

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

DECEMBER 2023



MACOMB COUNTY
COMTEC
Communications & Technology
Center

AECOM

INTEGRAL BLUE **WSP**

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Incident Updates & Alerts

[GovDelivery](#)

5,325 subscribers



Facebook

[Macomb County Department of Roads](#)

9,800 followers



X

[@MacombNewsNow](#)

5,076 followers



Website

<https://roads.macombgov.org/Roads-Home>

2,740 website visits

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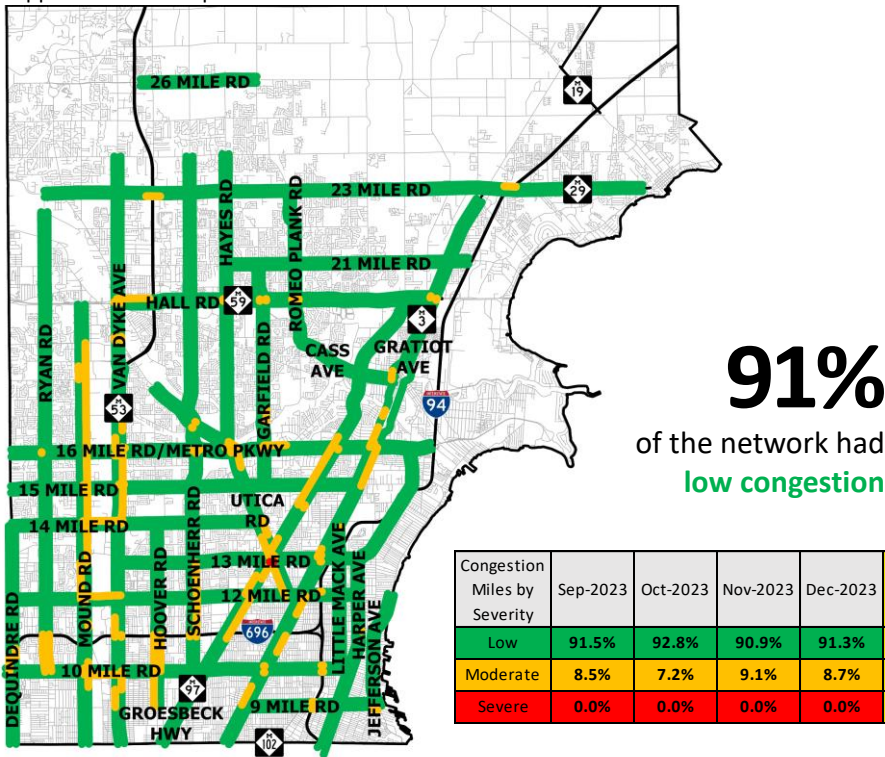
Monthly Mobility



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)

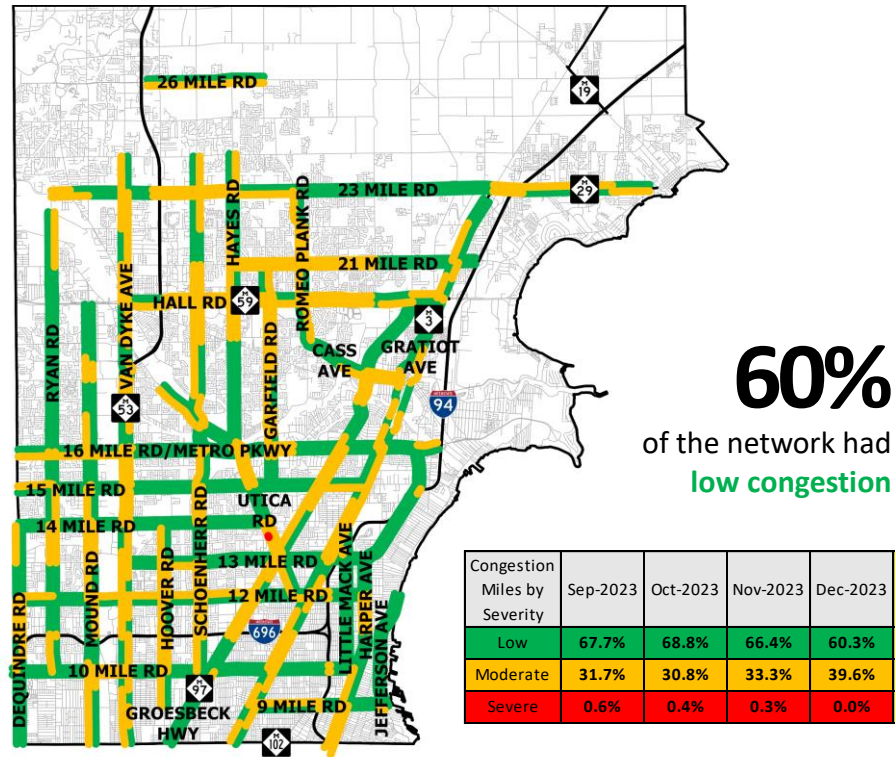
The intersecting corridors of 13 Mile Road, Groesbeck Highway (M-97), and Utica Road created a severe amount of congestion for drivers during the AM peak. Traffic operations engineers will observe these closely spaced intersections for possible opportunities to improve traffic.



