

TECHNICAL ADVISORY COMMITTEE MEETING

September 17, 2020

A meeting of the Technical Advisory Committee (TAC) was held on Thursday, September 17, 2020, via video conference/conference call.

1. CALL TO ORDER: Mr. Mike Fortner, City of Newark, brought the TAC meeting to order at 10:05 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
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
Brian Mitchell, City of Wilmington Department of Public Works
Lisa Nissley, Maryland Department of the Environment
Steve O'Connor, Cecil County Land Use
Jolyon Shelton, DNREC
Catherine Smith, DTC

TAC Ex-Officio Members present:

Lindsay Donnellon, U.S. Federal Highway Administration

TAC Members absent:

Delaware Division of Small Business, Development, and Tourism
Delaware River and Bay Authority
Maryland Department of the Environment
Maryland State Highway Administration
Maryland Transit Administration
Town of Elkton

TAC Ex-Officio Members absent:

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

Guests and Invitees:

Tyson Byrne, MDOT
Sarah Coakley, DeIDOT
Mike DuRoss, 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
Jacob Thompson, Transportation Planner
Dawn Voss, Administrative Assistant
Tigist Zegeye, Executive Director

Minutes prepared by: Dawn Voss

3. MINUTES

The August 20, 2020 TAC Minutes were approved.

ACTION: On motion by Ms. Gwinn Kaminsky and seconded by Mr. Stephen O'Connor the TAC approved the August 20, 2020 TAC minutes.

Motion passed.

(09-17-20 - 01)

4. SUBCOMMITTEE UPDATES

a. Air Quality Subcommittee

Mr. Bill Swiatek said the Air Quality Subcommittee met on September 3rd. The group reviewed a draft of WILMAPCO's Congestion Mitigation and Air Quality (CMAQ) 2020 Mid-period Performance Report. No adjustments to the document were suggested.

5. PUBLIC COMMENT PERIOD

None.

ACTION ITEMS

None

PRESENTATION/DISCUSSION ITEMS:

6. Newark Transportation Improvement District (TID)

Ms. Sarah Coakley said a Transportation Improvement District (TID) is a geographic area defined for the purpose of securing the required improvements to transportation facilities in that area. It is a place where land use and transportation are planned in detail in advance, such that development that is consistent with that planning can pay a readily determined fee and forego the Traffic Impact Study (TIS) process. Typically, when a development application comes in, if it is going to generate fifty new peak-hour trips or at least five hundred new daily trips, a traffic impact study is required to analyze the impact on the transportation network and facilities, and based on those impacts they have to pay a "fair share" contribution toward improvements that are needed. Participation in a TID replaces that process for developments that are consistent with the future land use plan. The purpose of a TID is to better provide the transportation improvements needed to support land development in locations identified as appropriate for development in local Comprehensive Plans.

A TID allows for comprehensive infrastructure planning. Without a TID, DeIDOT responds in a reactive manner to development applications as they come in. With a TID, DeIDOT works with

local government to accommodate their future land use plan and is able to identify needed improvements in advance. Also, TID projects advance in DeIDOT's Capital Transportation Program (CTP) and get assigned priority points in the CTP prioritization process. Fees generated from development within a TID stay local and can only be used for agreed upon TID improvements. The local government and DeIDOT enter into an agreement that will list the agreed upon improvements for which the fees can be used. It also allows for more equitable treatment of competing developers. Because smaller developments do not have to conduct traffic impact studies, larger developments pay for the improvements. Also, because the trigger for improvement is the traffic and whether the level of service can be maintained, it is often the later developments that have to pay. With a TID everyone within the TID pays, so it levels the playing field for everyone. It can also encourage development and redevelopment by providing a known cost for developers. It also expedites development reviews because they do not need a TIS. A TIS can take six to nine months and cost five to tens of thousands of dollars depending on the size and scope of the development. DeIDOT does the traffic study ahead of time and identifies improvements so it eliminates that time from the time frame for development.

