

SEQUENCE MATTERS



GET THERE ON TIME



NT Logistics | September 2023

ABOUT



NT LOGISTICS

Arranging transportation is our core competency. It's what we do. Our people are dedicated to finding new processes, technologies, and strategies to save time and money while improving service. We work seamlessly with your organization by providing optimal solutions, staying in constant contact, and sharing our expertise.



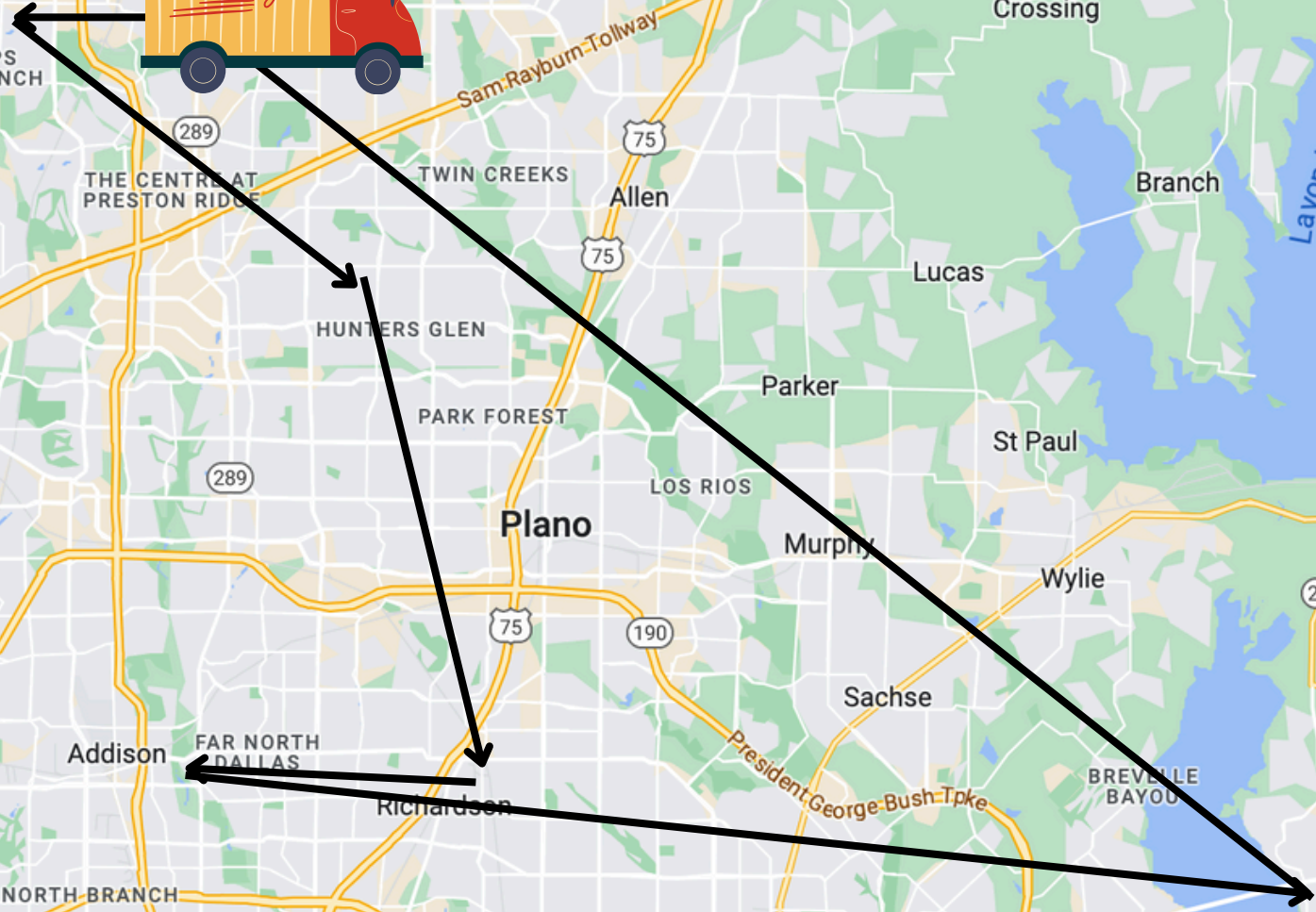
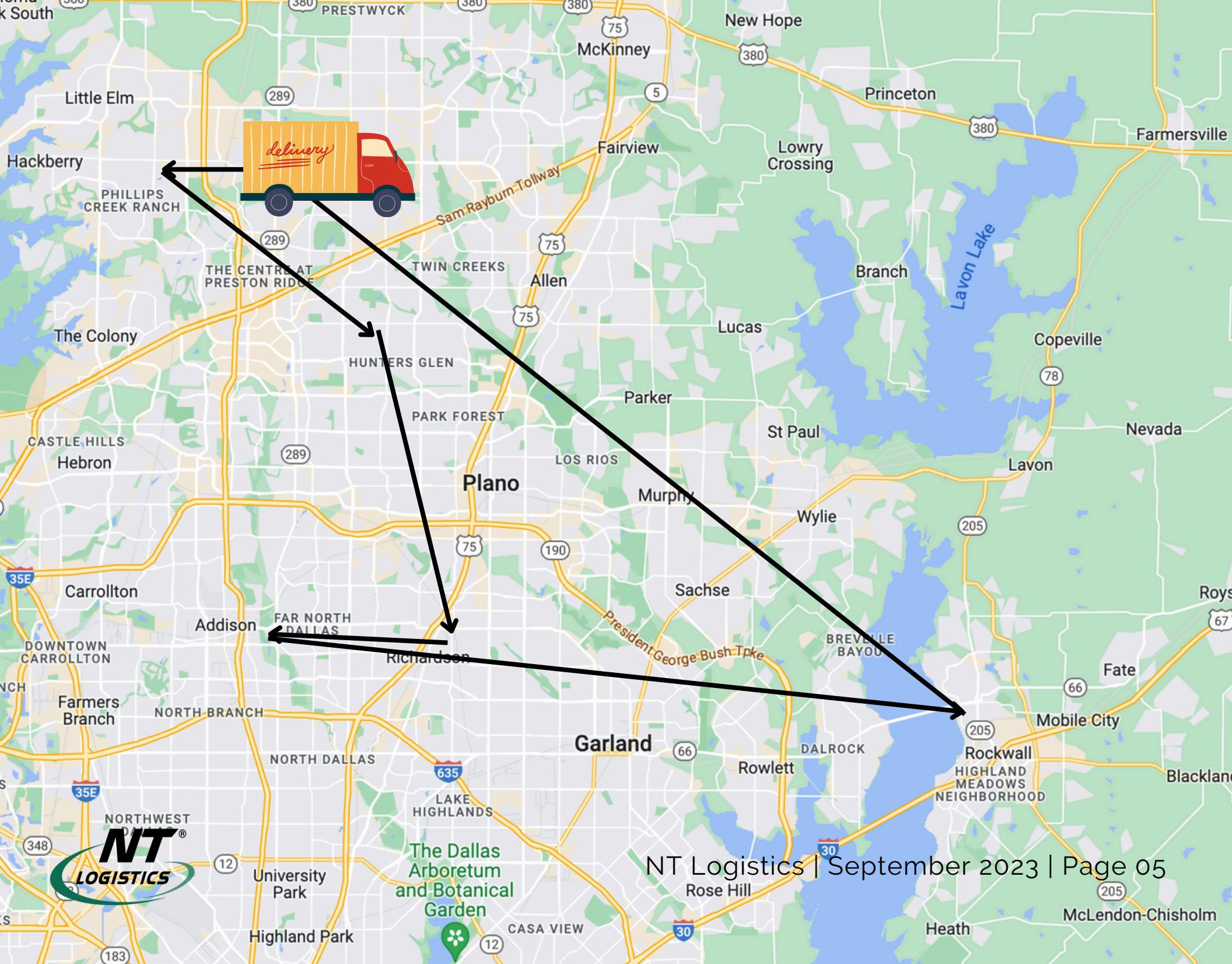
PROBLEM

