MONMOUTH
Within Reach

June 30, 2021
FINAL REPORT

Monmouth County

NJTPA
NORTH JERSEY
TRANSPORTATION
PLANNING AUTHORITY

MONMOUTH Within Reach

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Prepared for:

Monmouth County

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NORTH JERSEY
TRANSPORTATION
PLANNING AUTHORITY

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Executive Summary

Monmouth County is home to a variety of events and tourist destinations, including beaches, concert venues, golf courses, marinas, parks, orchards, racetracks, theaters, and theme parks that attract visitors and create significant benefits for the local and regional economy. However, traffic congestion generated by trips to venues and events negatively affects the travel experience of visitors as well as residents, damages the environment, and sometimes has a negative impact on the non-tourism sector of the local economy. Visitors use the same state, county, and local routes to access major attractions that residents travel every day. This overlap is due to the proximity and interdependence of residential and commercial uses with tourist and event destinations, and the fact that most venues are not served end-to-end by limited access freeways.

Monmouth Within Reach, the Monmouth County Tourism and Events Travel Demand Management Study, was funded by the North Jersey Transportation Planning Authority through their Subregional Studies Program. The study was conducted to develop strategies and best practices for managing event and tourism-related travel demand. The Project Team used location-based data from 2019 and screening criteria to evaluate event and tourism destinations across the County and identify potential locations for further study. Five locations and agritourism were selected as focus areas. These focus areas were advanced for further evaluation and resulted in the development of specific travel demand management (TDM) plans consisting of a set of actionable recommendations and implementation guidance.

The strategies are intended to reduce congestion and improve the travel experience for everyone during peak event and tourism periods. While the plans were developed for specific locations as case studies, they recommendations can be applied to other locations.

What is a TDM Study?

TDM uses strategies and policies that help give the traveler more choices by providing information, incentives, resources, services and support to change when and how they travel. The goal of the TDM Study is to develop a plan that provides sufficient travel options, each aimed at changing a small part of overall travel behaviors, resulting in reduced congestion during peak tourism periods as well as before and after large events in Monmouth County.

Why is the Monmouth Within Reach Study Important to the Region?

Event and tourism-related congestion can negatively impact travel on roadways throughout the County, resulting in vehicle delay, air quality impacts, and driver frustration. In addition, the congestion and related spill over onto local roadways can have a negative impact on the quality of life of Monmouth County residents. The Monmouth Within Reach study is intended to help the County, municipalities, and event operators provide more information and options for how and when visitors travel, resulting in an overall reduction in peak period congestion and generally improving travel during peak event and tourism periods for all users. To this end, a vision and value statement and mobility goals were developed to guide the study.

Study Vision: Making Every Travel Day Better
Study Value Statement: Enhance the travel experience for Monmouth County tourists and residents by reducing event and tourism-related congestion through a set of actionable travel demand management strategies to make traveling on a Friday in summer more like traveling on a Friday in winter for County residents and visitors.

Mobility Goals:
- Reduce peak tourism and event-related congestion.
- Create attractive and convenient opportunities to share rides and travel without a car when visiting the County.
- Improve awareness of transportation options for County residents and visitors
- Reduce parking-related frustration and congestion.

Study Methodology

The study was conducted in three main phases: an assessment of existing conditions, a screening process to select five locations to evaluate in detail, and the development of the mitigation plans for each selected location. Location-based data, which is based on anonymized location information obtained from mobile phone apps and GPS units, was used to develop vehicle routing and volumes to and from event and tourism locations, as well as demographic information regarding travelers. Data was obtained for 2019, prior to the COVID-19 pandemic.

Monmouth County has a multitude of events and tourist destinations, and it was necessary to develop a method to screen potential sites and select locations to focus the study and develop specific TDM plans. Screening criteria, developed in coordination with a study Advisory Committee, was used to select the following locations as focus areas to advance to mitigation plan development:
- Asbury Park
- Red Bank
- Agritourism
- The County Fair at the East Freehold Showgrounds
- Sandy Hook Gateway National Recreation Area and Sea Bright

FIGURE 1: Example of Location-Based Data Showing Activity in Asbury Park on an Average Saturday in the summer.

Following the selection and recruitment of the focus areas, the Project Team conducted a detailed evaluation that included coordination with stakeholders to identify needs and opportunities for transportation to and from the locations. Utilizing this information, TDM mitigation plans were developed for each location that outline a series of TDM strategies that could encourage visitors to travel by modes other than their own vehicle, as well as change when they travel to avoid peak travel periods.

Recommendations and Next Steps

TDM mitigation reports were prepared for each of the focus areas that included documentation of existing TDM strategies in place, recommended strategies, and implementation guidance. Strategies were categorized as follows:

- **Communications:** Improving the dissemination of traveler information to residents and visitors. Strategies include mobility apps, wayfinding, advanced parking information, dynamic message signs for traveler information, etc.

- **Travel Behavior:** Providing options and incentives to visitors to change how and when they travel. Strategies include traffic diversions, traffic management staff, arrive early and stay late incentives, carpool incentives, transit priority, pedestrian management, etc.

- **Improve existing options:** Improving transportation infrastructure and services. Strategies include rental scooters, bikeshare, roadway modifications, additional transit service, improved pedestrian and bicycle infrastructure, etc.

- **New options:** Providing options and incentives for visitors and residents to travel without a car. Strategies include circulator shuttles, new transit service, water taxis, off-site parking with shuttle, new scooter/bike rentals, etc.

- **Parking:** Implementing parking strategies to reduce parking related frustration. Strategies include curbside management, dynamic parking fees, pre-payment, parking locator apps and wayfinding, directed parking, improved payment systems, etc.

In addition to the location-specific mitigation plans. A general strategies guide was developed that provides other TDM strategies that were not included in the location-specific mitigation plans, but that may be applicable to other event and tourism-related locations in the County.

This study is just the beginning of the effort to address event and tourism related congestion in the County. The County, municipalities, venue owners and operators, and other stakeholders must coordinate to implement many of the study recommendations. Summary implementation matrices are provided for each location, which depict each strategy based on its complexity to implement as well as its effectiveness. The matrices can be used by decision makers to help select strategies to pursue as funding for or interest in certain strategies arise.

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Introduction
What is the Monmouth Within Reach Study?

Monmouth County is home to a variety of events and tourist destinations, including beaches, concert venues, golf courses, marinas, parks, orchards, racetracks, theaters, and theme parks that attract visitors and create significant benefits for the local and regional economy. However, traffic congestion generated by visitors to venues and events negatively affects the travel experience of visitors as well as residents, the environment, and sometimes the non-tourism sector of the local economy. Visitors use the same state, county, and local routes to access major attractions that residents and others travel every day. This overlap is due to the proximity and interdependence of residential and commercial uses with tourist and event destinations, as well as the fact that most venues are not served end-to-end by limited access freeways.

While summer typically generates the most significant traffic congestion, there are many events held in Monmouth County year-round that affect local travel. Events like flower festivals in spring, apple picking and Halloween related events in fall, and entertainment events throughout the year can create high travel demand, particularly on weekends. Monmouth County residents who travel by car in the summer and during events are known to change their travel behavior to deal with the increased congestion. Municipalities and event sponsors recognize congestion as a hindrance to visitors and residents year-round and have taken steps to mitigate it within their jurisdictions. However, with most people using routing applications such as Waze, more visitor vehicles are being pushed to local streets to avoid congested areas.

Monmouth Within Reach, the Monmouth County Tourism and Events Travel Demand Management Study, was conducted to develop strategies and best practices for managing travel demand in order to help people get where they need and want to go. The Project Team evaluated event and tourism destinations across the County and utilized evaluation criteria to screen the potential locations for further study. Five locations and agritourism were selected as focus areas. These focus areas were advanced for further evaluation and resulted in the development of specific travel demand management (TDM) plans consisting of a set of actionable recommendations for peak travel periods to reduce congestion and improve the travel experience for everyone. These plans were developed with specific locations as case studies and as blueprints for recommendations that could be used at other locations.

The Impact of the COVID-19 Pandemic on This Study

This study was proposed and selected for federal funding in 2018, before the COVID-19 pandemic had any effect on our day to day lives. The Monmouth Within Reach Project Team recognizes that the COVID-19 pandemic has impacted our lives in many ways, including attendance at and business related to tourism and events, as well as our ability to meet and interact with visitors, residents, and other stakeholders in person. However, the study could not be postponed. To overcome the challenges, the Project Team utilized transportation data from 2019 to review visitation and congestion levels related to tourism and events. In addition, stakeholder and public outreach was conducted by utilizing virtual meeting platforms and a study website. The Project Team looks forward to an appropriate time for the study's recommendations to be implemented when tourism and event attendance returns to normal.

Study Vision, Value Statement and Mobility Goals

The Study Vision, Value Statement, and Mobility Goals were developed by the Project Team in coordination with the project Advisory Committee.

Study Vision: Making Every Travel Day Better

Study Value Statement: Enhance the travel experience for tourists and Monmouth County residents by reducing event and tourism-related congestion through a set of actionable travel demand management strategies to make travelling on a Friday in summer more like travelling on a Friday in winter for County residents and visitors.

Mobility Goals:

- Reduce peak tourism and event-related congestion.
- Create attractive and convenient opportunities to share rides and travel without a car when visiting Monmouth County.
- Improve awareness of transportation options for County residents and visitors
- Reduce parking-related frustration and congestion.

What is a Travel Demand Management (TDM) Study?

Travel Demand Management (TDM) is the use of strategies and policies that help give the traveler more choices providing information, incentives, resources, services, and support to change when and how they travel. The goal of the TDM Study is to develop a plan that provides sufficient travel options, each aimed at changing a small part of the overall travel behaviors, resulting in reduced congestion during peak tourism periods as well as before and after large events in Monmouth County. TDM strategies help to reduce congestion by making it easier to use other transportation options, such as transit, carpooling, vanpooling, ridesharing, walking, cycling, as well as by encouraging people to travel during off-peak times. The strategies can be thought of as deck of cards: there are many types of strategies and no single strategy can address all congestion issues **(Figure 1)**. Rather, a combination of strategies is needed to create a winning hand.

FIGURE 1: Strategies for Event and Tourism TDM

	Communications				
1 Smart Mobility App	2 Change Travel Day Messaging	3 Single Travel Portal	4 Wayfinding	5 Signage	6 Carpool App
7 Social Feeds Messaging	8 Congestion / Queuing Messaging	9 Advance Parking Information	10 Pre-Event Information	11 Traffic Apps	

	Travel Behavior					
1 Change Travel Patterns with Apps	2 Operational Strategies	3 Traffic Diversions	4 Arrive Early/ Leave Late	5 Carpool Incentives	6 Promote Traffic Apps	7 Transit Priority
8 Bicycle Priority	9 Pedestrian Management	10 Scooter Rentals	11 Bike Rentals	12 Transit Service	13 Customer Information	14 Directional Access

FIGURE 1: Strategies for Event and Tourism TDM

What is Included in this Report?

This document summarizes the analysis and findings of the Monmouth Within Reach study. It includes a summary of the study methodology, community and stakeholder outreach, environmental justice analysis, event/tourist location selection, and a summary of issues and TDM strategies for each selected location. This document is supported by technical report appendices which contain additional data and analysis to support the information and findings presented in this summary report.

Study Methodology

Any event/tourism TDM study consists of a multi-step process that includes assessing existing travel demand patterns, developing TDM strategies that encourage travelling by modes other than driving, developing strategies to change arrival and departure patterns for those that still choose to drive, and then implementing and monitoring the recommended strategies (Figure 2). The study-specific methodology applied on the Monmouth Within Reach study is summarized below:

Step 1: Assess Travel Demand Patterns

The study is built on a robust understanding of existing event and tourism-related traffic conditions that were used to assess travel demand patterns for a variety of event types from single events, like Fourth of July fireworks, to longer-duration increases in tourist activity, such as the summer shore season. To establish this understanding, the Project Team:
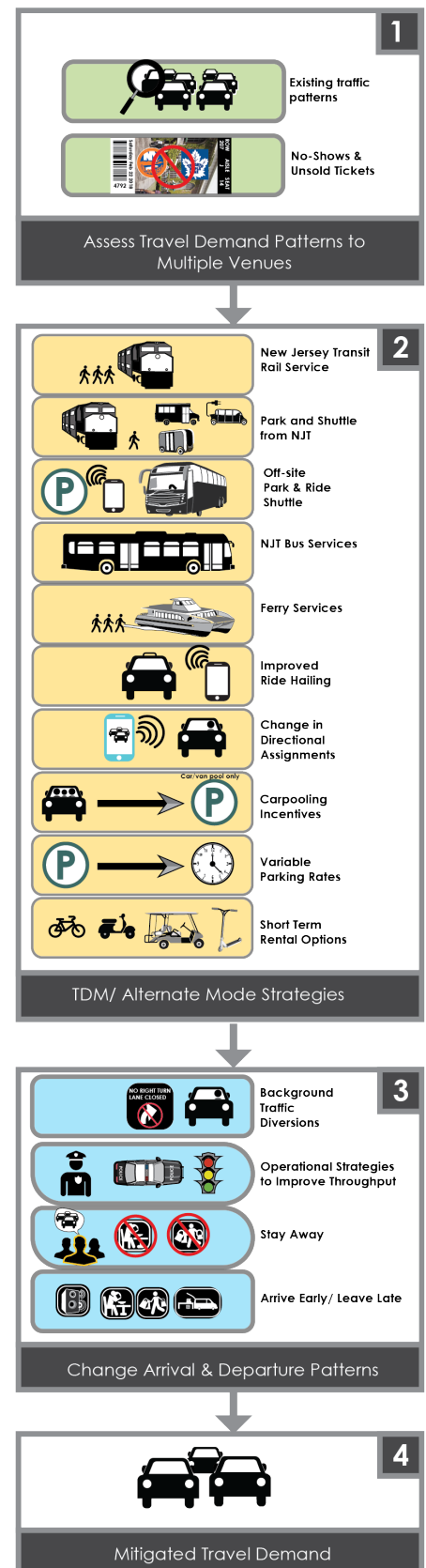
- Reviewed relevant studies conducted in the County within the last 20 years.
- Evaluated existing TDM programs in the County.
- Identified existing transportation and intelligent transportation system (ITS) infrastructure within the County.
- Identified existing sources of transportation data.
- Identified and documented best practices for event and tourism-related transportation demand management.

A description of the data listed above can be found in the Data Collection and Review Summary Report in Appendix A.

Location-Based Data

In addition to using existing sources of data, this study also relies heavily upon location-based data to quantify demand related to specific events or specific tourist locations. Location-based data providers, such as StreetLight and Airsage, collect and aggregate anonymized smart phone and GPS device position data utilizing proprietary algorithms to develop vehicle routing and volumes between specific locations, in this case event and tourism locations. The data can also be used to obtain basic demographic information regarding the travelers, as well as identify what routes are taken to travel to a specific destination. Data can be obtained on an hourly basis for any specific day or time period needed, including previous years. This was particularly valuable for this study which, due to funding commitments, was conducted during the COVID-19 pandemic. In order to work from a dataset that reflects pre-pandemic traffic patterns, this study used location-based data from 2019.

FIGURE 2: Steps to Develop a TDM Plan

1 — Assess Travel Demand Patterns to Multiple Venues
- Existing traffic patterns
- No-Shows & Unsold Tickets

2 — TDM/ Alternate Mode Strategies
- New Jersey Transit Rail Service
- Park and Shuttle from NJT
- Off-site Park & Ride Shuttle
- NJT Bus Services
- Ferry Services
- Improved Ride Hailing
- Change in Directional Assignments
- Carpooling Incentives (Car/van pool only)
- Variable Parking Rates
- Short Term Rental Options

3 — Change Arrival & Departure Patterns
- Background Traffic Diversions
- Operational Strategies to Improve Throughput
- Stay Away
- Arrive Early/ Leave Late

4 — Mitigated Travel Demand

The Project Team used the data to examine two basic categories of visitors:

- Local (living within Monmouth County) or regional (living within New Jersey, New York, or Pennsylvania, and able to access local public transportation options to attend events, stay for a day, or stay at a vacation home for an extended period). These visitors can drive or take transit to destinations within the County.
- Destination visitors that need to fly, drive, or use other interstate travel modes into the area with the intent to stay for an extended period. Location-based services data was used to understand the home locations of destination visitors.

