

**TECHNICAL ADVISORY COMMITTEE MEETING**  
**January 16, 2020**

A meeting of the Technical Advisory Committee (TAC) was held on Thursday, January 16, 2020, at WILMAPCO, 100 Discovery Blvd., Suite 800, Newark, DE 19713.

**1. CALL TO ORDER:** Mr. David Dahlstrom, Maryland Department of Planning, brought the TAC meeting to order at 10:01 a.m.

**2. TAC Members present:**

Tricia Arndt, Delaware Office of State Planning  
Ian Beam, Maryland Department of Transportation  
Cooper Bowers, Delaware Department of Transportation  
Alex Brun, Maryland Department of the Environment (via conference call)  
Marvina Cephas, DNREC  
David Dahlstrom, Maryland Department of Planning  
Stacey Dahlstrom, New Castle County Department of Land Use  
Michael Fortner, City of Newark  
Gwineth Kaminsky, City of Wilmington Planning  
Stephen Miller, Maryland State Highway Authority  
Brian Mitchell, City of Wilmington Department of Public Works  
Steve O'Connor, Cecil County Land Use  
Catherine Smith, DTC

**TAC Ex-Officio Members present:**

**TAC Members absent:**

Jeanne Minner, Town of Elkton  
Delaware Division of Small Business, Development, and Tourism  
Delaware River and Bay Authority  
Maryland Transit Administration

**TAC Ex-Officio Members absent:**

Amtrak  
Diamond State Port Corporation  
U.S. Environmental Protection Agency  
U.S. Federal Highway Administration  
U.S. Federal Transit Administration

**Guests and Invitees:**

Carl Chamberlin, Maryland Department of Transportation  
Jane Dilley, League of Women Voters  
Teresa Gardner, Cecil County  
Wesley Mitchell, WSP  
Kevin Racine  
Jolyon Shelton, DNREC  
Sam Sherman, DeIDOT  
Philip Strohm, Federal Motor Carrier Safety Administration  
Joshua Thomas, DeIDOT

**Staff:**

Dan Blevins, Principal Planner  
Heather Dunigan, Principal Planner  
Sharen Elcock, Executive Assistant  
Dave Gula, Principal Planner  
Randi Novakoff, Outreach Manager  
Bill Swiatek, Principal Planner (via conference call)  
Jacob Thompson, Transportation Planner  
Dawn Voss, Administrative Assistant  
Tigist Zegeye, Executive Director

Minutes prepared by: Dawn Voss

**3. MINUTES**

The January 16,2020 TAC minutes were approved.

**ACTION:** On motion by Mr. Michael Fortner and seconded by Ms. Cathy Smith, the TAC approved the January 16, 2020 TAC minutes.

Motion passed.

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**4. SUBCOMMITTEE UPDATES**

None.

**5. PUBLIC COMMENT PERIOD**

Mr. Kevin Racine thanked DTC for the community meetings on January 14<sup>th</sup> and 15<sup>th</sup>. He suggested that the maps be made larger, so they are easier to see. Mr. Racine said the bus drivers have been helping him learn how to get from place to place, which shows how transit should work. He suggested that bus stops list other nearby stops/routes, so riders know what additional routes are within walking distance. Mr. Racine mentioned that certain buses don't stop on Cleveland Avenue because it's too congested at times. He had to walk to the hub because the driver could not see him. Mr. Dahlstrom asked if the meeting of the 15<sup>th</sup> was at WILMAPCO. Mr. Racine confirmed that it was.

**PRESENTATION/DISCUSSION ITEMS:**

**6. I-95 at Belvidere Road Transportation Improvement Study**

Mr. Carl Chamberlin began by providing background information. Cecil County was awarded a federal grant in 2018 to identify and evaluate alternatives for a new interchange at I-95 and Belvidere Road, or other options to address the area's future needs. MDTA is partnering with Cecil County and the developer, who will donate needed right of way and provide some financial contribution. The federal government is providing \$20 million and access to I-95. Since the last presentation, design alternatives were developed and analyzed. This information was vetted by FHWA and will be presented to the partners by the end of the month. Mr. Chamberlin expects sign-off by mid-February.