Mr. Mike Fortner said the City of Newark put the TID in their Comprehensive Plan, which was approved in 2016. Then, the focus area of the TID was downtown, including Cleveland Avenue, where there has been a lot of micro-development such as a single-family house redeveloped into a small apartment building of three or four units. As this redevelopment happened dozens of times, there is a traffic impact and the developer is expected to remedy it. The idea of a TID came up in discussions with DeIDOT. The same type of redevelopment was coming up on Main Street and Delaware Avenue. Also, it is anticipated that the open space at the Newark County Club may be redeveloped, which will have some impact on the center of town. At the time, they were instructed that TIDs would be very small and so they envisioned as many as three different TIDs, which is how it appears in the Comprehensive Plan. The goal was to reduce traffic congestion and prepare for future infill development by maximizing the efficiency of the existing transportation network. The action item in the Comprehensive Plan was to establish a TID. Once the plan was approved, they appointed a steering committee representing Newark's stakeholders including residents, business owners, and developers. New Castle County, the University of Delaware, City departments, and WILMAPCO were also involved. At the monthly meeting one of the first tasks was to create a boundary. The boundary is bigger than the area envisioned in the Comprehensive Plan. Through discussion with this committee, the TID boundary includes not only the northern section of town, the golf course, downtown and Cleveland Avenue, but also the STAR Campus, some of the southern industrial redevelopment, and some western sections of town with South Capitol and some of Kirkwood Highway. To avoid having one side of a road in the TID and the other side not, different kinds of parcels and natural barriers were used to incorporate what was included in the boundary.

After the boundary is developed, a future land use projection is developed to project what Newark's redevelopment will look like in five or ten years. To do this, they speculate what development can be anticipated, but also look at what projects are currently approved or are in some phase of the approval process. The City's future land use map is divided into six planning sections. A spreadsheet was made by going through the map parcel by parcel and listing any anticipated development in the next ten and twenty years. The spreadsheet lists the parcel id, the name of parcel, how many units exist on it, current zoning code, projected zoning code based on redevelopments in the area, acres, proposed units, net units (which is the difference between current and proposed units), the phase of development (in the pipeline, ten years out, 20 years out), and commercial square footage. Other than the STAR Campus, not much new commercial square footage is expected. Then this information is used to break down how much new development is anticipated by planning area in the TID. In planning area, A, which is almost

entirely in the TID area, 1,648 additional residential units are anticipated in the next twenty years. Most development is focused in the center of town around the university, in the outskirts at the golf course, and at the STAR Campus.

Ms. Coakley listed the steps that have been completed, including the definition of the participant and facilities boundaries. The participant boundary is land parcels that are subject to TID participation requirements. Facilities boundaries are intersections, roadway segments, and bicycle facilities that were analyzed and need improvement. The specified horizon year of 2045 was determined for both the future land use forecast and also for completion of the transportation improvements that go along with it.

In March of 2020, DelDOT and the City executed the initial TID agreement that establishes the boundaries, the horizon year, and the process for moving forward with the TID. Now, DelDOT provides an existing conditions report to the Newark TID Committee, and the City completed their parcel-specific future land use forecast. They are working to agree upon service standards. In order to identify needed improvements, they need to agree on the goal of the improvements. In addition to using the Bicycle Plan to identify bicycle improvements and looking at the transit plans for all the public transit agencies in the area to identify needed transit improvements, the committee also recommended delay-related or capacity-related standards. Two delay-related service standards were recommended and will go through the process to be reviewed and approved. The first is an intersection delay standard with a maximum delay of eighty seconds at signalized intersections and fifty seconds at 4-way stop and roundabout intersections. This is a maximum delay per vehicle at each intersection. When they do their traffic analysis, they will look at intersections that do not meet this criteria first to identify them for improvement. Once that standard is met, they will look at their second service standard, which is a maximum travel time change. Five key roadway segments in and around the City of Newark were examined. For these five segments, the service standard is a maximum increase of 5%. For the agreement to be amended and the service standards to be added, it is required that the public have an opportunity to comment and give feedback. The virtual public meeting will be October 14, 2020 at 7:00 p.m. Then the committee will reconvene at the November meeting to consider comments received and make the final recommendation, which will go to the Planning Commission and City Council for final approval before the agreement is amended. The target date to amend the TID agreement is in the next three months.

