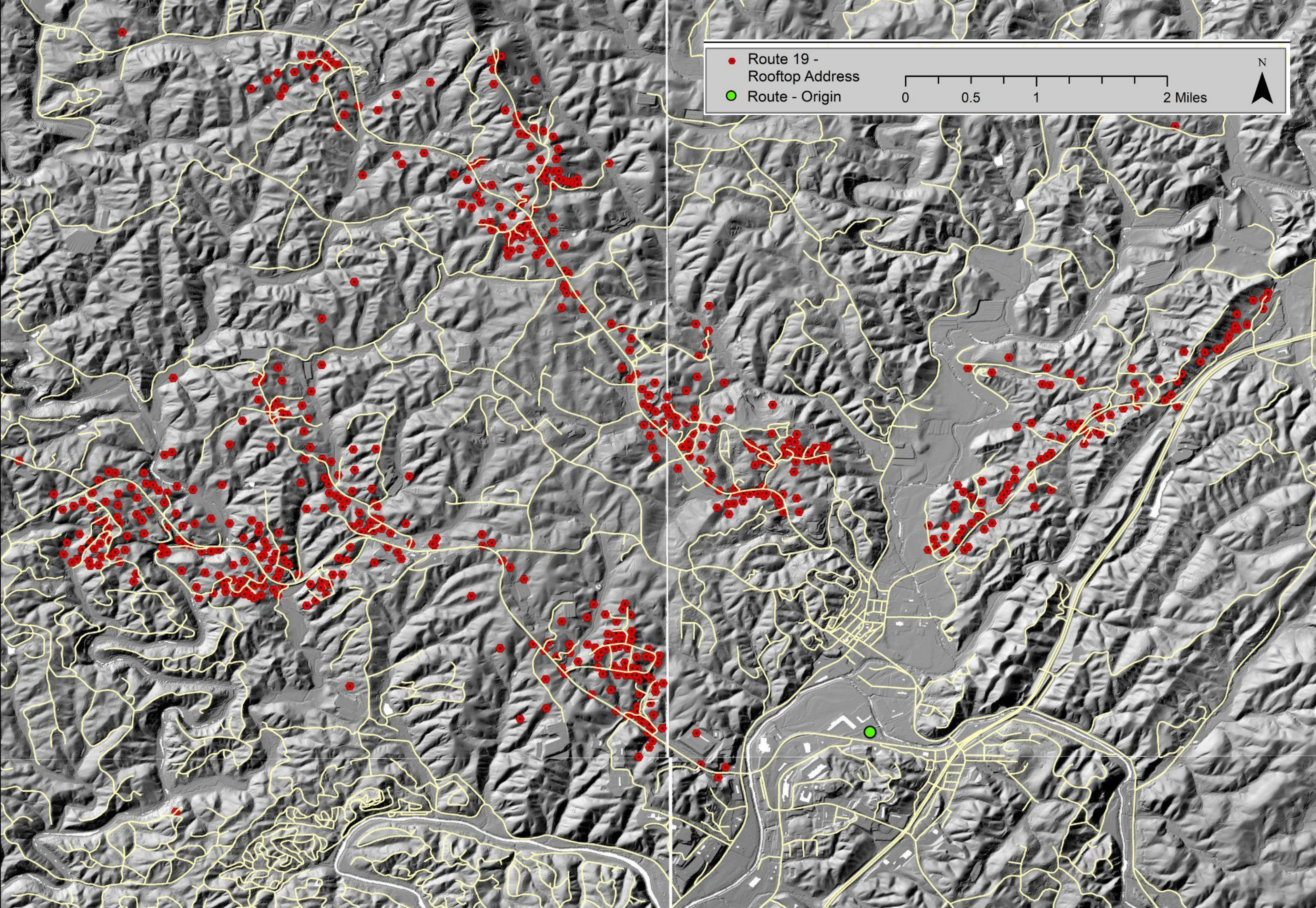
Tools:

- Maintenance records from August 2020 through May 2023
- Delivery walk sequence
- LiDAR based georeferencing of the route

Key Takeaways & Performance Parameters:

- Operation Time
- Total number of stops (instead of miles)





RESULTS



OPERATING DAYS	
Untreated Brakes	103
Treated Brakes	315

305% increase in performance in comparison to the average performance over a 3 years period.

RESULTS



TOTAL HOUSEHOLD DELIVERIES	
Untreated Brakes	70,016
Treated Brakes	213,909

143,893 additional homes were visited with Enrich Brakes and Gears treated rotors and drums before the replacement service was ordered.

To compare performance in terms of service area:

The vehicle outfitted treated OEM brakes could deliver one package to 96% of the households in Nashville, Tennessee with 223,500 homes. The same vehicle with untreated OEM brakes could only deliver to 31% of homes.

IMPORTANCE

The average human takes approximately 20,000 breaths a day.

Counting each household stop along the route as a breath of our own, the treated brakes would live 10.7 days while the untreated would last only 3.5 days.

Reducing brake abrasion dust on these vehicles directly reduces the pollution in our neighborhoods to provide an immediate and important benefit that can be adopted today. The cost benefits are a bonus.



BREATHE EASY!

EFFECTIVE CHANGE



State governments have initiated efforts to tackle the pollution of brake abrasion dust.

Enrich Brakes & Gears provides a solution before regulatory mandates. This is achieved by partnering with end users of brake systems such as school districts, public transportation, waste removal and commercial vehicle fleets. This treatment drastically minimizes MRO costs and reduces fleet size by increasing usability and availability.



Dust from the break abrasion



BREATHE EASY!

Do not hesitate to contact us if you have any questions.

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