Appendix J General TDM Strategies for Other Locations in Monmouth County

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Introduction

This section includes general recommendations that can enhance traffic operations in communities near the event and tourism destinations included in this study and other locations in Monmouth County. This includes specific strategies in the areas of Communications, Improving Existing Conditions, Affecting Travel Behavior, Parking Optimization, and Introduction of New Travel Options from an operational perspective. For each recommendation, there is an overview of the strategy and description of its projected benefits, followed by initial steps toward implementation. More information on travel demand management best practices is available in the Literature Review and individual site reports.

1 – Communications

User Surveys

User surveys provide an indication of the traveler's modes of travel, arrival and departure routes and patterns, their willingness to try new modes or technologies, and their assessment of the travel experience. The benefits of implementing a user survey include a better understanding of the traveler patterns for a destination, and some information on the demand for new potential solutions.

A web-based survey tool can be used to collect responses, and there are several free, high quality choices available. A survey link can be distributed to a list of visitors, shared on social medial, or on physical media like business or post cards. For facilities with ticketed entry, an email to ticket purchasers is a good starting point. Sample questions may ask about the following:

- Are you a resident, visitor, or employee in the destination (city)?
- What types of events have you attended? (concert, fireworks, beaches, parades, etc.)
- What arrival and departure routes did you take?
- Did you drive to the destination? If not, what other modes did you take?
- How frequently do you visit this destination?
- How far in advance before the event did you arrive?
- How late after the event did you depart?
- Did you take part in other activities before and after your event?
- Did you pay for parking? If so, did you have the option to pay in advance (reserve parking)?
- What do you think is the best part of the trip to the destination? What areas do you think can be improved?
- On a scale of 1 to 10, how would you rate the travel experience into / out of the destination?
- Have there been any changes to your trip patterns in the last year as a result of COVID-19 (travel frequency, mode, carpool, bus or train)?
- Do you anticipate any future changes to your travel patterns as a result of COVID-19?

Questions should ask about how COVID-19 has impacted the traveler's experience, which can be used to assess the return to normal activities over short-, medium-, and long-term planning horizons.

Dynamic and Static Signs

Signs are one of the most cost-effective strategies to improve the visitor experience. In major tourist destinations, up to half of the traffic congestion can be caused by drivers re-routing from incorrect turn decisions or visitors circulating around a site looking for limited parking supply.

A good sign program should follow the principles of clarity, consistency, sequentiality, visibility, and legibility:

Figure 1: Example of clear visitor signage with a distinct design at Hard Rock Stadium

- **Clarity** – Clear signage for destinations should be distinct from other types of directional and regulatory signage (**Figure 1**).

- **Consistency** – Consistent signage with the same size, shape, and colors helps visitors identify a sequence of signs (**Figure 2**).

- **Sequentiality** – Sequential signage at successive decision points helps direct visitors to specific destinations. These should be provided in advance of the decision point, repeated on multiple signs, and are visible from a distance and over queued traffic (**Figure 3**).

- **Visibility** – The sign size and color contrast helps visitors read and interpret it from a distance, so they have time to make a decision in advance. Overhead signage can help visitors see signs over queued traffic (**Figure 4**).

- **Legibility** – Consider sign height, contrast, and visibility in daylight or nighttime conditions. A variable message sign (VMS) message may be difficult to read in direct sunlight, therefore VMSs should be shaded or placed to ensure they are legible in daylight. The ground-mounted A-frame sign is difficult to see for travelers who are not in the curb lane. (See **Figure 5** for examples).

Figure 2: An example of consistent signage throughout a parking area

Figure 3: An example of sequential signage at successive decision points

Figure 4: Examples of visible signage with large type, placed overhead to improve sightlines over queued traffic

Figure 5: Examples of signs where legibility can be improved

A plan to implement improved signage should start by identifying the decision points along key routes. The next step is to identify optimal sign locations upstream of the decision points. The decision to place dynamic or static signs should take a few factors into consideration:

1. The frequency of the event – should these signs be permanent installations, or are they only required a few times a year?
2. Create an inventory of permanent dynamic message installations near the decision points for your visitors.
3. Identify who manages those permanent VMSs, and what is the process for updating them. Can they be updated remotely, or does someone have to visit the sign location to change the message?
4. Determine if the messaging you want to provide is constant ("EXPECT DELAYS – USE ALTERNATE ROUTES"), or if it will change over the course of the day ("EXIT 15 CLOSED DUE TO CONGESTION"). This will inform the type of sign that is required (static or dynamic), and whether it needs to be remotely programmable.
5. Identify suitable locations to deploy the signs, including medians, utility poles, shoulder areas, and highway entry/exit ramps. Contact the roadway / property owners to identify any required permits to deploy signs at those locations.
6. Create a schedule of deployment costs and timelines, taking into consideration the frequency of events, types of signs, and any necessary permits.

