

# Traffic Engineering Fact Sheet

## City of Roseville



### What is Intelligent Transportation Systems?

Intelligent Transportation Systems, or ITS, is the use of technology to improve traffic flow. By using high-tech traffic communications (e.g., signal controllers and traffic cameras), traffic engineers can monitor real-time conditions, make modifications to signal operations and be alerted to problems

with the traffic signal system. When heavy conditions occur, ITS can be used to modify the operation of a traffic signal and then alert motorists of potential problems via Changeable Message Signs and internet-based information tools. Thanks to ITS, traffic engineers can now respond more quickly to safety issues or problems with traffic signals by instantly viewing a camera closest to the intersection.

### How many intersections in Roseville are equipped with ITS technology?

Roseville currently has ITS upgrades and cameras installed at all intersections. *ITS cameras do not have the ability to record video information.*

### What is Traffic Signal Coordination?

Traffic signal coordination is a method of timing groups of traffic signals along a major roadway to provide for a smooth flow of traffic with minimal stops. The goal of coordination is to get the greatest number of vehicles through a system— a group of coordinated traffic signals —with the fewest number of stops. While it would be ideal if every vehicle entering the system could proceed through without stopping, this is not possible even in a well-spaced, well-designed system.



### Are all Roseville streets coordinated?

Not all streets warrant traffic signal coordination. Typically, a street is selected for coordination if it carries a certain amount of traffic during peak hours. In most

cases, coordination is active from 6:00 a.m. to 7:00 p.m. during weekdays. Outside of these hours, individual signals operate on a “first-come-first-served,” or traffic activated, basis.

### How are traffic signals timed?

Coordination along a roadway corridor takes into account the spacing of signals, the prevailing speed and traffic volume on the corridor, the amount of traffic coming in and out of driveways between traffic signals, the uniformity of intersection sizes, and the traffic signal cycle length.



## Do certain streets receive priority over others?

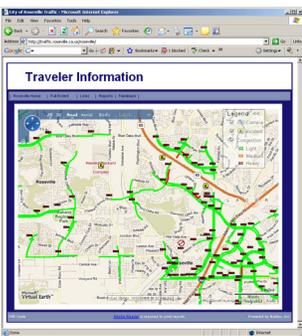
Generally speaking, “majority rules” in traffic coordination, and the busiest traffic movements are given priority. Depending on the route, the length of a traffic signal cycle (think “green-yellow-red”) on a major roadway could vary from 60 to 120 seconds. This means that if you were exiting a side street, and you just missed the light, it is possible to wait between 60 and 120 seconds before receiving another green light. For the most part, the and bigger the intersection the longer the required cycle length.

## What have been the results of traffic signal coordination in Roseville?

Since implementing the traffic signal coordination program, Roseville has seen a 25% reduction in travel times. This equates to a savings of approximately 5,000 vehicle hours of travel time per day.

Coordinated traffic signals also result in less stop-and-go traffic. This can reduce driver frustration and stress levels, and may reduce a driver’s potential to take risks on the road.

## How can the average person utilize Intelligent Transportation System technology?



### Online

People can access ITS information on Roseville’s website at [www.roseville.ca.us/traffic](http://www.roseville.ca.us/traffic). The website provides the latest traveler information with real time roadway congestion, construction and special event information. Travelers can also view live, streaming camera feeds from 167 intersections around Roseville that will aid in route planning decisions.

## Changeable Message Signs

Another way motorists can benefit from the real-time travel data collected through ITS is from Changeable Message Signs (CMS). These signs are located along major roadways and display information to motorists such as accidents and special events that might affect vehicle travel.

The City of Roseville has Changeable Message Signs at the following locations:

Location	Installation
Westfield Galleria at Roseville	Installed
Washington Boulevard near the Placer County Fairgrounds	Installed
Atlantic Street between Yosemite Street and Tiger Way	Installed
Riverside Avenue south of Cirby Way	Installed
Sierra College Boulevard south of Eureka Road	Installed
Douglas Boulevard east of Eureka Road	Installed
Sunrise Avenue south of Cirby Way	Installed
Baseline Road west of Fiddymont Road	Summer 2012
Foothills Boulevard south of Vineyard Road	Summer 2012



## How much did Roseville’s Intelligent Transportation System cost?

The Intelligent Transportation Systems program cost about \$14 million dollars over the past 20 years with roughly \$7 million of that coming from federal, state, and local grants. The balance was funded through fees charged for new development within the City of Roseville.

## More questions?

For more information about Intelligent Transportation Systems, contact Public Works – Engineering at (916) 746-1300, [TrafficSignals@roseville.ca.us](mailto:TrafficSignals@roseville.ca.us), or visit [www.roseville.ca.us/pw](http://www.roseville.ca.us/pw).