The purpose of this project is to facilitate the safe and efficient flow of local, commuter and commercial vehicle traffic movements of people and goods along I-95 in the Belvidere Road area, while providing a cost-effective and environmentally sensitive multi-modal transportation system that supports existing and future travel demand, land use and development efforts consistent with Maryland State and Cecil County planning policies.

Project needs include:

- Accommodating the increased traffic demand associated with the proposed development.
- Addressing safety concerns related to additional traffic, including truck traffic.
- Ensuring the ability of the roadway network to support economic development and job opportunities within the Cecil County Principio Enterprise Zone (CCPEZ).

Preliminary alternatives are:

1. No build – This is used as a benchmark.
2. Transportation Demand Management (TMD) – TMD reduces commuter traffic using methods such as ride sharing or flex hours.
3. Transportation System Management (TSM) – This TSM includes a full widening of Route 222 to four lanes between I-95 and Route 40, a full widening of Route 272, and various changes to intersections along the route. TSM is not usually such a large project.
4. Build an interchange at Belvidere Road with re-alignment of Belvidere Road
  - a. Traditional Diamond – Chesapeake House and a nearby conveyor belt that moves material across 95 are considerations.
  - b. Innovative Diamond – This option allows for unsignalized movement.
  - c. Partial Cloverleaf – This option places two ramps in southwest and northwest quadrants, which is most efficient for truck traffic.
  - d. Modified Cloverleaf
    - i. Shifted Modified Partial Cloverleaf – The ramps are located in the northwest and southeast quadrants. This no longer offsets Belvidere Road, which avoids environmental impact on wetlands, but does affect the conveyor system.
    - ii. Easternmost Shifted Modified Partial Cloverleaf – This option shifts alignment of the modified cloverleaf to the other side of the conveyor system, but it affects the alignment of Belvidere Road.

The Measures of Effectiveness used for each alternative determined if they would:

- Accommodate the increased traffic demand looking at level of service (LOS) within the system and traffic delays. The goal is a minimum LOS of D or better.
- Address safety as some intersections in the area have a relatively high crash rate.
- Create a network to support economic development by allowing direct access into the development and address delay within the network.
- Take into account environmental impact.

The analysis of the projected failures in the current system with projected increases in traffic demand for each alternative was presented. Alternatives 1: No-Build and 2: TDM have no significant improvement to LOS. TSM and Interchange Option alternatives will bring intersections to LOS D or better. If an interchange is added, additional improvements are not needed to bring the rest of the network's LOS to D.

Safety concerns are not improved with the no build or the TMD alternatives, and with increased traffic the TSM alternative does not address safety concerns significantly. Interchange options allow traffic to avoid some of the high crash rate intersections.

To support economic development by providing direct access into the development and address delay within the network, no-build, TMD and TSM alternatives use the existing network and are

less supportive of economic development than adding an interchange. The interchange provides direct access into the development and less delay within the network.

An environmentally sensitive area exists in one quadrant. The traditional diamond, diverging diamond and partial cloverleaf have a higher impact than desired, which lead to the development of the sub-alternatives. The Army Corp recommended avoiding impact in this area as there are high quality resources there. Some of the resources considered were wetlands, forest, streams, specimen trees and swamp pink, which is a threatened plant species protected under federal law. The TSM impacts the environment, and also displaces residential and commercial properties. The TSM offsets one type of economic development with another

Alternatives that will continue in the study are no build (as a baseline) and shifted modified partial cloverleaf, which is proposed as having the best benefit while being the least intrusive. Statutory deadlines are associated with the Grant. The schedule for the next steps:

- Agency Joint Evaluation ARDS Presentation – January 29, 2020
- ARDS Document Approval (FHWA) - February 12, 2020
- COA Document Approval - February 19, 2020
- Public Meeting (Preferred Alignment) – Tentative April 2020
- IAPA Document Approval - May 6, 2020
- NEPA Document Approval - June 24, 2020

The contacts for this project are Mr. Chamberlin, Project Manager and Melissa Bogdan, Community Relations. There is also a website at [https://mdta.maryland.gov/Capital\\_Projects/I-95\\_At\\_Belvidere\\_Road\\_Study/Home](https://mdta.maryland.gov/Capital_Projects/I-95_At_Belvidere_Road_Study/Home).

