



Bethel Park/Upper St. Clair McMurray Road (SINC-UP) Project Summary

REGIONAL TRAFFIC SIGNAL PROGRAM CYCLE 3

PROJECT LOCATION

Allegheny County



SOUTHWESTERN PENNSYLVANIA COMMISSION

Two Chatham Center, Suite 500
112 Washington Place
Pittsburgh, PA 15219-3451
P: (412) 391-5590
F: (412) 391-9160
www.spcregion.org

Domenic D'Andrea
Operations & Safety Programs Manager
(412) 391-5590 Ext. 341
ddandrea@spcregion.org

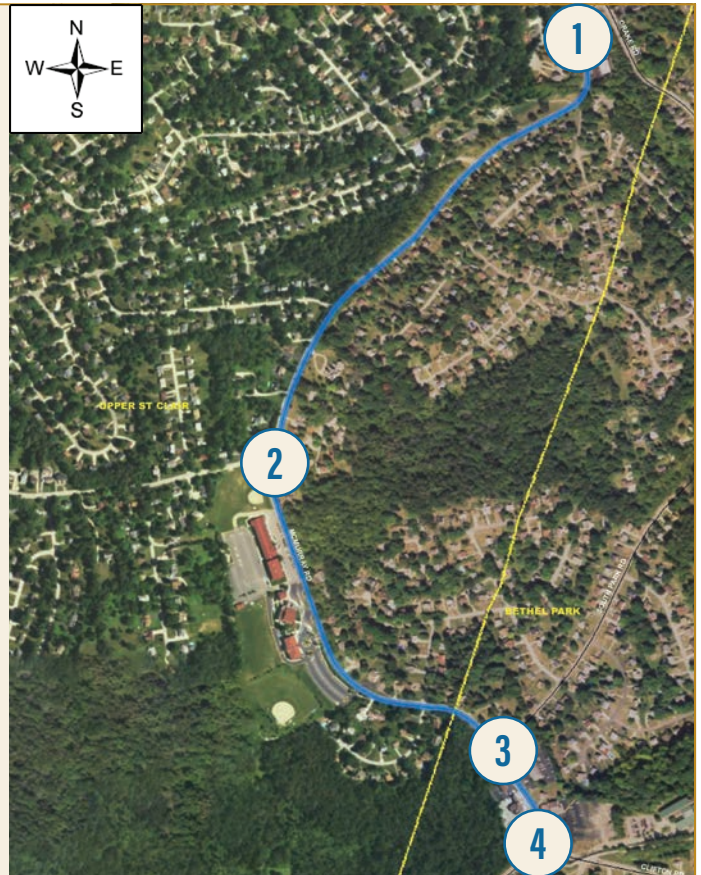
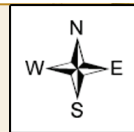
PROJECT PARTNERS

Federal Highway Administration
Pennsylvania Department of Transportation, District 11-0
Allegheny County
Municipality of Bethel Park
Upper St. Clair Township
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 Bethel Park / Upper St. Clair 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 McMurray Rd corridor while considering all users of the intersections [See map below for project area].

- 1 McMurray Rd at Bethel Church Rd
- 2 McMurray Rd at Johnston Rd
- 3 McMurray Rd at South Park Rd
- 4 McMurray Rd at Clifton Rd

Corridor Length:
Approx. 1.30 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



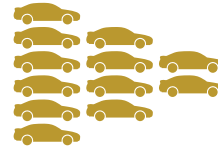
As part of this project, Global Positioning Satellite antenna and receivers were installed at the intersections to allow for time-based coordination at all times. Coordination of traffic signal is one of the most cost effective ways of improving traffic flow along a corridor.



