Baltimore Region FY 2017-2020 Transportation Improvement Program (TIP) AMENDMENT

- Train Detection & Worker Warning System project
- MD 45: Padonia Road to Wight Avenue project

Baltimore Regional Transportation Board
June 27, 2017
Who We Are

- BMC - Organization of Region’s Elected Executives.
- BRTB - Baltimore Regional Transportation Board – Metropolitan Planning Organization
BRTB Members

- City of Annapolis – Michael Pantelides, Mayor
- Anne Arundel County – Steve Schuh, County Executive
- City of Baltimore – Catherine Pugh, Mayor (Vice Chair)
- Baltimore County - Kevin Kamenetz, County Executive
- Carroll County – Stephen Wantz, Board of Commissioners
- Harford County – Barry Glassman, County Executive
- Howard County – Allan Kittleman, County Executive (Chair)
- Queen Anne’s County – Stephen Wilson, Board of Commissioners
- MD Department of Transportation – Pete Rahn, Secretary
- Maryland Transit Administration – Paul Comfort, Administrator
- MD Department of the Environment – Ben Grumbles, Secretary
- Maryland Department of Planning – Wendi Peters, Secretary
- Harford Transit – Robert Andrews, Administrator
What We Do - BRTB

- Air Quality
- Bicycle and Pedestrian
- Emergency Preparedness
- Freight
- Safety
- Transit
What We Do - BRTB

- Two-year work program (UPWP)
- Short-term transportation program (TIP)
- Long-range transportation plan (*Maximize 2040*)
- Air quality assessments of all transportation projects
What is the Transportation Improvement Program (TIP)

- Short-range (four-year) program of transportation improvements & priority projects
- Financially constrained
- Authorizes project sponsor to seek or use federal funds
- Generally updated annually
  - Current TIP is FY 2017-2020
- Amendments require 30-day public review
  - New projects, new funding, etc.
Air Quality Assessment

- The TIP goes through a process that compares estimated pollutants (emissions) from transportation projects to limits (budgets) set by the state.

This report, called a “conformity determination”, addresses the 8-hour ozone standard.
- Train Detection & Worker
- Warning System project

- MD 45: Padonia Road to
- Wight Avenue project

OPEN FOR COMMENT
Through June 9, 2017
Proposed Amendments
June 2017

• MTA: Fixed Location Train Detection and Worker Warning System
• SHA: MD 45: Padonia Road to Wight Avenue
Fixed Location Train Detection and Worker Warning System

- Installation of fixed deployment system (ZoneGuard) along the entire length of the MTA Light Rail line
- Study in partnership with the State of New York that will test the proof-of-concept of an electronic secondary warning system
Fixed Location Train Detection and Worker Warning System

- Electronic secondary warning system that warns work crews in the track of approaching trains
- Fixed devices along the Light Rail line communicate with devices worn by rail workers
- Enhances the safety of track workers
- Increases available track maintenance time
Fixed Location Train Detection and Worker Warning System

**Control Module**
Serves as the data control, intelligence, and diagnostic center for the RWPS. Can be easily installed anywhere inside or outside of equipment.

**Personnel Module**
Designed to be clipped to any vest or belt, the Personnel Module provides protection for any worker in the vicinity of trains. The module deploys a multi-color LED beacon, a programmable speaker, vibration effects, and a confirmation button to silence alarms. Personnel Modules are lightweight, environmentally sealed, and can last up to a week on a single charge.

**Cab Module**
The Cab Module serves as an interface that alerts the operator of any train vehicle to the presence of nearby workers. The module provides real-time information about nearby workers (such as distance and confirmation status) as well as any other customer-specified requirement. The Cab Module can operate either as a stand-alone system, or can be integrated into existing displays for AURA Collision Avoidance and Passenger Rail Control Systems.

**UWB Modules**
Train and Wayside-based Modules communicate via Ultra-Wide Band RF. At a specified speed & distance, the Wayside Module initiates an alarm on all Personnel Modules within the work zone. The Wayside Module can be placed anywhere near the center of the work zone or can be permanently installed, depending on configuration.
## Fixed Location Train Detection and Worker Warning System

<table>
<thead>
<tr>
<th>5312 FUNDING</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEDERAL</td>
<td>$688,000</td>
</tr>
<tr>
<td>STATE OF MARYLAND</td>
<td>$280,000</td>
</tr>
<tr>
<td>PRIVATE (MILLER/METROM)</td>
<td>$2,003,552</td>
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<tr>
<td>NEW YORK CITY TRANSIT</td>
<td>$18,000</td>
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# Fixed Location Train Detection and Worker Warning System

<table>
<thead>
<tr>
<th>DATE</th>
<th>MILESTONE</th>
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<tbody>
<tr>
<td>7/1/2017</td>
<td>Project begins</td>
</tr>
<tr>
<td>10/13/2017</td>
<td>Product installation, testing, and verification (NY) complete</td>
</tr>
<tr>
<td>12/31/2017</td>
<td>Product installation, testing, and verification (MD) complete</td>
</tr>
<tr>
<td>3/15/2018</td>
<td>Data collection and evaluation (NY) complete</td>
</tr>
<tr>
<td>10/1/2018</td>
<td>Data collection and evaluation (MD) complete</td>
</tr>
<tr>
<td>2/1/2019</td>
<td>Final report with evaluation draft complete</td>
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MD 45 (York Road) Padonia Road to Wight Avenue

Schedule
Advertisement: 06/13/2017
Notice to Proceed: 09/25/2017
Completion: Fall 2020
MD 45 (York Road) Padonia Road to Wight Avenue

- Utility project followed by roadway resurfacing
- Baltimore County 24 inch water main replacement
- Major Project (> $10 million) in MDOT CTP

<table>
<thead>
<tr>
<th>Total Costs (in thousands)</th>
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<tbody>
<tr>
<td>Design</td>
</tr>
<tr>
<td>Roadwork</td>
</tr>
<tr>
<td>Waterline (County funds)</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Federal Aid $ 2,736
Share your thoughts

Comments welcome through **June 9, 2017** to:

The Baltimore Regional Transportation Board  
Attn: Public Involvement Coordinator  
1500 Whetstone Way, Suite 300  
Baltimore, MD 21230

*Fax:* 410-732-8248  
*E-mail:* comments@baltometro.org  
*Twitter:* @BaltoMetroCo @BmoreInvolved #BRTBlistens

Comments are also welcome during the Public Comment Opportunity of the BRTB meetings at 9:00 am on Tuesday, May 23 and Tuesday, June 27 (scheduled vote).