

Kent Island Transportation Plan



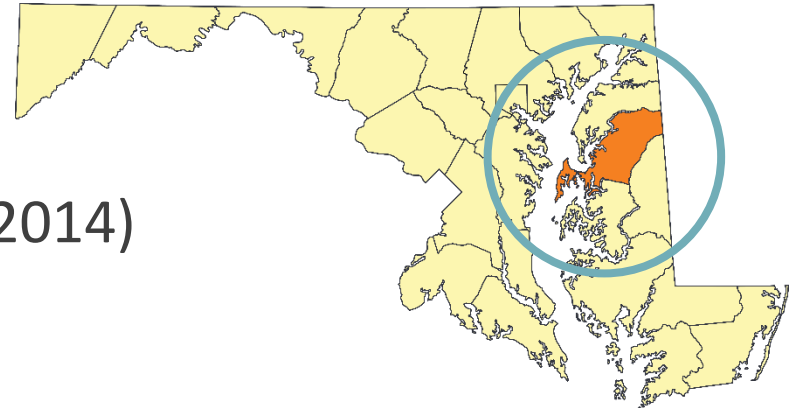
Presentation Outline

- 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”



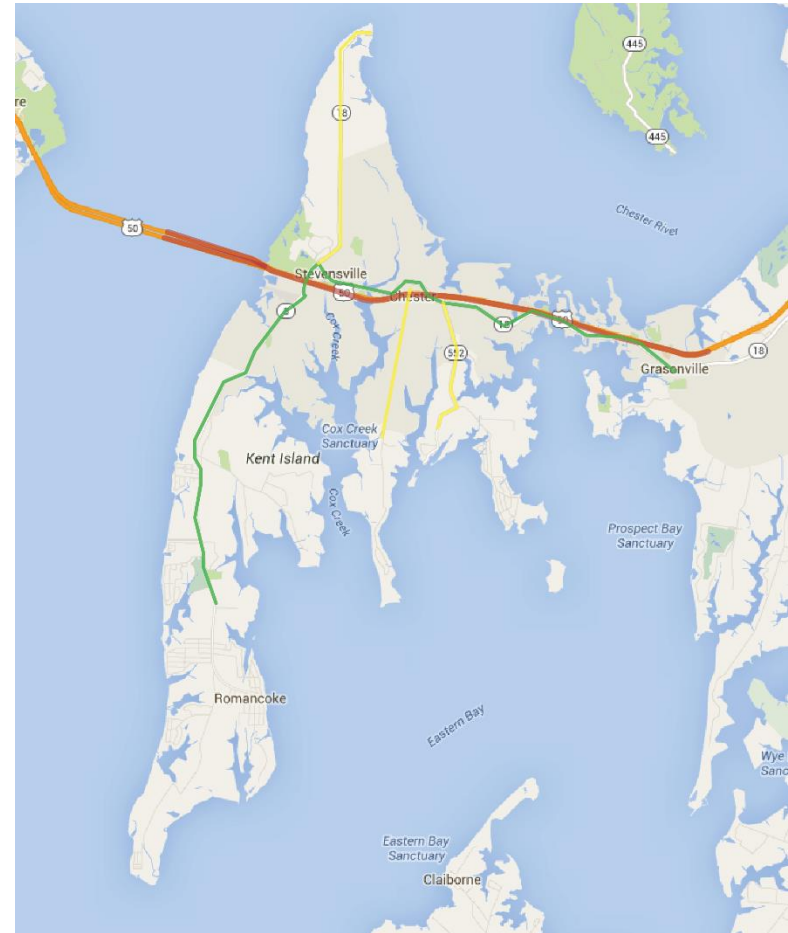