21.6% total AM peak time this month with moderate/severe congestion **▲ 1%** from previous month

Weekday PM Peak (3–6PM)

The holiday shopping and travelling this month caused corridors to have increased levels of moderate congestion during the PM peak. Hall Road (M-59), known to host numerous shops and restaurants, was affected by this increased amount of travel.



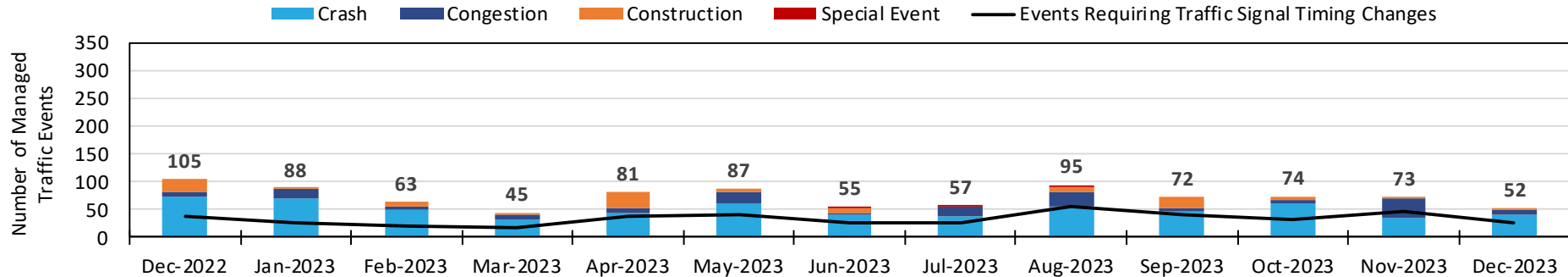
49.4% total PM peak time this month with moderate/severe congestion **▲ 14%** from previous month

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.

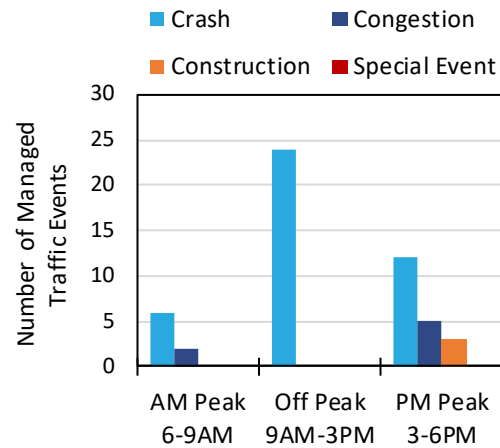
Managed Traffic Events (Mon–Fri, 6AM–6PM)



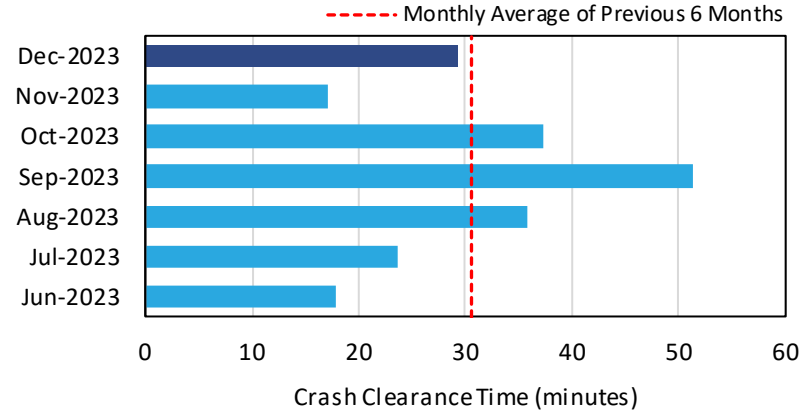
52
managed traffic events
this month
▼ 29% from previous month
▼ 50% from this month last year