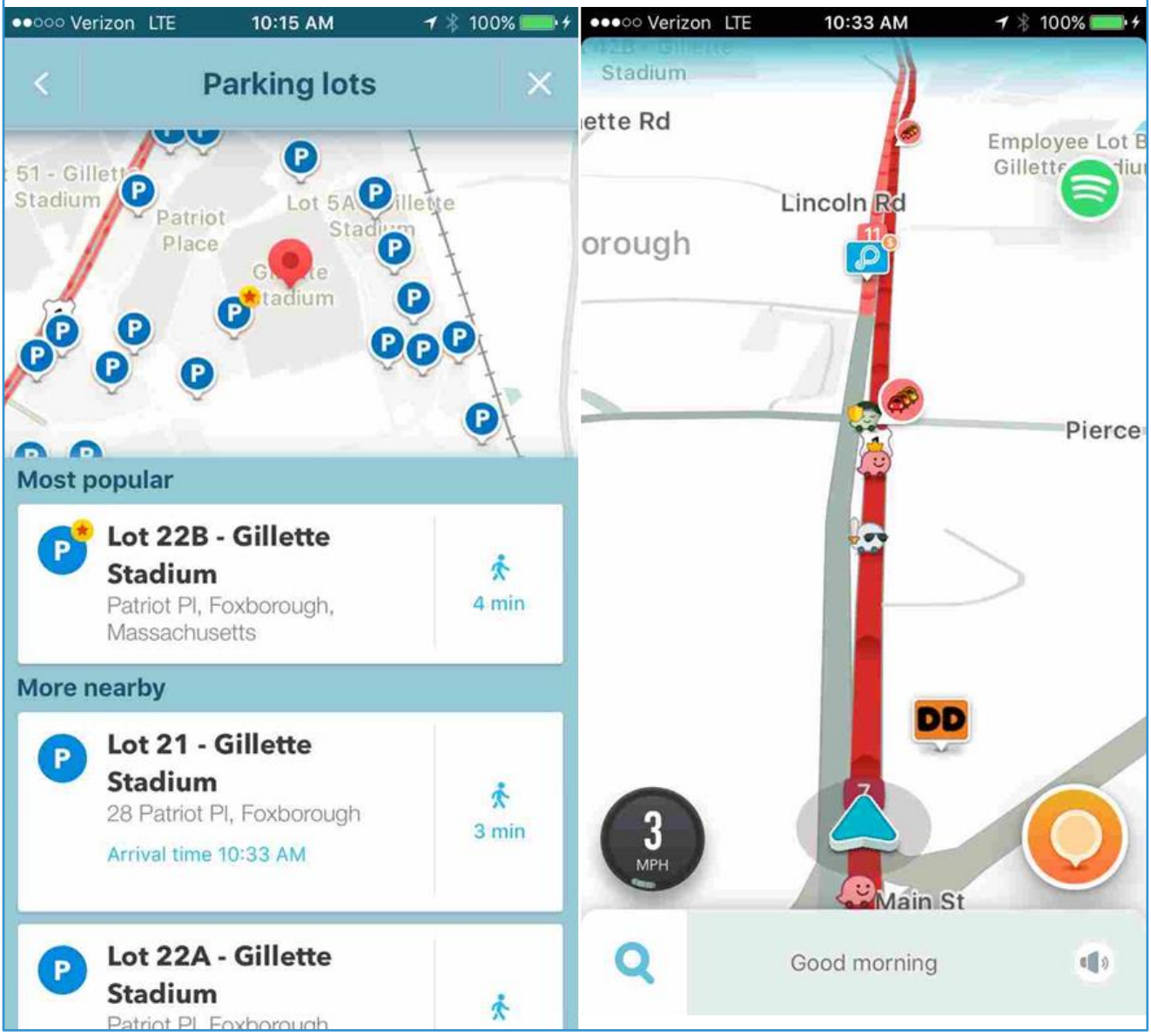
Use Travel Apps

Several navigation app providers allow for custom directions on peak traffic days. This is preferable to in-vehicle systems or general navigation apps such as Google Maps, because the latter tends to direct all travelers to follow the same path. Waze and Moovit are examples of a custom navigation provider, but the space of navigation providers is constantly evolving. When considering a partner, consider the number of users they have, the cost to participate, and the flexibility to provide custom navigation directions.

Waze has a Connected Citizens Program, intended for municipalities, and a Global Events Partner program, intended for event destinations. Both programs are free to join for any municipality or agency that has jurisdiction over their roadway network. The benefits are that the operators can enter information on road closures and local traffic patterns. This can be used to prevent routes through residential neighborhoods, for example, that may appear "faster" than the primary arterials but generate additional congestion and quality of life impacts to the surrounding communities. An example of the Waze UI is shown in

Figure 6.

Figure 6: Waze can be used to provide customized directions to specific parking lots or destinations



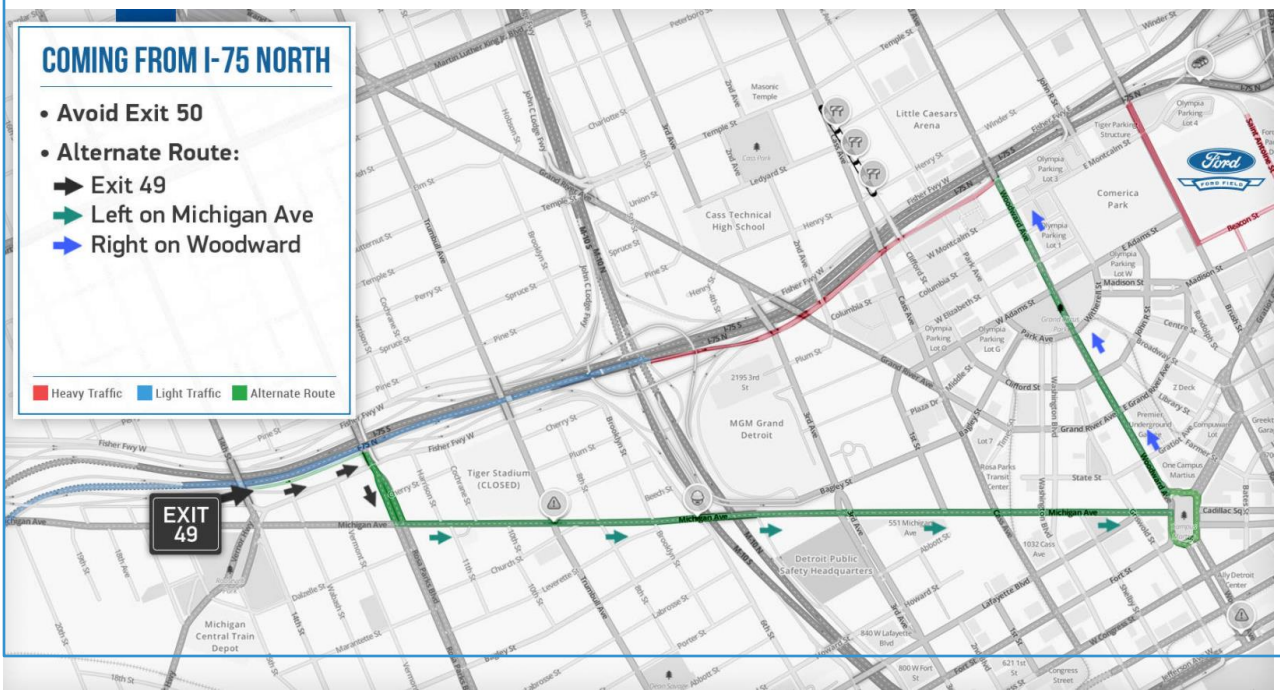
Travel Demand Dispersion

Travelers following static routing directions tend to cluster along certain routes. This can lead to situations where those routes become overly congested, while alternate routes are underutilized. Travel demand dispersion is the process of informing travelers of alternate routes to help spread out the ingress and egress demands on different routes.

This can be accomplished using custom navigation apps, signs, or specific directions on the destination website.

Figure 7 shows an enhanced implementation of travel demand dispersion using visitor education videos and diversion maps. This was developed by the Detroit Lions in collaboration with law enforcement and transportation agencies. They identified the routes that were becoming congested and developed a series of videos to make travelers aware of alternate, less congested routes. This was instrumental in improving the visitor experience at this facility, by highlighting alternate routes, and training staff to direct users to those routes.

Figure 7: The Detroit Lions provide several tools in their app and on their website to identify alternate, less congested routes for travelers. (https://www.fordfield.com/plan-your-visit/directions)



Facility Notifications

Destinations with capacity constraints, such as beaches and parks, are closed to new visitors when demand meets those constraints. A notification service for these facilities can help make travelers aware of these closures, so they can look for alternate destinations, or plan their travel on other days. Predictive analytics can also be used to predict high-traffic days, advising visitors in advance that the destination may be closed. This involves creating a historical record of traffic, parking, and transit demand for a facility. Possible information includes travel speeds, travel demand, transit demand by route, parking utilization and availability, event schedules, weather, construction activity, and incidents. When used in combination, this type of information can be used to generate predictions on the most congested times of the year. (For example, “This beach will likely be closed on the Thursday after the 4th of July between 2 and 5 PM”, or “Expect congestion on this route between 6 and 8 PM”). This type of advance congestion prediction (and notification) can be used to advise some travelers to consider alternate routes or alternate destinations, and it also reduces the volume of U-turn activity at the entrances to major destinations when they are closed.

