

Road Report

A publication of the Road Commission for Oakland County for public officials serving Oakland County www.rcocweb.org

New closed-circuit video cameras, wireless network aid in maintaining RCOC's traffic signal system

It used to be if there was an issue with a traffic signal, the Road Commission for Oakland County (RCOC) signal engineers often would have to drive to the signal location to see the problem in action to be able to diagnose and fix it. These days, technology has rendered many of those trips unnecessary.

That's because RCOC has added wireless, closed-circuit video cameras at 60 of its major intersections. The cameras allow RCOC staff to view the signals and intersections live from the RCOC Traffic Operations Center (TOC). From the TOC they can pan and tilt the cameras in virtually any direction, as well as zoom in, to monitor the signal, traffic flow, traffic backups, etc.

The 60 cameras were installed in 2016 and 2017 at a cost of about \$480,000. They were paid for with a federal Congestion Mitigation and Air Quality



RCOC Signal Systems Engineer Ahmad Jawad poses in front of the RCOC Traffic Operations Center's video wall with with one of the wireless routers used to send camera signals to the Center.

improvement (CMAQ) grant.

"They provide new eyes on the road," RCOC Signal Systems Engineer Ahmad Jawad said. He added new wireless technology used to link the cameras with the TOC also provides a better communications backbone for RCOC's FAST-TRAC

"smart" traffic signals themselves.

The cameras and signal data are connected to cellular modems, and the video images and signal data are transferred to the TOC over the AT&T wireless network.

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New money means more road work and new or restored road improvement techniques

For years, Michigan has been in road-funding crisis mode, leading to widespread deterioration of the road system. At long last, new road funding began to flow in 2017, though, and now road agencies are scrambling to make up for the last two decades.

One of the side effects of the new money is there is simply more road work taking place this year. This can occasionally be frustrating for drivers who are detoured or faced with lane closures and temporary traffic backups.

"Motorists are seeing more orange barrels this year than they have seen in a while," explained Road Commission for Oakland County (RCOC) Managing Director Dennis Kolar. "We understand that can be frustrating in the short term, but the long-term result is the roads are

finally beginning to get better."

Kolar cautioned, however, that it will take a number of years to restore a majority of the roads to good condition.

"During that time, there will be a lot of road work that needs to take place," he observed. "But, that is the only way to restore our roads."

Kolar added that the influx of some new funding has also allowed RCOC to introduce some new approaches to road maintenance, expand road repair programs, restore road-preservation tactics and replace some equipment.

Below are some of the new or restored programs or tactics RCOC brought online in 2017.

Preservation Overlays

This technique provides a smooth new
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RCOC again teamed up with Oakland County Bar Association to support US troops stationed overseas

Staff and officials from the Road Commission for Oakland County (RCOC) again this year teamed up with the Oakland County Bar Association to collect donations for servicemen and women stationed overseas.

This is the sixth consecutive year RCOC has been involved in this effort. The collaboration, part of an effort known as Americans Thank Our Troops, has been on-going for 13 years and includes many organizations, businesses and individuals. It involves sending care packages to the troops.

Numerous items, including cash, have been donated to the effort. Troops will receive food, personal items, reading materials, entertainment items, puzzles, games, clothing, sundries, letters from elementary school students and more.

The Oakland County Bar Association's effort is spearheaded by two Vietnam veterans: RCOC Board Vice Chairman Eric Wilson and Oakland County Bar Association member Michael Schloff.

"We are pleased to be a part of the Americans Thank Our Troops organization. Honoring our military servicemen and women through this effort helps to show our appreciation and support," Wilson said. "Many times, their daily sacrifice is overlooked, and we hope this effort shows support from the folks on American soil."

Wilson and Schloff, along with Patrick Castillo from RCOC's Construction Division, delivered a truckload of items



RCOC Chairman Eric Wilson, right, with Construction Inspector Patrick Castillo in front of the truck used to deliver the items.

purchased with cash donated through the campaign to the Bar Association's offices in West Bloomfield Township. Monetary donations were used to purchase goods through the commissary at Selfridge Air National Guard Base in Macomb County.

Peggy Pentecost in the RCOC Managing Director's Office coordinated the collection within the agency. Road Commission staff donated numerous items that were collected in drop boxes around the agency.

"We are thankful to everyone who participated in this year's collection, and our servicemen and women always appreciate items from home making the time away from family and friends a little easier," Wilson noted.

CAMERAS -- CONT'D FROM FRONT
RCOC's FAST-TRAC traffic signals monitor traffic flow at the intersection. This enables them to adjust signal timing in real time to best meet actual traffic demand (as opposed to traditional "fixed-time" signals which operate on a set timing pattern regardless of traffic flow or volumes).

