

**Macomb County Department of Roads
Traffic Operations Center**
Monthly Performance Measures Report

APRIL 2024



MACOMB COUNTY
COMTEC **AECOM**
Communications & Technology
Center

INTEGRAL BLUE **WSP**

John Abraham, PhD, PE, PTOE
Director of Traffic & Operations
Macomb County Department of Roads
117 S Groesbeck Hwy
Mt Clemens, MI 48043
586-463-8671
JAbraham@RCMCWeb.org



Incident Updates & Alerts

GovDelivery
5,849 subscribers



Facebook

Macomb County Department of Roads
11,000 followers



X

@MacombNewsNow
5,127 followers



Website

<https://roads.macombgov.org/Roads-Home>
6,604 website visits

GET CONNECTED!

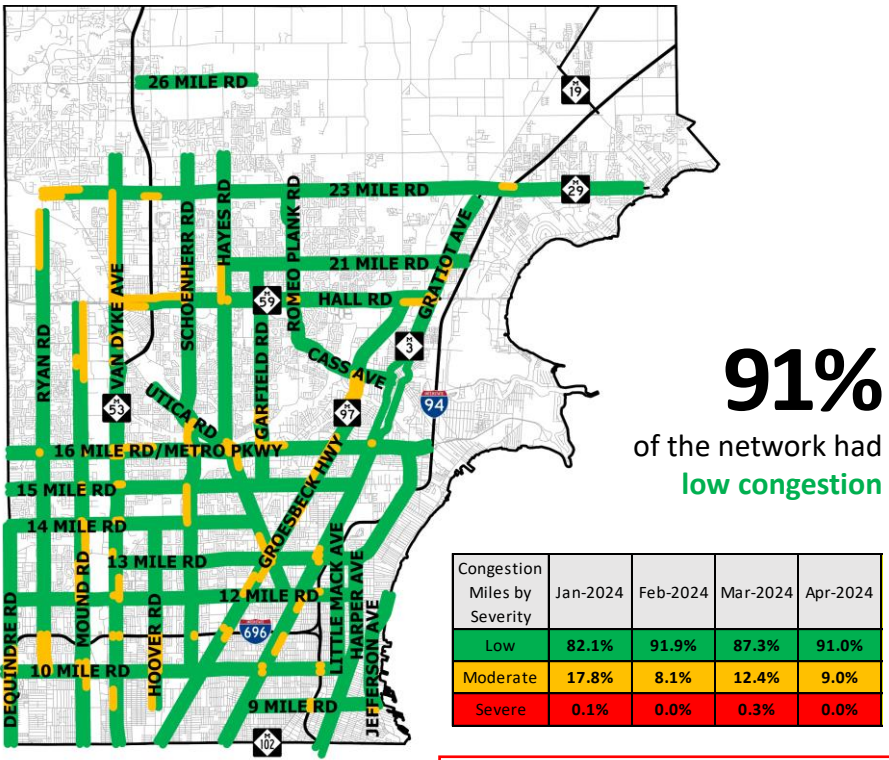
Click these links to get connected with
Macomb County Roads!

Monthly Mobility



Traffic operations engineers oversee 737 signalized intersections on 1,700 miles of roads within Macomb County. They routinely look for poor traffic flow and identify opportunities for improvement through traffic signal timing adjustments. Congestion, which is defined as when vehicle speeds are less than the free-flow speed along a roadway, is the metric used for identifying poor traffic flow. Traffic operations engineers use congestion data from the Regional Integrated Transportation Information System (RITIS) which collects probe vehicle data from cell phones and navigation devices that emit GPS locations. The data displayed shows congestion percent which is averaged per weekday minute for a given month. Roadway segment congestion levels are categorized into the following severity levels: Low (vehicle speeds were $\geq 85\%$ of free-flow speeds), Moderate (vehicle speeds were $\geq 50\%$ and $< 85\%$ of free-flow speeds), and Severe (vehicle speeds were $< 50\%$ of free-flow speeds).