Visitor Education (Website and Social Media)

A destination's website and social media accounts can be important methods of communication with travelers. For a website, important considerations are:

1. Identify travel modes. Determine if travelers can find alternate travel routes as they are planning their trip to the destination.
2. Shared detailed information on parking areas, fares, walk times, and pre-reserved parking options.
3. Highlight primary and alternative routes, including the expected travel time along those routes.
4. Identify off-site park and ride options.
5. Share information to manage visitor expectations, for example, "Expect delays, travel time is 45 minutes from NYC".
6. Ensure that information on multiple travel modes is easy to find on the destination website.

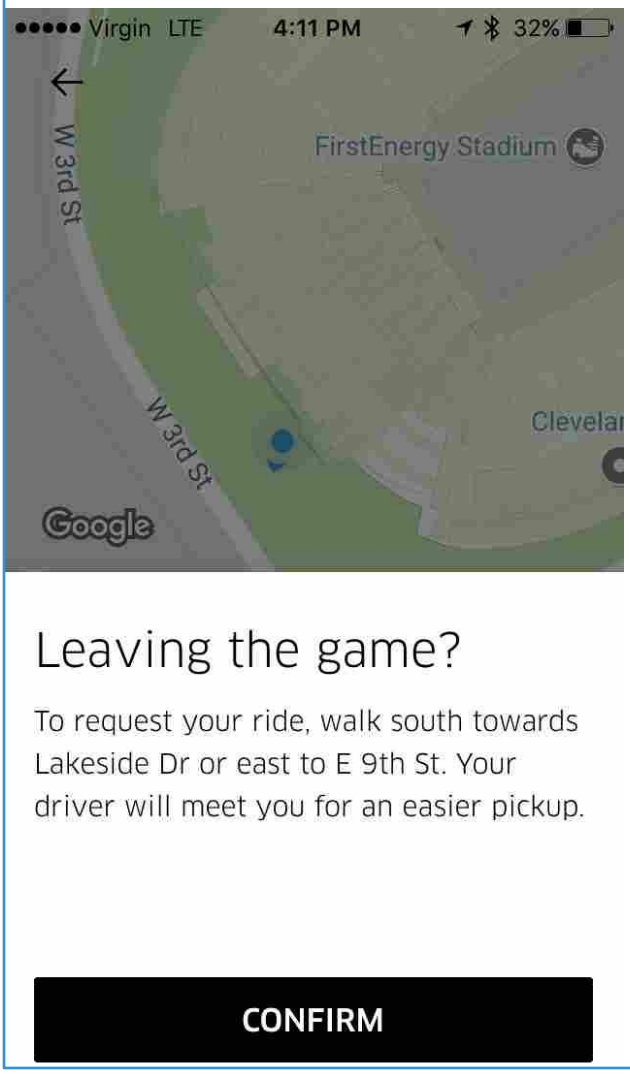
Social media channels are another source of this information but can also be used to offer real-time information on congestion, incidents, and closures. When developing a social media strategy, multiple outreach channels should be considered, including the destination, municipality, county, transportation agency channels, as well as statewide systems like 511NJ.

Geofencing

The practice of geofencing is used by mobility providers such as ridehailing services (i.e. Uber and Lyft) or scooter companies to direct their visitors to specific locations. Ridehailing services use geofencing to restrict where users can request a ride. A "geofenced" designated lot is established, and visitors who try to request a ride outside that area are directed to visit the designated zone (**Figure 8**). This consolidates the ridehailing operation to a defined location and prevents conflicts between entering and exiting traffic, for example, where rideshare vehicles are entering a site as others are exiting it.

Another geofencing application relates to scooters, in which riders are asked to visit a centralized location to pick up a scooter. If the visitor tries to request or ride a scooter outside of this geofence defined space, the vehicle deactivates until it is returned to the service area.

Figure 8: An example of geofencing in a ridehailing app



Identify Decision Points

Informing a visitor's travel decisions can improve operations and reduce congestion. There are several decision points that provide an opportunity for a travel demand management intervention, such as what time they decide to travel, what mode to use, and what route to take. Identifying these decision points is a key step in the process of affecting a visitor's travel decisions and can be accomplished with an audit of their travel experience. This is best accomplished by employing someone who is not familiar with the destination, similar to hiring or providing an incentive to a "secret shopper" to perform a review of a retail store, restaurant, hotel, or event venue. The "secret shopper" will be asked to observe their own behavior in as they plan and make the trip in addition to the travel experience. The reviewer can answer questions such as:

- How and when did you select their mode of travel?
- Was there enough information for you to identify transit options?
- Were active modes and routes identified?
- What types of wayfinding signs were provided to the destination?
- Were there follow-up signs between major travel routes and the destination, such as the highway exit and the destination?
- Is the path from transit stops to the ultimate destination clear and free from conflicts with other traffic streams?
- What were the major segments of congestion on the travel day, and are there alternatives available?
- Where was parking on-site, was it easy to find, or did it require multiple trips around the destination to find an available space?
- How was a driving route selected?
- What was the overall experience?

The observations made in response to these questions can inform how an event organizer can provide information or interventions to improve the visitor's travel experience.

2 – Travel Behavior

Arrive Early, Leave Late

One strategy to relieve peak ingress and egress congestion is to encourage visitors to arrive early and/or leave late. This can be accomplished by providing incentives to visit local businesses or by creating smaller post-event shows after major events. Early arrival incentives can be in the form of preferential parking or parking fares, and incentives to visit local businesses before the peak ingress period (for example, breakfast discounts between 9:00 and 11:00 AM).

Background Traffic Diversions

Another strategy is to divert background traffic to use alternate routes that are less congested than the primary routes near a destination. To accomplish this, it is important to consider the amount of traffic that is pass-through – that is, not destined for an individual site. Alternate routes should also be identified, and travel times along those routes should be compared to make sure they provide a significant travel-time savings. A sign system should be devised to divert travelers to these alternate routes, using sequential signage upstream of and at key decision points. This signage, if dynamic, can identify the congestion ahead and the travel time savings on the alternate route. Care must be taken to ensure that alternate routes do not impose significant congestion on local businesses and residents.

3 – Improve Existing Travel Options

Options to improve the existing condition include slight adjustments, many of which are operational in nature, that do not typically require capital improvements. These are intended to be short-term, easy to implement strategies that can be leveraged to improve the visitor ingress and egress experience.

Park and Ride Operations

A park and ride operation consists of a parking lot to intercept visitors before they travel the whole way to a destination by car, and shifts their mode onto a shuttle, bus, or other shared ride. There are many benefits of a park and ride operation, including reducing stress on the parking supply, thereby reducing congestion caused by visitors searching for parking. A park and ride operation implemented at a remote site can also disperse traffic demand geographically, shifting outbound vehicle trips away from the destination and potentially onto different roadway segments.