Kent Island Roadway Network

Access Points

- Bay Bridge
- Kent Narrows Bridge

Key State Roadways

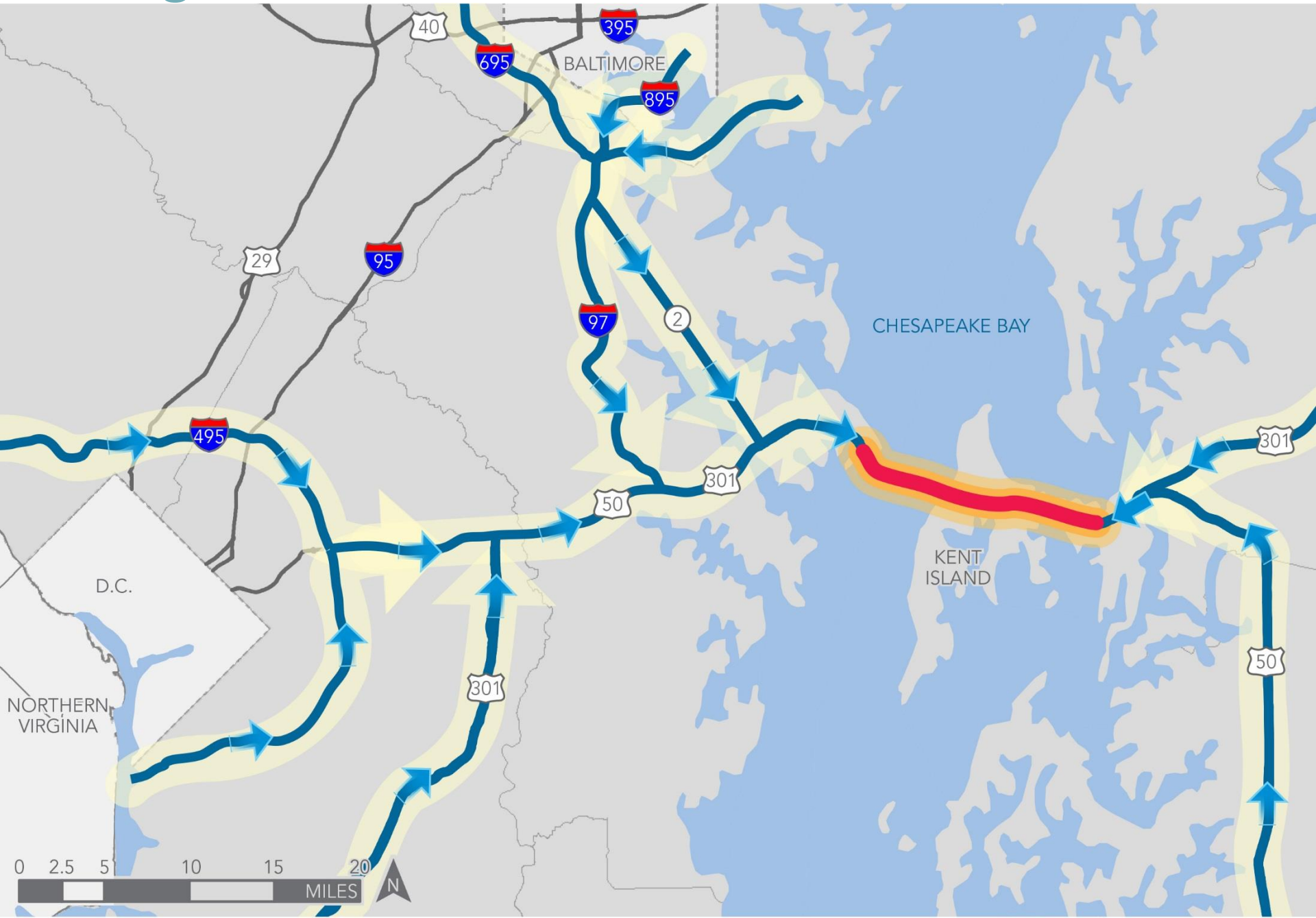
- US 50/301
- MD 18
- MD 8
- MD 552/
Dominion Road