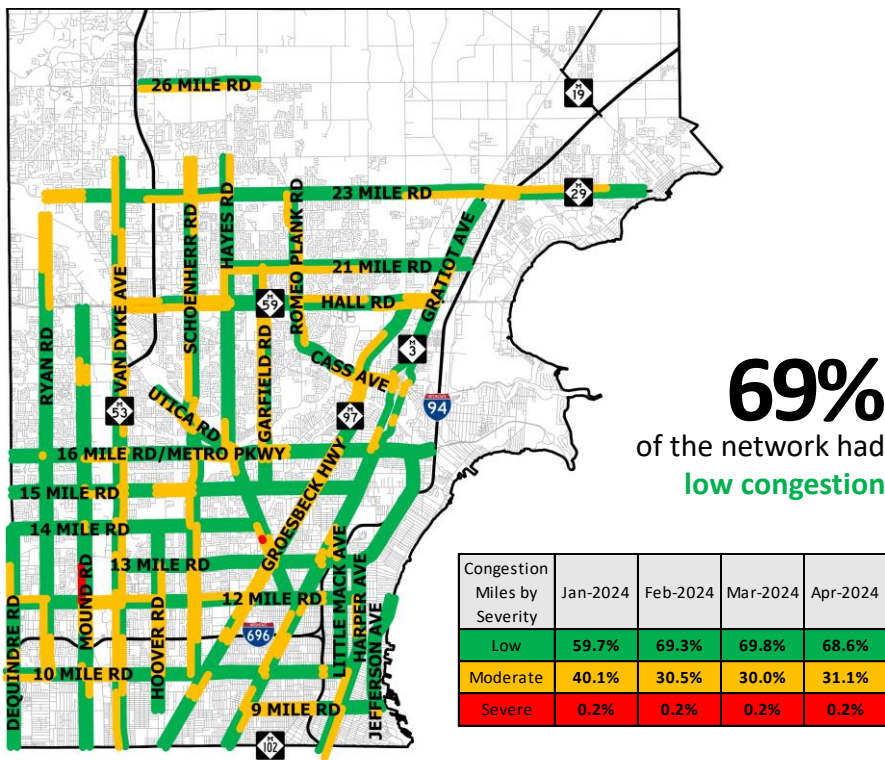
Weekday AM Peak (6–9AM)



Increased levels of congestion this month due to the start of construction season!

20.9% total AM peak time this month with moderate/severe congestion ▲ **64%** from previous month

Weekday PM Peak (3–6PM)



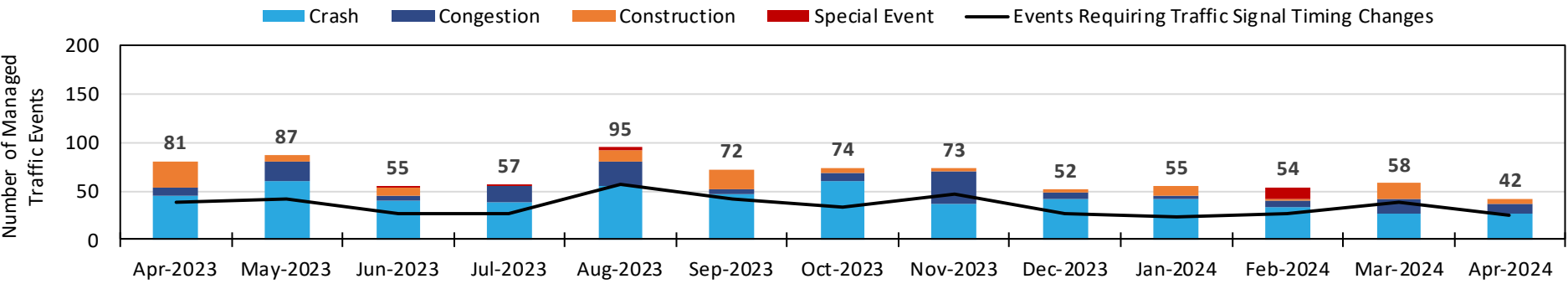
41.7% total PM peak time this month with moderate/severe congestion ▲ **39%** from previous month

Traffic Incident Management



Operations technicians monitor roadway cameras, locate traffic concerns, and disseminate traffic information to the motoring public through GovDelivery, Facebook, and Twitter. Traffic events managed by the TOC include crashes, congestion, construction (planned and unplanned projects), and special events. When a traffic event is identified, the operations technicians work together with the traffic operations engineers to determine if a traffic signal timing change is necessary to reduce congestion for drivers.

Managed Traffic Events (Mon–Fri, 6AM–6PM)



