

Update on New UPWP Operations Task

Presented to: Traffic Signal Subcommittee

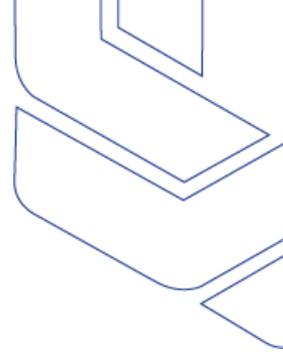
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October 17, 2016



Baltimore Metropolitan Council



Overview of New Task



At the request of the Technical Committee, BMC staff has prepared and BRTB has approved a new task in the FY 2017 Unified Planning Work Program under the Operations Planning project.

Purpose of new task:

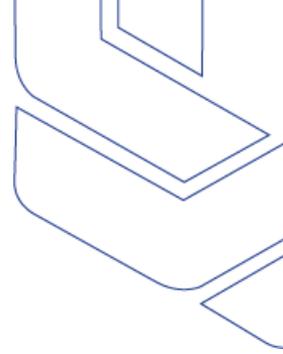
Identify potential congestion management strategies for corridors that have significant operational issues.

Congestion management strategies include items such as:

- geometric improvements
- adaptive traffic signal control and other low-cost operational strategies that could reduce recurring as well as non-recurring congestion
- transportation system management strategies that manage demand and reduce single occupant vehicle usage



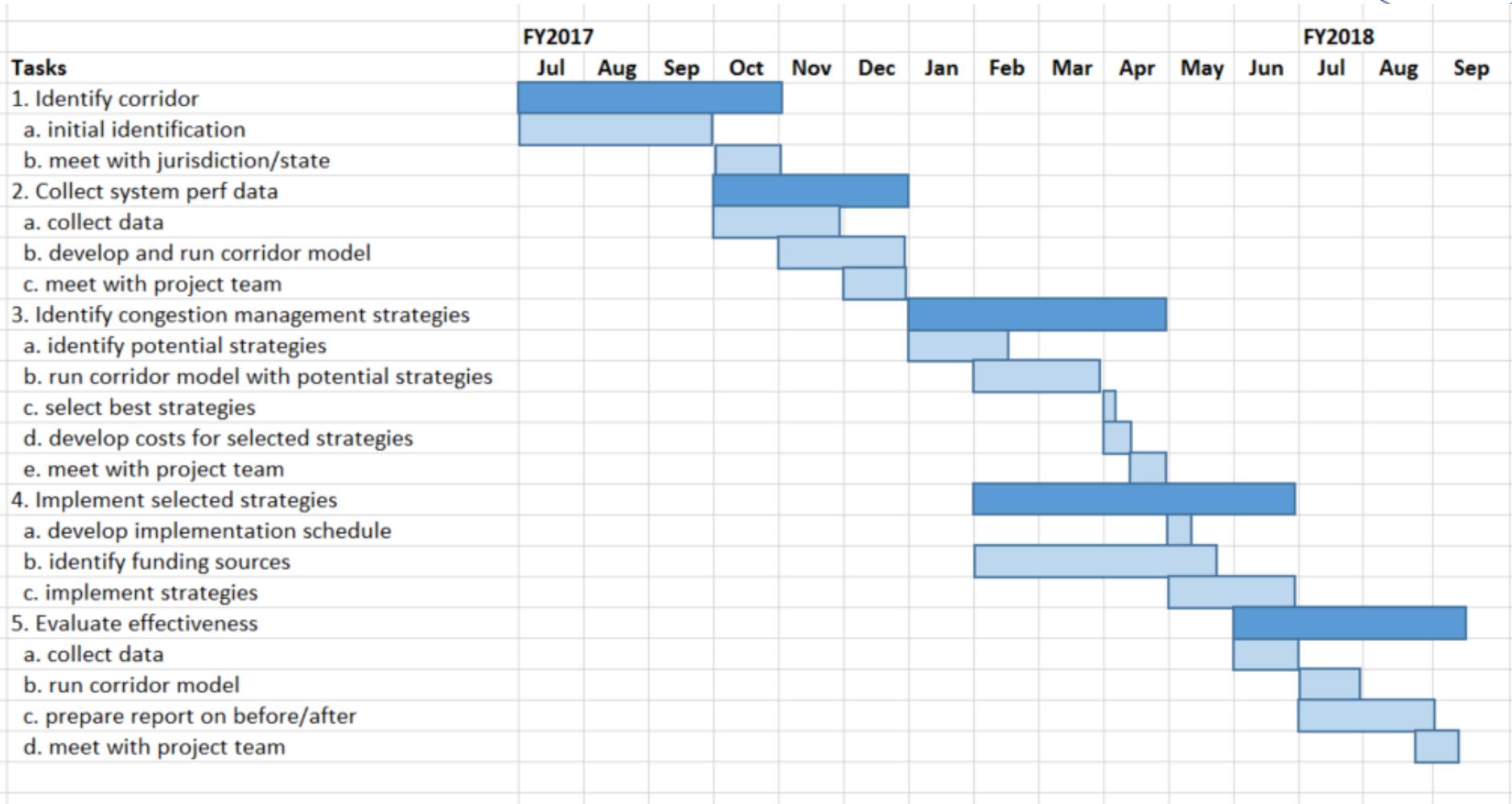
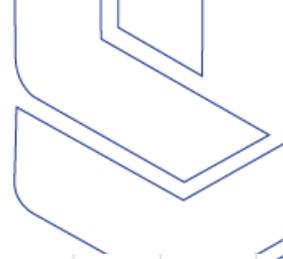
Actions for This Task



