

MONMOUTH COUNTY PLANNING BOARD TRANSPORTATION COUNCIL

JAMES GIANNELL
Planning Board Chairman



Anthony Garaguso
Council Chairman

Minutes for the Meeting of the
Monmouth County Transportation Council
Tuesday, November 10, 2020
Monmouth County Planning Board
One East Main Street
Hall of Records Annex Building, 2nd Floor
Freehold, NJ 07728

I. CALL TO ORDER – 7:00 PM

II. ATTENDANCE – ROLL CALL

Members Present

Garaguso, Anthony
Vernick, Jeff
Grbelja, Nancy
Barrett, Betsy
Frost, Barry

Staff Present

Bonanno, James – Staff Advisor
Schmetterer, David

Members Excused

Van Nortwick, Peter
Ponzio, Nicholas
Nelson, Eric
Lucarelli, Ben

III. REVIEW OF MINUTES

Approval of the Council's October 13, 2020 minutes was sought by Mr. Garaguso. Ms. Barrett motioned to accept the October 13 minutes which was seconded by Ms. Grbelja and accepted unanimously by the Council.

IV. PRESENTATION

- Electric Vehicles and Legislation in New Jersey

Andrea Friedman, Supervisor – Electric Vehicle Program, Division of Air Quality New Jersey Department of Environmental Protection

Staff introduced Andrea Friedman of New Jersey Department of Environmental Protection's (NJDEP) Division of Air Quality Electric Vehicles Program and invited her to begin her presentation on Electric Vehicles and Legislation in New Jersey. Ms. Friedman thanked the Transportation Council for inviting her to speak at this meeting. She explained in her position as the Supervisor of Electric Vehicle Programs at the NJDEP she works closely with local governments and the majority of her expertise is in light duty electric vehicles and charging infrastructure however

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she works closely with the medium and heavy duty electric vehicle teams as well. Ms. Friedman continued by informing the Council that there are currently over forty models of electric vehicles available and over 1.5 million Americans owning and operating electric vehicles. The importance of electric vehicles stems from the transportation sectors contribution to air pollution which is currently the state's greatest contributor with 42% of all of New Jersey's greenhouse gas emissions. She explained when including emissions generated by power plants to make the electricity needed to charge electric vehicles, they are still 80% cleaner than traditional combustion engine vehicles.

Ms. Friedman stated that this presentation focuses on electric vehicle related legislation, incentives to electrify public sector fleets, and strategies to boost electric vehicle adoption in local communities. Before she moved to these topics she took time to introduce the Council to a document of electric vehicle resources for local governments which is available on the NJDEP website. The document outlines procurement tools for governments looking to purchase electric vehicle fleets, cooperative purchasing organizations, charging infrastructure, policy and planning support, and available NJDEP and other state agency incentives for purchasing electric vehicles and infrastructure.

She continued that New Jersey signed a new EV Law earlier this year that created the most generous consumer rebate program in the country of up to a \$5,000 rebate for the purchase of an electric vehicle. It also gave the Board of Public Utilities the authority to create a rebate program for in home electric vehicle charging stations which is currently in development, and it set goals for electric vehicles and infrastructure statewide. Currently there are 30,000 electric vehicles registered. The EV Law calls for 330,000 electric vehicles to be registered in New Jersey by 2025 and 2 million by 2035 as well as 25% of state owned fleet to be electric by 2025 and charging station goals including 400 public fast charging stations at 200 public locations throughout the state.

Several major policy initiatives have been but out by the Murphy administration including: New Jersey's Global Warming Response Act 80 x 50 Report which show how the state intends to lower greenhouse gas emissions, the RGGI Strategic Funding Plan explains how New Jersey will spend proceeds from the regional greenhouse gas initiative which is about \$80 million per year, and the Energy Master Plan outlines pathways for the energy sector to move to more renewable sources. All of which include portions dedicated to the transportation network and the adoption of electric vehicles.

Several programs are available to incentivize local governments to purchase electric vehicles such as the Clean Fleet EV Incentive Program which provides up to \$4,000 per battery electric vehicle as well as funds for up to two electric vehicle chargers. Funds are also available to replace old diesel vehicles and equipment with new electric vehicle and equipment.