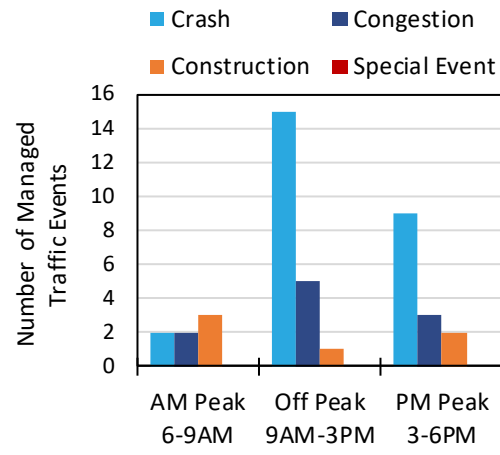
42
managed traffic events
this month

▼ **28%** from previous month
▼ **48%** from this month last year

25
managed traffic events requiring
traffic signal timing changes
this month

▼ **34%** from previous month
▼ **34%** from this month last year

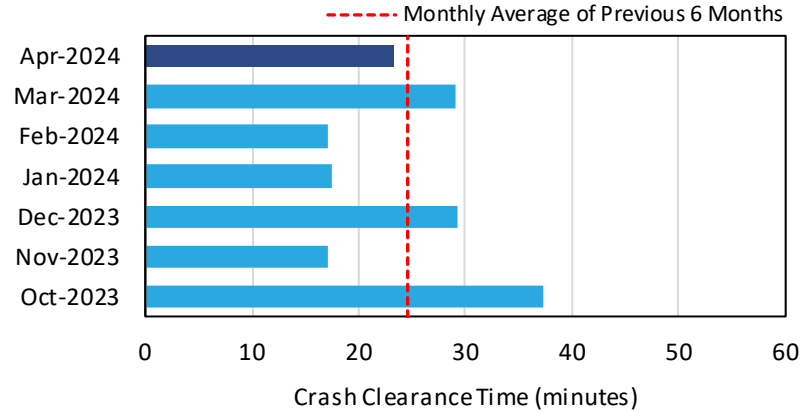
Managed Traffic Events this Month by Time of Day



Crash Clearance Time

23 mins.
average crash clearance
time this month

▼ **5%**
compared to monthly average
of previous 6 months

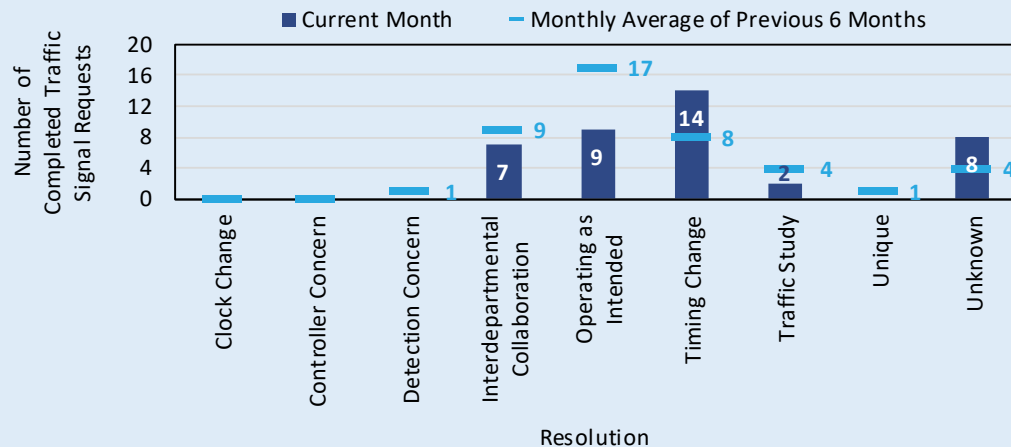


Traffic Signal Requests



Motorists driving in Macomb County can report traffic signal concerns to our operations technicians. The operations technicians disseminate these requests to the appropriate group for a timely resolution.

Completed Traffic Signal Requests



40

completed traffic signal requests this month

▼ 9%

compared to monthly average of previous 6 months

Signalized Intersections Requiring Maintenance

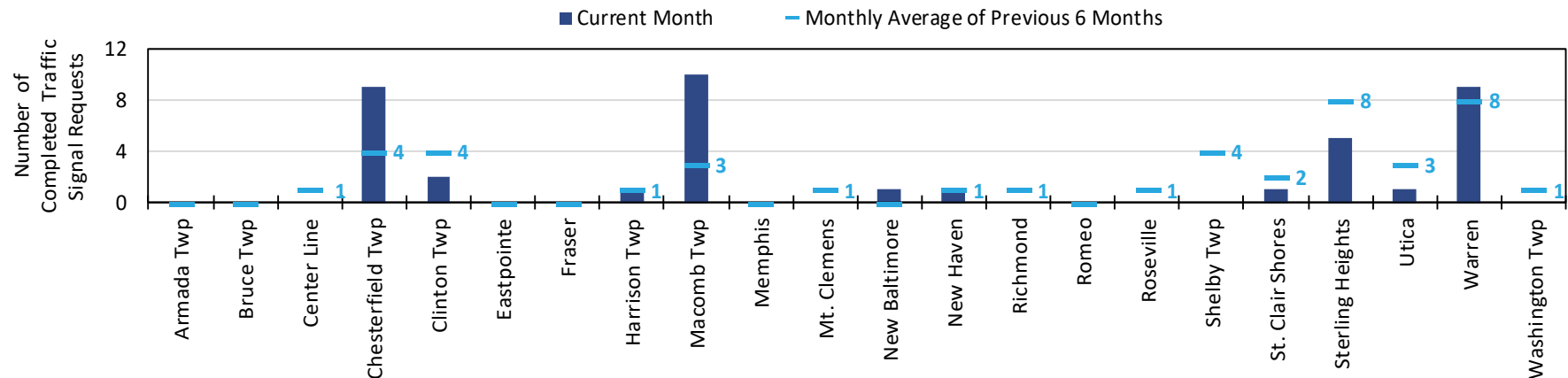
Reports of intersections in flash or burnt-out traffic signal bulbs are verified by the TOC and forwarded to the Macomb County Electrical Department