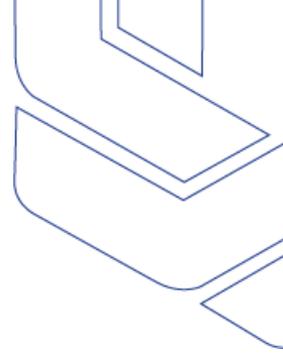
- 1. Collect data on system performance** to define the extent and duration of congestion and determine the causes of congestion. This task will use state-of-the-art tools, technologies and data (e.g., from ITS, CHART, I-95 Corridor Coalition Vehicle Probe Project suite, and corridor modeling);
- 2. Identify congestion management strategies.** Possible congestion mitigation strategies could include geometric improvements, adaptive traffic signal control, and other low-cost operational strategies that reduce recurring and non-recurring congestion;
- 3. Implement selected strategies,** including development of an implementation schedule and identification of possible funding sources for each selected strategy; and
- 4. Evaluate effectiveness** of the implemented strategy using similar performance data as collected in Task 1.



Draft Schedule



Corridor Selection

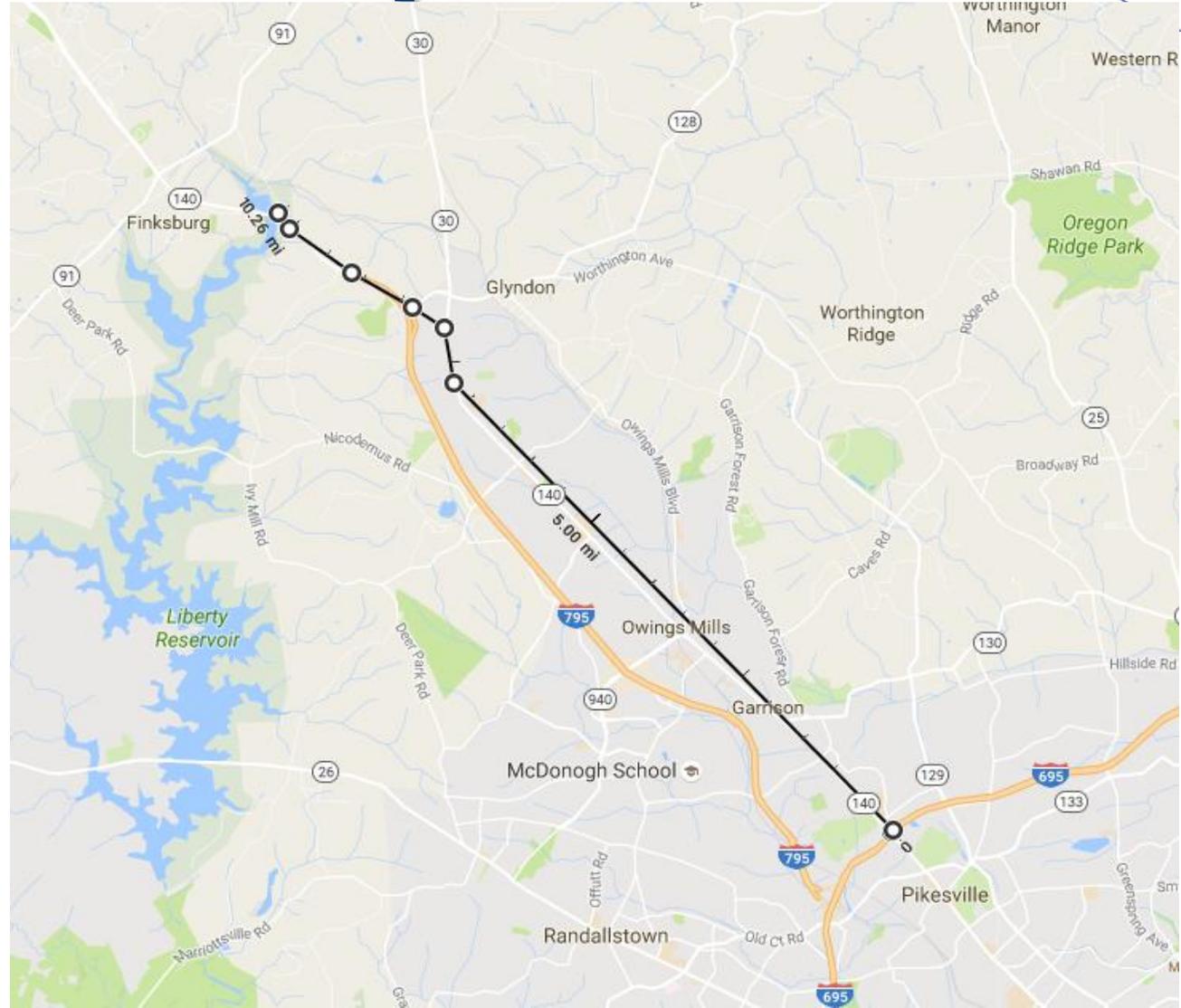


- Considerations for corridor selection includes:
 - level of congestion
 - need for study of the corridor
 - data availability
 - crashes in the corridor
 - connection to projects in the TIP and LRTP
 - availability of alternate modes
 - inclusion in previous corridor studies looking at alternatives that improve access to jobs
 - included in the projects submitted by the public during the public outreach process for *Maximize2040*
- Close coordination between staff, jurisdiction, SHA
- Replicate the process in each jurisdiction



Pilot Corridor -MD 140 Baltimore County

- I-695 to Carroll County line
- Approx. 10 miles



Characteristics of MD 140 in Baltimore County

- ADT
 - Slightly decreased since 2012; will increase once development is complete
- Crashes
 - 379 crashes in 2015
- Peak congestion:
 - Increased in corridor from 2013 to 2015
 - AM and PM peak, peak direction
 - weekends, 8 AM to 6 PM
 - Will increase before roadway improvements are completed (Source: Traffic Impact Analysis, Foundry Row, Revised July 12, 2013)
- Various projects in LRTP, TIP, and priority letter
- Bus service on MD 140, metro in corridor
- Significant economic development taking place in the corridor
- Concerns about mobility on I-795