26
managed traffic events requiring
traffic signal timing changes
this month
▼ 45% from previous month
▼ 32% from this month last year

Managed Traffic Events this Month by Time of Day



Crash Clearance Time
29 mins.
average crash clearance
time this month
▼ 4%
compared to monthly average
of previous 6 months

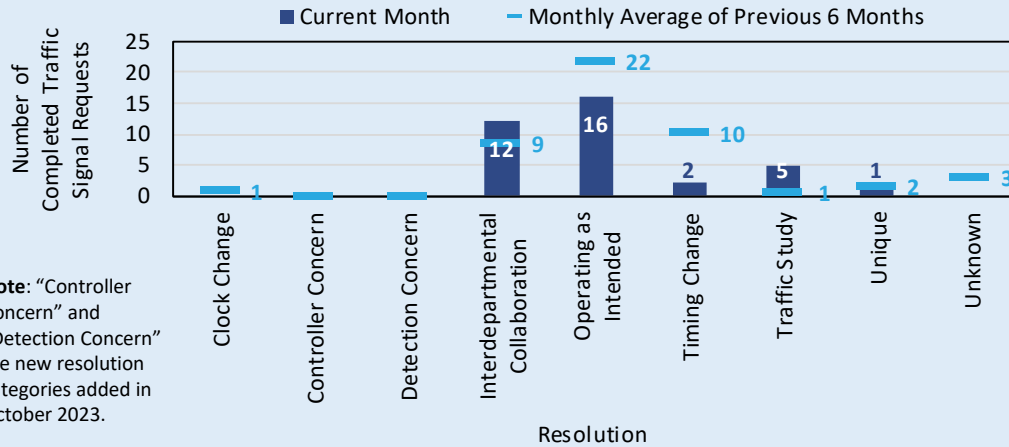


Traffic Signal Requests



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



Note: "Controller Concern" and "Detection Concern" are new resolution categories added in October 2023.

36

completed traffic signal requests this month

▼ 23% compared to monthly average of previous 6 months

Signalized Intersections Requiring Maintenance

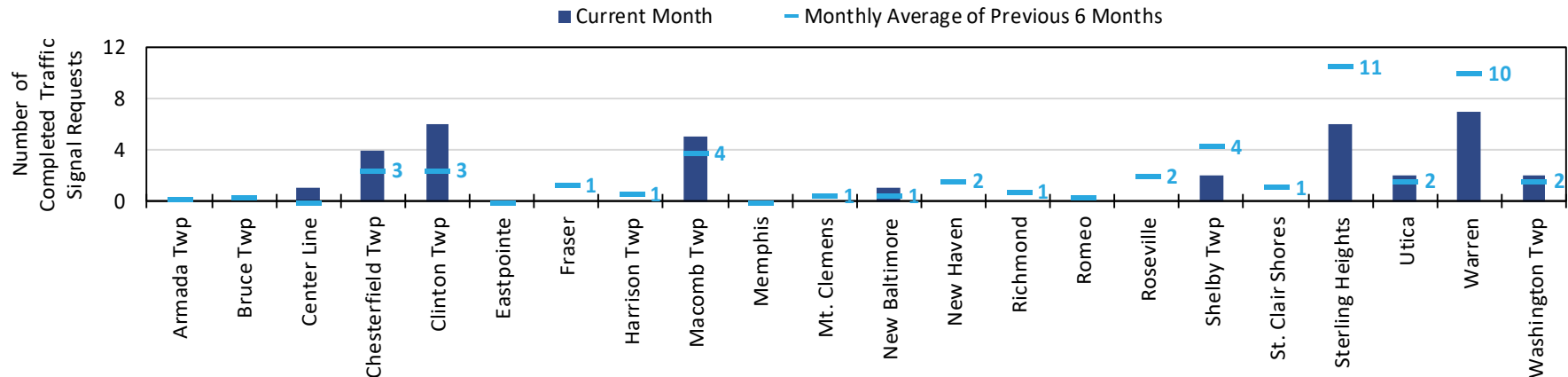
Reports of intersections in flash or burnt-out traffic signal bulbs are verified by the TOC and forwarded to the Macomb County Electrical Department