The real-time data from all 700-plus FAST-TRAC signals is fed to the TOC, where RCOC staff can monitor them. Traditionally, FAST-TRAC signal data was transferred to the TOC via telephone lines. Most now utilize the AT&T wireless network.

"We've come a long way," Jawad said. In addition to allowing the transfer

of the video images, he noted, the wireless system is saving RCOC money and time. "The cost of setting up communications with a FAST-TRAC signal is dramatically less than it used to be, and the set-up occurs much more quickly. It used to take days to get the phone company to install the phone lines for the signals -- we'd need an AT&T crew, an RCOC signal crew and a traffic engineer on site. Now one person installs the wireless modem in a couple of hours and we're done," he added.

In addition to providing signal data and high-resolution video feeds from the video cameras, the wireless connection is also highly secure. "We looked at multiple communications options," Jawad noted.

RCOC Strategic Planning process complete, report coming soon

The 17th biennial Road Commission for Oakland County (RCOC) Strategic Planning process has come to an end.

The process involves RCOC top administrators, planners and engineers meeting with officials of virtually every city, village and township in Oakland County. The meetings took place from March through May.

RCOC is now working on a report that will summarize the information shared at the meetings. The report will be distributed to all local, county, state and federal-level public officials serving the county.

The Road Commission has conducted the process every other year since 1985. The meetings help to ensure community officials play an active role in setting the Road Commission strategy for coming years.

"This is a productive process," explained RCOC Chairman Eric Wilson. "It is one of the best investments of our time that we can make. It gives us a clear understanding of what the important issues and priorities are for the communities, and helps to ensure positive working relationships with our partners at the community level."

Once complete, the Strategic Planning Report will also be available on RCOC's Website (www.rcocweb.org).

"We specifically adopted this model because it was the most viable, cost effective and secure."

Jawad noted the video capability is not just beneficial for the signal engineers. Road construction engineers will soon be able to view the cameras as well, allowing them to see road projects remotely.

Additionally, the plan is to provide the video feeds to municipalities and law enforcement agencies. Jawad explained that RCOC does not capture any record of the video feeds, but just uses the real-time feeds. "RCOC is not interested in recording videos," he noted. "We don't want to have to worry about video storage or the technical or legal responsibilities that come with it."

RCOC and partners still waging war on invasive phragmites

The Road Commission for Oakland County (RCOC) and its partners around Oakland County are continuing to wage a war against the invasive species phragmites (frag-MY-teez), an aggressive wetlands grass that has taken over many Michigan ditches, wetlands and streams.

RCOC partnered with a group of local cities, townships, villages, governmental agencies, and non-profits to form the Oakland County Cooperative Invasive Species Management Area (CISMA) in 2014. The initiative was intended to create a long-lasting approach to controlling the growth of invasive species -- particularly phragmites -- throughout Oakland County.

The effort got a boost last year when the state awarded the CISMA a \$244,000 grant supporting the prevention, detection, management and eradication of invasive species. CISMA partners matched the award, making more than \$440,000 available for 2016 and 2017.

Phragmites can grow to 15 feet tall and choke out native vegetation impacting the ecological health of shorelines and wetlands. They are also a fire hazard when dry.

"For us, it's a traffic-safety issue," explained Brad Knight, RCOC environmental concerns coordinator. "Phragmites can block drivers' views," he added. "They also cause road flooding issues."

The 2016-2017 funding was a huge win for the CISMA after its application for the grant was denied in 2015. According to Knight, the CISMA did not meet grant standards at that time.

"The CISMA wasn't large enough, established enough or developed enough, so we took a year and grew it." He added RCOC contributed \$75,000 to the effort in 2015.

"In 2016, the grant was approved, and RCOC gave \$25,000 which was completely matched." Knight noted that because of the match, RCOC contributed \$50,000 for the 2016-2017 treatment season.

The additional funding brought major success in combating phragmites. The original goal for the grant was to treat 49 miles of road right of way.

So far, the CISMA has treated 113 miles -- double the goal. Another 200 miles is expected to be treated by the end of the grant period -- four times the original goal.

One of the challenges is that phragmites are hard to kill. Their roots can grow 10-feet deep. Simply cutting or mowing them

is ineffective. Rather, either of two herbicides, glyphosate or imazapyr, is used to exterminate the plant.

The treatment process takes two years. Licensed applicators spray first in the fall. That application typically kills 70 to 80 percent of the stalks. The subsequent spray usually kills the rest.