Mr. Fortner approved of the recommendation and noted that widening roads in North East and Perryville would be devastating to communities. He asked if a new interchange is less expensive than TSM. Mr. Chamberlin replied that they want the project to stand on its own merit, but it is more expensive to widen the road. Mr. Dahlstrom asked for clarification that with the interchange at Belvidere Road there is no need to do the widening TSM widening as well. Mr. Chamberlin responded the interchange would not include the TSM widening.

Mr. O'Connor suggested that since Mr. Chamberlin stated they do not want to benefit one commercial enterprise at the cost of another, for next presentation remember North East is a main street kind of town, and truck traffic will discourage people from visiting there or Perryville.

Mr. Racine said that when trucks have come through Perryville there have been issues with children crossing the road. We want trucks to avoid Perryville and North East. Mr. Racine grew up there and offered to talk to local people before the next meeting. Mr. Chamberlin replied that by creating a direct route into the development we are creating incentive for trucks to use Belvidere Road, taking the pressure off the rest of the system.

Mr. Mitchell said the local network has a lot of E and F level service. Having direct access improves the local network without making physical improvements by pulling much of the truck traffic out of the network. There is a benefit of direct access without the impact of the widening in that TSM.

Mr. Chamberlin stated that MDTA and Cecil County are partnered and sharing information. This collaboration is to the benefit of the area.

Mr. Dahlstrom asked if the future traffic growth just included the Principio Business Park or does it include the proposed redevelopment at Bainbridge. Mr. Chamberlin replied that it did not include Bainbridge. Bainbridge proposed development will have more impact on Route 222.

Ms. Gardner added that the poor level of service is only going to get worse. There's going to be residential communities and the same type of businesses as Amazon. Mr. Dahlstrom stated that there is a need for transportation improvements to Bainbridge. Ms. Gardner replied that a separate traffic study is being done for Bainbridge. Mr. Dahlstrom said Bainbridge currently has one development proposal, but future development may create the same type of traffic that Principio generates.

Mr. Strohm asked if there is any concern that the Belvidere Interchange will result in commercial vehicle diversion to avoid the scales near Route 222. Mr. Beam does not think that will be an issue based on the location of the scales.

The project can be constructed using the existing alignment without affecting the conveyer belt or bridge so trucks can continue to use the bridge. Ms. Gardner added that the current network to the north cannot support the truck traffic resulting from a bridge closure.

Ms. Gardner said there is a concern with truck traffic toll diversion on US 301 at the Maryland/Delaware state line and Delaware is using some options like thermal loops and ticketing. While truck traffic in the area of Belvidere Road can be accommodated to the south on Route 40, if GPS guides them to the north, it would be helpful to implement some of the options Delaware has. Mr. Chamberlin said they are exploring options to discourage truck traffic to the north. Mr. Dahlstrom asked what the number of trucks will be by 2040. Mr. Chamberlin anticipates an increase in truck traffic. Ms. Dunigan asked if the Chesapeake House capacity for truck parking has been evaluated, given the number of trucks expected. Mr. Chamberlin hasn't looked at the issue, but the plan includes barriers to avoid any movement across the three lanes between Chesapeake House and Belvidere Road.

Mr. Racine asked since the CSX tracks run through the property, could the CSX tracks be moved to where the trucks are to be loaded onto the rails. Mr. Chamberlin replied that some sidings go into buildings.

## **7. Sea Level Rise (SLR) Regional Vulnerability Assessment**

Mr. Swiatek presented a Sea-Level Rise Transportation Vulnerability Assessment 2020 update via conference call. WILMAPCO was a pioneer in 2011 in conducting a study to evaluate the vulnerability of transportation infrastructure in the region in relation to rising sea levels. Since then, sea levels continue to be monitored and, using these projections, Delaware and Maryland came out with updated SLR projection studies in 2017 and 2018, respectively. Global Sea-Level Rise (SLR) corresponds directly with global increased temperatures. Some people may think of SLR as something in the future, but it has already begun. In Sussex County, Lewes has observed SLR of 15.7 inches from 1900 to 2016. Reedy Point, just south of Delaware City has seen SLR of 8.66 inches from 1956 to 2016.