Newark is an urban area with a lot of redevelopment. SYNCHRO traffic analysis module was used to model the future land use plan for the city. It showed the results for the AM peak period from 7-9 AM weekdays. The intersection at Cleveland Avenue and Capitol Trail does not meet the maximum delay standard. The intersection delay in the PM peak, 4-6 PM, showed that intersection as well as the intersection of Route 4 and Route 72 did not meet the maximum intersection delay standard. There are some 2-way stop controlled intersections that fail to meet the standard for one approach. These intersections will be reviewed to see the problem is the minor approaches as service standard is for overall delay and the minor approaches can have a more delay than the major approach. Five arterials were analyzed for the travel time standard:

- Route 72 from Route 4 to Possum Park Road
- Route 896 from Welsh Tract Road to Hillside Road
- Route 4 from Marrows Road to Elkton Road
- Route 273 from Marrows Road to Casho Mill Road
- Elkton Road from Otts Chapel Road to Amstel Avenue

Travel time results for the AM peak period indicate north and south Route 896 exceeds 5% increase in travel time standard, as does northbound Route 72. The results during the PM peak

period indicate Route 72 southbound exceeds the 5% increase in travel time standard, as does Route 896 in both directions, and Route 4 westbound toward Elkton Road.

After the service standards are approved, a short-term scenario with improvements will be modeled, which will include projects already in DeIDOT's Capital Transportation Program. Projects to be modeled include projects on Route 4 from Elkton Road to Route 896 as well as the project around Route 896, to see how they impact the intersection delay and travel time changes, then that will be used as a baseline to identify additional improvements. The list of needed improvements and land use forecast will be incorporated into the land use and transportation plan, which will go to the committee, the County Commission and City Council for approval. Then, DeIDOT prepares and we all agree on a TID-CTP which is a list of projects in the TID and their costs. These costs are used to develop an infrastructure fee program that is equitable for the development community. A monitoring program will run the analysis every five years or when the Comprehensive Plan is updated. Once the City and DeIDOT come to an agreement on elements added to agreements; LUTP, TID-CTP, Infrastructure Fee Program, and Monitoring Program, the final TID agreement will be executed and will be implemented through collecting fees or having developers do projects. The goal is to have these steps completed in the next six months.

Mr. David Dahlstrom asked if they are finding any hesitancy to increase density. Mr. Fortner replied the projections reflect the maximum, so a lot of the land will convert to high density residential or mixed use, so Newark is projected to become much more dense over the next twenty years. Mr. Dahlstrom asked if they are getting any pushback on that. Mr. Fortner said that will not happen until the development begins. The concern people have with the density is traffic. Hopefully, the TID will be a tool that shows they thought about density and created this TID model and this falls into that TID plan. That will show they are accommodating the increased traffic. The TID is not just for automobile traffic, but for pedestrians and bicyclists as well. A very important part of this TID is creating a multi-modal transportation system.

7. Performance Measures Updates

a. Delaware Department of Transportation

Mr. Mike DuRoss said Performance Management is a federally required review of data in three categories. Categories 1 and 2 are not planning related. There are six criteria under the PM 3 Category. This data comes from the National Performance Management Research Data Set (NPMRDS). This is data that the FHWA collects on all of the National Highway Systems (NHS), which included all the major arterials, interstates, and expressways across all fifty states. That data is collected at five-minute intervals, twenty-four hours a day. They provide that data to the states and MPOs to support this performance management process. The data forecast was made in 2018 for the two-year and four-year horizon. We can now compare actual data trends from 2018 and 2019 and compare them to the two-year the targets that were set in 2018. When looking at the data trends, it can be determined if we are heading toward the target, and if we have to change the target. Fortunately, Mr. Dan Blevins of WILMAPCO processed this data and did some mapping to illustrate some of the data criteria. The targets made in 2018 will not be changed, except for the CMAQ emissions targets, which are changing due to a change in the technical method being used. CMAQ criteria is not derived from the federal data set but is generated within the DOT or MPO. Changing the technical method changed the number itself. The next step will be to enter this mid-period data into the FHWA's website before October 1st including any new targets and documentation explaining the change in targets. Then, in two years we will complete the four-year performance summary at the end of the first performance reporting period.

The PM 1 Safety Category was submitted in March of this year and the State met the performance criteria based on the five performance measures under this category. The safety management team sent a brief report to FHWA.

The PM 2 is the Assets. There are two asset categories, bridges, and pavement. Bridge performance data is collected annually for bridge structure, surfaces, and substructures, which is entered into the FHWA database. Based on the condition of the three components of the bridges; deck, structure, and substructure, the bridge is considered to be in good, fair, or poor condition. In Delaware, 98-99% of bridges are in fair or good condition. Similarly, the pavement conditions are collected annually by our pavement management section. Only 1-2% of reported surfaces are in poor condition statewide. As part of the Asset Management Program, this data will be entered into the FHWA's system by October 1st. The bridge and pavement teams recommended retaining the two- and four-year targets that were established in 2018, which sets the goal at keeping assets in poor condition within 5% or less.