Source: Google Maps



Regional Travel



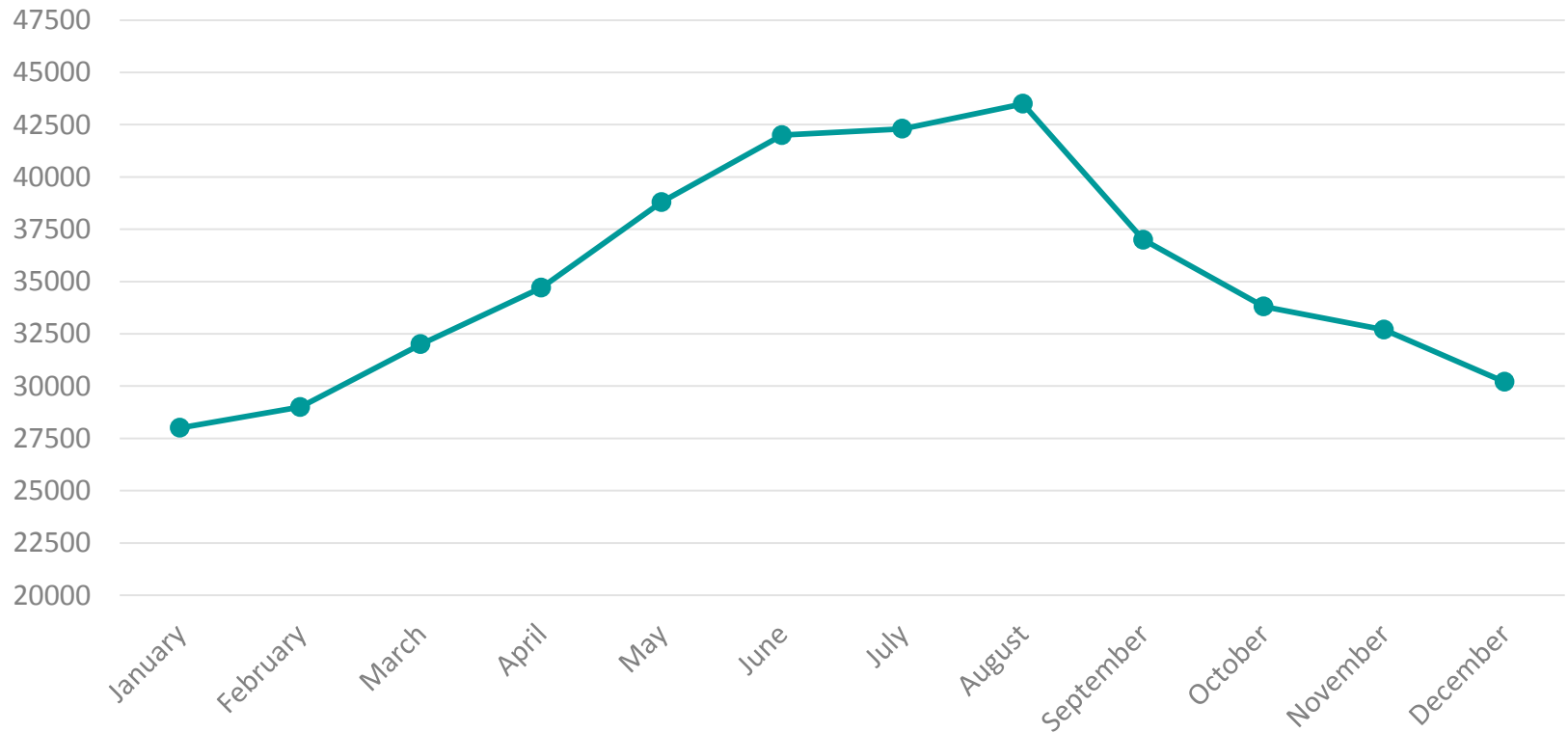
Regional Significance

- 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

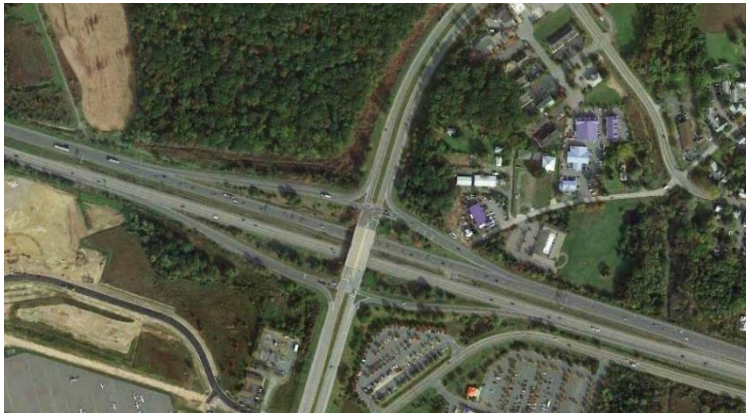
- Analyze the purpose and need for specific future transportation improvements on Kent Island based on an evaluation of the current and future traffic conditions.
- Develop short and long term recommendations that can be implemented while longer term Bay Bridge solutions are being identified and developed.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