Baltimore SLR Projections from Maryland's recent study estimate SLR based on different Representative Concentration Pathway (RCP) trajectories. The Paris Agreement tries to limit global warming. Stabilized Emissions maintain current levels of emissions. Growing Emissions are unchecked increases in emissions. All three scenarios project SLR into the future. The Paris Agreement projects the most limited SLR, at two feet by the year 2100.

Delaware projections show about a 3% chance of a two-foot rise by 2050, a four-foot rise by 2080 and a six-foot rise by 2100. By 2100 there is an 87% chance that Delaware will see a two-foot rise; 25% chance of a four-foot rise and a 3% of a six-foot rise. As these projections stretch into the future, the probability of these rises grows. SLR will affect Delaware River towns including the city of Wilmington and the Christina River Basin. SLR will be less impactful in Cecil County around North East and Elkton. The larger impact in Maryland will be to the south. A six-foot rise would impact 8% of the land in New Castle County and 2% of the land in Cecil County. The population impact was calculated drawing some data from 2010. With the most likely rise by 2100, a two-foot rise, fewer than five hundred people were affected in both New Castle and Cecil Counties. A six-foot rise would impact approximately five thousand people in the region. The roadway impacts focus on the centerline network. Roads are impacted by the rises in and around the city of Wilmington, New Castle and Delaware City, stretching down through New Castle County. The study projects New Castle County will have centerline impacts from 9.2 miles of roads with a two-foot rise to 82 miles of roads with a six-foot rise. Cecil County is projected to have less impact with 7 miles of centerline impact even with a six-foot rise. Railway impacts in New Castle County are mainly in Wilmington. The projection is 24 miles of rail in New Castle County will be impacted by a six-foot rise and around 5 miles with a two-foot rise. Cecil County is projected to have less than one mile of rail impacted with a six-foot rise. A map of funded RTP projects in areas projected to be affected by a two-foot rise was reviewed. Projects are already taking SLR into account. For example, the Christina River bridge was designed with higher approaches to accommodate a two-foot rise.

Mr. Swiatek described three methods to adapt to SLR:

- Fortify – This can be accomplished with man-made or natural structures. For example, Wilmington Wetland Park was built accommodate SLR up to one foot.
- Raise – Building roads and approaches to bridges higher can be a useful approach.
- Retreat – This is viable in communities serviced by roads that are continuously flooded where the cost of maintaining service comes into question.

Comprehensive local decisions that account for all types of infrastructure should be made. Transportation is only one part of the equation. For example, a road is raised, but the community is not protected, the road will serve little purpose. Steps to mitigate SLR can be taken as well. The graphic of Baltimore's SLR illustrates that with the Paris Agreement, median SLR is a little over two feet by 2150, while median SLR is as high as five feet by 2150 in other scenarios. Reducing emissions will reduce future SLR. WILMAPCO's 2050 RTP includes action items to reduce VMT; increase density with land use; and support cleaner vehicle infrastructure, fuels and technology. CO<sub>2</sub>e transportation emissions, based off the mix of funded projects in the 2050 RTP, show a slight decline between 2020-2040 then a slight rise into 2050. Those numbers need to decrease more sharply. The project staff is completing the study of projected impact of SLR of four and six feet. The report should be completed by February or March.

Mr. Dahlstrom said the probabilities of four- and six-foot rises are low. The images in the report, like Thames Street in Baltimore, show a four-foot rise, but do not indicate that this is a 3% probability. He suggests showing a range of six inches to six feet. Mr. Swiatek replied that it's a probability done by years. If you look at 2200, the four-foot rise becomes the median of what is probable. The project staff can add graphics showing what a lower rise would look like.

Mr. Fortner asked how does SLR impact further inland, like Newark's 100-year flood plain. Mr. Swiatek referred to the maps that show impact around the Christina River into the middle of New Castle County, but in and around Newark there is no impact with a six-foot rise.

