



City of Milwaukee

200 E. Wells Street
Milwaukee, Wisconsin
53202

Meeting Minutes

CAPITAL IMPROVEMENTS COMMITTEE

ALD. ROBERT BAUMAN, CHAIR

Ald. Milele Coggs, Ald. Mark Borkowski, Ghassan Korban,

Jeff Mantes, Martin Matson, and Dennis Yaccarino

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Wednesday, July 12, 2017

9:00 AM

City Hall, Room 301-B

Meeting convened: 9:03 A.M.

Member excused: Ald. Coggs (Bill Christianson present for Mark Nicolini)

1. **Review and approval of the minutes from the December 14, 2016 and June 21, 2017 meetings.**

Mr. Korban moved for approval of the minutes. There were no objections.

2. **Presentation of the Street Lighting and Traffic Control Report.**

Street Lighting

Mr. Eng-Kie Lee discussed the street light system. The three major components of the street light program are paving related improvements, the Neighborhood Street Lighting program and the repair of uncollectable knockdowns. The department is working on 11 state and federally funded projects and 30 city capital projects. Sixteen of the projects are driven by development. Mr. Christianson asked if street lighting costs were being included on state and federal aid projects. Mr. Rollin Bertran said the law has changed and beginning with 2019 projects, street lighting and traffic control costs will be included with the project plan. He said the department is working with the state to negotiate current projects where street lighting costs were not originally included.

The committee discussed the series circuit replacement project. The series circuit system has a high number of outages and failures. The conversion project began in the 1950s. Approximately 67% of the system has been converted to multiple circuits. Mr. Lee discussed the circuits that have been replaced recently including SP 7 & 8 near 68th and Wernimont. Outages were reduced from 67 in 2013-2014 to three the following year. T-11-S was replaced reducing outages from 58 in 2013-2014 to two in the following two years. T1 NW 3 & 4 on Teutonia was also done, reducing outages from 50 in 2012-2014 to 14. Mr. Lee then discussed current and proposed projects. The committee discussed the repair and replacement of substations and enclosures and the street lighting master control replacement project. The master control system is operational at 62 stations. One of the main reasons for the replacement is the failure of copper wire. Time clocks and photo cells are used in some locations but that is not best practice. Thirteen additional stations have been designed. The construction contracts are expected to be let in August 2017. The project will progress

as funding permits.

The committee discussed the conversion to LED street lights. LEDs cut energy use by about 50%. They have a lifespan of 12 to 15 years compared to 4 or 5 years for the high pressure sodium lights the City currently uses. As of Dec 31, 2016, 1,334 LED units have been installed. All series circuit replacements will use LEDs. Mr. Bertran said the department is trying to mimic the ambient light, which is between 3,000 and 3,500 kelvin. He said the color is pretty close to sunlight. Mr. Mantes said that will give a more natural color rendition of things on the street. Mr. Bertran said they are working to minimize dark spots between poles by using lenses that spread light in the right pattern. Mr. Lee said the department is piloting LED lights in alleys.

The committee discussed other pole, cable and equipment upgrades and uncollectible knockdowns. Mr. Lee presented the following costs related to uncollectible knockdowns; 2016 \$640,813; 2015 \$539,737; and 2014 \$561,374. Mr. Bertran said the department tries to place substations where they won't get hit or where they are somewhat protected because they are expensive to repair.

The committee discussed temporary lighting. Mr. Bertran said that temporary lighting is usually installed 2-3 weeks prior to construction. The department's goal is to remove within 6 months after the construction is complete. He acknowledged that there is a backlog of temporary lighting removal projects.

Traffic Control

There are 769 signalized intersections, an increase of 2. All intersections are fully converted to LED signal indication. 340 intersections have active fire preemption, an increase of 6. Pedestrian countdown timers have been installed at all intersections. 31 intersections have audible pedestrian signals. Seven crosswalks have rectangular rapid flashing beacons, an increase of 1. There are 8 dynamic speed limit signs, an increase of 2.

The committee discussed the contracted conversion of a portion of the City's traffic signals to LED by a contractor. Ald. Bauman asked if an analysis was ever done to determine if it was a cost effective approach. Mr. Bertran said that he was not aware of an analysis and but that he would check. He said that the work would have taken considerably longer if the City has done it internally. Mr. Joseph Blakeman said that at the time, there were restrictions on the use of highway safety money for traffic signals. That policy has since been changed.

The committee discussed traffic signals. Ald. Bauman asked how many requests for traffic signals are received annually. Mr. Korban said approximately six. The department typically has enough funding to install two. Mr. Bertran said that they typical cost on a City project is between \$85,000 and \$110,000, depending on the number of lanes, the complexity of the intersection and the underground facilities that are already in place. On state projects the cost is between \$180,000 and \$220,000 because the work is contracted out and the intersections tend to be bigger and more complex.