Step 2: Develop Location-Specific Mitigation Plans

Event and tourism locations within the County were selected and evaluated in order to develop location-specific mitigation plans.

Location Screening

Monmouth County has a multitude of events and tourist destinations, and it was necessary to develop a method to screen potential sites and select five to seven locations to focus the study and develop specific TDM plans. Utilizing the data and information obtained from Step 1 (Assess Travel Demand Patterns), the Project Team produced a preliminary list of 25 event and tourism locations that included agritourism, parks, beaches, concert and other event venues, and downtowns with events like fireworks and other festivals. This list was reviewed by the Project Team and Monmouth County staff and reduced to 12 locations to advance for further evaluation that were representative of the various types of event and tourism locations in the County.

The 12 locations underwent a more intensive screening process which evaluated and compared each site based on multiple screening criteria such as peak visitation volume, visitor density, proximity to transit, equity issues, routes affected, etc. The screening criteria were developed in coordination with the study Advisory Committee (see page 5). The screening data was then used to prioritize recruitment of local stakeholders, with a strong preference towards working with venue operators. The screening and recruitment process resulted in the selection of five locations and the topic of Agritourism as focus areas to advance to mitigation plan development. The location screening analysis is documented in detail in Appendix B.

Development of Location-Specific TDM Mitigation Plans

Following the selection and recruitment of the focus areas, the Project Team conducted a detailed evaluation, that included coordination with stakeholders, to identify needs and opportunities for transportation to and from the locations. This analysis is documented in the Existing Conditions Study contained in Appendix C. Utilizing this information, TDM mitigation plans were developed for each location that outline a series of TDM strategies that could encourage visitors to travel by modes other than their own vehicle, as well as change when they travel to avoid peak travel periods. These strategies could include enhancing connections to transit, providing off-site parking and connecting shuttle service, carpool incentives, improved ride hailing, variable parking rates, and short-term rental options including bikeshare, scooter-share, electric carts, come early/leave late incentives, etc., among other strategies. In addition to TDM strategies to encourage the use of other modes, the plans also include operational strategies to manage parking and vehicular, bicycle, and pedestrian traffic that does occur. Furthermore, while the plans were developed for specific locations, many of the strategies and principles recommended in each plan could be applied to other similar types of events or tourist destinations in the County.

Steps 3 and 4: Implementation and Monitoring

One of the most important steps to a successful TDM plan is to develop an implementation strategy and monitor the plan's performance. Implementation plans provide the necessary roadmap to guide the execution of the recommendation strategies, as some strategies may build upon others, or may require a certain number of potential users. For example, bike facilities should be implemented before bikeshare. In addition, TDM plans are meant to be living documents that are updated regularly to respond to changes in travel demand as well as the performance of the TDM strategies that are in place. Understanding how a particular strategy is performing is necessary in order to determine if it should continue, be expanded, or if resources should be directed to other strategies. While implementation and monitoring are not components of this study, implementation guidance is included with the plans.

Virtual Public and Stakeholder Coordination

Public and stakeholder coordination provided critical first-hand information regarding event and tourism operations. Due to the COVID-19 Pandemic, all outreach conducted for this study was virtual. The Project Team developed a Public Involvement Action Plan (PIAP) which outlined the virtual outreach efforts for this study. Outreach for this study consisted of the following groups:

- Advisory Committee (AC): The AC guided the Project Team and provided information and insight where possible and help shape the study. It had representation from county department leaders and staff, the Monmouth County Transportation Council, New Jersey Department of Transportation (NJDOT), the NJ Turnpike Authority, NJ TRANSIT, and the North Jersey Transportation Planning Authority (NJTPA). Two AC meetings and one asynchronous outreach were conducted during the study. Members of the AC were selected by invitation only.
- Stakeholders: Two stakeholder meetings were conducted for each of the focus areas. The first meeting provided the project team with information regarding existing issues, TDM and/or event management strategies being used, and feedback regarding initial TDM strategies that were examined in the study. The second meeting was used to present the results of the study, including the recommendations from the mitigation plans. Stakeholder meetings included event venue owners and operators, municipal and County staff, police and emergency response personnel, chamber of commerce staff, developers, and other interested parties as available.
- Public: Outreach to the general public consisted of a project website (monmouthwithinreach.com) which provided information related to the study, as well as an opportunity to submit comments. In addition, a survey was embedded on the website that asked County residents and visitors to share more detailed information regarding travel habits to, from, and within the County. A public meeting was held at the conclusion of the project to present the study findings, and to promote their implementation and further post-study discussion and activity.

A summary of the outreach process and results is contained in the Public Outreach Summary Report (Appendix D).

Equity Assessment

Equity is an important topic as it relates to transportation improvements. Historically, Environmental Justice (EJ) and Title VI communities have been underrepresented in decision-making related to the location of public infrastructure projects and services and are disproportionately exposed to their negative impacts. To ensure the project was inclusive and accessible, the Monmouth Within Reach study assessed the following factors:

- Low-Income
- Limited English Proficiency
- Minority Populations
- Place of Birth
- Population over 64 years
- Zero Vehicle Households

These factors were first evaluated on a County-wide basis during the initial stages of project to inform the Project Team of areas with higher concentrations of populations minority, low income, and/or older populations. Table 1 compares the County EJ factors to that of the NJTPA region and the State. The data was also plotted spatially within the County, which revealed higher concentrations of EJ communities north and east of the Garden State Parkway (GSP) as well as within the Freehold area (see Appendix A).

Table 1: EJ Factors for Monmouth County, NJPTA Region, and State of New Jersey based on 2019 American Community Survey Data from the U.S. Census
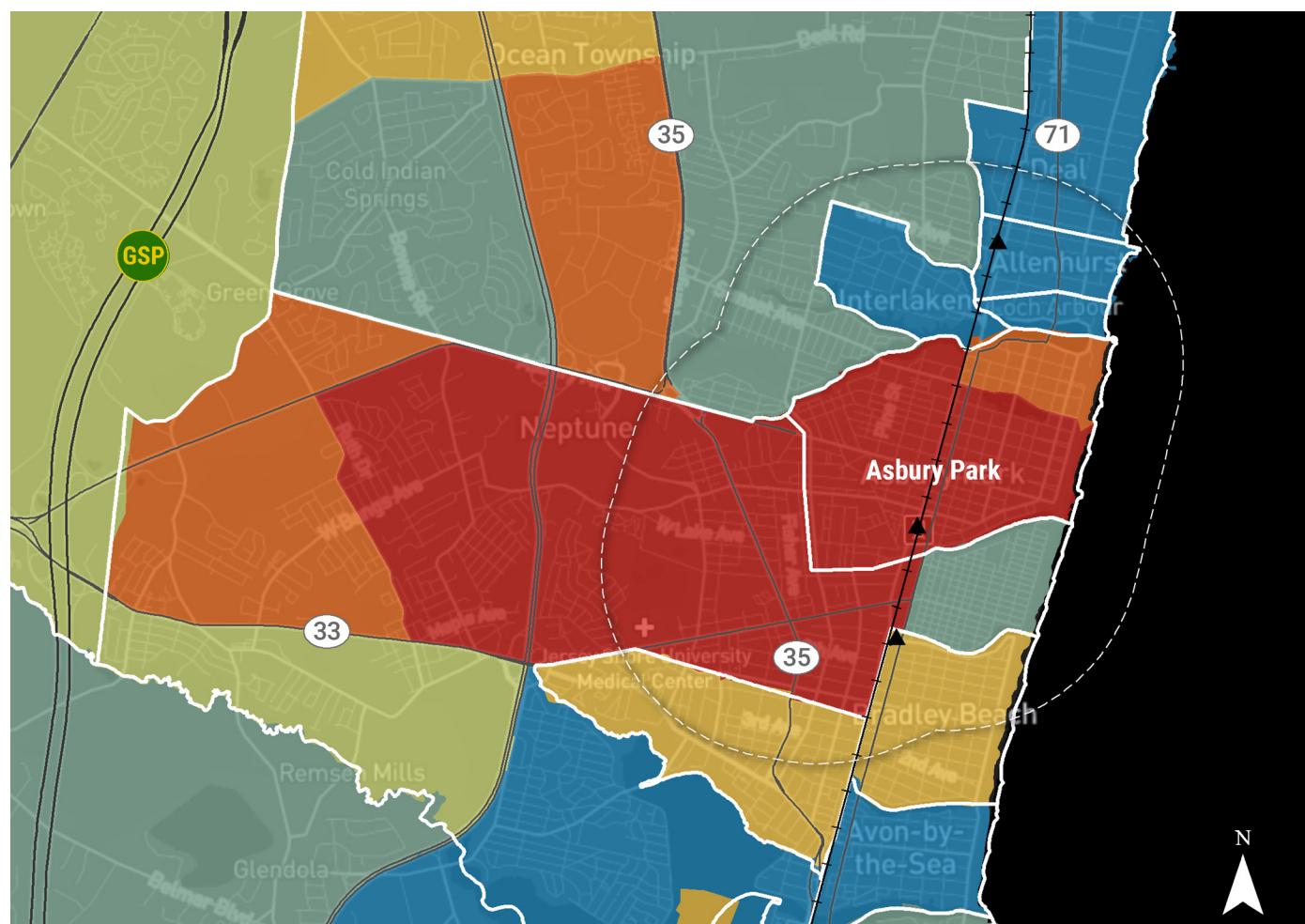
ENVIRONMENTAL JUSTICE (EJ) FACTOR	COUNTY	NJTPA REGION	STATE OF NEW JERSEY
Percentage of Population Below Poverty Level	6%	6%	10%
Percentage of Non-English -Speaking Households	5%	8%	7%
Percentage of Population: White	75%	60%	55%
Percentage of Population: Hispanic	11%	18%	20%
Percentage of Population: Black	7%	13%	13%
Percentage of Population: Asian	5%	7%	10%
Percentage of Population: Other Races	2%	2%	5%
Percentage of Population that is Foreign Born	13%	20%	23%
Percentage of Population over 64	16%	16%	16%
Percentage of Households with No Vehicle	6%	12%	11%

The equity factors were also evaluated for the five location-based focus areas that were identified through the screening process. The EJ analysis helped to identify specific neighborhoods within each study area that had concentrations of EJ populations. Figure 3 shows an example of one of the factors analyzed for Asbury Park. Similar maps for each of the selected study locations are contained in Appendix C. The mapped data was used to help guide the development of the mitigation recommendations to minimize negative impacts and to try to make recommendations that would benefit residents in these areas.

Finally, after the recommendations were developed for each of the study locations, an EJ assessment, including Community Profile Checklists, were prepared for each location to determine the impact of any of the mitigation recommendations on EJ communities. Potential impacts are discussed in Appendix D. However, the results of the assessment indicate that there are no anticipated negative impacts to EJ communities within the study locations. In many cases, the recommended improvements could benefit the EJ communities by providing additional mobility options and reducing the likelihood that event and tourism related traffic will impact local neighborhood streets.

Legend

▭	Municipal Boundaries
░░	1 Mile Radius Buffer
┼┼	Passenger Rail
▲	Rail Stations

% of Minority Population
- 1.92 % - 8.6%
- 8.8 % - 14.4%
- 15.1% - 21.9%
- 23.6% - 38.2%
- 40.1% - 63.9%
- 66.2% - 100%

Source: Stantec, US Census ACSDT5Y2019.S0601

Identification of Study Locations

Monmouth County hosts a variety of special events and is home to many tourist attractions, such as beaches, national and state parks, horse racing, music and theatre venues, and agritourism attractions like pick-your-own flower farms and orchards. This variety of attractions draw millions of visitors annually, significantly benefiting the local and regional economies. While all of these sites could benefit from TDM plans, due to study resource constraints, it was necessary to narrow the analysis and recommendations down to five focus areas that are representative of the various types of events and tourism locations in the County. A two-phased approach was used to screen potential locations utilizing qualitative and quantitative analyses prior to recruiting stakeholders. The methodology for the selection of the event and tourism destinations is summarized in **Figure 4**.

FIGURE 4: Study Location Selection Methodology
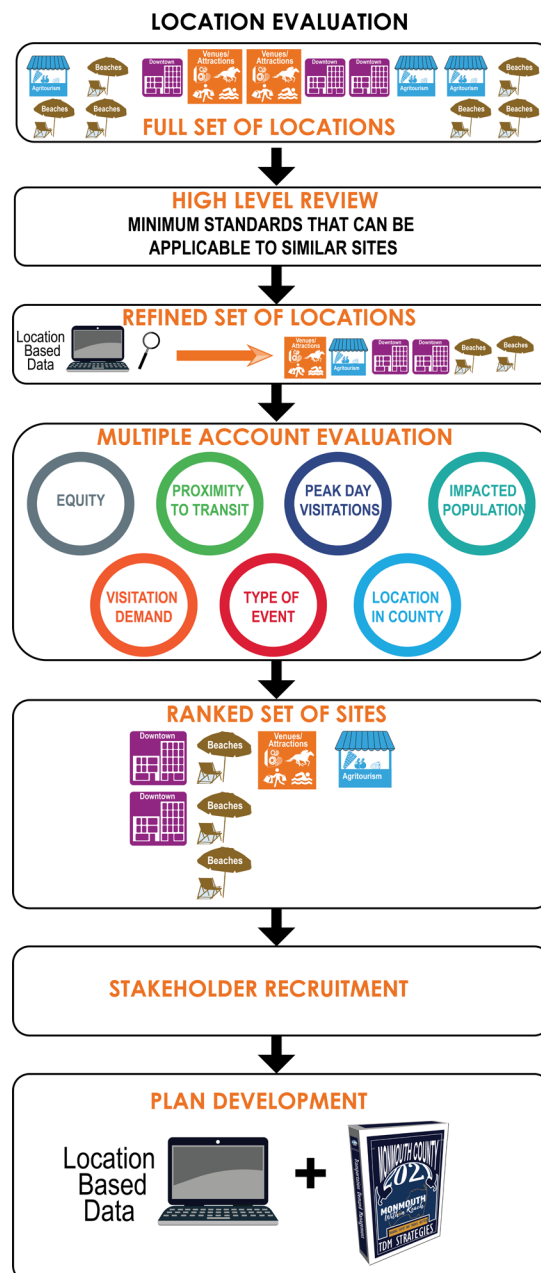
In Phase I of the location selection process, the Project Team developed a long list of event and tourism destinations throughout the County. These sites were categorized by type of destination (i.e., beaches, downtowns, parks, concert venues, etc.) as well as location (i.e., the shore, western Monmouth, Bayshore). The Project Team then shared this list with County staff to obtain input related to known mobility issues, including congestion levels. The County staff input was used to develop a preliminary ranking of destinations, and the top locations from each category were selected, resulting in a total of 12 locations that were advanced to Phase II.

Phase II advanced the 12 locations to a quantitative evaluation process. Location-based data providers Airsage and StreetLight, as well as U.S. Census data, was used to evaluate and rank the 12 locations based on weighted screening criteria that were developed in coordination with the AC. Typically, field data collection and observations may play a significant role in this type of analysis; however, with the effects of the COVID-19 pandemic, visitation to many of the destinations was well below normal levels. For this reason, the ability to review historical traffic data using smart device-based location records was essential to understanding visitor travel patterns. **Figure 5** shows an example of how the location-based data sources were used to simulate arrival and departure patterns to analyze traffic flows over the course of an event. In this example, clusters of larger pink dots around the parking lots and the stage area at PNC Bank Arts Center (circled in blue) between 5:00 and 6:00 PM on a concert night show significant numbers of people gathering in the area. Multiple analysis by hour can be used to show movement at a particular location.

