



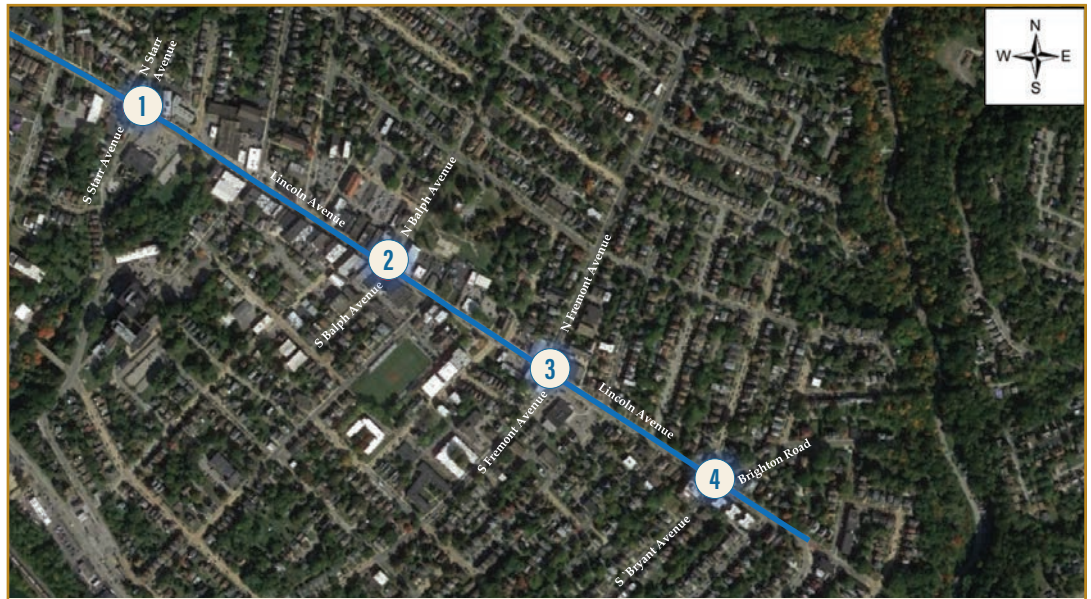
Lincoln Avenue - Bellevue Borough (SINC-UP) Project Summary

REGIONAL TRAFFIC SIGNAL PROGRAM CYCLE 4

The Southwestern Pennsylvania Commission's (SPC) Regional Traffic Signal Program was established to assist local municipalities with improving traffic signal operations by optimizing signal timings and upgrading existing signal equipment. The **Lincoln Avenue Signals In Coordination with Equipment Upgrades (SINC-UP) Project** is a traffic signal retiming project with a goal of optimizing signal operations and improving safety at intersections along the Lincoln Avenue corridor. [See map below for project area].

PROJECT LOCATION

Allegheny County



- 1 Lincoln Avenue and Starr Avenue
- 2 Lincoln Avenue and Balph Avenue
- 3 Lincoln Avenue and Fremont Avenue
- 4 Lincoln Avenue and Brighton Road/ S Bryant Road

Corridor Length: Approx. 0.7 miles

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PROJECT PARTNERS

Federal Highway Administration

Pennsylvania Department of Transportation, District 11-0

Allegheny County

Bellevue Borough

Whitman, Requardt & Associates, LLP

Traffic Signal Coordination:

- Improves safety because vehicles stop less often, which reduces the probability for rear-end crashes
- Benefits the environment by reducing vehicle emissions
- Reduces travel costs by reducing the amount of time stopped at red lights
- Saves money at the gas station by reducing fuel consumption
- Coordination promotes traveling at or below posted speed limit



This project modernized the controller assembly and provided new coordinated timings to smoothen the traffic flow along Lincoln Ave. Numerous safety improvements were enacted such as the installation of audible pedestrian push buttons, lead pedestrian intervals (3 second head start on walk before concurrent green), updated yellow, red, and flashing don't walk intervals, high visible crosswalks, and the separation of the vehicle phases on Starr Avenue to alleviate the inadequate sight distances.