Study Area



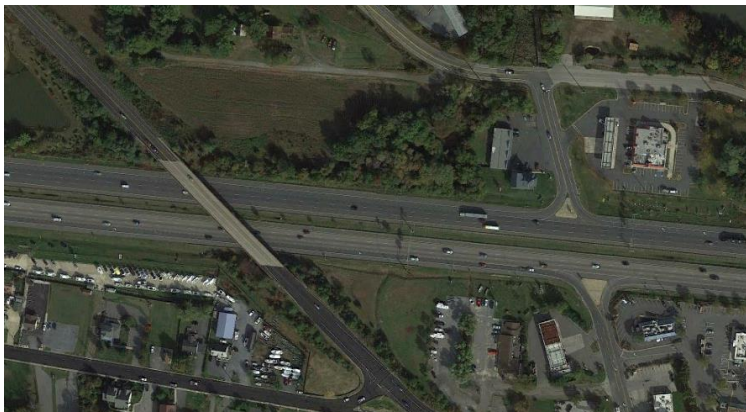
US 50/301 Access Points



US 50/301



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



18/Main Street Overpass



US 50/301 with South Piney Road and Piney 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

Intersection	Level of Service (Delay, Seconds per Vehicle)			
	Existing AM		Existing PM	
	Delay	LOS	Delay	LOS
MD Route 8 at Pier 1 Road/ Thompson Creek Road (Signalized)	8.3	A	16.7	B
MD Route 8 at US 50/301 EB Ramps (Signalized)	13.3	B	15.8	B
MD Route 8 at US 50/301 WB Ramps (Signalized)	10.1	B	14.1	B
MD Route 8 at Skipjack Parkway/ MD 18 (Main Street) (Signalized)	16.6	B	18.4	B
MD Route 18 at Castle Marina Road (Roundabout) ¹	13.1	B	33.7	D
MD Route 18 at Piney Creek Rd (Two-Way Stop Controlled)	2.6	A	6.9	A
MD Route 18 at Postal Rd (Eastbound Stop Controlled)	5.5	A	19.6	C
Dominion Rd at MD Route 18 (Signalized)	124.9	F	121.9	F
MD Route 18 at South Piney Rd (Southbound Stop Controlled)	2.3	A	5.7	A
MD Route 18 at Shamrock Rd (Southbound Stop Controlled)	1.0	A	1.1	A
MD Route 18 at Dundee Ave (Southbound Stop Controlled)	0.7	A	0.7	A

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

Workshop addresses Kent Island traffic problems

By ALEX WOLF
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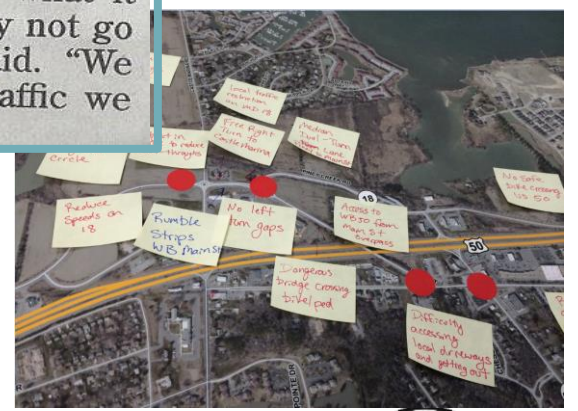
STONERVILLE — A workshop addressing transportation issues and future plans to improve roadways and walking paths on Kent Island was held at the Kent Island Senior Center on Aug. 19. Representatives from the county's Department of Public Works and Planning Commission hosted the event, showing diagrams for future roadways and giving a presentation on current transportation studies. Todd Mohr, director of DPW, spoke about what the county has learned about transportation issues, saying the county has been



International Q&A.
Diane Bedlin of Cloverfields, who said she sat in stalled traffic near her home for over an hour the previous weekend, voiced her frustration about getting around Kent Island when traffic is backed up on Route 50.
"You don't know what it feels like to literally not go anywhere," she said. "We can't handle the traffic we have now."

Mike Watson, who works in the DPW Parks Division, said it may take several years for the funding to come through to build a pedestrian overpass and to extend area trails, but he said it is a type of project that usually gets state funding. When the evening's presentations came to a close, several attendees said they appreciated having a forum to discuss transportation issues. Kenneth Addison, a resident of Queenstown, said he was happy to hear people voice their concerns to public officials because he believes traffic is a major problem in the area. "I think some of the comments were useful," he said. "I only hope they listen."

