



City of McKeesport Walnut Street (SINC-UP) Project Summary

REGIONAL TRAFFIC SIGNAL PROGRAM CYCLE 3

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 McKeesport Signals In Coordination with Equipment Upgrades (SINC-UP) Project** is a traffic signal project with the goal of optimizing signal operations at intersections along the Walnut St (SR 148) corridor while considering all users of the intersections [See map below for project area].

PROJECT LOCATION

Allegheny County



SOUTHWESTERN PENNSYLVANIA COMMISSION

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PROJECT PARTNERS

Federal Highway Administration

Pennsylvania Department of Transportation, District 11-0

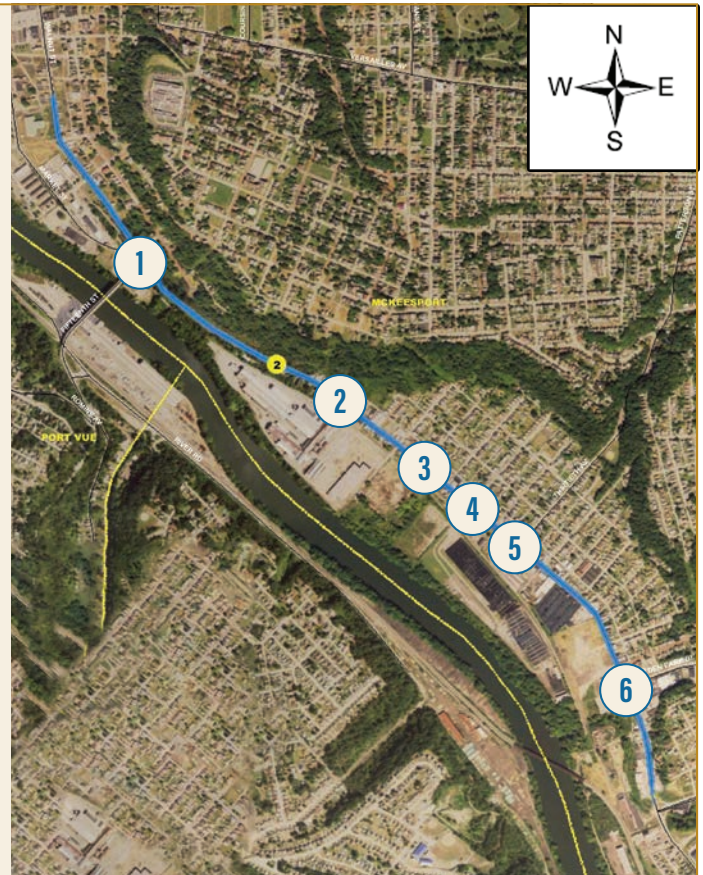
Allegheny County

City of McKeesport

Whitman, Requardt & Associates, LLP

- 1 Walnut St (SR 148) & 15th St Bridge
- 2 Walnut St (SR 148) & 22nd St (Iowa Ave)
- 3 Walnut St (SR 148) & 26th St
- 4 Walnut St (SR 148) & 28th St
- 5 Walnut St (SR 148) & 30th St
- 6 Walnut St (SR 148) & Eden Park Blvd

Corridor Length:
Approx. 1.40 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



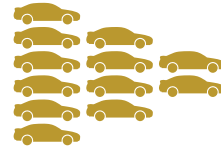
As part of this project, many intersections received new LED pedestrian and vehicular signal heads. A couple intersections also received new cable and signal span wiring. Global Positioning Satellite antenna and receivers were installed at the intersections to allow for time-based coordination. Coordination of traffic signal is one of the most cost effective ways of improving traffic flow along a corridor.