The NJDEP recognizes that not everyone can afford to purchase an electric vehicle and is offering ridesharing services opportunities to acquire funds to move fleets to electric vehicles and is assisting NJ TRANSIT in electrify their bus fleet from diesel to electric. Ridesharing services and bus routes in low income and predominantly minority communities receive priority in these funding opportunities.

Communities can encourage the adoption of electric vehicles by working to overcome the three most common barriers to electric vehicle adoption. Ms. Friedman explained these are cost, range anxiety, and lack of awareness. Electric vehicles are more expensive to purchase but owners save money over time in maintenance and fuel costs. To incentivize the purchase of electric vehicles federal and state rebates are available. As previously discussed the State's new EV Law provides a rebate of up to \$5,000. Additionally, car buyers can be eligible for up to \$7,500 in

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federal income tax relief and are exempt from New Jersey state sales tax. The amount of money received depends on the type of vehicle purchased. Information on the rebate amounts is available on the NJDEP website.

Range anxiety is the concern that drivers will become stranded once the electric vehicle's battery runs out of charge and no charger will be available. Ms. Friedman assured the Council that the drivers travel an average of 40 miles per day and electric vehicles can now travel between 150 and 280 miles on a single charge with other models reaching over 300. NJDEP is combating range anxiety by providing funds for electric vehicle chargers throughout the state through their It Pays to Plug In Program. This grant offers up to \$4,000 per electric vehicle charging port for the purchase and installation of chargers and emphasizes installations in public locations. NJDEP will soon be awarding \$6 million for public fast chargers in thirty locations throughout the state.

Ms. Friedman stated that local communities interested in encouraging electric vehicle adoptions should raise awareness by providing information on the incentives available, take advantage of grants to install charging infrastructure and lead by example by switching to electric vehicle fleets. To assist local governments in providing information the NJDEP encourages them to follow the NJDEP on social media. Ms. Friedman stated her team and others regularly post helpful information that local governments could use to inform the public. Additionally local governments could adopt electric vehicle ordinances that will help stream line the process of approving and installing electric vehicle chargers. The NJDEP is planning to make draft ordinances and best practices information available on their webpage in the near future.

Andrea once again thanked the Transportation Council for having her and asked if they had any questions. Mr. Frost raised his own concerns regarding the availability of gas stations versus electric vehicle chargers and acknowledged that Tesla charging stations are only available for Tesla vehicles due to the type of connector available. He questioned if a universal connector was planned to allow vehicle chargers to be available to all vehicles and how drivers are expected to find charging locations. Ms. Friedman responded that there are currently four standards for charging infrastructure and vehicle manufacturers would have to come to an agreement on one standard to solve this issue. Luckily all vehicles can charge from a regular home outlet, fast charging connections are where vehicles start to differ. All fast charging stations acquired through the It Pays to Plug In Program must have two different stands of ports to be available to the widest group of electric vehicle owners possible. Tesla charging infrastructure is not included as Tesla installs their own chargers and provides their vehicle owners with options for adapters to use other non Tesla chargers. She added that most electric vehicles provide maps of available electric vehicle chargers to drivers and drivers without this feature can use free phone applications with similar maps.

Ms. Barrett asked if in the event of a power outage could an electric vehicle be charged from a gas powered generator. Ms. Friedman assured her that the vehicle can be charged by any standard wall outlet. If the generator has an outlet available or is powering electric outlets in the house then the vehicle can be charged at any of those outlets.

Mr. Vernick expressed that he has interest in purchasing a full electric vehicle but he currently lives in a condominium with no access to a vehicle charger. He asked how people should go about encouraging their condominium community or town to install chargers for those who live in apartments or condos and only have access to on street parking. Ms. Friedman advised Mr. Vernick to inform his community of the grants available for purchasing and installing vehicle chargers and informed him that electric providers are submitting proposals for how they are planning to approach the cost of vehicle charging and electricity tariffs specifically at multi-unit dwellings. She believes communities may feel incentivized to install electric vehicle infrastructure when they learn