Mr. Blakeman said the department is expanding its use of technology to include non-intrusive detection. He said about 50 intersections have microwave detection and that the department will be testing video detection. He said federal funding has been secured to replace 350 controllers and cabinets in the next 5 years. Mr. Bertran said the federal funding would save the City approximately \$2.5 million. He said the new system would be more adaptive and would allow dynamic changes. Mr. Blakeman said the project will create the platform to build additional systems.

The committee discussed street signs. There are 115,121 total signs; 5,518 permanent signs and 7,417 temporary signs. Nearly all of the signs that are more than 20 years old are street name signs. The City is nearly compliant with red, yellow and white signs. They must be fully compliant by Jan 1, 2019. The compliance date for green signs is January 1, 2026. Mr. Bertran said that non-compliance could expose

the City to liability or jeopardize state and federal funding for projects. Mr. Mantes said the City worked to have street sign compliance dates extended. Mr. Blakeman said many municipalities were involved in the effort. Ald. Bauman asked if the department still makes its signs in-house. Mr. Blakeman said yes. Mr. Christianson asked if the City was reimbursed for the cost of putting up special event signage. Mr. Bertran said that there is a permit fee for special event signage but he didn't believe that it covered the cost of placing the signs. He said the department is reviewing its permit fees. Mr. Blakeman presented the following information on street signs.

Signs by type

Stop and related	17,950
Yield	762
Parking	33,241
Other regulatory	20,649
Warning	8,369
Street name	22,286
Reflectors	3,490
Directional	1,674
School	6,700

The committee discussed the Neighborhood Traffic Management Program and various traffic calming strategies. Mr. Blakeman said the first dynamic speed limit signs that the department installed had limited impact. The newer ones include a strobe if you go above a certain speed. He said the department is monitoring them for effectiveness. He said they cost about \$5,000 per unit installed. Mr. Blakeman said that requests for speed humps were increasing. He said that in 2016, 186 speed hump petition packets requested, 149 speed studies were completed and 141 speed humps were recommended for installation. Ald. Bauman asked for a history of when speed humps were installed. Ald. Bauman suggested that the City expand the types of streets where speed humps may be installed. Mr. Bertran said the department is reviewing the use of a speed hump design which would allow fire trucks and vehicles with a wider axle width to travel over them unimpeded. Mr. Blakeman said a temporary location installed on Carmen Ave. Ald. Bauman said the department is going to have to be increasingly proactive in its roadway design to deal with speeding and reckless driving. Mr. Korban said the department is streamlining the speed hump request process. He said that streets that have a higher speed limit are somewhat problematic. He said that if consideration given to lowering the speed limit, then there is more the department can do from a design perspective. There is an inherent conflict between speed hump construction and the current allowable speed. Mr. Bertran said the department is using a number of different design techniques. He said narrowing the driving lanes from 12 feet or 13 feet to 11.5 feet can make it more uncomfortable to go too fast. Mr. Mantes asked if red-light cameras were still prohibited by the state. Mr. Bertran said yes. Mr. Blakeman said that according to the FHWA, narrowing lanes can reduce crashes anywhere between 19% and 47%. He said a study in Seattle showed that it can reduce high end speeding by over 90%. He said the conversion of one way streets to two way can slow traffic but that most of the one way streets in the City are around freeway ramp terminals. Those types of streets are difficult to convert once the ramp terminals are constructed.

The committee discussed uncollectible knockdowns of traffic signals. Mr. Blakeman said that signal knockdowns are near the 15 year high. DPW responded to 442 traffic signal knockdowns and 28 control cabinet knockdowns in 2016. Mr. Blakeman presented the following cost information related to uncollectible knockdowns; 2016 \$378,000; 2015 \$265,000; 2014 \$383,000.

The committee discussed the painting of curbs where parking is prohibited. Mr.

Bertran said that the department was working with Parking to paint curbs in high density parking areas with high non-compliance. Mr. Korban said that 2 Compete Milwaukee employees performed the work. Mr. Blakeman said that state law prohibits parking within 15 feet of a crosswalk, 10 feet of a hydrant and 4 feet of a driveway. Ald. Bauman suggested painting at the intersection of N 29th Street and W Kilbourn.

Meeting adjourned: 10:10 A.M.

Linda M. Elmer

Staff Assistant

This meeting can be viewed in its entirety through the City's Legislative Research Center at <http://milwaukee.legistar.com/calendar>.