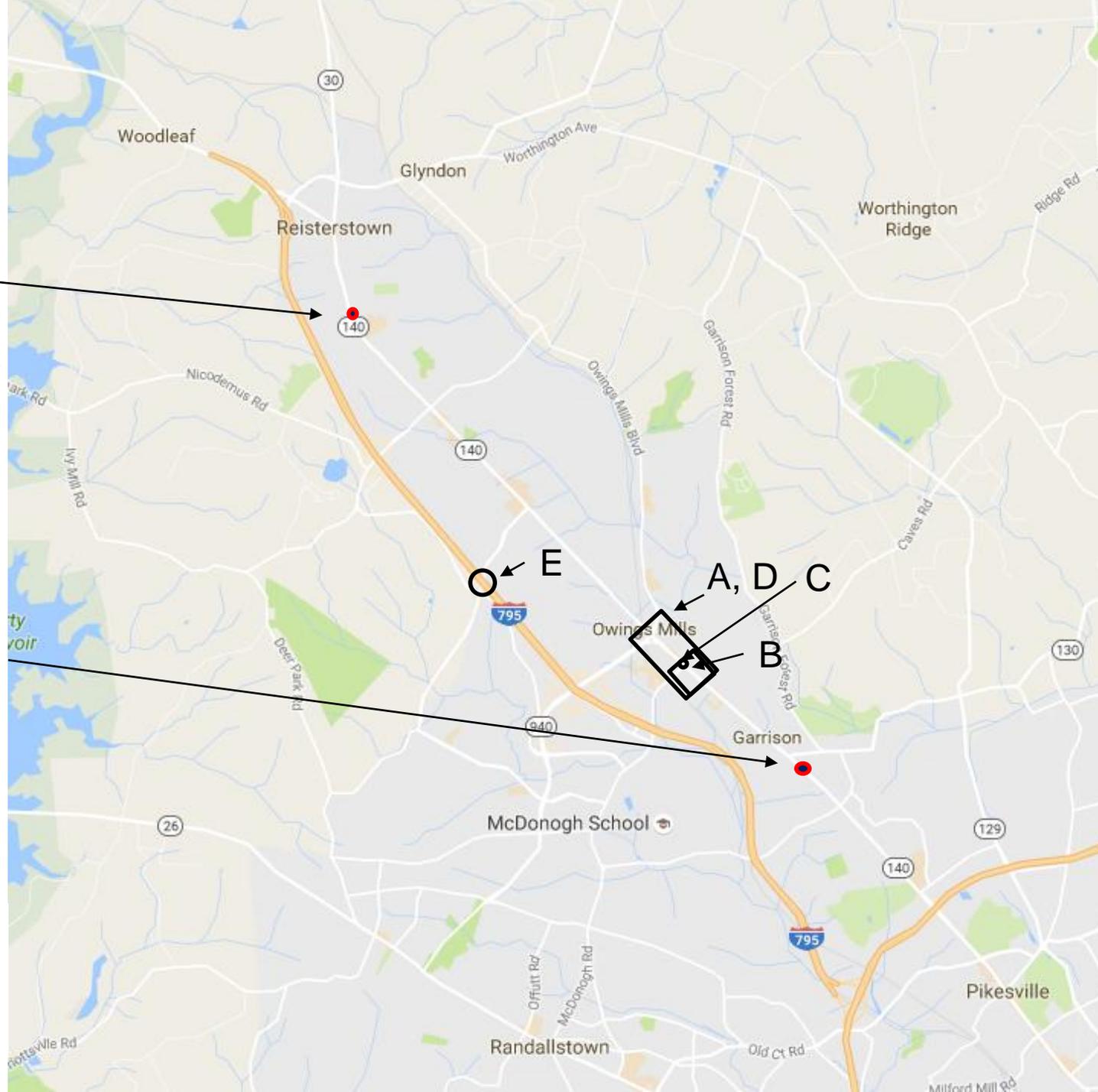


ADT

ADT

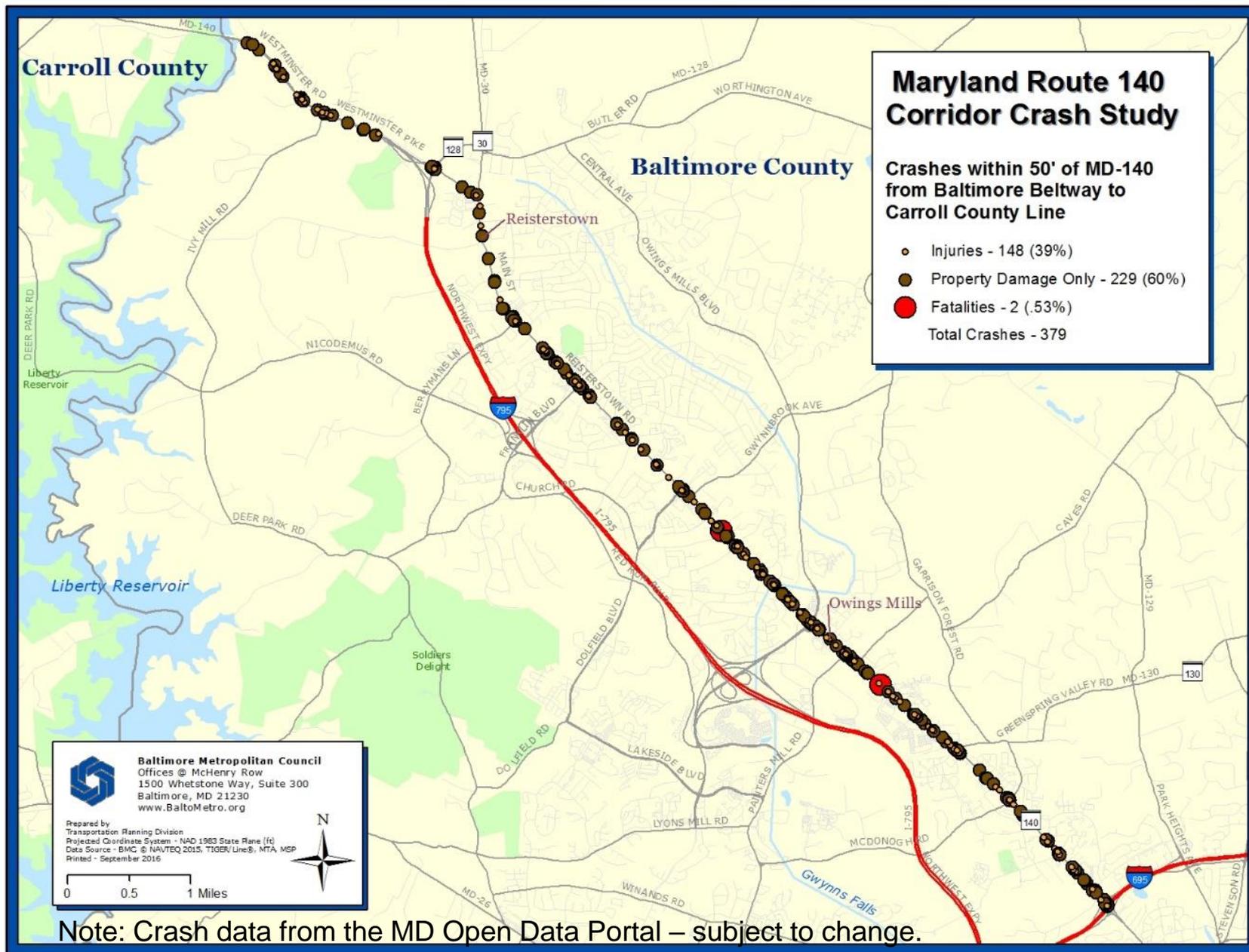