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grant money is available for their purchase and installation, electricity costs will be lower for multi-unit dwellings, and vehicle owners can be charged to cover the costs of the electricity and possibly provide income for the community. Mr. Vernick followed up by asking if Ms. Friedman and her team has reached out to organizations such as AAA and what can be done to bring them in to the fold. She responded that they have not reached out yet but they are eligible for some It Pays to Plug In funding based on how publicly available they make their chargers. She said she is aware that AAA has some interest in electric vehicle chargers and plans to reach out through mutual contacts in other organizations to encourage them to move forward with purchase and installations. Mr. Vernick asked about funding availability for transit vehicles such as shuttle buses, even beyond NJ TRANSIT and private carriers. Ms. Friedman stated that \$8 million has already been awarded to NJ TRANSIT for 8 electric buses and charging infrastructure in Camden which will be the State's first pilot electric bus project. THE NJDEP is open to all types of proposals from NJTRANSIT and is hoping to hear from them in the future after the launch of their pilot program. She also made the Council aware that under new legislation 10% of all new NJTRANSIT bus purchase must be zero emission vehicles as of 2025. The NJDEP could also fund local transit projects including the purchase of electric vehicles for groups such as the Transportation Management Associations or National Parks like Sandy Hook.

Mr. Frost asked if new development and construction could be required to install electric vehicle chargers. Ms. Friedman stated that developers can be required to include vehicle chargers in new development through State legislation or local ordinances. Mr. Frost additionally asked about a recent incident where an electrical vehicle caught on fire while charging and if this is a common occurrence. Ms. Friedman said she was aware of this incident but is not aware of any others. She emphasized the importance of having a licensed electrician install home and public chargers and training fire fighters how to properly handle fires involving electric vehicles.

Mr. Garaguso asked if Ms. Friedman was aware of the cost of home electric vehicle chargers. She stated the cost depends on the features available, simple chargers can be purchased for around \$200 while more advanced chargers can cost between \$700 to over \$1,000. Mr. Garaguso thanked Ms. Friedman for her time and her informative presentation.

IV. OLD BUSINESS

- NJ TRANSIT 10-Year Strategic Plan and 5-Year Capital Plan

Mr. Garaguso informed the Council their letter to NJ TRANSIT regarding the Council's 10-Year Strategic Plan and 5-Year Capital Plan review has been finalized and will be distributed this week. The letter will be accompanied by a matrix providing more detail on each of the Council's recommendations. Mr. Vernick called attention to text in the letter inviting NJ TRANSIT to discuss the recommendations with the Council and expressed the importance of having a continuing conversation regarding both the Strategic Plan and Capital Plan with NJ TRANSIT going forward. He suggested the Council plan for follow up communication with NJ TRANSIT to encourage them to attend a future Council meeting to discuss these topics further. Mr. Garaguso agreed that a continuing conversation is important and added that it may be beneficial for the Council to invite NJ TRANSIT to at participate in at least one Council meeting a year. Staff assured the Council that any response from NJ TRANSIT would be brought to their attention. At that time, the Council could decide what response or follow up communication they would like to pursue.

V. NEW BUSINESS

- December Transportation Council Meeting Discussion

Staff reminded the Council that the December Transportation Council meeting traditionally is a short meeting followed by a Holiday Dinner. Due to the COVID-19 Pandemic it will not be possible to hold the Council's Holiday Dinner. Staff asked the Council how they would prefer to proceed with December's meeting. Mr. Garaguso agreed that dinner would not be possible

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due to current events but due to upcoming holidays it may still be best for the Council to keep their meeting short. The Council agreed and scheduled the December Transportation Council Meeting for December 8, 2020 at 7PM.

VI. REPORTS OF STAFF

- Tourism and Events Demand Management Update

Staff updated the Council that the project's webpage will be launching soon at MonmouthWithinReach.com as soon as the project team completes development of the public survey. Site election will use location based data collected from cellular devices and criteria drafted by the project team to determine which events and locations are most in need of travel demand measures. Due to the effect the COVID-19 Pandemic has had on travel patterns the study team has decided to use data from 2019 before the beginning of the COVID-19 Pandemic. Staff plans to share the draft criteria with the Study's Advisory Committee for feedback before site selectin begins.

