WHAT IS THE ANTICIPATED COST?
- $6,000 - $12,000 per intersection (preliminary estimate)
  - Materials, traffic control, labor, and equipment
- HSIP Open Container: UPC 105593

WHAT IS THE ANTICIPATED IMPLEMENTATION PLAN?
- Begin on the Corridors of Statewide Significance
- Four-year pilot program (anticipated start date 7/1/2014)
- Systemic implementation along corridors
  - Approximately 25% of all VDOT signals
  - Statewide coverage, all Districts

VDOT Corridors of Statewide Significance
- US-13
- US-17
- US-29
- US-58
- I-464
- I-66
- I-77
- I-81
- I-95
- US-220
- US-460
- VA-234

* Includes parallel routes

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WHY USE RETROREFLECTIVE BACKPLATES?

- One of the nine FHWA proven safety countermeasures
- Low cost, systematic improvement
- Reduces unintentional running of red lights and other driver violations of traffic signals
- Increases traffic signal visibility
  - Contrasts against the dark backplate
  - Distinguishes between background lighting, signs, and visual distractions
  - Increases recognition during times of limited visibility (night, fog, heavy precipitation)
  - Draws attention to the intersection during power outages
  - Draws attention to the intersection after long roadway sections without signals

WHY USE RETROREFLECTIVE BACKPLATES IN VIRGINIA?

- Consistent with VDOT Business Plan for FY14-FY15 Objective 1.3
- Supports Virginia’s Strategic Highway Safety Plan
- Enhances intersection safety
- Intersection crashes are an Emphasis Area for Virginia

WHERE HAVE RETROREFLECTIVE BACKPLATES BEEN IMPLEMENTED?

- Ohio DOT
- Massachusetts DOT
- South Carolina DOT
- Oklahoma
- Florida DOT
- Texas DOT
- Washington DOT
- Kentucky Transportation Cabinet
- Indiana DOT
- Connecticut DOT
- Chesapeake, VA
- Madison, WI
- Frankfort, KY
- Indianapolis, IN
- Manhattan, KS
- British Columbia, Canada

TRAFFIC SIGNALS AT NIGHT

- To view a video go to http://www.kimley-horn.com/communication/md/projects/VDOT-video/VDOT-Backplate-At-Night.mp4

PURPOSE

- Enhance visibility of traffic signals
- Improve overall safety and operations at signalized intersections
- Increase crash savings to motoring public
  - $129 million/year if installed at all VDOT signals

WHAT ARE RETROREFLECTIVE BACKPLATES?

- Backplates surround the signal housing to improve visibility of the signal
- Retroreflective backplates have a 1- to 3-inch yellow retroreflective border around the perimeter of the backplate
- Option in 2009 MUTCD (first issued as Interim Approval in 2004)
- Consistent with VDOT Business Plan for roadways 45 mph and above, encouraged for roadways less than 45 mph

3. All new traffic signals
4. Required for roadways 45 mph and above, encouraged for roadways less than 45 mph
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