Given a starting point, determine the fastest way to five separate destinations, and return to the same origin point.

Does it matter how you get there?

SCENARIO ONE

| | Street | City | State | Zip | Miles |
|---------------|----------------------|------------|-------|--------------|-------|
| ORIGIN | 8700 Stonebrook Pkwy | Frisco | TX | 75034 | |
| 1 | 8811 Teel Pkwy | Frisco | TX | 75036 | 4.8 |
| 2 | 3905 Hedgcoxe Rd | Plano | TX | 75025 | 10.2 |
| 3 | 433 Belle Grove Dr | Richardson | TX | 75080 | 14.0 |
| 4 | 4900 Airport Pkwy | Addison | TX | 75001 | 10.0 |
| 5 | 609 S Goliad St | Rockwall | TX | 75087 | 31.3 |
| RETURN | 8700 Stonebrook Pkwy | Frisco | TX | 75034 | 36.6 |
| | | | | TOTAL | 106.9 |



CONSIDERATIONS

AVERAGE SPEED

The average speed of a delivery truck is essential for proper routing as it directly influences delivery schedules and operational costs.

DWELL TIME

Efficiently managing dwell time helps in creating more accurate schedules, reducing idling time, and improving overall delivery performance.

SERVICE AREA

A larger service area might require different routing strategies to optimize deliveries efficiently, while a smaller area can lead to more focused and cost-effective routes.