- Jersey Blues Line and Electrify Monmouth Grant Projects

Staff informed the Transportation Council that two grants applied for through NJTPA's Congestion Mitigation and Air Quality and Transportation Clean Air Measures Grants have been approved by the NJTPA Board and are moving to review by the Federal Highway Administration before final approval. These two grants will be used to fund a Brookdale Community College Shuttle between the Asbury Park Train Station and Brookdale's Wall and Neptune Campuses which may be extended to other campuses and an electrical vehicle charger program intended to install chargers on Monmouth County property.

VII. PUBLIC COMMENT

VIII. ANNOUNCEMENTS

Next public Monmouth County Transportation Council meeting will be – 7:00 PM Tuesday, December 8, 2020. The meeting will be held via Webex. Council members and members of the public will be provided with the Webex meeting information through the agenda notification system and email.

IX. ADJOURNMENT

Following a motion to adjourn the meeting made by Ms. Grbelja and seconded by Ms. Barrett, the meeting was adjourned at 8:50 PM.

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Date

Mr. Chris D'Elia
Assistant Regional Manager
NJ TRANSIT
Office of Government & Community Relations
One Penn Plaza East, Ninth Floor
Newark, NJ 07015

Dear Mr. D'Elia,

The Monmouth County Transportation Council (MCTC) wants to thank you, Mr. Grieco and Mr. Mader again for discussing NJ TRANSIT's increased focus on customer communications at our April 2020 meeting and the council's desire to engage on ways to help improve transit service in Monmouth County. At that time, you had mentioned the imminent release of NJ TRANSIT's 10-Year Strategic Plan and 5-Year Capital Plan documents and invited the council to review and provide comments.

We are pleased to report that the council completed its review of the 5 NJ TRANSIT Strategic Plan goals and 16 NJ TRANSIT Capital Program Vision Items, and have identified the following recommendations for NJ TRANSIT's consideration:

- 1) **Leverage resilience investments to support regular service and future system expansions** by having these improvements serve multiple purposes.
- 2) **Develop customer education and training resources** that teach NJ TRANSIT customers what to do before first responders arrive at active-shooter situations.
- 3) **Encourage Transit Oriented Development (TOD)** and mixed-use pedestrian friendly development around transit stops and stations along the North Jersey Coast Line, and the U.S. Route 9 and the NJ Routes 35 and 36 corridors in Monmouth County.
- 4) **Add shelters, amenities, and lighting** at bus stops with high ridership and frequent service, particularly along the U.S. Route 9 and the NJ Routes 35 and 36 corridors. Additionally, consider including Monmouth County bus stops in the innovative Solar Bus Shelter Pilot Program.

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- 5) **Implement bus rapid transit-style service improvements** along U.S. Route 9 in Monmouth County where NJ TRANSIT and the New Jersey Department of Transportation are currently working to develop new bus priority signals and infrastructure.
- 6) **Support development of micro-mobility and mobility as a service strategies** to provide first/last mile connections to transit and share information about these services on the NJ TRANSIT website and social media channels.
- 7) **Purchase low-floor city transit model buses** as the fleet is modernized.
- 8) **Develop “two-way” passenger – vehicle communications** that can detect and receive requests from customers waiting at bus stops and that provide “connection protection” to hold a connecting bus for transferring customers.
- 9) **Implement the Train Battery Pilot Program** mentioned in the 5-Year Capital Plan on the North Jersey Coast Line.
- 10) **Develop and test dedicated railcars for bicycle and micro-mobility users** by re-purposing or rehabilitating soon-to-be retired equipment.
- 11) **Implement Contactless Fare Payment Systems** to speed up vehicle boarding, help customers navigate a complicated multi-fare zone structure, and encourage new ridership.
- 12) **Re-envision current transit real estate policies** to open transit facilities and properties to serve as local business incubators for on-the-go food vendors, bicycle and micro-mobility mode sales/rental/parking hubs, ride hail service hubs, venues for community performers and artists, and sales / office space for technology startups that would benefit commuters and the local communities.
- 13) **Implement more flexible transit parking permitting strategies** to improve parking availability by working with parking lot owners and exploring real time parking capacity technologies / apps.

A table showing both how these recommendations are aligned to specific goals and vision items in the plans, and that provides further detail and context as to their need and purpose in better serving NJ TRANSIT customers both system wide and here in Monmouth County, is also attached..