AADT



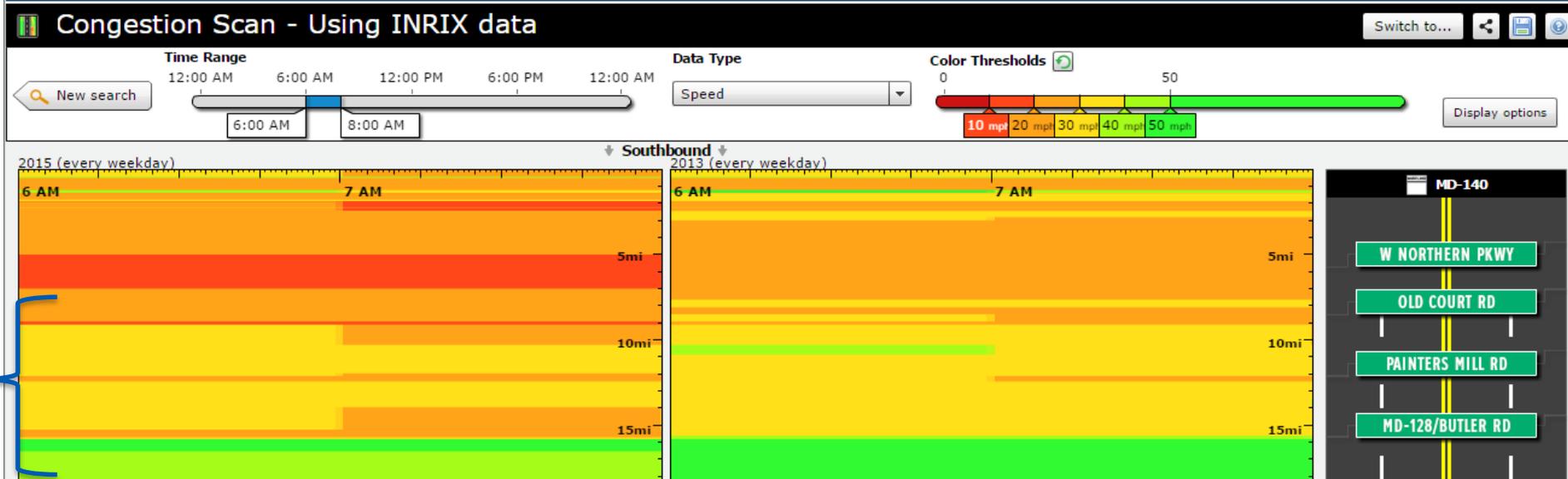
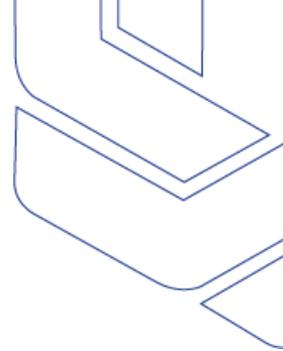
Note: Letters refer to LRTP (A, B), TIP (C, D), and priority letter (E) projects noted on slide 13.