46

signalized intersections requiring maintenance this month

▲ 28% compared to monthly average of previous 6 months

Completed Traffic Signal Requests per Municipality

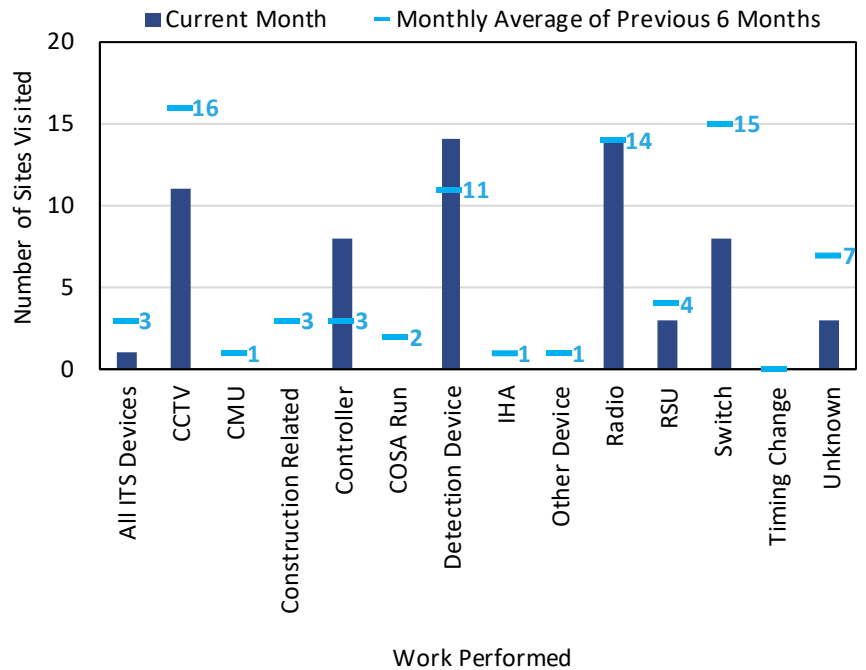


Field Work and Traffic Signal Timing Changes

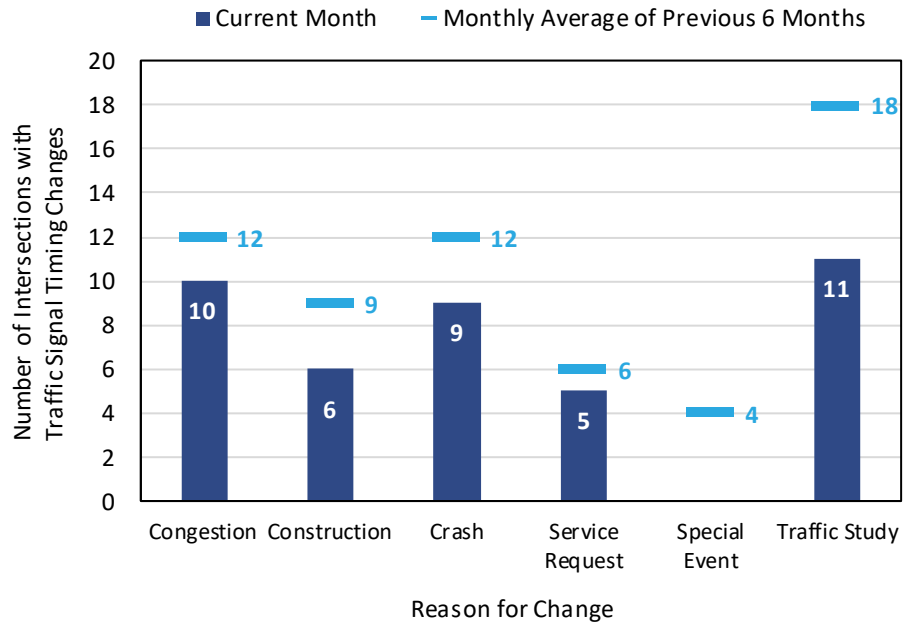


IT/ITS technicians work in the field on a variety of devices at signalized intersections to maintain the Macomb County transportation network. Traffic operations engineers configure vehicle detection zones at signalized intersections, as well as perform traffic signal timing changes due to traffic events, motorist requests, or through proactive approaches.