FIGURE 5: PNC Bank Arts Center Activity between 5:00 and 6:00 PM on July 11, 2019
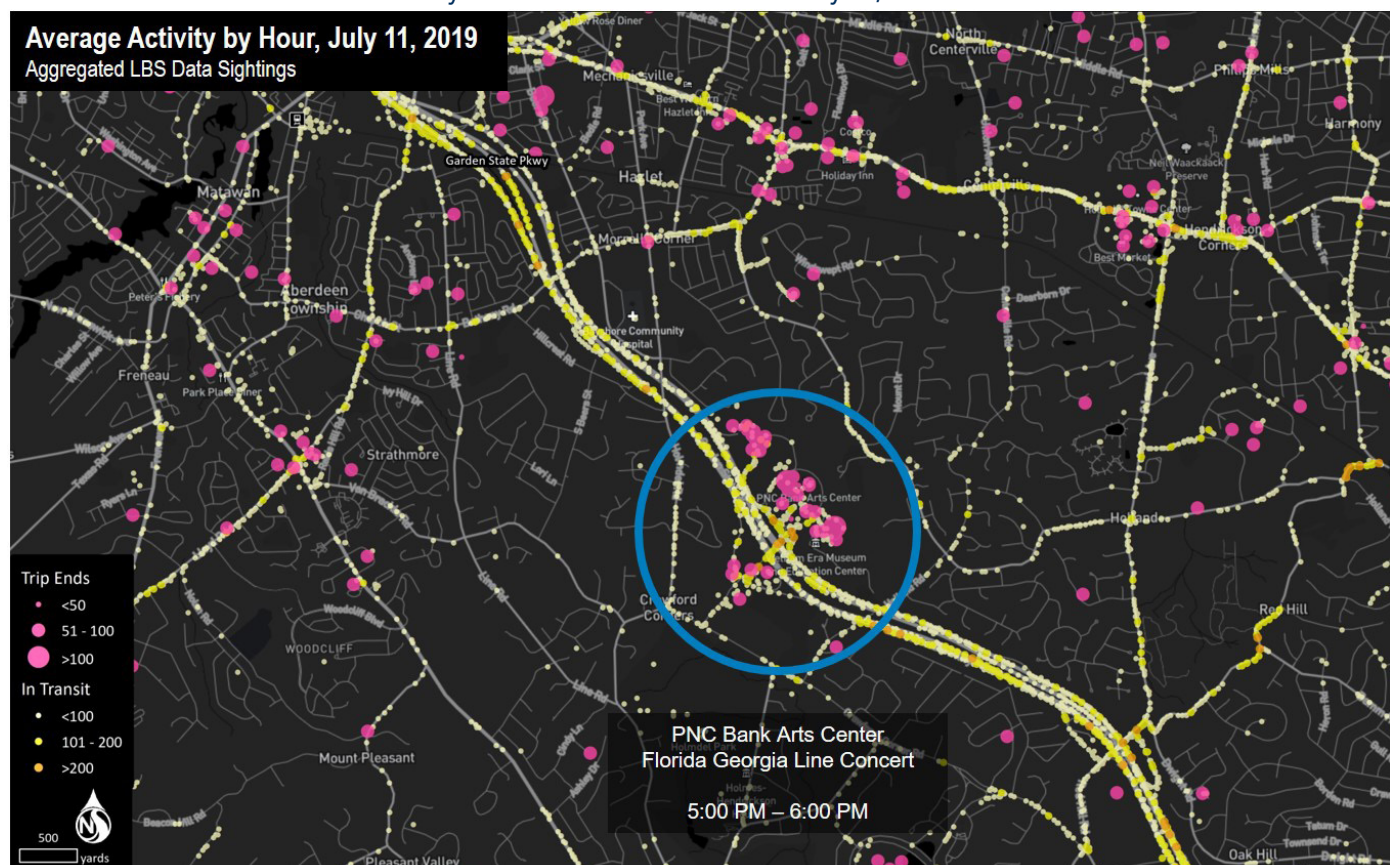
Table 2 lists the weighted screening score and location type for each of the 12 locations. Sites that were ultimately selected for recruitment are highlighted in green. Qualitative measures were also applied to ensure that all event or tourist destinations types would be included in the study, as well as to ensure that the selected locations represented all parts of the County. It should also be noted that Sandy Hook Gateway National Recreation Area (Sandy Hook) and Seabright were combined for the study due to the proximity and interconnected nature of traffic operations in that area.

TABLE 2: Site Rankings and Categorization

SITE	SCORE	DOWNTOWN	LARGE ATTRACTION	BEACH COMMUNITY	RURAL
Asbury Park	181	X	X	X	
Red Bank	140	X			
Belmar	137			X	
Monmouth Park	131		X		
Downtown Freehold	129	X			
Freehold Showgrounds/ County Fair	124		X		
★ Six Flags Great Adventure	123		X		X
PNC Bank Arts Center	118		X		
Sea Bright	111			X	
Holland Ridge Farms	101		X		X
Sandy Hook	95		X	X	
Allentown	82	X			X

★ Although Six Flags Great Adventure is not within Monmouth County, it is immediately adjacent and thus, generates traffic in the County.

During the site recruitment effort there was some difficulty in contacting and obtaining participation from some of the selected locations shown in Table 2. Therefore, as a result Freehold Showgrounds/County Fair was ultimately selected in lieu of Monmouth Park. Both facilities are large attractions so it was determined that it would be an acceptable swap. In addition, a general agritourism category was selected in lieu of focusing solely on Holland Ridge Farms. Creating a general agritourism analysis would help many different types of agritourism sites across the County manage event traffic.

Analysis and TDM Mitigation Plans

The selected event and tourist locations were advanced for further analysis utilizing the location-based data sources, U.S. Census data, and feedback and guidance provided by stakeholders such as municipal and County staff and event site owners and operators. The analysis is documented in the Existing Conditions Report contained in Appendix C. Utilizing the analysis and information gained, the Project Team then developed TDM Mitigation Reports which outline strategies that could help encourage visitors to travel by modes other than their own vehicle, as well as change when they travel to avoid peak travel periods. The mitigation reports are contained in Appendix E through J. This section summarizes the findings of the Existing Conditions analysis as well as the recommendations contained in the mitigation reports. As noted earlier in this report, the mitigation reports contain strategies that can be applied to other similar locations in the County.

Asbury Park (Downtown, Shore Destination, Concert/Event Venues
Overview

The City of Asbury Park is located on the Jersey Shore. The city features multiple attractions, including the beachfront, live music destinations (Stone Pony), parades, various festivals, a thriving Downtown, and a fireworks festival on the Fourth of July. It is one of the most popular attractions in Monmouth County, and was selected for analysis because of the high visitation volumes and that it represents many destination types, including a downtown, a major attraction (for concerts), and a beach/waterfront destination. Regional vehicular access to Asbury Park is provided via NJ 35, NJ 18, and the GSP via Interchanges 100 and 102. NJ 71 (Main Street) as well as CR 16 (Asbury Avenue) and NJ 33 (Corlies Ave) connect regional routes into the City. Beaches and destinations along the waterfront are accessible via Ocean Avenue. Transit access is provided via the North Jersey Coast Line Station at Asbury Park, with parking provided along Memorial Drive. NJ TRANSIT bus routes 317, 830, 832, 836, 837 provide service to Asbury Park. Route 317 provides connections to Fort Dix and Philadelphia and operates with two-hour headways seven days a week. Routes 830, 832, 836, and 837 provide local connections and generally operate daily with one- to two-hour headways. A one-mile region around Asbury Park includes a population of 41,663 persons, based on 2019 U.S. Census data aggregated to the tract level.

Summary of Key Findings

- A cluster of low-income and minority populations live west of the NJ TRANSIT tracks. These neighborhoods tend to be impacted by tourism and event-related traffic on peak days.
- Approximately 7 million people visited Asbury Park in 2019. Among those, 21 percent were minorities, 67 percent were from households with annual incomes above $50,000, and 64 percent of visitors travelled without children.
- The highest visitation occurred during the Sea.Hear.Now event on September 21, 2019 when nearly 90,000 people visited Asbury Park (**Figure 6**).
- 83 percent of visitors to Asbury Park were from New Jersey, 7 percent were from New York, and 4percent were from Pennsylvania.
- Over 20 local roadways experience at least 5 percent of the total traffic destined to Asbury Park on a typical summer weekend (**Figure 7**).
- High levels of visitor trips begin to appear in Asbury Park at 8:00 AM – 9:00 AM and continue past 8:00 PM on an average summer weekend (**Figure 8**).
- Travel time between Asbury Park and the GSP can increase from approximately 22 minutes on an average day to over 45 minutes on a peak event day.
- Asbury Park employs a variety of TDM strategies including parking fees, e-scooter and bikeshare programs, traveler information through Nixle (community information service), social media, and local radio, and plans to create a mobility hub at the NJ TRANSIT rail station.

FIGURE 6: Asbury Park Annual Visitation by Day in 2019
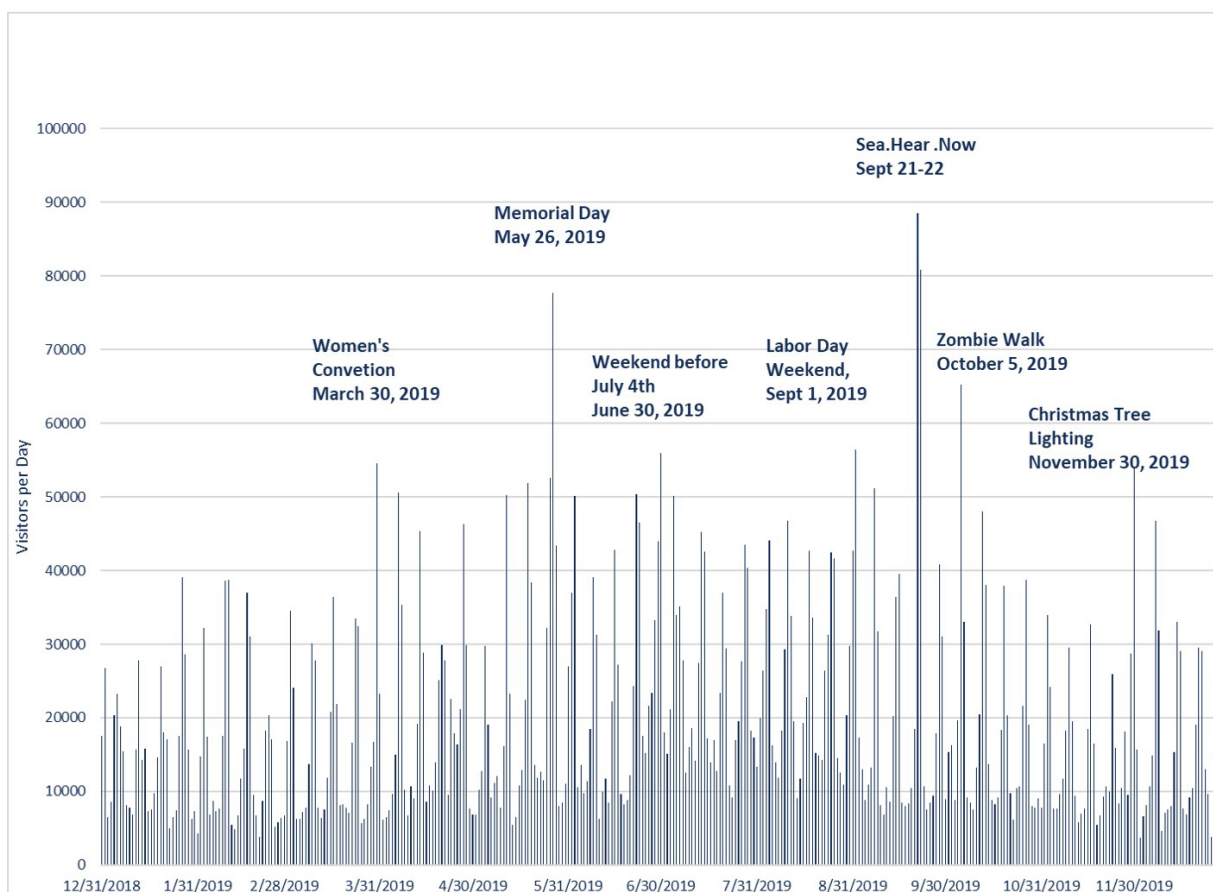
- 83 percent of visitors to Asbury Park were from New Jersey, 7 percent were from New York, and 4percent were from Pennsylvania.
- Over 20 local roadways experience at least 5 percent of the total traffic destined to Asbury Park on a typical summer weekend (Figure 7).

FIGURE 7: Roadways that Experience 5 Percent or More of Traffic Destined to Asbury Park
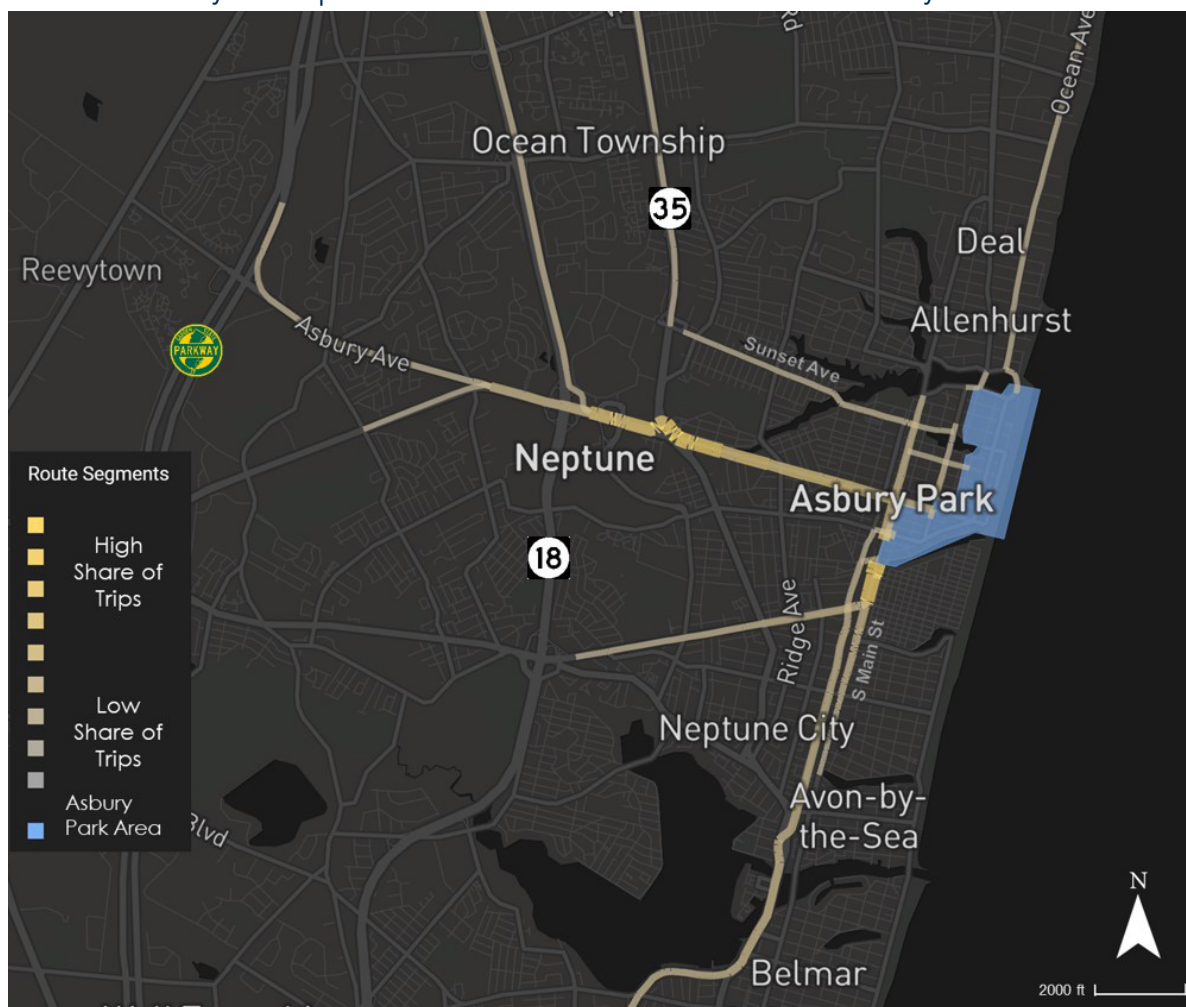
- High levels of visitor trips begin to appear in Asbury Park at 8:00 AM – 9:00 AM and continue past 8:00 PM on an average summer weekend (**Figure 8**).
- Travel time between Asbury Park and the GSP can increase from approximately 22 minutes on an average day to over 45 minutes on a peak event day.
- Asbury Park employs a variety of TDM strategies including parking fees, e-scooter and bikeshare programs, traveler information through Nixle (community information service), social media, and local radio, and plans to create a mobility hub at the NJ TRANSIT rail station.