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Thank you again for this opportunity for the council to provide insight into Monmouth County transit customer needs and opportunities. The council welcomes the opportunity to further discuss and explore these recommendations with you. Please feel free to contact me.

Sincerely,

Anthony Garaguso
Chairman
Monmouth County Transportation Council

cc: James Giannell, Chairman, Monmouth County Planning Board
cc: Mr. Anthony Grieco, Senior Vice President, Communications & Customer Experience

MONMOUTH COUNTY TRANSPORTATION COUNCIL REVIEW

NJ TRANSIT 10-YEAR STRATEGIC PLAN AND 5-YEAR CAPITAL PROGRAM

NJ TRANSIT 10-YEAR STRATEGIC PLAN GOALS:

GOAL NUMBER	GOAL	EXPLANATION	STRATEGIES	PAGES
GOAL 1	Ensure the reliability and continued safety of our transit system	We are committed to operating a reliable public transportation system that New Jerseyans and others can count on to safely bring them where they want to go, when they are scheduled to arrive	<ul style="list-style-type: none"> 1.1 - Create a safe and healthy riding experience for our customers 1.2 - Invest in targeted rail infrastructure programs to reduce delays and alleviate capacity constraints 1.3 - Take a leadership role in expanding Trans-Hudson capacity 1.4 - Provide more reliable bus service along congested corridors 1.5 - Enhance fleet reliability through replacement and preventative maintenance programs 1.6 - Rehabilitate and expand the network of bus garages to support fleet expansion and upgrades 1.7 - Invest in critical safety infrastructure and programs 	20 - 27
GOAL 2	Deliver a high-quality experience for all our customers, with their entire journey in mind	We will become an industry leader in customer service, understanding our customers' needs and supporting them throughout their entire journey. We will provide timely travel information through their preferred touchpoints, and leverage technology to make their entire travel experience easy and convenient.	<ul style="list-style-type: none"> 2.1 - Improve information flow to and from customers 2.2 - Enhance stations and shelters 2.3 - Integrate and facilitate customer payments 2.4 - Expand Mobility-as-a-Service and innovative mobility approaches 2.5 - Provide the safest and most secure environment for customers, employees and the communities we serve 	28 - 39
GOAL 3	Power a stronger and fairer New Jersey for all communities	We must ensure our public transportation network provides inclusive mobility, connecting individuals and communities to employment and educational opportunities, cultural and entertainment destinations, and health services	<ul style="list-style-type: none"> 3.1 - Modernize the bus network to help us meet growing demand and improve service quality 3.2 - Support economic growth by introducing new and more-frequent service in underserved areas 3.3 - Develop innovative methods to ensure all customers can access mobility services 3.4 - Use our purchasing power to promote equitable, local economic development 	40 - 51
GOAL 4	Promote a more sustainable future for our planet	We are stewards for our natural resources and need to promote a more sustainable future. Our plan supports the State's ambitious efforts to reduce energy consumption and emissions from the transportation sector.	<ul style="list-style-type: none"> 4.1 - Partner with communities and developers to encourage Transit-Oriented Development (TOD) 4.2 - Convert to 100 percent clean energy by 2050 4.3 - Enhance the system's resilience to extreme climate events 	52 - 61
GOAL 5	Build an accountable, innovative and inclusive organization that delivers for New Jersey	We are committed to fostering a high-performing, innovative and inclusive organization that holds itself accountable for the delivery of excellent public transportation.	<ul style="list-style-type: none"> 5.1 - Become a better business partner 5.2 - Reflect the needs of our customers, employees and the communities we serve 5.3 - Streamline procurement processes to accelerate projects 5.4 - Invest in and develop our people 5.5 - Increase transparency to hold ourselves accountable 5.6 - Strengthen organizational resilience and safety programs 5.7 - Leverage technology to improve operations and customer experience 	62 - 71

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NJ TRANSIT 10-YEAR STRATEGIC PLAN AND 5-YEAR CAPITAL PROGRAM

NJ TRANSIT 5-YEAR CAPITAL PLAN VISION:

VISION ITEM NUMBER	VISION ITEM
1	Improve the transportation network's accessibility & usability for all.
2	A reliable light rail system improves local connectivity
3	Less congested roadways in city centers facilitate pedestrian-focused communities that are healthier (less noise & air pollution), safer, and improve community development and economic competitiveness.
4	Expanded yard facilities allow for a larger, more modern fleet with higher carrying capacity to improve system reliability.
5	Integrated public transportation network reduces the need for additional parking and allows for mixed-use, pedestrian-friendly development.
6	The improved rail system is more flexible in responding to delays and system issues to provide a more reliable service.
7	Communities from the city to the suburbs to the rural regions are better connected and see improved travel times regardless if you drive, ride, bike, or walk
8	Expanded bus garage facilities improves reliability, comfort, cleanliness, and reduce crowding of operations allowing for a more reliable and comfortable ride.
9	Explore opportunities for Bus priority and Bus Rapid Transit (BRT) to reduce congestion on local roads and improve on-time performance
10	Suburban communities are strengthened by stronger transportation networks and are competitive in attracting new residents to drive the local economy
11	Improved rail network alleviates congestion on critical highways reducing strain on these arteries
12	Modernization of our bus fleet, including the transition to larger articulated buses, improves carrying capacity and system reliability
13	Suburban and exurban communities are provided additional links to major centers of economic activity, improving community development
14	Innovative IT investments include improved mobile Apps that provide you with access to timely information on your mobile phone and allow you to purchase tickets, plan your trip, and interact with other transportation options without touching anything but your own device
15	Upgrade asset management and business systems so that the agency can more efficiently address state of good repair concerns, reduce maintenance delays, expeditiously upgrade software systems, and increase resiliency by enabling staff to work remotely.
16	New IT systems that dispatch and monitor buses would allow for the deployment of emerging technologies that improve public health, such as zero-emission buses and contactless fare payment.

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NJ TRANSIT 10-YEAR STRATEGIC PLAN AND 5-YEAR CAPITAL PROGRAM

STRATEGIC PLAN STRATEGY ID ¹ (SP)	CAPITAL PLAN VISION ITEM NUMBER ² (CP)	STRATEGY / VISION ITEM	PROPOSED DISCUSSION ISSUE
4.3		Enhance the system's resilience to extreme climate events	Leverage Resilience Investments for Regular Service and Future System Expansion: Significant investment is being made in resilience improvements which can also be leveraged to improve NJ TRANSIT's current system and future growth needs. Currently a mid-line loop on the Northeast Corridor is being proposed for placement in North Brunswick. If moved further south to South Brunswick it could also support future expanded service to a proposed new South Brunswick station that could anchor a Route 1 Bus Rapid Transit System, and provide a flyover for possible future passenger rail expansions.
5.6		Strengthen organizational resilience and safety programs	
	15	Upgrade asset management and business systems so that the agency can more efficiently address state of good repair concerns, reduce maintenance delays, expeditiously upgrade software systems, and increase resiliency by enabling staff to work remotely.	
2.1		Improve information flow to and from customers	Provide Customer Active Shooter Preparedness Training: Develop and Implement a customer education campaign to inform and empower NJ TRANSIT customers when faced with dangerous situations before police response can arrive. An example of this type of training known as ALICE (Alert, Lockdown, Identify, Counter, Evacuate), trains customers and employees to assess a situation and determine a course of action based on their specific location/exposure to an event. If adapted for transit facility and vehicle environments, this could provide customers with potentially life-saving training and preparation for unexpected events on transit property. See https://www.alicetraining.com/ for more information.
2.5		Provide the safest and most secure environment for customers, employees and the communities we serve	
5.6		Strengthen organizational resilience and safety programs	
4.1		Partner with communities and developers to encourage Transit Oriented Development	Work with Monmouth County and its Communities to Apply Transit Oriented Development: Partner with communities and developers to encourage Transit Oriented Development (TOD) and mixed-use pedestrian friendly development around transit stops and stations, particularly along the U.S. Routes 9, 36, and 35 corridors within Monmouth County and around the Aberdeen-Matawan Train Station and NJ Route 36/35/GSP Interchange identified in the county's Bayshore Development Plan.
	5	Integrated public transportation network reduces the need for additional parking and allows for mixed-use, pedestrian-friendly development.	
2.2		Enhance stations and shelters	Improve Monmouth County's Bus Corridor Customer Facilities: Improve the availability of shelters, amenities and lighting for bus customers, particularly along the U.S. Route 9, 35, and 36 corridors in Monmouth County which have high ridership levels at many stops. Additionally, consider including Monmouth County bus stops in the innovative Solar Bus Shelter Pilot Program.
	1	Improve the transportation network's accessibility & usability for all.	
	9	Explore opportunities for Bus priority and Bus Rapid Transit (BRT) to reduce congestion on local roads and improve on-time performance.	Develop BRT Pilot Program for Bus Services in Monmouth County Bus Corridors: Implement bus rapid transit features along heavily used bus corridors in Monmouth County
1.4		Provide more reliable bus service along congested corridors	