20

signalized intersections requiring maintenance this month

▼ 71% compared to monthly average of previous 6 months

Completed Traffic Signal Requests per Municipality

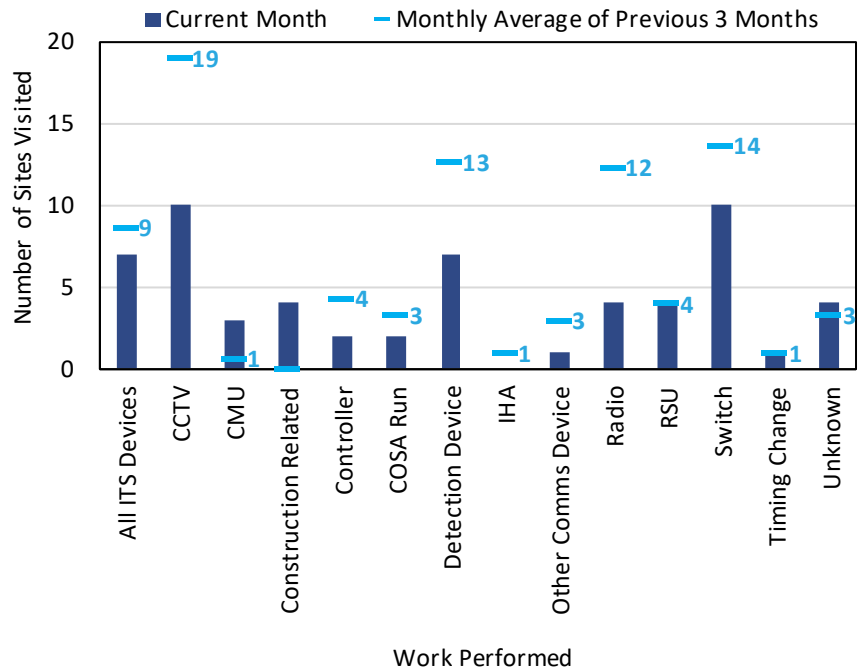


Field Work and Traffic Signal Timing Changes

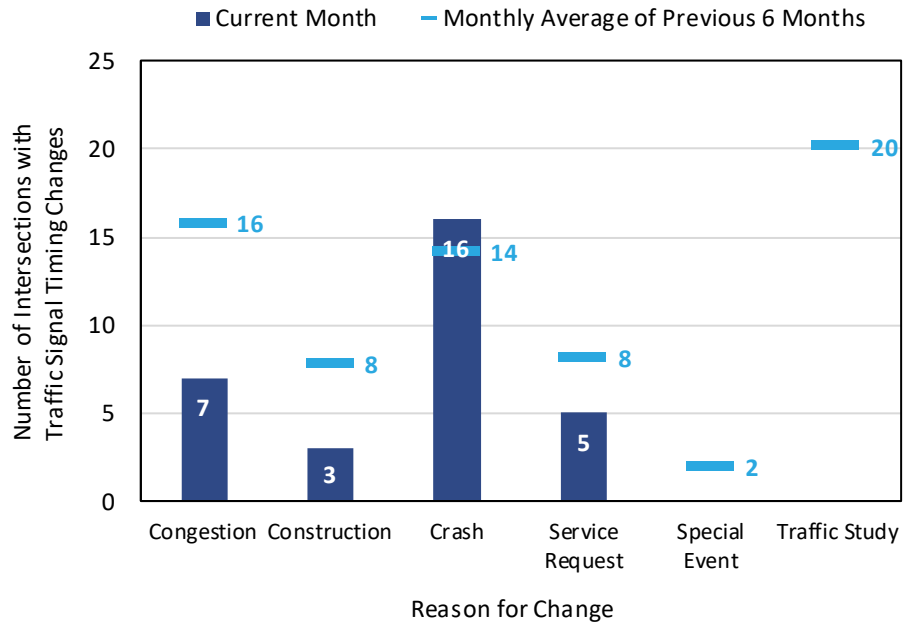


IT/ITS technicians work in the field on a variety of devices at signalized intersections to maintain the Macomb County transportation network. Traffic operations engineers configure vehicle detection zones at signalized intersections, as well as perform traffic signal timing changes due to traffic events,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