FIGURE 8: Activity in Asbury Park on an Average Summer Weekend in 2019 between 1:00 PM and 2:00 PM
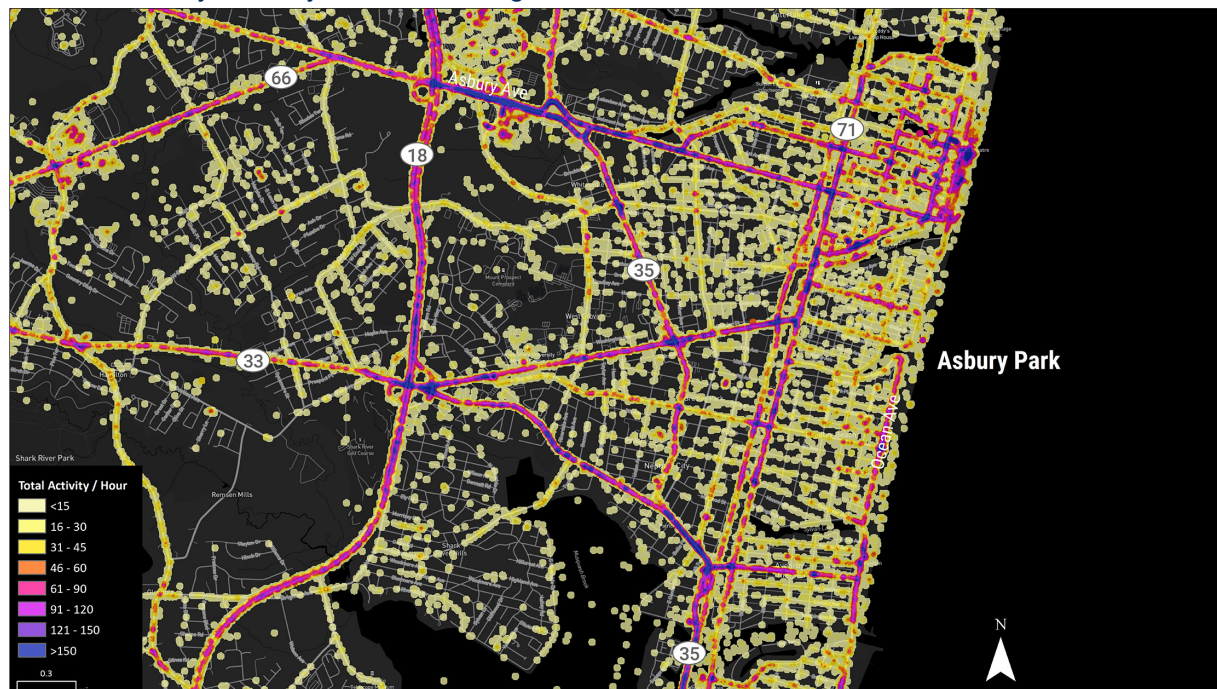
- Needs and opportunities include:
  - More areas designated for ridehailing and taxi pick-up and drop-off in popular locations.
  - Improve pedestrian management at the waterfront, particularly after events at the Stone Pony.
  - Coordinate with NJ TRANSIT to explore opportunities to increase rail service frequency during events and on weekends, and to reduce the number of long layovers at Long Branch.
  - Provide more bicycle facilities, such as two-way cycle tracks on Asbury Avenue and Ocean Avenue.
  - Use the Waze for Cities (formerly known as the Connected Citizens Program) to help control traffic patterns and reduce spill over onto residential streets.
  - Reintroduce free electric carts and provide improved information regarding how visitors can access the carts and where the carts operate.

Summary of Recommended Strategies

A variety of TDM strategies can be considered to reduce congestion peaking and encourage visitors to use other modes to travel to/from and within Asbury Park. A detailed mitigation report is contained in Appendix E. A summary is provided below.

Communications

- A dedicated app that would provide a direct line of communication to guests, residents, and workers, and can be used to provide messaging on incidents, parking availability, incentives, and upcoming special events.
- Join Waze for Cities (formerly known as the Connected Citizens Program) to help control traffic patterns and reduce spill over onto residential streets.
- Coordinated communications on the City's social media and local radio to provide traveler information.
- Use static and dynamic message signs to provide information regarding beach closures, traffic congestion, and parking availability. Place signs at critical intersections to allow drivers to divert from congested travel routes before entering Asbury Park.

Travel Behavior

- Provide scooter rentals and bikeshare in the City.
- Continue to coordinate with NJ TRANSIT to continue providing higher-frequency of service on event days and on weekends.
- Designate parking areas based on location relative to major access roadways, proximity to destinations, etc., and direct drivers to use the lots that are closest to where they enter Asbury Park in order to reduce crossing traffic and circulation within the City. Develop pricing structures for parking that incentivize parking in places with minimal impact to the City.
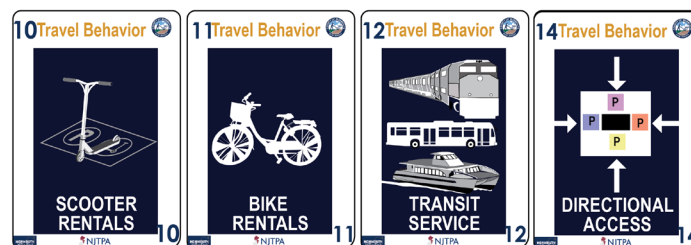
Improve Existing Options

- Implement additional bicycle facilities, such as the proposed two-way cycle tracks on Asbury, Memorial, and Ocean Avenues.
- Upgrade signals to provide a system of interconnected, intelligent signal controllers that would allow for dedicated event-day signal timing, with overrides during the peak periods.
- Consider street closures to create temporary pedestrian plazas to help manage pedestrian flow during peak visitation periods.

Parking

- Designate pick-up and drop-off areas for buses, taxis, and ridehailing (Uber/Lyft) near major destinations.
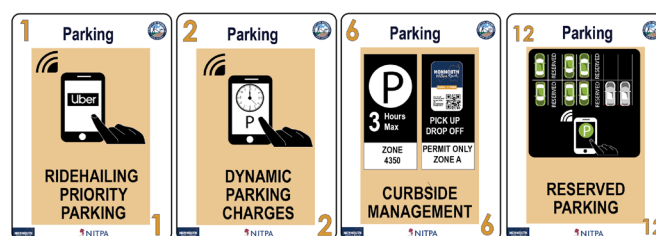
- Develop a curbside management policy that provides pick-up and drop-off areas, loading areas, on-street parking with dynamic pricing, and pedestrian and bicycle accommodations, among others uses.
- Work with private businesses to secure funding to operate circulator shuttles within Asbury Park to reduce the need for people to use a car once they arrive, and to provide opportunities for parking further away from heavily used parking areas.
- Use real-time parking utilization data to provide dynamic pricing to encourage off-site parking.

FIGURE 9: Potential Ridehail Area on 3rd Street

New Options

- Identify public and private parking lots that could be used to provide overflow parking to encourage long-term visitors to park and shuttle into Asbury Park during peak event days. This would require a shuttle service.
- Coordinate with NJ TRANSIT to explore the feasibility of a higher-frequency interurban service off-peak on the southern end of the North Jersey Coast Line on weekdays and weekends when commuter service to Newark/New York is not needed.

Red Bank (Downtown, Event Venues)
Overview

Red Bank Borough is located in eastern Monmouth County along the NJ 35 corridor. Its downtown is one of the most popular in Monmouth County and features many different event types, including theaters, nightlife, 5k runs, parades, fireworks, and festivals. The Borough is located on the Navesink River; however, the river restricts access to Red Bank from the north via three crossings. Regional vehicular access to Downtown Red Bank is provided via NJ 35 (Riverside Avenue/Maple Avenue) and the GSP via Interchange 109 to CR 520 (Newman Springs Road) or CR 10 (Front Street). CR 10 (River Road), CR 34 (Harding Road), and CR 13 (Shrewsbury Avenue) provide local connections to the downtown from nearby municipalities. Transit access is provided via the North Jersey Coast Line Station at Red Bank, with parking provided along Oakland Street and West Street. Red Bank is also served by three NJ TRANSIT bus routes. Route 832 provides daily service between Red Bank and Asbury Park and generally operates with one- to two-hour headways. Route 834 provides weekday and Saturday service between Red Bank and Highlands with one-hour headways. Route 838 provides weekday and Saturday service between Red Bank, Freehold, and Sea Bright and generally operates with one-hour headways. A one-mile region around Red Bank includes a population of 28,303 persons based on 2019 U.S. Census data.

Summary of Key Findings

- A cluster of low-income and minority population resides on the west side of the NJ TRANSIT tracks. These neighborhoods can be negatively impacted by congestion associated with Red Bank visitation and events.
- Approximately 7 million people visited in 2019. Among those, 14 percent were minorities, 73 percent were from households with annual incomes above $50,000, and 60 percent of visitors travelled without children.
- The highest visitation occurred during the Spring street fair on April 7, 2019 when nearly 37,000 people visited Red Bank (**Figure 10**).

FIGURE 10: Red Bank Visitation By Day in 2019
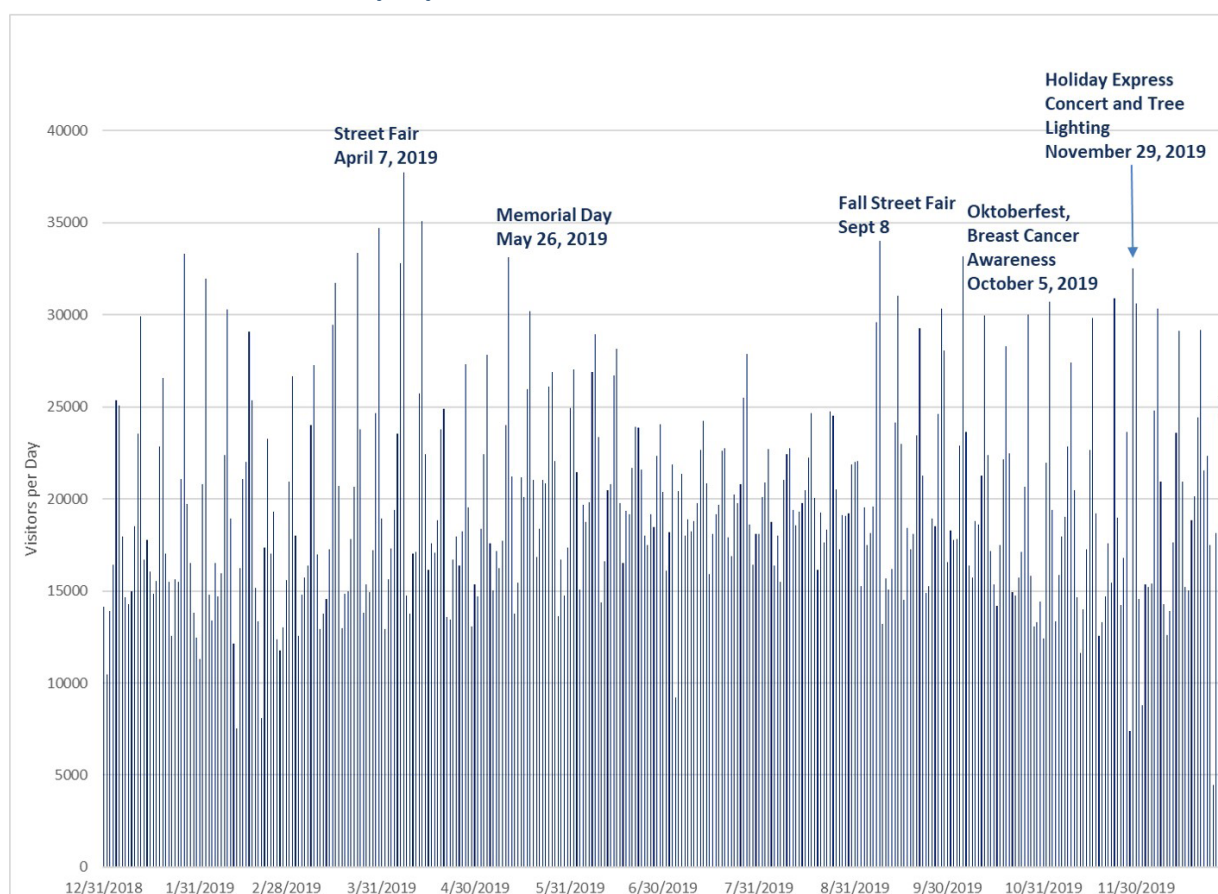
- 91 percent of visitors to Red Bank were from New Jersey, 4 percent were from New York, and 1 percent were from Pennsylvania.
- Over 15 local roadways experience at least 5 percent of the total traffic destined to Red Bank on a typical summer weekend (Figure 11).

FIGURE 11: Roadways that Experience 5 Percent or More of Traffic Destined to Red Bank
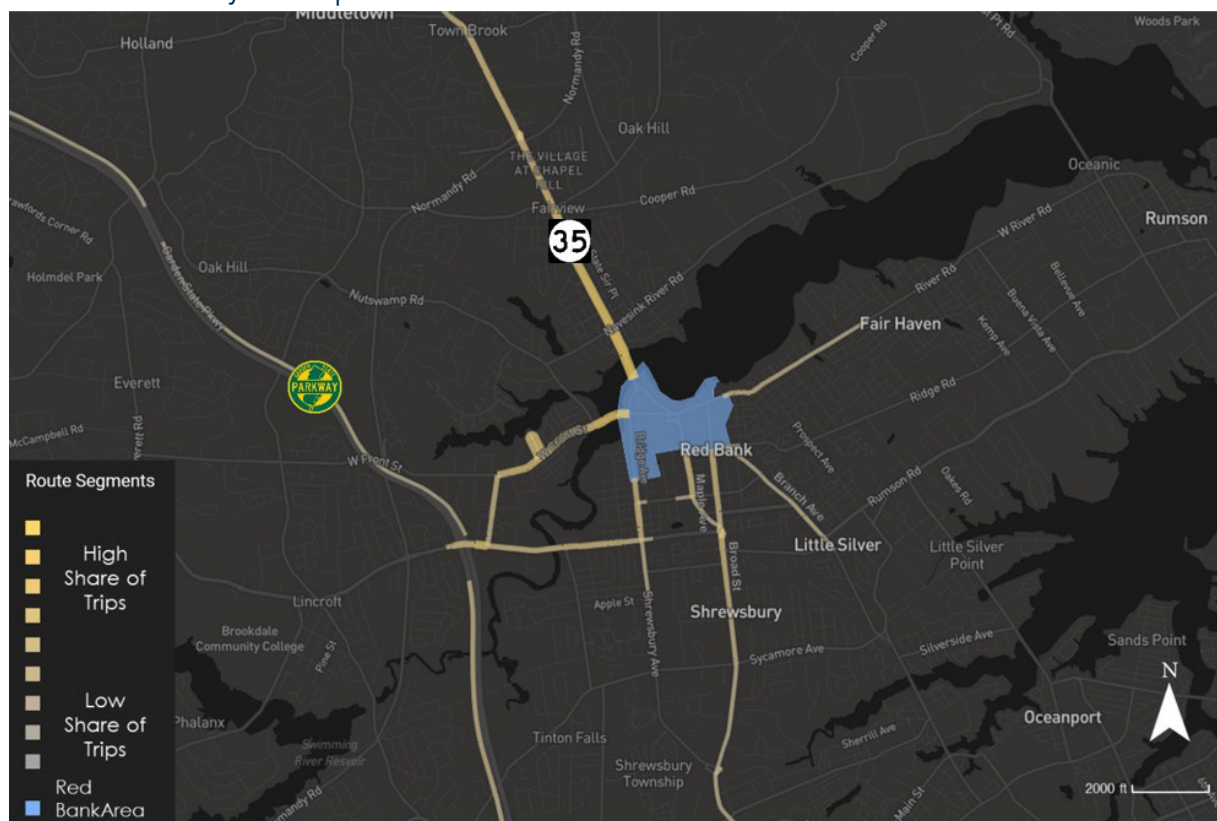
- High levels of visitor trips begin to appear in Red Bank between 10:00 AM and 11:00 AM and continue past 9:00 PM on an average summer weekend (**Figure 12**).
- Travel time between Red Bank and the GSP can increase from approximately 13 minutes on an average day to over 30 minutes on a peak event day.
- Red Bank has a special events committee that meets monthly to discuss logistics of events, including scheduling of events to avoid overlaps, and the management of impacts for larger events.
- Needs and opportunities include:

    o Improve parking information and way finding. Although a recent parking study showed that there is ample parking within the Borough, there is a perception that there is not enough parking because people do not know where all the parking is located, and they tend to want to park immediately adjacent to their destination.

    o Enhance connections between the downtown and event venues like the theaters and the Red Bank Armory Ice Complex.

    o Red Bank experiences a slight dip in activity in the summer because it is a pass-through to shore locations. There is an opportunity to capture shore travelers before/after their shore trip. This could help mitigation traffic to and from the shore destinations.

    o Update the bicycle master plan and beginning to implement recommendations to provide bicycle facilities.

    o Explore options for a circulator shuttle service.

    o Improve coordination with the County to develop plans to mitigate congestion during major bridge or road projects. The bridge crossings can become major choke points for access to/from Red Bank, particularly if one is closed for construction.