Finally, a park and ride operation can also disperse departures over time. Visitors that parked in a remote location take a connecting service back to their off-site parking area, and then start the vehicular portion of their trips. This offset departure – which can be as short as 10-15 minutes – can be the difference between a roadway that is over capacity, and one that is operating near capacity.

Dedicated Bus Lanes

An off-site parking operation improves traffic flow for all vehicles because it can remove hundreds of vehicles from the most congested segments. People that park offsite can then access a bus or ferry to connect to the destination. However, buses can sometimes sit in the same traffic that drivers do, which makes the off-site parking options less desirable. Off-site parking operations are best when the connecting bus service can operate frequently and provide faster travel times than driving directly to the destination (**Figure 9**). A dedicated bus lane provides a reliable travel time operation for these bus passengers. The considerations for a bus lane are as follows:

1. What is the bus demand? Is it enough to fill a lane, or would it be better used by vehicles?
2. Are there specific segments that have primarily one-way flow during peak periods, so that a counter-flow lane can be designated for buses? If there is balanced demand in two directions, a bus lane may not be a viable option.
3. How far can the dedicated lane be provided, and how does it merge back into the normal flow of traffic?
4. Is there a significant amount of pass-through (background) traffic in the area? Bus lanes are best utilized when they provide first- and last-mile connectivity to a destination.
5. What is the benefit in terms of fleet size, travel time, and potential ridership? A faster, more reliable service may encourage more visitors to use a park and ride operation.
6. Is there available infrastructure to consider bus lane options? This can include buses on shoulder or a paved median operation.

Figure 9: The counter-flow bus lane at the Lincoln Tunnel is a good example of how an exclusive bus lane can be implemented without disrupting the peak direction travel lanes

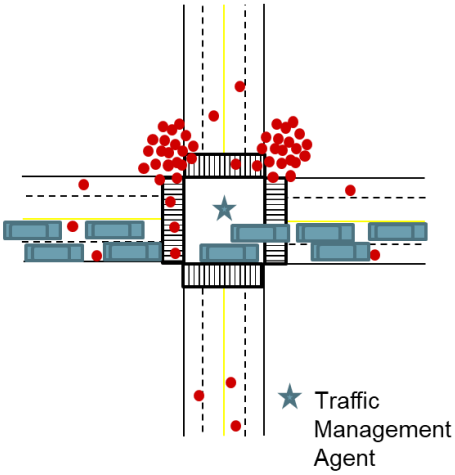
Pedestrian Management

High volumes of pedestrians crossing against vehicular traffic streams reduce roadway capacity and present a safety challenge. Typically, pedestrian volumes are highest in the areas closest to a destination. Pedestrian management staff such as crossing guards or public safety officers can minimize conflicts by keeping vehicles out of the crosswalks during pedestrian traffic phases.

The most important locations for active pedestrian management are mid-block crossings, unstriped parking areas, and intersections. At intersections, a combination of public safety and pedestrian management staff can ensure that pedestrian queues are limited to off-street queuing areas on the corners and sidewalks of the intersection (**Figure 10**). **Figure 11** shows an effective pedestrian management plan for major intersections, including traffic management staff in the center of the intersection to control traffic, and dedicated pedestrian management staff at each crosswalk. At mid-block crossing locations, a temporary crosswalk can be implemented using cones, barrels, and pedestrian management staff (**Figure 12**).

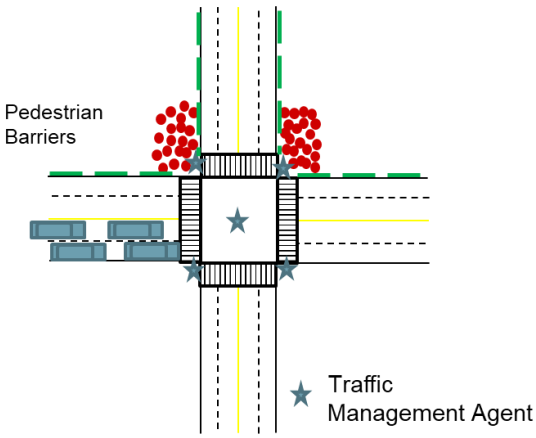
Figure 10: An effective intersection management plan with multiple officers with specific responsibilities

Figure 11: This diagram shows the benefits of a well-organized intersection management plan



Operational Concerns:

- Vehicles stuck in the middle of the intersection
- Jaywalking
- Pedestrians queuing close to or in traffic lanes
- Mid-block crossings
- No traffic management agents to manage pedestrians



Best Practices for Intersections:

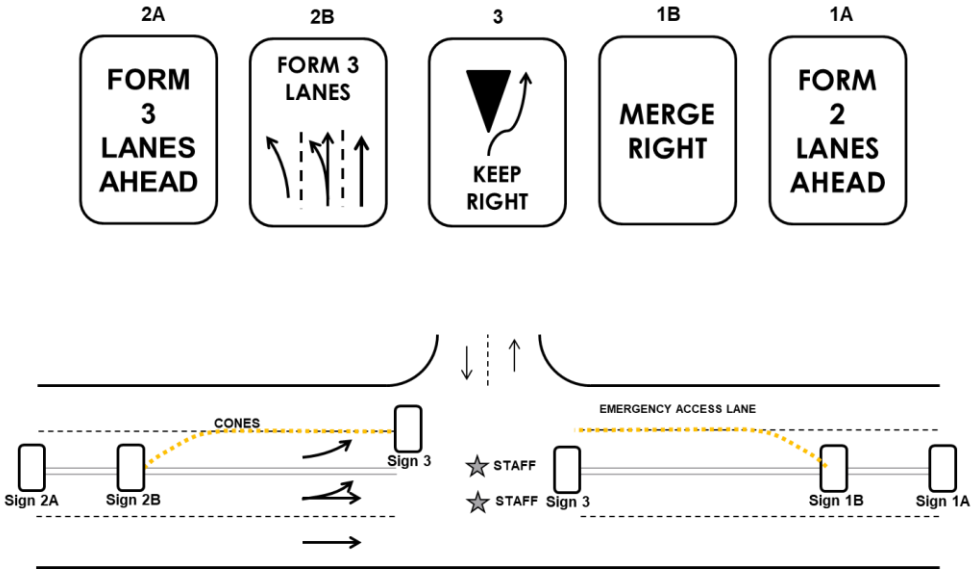
- Don't Block the Box Operations – Ensure vehicles and pedestrians are out of the box at the start of each signal phase
- Traffic management in the middle of the intersection – needs to be aware of the signal timing
- Pedestrian management agents at each corner of the intersection
- Pedestrian barriers to prevent mid-block jaywalking

Figure 12: An example of a mid-block crossing e designated using staff, barrels, and signs at a high demand crossing without a crosswalk

Counter-Flow

A counter-flow operation is when one or more lanes is operated in the opposite direction of the original direction of travel. This can be useful when there is predominantly one-way flow, such as during ingress when most of the traffic is entering the site. A counter-flow operation in a four-lane roadway can increase the flow in the peak direction by as much as 50%. The key considerations to implementing this type of operation are the start and end of the counter-flow segment. These areas should be designated with signs, cones, and possibly traffic management or public safety staff, to minimize wrong-way flow in the counter-flow area (**Figure 13**). Another important consideration is to ensure that there is always entry capacity along some route for emergency vehicles to be able to enter and exit the site, so most facilities leave at least one lane in a normal (not counter) flow operation.