Mr. O'Connor referred to the map of the Norfolk Southern and stated that he thinks the bigger impact might come from the north as the gates open on the Conowingo Dam, Port Deposit floods at least every other year. If we see more impacts from the rivers in the north, the gates will open more often. He suggested water from creeks and rivers in the north be considered. Mr. Swiatek replied that the project team took sea level rise scenarios from NOAA and the probabilities of those rises were developed locally. The impacts shown reflect these available data. In Cecil County, the rail line would be most challenged under these scenarios, because it is near the river.

Mr. Dahlstrom said in Port Deposit they have been doing some studies and some improvements to put gates on the underpasses that go under the railroad and contribute to flooding. They recently designed the Marina Park to accommodate a rush of water without washing out the town and park. Mr. Swiatek responded that there are towns and municipalities across the region that have already begun this resilience work. Continuing efforts to raise awareness of the issue and seek local, comprehensive solutions are needed. He recommends looking for opportunities to build adaptations into projects as they come through the TIP so they last longer.

## **8. Performance Measures Update**

Mr. Blevins explained that this process is required as part of the FAST Act to report performance measures of the transportation system in support of the FAST Act goals. This information is incorporated into WILMAPCO's long range plans, State long range plans and CMAQ performance measures. Every MPO in every state must use these measures. The report measures seventeen subsections under the headings: Safety; Infrastructure; and System Performance, Freight and CMAQ. The reporting is in two- and four-year increments. The performance period spans to 2026. The 2018 baseline report for Delaware and Maryland set goals to be achieved by 2022. The mid-performance report, due October 1, 2020 checks progress and allows for adjustment of the goals. The report is filed by the DOT and will include nine components reporting on the:

- 2-year condition/performance derived from the latest data collected.
- Overall progress in achieving performance targets discussing reasons for variance.
- Investment strategy discussion.
- Congestion at truck freight bottlenecks to include discussion on progress in addressing congestion and improvement efforts.
- Target adjustment discussion: A State DOT may submit an adjusted 4-year target.
- 2-year significant progress discussion for the National Highway Performance Program (NHPP) targets.
- Extenuating circumstances discussion on 2-year Targets.
- Applicable target achievement discussion.
- MPO CMAQ Performance Plan.

MPO's can collectively agree with the targets that the State determines. After looking at the two-year report if the DOT wants to change the targets, the changes are reviewed by the MPO. Any response to adjustments to the DOT targets must be made within 180 days.

Every state is required create a truck bottleneck inventory for inclusion in the report. It does not appear to be part of the regular performance measures but was inserted into them. Mr. Ian Beam agreed that this inventory was not officially promulgated. Bottlenecks are identified according to criteria from the TPM website. Signal timing, capital projects, and operational improvements are reviewed to identify short, medium, and long term improvements.

The measures are restricted to the NHS network, including the interstate system (I-95, I-495, and I-295) and principal arterials. Much of the data is on the National Performance Management Research Data Set (NPMRDS) website. In Appendix H of the TIP some of these data points are being added. The data for Delaware and Maryland are plotted to see if the 2020 targets need to be adjusted. The data goes back to 2007, so trends are shown for each data point, such as annual fatalities, annual serious injuries and non-motorized injuries.

The DOT's will help complete data on pavement in order to rate interstate and non-interstate pavement as good or poor. Bridges will be reported in a similar manner. System Performance is measured by taking the difference between peak highway speed and overnight speed to calculate the percentage of interstate reliability. In 2019, Delaware interstate reliability was measured at 79.1%. The target is 77.3%, so the DOT will decide if the target should be adjusted for 2020. Non-interstates are measured similarly to the interstates. Truck data is also included.

When the Percentage of Non-Single Occupancy Vehicle Travel is measured, planners must use the data for the whole Philadelphia Metropolitan Statistical Area, though Delaware is only 9% and Maryland is only 1% of the area. Data are available to show the mode share for the area. From 2007 to 2018, work at home increased while carpooling decreased. MPO's and DOT's from Delaware, Maryland, New Jersey and Pennsylvania must come together and agree on a four-year target. Peak Hours of Excessive Delay Per Capita reports the hours of delay per year per person. An Air Quality Performance Plan is produced for the metropolitan area as well.

