Update on New UPWP Operations Task

Presented to: BRTB Technical Committee

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October 4, 2016
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

<table>
<thead>
<tr>
<th>Tasks</th>
<th>FY2017</th>
<th>FY2018</th>
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<tbody>
<tr>
<td>1. Identify corridor</td>
<td>Jul</td>
<td>Aug</td>
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<tr>
<td>a. initial identification</td>
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<td>b. meet with jurisdiction/state</td>
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<td>2. Collect system perf data</td>
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<td>a. collect data</td>
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<td>b. develop and run corridor model</td>
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<td>c. meet with project team</td>
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<td>3. Identify congestion management strategies</td>
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<td>a. identify potential strategies</td>
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<td>b. run corridor model with potential strategies</td>
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<td>c. select best strategies</td>
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<td>d. develop costs for selected strategies</td>
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<td>e. meet with project team</td>
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<td>4. Implement selected strategies</td>
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<tr>
<td>a. develop implementation schedule</td>
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<td>b. identify funding sources</td>
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<td>c. implement strategies</td>
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<td>5. Evaluate effectiveness</td>
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<tr>
<td>a. collect data</td>
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<td>b. run corridor model</td>
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<tr>
<td>c. prepare report on before/after</td>
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<tr>
<td>d. meet with project team</td>
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Corridor Selection

- Considerations for corridor selection includes:
  - level of congestion
  - need for study of the corridor
  - data availability
  - connection to projects in the TIP and LRTP
  - 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
Note: Letters refer to LRTP (A, B), TIP (C, D), and priority letter (E) projects noted on slide 13.
Crashes in 2015

Crashes within 50' of MD-140 from Baltimore Beltway to Carroll County Line
- Injuries - 148 (39%)
- Property Damage Only - 229 (60%)
- Fatalities - 2 (.53%)
- Total Crashes - 379

Note: Crash data from the MD Open Data Portal – subject to change.
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
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

- Received approval from Baltimore County of pilot corridor selection
- Identified Baltimore County and state representatives to work with staff
- Begin work
Contact

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