Figure 13: A counter-flow operation should include signage at the start and end of the counter-flow segment, and clear separation between the counter-flow and normal lanes



Road Closures

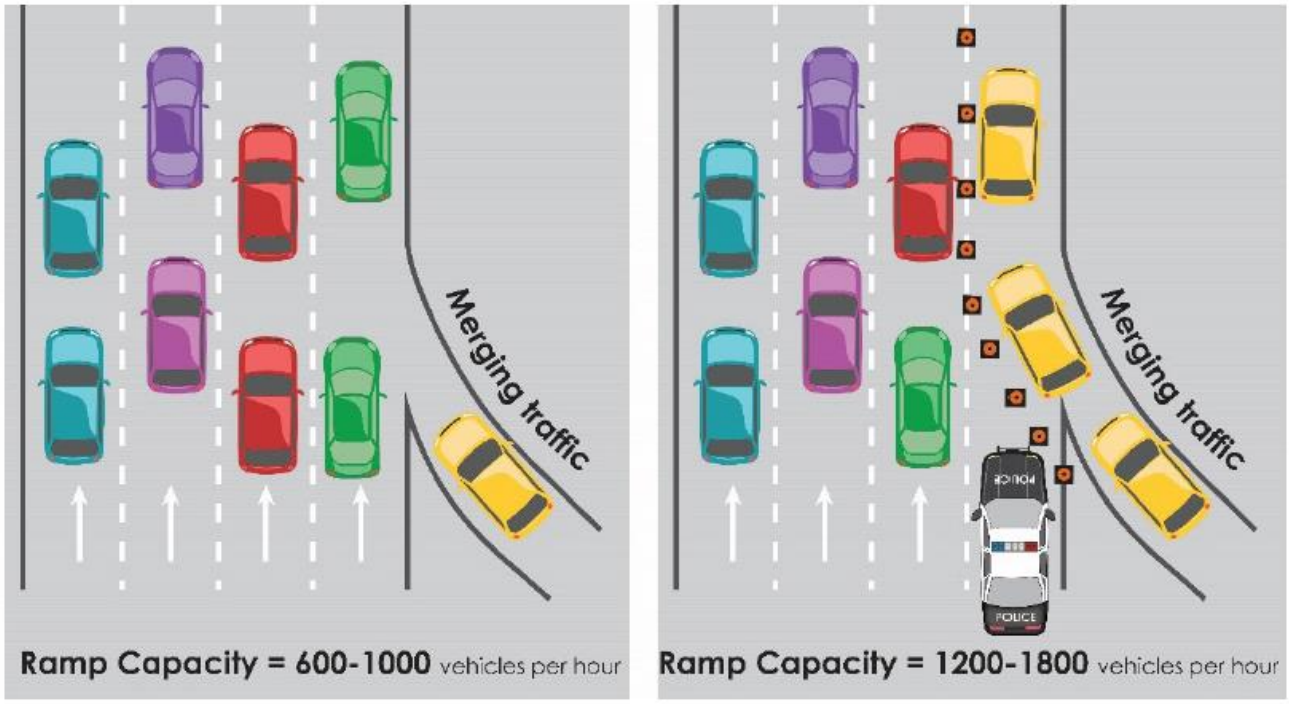
Road closures are a roadway treatment that can improve traffic conditions for visitors flowing into and out of a destination. The rationale behind road closures is to minimize conflicts between crossing streams of traffic. By “closing” some legs of an intersection, for example, the main direction of traffic can be prioritized to continuous flow or a longer share of the signal cycle. Turn prohibitions are a similar concept, where left turns are prohibited to prevent turning conflicts and queue spillbacks, or right turns are prohibited to prevent conflicts with crossing pedestrians. Another common implementation is to create a “pedestrian plaza” by closing a segment of a road, for example, on the roads that front on beaches. Access to businesses along the road should also be considered. For example, if a business cannot be accessed via other roads, does that business get sufficient pedestrian traffic, or would the closure affect their operation? Road closures can be implemented with barriers, public safety vehicles, or cones/barrels. Signs recommended in advance of road closures to give drivers an option to find alternate routes. Road closures can also be identified in custom navigation apps.

Exclusive Entry Lanes

A strategy to increase entry capacity onto a multi-lane roadway is to use exclusive entry lanes. These can be designated using cones, barrels, public safety vehicles, or other barriers (**Figure 14**). Through traffic on the roadway would be merged upstream of an entry point, like a driveway or ramp. The entering traffic can then freely enter the roadway, instead of merging into the curb lane, which would help to reduce delays for departing vehicles. Furthermore, the separation of the heavy merging activity from the main traffic flow can help reduce turbulence and vehicle conflicts at the merge point.

To determine if this type of solution would be feasible and beneficial for a particular roadway, the relative demand of through traffic on the roadway and the entering traffic must be understood. This type of solution may not be appropriate if the roadway is already close to, or at, capacity. Other factors like downstream exits, nearby signalized intersections, or other capacity constraints could make this type of solution difficult to implement.

Figure 14: Dedicated entry lanes can be used to increase capacity at entry lanes into limited access facilities or arterials, during peak egress periods