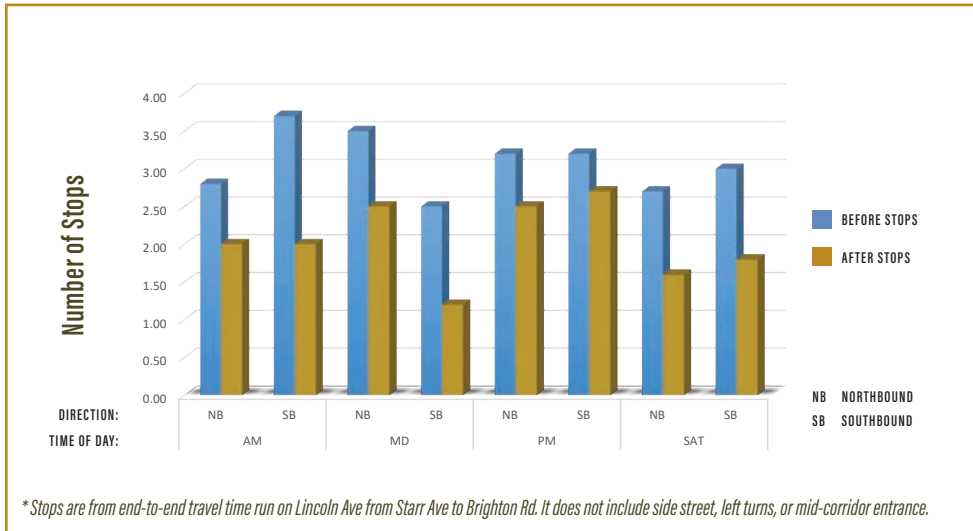


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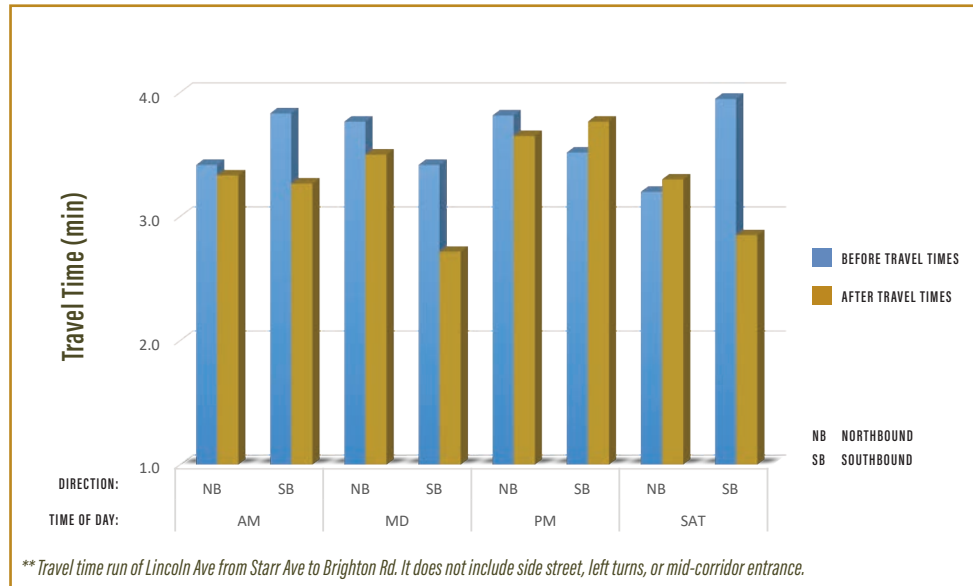
Travel Improvements:

In addition to the safety improvements, the new timings were able to create a 34% reduction of stops and over 8% reduction in travel time throughput traffic during the peaks. There was significant reduction in travel time for the southbound direction for the AM, MD, and Saturday peaks.

Number of Stops*: Before and After Comparison



Travel Time**: Before and After Comparison



Prior to this SINC-UP Project, motorists typically experienced moderate delays and the frustration of consecutive stopping at the traffic signals. This retiming project updated the traffic patterns among these four intersections which alleviated consecutive stopping and improved safety for all users of the corridor.



8,500
vehicles travel this corridor
on an average day

Summary of First Year Benefits

1,404



Reduced Vehicle Hours of Travel

2,995
Gallons



Reduced Fuel Consumption

369 kg



Reduced Total Pollutant Emissions

702,357



Reduced Number of Stops

Total Benefit
\$56,178

Benefit Cost Ratio

1:1