Smart Traffic Lights

To increase efficiency by minimizing drive time, reduce gas consumption/emissions and enhance safety

Scenario:

1.) Cars waiting at a light when no cross-traffic is present. Either the light has been tripped accidently or one or two cars have cleared the intersection but the light is timed for many more cars. The traffic signal would switch back to the waiting cars when camera shows no further cross traffic.

2.) (Late at night) No traffic in any direction. Traffic lights in all 4 directions show RED. The camera sees motion in one direction and turns the light green for the one approaching vehicle.

3.) (future) Automated vehicle can talk with light to indicate approaching traffic

Technology:

1.) Compare existing technologies that have the traffic light technology already available (GridSmart, Kapsch, …)

2.) Addition of Cameras instead of wire "loops" to determine oncoming traffic

3.) Start deploying high tech traffic signals that will work with autonomous vehicles to give Fairfax County the potential to be one of the early adopters of driverless automobiles

Suggested test intersections:

West Ox Rd and Franklin Farms Drive

Rugby Rd and Fair Oaks Hospital

Monument Drive and Fairfax County Parkway

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