FIGURE 12: Activity in Red Bank on an Average Summer Weekend in 2019 between 2:00 PM and 3:00 PM
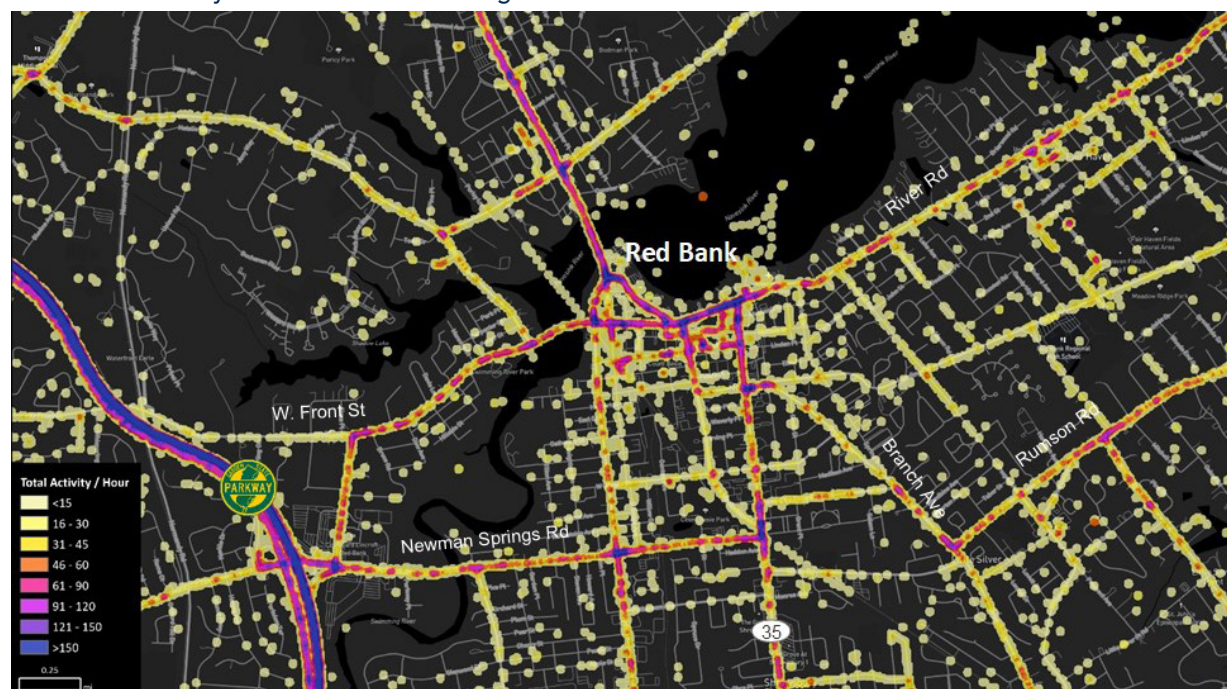
Summary of Recommended Strategies

A variety of TDM strategies can be considered to reduce congestion peaking and encourage visitors to use other modes to travel to/from and within Red Bank. A detailed mitigation report is contained in Appendix F. A summary is provided below.

Communications

- Develop a dedicated app that would provide a direct line of communication to guests, residents, and workers, and can be used to provide messaging on incidents, parking availability, incentives, and upcoming special events.
- Join Waze for Cities to help control traffic patterns and reduce spill over onto residential streets.
- Coordinate communications on the Borough's social media and local radio to provide traveler information.

Travel Behavior

- Coordinate with neighboring municipalities to develop a combined event schedule, either for use with the Special Events Committee to plan traffic management activities, or to communicate event-related information and projected congestion areas to visitors directly via an app, social media, or website.
- Provide wayfinding with dynamic parking utilization messaging to help drivers navigate to available parking.
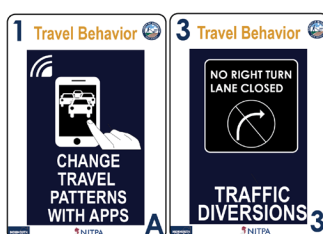
Improve Existing Options

- Consider whether some of the streets can be converted to one-way flow, creating one-way couples on adjacent streets. This would simplify intersection operations, reduce left-turn conflicts, and provide the potential to add more on-street parking, loading zones, or bike lanes.
- Update the 2010 Bicycle and Pedestrian Master Plan and begin to implement recommendations to provide improved bicycle and pedestrian facilities (Figure 13).

Parking

- Inventory parking, track its utilization, and develop a portal/app that can help guests find available parking and/or reserve parking in advance.
- Encourage longer-term visitors to park in off-street lots that are further away from their ultimate destination. Provide active modes and/or circulator shuttle to help facilitate connection from these lots to major destinations in downtown.
- Consider using parking near the hospital off-peak for public parking.
- Utilize on-street pay-by-plate and off-street payment methods to track parking utilization and duration to help inform changes to parking policies and pricing.
- Provide dedicated ridehailing pick-up areas. Consider an off-street facility during major events to prevent blockage of travel lanes (Figure 14).

New Options

- Coordinate with NJ TRANSIT to explore the feasibility of a higher-frequency interurban service off-peak on the southern end of the North Jersey Coast Line on weekdays and weekends when commuter service to Newark/New York is not needed.
- Develop economic development program that showcases reasons to come to Red Bank on the way to or from other shore locations.
- Work with business owners to establish a circulator shuttle service.
- Following the implementation of an updated Red Bank pedestrian and bicycle plan, provide bikeshare stations and/or e-scooters to enhance active mobility in Red Bank. Include stations in neighborhoods to provide residents with ways to access downtown using modes other than driving.

FIGURE 13: 2010 Bicycle and Pedestrian Master Plan Recommendations
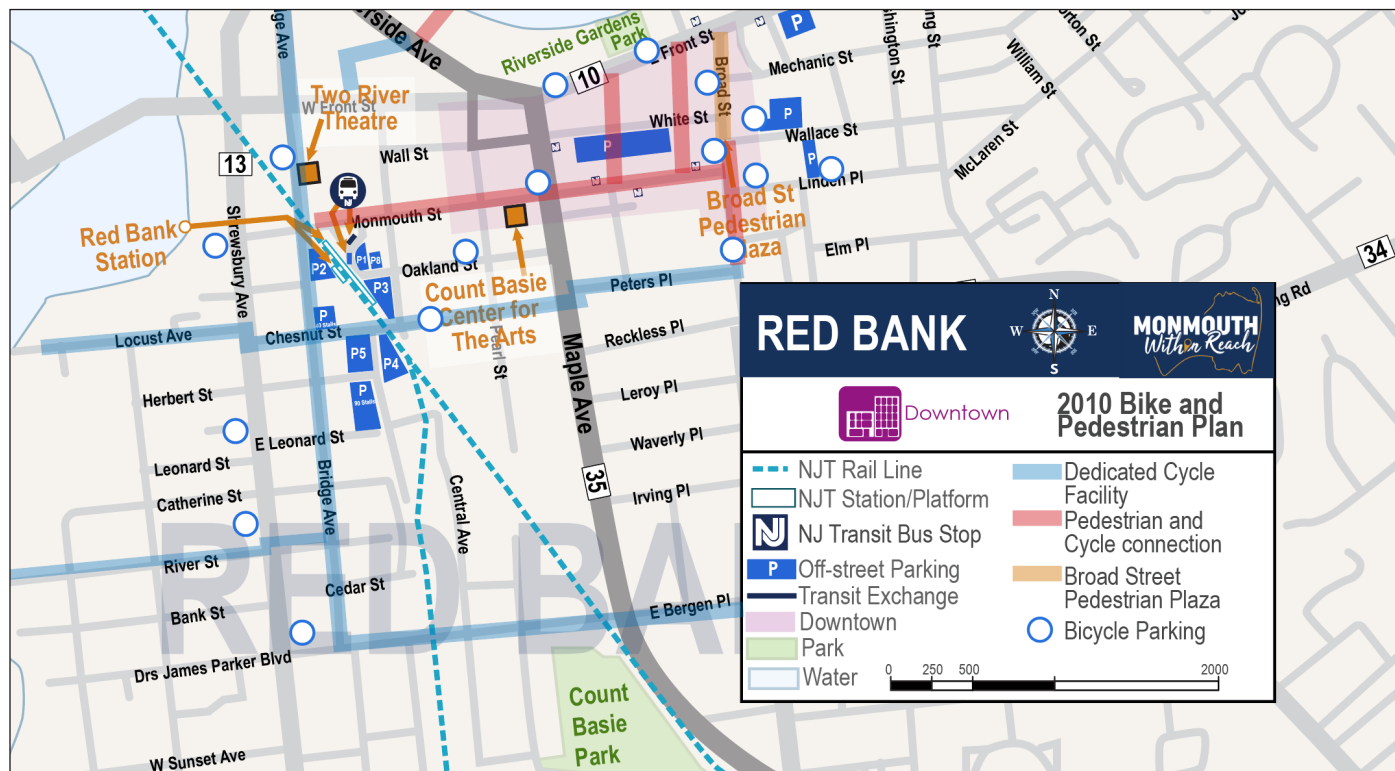
FIGURE 14: Potential Ridehail and Curbside Management Zones

Agritourism
Overview

Agritourism is one of the fastest growing tourism sectors in Monmouth County, with several major farms that attract large numbers of visitors from inside and outside of the County. Due to the success of the existing farms, more are expected to open in the near future. Agritourism sites typically have events on weekends in the late spring, summer, and fall which can result in short-term congestion on rural roadways that are not designed to accommodate heavier volumes. Congestion can sometimes spill over onto small country lanes as visitors using apps like Google Maps and Waze are directed to these roadways to avoid congestion. Holland Ridge Farms, in Upper Freehold, and Eastmont Orchards are two of the major agritourism sites in the County with events in the spring, summer, and fall. These locations were assessed in this study because they have large events and already engage in successful management strategies which may be applicable to other agritourism sites.

FIGURE 15: Visitation to Holland Ridge Farms in 2019
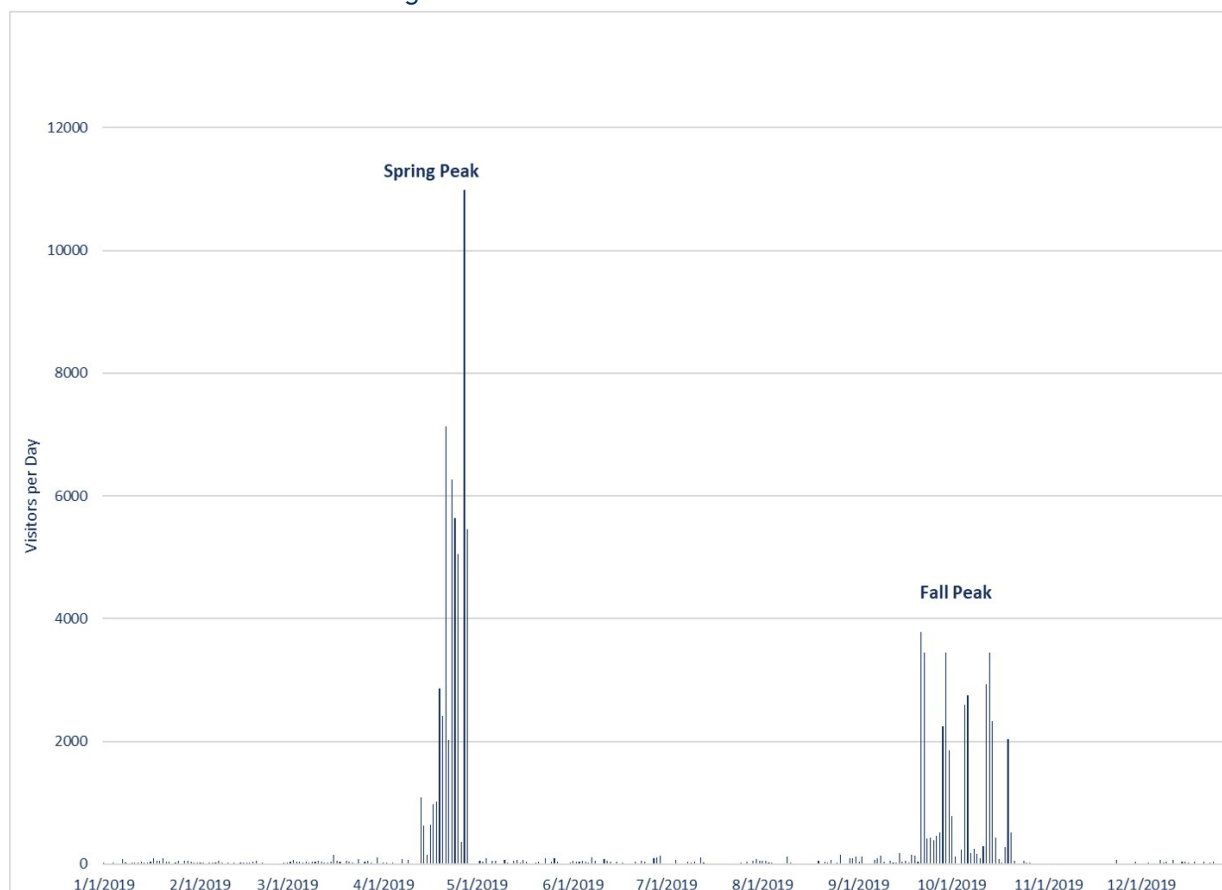
Summary of Key Findings

- Peaks in visitation to agritourism sites typically occur around events held in the spring and/or fall seasons. As an example, data for Holland Ridge Farms shows a shorter peak in the spring for a flower festival, and a lower but longer-duration peak in the fall (Figure 15).
- Most visitors are from New Jersey. For example, 77 percent of visitors to Holland Ridge Farms were from New Jersey, 15 percent were from New York, and 6 percent were from Pennsylvania.
- Visitation to agritourism sites typically peaks between 10:00 AM and 3:00 PM.
- Travel time between large agritourism sites can increase significantly on event weekends. For example, travel time between Holland Ridge Farms and the New Jersey Turnpike can increase from an average of nine minutes on a typical day to 20 to 35 minutes on an event day.
- Some sites already successfully employ a variety of management strategies. For example, Eastmont Orchards provides separate entry and exit driveways, a long on-site queuing area to reduce spillback onto the adjacent roadways, wayfinding and traffic control measures such as police officers to help manage traffic congestion on peak weekends.
- Needs and opportunities for agritourism include
  - Improve wayfinding to/from major travel routes.
  - Provide incentives to encourage visitors to arrive early or stay late to offset peak arrival periods.
  - Join the Waze Global Event Partners program to help control traffic patterns and reduce spill over onto residential streets.
  - Improve coordination with municipalities and the County when it comes to traffic control options.
  - Provide additional off-street queuing for vehicles entering a parking area.

Summary of Recommended Strategies

A variety of TDM strategies can be considered to reduce congestion associated with agritourism. A detailed mitigation report is contained in Appendix G. A summary is provided below.