Data collection will take place November through January. MPO/DOT meetings to adjust targets will take place in February through March. MPO's will bring the information back through the MPO process April through June, then the report will be submitted by October.

Mr. Shelton asked what would happen if we don't do it. Mr. Blevins replied that on some of the measures, if the baseline is not met, the State will be told to adjust the TIP to meet a minimum requirement. Ms. Dunigan said it may affect your certification as an MPO and Ms. Dahlstrom said it may affect your federal funding allocation.

## **INFORMATION ITEMS**

### **9. Staff Report**

Ms. Dunigan reported on the following plans and events:

- Dawn Voss is the new Administrative Assistant.
- The Council Meeting time was changed to 10:00 AM.
- At their January 9, 2020 meeting Council voted to amend the TIP to include the Cecil County Mid County Transit Hub Project, approved a replacement to the Public Advisory Committee to add Mr. Kevin Racine, and had presentations on the City of Wilmington's Comprehensive Plan and the Concord Pike Master Plan Update.
- WILMAPCO received five proposals for the Churchman's Crossing Project. Three firms were invited to interview on January 21<sup>st</sup>.
- The Maryland Avenue, Monroe Street, MLK Boulevard Safety Project was completed with the advisory committee meeting at the January Wilmington Initiatives Meeting. A Garage Feasibility Study will be completed at a later date. A final public workshop may be held as part of the June Wilmington Initiatives Workshop.
- Information from the third Concord Pike Public Workshop is on the WILMAPCO website. The online public survey deadline has been extended at least another month.



- A presentation was made on January 13<sup>th</sup> with the Concord Pike Business and Property Owners Group.
- WILMAPCO is working with the team to prepare a comprehensive traffic analysis for the chosen scenario for the Southern New Castle County Master Plan. They anticipate completing the process during the spring of 2020 with a final public workshop. There is a meeting with the partner agencies on January 16<sup>th</sup>.
- Newport Transportation Study will have a public Visioning Workshop on January 27<sup>th</sup>.
- Staff spoke about planning as a career at the Rosehill Community Center on January 8<sup>th</sup>.
- The Route 9 Master Plan Monitoring Committee Meeting will be held on January 21<sup>st</sup>.
- Mr. Bill Swiatek is at WASHCOG in Washington D.C. discussing the Transportation and Climate Change Initiative with other MPO's from throughout the Northeast.
- Staff will participate in the Delaware Clean Cities Coalition Meeting on February 5<sup>th</sup>.
- Delaware Transit Corporation hosted a Community Conversation at WILMAPCO on January 15<sup>th</sup> and at the Wilmington Public Library on January 14<sup>th</sup>.
- On January 24<sup>th</sup> WILMAPCO will host the Maryland Bicycle Pedestrian Advisory Committee.
- On January 29<sup>th</sup> WILMAPCO will host a public workshop for visioning the Governor Printz Boulevard Corridor Study.

**OTHER BUSINESS:**

Catherine Smith thanked Mr. Racine for attending the Community Conversations. The one in Wilmington had more than sixty people. The Wilmington Transit Center is being constructed and is slated to be completed and in use with the May 17<sup>th</sup> service change. DTC wants to let the public know some of the services and how to access the transit center. It will have ten bus bays. Three bays will be adjacent to the transit center building. Three will be more at the center of the route, which will be a pickup and drop off location then continue on. Then two rows are under shelter. The first one has three bus bays and the last one has four bus bays. It will be a nice place to do transferring with routes to downtown. Middletown is growing. DTC has some streamlined proposals. A lot of people are relocating to southern New Castle County and northern Kent County, which is increasing commuter traffic while the work destinations are still to the north. Middletown is expanding so DTC is increasing services there. Attendees also provided feedback on routing proposals. People were interested in I-95, so there will probably be Community Meetings about that, because it will be shutting down in March 2021.

**ADJOURNMENT:**

**ACTION:** On motion by Mr. Stephen O'Connor and seconded by Mr. Ian Beam, the TAC adjourned at 11:48 AM

Motion passed.

**(01-16-20 - 02)**

**Attachments (0)**