The PM 3 Performance Measures are more directly related to planning. The first measure is Truck Travel Time Reliability (TTTR), which compares the 95th percentile travel time with the 50th percentile travel time on interstates, so it captures variation in truck travel times on interstates during a twenty-four period. Based on that relationship in the data, the reliability of the roadway for trucks is assessed. The two-year and four-year targets established in 2018 were based on 2016 and 2017 baseline measurements. The mid-period requirement is to look at the actual measurements from 2018 and 2019 from the NPMRDS and look at the trend to see if we are meeting the two- and four-year targets. There is no need to change the target for truck travel time reliability. With the exception of the I-95 and I-495 split, the interstates in Delaware perform well. TTTR is calculated by dividing peak time by average time on the interstates. We need to stay above the goal of 73% reliability. The two- and four-year target are not changing. Increases in delay due to the upcoming construction project on I-95 was considered. In recent years there was some investments that caused delays and hopefully that is reflected in this measure.

PM 3 Level of Travel Time Reliability (LOTTR) is a comparison of peak travel times and off-peak travel times on the interstates. The peak time is divided by the average time. If that ratio exceeds 1.5, it is considered unreliable. This is calculated for each segment on the interstate and the percentage of segments on the interstate becomes the measurement for this criteria. In 2016, 85% were reliable and in 2017, 80% were reliable. The two-year and four-year targets were 77%. The measurement since that time is 79%. The four-year target is being retained. In setting the four-year target, we tried to consider the expected increase in delay due to the upcoming I-95 construction project. In the past decade there were a couple of projects on the interstate system including the fifth lane, the Route 1 ramps, and the Route 202 ramps. Hopefully, that is reflected in these relatively good reliability conditions. The reliability for the non-interstate system is the same measurement. The ratio of peak to off-peak must be below 1.50. In 2016 and 2017 reliability was just over 90%. Our targets were about 89%. The trend in 2018 and 2019 was good, so we are keeping these targets. Route 1 from I-95 South to Route 40 needs attention. The segment from I-95 to Route 273 is under study.

PM 3 Percentage of Non-Single Occupancy Vehicle (SOV) is based on the American Community Survey, Journey to Work, data that is collected annually by the census data. This criteria is measured across the Philadelphia Urbanized Area. Looking at 2010 to 2014, about 27% of respondents indicated they were not commuting in a single-occupancy vehicle. The ACS measures at the target level and so the DVRPC target is the same.

PM 3 Annual Peak Hours of Excessive Delay (PHED) is measured at the Philadelphia Urbanized Area level. This is an estimate of the additional time drivers spend in congested traffic conditions. That is derived from the NPMRDS data, but at this very aggregate level of the four states within the Philadelphia Urbanized Area. The amount of travel time that is 20 miles per hour or 60% of the posted speed limit, whichever is greater, is considered excessive. The two- and four-year targets are just over seventeen peak hours per person. The actual measurement in 2018 is slightly less than 2017, and 2019 is much lower. The belief is that the 14.8 PHED reported in 2019 was something odd within the data and so the two and four-year targets were not changed.

The final PM 3 criteria is an estimate of the emissions reductions from the CMAQ program between 2017 and 2019 and then to 2021. In 2018 we developed estimates of the reductions for VOX, however, after the numbers were submitted, the FHWA came out with guidance on how to do the estimates for this criteria. Based on that document and the desire to upgrade the technical methods used to create the estimates, a consultant firm was hired, and a better set of technical methods was developed. This is why the two- and the four-year targets appear to be different. Most of the difference between the baseline targets and the revised targets is due to upgrading the technical methods and 5-10% is due to a shift in the projects that were planned for the CMAQ fund. For example, a rideshare program was not included in the quantitative numbers in the baseline target, but the consultants found a method to estimate for rideshare service support. Also, these are kilograms per day so relatively small amounts of emissions. Based on the shift in method we have a shift in number for NOx and PM 2.5 as well. The two- and four-year target will be changed. The consultant firm is finalizing a report describing the change in technical method, which is the justification for the change in the target.

b. CMAQ 2020 Mid-Period Performance Report

Mr. Bill Swiatek said the WILMAPCO CMAQ Mid-Period Performance Report is out of the federally based performance requirement. Our mid-period performance report is done in step with the DOTs. It is due October 1st. It is actually submitted to the DOTs then submitted by them to FHWA. This document reports the progress in meeting the peak hour excessive delay and non-SOV and CMAQ project emissions. A decrease in the peak hour excessive delay will be recorded in this document. The baseline measures were met. The non-SOV travel targets were met and exceeded by .1% in 2018. A 2019 measure is required, but it is not out yet by the census, so we were only able to show the 2018 non-SOV data for this report.