Field Work



Traffic Signal Timing Changes



62

sites visited this month

▼ 23% compared to monthly average of previous 6 months

99

hours spent in field this month

▼ 13% compared to monthly average of previous 6 months

41

intersections with traffic signal timing changes this month

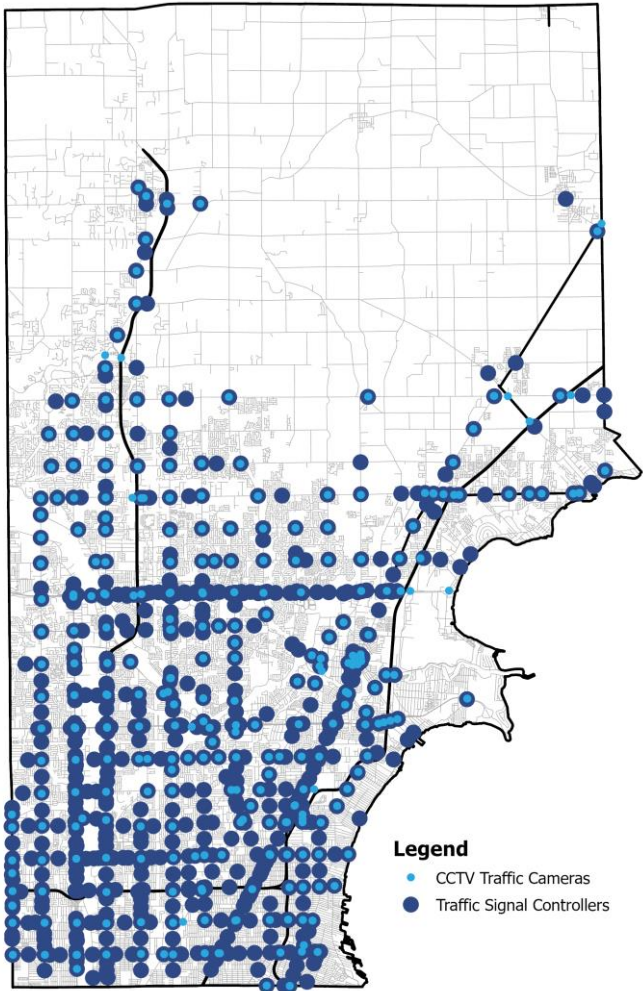
▼ 33% compared to monthly average of previous 6 months

Infrastructure Connectivity


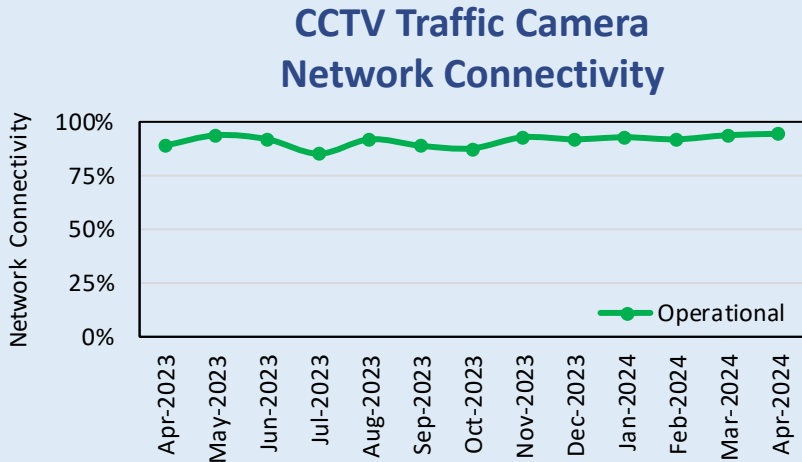


Macomb County has an extensive ITS network that is maintained by IT/ITS technicians. This includes 320 closed-circuit television (CCTV) traffic cameras and 708 traffic signal controllers that are located at signalized intersections throughout the county. It is important to upkeep and maintain the communication availability to these devices so that they can be remotely accessed by traffic operations engineers.

Macomb County ITS Map



320
CCTV Traffic
Cameras



708
Traffic Signal
Controllers

