



SR 286 – Plum Borough (SINC-UP) Project Summary

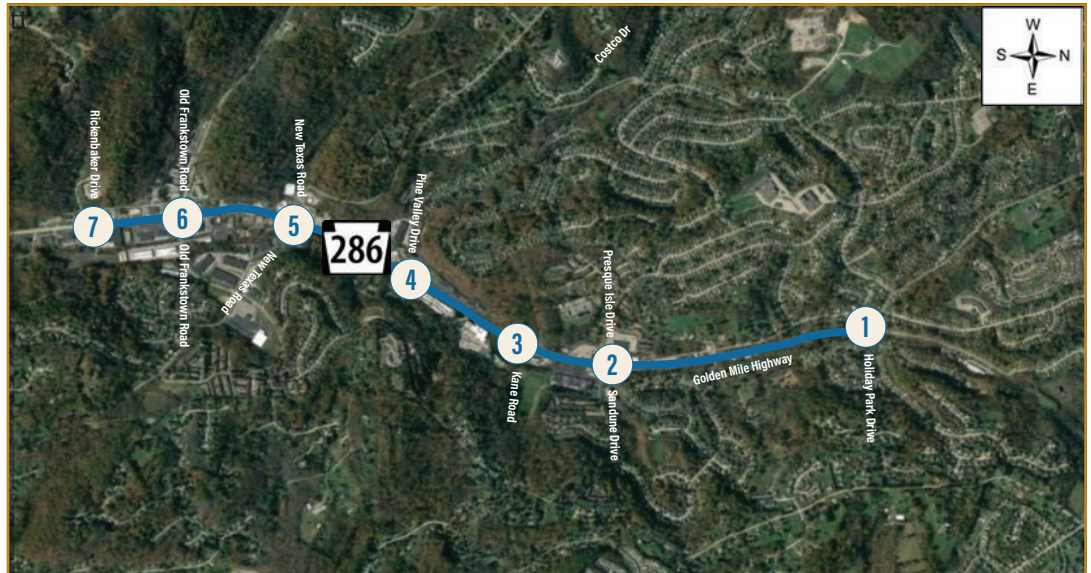
REGIONAL TRAFFIC SIGNAL PROGRAM CYCLE 4

PROJECT LOCATION

Allegheny County



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 **SR 286 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 SR 286 corridor. [See map below for project area].



- ① State Route 286 and Holiday Park Drive
- ② State Route 286 and Presque Isle Drive/Sandune Drive
- ③ State Route 286 and Kane Road
- ④ State Route 286 and Pine Valley Road
- ⑤ State Route 286 and New Texas Road
- ⑥ State Route 286 and Old Frankstown Road
- ⑦ State Route 286 and Rickenbaker Drive

