



City of Washington Main Street (SINC-UP) Project Summary

REGIONAL TRAFFIC SIGNAL PROGRAM CYCLE 3

PROJECT LOCATION

Washington County



SOUTHWESTERN PENNSYLVANIA COMMISSION

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PROJECT PARTNERS

Federal Highway Administration

Pennsylvania Department of Transportation, District 12-0

Washington County

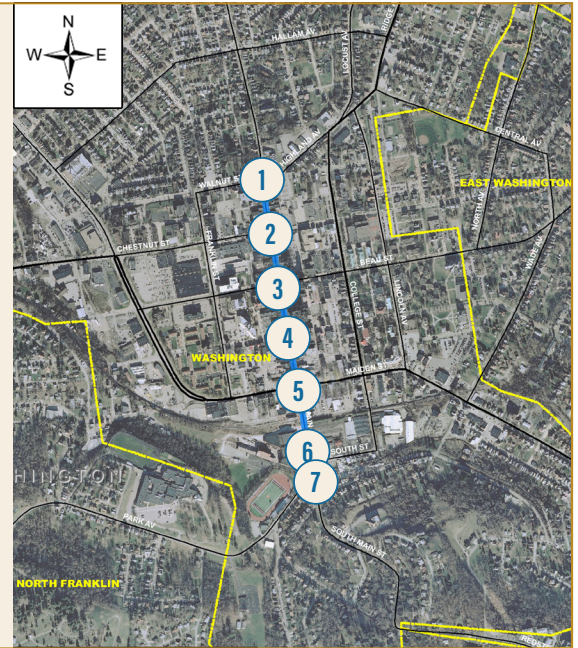
City of Washington

Whitman, Requardt & Associates, LLP

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 City of Washington Main Street Signals In Coordination with Equipment Upgrades (SINC-UP) Project** is a signal equipment upgrade and retiming project with the goal of optimizing signal operations at intersections along the Main Street corridor while considering all users of the intersections [See map below for project area].

- 1 Main Street & Walnut Street
- 2 Main Street & Chestnut Street
- 3 Main Street & Beau Street
- 4 Main Street & Wheeling Street
- 5 Main Street & Maiden Street
- 6 Main Street & South Street
- 7 Main Street & Park Avenue

Combined Corridor Length: Approx. 0.6 miles



Traffic Signal Coordination:

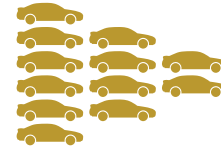
- Improves safety because vehicles stop less often, which reduces the probability for rear-end crashes
- Benefits the environment by reducing vehicle emissions
- Reduces travel costs by reducing the amount of time stopped at red lights
- Saves money at the gas station by reducing fuel consumption



As part of this project, intersections received accessible pedestrian push buttons and LED pedestrian countdown signals to improve pedestrian safety. Global Positioning Satellite Antenna and Receivers were installed at the intersections to allow for time-based coordination during majority of the weekday and midday Saturday. Coordination of traffic signals is one of the most cost effective ways of improving traffic flow along a corridor.

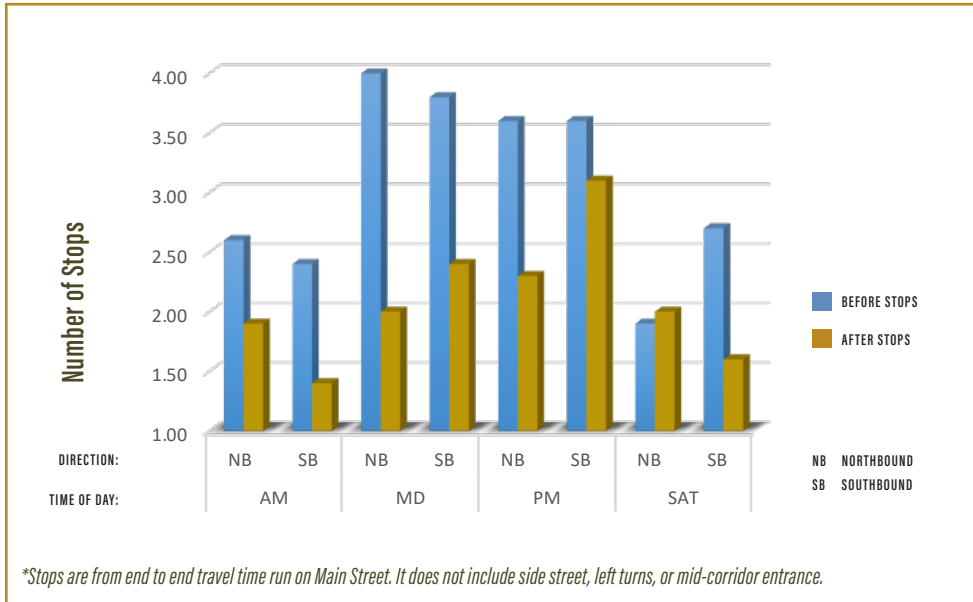
Travel Improvements:

The results showed that on average, travel time and stops improved 17% and 30% respectively throughout the peaks. During the midday peak, northbound Main Street travel time improves by nearly 35% with the number of stops cut in half.

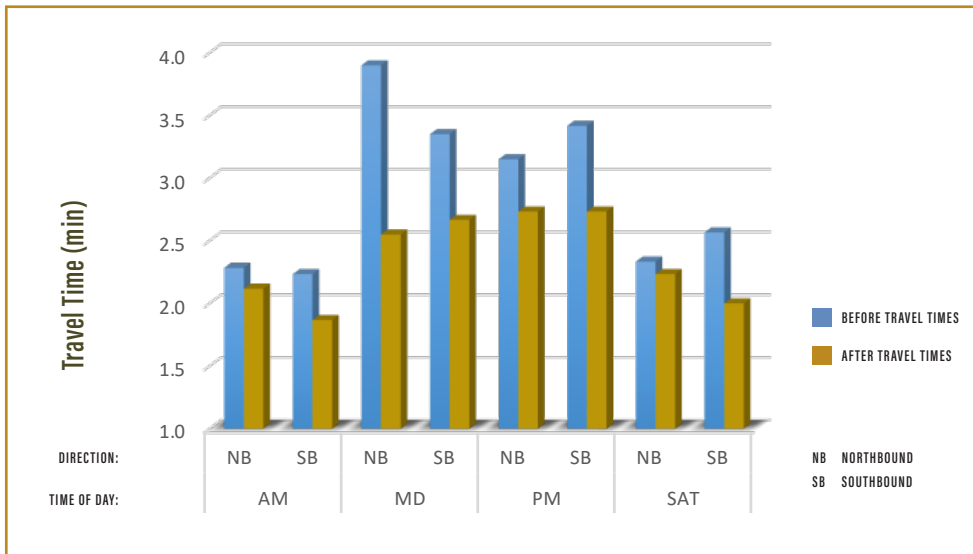


6,200 vehicles travel this corridor on an average day

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 traffic signals. This retiming project coordinated the traffic patterns among these intersections which alleviated consecutive stopping and reduced the motorist's frustration.

Summary of First Year Benefits**

**Main Street

8,943



Reduced Vehicle Hours of Travel

10,994 gallons



Reduced Fuel Consumption

1,010 kg

Reduced Total Pollutant Emissions

806,218



Reduced Number of Stops

Total Benefit***

\$203,101

***reduced travel time, emissions, stops & fuel consumption

Benefit Cost Ratio

4:1