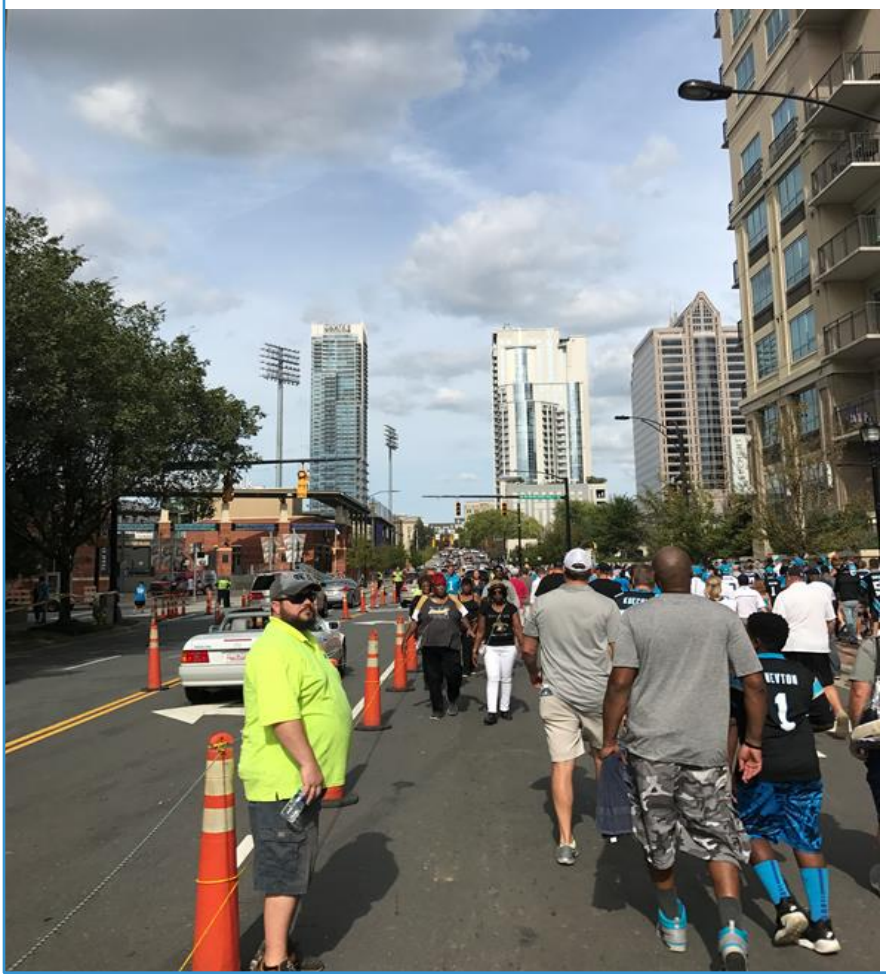


Example of Dedicated Exit Lanes

Pedestrian Sidewalk "Widenings"

At locations where pedestrian flows overflow into the roadway, a designated pedestrian "widening" may be warranted. This involves the use of cones or barrels to "extend" the sidewalk into one or more lanes of traffic (**Figure 15**). These lanes would then be used to accommodate pedestrian flow. Unlike road closures, sidewalk "widenings" allow for vehicles to use the adjacent lanes of traffic, and access to businesses is generally not severely impacted. These types of widenings are typically best deployed on low-speed roadways where the adjacent traffic is moving at slow speeds.

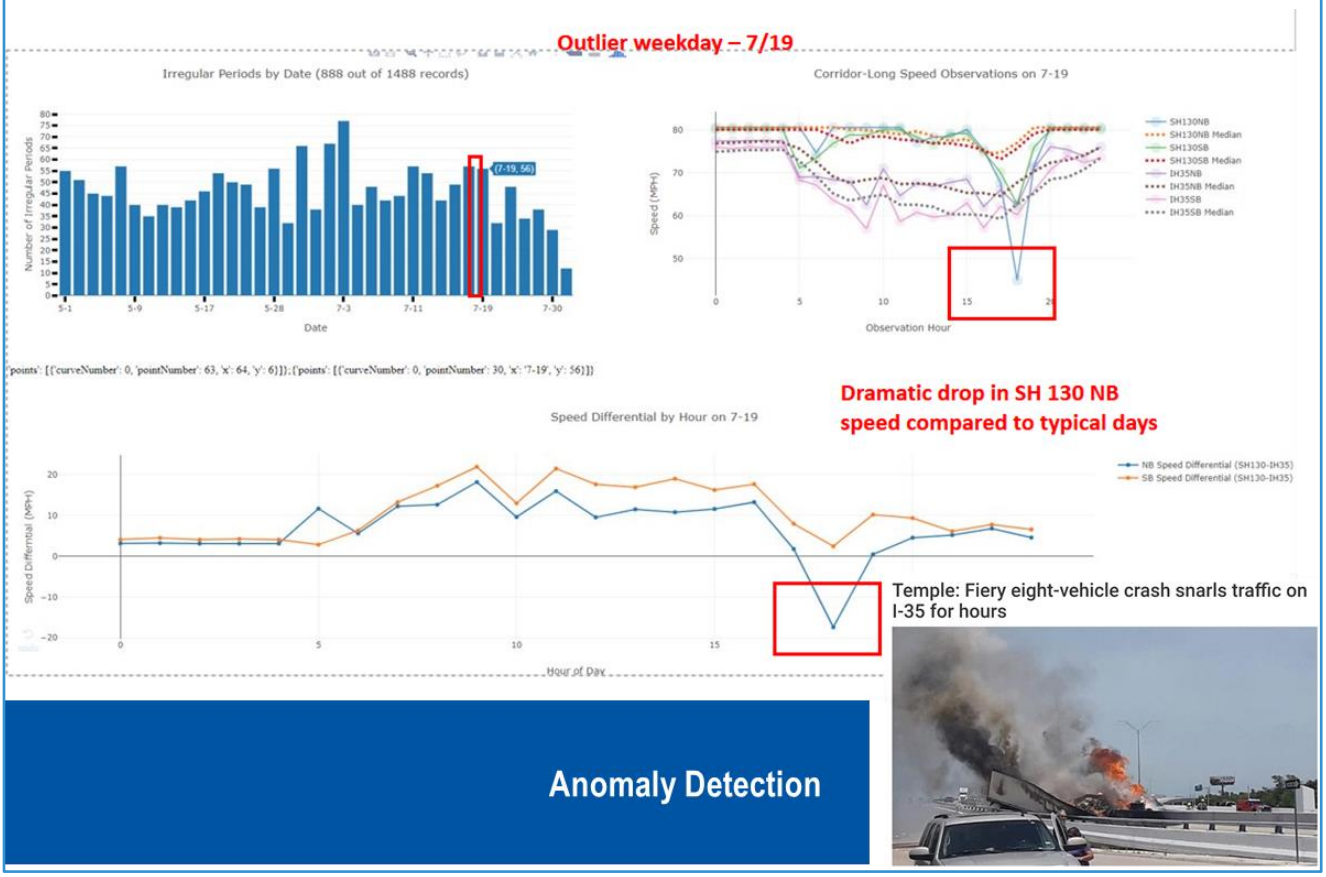
Figure 15: An example of the use of pedestrian management devices to "widen" a sidewalk into an adjacent traffic lane



Incident Detection

Current traffic monitoring systems use online data from a variety of sources to identify anomalous traffic conditions, usually in real-time or near real-time, where traffic flow speeds are significantly lower than normal. If an anomaly is detected, it can be indicative of an incident, like a crash. Many communities are developing their own systems to detect incidents before they are called in by passing drivers, so that public safety staff can respond to the scene and move the impacted vehicle(s), restoring roadway capacity. This type of real-time detection can also be disseminated on social media channels and apps, so that drivers accessing a site are aware of the potential impacts and have the option to consider alternate routes. **Figure 16** shows an example.

Figure 16: An example of an anomaly detection systems using online data sources (developed by Stantec).



Scooter Management

Micromobility using shared scooter services can be a useful way to move people up to several miles. However, the challenge can be that without dedicated multi-use pathways or bike lanes, scooters are used within the roadway which can create conflicts with motorists. Some venues have restrictions on the speed of scooters within a defined perimeter of the site which reduces the use of scooters if the perimeter is too large. Reduced speed within several hundred feet is a prudent safety measure to curb reckless behavior.

Post-event use of scooters can be curtailed if it is necessary to eliminate their use after the event to reduce pedestrian – scooter conflicts. However, the use of a blackout is not recommended because it also requires scooter users to wait until the blackout period has ended before they can use these devices. Visitors may look for other modes instead of waiting for the blackout period to expire. The random littering of scooters around venues can also create challenges, so dedicated (geofenced) zones tied to the end of a scooter journey (and subsequent ending of the payment cycle) should be considered.