Field Work



Traffic Signal Timing Changes



59
sites visited this month
▼ 32% compared to monthly average of previous 6 months

59
hours spent in field this month
▼ 64% compared to monthly average of previous 6 months

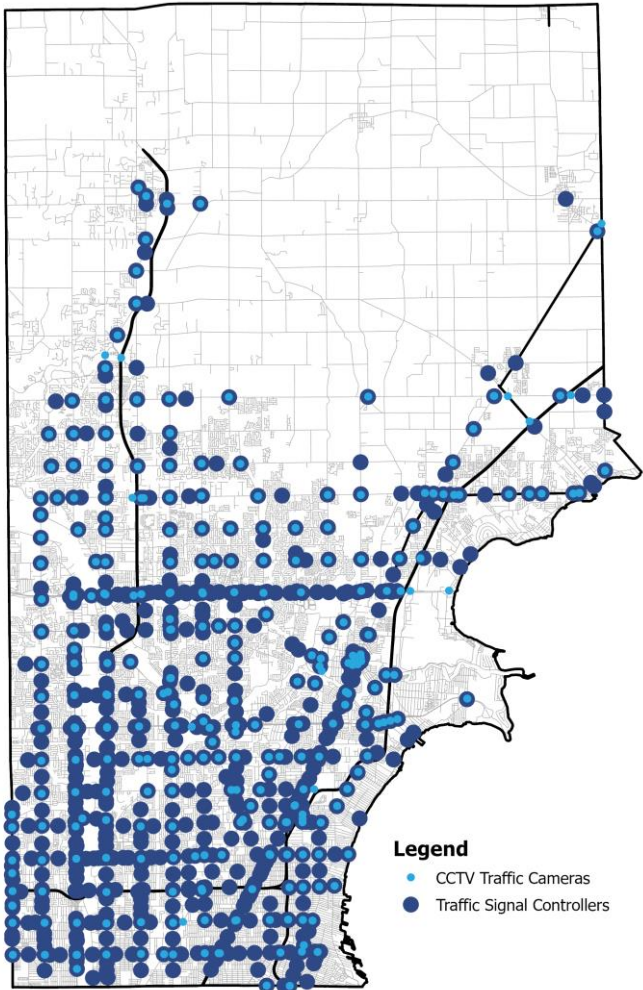
31
intersections with traffic signal timing changes this month
▼ 55% compared to monthly average of previous 6 months

Infrastructure Connectivity



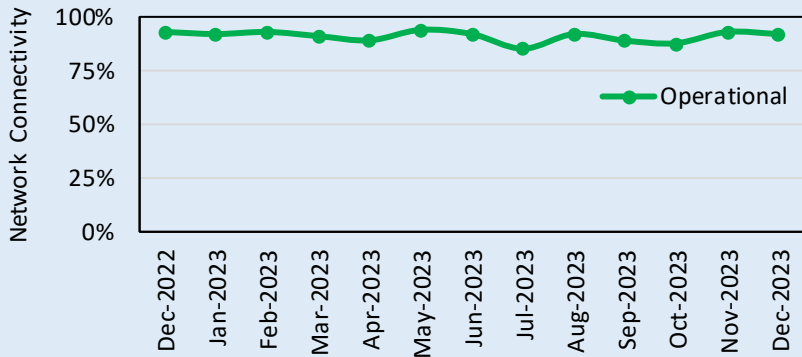
Macomb County has an extensive ITS network that is maintained by IT/ITS technicians. This includes 315 closed-circuit television (CCTV) traffic cameras and 701 traffic signal controllers that are located at signalized intersections throughout the county. It is important to upkeep and maintain the communication availability to these devices so that they can be remotely accessed by traffic operations engineers.

Macomb County ITS Map



315
CCTV Traffic
Cameras

CCTV Traffic Camera Network Connectivity



701
Traffic Signal
Controllers

Traffic Signal Controller Network Connectivity