¹ See NJT2030 A 1-Year Strategic Plan June 2020

² See Pg. IV Capital Plan Executive Summary

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NJ TRANSIT 10-YEAR STRATEGIC PLAN AND 5-YEAR CAPITAL PROGRAM

			such as U.S. Route 9, where NJ TRANSIT and the New Jersey Department of Transportation are currently working to design new bus priority signals and infrastructure. The inclusion of Bus Rapid Transit elements into Monmouth County roads has been recommended by the Monmouth County Master Plan and outlined in their Bus Rapid Transit Study.
	1	Improve the transportation network's accessibility & usability for all	Develop First/Last Mile Travel Vehicles and Facilities serving Monmouth County Rail Stations and Bus Stops. Partner with communities to develop micro-mobility (e.g., scooters, e-bikes, bike share, etc.) first/last mile travel options at rail stations and bus stops and provide information on the NJ TRANSIT website about where these services are available.
	7	Communities from the city to the suburbs to the rural regions are better connected and see improved travel times regardless if you drive, ride, bike, or walk	
2.4		Expand Mobility-as-a-Service and Innovative Mobility Approaches.	Consider re-use or adaptation of existing transit facilities such as the old Matawan train station to serve as a micro-mobility hub / rental and repair center, perhaps operated by a small business. For more information on micromobility, see footnote below. ³
	12	Modernization of our bus fleet, including the transition to larger articulated buses, improves carrying capacity and system reliability	Begin Bus Fleet Conversion to Low-Floor Buses: Invest in low floor buses to speed loading / unloading times at bus stops, reduce vehicle costs associated with ADA lifts on vehicles, and make bus service more accessible to disabled and elderly transit users. For more information, see: https://www.transit.dot.gov/research-innovation/vehicle-design .
3.1		Modernize the bus network to help us meet growing demand and improve service quality	
1.4		Provide more reliable bus service along congested corridors	
	14	Innovative IT investments include improved mobile Apps that provide you with access to timely information on your mobile phone and allow you to purchase tickets, plan your trip, and interact with other transportation options without touching anything but your own device;	Develop Customer Technologies for Detecting Waiting Bus Customers, Connection Protection, and Truck Collision Avoidance Safety Technologies such as Rail Bridge Height Warnings: Leverage investments in new technology and the Clever Devices system to explore "two-way" passenger – vehicle interactive technologies based around its smartphone application to include detection of and requests from bus customers waiting at stops. Provide "connection protection" to inform bus drivers to hold a connecting bus for transferring customers. Also explore development of real-time location / proximity detection of driver cell phone to warn truck drivers of rail bridge over-height restrictions. For a video demonstrating transit technologies, see link below ⁴
	16	New IT systems that dispatch and monitor buses would allow for the deployment of emerging technologies that improve public health, such as zero-emission buses and contactless fare payment.	
2.1		Improve information flow to and from customers	
5.7		Leverage technology to improve operations and customer experience	
4.2		Convert to 100 percent clean energy by 2050	Implement Train Battery Pilot Program on the NJ TRANSIT North Jersey Coast Line in Monmouth County: The Train Battery Pilot Program is an exciting opportunity to increase clean energy use and speed up service on rail lines such as the North Jersey Coast Line, which is only partially electrified.
	16	New IT systems that dispatch and monitor buses would allow for the deployment of emerging technologies that improve public health, such as zero-emission buses and contactless fare payment.	