Communications

- Include directional maps and links to transportation information on agritourism site websites.
- Work with the County and municipality to develop a sign plan that includes the types and locations of static and dynamic signs that help direct drivers to the agritourism site and provide information regarding traffic conditions. Coordinate with the municipality and/or County to explore the potential use their dynamic message signs during peak event periods.

Traveler Behavior

- If admission fees are charged to events, sites could consider converting the admission fee from a per person charge to a per vehicle parking charge. This could encourage some visitors to carpool to reduce the overall admission fees.
- Implement incentives to encourage visitors to arrive early or stay late. If parking or entrance fees are charged, reduced or free parking/admission could be offered for visitors that arrive before a certain time. In addition, sites could partner with food trucks to provide breakfast or brunch before peak visitation periods, or dinner options that would encourage some visitors to stay late. Other options include providing entertainment, games and competitions, or special site access to visitors arriving or leaving at preferred times.

Improve Existing Options

- Consider providing additional queueing space by moving parking fee collection or other parking directions further into the interior of the location.
- Evaluate pinch points and critical intersections around the agritourism and work with the appropriate operating agency to procure temporary traffic control in the form of traffic control officers or temporary traffic signals.
- Separate entry and exit points to minimize conflict between entry and exit flows and provide an off-street queuing area similar to what is employed at Eastmont Orchards (Figure 16).
- Designate pedestrian circulation routes through parking areas that avoid crossing major entry or exit drive aisles.

FIGURE 16: Separating Entry and Exit Points with Traffic Management Staff and Provide Significant Queuing Area for Vehicles Entering Parking

Parking

- Designate a ridehailing area to make it easier for passengers and drivers to find each other and may also encourage more guests to use ridehail on subsequent trips, knowing that it will be available. This may be particularly valuable for sites such as wineries that may require ridehailing to help visitors travel safely from the site.
- Utilize parking management staff to direct guests to specific drive aisles, and then to specific spaces within those drive aisles, leading to an efficient utilization of the parking area.
- Reorient parking to streamline entry while separating vehicle and pedestrian flows.
- At locations where parking fees are collected, use change makers or reconfigure entry plazas to increase processing rates (Figure 17), and/or provide online parking fee payments.

FIGURE 17: Increase Processing Rates by Moving Cashiers to Parking Lane Entries
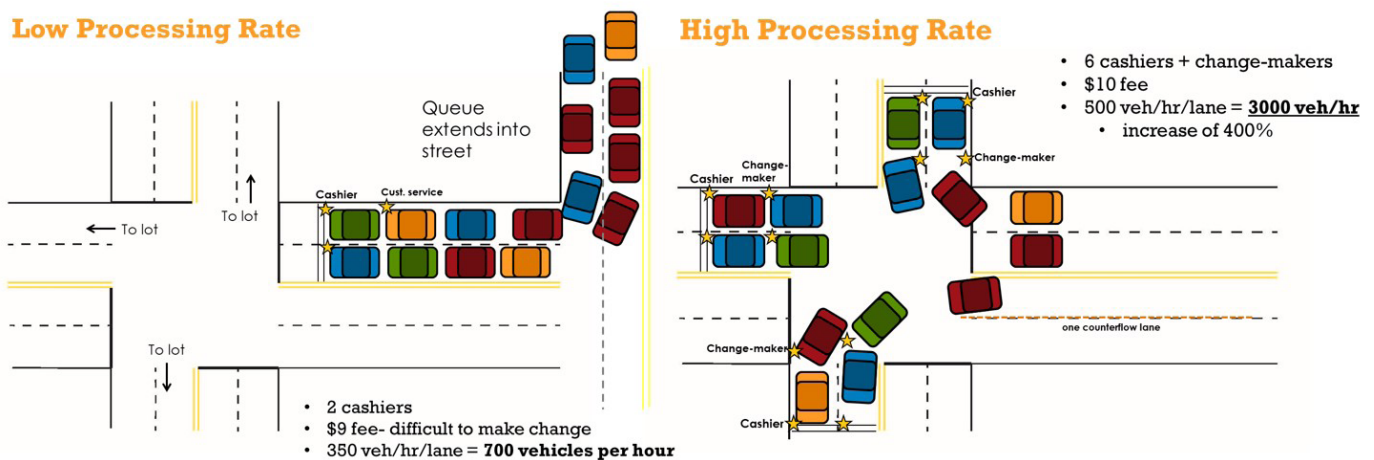
New Options

- For sites where parking demand exceeds capacity, consider working with nearby property owners or use nearby park-and-ride lots to provide shuttle connections between off-site parking and the agritourism site.

Sandy Hook Gateway National Recreation Area/Sea Bright (Shore Destination/Park)

Overview

Sandy Hook Gateway National Park
(Sandy Hook) is part of the Gateway National Recreational Area, one of the most highly visited National Parks in the U.S. The nearby Borough of Sea Bright features over three miles of beachfront, several beach clubs, and dining destinations. These destinations were studied jointly because they share common access infrastructure. Furthermore, Sea Bright often experiences significant increases in congestion when Sandy Hook reaches capacity and the entrance is closed. Access to Sandy Hook and Sea Bright is primarily provided via NJ 36 (Navesink Avenue/Memorial Parkway), from the west, which becomes Ocean Avenueas it turns south of Sandy Hook.

FIGURE 18: Sandy Hook Visitation By Day in 2019
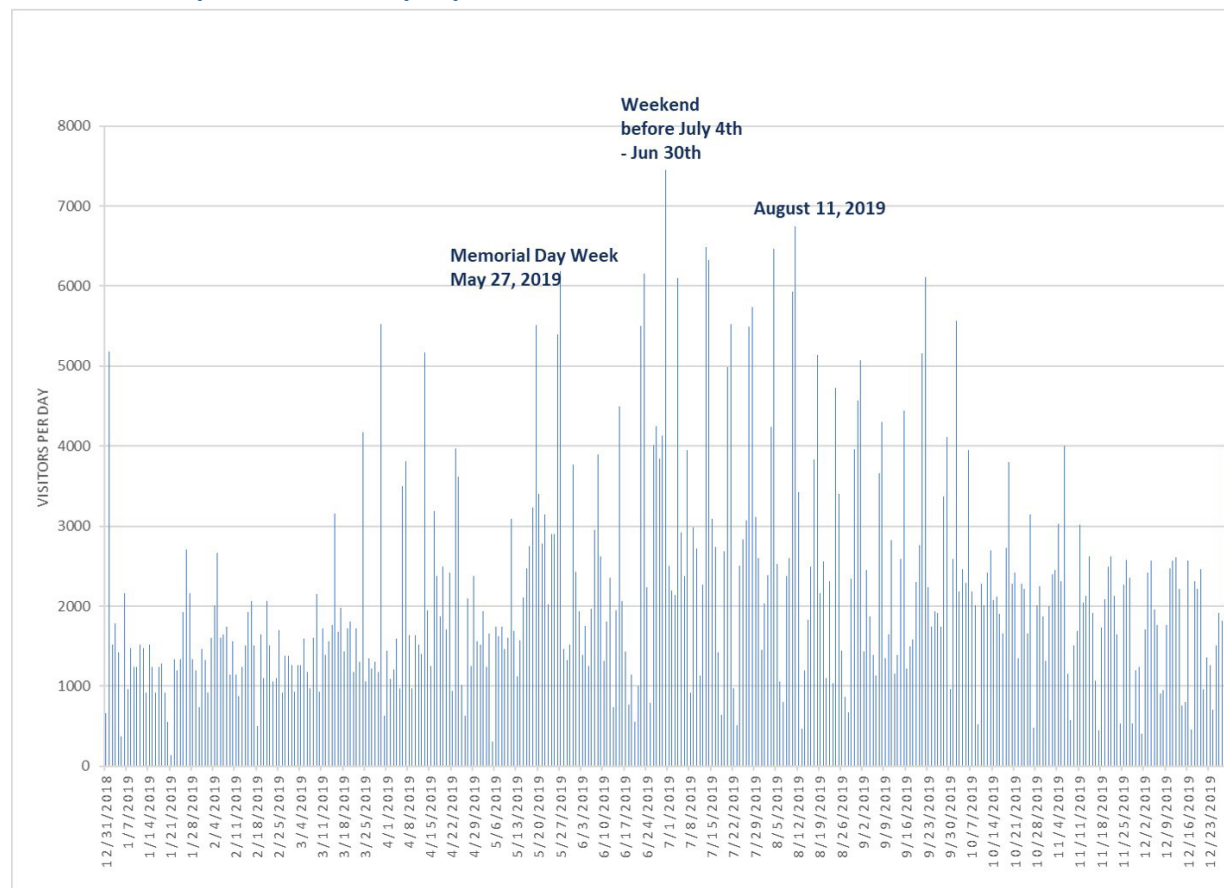
Transit service to both locations is limited. Sandy Hook is served by a ferry connection to New York City during the beach season, operated by Seastreak, and funding was made available to EZ Ride to operate a shuttle between the Middletown train station and Sandy Hook. However, the service was never started due to COVID-19. NJ TRANSIT Bus Route 838 provides local bus service between Red Bank and Sea Bright and operates on Weekdays and Saturdays with one-hour headways. In addition, Academy Bus provides connection between Sea Bright and the Port Authority Bus Terminal in New York City. A one-mile buffer around the Sandy Hook/Sea Bright area includes a population of 7,828 persons, according to the 2019 Census data.

FIGURE 19: Sea Bright Visitation By Day in 2019
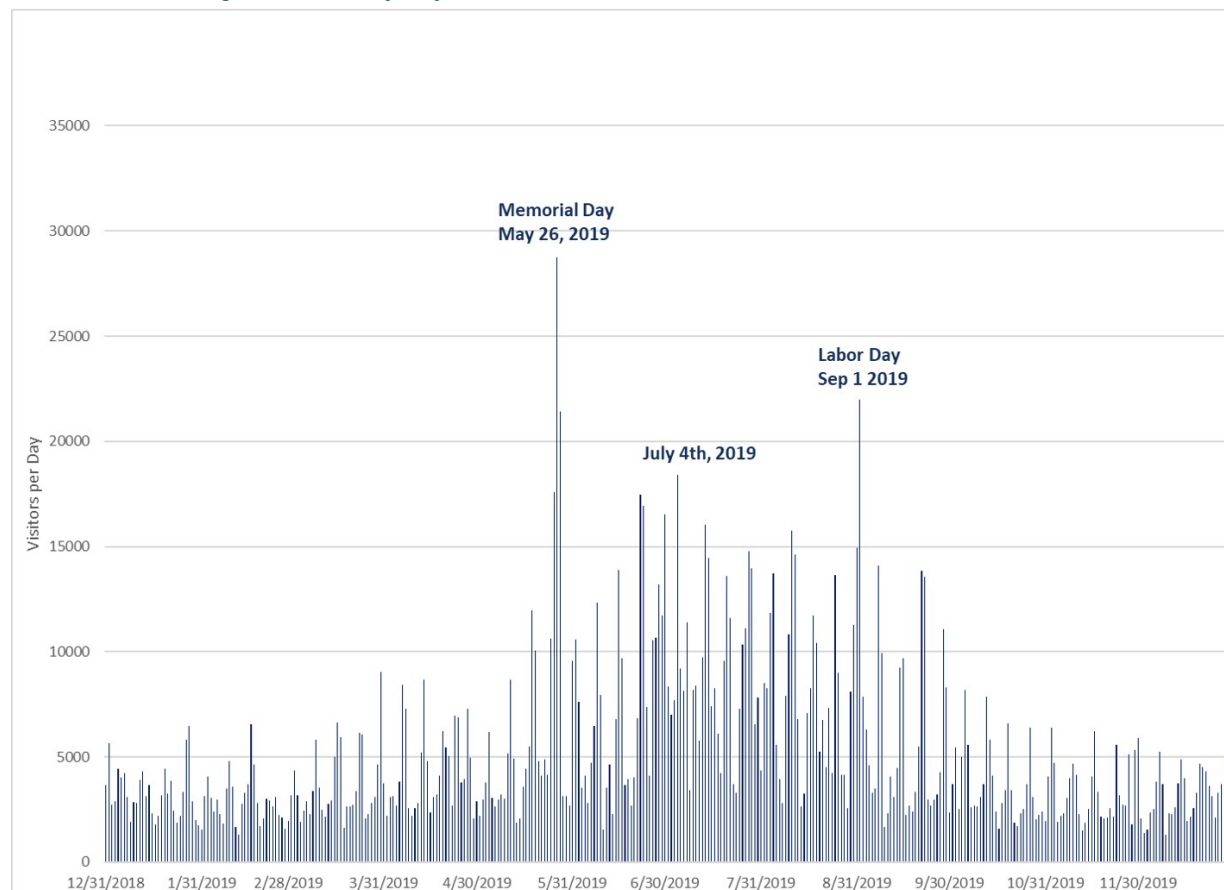
Summary Summary of Key Findings

- Approximately 1.9 million people visited Sea Bright and 800,000 people visited Sandy Hook in 2019. The highest visitation day for Sea Bright was Memorial Day (25,000 visitors), while the 4th of July was the highest visitation day to Sandy Hook (8,000 visitors) (**Figure 19 and Figure 18**).
- Of the visitors to the Sandy Hook/Sea Bright area, 12 percent were from a minority group, 75 percent were from households with an annual income greater than $50,000, and 61 percent visited without children.
- 89 percent of visitors to Sandy Hook/Sea Bright were from New Jersey, 5 percent were from New York, and 2 percent were from Pennsylvania.
- Seven local roadways experience at least 5% of the total traffic destined to Sandy Hook or Sea Bright on a typical summer weekend. However, most traffic arrives via NJ 36 or CR 520 (Rumson Road) (**Figure 20**).

FIGURE 20: Roadways that Experience 5 Percent or More of Traffic Destined to Sandy Hook and Sea Bright
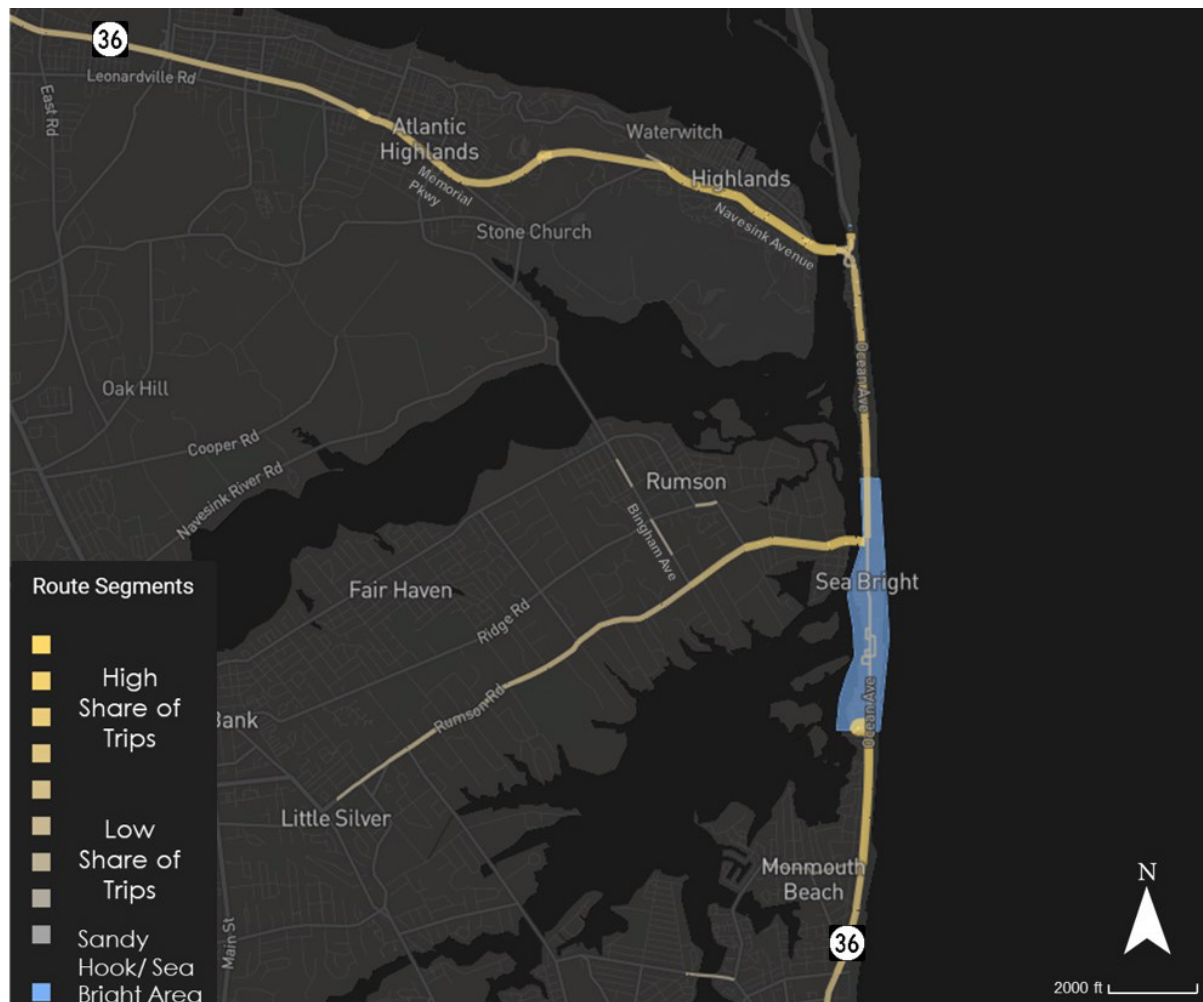
- Congestion begins on NJ 36 in the vicinity of the Sandy Hook entrance as early as 8:00 AM and peaks mid-morning between 10:00 AM and 11:00 AM on summer weekends (Figure 21). A second wave of visitors is experience in the afternoon between 2:00 PM and 4:00 PM. Visitors begin to depart Sandy Hook at around 5:00 PM.
- Sea Bright experiences significant congestion on peak summer weekends, particularly when Sandy Hook reaches capacity. Congestion peaks in the early afternoon between 12:00 PM and 1:00 PM.