4 – Parking

In some communities with event and tourism destinations, up to half of the travelers on congested roadway segments are circulating, looking for limited parking spaces. A system that makes it easy to find available parking would reduce the number of vehicles circulating and reduce congestion. Paid parking policies can also be used to influence traveler behavior.

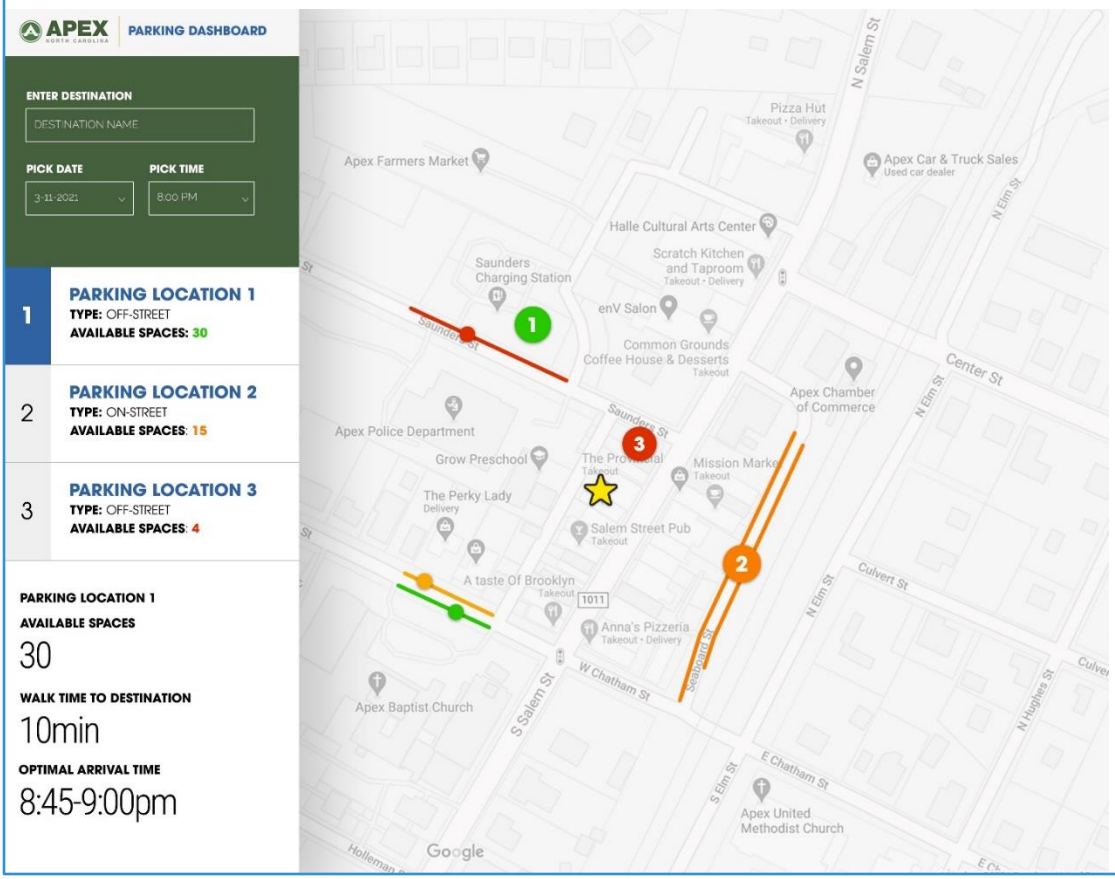
Dynamic Parking Charges

Parking prices can be used to influence travel behavior. In some communities, parking prices are used to deter visitors from travelling by car and to encourage visitors to arrive by other modes of travel. They can also be used to encourage visitors to carpool if payments are collected per vehicle instead of per-person. Pricing also provides the option to introduce incentives, for example, for early parking or for differential parking between the closest parking areas and those further away. The areas closest to a destination require travelers to drive further into a site, creating potential pedestrian and turning movement vehicle conflicts. Parking revenue systems can be used to offset the costs for sensors, which would provide historical information on parking utilization and real-time parking occupancy information for travelers. In communities where parking is free, the proof of payment can be offset by vouchers for local businesses so that the parking fee remains “free” for visitors who plan to visit those establishments.

Parking Locator Apps / Websites

Apps or websites, such as the one shown in **Figure 17**, can be used to display parking availability information for travelers. This type of real-time information has been implemented in several cities and resort destinations. The implementation of real-time parking occupancy requires occupancy sensors (which can be as simple as entry/exit sensors at parking entrances), a database of current demand, and a means to display this information – typically a website or an app.

Figure 17: A parking availability app can help visitors find parking, minimizing time spent circulating around



5 – New Options

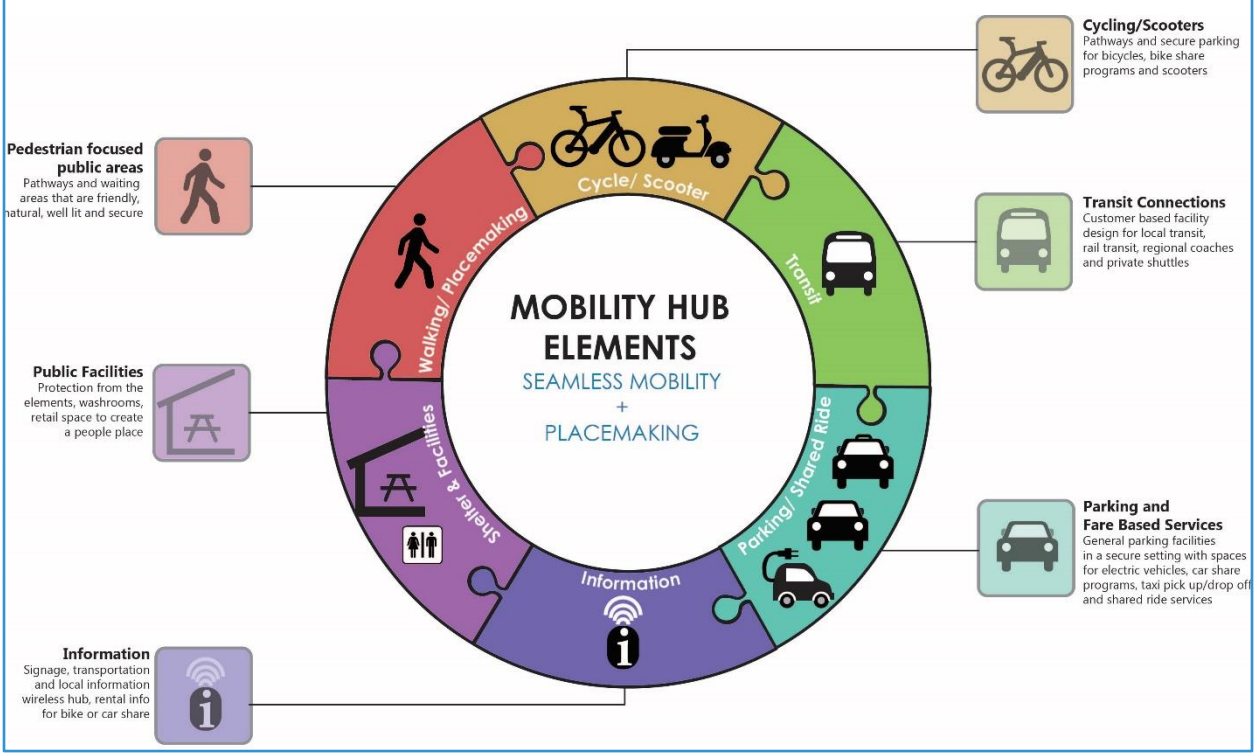
New travel options are new modes of mobility introduced to a location. This can be in the form of a new transit connection, a new shuttle bus service, waterborne modes, or a new first- and last-mile connecting service.

