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 Slippery Rock Borough Main Street and Franklin 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 and Franklin Street corridors while considering all users of the intersections [See map below for project area].

1. Franklin Street & Grove City Road
2. Main Street & New Castle Street/Franklin Street
3. Main Street & Cooper Street
4. Main Street & Kiester Street

Combined Corridor Length: Approx. 0.75 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, two intersections received new modern controller cabinet assemblies and audible emergency pre-emption systems. Global Positioning Satellite Antenna and Receivers were installed at the intersections to allow for time-based coordination during the weekday AM, Midday, and PM peaks as well as Saturday Midday Peak. Coordination of traffic signals is one of the most cost effective ways of improving traffic flow along a corridor.
Travel Improvements:
The average improvement across all peaks for travel time and number of stops was 15% and 40% respectively. Northbound and eastbound directions experienced significant travel time improvement during the AM and PM Peaks, 30% and 45%.

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. This project also configured signal timings to handle moderate traffic surges caused by university traffic.

Summary of First Year Benefits

- 24,689 Reduced Vehicle Hours of Travel
- 21,005 gallons Reduced Fuel Consumption
- 2,069 kg Reduced Total Pollutant Emissions
- 672,479 Reduced Number of Stops

Total Benefit**

$509,100

Benefit Cost Ratio

13:1

https://www.spcregion.org/trans_ops Traff_vids3.asp