FIGURE 21: Typical Weekend Travel Activity in the Sandy Hook Vicinity in July 2019 between 10:00 AM and 11:00 AM

- Travel time between Sea Bright and Atlantic Highlands on NJ 36 is typically around 19 minutes on an average day. During a typical summer weekend, that travel time can increase to as much as 40 minutes.
- The following strategies are employed by National Park staff and Sea Bright police:
    - A circulator shuttle is provided by SeaStreak ferry to help visitors circulate around the park with out needing a car.
    - Sandy Hook is served by ferry service to Manhattan during the summer season.
    - Taxi and ridehailing vehicles are allowed to enter Sandy Hook for free to pick up and discharge passengers.
    - There are onsite bike rentals.
    - There are beach chair and umbrella rentals at most of the guarded beaches to support visitors that do not arrive by personal auto.
    - The Sea Bright police conduct traffic control at key intersections on Ocean Avenue to address congestion.
    - The northbound NJ 36 entrance to Sandy Hook can be closed by Sea Bright police if queuing extends into Sea Bright and causes near gridlock congestion.
- Needs and opportunities include:
    - Provide an online fee payment option to increase the toll both processing capacity.
    - Use automatic counters to provide real-time parking utilization information to drivers.
    - Work with the NJ Turnpike Authority to provide advance notice on the GSP before the NJ 36 off-ramp (Interchange 117) when Sandy Hook is reaching capacity so that visitors can decide to visit other shore locations.
    - Begin EZ Ride's seasonal shuttle service between the Middletown train station and Sandy Hook that received funding prior to the pandemic.
    - Investigate the feasibility of variable lane control on the approach to the toll booth to provide a third entry lane for buses, employees, and season pass holders during peak entry periods.
    - Explore the potential to use ferry terminal parking in Belford and Atlantic Highlands on week ends for additional parking. These lots could be connected to Sandy Hook via ferry or water taxi.
    - Encourage the completion of the Henry Hudson Trail to provide opportunities for County resi dents to access Sandy Hook and Sea Bright via bicycle.

Summary of Recommended Strategies

A variety of TDM strategies can be considered to reduce congestion peaking and encourage visitors to use other modes to travel to and from the Sandy Hook/Sea Bright Area. A detailed mitigation report is contained in Appendix H. A summary is provided below.

Communications

- Enhance the Sandy Hook and Sea Bright websites to provide links to the specific transit routes that serve the area, rather than just the transit provider home page.
- Provide travel time and/or park information on NJ 36, north and south of Sandy Hook, and CR 520 (Rumson Road) to help travelers make decisions on which routes to use to access the area, or if to divert to another shore location.
- Work with the NJ Turnpike Authority to provide advanced warning, prior to Interchange 117, when Sandy Hook is about to reach capacity so that travelers could choose to go to other shore destinations.

Travel Behavior

- Create dedicated managed crossing locations at parking lots B, C, and the horseshoe during the summer months to reduce instances of random pedestrian crossings.
- Continue the use of the amenity fee per vehicle which encourages higher vehicle occupancies.

Improve Existing Options

- Continue to facilitate non-auto modes in Sandy Hook by providing amenities like a circulator shuttle, bike rentals, food vending machines, food trucks, changing areas, and beach equipment rentals.
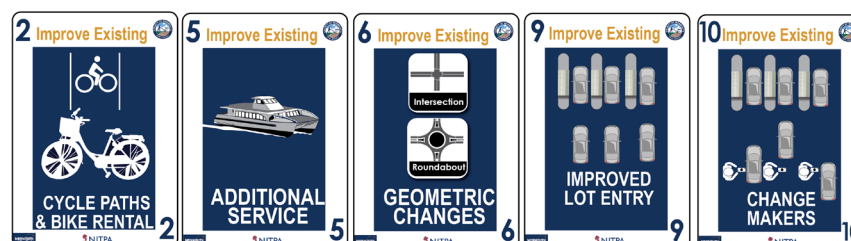
- Coordinate with Seastreak to evaluate the feasibility of modifying the Highlands/Atlantic Highlands Ferry Route to add a stop at Sandy Hook en-route to NYC during the summer season to allow access to Sandy Hook from the Highlands and Atlantic Highlands areas. This would need to be coordinated with the National Park Service regarding fee recovery and visitor density control.
- Increase entry capacity by modifying the toll booth area to reverse one of the egress lanes during peak entry periods, expand the right-of-way to provide additional entry lanes, dedicate a lane for pass holders, shuttles, and employees, use change makers to greet guests in queue, or use offset toll booths (Figure 22).
- Consider relocating entry booths further into the park to provide additional queuing area.

Parking
- Continue to facilitate non-auto modes in Sandy Hook by providing amenities like a circulator shuttle, bike rentals, food vending machines, food trucks, changing areas, and beach equipment rentals.

- Install automatic parking lot counters to measure utilization and report it in real-time to travelers entering Sandy Hook.
- Utilize parking data to predict when parking is anticipated to reach capacity so that traveler information can be provided to direct visitors away from Sandy Hook.
- Use a hangtag or similar method for visitors that have annual passes so that they can be identified by park staff faster.
- If automatic parking lot counters are not installed, consider using staff to direct motorists to specific parking lots and parking spaces to ensure that existing parking use is maximized.
- Reconfigure Lot A to provide a dedicated pick-up and drop-off area for ridehailing vehicles.
- Provide other amenities such as a waiting area and shuttle connections to transport visitors to other areas of the park.
- Convey parking/park closure information to travelers via dynamic message signs on NJ 36 and the GSP.
- Consider the use of park-and-ride facilities along major routes like the GSP and NJ 36 to provide off-site/overflow parking that could be connected to Sandy Hook via water taxi or shuttle bus.

New Options

- Examine the feasibility of water taxi connections to Atlantic Highlands and other bay-side communities, as well as locations to the south like Red Bank and Rumson.
- Create a shuttle in the park from the ferry terminal and western portion of Sandy Hook to link the various beaches together with a ridehail/taxi area near the toll booth that allows visitors to access the park without any requirement for a private vehicle.

FIGURE 22: Offset Toll Booths

The County Fair at East Freehold Showgrounds

Overview

The East Freehold Showgrounds (Showgrounds) is an 81-acre showground area in Freehold Township. It hosts a variety of different events, such as show jumping and dog shows. Its largest event is the Monmouth County Fair which typically occurs in late July. This is the only event that is reported to generate significant congestion around the Showgrounds. However, the event is actively managed by a team of County staff that employ a variety of strategies to help minimize impacts to the local roadway network. Access to the Showgrounds is provided via CR 55 (Kozloski Road), which consists of a divided roadway with two travel lanes in each direction. Many of the intersections between CR 55 (Kozloski Road) and major travel routes in the area are partially or fully grade-separated, although there are a few signalized intersections adjacent to the Showgrounds. Regional vehicular access to the Showgrounds is provided via NJ 18, US 9, NJ 33, NJ 33 Business (Park Avenue) and CR 537 (Colts Neck Road). There is no direct transit access to the Showgrounds. A one-mile region around the Showgrounds includes a population of 28,303 persons, based on 2019 U.S. Census data.

Summary of Key Findings

- A cluster of low-income and minority populations reside on the west side of the Showgrounds. These neighborhoods can be negatively impacted by congestion associated with Showgrounds events.
- The County Fair draws almost 10 times more visitors than other Showgrounds events, with nearly 18,000 visitors, compared to less than 2,000 visitors for other events. **(Figure 23)**.

FIGURE 23: Showgrounds Visitation By Day in 2019
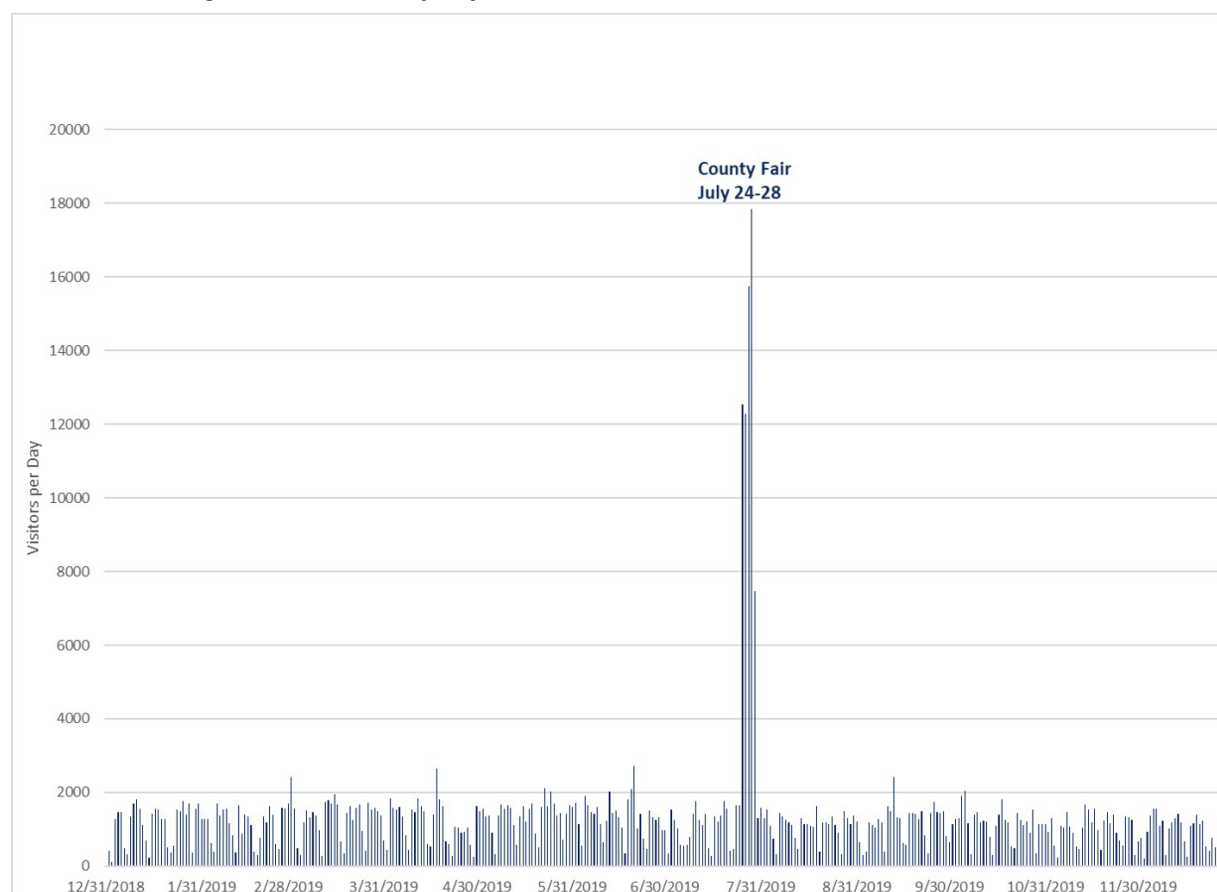
- Of the visitors to the Showgrounds, 16 percent were from a minority group, 73 percent were from households with an annual income greater than $50,000, and 56 percent visit without children.
- 96 percent of visitors to the County Fair were from New Jersey, 2 percent were from New York, and 1 percent were from Pennsylvania.
- Approximately 10 local roadways experience at least 5 percent of the total traffic destined to the County Fair on a typical summer weekend (**Figure 24**).

FIGURE 24: Roadways that Experience 5% or More of Traffic Destined to the Showgrounds
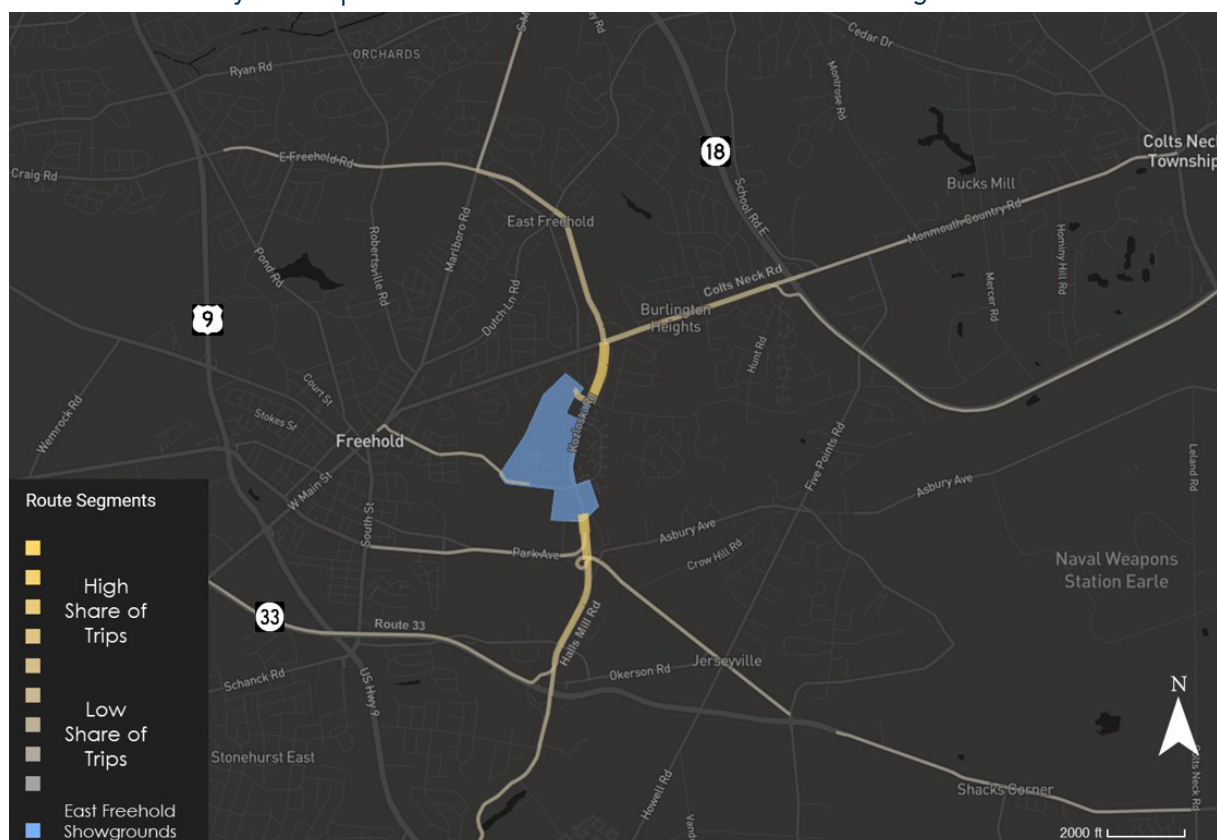
- On weekdays, high levels of visitation to the fair start around 5:00 PM and continue through to 10:00 PM (**Figure 25**).
- Travel time between the Showgrounds and CR 537 (Colts Neck Road) is typically under 10 minutes. However, on peak fair days travel time can increase to between 20 and 45 minutes.
- Fairgrounds staff currently employ a variety of TDM strategies to manage congestion, including:
    - o Variable and static message signs to provide wayfinding.
    - o Overflow parking areas connected with shuttles.
    - o Lane closures on CR 55 (Kozloski Road) to help separate through traffic from Showgrounds traffic.
    - o A pick-up and drop-off area for parents, taxis, and ridehailing.
- Needs and opportunities include:
    - o Improve wayfinding to reduce the number of people that stop to ask staff questions, which educes throughput.
    - o Redirect PM peak period traffic away from Kozloski Road during the County Fair.
    - o Prioritize shuttle movements to and from the overflow parking areas.
    - o Improve pedestrian and bicycle connections to nearby residential areas.
    - o Incentivize early arrivals on weekdays to reduce PM peak period congestion.
    - o Improve wayfinding to the parent, taxi, and ridehailing pick-up/drop-off area.