Sarah Hardingham, a traffic survey consultant from Kinley-Horn, shows a Kent Island resident a map of the area to help address local transportation issues.



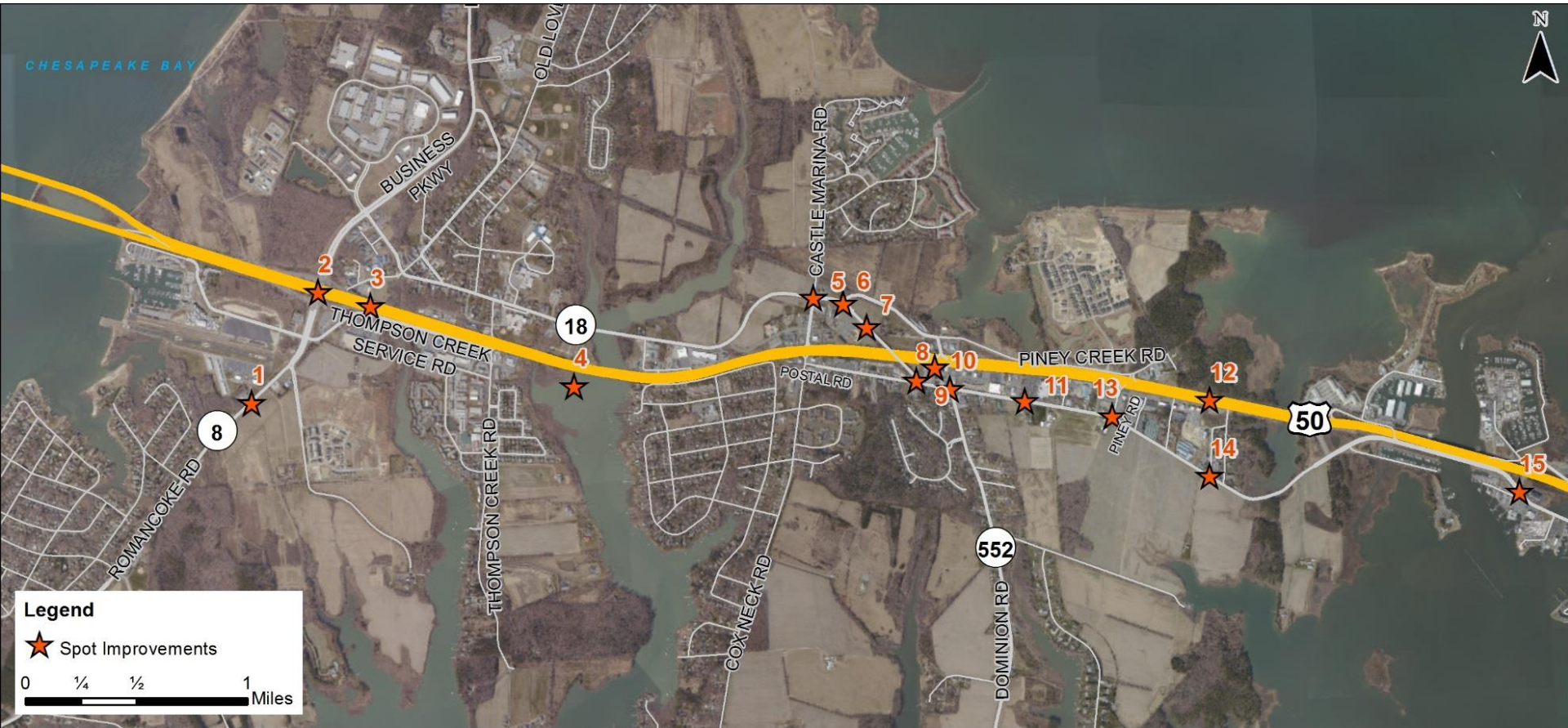
Year 2030 Conditions – PM Peak

5 intersections operate at LOS F without transportation improvements

Intersection	Level of Service (Delay, Seconds per Vehicle)					
	Existing PM		2020 PM Without Improvements		2030 PM Without Improvements	
	Delay	LOS	Delay	LOS	Delay	LOS
MD Route 8 at Pier 1 Road/ Thompson Creek Road (Signalized)	16.7	B	18.4	B	26.5	C
MD Route 8 at US 50/301EB Ramps (Signalized)	15.8	B	9.0	A ¹	19.2	B ¹
MD Route 8 at US 50/301WB Ramps (Signalized)	14.1	B	19.0	B ¹	20.8	C ¹
MD Route 8 at Skipjack Parkway/ MD Route 18 (Signalized)	18.4	B	25.5	C	27.6	C
MD Route 18 at Castle Marina Road (Roundabout)	33.7	D	185.2	F	630.2	F
MD Route 18 at Piney Creek Rd (Two-Way Stop Controlled)	6.9	A	1274.2	F	N/A ³	N/A ³
