AURORA — The city received dozens of complaints from commuters last month about long delays on Commons Drive at New York Street.

City traffic engineer Eric Gallt said they were aware traffic counts on New York Street were steadily busier throughout the day compared to Commons Drive. But Gallt quickly determined that during peak morning and evening rushes, commuters on Commons Drive traveling to and from the Metra station at Route 59 were causing significant delays.

And he arrived at that conclusion without ever having to leave his office.

From a monitor in the corner of the fourth floor at City Hall, Gallt was able to pull records of the traffic light patterns and traffic counts over seven days at the intersection, thanks to the help of the city's high-tech traffic control system.

Cameras at the traffic lights instantly detect the number of cars waiting at an intersection.

“We're able to determine (traffic patterns) without three days of traffic counts,” in person, Gallt said. “We're able to change the maximum waiting time at the red light and download it right to the (traffic) controller signal.”

Adding intersections

The city will expand its traffic management system to include new intersections in 2012 and 2013.

Two of the projects will be completed this year. The City Council has approved the upgrade of eight signals on Eola Road from Wolf's Crossing to New York Street. The project will be funded 80 percent by a federal grant and 20 percent by the city through motor fuel tax funds. The total cost is estimated at $111,650.

The city will also interconnect traffic signals on Commons Drive from McCoy Drive to New York Street. The project is expected to cost $63,000, with another grant picking up most of the cost.

The engineering department will also upgrade recording capabilities that allow them to store video of the intersections for seven days. Currently, the department only receives a live feed of the
Gallt said that capability will allow the police department to request video from the city that may help identify the cause of a car crash or a suspect in a crime.

But Gallt said the goal of the traffic light cameras is not to watch the city’s residents.

“We’re not watching people. We’re watching cars, and we’re not watching them all of the time,” he said.

The upgrades will also allow for regional coordination with DuPage County and the city of Naperville.

Efficiency issue

Gallt said the city began installation of the new traffic control system in October 2010 along West Galena Boulevard from Orchard Road to Locust Street.

The most obvious goal of the project was to move traffic more efficiently through the city.

“They appreciate green light after green light,” city engineer Steve Zaburunov said of motorists. “Before it was just chaos.”

The new traffic control system had other benefits, too. The system equipped the city with the ability for emergency vehicles to preempt traffic signals during an emergency and also reduce vehicle emissions.

Federal funding

The city has seven projects in place: at Galena Boulevard East, Galena Boulevard West, River Street, Lake Street, Broadway, West New York Street, East New York Street and Indian Trail.

In all, 72 of the city’s 105 signals have been connected to the centralized traffic management system. All 72 have emergency vehicle preemption capabilities and full LED signal head upgrades; the city also installed uninterruptible power battery backup at 68 of the signals. About 15 miles of roadway are connected to the system.

The traffic control upgrades are funded 80 percent or more through federal Congestion Mitigation and Air Quality Grants. To date, the city has received more than $12 million in CMAQ funds, according to Gallt.

Instant adjustments

The benefits of the system are significant, Gallt said. The system has allowed the department to drastically reduce the number of man-hours that are required to address traffic signal issues.

The system also allows city engineers to monitor traffic flow in real time and adjust traffic light patterns accordingly.

“The video has been very helpful with us addressing residents’ (traffic) issues overall,” Gallt said.

About 24 of the video detection systems are fixed cameras, and 12 are pan tilt zoom cameras, meaning engineering staff can move the position of the camera from City Hall.

That capability really comes in handy during peak seasonal times. While setting up traffic patterns for the holiday season used to be a two-day operation, adjusting the eight traffic signals around the Westfield Fox Valley mall now can be done with the click of a computer mouse.

“We can set up a pattern in July, and program it to go to the pattern in November,” Gallt said.

Gallt said the improved traffic patterns have raised expectations for the city.

“People expect a fast response time. But that’s what we’re here for,” he said.