FIGURE 25: Activity for the County Fair on a Weekday in 2019
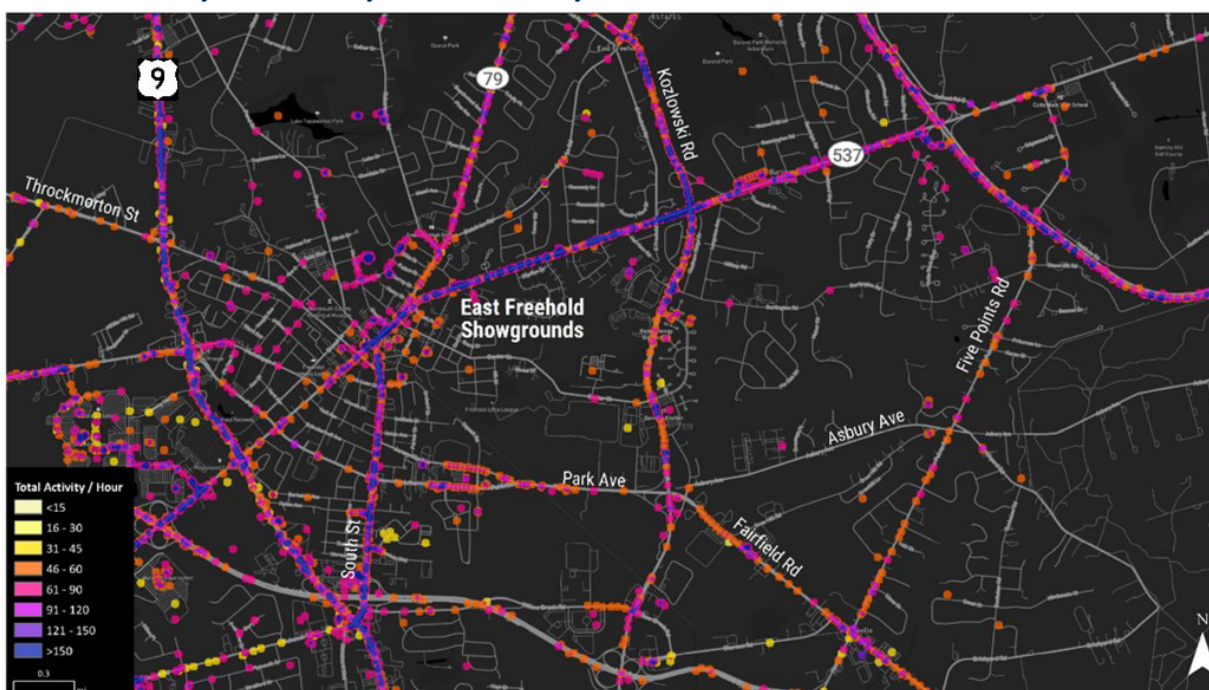
Summary of Recommended Strategies

A variety of TDM strategies can be considered to reduce congestion peaking and encourage visitors to use other modes to travel to and from the Showgrounds. A detailed mitigation report is contained in Appendix I. A summary is provided below.

Communications

- Consider fold-down signs as an alternative to dynamic message signs. Fold down signs can be deployed more easily and are less costly, which allows more signs to be deployed.
- Showgrounds staff could utilize the County's Waze partnership to define specific routes to and from the site on event days, and designate street closures to minimize pass-through traffic.
- Use color identifiers for the parking areas and apply these identifiers to simplify wayfinding signs.
- Reconfigure parking lot designations so that parking is utilized by the direction that vehicles are accessing the Showgrounds (Figure 26).

Travel Behavior

- Pedestrian and vehicle conflicts can be managed by locating pedestrian management staff at key locations, or by changing traffic flow patterns to create "pedestrian only zones." Pedestrian management should be focused at shuttle bus and ridehail pick-up and drop-off areas, the intersection of Kozloski Road and Frenau Boulevard, and crossing locations near the parking entry points and from the Center Street lot across the main entry road.
- Improve pedestrian pathways over Debois Creek from the north parking lots and Liberty Park Trail (Figure 27).
- Provide a central customer service point to encourage guests to keep moving until they are further inside the Showgrounds site.
- Consider early arrival incentives, such as premium parking or discounted admission to offset travel demand during the weekday PM peak period.
- Designate alternative routes for pass-through traffic on Kozloski Road during the County Fair to reduce congestion near the Showgrounds.
- Dedicate an entry point for vehicles picking up or dropping off passengers.

- Change the existing operations to allow entry into the Red Lots via northbound CR 55 (Kozloski Rd) from Park Avenue and NJ 33 and for the Blue and Green Lots via southbound CR 55 (Kozloski Rd) from CR 537 (Colts Neck Road). This would reduce congestion on CR 55 (Kozloski Road) and provide the opportunity for dedicated lanes for shuttles, ADA access, and emergency vehicles.

Improve Existing Options
- Develop a variable message sign plan that can be used to provide coordinated visitor information.
- Consider changing the parking shuttle route to use an existing turnaround to provide a shorter service that combines with the directional access to parking and diversion of regional through traffic to provide a dedicated lane for the shuttle.
- Improve signage, information on the County Fair website, and geofencing to better inform drivers where to go for picking up and dropping off passengers. A short-term parking area may also help to ease congestion at the pick-up and drop-off area by vehicles who are waiting to pick up passengers that have not yet made it to the designated area.
- Utilizing parking zones based on how drivers access the Showgrounds to provide operational flexibility.
- Consider counter-flow options on CR 55 (Kozloski Road) that would allow for additional entry and exit capacity during ingress and egress periods, respectively, or provide an opportunity for a shuttle-only lane
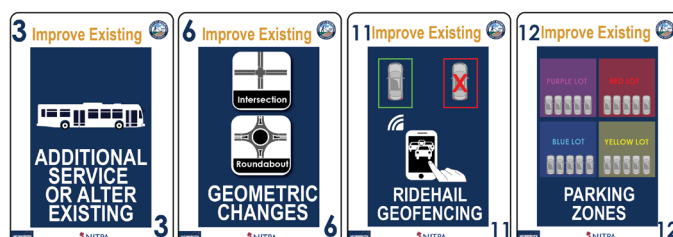
New Options
- Consider the use of remote parking areas, such as park-and-rides along US 9, large parking areas like at the Freehold Raceway Mall, etc., that are also served by NJ TRANSIT buses. These parking areas could be connected to the Showgrounds by extending the existing parking shuttle routes that are currently operated by the County.

FIGURE 26: Summary of communications strategies for the Showgrounds

- •Access to Green or Blue Lots next right
- •Access to Pink Lots (prebooked parking) next right

Monmouth County
Tourism and Events Travel Demand Management Study

East Freehold Showgrounds
Comunications

- Residential
- Green space
- Parkland
- Roads
- Pond
- Parking Lot
- Building
- NJ Highway 18
- State Highway 537
- Pedestrian Paths

¼ 0 ½ 1 2 Miles

NJTPA

Signage for Pink, Blue and Green lots with arrow indicators Signage for Shuttle Bus loop

- •Access to Green or Blue Lots next right
- •Access to Pink Lots (prebooked parking) next right

Rename and sign the Center Street lot with a color

Access to Red Lot next 2 lefts. Access to Green or Blue Lots via Frenau or only via Colts Neck Rd to 537/Kolzinski

FIGURE 27: Recommended Traveler Behavior Strategies for the Showgrounds

General Strategies

Other event and tourism locations in Monmouth County can utilize the recommendations contained in the mitigation reports for the study locations, summarized above, to explore transportation demand management opportunities for their locations. However, there are other strategies that were not appropriate for the locations discussed above, but that could be applied to other locations in the County. A General Strategies report is contained in Appendix J which describes other TDM strategies that could be used to reduce event and tourism related congestion and encourage visitors to utilize other modes of travel.

Implementation and Next Steps

Although this document is the final report of the Monmouth Within Reach study, it is just the beginning of the effort to address event and tourism related congestion in the County. The County, municipalities, venue owners and operators, and other stakeholders must coordinate to implement many of the recommendations of this study. A summary implementation matrix is provided below that lists each of the potential TDM strategies discussed in this document, potential implementers implementation timeline and relative cost (Figure 28). Implementation matrices for each studied location are provided in the mitigation reports (Appendicies E through J). The matrices can be used by decision makers to help select strategies to pursue as funding for or interest in certain strategies arise.

| | | | Strategy applied to example site ● Strategy can apply to typology ● | | | | | *Whatever entity is hosting the event, may be municipal, park, etc… **Short - up to 6 month Medium - 1 year Long - 2+ years | | | | | |

STRATEGY CATEGORY	No.	NAME	BEACH	SHORE/ PARK	DOWN-TOWN	AGRI-TOURISM	EVENT/ VENUE	OPERATOR*	MUNICIPALITY	COUNTY	STATE	TIMELINE **	COST/ COMPLEXITY
		STRATEGY	TYPE OF LOCATION					POTENTIAL IMPLEMENTORS OR PROMOTERS					
Communications	1	Smart Moblity App	●		●		●		✓	✓	✓	S	$$$
Communications	2	Change Travel Day Messaging	○	○	○		○	✓	✓	✓	✓	M	$$
Communications	3	Single Travel Portal		●	○	●			✓	✓	✓	L	$$$
Communications	4	Wayfinding	●	●	●	●	●	✓	✓	✓	✓	M	$$
Communications	5	Signage	●	●	●	●	●	✓	✓	✓	✓	M	$$
Communications	6	Carpool App	○		○		○				✓	S	$$
Communications	7	Social Feeds Messaging	●	○	●	○	●	✓	✓	✓	✓	S	$$$
Communications	8	Congestion/ Queuing Messaging	●	●	●	●	●	✓	✓	✓	✓	S	$$$
Communications	9	Advance Parking Information	●	○	●	○	●	✓				S	$$$
Communications	10	Pre-Event Information	●	○	●	○	●	✓	✓	✓	✓	S	$
Communications	11	Traffic Apps	●		●		●				✓	S	$$
Travel Behavior	1	Change Travel Patterns with Apps			●			✓	✓	✓	✓	S	$$
Travel Behavior	2	Operational Strategies	○	○		○	○	✓	✓	✓	✓	M	$$$
Travel Behavior	3	Traffic Diversions			●				✓	✓	✓	M	$$$$
Travel Behavior	4	Arrive Early / Leave Late	○	●	●	●	●	✓	✓			L	$$$
Travel Behavior	5	Carpool Incentives				●						S	$
Travel Behavior	6	Promote Traffic Apps	○	○	○	○	○	✓	✓	✓	✓	S	$
Travel Behavior	7	Transit Priority			○				✓	✓	✓	L	$$$
Travel Behavior	8	Bicycle Priority			○				✓	✓	✓	L	$$$
Travel Behavior	9	Pedestrian Management	○	●	○		●	✓	✓	✓	✓	M	$$
Travel Behavior	10	Scooter Rentals	●	○	●		●		✓			L	$
Travel Behavior	11	Bike Rentals	●	○	●		●		✓			L	$
Travel Behavior	12	Transit Service	●	○	●		●				✓	L	$$$
Travel Behavior	13	Customer Information	●	○	●	○	●	✓				S	$$
Travel Behavior	14	Directional Access	●	○	●		●	✓				S	$$
Improve Existing	1	Rental Scooters	○	○	○		○		✓			M	$$
Improve Existing	2	Cycle Paths & Bike Rental	●	●	●		●	✓	✓			L	$$$$
Improve Existing	3	Additional Bus Service or Alter Existing	○	○	○		●	✓	✓		✓	L	$$$
Improve Existing	4	Additional Train Service	○	○	○							L	$$$
Improve Existing	5	Additional Ferry Service		●				✓	✓			L	$$$
Improve Existing	6	Roadway Geometric Changes		●			●		✓	✓	✓	L	$$$$$
Improve Existing	7	Pedestrian Management	●		●	●	●	✓	✓	✓	✓	M	$$$$
Improve Existing	8	Demand Based Traffic Signals	●		●		●		✓	✓	✓	L	$$$$
Improve Existing	9	Improved Parking Lot Entry	○	●	○			✓				M	$$
Improve Existing	10	Change Makers at Parking Lots	○	●	○	○	○	✓				S	$$
Improve Existing	11	Ridehail Geofencing	○		●		●	✓	✓			S	$
Improve Existing	12	Parking Zones					●	✓	✓			S	$$$$
Improve Existing	13	Traffic Management	○	○	●	●	○	✓	✓	✓	✓	M	$$$
Improve Existing	14	Off Street Queuing at Parking Lot Entry Points	○		○		○	✓				M	$$$$
Parking	1	Ridehailing Priority Parking	●	●	●	●	●	✓	✓			M	$$
Parking	2	Dynamic Parking Charges	●		●		●	✓	✓			M	$$$
Parking	3	Park and Shuttle	○	○	○		○	✓	✓			L	$$$$
Parking	4	Parking Management			●			✓	✓			M	$$
Parking	5	Regional Park and Shuttle		●				✓	✓			L	$$$$$
Parking	6	Curbside Management	●		●		●		✓			L	$$$$$
Parking	7	Electronic Prepayment					●	✓	✓			L	$$$
Parking	8	Parking Locator App	○	●	●				✓			L	$$
Parking	9	Hang Tags for Parking Entry	○	●			○	✓				M	$$
Parking	10	Directed Parking		●		●		✓	✓			M	$$
Parking	11	Create Additional Parking			●			✓	✓			L	$$$$
Parking	12	Reserved Parking	●	○	●		●	✓	✓			S	$$
Parking	13	Parking Orientation				●	○	✓	✓			S	$$
Parking	14	Parking Arrays and Change Makers		○		●	○	✓	✓			M	$$
New Options	1	For Hire e-Scooters	○	○	○				✓			L	$$$
New Options	2	For Hire Electric Carts	○	○	○				✓			L	$$$
New Options	3	Water Taxi		●	○			✓	✓			L	$$$$
New Options	4	Peak Day Event Shuttles					○	✓	✓			L	$$$$$
New Options	5	Electric Beach/Boardwalk Carts	○	●		●		✓	✓			L	$$$
New Options	6	Electric Shuttles		●	●	●			✓			L	$
New Options	7	Hop-on/Hop-off Shuttle	○	●		●			✓			L	$$$$
New Options	8	Counter Flow Operations			○		○		✓	✓	✓	M	$$
New Options	9	Regional Park and Shuttle			○		●	✓	✓			L	$$$$$
New Options	10	Staff Shuttles					○	✓	✓			M	$$$
New Options	11	Scooter Rentals	○	○	●				✓			M	$$
New Options	12	Bike Rentals	○	○	●				✓			M	$$
New Options	13	Local Off-Peark Train Service	●		●		●				✓	L	$$$$$
New Options	14	Stay Longer & Use Location as a Base			●				✓			S	$$