



TRAFFIC MANAGEMENT CENTER

Third Quarter 2019 ITS Report



by Frank Hickman
Monica Stone



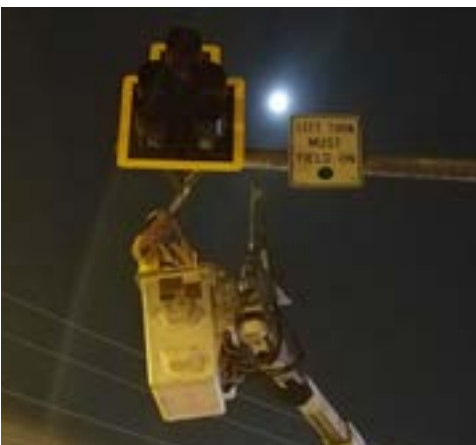
Northampton Boulevard Traffic Signal Back Plate Installation Project

Staff completed the installation of retroreflective yellow back plates on Northampton Boulevard at the Burton Station, Baker Road, Bayside Road, Pleasure House Road, Diamond Springs Road and Jack Frost Road intersections.

Back plates added to a traffic signal indication improve the visibility of the illuminated face of the signal by introducing a controlled-contrast background. The improved visibility of a signal head with a back plate is made even more conspicuous by framing it with a retroreflective border. Signal heads that have back plates equipped with retroreflective borders are more visible and conspicuous in both daytime and nighttime conditions.

This treatment is recognized as a human factors enhancement of traffic signal visibility, conspicuity, and orientation for both older and color vision deficient drivers. This countermeasure is also advantageous during periods of power outages when the signals would otherwise be dark, providing a visible cue for motorists. Adding a retroreflective border to an existing signal back plate is a very low cost safety treatment/improvement.

Performing all the work with in-house staff, we averaged typically \$6,800 per intersection. The work was done between 11pm Saturday and 9am Sunday by a crew of thirteen (13); 5 traffic signal electronics technicians manning the bucket trucks and 8 traffic sign mechanics providing/maintaining the traffic control.



The Federal Highway Administration approved the use of retroreflective tape after a seven-year safety study showed that the use of retroreflective back plate borders reduced total crashes at intersections by 15% to 24%. We are incorporating them on all new and rehabilitated signalized intersections.



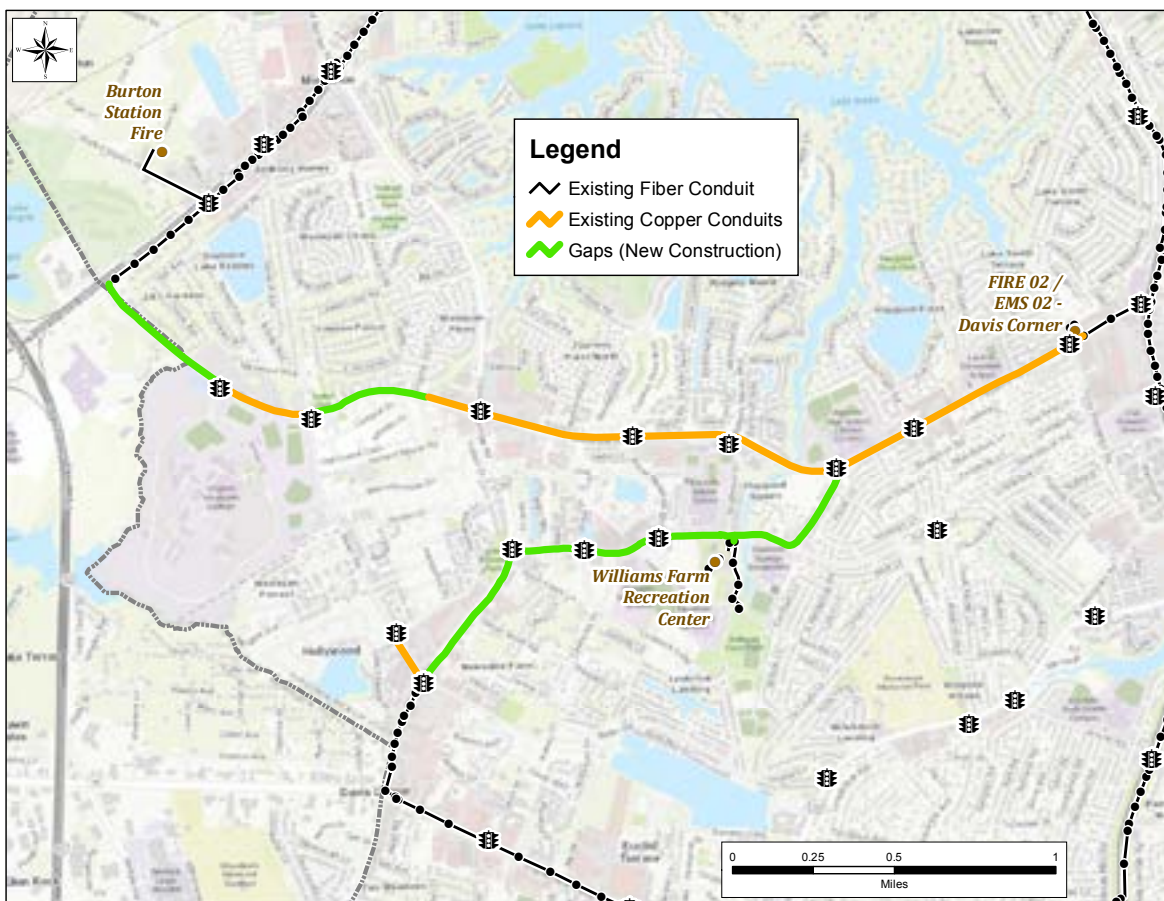
Network Expansion- Haygood Road/Wesleyan Drive/Newtown Road

Staff is working with ComIT on a shared project to bring fiber optic cable to the Haygood/Wesleyan/Newtown corridors. The project benefits the Traffic Operations staff by bringing fiber connection to eleven (11) traffic signals that have either none or copper-only connectivity presently. The fiber back bone will allow adding CCTV cameras for real-time situational assessments along this east-west connector corridor which serves 18,000 to 20,000 vehicles per day.

ComIT and the City of Virginia Beach would benefit with the Burton Station Fire then having a true redundant link and not be installed as a SPUR along Northampton Boulevard.

In addition, the Williams Farm Recreation Center will be able to be moved off of Cox Metro E fiber and on to CVB fiber also in a redundant fiber path as well. In addition, there will be a \$11,700 a year cost savings (Cox WAN charge) and an increase in connection speed from 20Mbps to 1Gbps (50x).

Staff is preparing estimates now with the goal to begin work in the 1st quarter of 2020.



Traffic Management Operations Division Response Information (July- September 2019)

1. Some of the vital statistical areas we addressed:

- a. Number of Traffic Counts – 105
- b. Number of Utility Locate Tickets (Miss Utility) Received/Checked/Marked – 5101/830/473
- c. Number of Traffic Signal Preventive maintenance Actions completed-150
- d. Number of Traffic Signal Work Orders Received – 427
- e. Number of Traffic Sign Work Orders Completed – 777
- f. Feet of Installed Thermoplastic paint – 39,007

2. Provided event support for the following Special Events:

- a. Latin Fest
- b. July 4th/Oceanfront and Mt Trashmore
- c. Funk Fest
- d. East Coast Surfing Championship
- e. Naval Air Station Oceana Air Show
- f. Rock & Roll Half Marathon