Crashes in 2015



AM Peak Speed Southbound 2013 & 2015

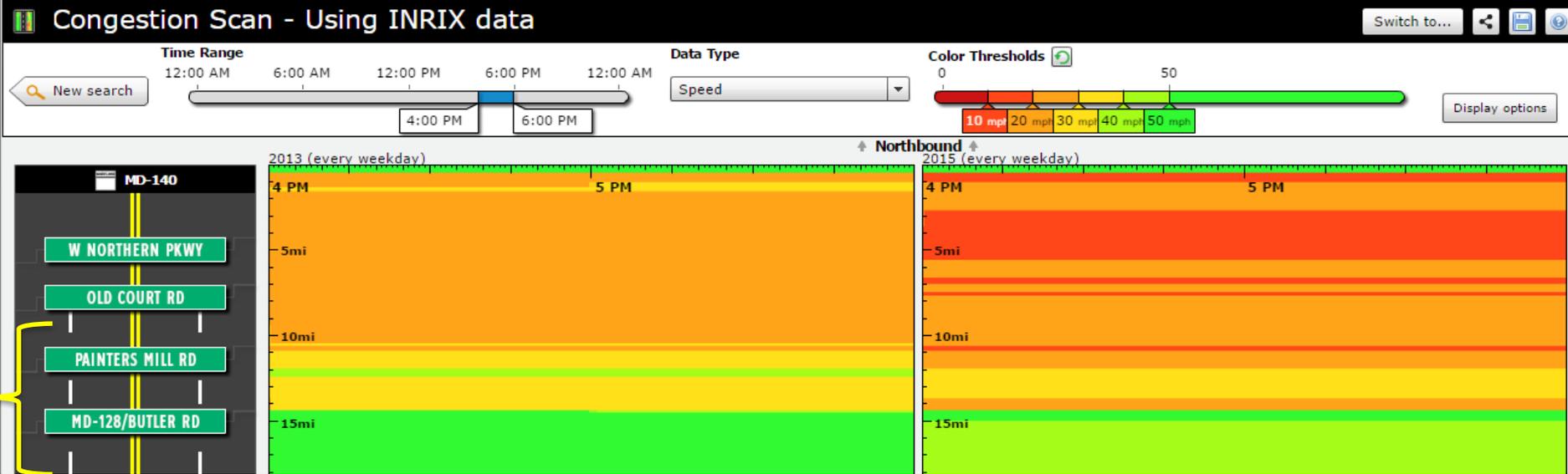
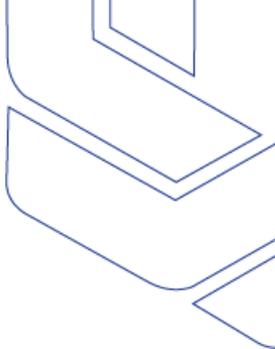
(speed limit in most of corridor is 40 MPH)