In Cecil County, there is contention between MDOT and FHWA because the FHWA CMAQ database does not show any emissions reduction projects over the last two years, which is why the two-year reductions number is zero for both VOC and NOx. MDOT is arguing that there should be a project that has emissions benefits listed. FHWA is looking into it. The approval of this document will be delayed until it is determined what number should be in the two-year timeframe.

Potential CMAQ projects that could be funded with CMAQ money have to be shown in this report. WILMAPCO did come up with some of our own targets for CMAQ emissions in Cecil County when we did the original performance plan in 2018. These are targets that came out pedestrian and bike projects that came out of municipal and county priority letters in Cecil County. Some recent priority letters in Northeast and Elkton led to some additional new projects. In addition to those projects, MDOT is working on a signal modification, which is a statewide project with 2% of the funding going to Cecil County. This project should have some emissions benefits, but the share of that in Cecil is still being worked out. All of the bike and pedestrian

improvements that we modeled were grouped together to show a 0.038 kg/day VOC reduction and a 0.085 kg/day NOx reduction related to those projects.

On the Delaware side, we saw a significant difference between the two-year target and the two-year actual reductions because of the modeling change that was used and so we want to propose a new four-year target, which will be in step with the one proposed by DeIDOT.

In Delaware there are Transportation Management Improvement (TMI) projects, which have some qualitative emissions benefits. They were not modeled. All the bike and pedestrian projects are grouped including the Elkton Road project. There is the Rideshare program, which shows benefits related to emissions reductions, benefits for peak hour of excessive delay and increasing non-SOV trips.

The next step is to follow up on Cecil County's two-year reduction figure. We are waiting for FHWA to come back with a figure to resolve that. We also want to seek TAC and Council endorsement of the document and then we will submit it to the DOTs. We are in the middle of a larger process with performance review. In 2022 we are going to be entering into a full period progress report on what happened in this first phase and beginning a baseline report for the second performance period, which will stretch between 2022 and 2026.

INFORMATION ITEMS

12. Staff Report

Ms. Dunigan reported the following updates:

- Staff will be presenting about the Transportation Justice Plan at the AMPO Conference the last week of October.
- The Delaware APA Conference will be October 29th-30th. This year's theme is COVID-19 Impacts. Staff will be presenting as part of the transportation panel on the 30th and the registration details will be on the Delaware APA website soon.
- Safe Routes to School activities are continuing even though everyone is online learning. Safe Routes to School projects have been regrouped and we developed strategies to reach out to parents for feedback on the projects. Mc Cullough and Eisenberg Safe Routes to School projects are being reviewed online, and there was a workshop held on September 9th.
- Air Quality Partnership will be having their rescheduled Air Quality Awareness Week via a social media campaign next week, September 21st – 25th.
- We are continuing work on four videos for WILMAPCO including conducting the Route 9 interviews.
- The Southern New Castle County Transportation Element Workshop was on August 26th. Thirty-seven people attended. The public meeting on the Land Use Element will be on September 23rd.
- Staff participated in an International Association of Public Participation Conference from September 7th-11th.
- The Newport Advisory Committee met on September 10th. The public workshop is scheduled later this month.
- The New Castle County Comprehensive Plan Update is under way and the staff participated in a workshop on September 14th about transportation and economy.
- The kickoff workshop for the Churchman's Crossing Plan Update was September 16th.
- Governor Printz Boulevard Study will have a public workshop on September 21st.
- The 202 Master Plan will have a final public workshop on October 5th.

- Cecil County Tour meetings are coming up. The Pre-Tour meeting will be on September 28th.
- The MDOT Tour meeting will be October 16th. Details on how to connect to the virtual Tour meeting will be on the MDOT website later this month and WILMAPCO will have a link our webpage as well.

OTHER BUSINESS:

None.

ADJOURNMENT:

ACTION: On motion by Ms. Gwinn Kaminsky and seconded by Mr. Brian Mitchell the TAC adjourned at 11:17 AM.

Motion passed.

(09-17-20 - 02)

The TAC adjourned at 11:17 AM

Attachments (0)