



North Huntingdon Twp and Irwin Borough US 30 (SINC-UP) Project Summary

REGIONAL TRAFFIC SIGNAL PROGRAM CYCLE 3

PROJECT LOCATION

Westmoreland 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

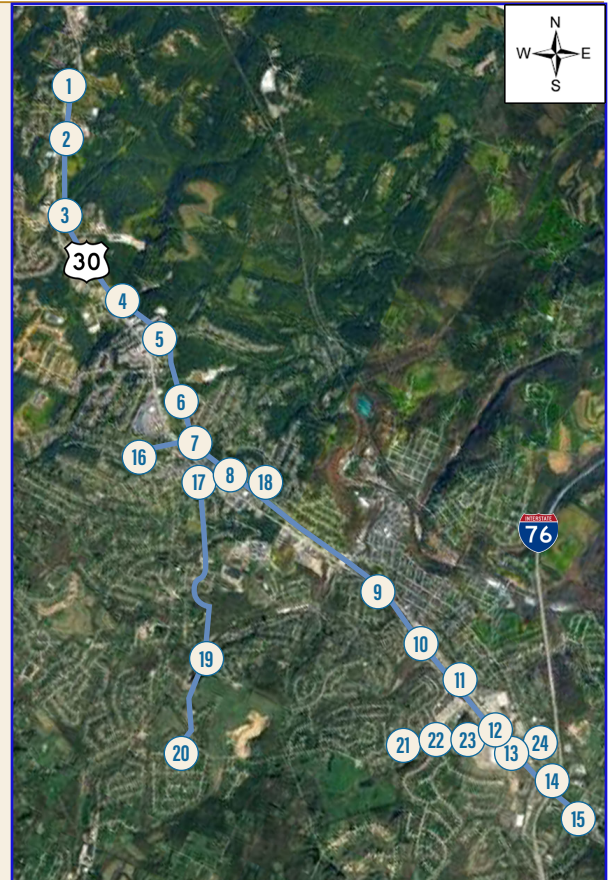
Domenic D'Andrea
Operations & Safety Programs Manager
(412) 391-5590 Ext. 341
ddandrea@spcregion.org

PROJECT PARTNERS

Federal Highway Administration
Pennsylvania Department of Transportation, District 12-0
Westmoreland County
North Huntingdon Township
Irwin Borough
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. **North Huntingdon Twp and Irwin Borough US 30 Signals In Coordination with Equipment Upgrades (SINC-UP) Project** is a signal equipment upgrade and traffic signal project with the goal of optimizing signal operations at intersections along the US 30 corridor and North Huntingdon Twp while considering all users of the intersections [See map below for project area].

- 1 US 30 & Old Jacks Run Road/Peterson Road
- 2 US 30 & Hartford Heights VFD
- 3 US 30 & Carpenter Lane/Leger Road
- 4 US 30 & Colonial Manor Road
- 5 US 30 & New England Motor Freight Driveway
- 6 US 30 & Malts Lane
- 7 US 30 & Lincoln Way
- 8 US 30 & Robbins Station Road/Center Highway
- 9 US 30 & Fairwood Drive/10th Street
- 10 US 30 & Colony Drive/Ash Street
- 11 US 30 & Norwin Avenue/N. Huntingdon Square Drive
- 12 US 30 & Barnes Lake Road
- 13 US 30 & Ronda Court/Rocky Road
- 14 US 30 & Arona Road
- 15 US 30 & Thompson Lane
- 16 Lincoln Way & Bethel Road/Maus Drive
- 17 Robbins Station Road & Clay Pike
- 18 Center Highway & Brownstown Road
- 19 Clay Pike & Guffey Road/Main Street
- 20 Clay Pike & Barnes Lake Road/Ivanhoe Drive
- 21 Barnes Lake Road & Lakeview Drive/Caruthers Lane
- 22 Barnes Lake Road & Norwin Avenue
- 23 Barnes Lake Road & Mills Drive
- 24 Pennsylvania Avenue & Rocky Road



Corridor Length: Approx. 6.2 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



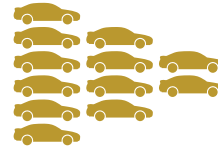
The installation of emergency vehicle preemption systems at 10 intersections on this project will facilitate improved response time by emergency vehicles. The signal at the intersection of Robbins Station Road and Clay Pike was also rebuilt. The implementation of lagging left turn phasing as well as the installation of Global Positioning Satellite Antenna and Receivers at the intersections improved the time-based coordination along US 30. Coordination of traffic signals is one of the most cost effective ways of improving traffic flow along a corridor.