I-695 to Carroll Co

PM Peak Speed Northbound 2013 & 2015

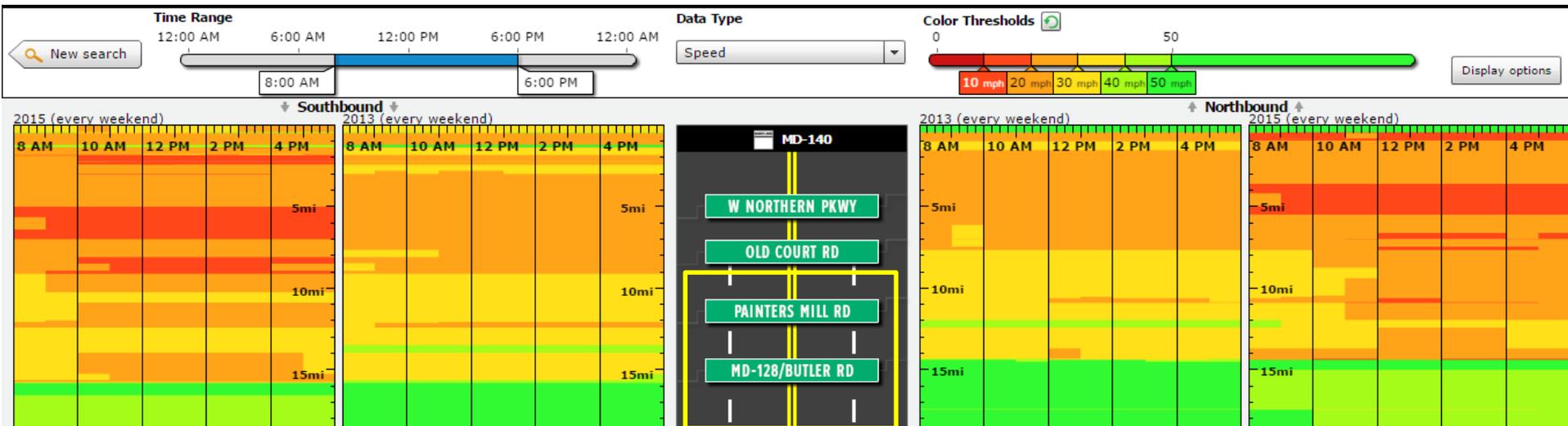
(speed limit in most of corridor is 40 MPH)



I-695 to Carroll Co

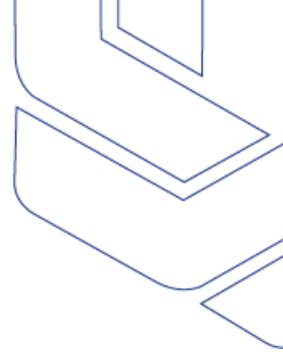


Weekends from 8 AM to 6 PM, 2013 & 2015



I-695 to Carroll Co

Planned Projects in the Corridor



- Baltimore County projects in the long-range plan:
 - A. MD 140 from Garrison View Rd to north of Owings Mills Blvd, widen from 4 to 6 lanes, remove bottlenecks.
 - B. MD 140 / Painters Mill Rd intersection. Intersection improvements, additional left turn lane, parallel access roads east and west of MD 140
- Baltimore County projects in the TIP:
 - C. Phase 1: Garrison View Rd to Painters Mill Rd. Year of operation: 2017. Widen northbound MD 140 to provide a third through lane and 5-foot raised median, with 5-foot-wide ADA-compliant sidewalks.
 - D. Phase 2: Garrison View Road to north of Owings Mills Painters Mill Road. Year of operation: 2020. Widen southbound MD 140 to provide a third through lane, with addition of left and right turn lanes and added width to better accommodate bicycles.
- 2015 Priority Letter
 - E. Request for funding of new interchange on I-795 at Dolfield Blvd to alleviate congestion due to increased development nearby (Owings Mills Metro Center Transit Oriented Development and Foundry Row Shopping Center)



Status and Next Steps

Status of MD 140 Project

- Received approval of pilot corridor selection from Baltimore County
- Identified Baltimore County and State reps to work with staff
- Signal Subcommittee members: BMC staff request for available data on the corridor

Next Steps

- Signal Subcommittee members: provide suggestions for future corridors for study



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