Multimodal Hub

A multimodal hub is a transfer point that brings together many different modes of travel. This allows for passengers to transfer from a train to a bus, for example, to complete their journey. **Figure 18** shows a hub with transit shuttle and parking in Florida. As new travel options are considered, the effectiveness of each mode may be affected by the quality of connecting service. Considerations for multimodal hubs are the location near intersecting traffic streams, the availability of parking (if the location is a park and ride hub), and queuing areas for pedestrians and other transit vehicles, and simultaneous loading areas for multiple vehicles (if necessary). Hubs can also include micromobility options such as bikeshare and e-scooters. However, if micro mobility options are desired, the County and/or municipality should ensure that there are adequate bicycle facilities to accommodate these modes on the roadway network safely, particularly for tourists who may be relative novices to riding bikes or scooters on the roadway. **Figure 19** shows the elements of a mobility hub.

Figure 18: Transit shuttle and parking on Anna Maria Island, FL

Figure 19: Elements of a mobility hub



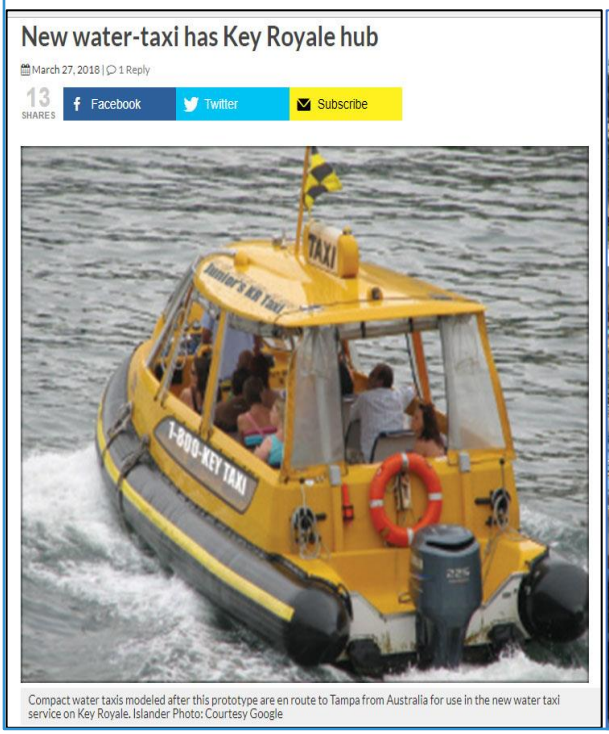
Bike and Trail Infrastructure

The bike and trail infrastructure supports connectivity to a site via active travel modes. A review of the trail system can identify gaps that may discourage riders from using active modes to a destination. Additionally, bicycle infrastructure at a site, including bicycle parking or rental bikes, can also help encourage more active mode travel to a destination.

Ferries and Water Taxis

A ferry is a large open ocean vehicle that can carry 20 or more passengers whereas a water taxi (**Figure 20**) is a smaller 4-15 passenger vehicle with a flat bottom that is often electric powered and intended for smaller distances across water to connect areas. The benefit of a water taxi is that it can be operated in shallower waters and in areas where a ferry terminal is not available. It can also run more frequent service because it is intended for shorter-duration trips with lower passenger capacities.

Figure 20: Water taxis from Anna Maria Island FL, and Victoria Canada



Private Partnerships for First, Last-Mile Options

Private pedal carts and shuttles are becoming more commonplace in resort destinations (**Figure 21**). These services are provided by business owners to attract visitors to their establishments, or by operators who are in the business of renting first- and last-mile connecting services. Communities can reach out to businesses to explore these opportunities. The benefit to the business is additional pedestrian traffic and potential business, and the benefit to the community is potential for dispersed parking at remote locations or for people to move about a location without needing to drive.

Electric-powered carts can be used to provide shorter trip distances to move pedestrians around a crowded downtown or provide longer distance travel via dedicated lanes or pathways or even long beaches. On beaches, they have the benefit of dedicated right-of-way (at the back of the beachfront typically where the lifeguard vehicles and support vehicles for clean-up operations), and they can be used to provide connectivity from remote parking areas and to help visitors travel around a location without needing to drive their own car (see

Figure 22).

Figure 21: Local businesses or private mobility providers can provide first- and last-mile connectivity from major parking areas or transit hubs

Figure 22: Beach carts can serve several purposes, and they can also run on dedicated right-of-way at the back of beachfront spaces

Direct Bus Service

Many communities in Monmouth County, such as Sea Bright, Asbury Park, and Red Bank, are served by public and private bus access to and from local destinations, the New York City metropolitan area, and the Philadelphia metropolitan area. The direct bus service to the New York City area provides an appealing one-seat ride, is operated by private operators, and can be scaled to meet the projected passenger demand. However, the service is currently oriented to commuters. The County, municipalities, and event operators should identify opportunities to utilize these bus services for event and tourism, particularly on weekends. If services are provided, on-site amenities such as a designated bus drop-off area, restrooms, beach equipment rental, and mobility options, and a campaign to promote visibility of the bus option for travelers to the destination, should be considered.

Emerging Trends

All communities should stay informed about changes in the transportation landscape. This includes new micromobility modes, on-demand services, autonomous vehicles and autonomous shuttles, and even aerial forms of travel that are expected to become more commonplace in the coming years. By understanding these forms of travel, communities can leverage them to provide alternative travel options, while also developing policies to ensure that these new modes do not disrupt the normal flow of vehicular, pedestrian, and transit traffic.

Conclusion and Implementation

The transportation demand management strategies identified in this document can be considered by other event and tourism locations in the County to reduce congestion peaking and improve the visitor experience while enhancing quality of life for residents. This document is intended to be a supplement to the other mitigation reports, which present other strategies that could also be considered.

A summary implementation matrix is provided below which depicts each strategy based on its complexity to implement as well as its effectiveness (see **Figure 23**). The matrix can be used by decision makers to help select strategies to pursue as funding for or interest in certain strategies arise.

Figure 23: General Strategies Implementation Matrix