Knight attributes the success of the CISMA to working as a partnership. "It works as a collaborative effort. The goal is to get everybody in the county to join the CISMA, so we can tackle invasive species county-wide. That's the goal."

The partnership is already planning for next year. "Starting next month, we will get our ducks in a row for the 2018-'19 grant," Knight noted.

The CISMA hired The Stewardship Network, a non-profit organization, to manage the current grant.

Knight said the CISMA is also educating county residents. As part of the RCOC biennial Strategic Planning meetings (meetings RCOC leaders holds every other year with the leaders of virtually every community in the county), RCOC is informing the communities about the initiative.

Of course, phragmites aren't limited to



RCOC Environmental Concerns Coordinator Brad Knight is dwarfed by a stand of phragmites.

road rights of way. While public funding can't be used on private land, landowners are encouraged to partner with their community pay a reduced rate for a state-licensed pesticide applicator to treat their private property.

Oakland CISMA Coordinator Tyler Mitchell said the group's efforts are growing -- there are currently 26 partners and three prospective members considering joining. "The number-one accomplishment

of the partnership is bringing together a diverse group to focus on controlling invasive species from a county level," he said.

Both Mitchell and Knight agree that each partner has different priorities but one common enemy. "The goal is to tackle as much area as possible," Knight stated. He noted it could, realistically, take 15 years or more to eradicate all the phragmites.

"My ultimate goal," Knight added, "is to eradicate all the phragmites in the road rights of way and ditches before I retire. Can it be done? Yes -- the more CISMA members we have, the better."

For more information regarding the Oakland CISMA, contact CISMA Coordinator Mitchell at (808) 321-2634 or at tmitchell@stewardshipnetwork.org.

NEW -- CONT'D FROM FRONT surface while helping to extend the life of roads in moderate condition. It involves milling the worst sections of pavement (grinding off the top layer) and then applying one-and-a-half to two inches of new asphalt to the road.

Chip seal and microsurfacing

This technique involves sealing roads, which prevents moisture from damaging the road base, and providing a thin new surface. It also helps extend the life of the road.

High-friction treatment

This process involves applying fine gravel to curves or other areas where there has been a problem with vehicles sliding off the pavement. It is intended to

provide better traction and help prevent vehicles from leaving the roadway.

Spot resurfacing

A very cost-effective method, this involves milling small sections of bad road and resurfacing just those sections.

Texas two-step

This is a combination of chip sealing and overlaying, in which the road is first treated with sealant and then overlaid with asphalt.

"While the new funding isn't enough to restore all the roads immediately, it is, at least, allowing us to stop the deterioration," Kolar said. "We are doing everything we can to use this money as efficiently as possible and accomplish as much as possible."

Web page intended to help businesses cope with road construction

Road improvements can greatly enhance a community's business environment. However, it can certainly be challenging for businesses when they are located in the middle of a construction zone, and the project is in full swing.

"One of the realities of road construction is that it can disrupt traffic, and this can be challenging for businesses," explained Road Commission for Oakland County (RCOC) Managing Director Dennis Kolar.

"Unfortunately, this is often unavoidable -- you can't rebuild a road, or even resurface it, with traffic driving on it. However, we are sympathetic to the businesses and the impact this has on them," Kolar noted.

That's why RCOC has added a section to its Website entitled "Coping with Construction." The section is intended to help businesses better understand and prepare for road construction.

The page lets businesses know how to find out about -- and stay abreast of -- RCOC road projects as well as reviewing why road improvements are beneficial for businesses. It also explains how business owners and employees can share questions or concerns with the Road Commission.

The page also has a section entitled, "Tips/Suggestions from Other Business Owners," which provides a list of steps other businesses have taken to make the most of a road construction project. Suggestions include preparing customers, suppliers and employees for upcoming construction and making sure they know you are open.

Other tips include extra marketing activities before and during construction, communicating project updates to customers, hosting an open house or special event during construction and celebrating with customers and employees after the project is complete.

The page is located within the "Doing Business with RCOC" section of the Road Commission's Website, www.RCOCweb.org. Many of the ideas on the page came from the Colorado Department of Transportation.



Contacting RCOC

If your constituents need information about a road project or want to report a pothole, traffic signal problem or other road issue, they should call RCOC's **Department of Customer Services** toll free at:

(877) 858-4804

OR

Send us an e-mail via the RCOC Web site:
www.rcocweb.org

ROAD REPORT

Road Report is published quarterly by the Road Commission for Oakland County. Have a question or comment about **Road Report**? Call Senior Manager of Communications Craig Bryson at (248) 645-2000, ext. 2302.

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