North Huntingdon Twp and Irwin Borough US 30 (SINC-UP) Project Summary

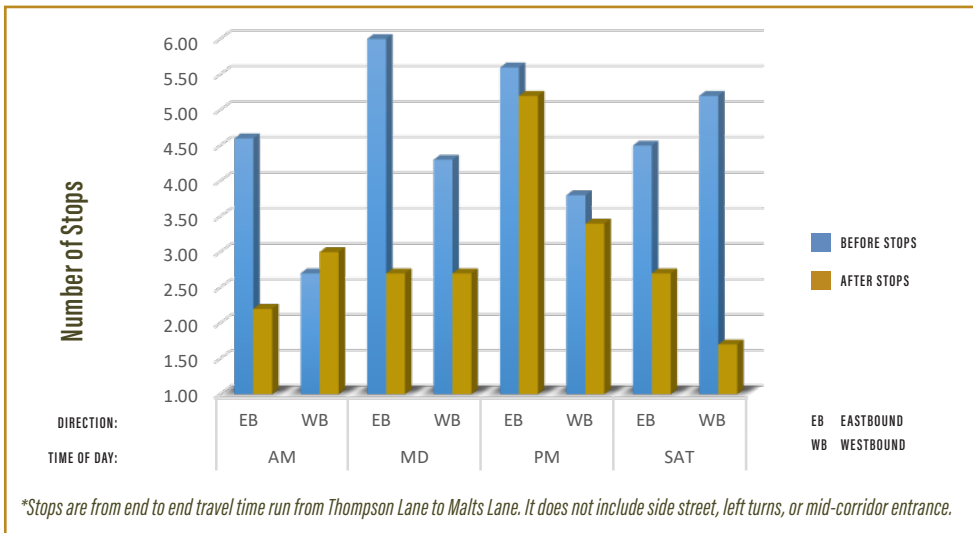
Travel Improvements:

The results for the coordinated signals along US 30 (Thompson Lane to Malts Lane) show an average of 37% reduction in signal delay, 13% reduction in travel time, and 32% reduction of stops for all peaks and directions. On average the peak travel time is reduce by over 1.3 minutes. US 30 on average has 50% reduction in signal delay during Saturday afternoons. Eastbound US 30 travel time improves by 15% or greater for the AM, Midday, and Saturday peaks.

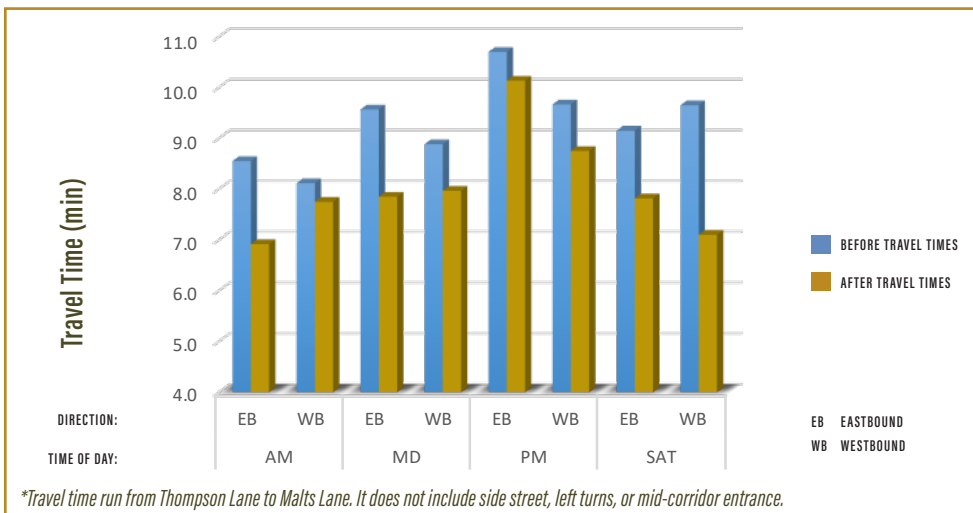


25,000 vehicles travel US 30 on an average day

Number of Stops*: Before and After Comparison



Travel Time*: Before and After Comparison



This corridor was re-timed eight years ago under the SPC Signal Program. As traffic grew and signal equipment aged, motorists experienced moderate delays and queuing along US 30. This retiming project coordinated the traffic patterns along US 30 while deploying strategic locations of lagging left turns to improve progression and to alleviate the delay along US 30.

Summary of First Year Benefits

142,510



Reduced Vehicle Hours of Travel

97,532 gallons



Reduced Fuel Consumption

9,736 kg

Reduced Total Pollutant Emissions

5,062,260



Reduced Number of Stops

Total Benefit**

\$2,883,189

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

Benefit Cost Ratio

20:1