Eco-Approach and Departure at Signalized Intersections

HOW COULD THIS HELP?

- Increases vehicle efficiency

HOW DOES THIS WORK?

- A V2I application where intersection traffic signals broadcast the current state of signal phasing (red, yellow, or green) and time remaining in that phase.

- These data are used by connected vehicles to support eco-friendly speed trajectories as vehicles approach and depart from a signalized intersection.

INVESTMENT

- V2X ROADSIDE UNIT COST PER MILE-FREeways
  - N/A

- V2X ROADSIDE UNIT COST PER INTERSECTION-SIGNALIZED CORRIDORS
  - $26,000

- V2X SIGNAL CONTROLLER COST PER INTERSECTION-SIGNALIZED CORRIDORS
  - $10,000

- FIBER OPTICS COST PER MILE
  - $158,000

TRANSPORTATION NEEDS ADDRESSED

ENVIRONMENT

V2I

SOLUTION IMPROVEMENTS

- Increased vehicle efficiency when approaching/departing from signaled intersection

SOLUTION PITFALLS

- Infrastructure and vehicle must be V2I equipped

Disclaimer: all content is for planning purposes only and published as of Summer 2020. Contact the author at shacav@mdot.maryland.gov with any questions or comments.