Corridor Length: Approx. 2.5 miles

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PROJECT PARTNERS

Federal Highway Administration

Pennsylvania Department of Transportation, District 11-0

Allegheny County

Plum Borough

Municipality of Monroeville

Whitman, Requardt & Associates, LLP

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

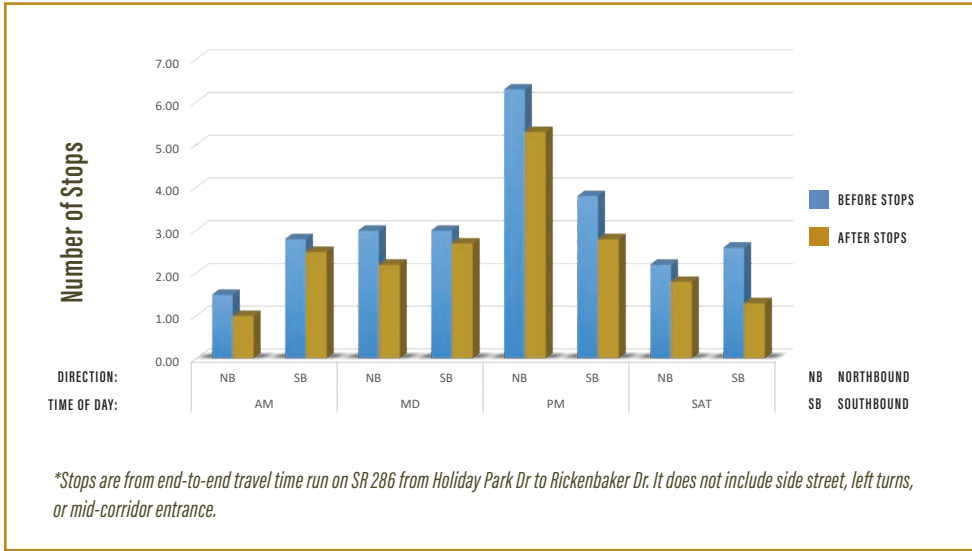


This project provided needed maintenance by replacing electrical services and push buttons. Additionally, this project added GPS units in conjunction with new coordinated timing plans to provide coordination and improve traffic flow.

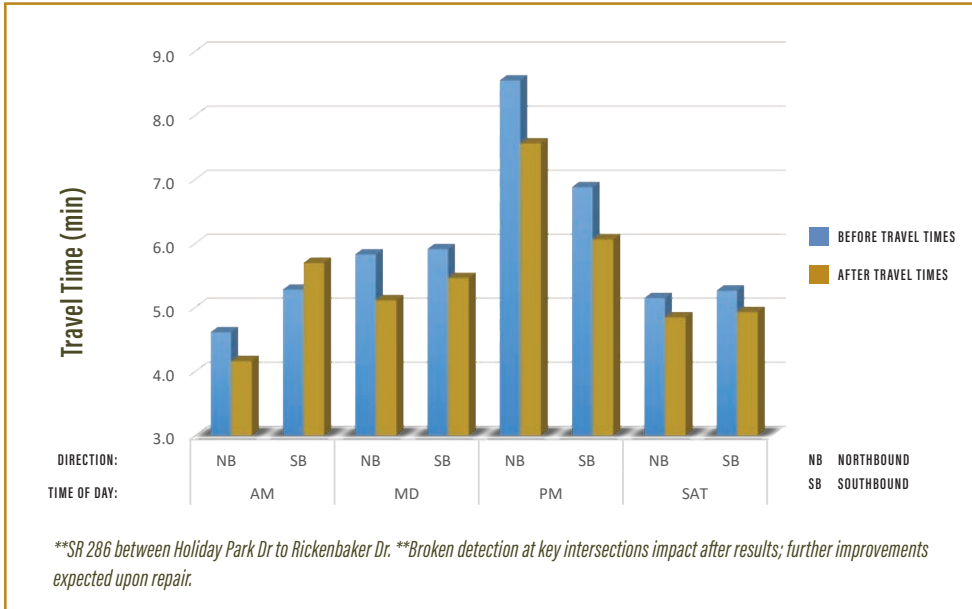
Travel Improvements:

The results showed that the MD peak travel times reduced by 12% for the northbound. The PM peak travel times were reduced by nearly 12% for both directions. There was a 24% reduction of stops and over 7% reduction in travel time throughput traffic during the peaks.

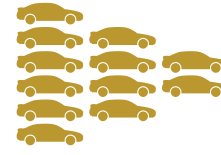
Number of Stops*: Before and After Comparison



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 updated the traffic patterns among these seven intersections which alleviated consecutive stopping and reduced the total number of stops.



16,700-19,500 vehicles travel this corridor on an average day

Summary of First Year Benefits

105,478



Reduced Vehicle Hours of Travel

165,841 Gallons



Reduced Fuel Consumption

16,478 kg



Reduced Total Pollutant Emissions

6,839,418



Reduced Number of Stops

Total Benefit

\$3,065,421

Benefit Cost Ratio

67:1