³ <https://togethernorthjersey.com/tnj-sustainability-toolkit/micro-mobility/> and <https://urbanmobilitydaily.com/has-public-transit-finally-found-its-first-mile-last-mile-partner-in-micromobility/> and <https://www2.deloitte.com/us/en/insights/focus/future-of-mobility/micro-mobility-is-the-future-of-urban-transportation.html> and <https://ny.curbed.com/2019/4/18/18484848/charge-e-scooter-docking-stations-micromobility-nyc>

⁴ Transit Technologies video: <https://www.bing.com/videos/search?q=Transit+System+Connections+-+Hold+Vehicles+for+Connections+App&&view=detail&mid=44148E9AB25165CAB58844148E9AB25165CAB588&&FORM=VRD GAR&ru=%2Fvideos%2Fsearch%3Fq%3DTransit%2520System%2520Connections%2520-%2520Hold%2520Vehicles%2520for%2520Connections%2520App%26qs%3Dn%26form%3DQBVR%26sp%3D-1%26pq%3Dtransit%2520system%2520connections%2520-%2520hold%2520vehicles%2520for%2520connections%2520app%26sc%3D0-62%26sk%3D%26cvid%3D32C647F9E1234B60BADB1EF7A36E6BBF>

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2.4		Expand Mobility-as-a-Service and innovative mobility approaches	<p>Develop Dedicated Bicycle with Rider Railcars on the North Jersey Coast Line: Increase the quality and availability of bicycle and micro-mobility accommodations aboard trains to improve accessibility to all users, including the development of dedicated railcars to accommodate these riders. This may be accomplished by the retrofit of viable commuter rail cars nearing retirement to serve bicycle riders and micro-mobility travelers in areas with high opportunity / demand (e.g., shore communities along the North Jersey Coast Line). For examples of these types of cars, see footnote below.⁵</p>
3.3		Develop innovative methods to ensure all customers can access mobility services	
5.2		Reflect the needs of our customers, employees and the communities we serve	
	1	Improve the transportation network’s accessibility & usability for all.	
2.3		Integrate and facilitate customer payments	<p>Implement Contactless Payment: The expansion of contactless onboard validation and quick and contactless pay options such as the “My Wallet” program should be prioritized, especially due to the COVID-19 pandemic.</p>
	16	New IT systems that dispatch and monitor buses would allow for the deployment of emerging technologies that improve public health, such as zero-emission buses and contactless fare payment.	
5.1		Become a better business partner	<p>Enliven Transit Stations and Facilities to Support Local Community Business Development: Transit facilities could serve as business incubators for on-the-go food (e.g., food trucks), bicycle and micromobility stores/rental/parking businesses, ride hail, venues for artists and performers, and technology start-ups that can benefit both customers and local communities. This would require a re-visioning of current transit real estate policies that offer leases only to a limited number of concessions. Working with communities and identifying available station and parking area locations, begin the process to leverage transit facilities to create a more open format that can support local business development for communities. For examples, see footnote below.⁶</p>
2.2		Enhance stations and shelters	
3.4		Use our purchasing power to promote equitable, local economic development	
4.1		Partner with communities and developers to encourage Transit-Oriented Development	
	10	Suburban communities are strengthened by stronger transportation networks and are competitive in attracting new residents to drive the local economy	
2.1		Improve Information Flow to and From Customers	
	1	Improve the Transportation Network’s Usability for All	<p>Work with parking lot owners to implement more flexible parking permitting strategies to help improve overall parking availability: Some residents purchase yearly or monthly parking permits at par and ride and transit station parking lots only to use them on a handful of occasions each year. These spaces are empty the majority of the time and could be used by daily commuters. Explore policies and technologies that can make these spaces more widely available to a range of transit users.</p>
	14	Innovative IT investments include improved mobile Apps that provide you with access to timely information on your mobile phone and allow you to purchase tickets, plan your trip, and interact with other transportation options without touching anything but your own device	

⁵ <https://www3.nhk.or.jp/nhkworld/en/ondemand/video/2049088/>

⁶ Business Development <https://www.pix11.com/news/local-news/northern-suburbs/new-rochelle-creates-apartment-in-train-station-to-promote-downtown-living>