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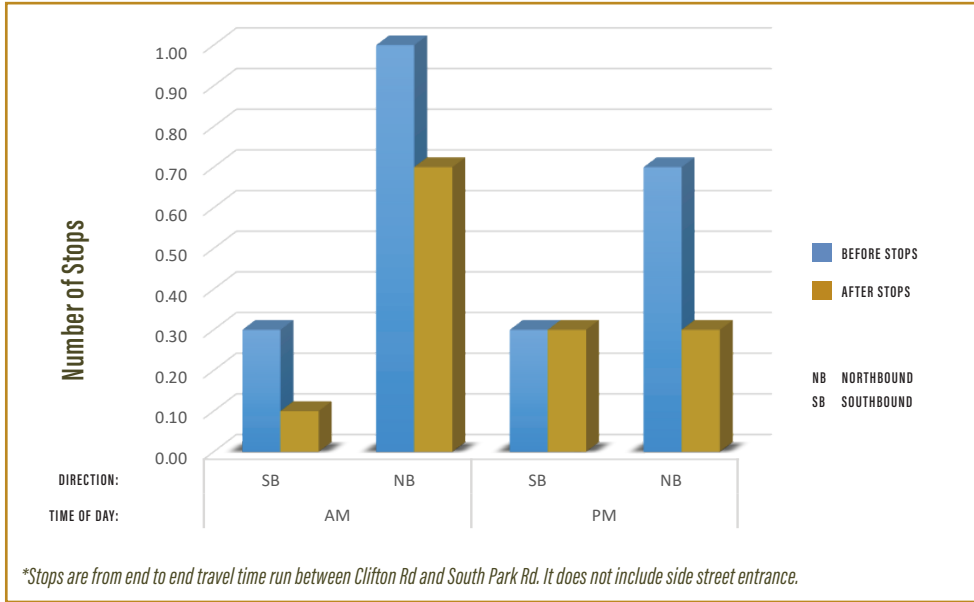
Travel Improvements:

The results showed that on average both travel time and stops improved over 30% during the weekday peaks.

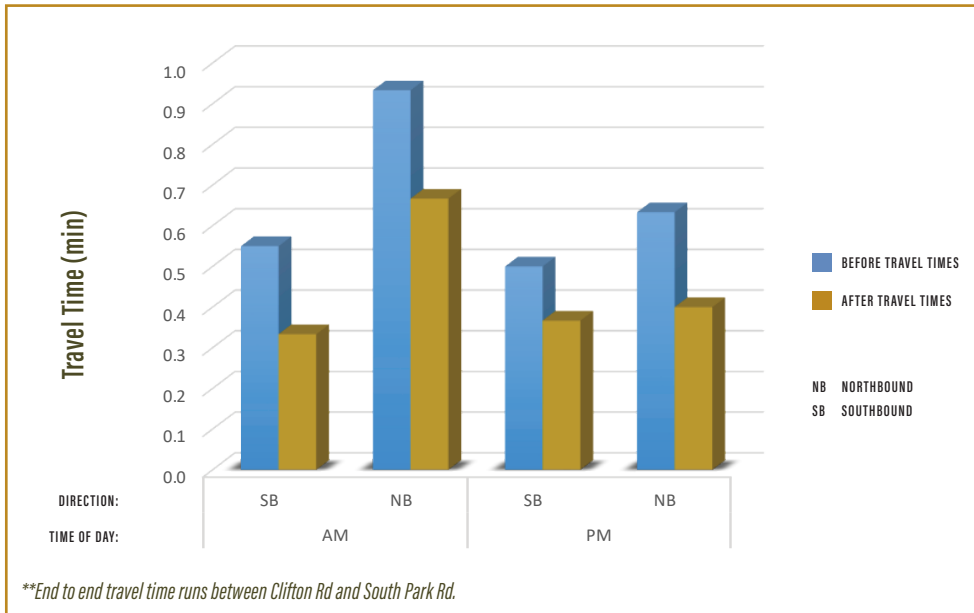


15,900 vehicles travel this corridor on an average day

Number of Stops*: Before and After Comparison



Travel Time**: Before and After Comparison



Summary of First Year Benefits

16,832



Reduced Vehicle Hours of Travel

17,082 gallons



Reduced Fuel Consumption

1,773 kg

Reduced Total Pollutant Emissions

485,675



Reduced Number of Stops

Total Benefit***
\$356,028

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

Benefit Cost Ratio

15:1

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 among these intersections which alleviated consecutive stopping and reduced the motorist's frustration. This project also implemented shorter cycle lengths, reducing motorist wait times.