



Harrison City-Export Road - Penn Township (SINC-UP) Project Summary

REGIONAL TRAFFIC SIGNAL PROGRAM CYCLE 4

PROJECT LOCATION

Westmoreland County



SOUTHWESTERN PENNSYLVANIA COMMISSION

42 21st Street, Suite 101

Pittsburgh, PA 15222

P: (412) 391-5590

www.spcregion.org

Joshua Spano

Manager, Transportation Operations & Safety

(412) 391-5590 Ext. 362

jspano@spcregion.org

PROJECT PARTNERS

Federal Highway Administration

Pennsylvania Department of Transportation, District 12-0

Westmoreland County

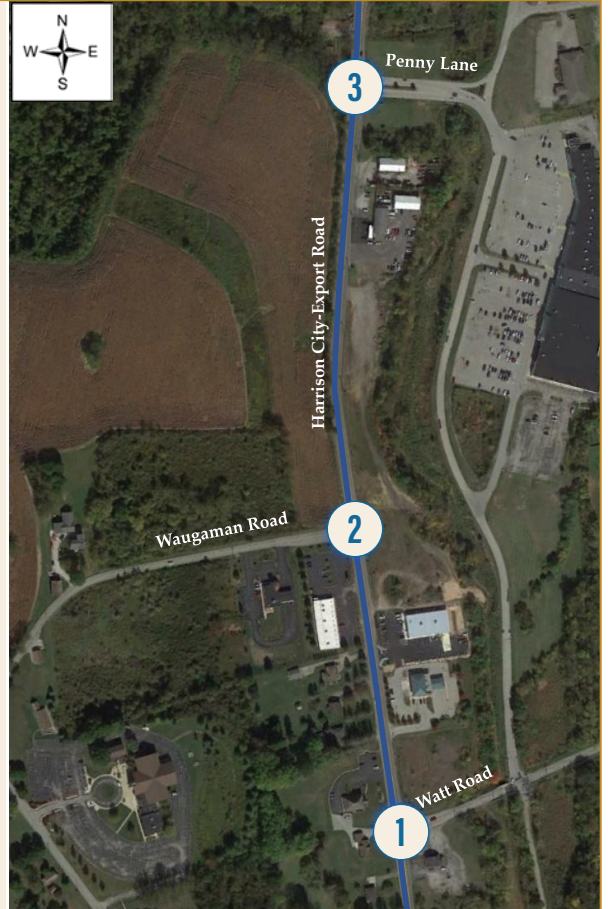
Penn Township

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 Harrison City-Export Road - Penn Township Signals In Coordination with Equipment Upgrades (SINC-UP) Project** is a traffic signal retiming project with a goal of optimizing signal operations at intersections along the Harrison City-Export Road corridor. [See map below for project area].

- 1 Harrison City-Export Road and Watt Road
- 2 Harrison City-Export Road and Waugaman Road
- 3 Harrison City-Export Road and Penny Lane

Corridor Length:
Approx. 0.5 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



This project added new controller assemblies, vehicular signals, pedestrian signals, and push buttons. Additionally, this project included improvements to detection and added GPS units in conjunction with new coordinated timing plans to provide coordination and improve traffic flow.

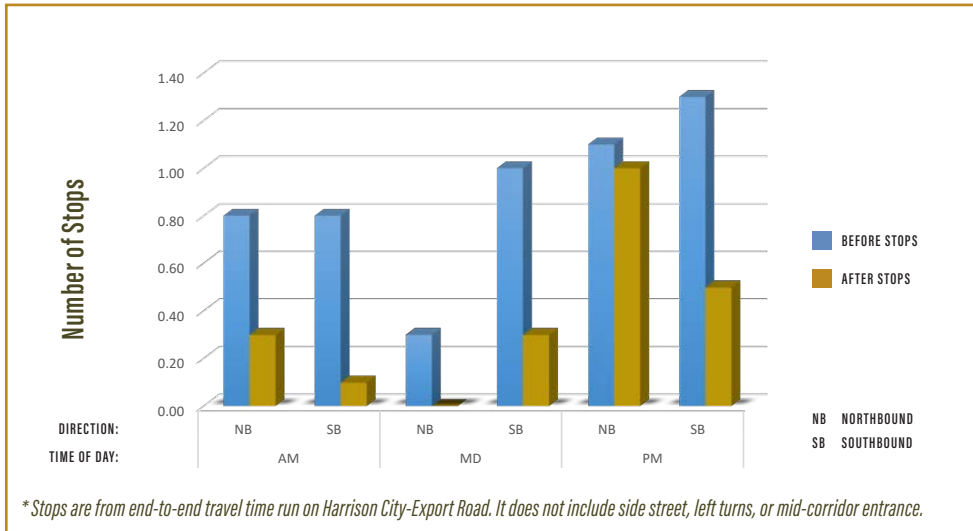


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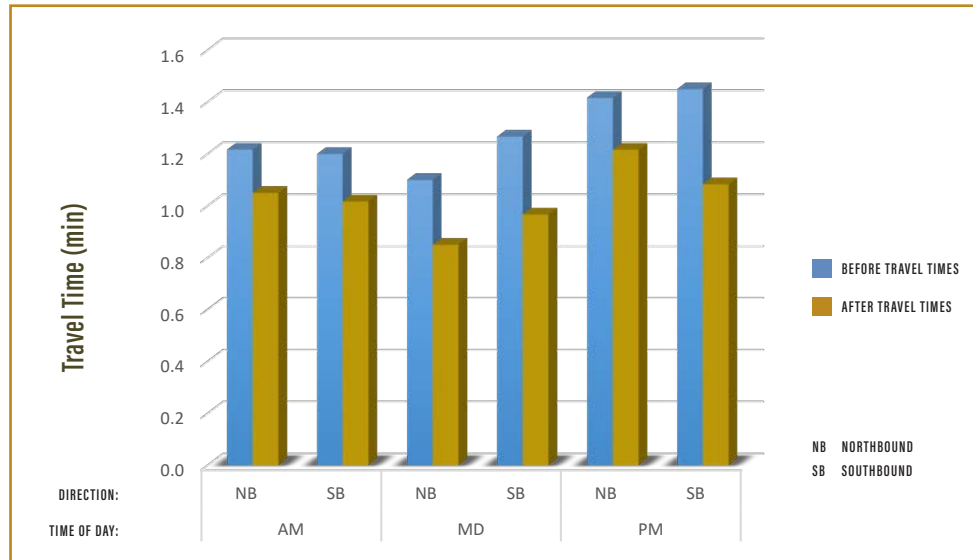
Travel Improvements:

The results showed that the peak travel times were on average reduced by nearly 19% with southbound travel time reduced by 15% and 25% in the AM and PM peak, respectively. There was a 65% reduction of stops and almost 20% reduction in throughput travel time during the 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 coordinated the traffic patterns among these two intersections which alleviated consecutive stopping and reduced the total number of stops.



6,600 vehicles travel this corridor on an average day

Summary of First Year Benefits

1,299



Reduced Vehicle Hours of Travel

3,596
Gallons



Reduced Fuel Consumption

356 kg



Reduced Total Pollutant Emissions

410,736



Reduced Number of Stops

Total Benefit
\$58,697

Benefit Cost Ratio

1.4:1