TRAFFIC PATTERNS

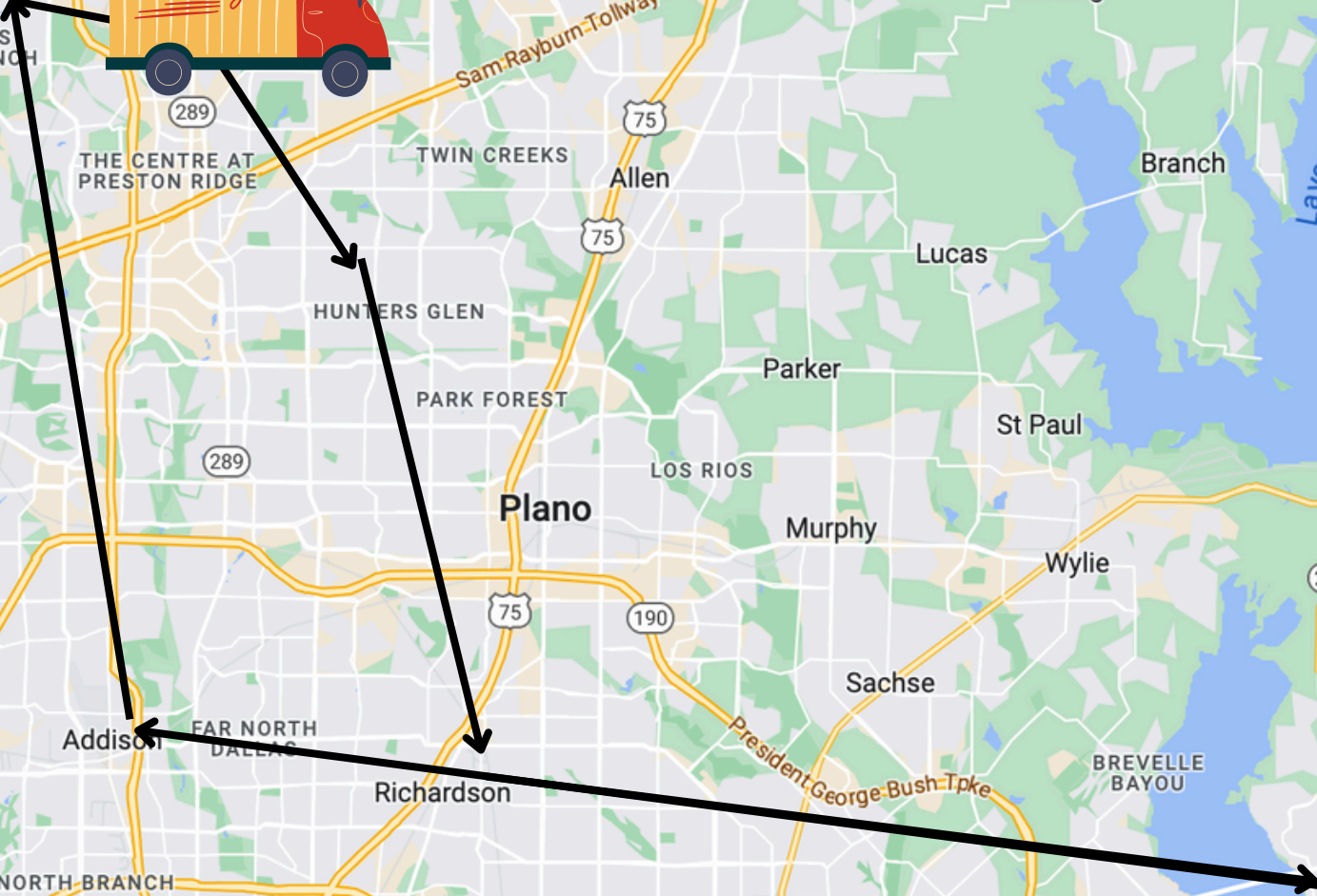
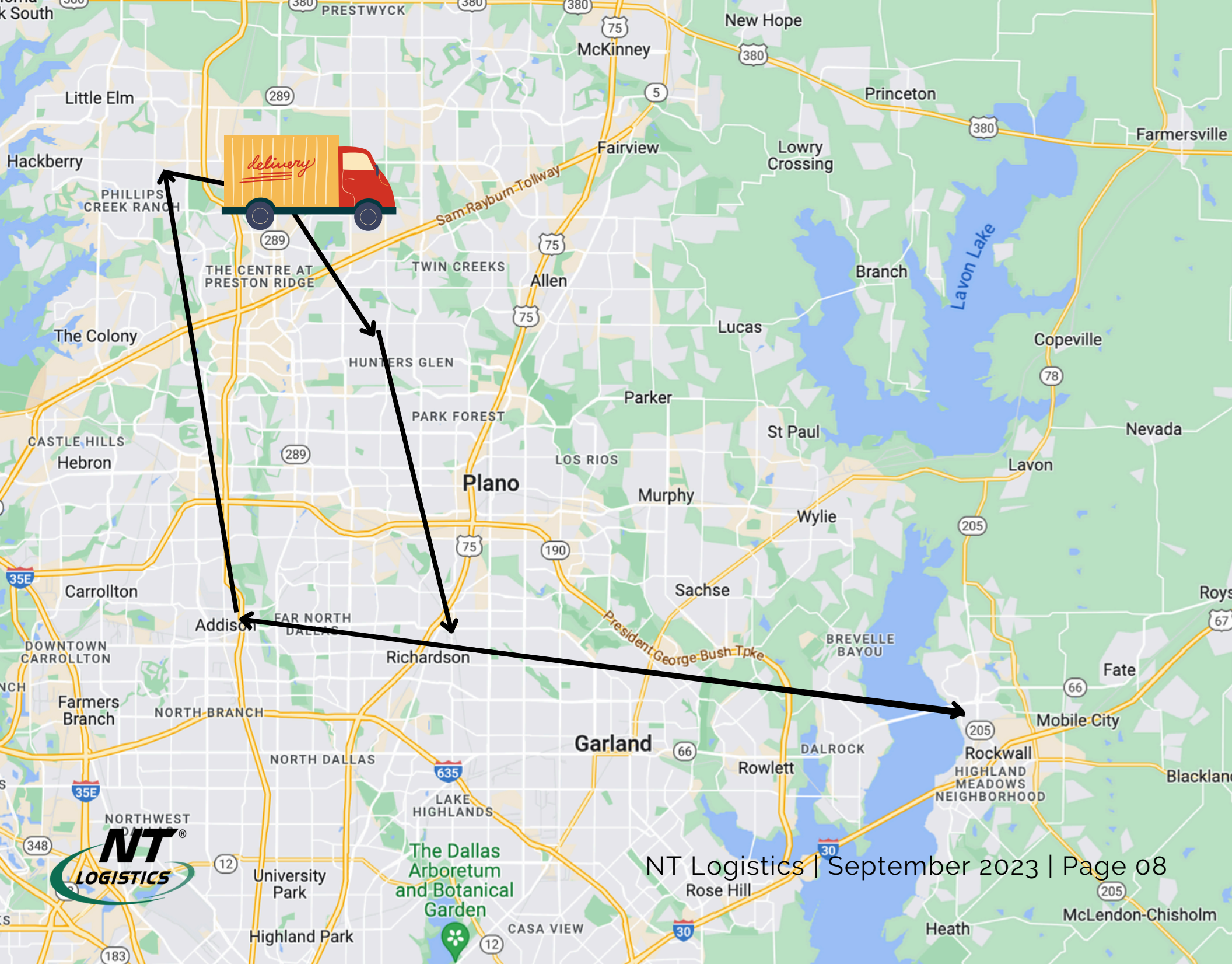
By factoring in traffic data and historical patterns, logistics managers can devise routes that not only save time but also reduce fuel consumption and improve overall operational efficiency.