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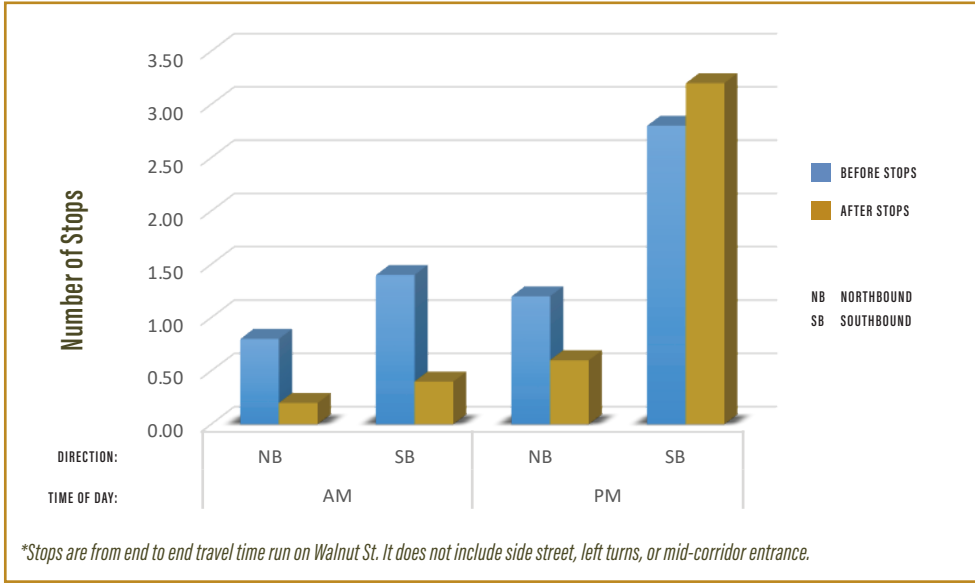
Travel Improvements:

The results showed that the average travel time improved by 16%. The average number of vehicular stops decreased by 45%.

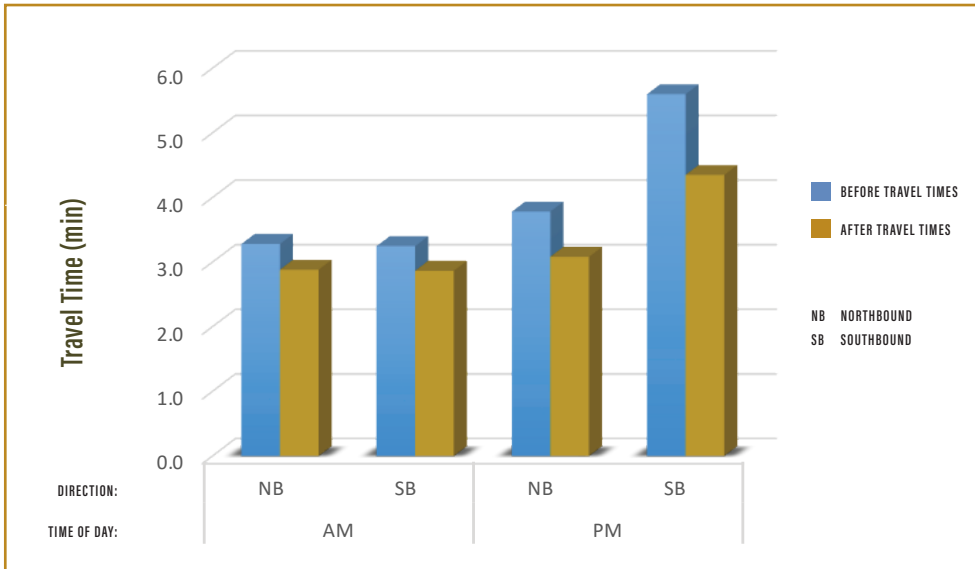


17,800 to 26,900 vehicles travel this corridor on an average day

Number of Stops*: Before and After Comparison



Travel Time: Before and After Comparison



Prior to this SINC-UP Project, motorists typically experienced frustration of consecutive stopping at traffic signals due to the uncoordinated signals. This retiming project coordinated the traffic patterns through these intersections which alleviated consecutive stopping and reduced the motorist's frustration.

Summary of First Year Benefits

13,329



Reduced Vehicle Hours of Travel

17,116 gallons



Reduced Fuel Consumption

1,722 kg

Reduced Total Pollutant Emissions

985,199



Reduced Number of Stops

Total Benefit**
\$724,530

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

Benefit Cost Ratio

7:1