



Cross-Jurisdictional
Signal Coordination for
Your Community

The Road to Cooperation

A Federal Highway Administration Initiative

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Traffic does not recognize city, county, and regional boundaries. The drivers in your community expect a smooth traffic flow through local arteries, and cross-jurisdictional signal coordination can help you meet their expectations.

This approach relies on cooperation and communication among agencies involved in traffic planning, and has been proven to work in communities large and small.



Why Cross-Jurisdictional Signal Coordination?

Interconnecting traffic signals and optimizing traffic signal timing can result in travel time reductions ranging from 8% to 25% along a corridor or artery. Whether you are a traffic operations manager or planning professional for a municipality, county, region, or state, you can achieve this benefit of cross-jurisdictional signal coordination. Not only will traffic congestion improve, but you will see improvements in air quality and safety as well. Some communities have even seen improved cost-efficiencies in purchasing and installing traffic control equipment through regional cooperation.

They Did It — You Can Too

These five examples represent a cross-section of communities that have used cross-jurisdictional signal coordination successfully.

Philadelphia, Pennsylvania

The City of Philadelphia and two townships have informal agreements to provide arterial signal coordination. Each agency controls its own system and timing plans, but traffic signals are coordinated across agencies. These agreements have led to improved operations resulting in more consistent traffic speeds, fewer accidents, and reduced air pollution.



Photo by Bob Krist '1999 by Greater Philadelphia Tourism Marketing Corporation.

Montgomery County, Maryland



Officials in this county in the Washington, D.C. metropolitan area have been under increasing pressure from civic leaders to improve transitions between neighboring traffic control systems. In response, informal agreements between traffic planning agencies are being re-evaluated, signal coordination on additional roadways is being considered, and technical problems are being solved.

Monroe County, New York

For many years Monroe County Department of Transportation has been operating signals for the City of Rochester as well as the New York State Department

of Transportation. This has been such a successful arrangement that the three parties have recently relocated into a new Traffic Management Center with the New York State Police as new partners. Now they will also include freeways in their regional traffic management activities.



Tucson, Arizona



Seven agencies are involved in traffic planning in Tucson. The City of Tucson hosts the regional traffic control system, and each agency maintains its own field hardware, communication systems, and timing plans. Besides reducing travel time and delays, Tucson is realizing cost efficiencies by pooling regional funding for new traffic signal coordination equipment.

The City of Greenwood Village, Colorado

For a small city, Greenwood faces challenges in coordinating a wide variety of control and communications systems equipment. After implementing a new timing plan, Greenwood sought and implemented input from local agencies that helped the system achieve a 13% reduction in travel-time and a 17% improvement in travel speed.



Meeting the Challenges

Cross-jurisdictional signal coordination is an achievable goal for any community. Experience has shown that there are always ways to overcome technical or institutional barriers.

Overcoming Technical barriers

- It is not necessary to have a single system maintain coordination between systems.
- Having a single system does not necessarily mean that one agency has control.
- Wireline and wireless applications can be used to coordinate signals.

Overcoming Institutional barriers

- Agencies can cooperate while still responding to the needs of their constituents.
- Agreements between agencies can be formal or informal.
- Regional government agencies can be instrumental in bringing agencies together.
- Control need not be relinquished to have this work.

Need Assistance or Information?

The Federal Highway Administration is available to help you develop a successful cross-jurisdictional signal timing program. For further information on federal highway funding and program delivery, please consult your local FHWA office, typically located in the capital city of each state.

To access an electronic version of Cross-Jurisdiction Signal Coordination (Publication No. FHWA-OP-02-034) visit our FHWA Web site <http://www.fhwa.dot.gov>



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