Kent Island Transportation Plan
Presentation Outline

- Kent Island Background and Roadway Network
- Regional Considerations/Bay Bridge
- Study Purpose and Considerations
- Study Process
- Recommendations
- Next Steps
Kent Island Background

- Queen Anne’s County
  - 373 square miles
  - Population of 48,400 (est. 2014)
- Kent Island
  - 32 square miles
  - Population of 17,800 (est. 2014)
  - “Gateway to the Eastern Shore”
Kent Island Roadway Network

**Access Points**
- Bay Bridge
- Kent Narrows Bridge

**Key State Roadways**
- US 50/301
- MD 18
- MD 8
- MD 552/
  Dominion Road
Regional Significance

- US 50/301 corridor is a major truck route on the National Highway System.
  - Section 1105: Nationally Significant Freight and Highway Projects
  - Section 1116: National Highway Freight Program
- Evacuation corridor for Eastern Shore Residents
- Managing traffic flows through the Bay Bridge Corridor is essential to the region.
Eastbound Bay Bridge Traffic Volume Profile

William Preston Lane Jr. Memorial Bridge (EB US 50)
2013 Average Daily Traffic Volumes Per Month
Analysis of Bay Bridge Incidents

MD 2 South to the US 50/301 split (21 miles)

- Average travel time = 22.4 minutes
- Summer weekend AADT = 95,000 vehicles
- Example: Sunday 7:00pm Summertime incident
  - A 15-minute duration incident equates to 188 hours of delay
  - A 45-minute personal injury incident equates to 1,200 hours of delay
Study Purpose

- Analyze the purpose and need for specific future transportation improvements on Kent Island based on an evaluation of the current and future traffic conditions.
- Develop short and long term recommendations that can be implemented while longer term Bay Bridge solutions are being identified and developed.
  - Through traffic
  - Local traffic
Study Area
US 50/301 Access Points

18/Main Street Overpass

US 50/301 with South Piney Road and Piney Creek Road

US 50/301 with Thompson Creek Service Road and Thompson Creek Road
Study Considerations

- Bay Bridge
  - Traffic volumes 95,000 AADT summer traffic
  - Incidents and resulting congestion
  - Evacuation route

- Kent Island Activity
  - Approved/planned developments
  - Southern Kent Island Sanitation Sewer Project

- Consistent with Comprehensive Plan
Study Process

- Partnered with SHA to obtain traffic volume data, historical trends, Bay Bridge incident data, etc.
- Worked with County’s Department of Planning and Zoning to obtain development information
- Developed existing conditions network with roadway and traffic volume data
- Held an initial public meeting to get input from residents, business owners, and emergency responders
Study Process

- Developed future year traffic volumes
- Identified potential improvements to address deficiencies
- Developed concept-level improvement sketches and planning-level costs
- Presented potential improvement options to the public
- Finalized report
Analysis Techniques

- Studied 10 Key Intersections on the Island
- Traffic Volumes – Non-summer peak
  - Existing Conditions
  - Future Conditions
    - Historical growth, development-related forecasts
      - Year 2020
      - Year 2030
- Analysis Tools
  - Traffix Model
  - Synchro, SIDRA, and VISSIM
## Year 2015 Conditions

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<th>Intersection</th>
<th>Existing AM</th>
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Non-peak summer, worst intersection is MD 18 and Dominion Road  
AM Peak Hour: 1 intersection at LOS F  
PM Peak Hour: 1 intersection at LOS F, 1 intersection at LOS D
Public Input Meeting

- Location-specific and general comments
- Widening, intersections, bike/ped issues, signing
- Bay Bridge incidents
- Summer traffic delays
## Year 2030 Conditions – PM Peak

5 intersections operate at LOS F without transportation improvements

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<th>Intersection</th>
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<th>2020 PM Without Improvements</th>
<th>2030 PM Without Improvements</th>
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Recommended Improvements
Types of Improvements

- Reconstruct the existing US 50/301 and MD 8 diamond interchange to a diverging diamond interchange.
- Construct a new pedestrian bridge to connect a proposed park north of US 50/301 with the shopping center located along Thompson Creek Road (south of US 50/301).
- Construct a new two lane roadway from Thompson Creek Road to Cox Neck Road following the alignment of US 50/301.
- Widen MD 18 from two lanes to four lanes between Piney Creek Road and Kent Towne Market.
- Widen MD 18 from two lanes to three lanes between Kent Towne Market to Wharf Drive.
- Construct a new two-lane roadway over US 50/301 connecting Shamrock Road and Piney Creek Road.
Year 2030 Improvement Results

- All of the study area intersections would operate at LOS D or better, with the exception of MD 18 at Dominion Road (LOS E)
- Improved travel flow along MD 18 through increased capacity and coordinated signal timing
- Bicycles and pedestrians would have two additional crossings over US 50/301
- Within Kent Island, redundancy would be introduced into the vehicular network
Sample Improvement Sheet

Description:
Construction of a new two lane roadway from Thompson Creek Road to Cox Neck Road following the alignment of US 50/301. Connection options include tying into Ellicott Drive, Cecil Drive, or a new alignment connecting to Postal Road.

The Cox Neck Road Connector improvement was also reviewed as a one-way westbound facility to detract freeway through traffic from using this local road as a cut-through to points west. The locals have eastbound connectivity via US 50/301, but westbound travel today is much less direct.

Cost Estimate:
$17,500,000

Benefits
- Additional east-west connection for local residents
- Network redundancy and improved access for emergency vehicles
- Additional pedestrian/bicycle access and connection on the south side of US 50/301

Traffic Impact Analysis
This improvement was incorporated into the 2030 analysis year. While traffic analysis was not performed directly in the vicinity of this improvement project, it does provide known benefits. Existing and future traffic can be diverted from parallel routes, such as MD Route 19, which will improve congestion in other areas of the network.

Pedestrian Connectivity
Pedestrian and bicycle facilities should be considered for inclusion in this improvement project, as there are minimal facilities along the south side of the Island.
Public Meeting

Presentation of Improvement Concepts
Next Steps

- Seek assistance in funding improvements on Kent Island
- Assist SHA and MdTA in prioritization and sequencing of Bay Bridge investments
- Explore options to minimize the increasing traffic volumes in the Bay Bridge Corridor
  - Transit options to minimize car trips
  - Identifying additional Park & Ride locations
Investing in Bay Bridge Future

- **Future Summer back-ups** *(Bay Bridge Life Cycle Cost Analysis, MdTA, Dec 2015)*
  - Eastbound - 13 miles, daily (to I-97)
  - Westbound - 14 miles, Sunday (to Wye Mills)

- **Numerous newspaper articles**
  - Another Bridge, Dick Ladd, former Anne Arundel County councilman - District 5 *(Capital, Feb. 14, 2016)*
  - Our Say: Hogan must settle stalemate over third span *(Capital, Feb. 2, 2016)*
  - Our Say: Bay Bridge Needs to be on State Agenda *(Capital, Dec. 20, 2015)*
Questions?