MD Route 18 at Postal Rd (Eastbound Stop Controlled)	19.6	C	443.7	F	476.9	F
Dominion Rd at MD Route 18 (Signalized)	121.9	F	342.0	F	670.8	F
MD Route 18 at South Piney Rd (Southbound Stop Controlled)	5.7	A	159.9	F	2080.9	F
MD Route 18 at Shamrock Rd (Southbound Stop Controlled)	1.1	A	4.3	A	6.5	A
MD Route 18 at Dundee Ave (Southbound Stop Controlled)	0.7	A	1.5	A	2.0	A



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



← Sketch

Description →

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 →

Cost Estimate:

\$17,500,000

Benefits →

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 18, which will improve congestion in other areas of the network.

Pedestrian Connectivity

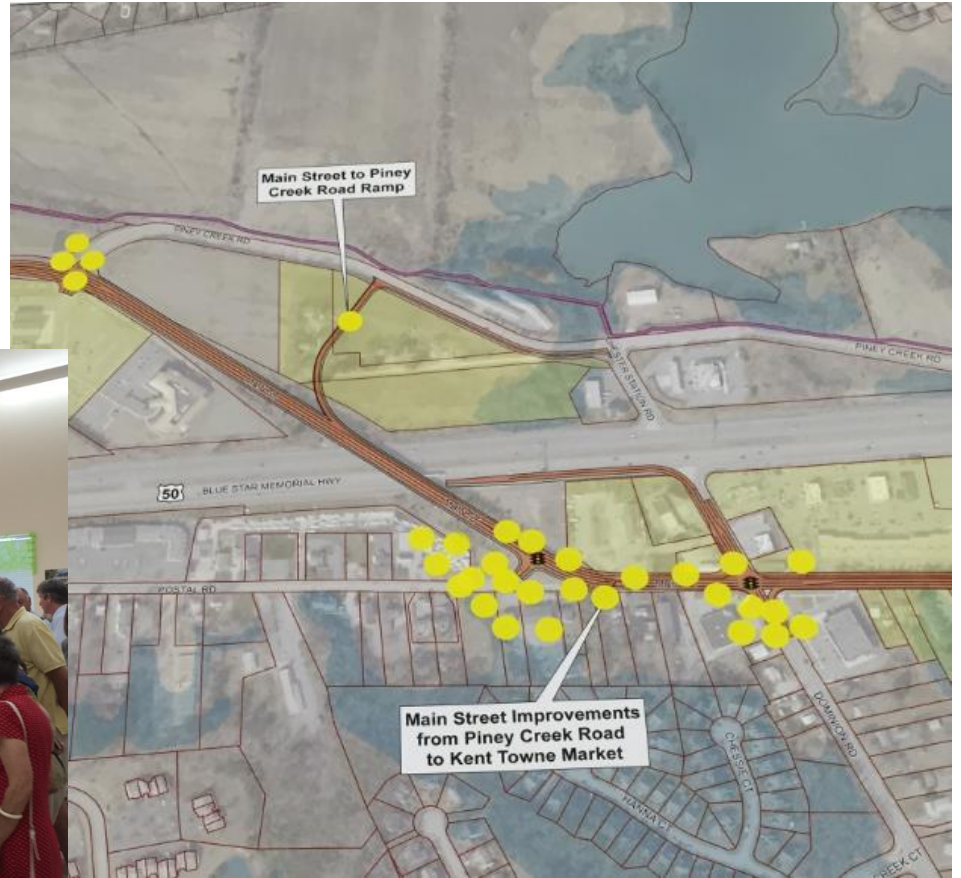
Pedestrian and bicycle facilities should be considered for inclusion in this improvement project, as there are minimal facilities along the south side of the Island.

← Other information



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?