SCENARIO TWO

| | Street | City | State | Zip | Miles |
|---------------|----------------------|------------|-------|--------------|-------------|
| ORIGIN | 8700 Stonebrook Pkwy | Frisco | TX | 75034 | |
| 1 | 3905 Hedgcoxe Rd | Plano | TX | 75025 | 6.0 |
| 2 | 433 Belle Grove Dr | Richardson | TX | 75080 | 14.0 |
| 3 | 609 S Goliad St | Rockwall | TX | 75087 | 20.4 |
| 4 | 4900 Airport Pkwy | Addison | TX | 75001 | 26.3 |
| 5 | 8811 Teel Pkwy | Frisco | TX | 75036 | 15.5 |
| RETURN | 8700 Stonebrook Pkwy | Frisco | TX | 75034 | 4.9 |
| | | | | TOTAL | 87.1 |





18.5%

MILEAGE REDUCTION

Mileage reduction directly translates to cost savings through reduced fuel consumption and maintenance expenses. Additionally, minimizing mileage helps lower the carbon footprint, aligning with sustainability goals and environmental responsibility.





WHAT YOU CAN SAVE

TIME

Identify the most efficient paths, minimize detours and delays, and ensure deliveries or journeys are completed swiftly.

DRIVERS

Alleviate the burden on drivers during challenging hiring periods by allowing them to cover their routes more efficiently, reducing stress and workload.

MONEY

Streamline routes, reduce fuel and maintenance costs, and improve overall operational efficiency.



»»» SOLUTION

Optimized routing enhances customer satisfaction by ensuring timely deliveries, reducing the risk of delays, and improving overall service quality.



REAL WORLD PROBLEM

To accomplish the following analysis, eight weeks of real, “as routed”, data was extracted from the TMS system and then manipulated through two additional scenarios using our routing optimization software. Once the routing scenarios were completed, the output was visually inspected to ensure that the software’s output was feasible from a practicality standpoint.



REAL WORLD PROBLEM WEEKS 1 THROUGH 4

| | # Trucks | Total lbs | Total stops | Avg lb / truck | Avg lb / stop |
|---------------|----------|-----------|-------------|----------------|---------------|
| Week 1 | 14 | 443,586 | 144 | 31,685 | 2,880 |
| Week 2 | 16 | 476,241 | 123 | 29,765 | 3,721 |
| Week 3 | 15 | 501,724 | 117 | 33,448 | 4,288 |
| Week 4 | 14 | 456,821 | 119 | 32,630 | 3,839 |



REAL WORLD PROBLEM WEEKS 5 THROUGH 8

| | # Trucks | Total lbs | Total stops | Avg lb / truck | Avg lb / stop |
|---------------|----------|-----------|-------------|----------------|---------------|
| Week 5 | 12 | 487,824 | 116 | 40,652 | 4,205 |
| Week 6 | 15.5 | 603,050 | 147 | 38,906 | 3,891 |
| Week 7 | 9 | 338,689 | 88 | 38,601 | 3,860 |
| Week 8 | 14 | 571,945 | 130 | 40,853 | 4,085 |

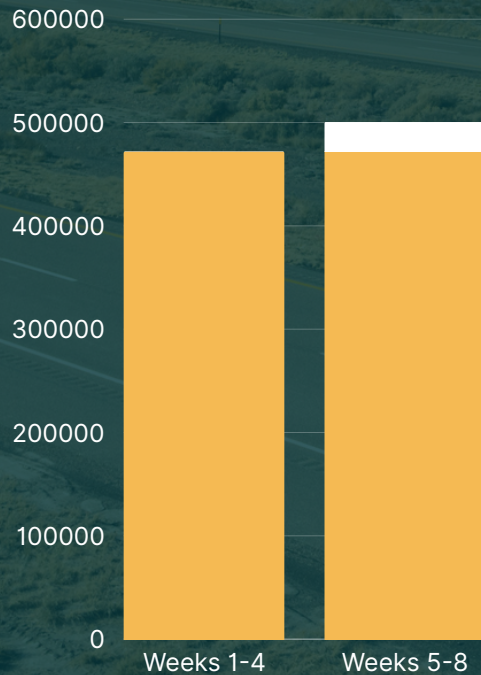
THE RESULTS



16% fewer trucks



8% reduction in stops



6% increase in total lbs



9% increase in lbs / stop



20% increase in truck weight

»»» WHAT YOU CARRY MATTERS

In the previous example, the freight was critical in the sense that we were carrying medical products. Likewise, when working with perishables, we recognize how important it is to get this right, with timeliness and safety being of the utmost importance.





"Do not go where the path may lead. Go instead where there is no path and leave a trail."

RALPH WALDO EMERSON



THANK
YOU

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