Chapter 17:

Mitigation

A. INTRODUCTION

In the areas where significant adverse impacts are identified (transportation, and constructionperiod transportation and noise), mitigation measures to reduce or eliminate impacts to the maximum extent practicable are developed and evaluated. These measures are discussed below. Areas in which the Proposed Project would result in significant adverse impacts that cannot be fully mitigated are discussed in Chapter 18, "Unavoidable Adverse Impacts."

PRINCIPAL CONCLUSIONS

TRANSPORTATION

As discussed in Chapter 11, "Transportation," the Proposed Project would result in significant adverse impacts on the local street network, the highway network, and bus service, as well as potential impacts to parking. Significant adverse impacts on LIRR service, pedestrian circulation and vehicular and pedestrian safety were not identified. An extensive set of proposed mitigation measures have been developed to address these impacts consisting of standard traffic engineering improvements, adjustments to bus service, and the implementation of a comprehensive Transportation Management Plan (TMP). The TMP would include a combination of transportation demand management measures (e.g., carpooling and incentives to use transit) and operational strategies (e.g., management of parking facility utilization and communication of event-day transportation conditions) with the goal of reducing the volume of project-generated vehicular traffic overall and redistributing vehicular traffic away from the peak arrival and departure hours for arena events, and from critical highway segments. The TMP would be implemented from the opening of the arena and then reviewed and refined on a regular basis, enabling continued improvement and adaptation to reflect actual conditions. A traffic monitoring program during Proposed Project operations would be undertaken to identify the most effective transportation demand measures and operational strategies for minimizing impacts to the maximum extent feasible. The TMP would identify actions needed for different days of the year, and for different types and sizes of events. The TMP would serve as an integral component of Proposed Project operations and it would be included in the environmental commitments that will be imposed on the Applicant.

Traffic

Local Street Network

Of the 38 intersections analyzed on the local street network, the Proposed Project would result in significant adverse traffic impacts at five intersections during the weekday AM peak hour, six intersections during the weekday PM peak hour, nine intersections during the Saturday Midday peak hour, six intersections during the Saturday PM peak hour, and three intersections during the Saturday night peak hour.

The mitigation analyses presented in this chapter indicate that the vast majority of the aforementioned intersections with significant adverse traffic impacts could be fully mitigated via

implementation of standard traffic engineering improvements such as: the installation of new traffic signals at currently unsignalized intersections, modification of signal phasing and timing at currently signalized intersections, deployment of traffic enforcement agents (TEAs) before or after arena events, implementation of turn prohibitions where needed, geometric improvements at specific intersections to provide improved channelization, lane re-striping, and/or new lane designations. With such measures, significant adverse traffic impacts would be fully mitigated at all but two traffic movements at one intersection during the weekday AM peak hour, and one traffic movement at one intersection during the Saturday Midday peak hour. Between the Draft Environmental Impact Statement (DEIS) and Final Environmental Impact Statement (FEIS), the feasibility of other mitigation measures may be explored to further address the identified impacts. In the absence of the application of additional mitigation measures, the impacts at those two intersections would remain unmitigated.

Implementation of the recommended traffic engineering improvements is subject to review and approval by the New York State Department of Transportation (NYSDOT), the Nassau County Department of Public Works, or the New York City Department of Transportation (NYCDOT), depending upon the location of the intersection. If any of these measures are deemed infeasible and no alternative mitigation measures can be identified at a particular location, then the identified significant adverse traffic impacts at such location would be unmitigated.

It is acknowledged that certain routes in the vicinity of the traffic study area may be susceptible to traffic diversions by drivers using mobile navigation apps with real-time traffic data (e.g., Google Maps or Waze) to avoid congestion, or by other motorists with a high degree of familiarity with the local street network. As discussed below, as part of the Proposed Project, a comprehensive TMP would be developed that would include a traffic monitoring program that could be used to determine the extent to which traffic diversions may occur as a result of traffic congestion caused by project-generated vehicle trips. If it is determined that such traffic diversions are occurring on a recurrent basis at unacceptable levels, potential mitigation measures to address such impacts could involve refinements to the TMP (such as managing the distribution of traffic among the site entrances using event-related signage, pre-sold parking permits by location, and/or by allowing the operator to integrate parking facility information into a navigational app) and/or other strategies such as the implementation of signage, turn restrictions, or traffic calming measures along routes susceptible to traffic diversions.

Highway Network

Of the 37 highway segments analyzed on the northbound and southbound Cross Island Parkway between the Southern State Parkway and Jamaica Avenue, the Proposed Project would result in significant adverse traffic impacts to six highway segments during the weekday AM peak hour, 15 highway segments during the weekday PM peak hour, 24 highway segments during the Saturday Midday peak hour, 22 highway segments during the Saturday PM peak hour, and 21 highway segments during the Saturday night peak hour. Of the five merge and weaving segments analyzed at the interchanges of the Cross Island Parkway with the Long Island Expressway and Grand Central Parkway, the Proposed Project would result in significant adverse traffic impacts at one weaving segment during the Saturday Midday peak hour and two merge segments during the Saturday PM peak hour.

The identification of significant adverse impacts on the highway network is not unusual for projects of this scale. Many of these highway segments operate at congested or near-congested conditions in at least one direction during some of those peak periods under existing conditions; the Cross Island Parkway is in immediate proximity to the Project Sites, and it is projected to be

used by approximately 85 percent of those driving to the Proposed Project. Widening of the Cross Island Parkway is neither practical nor reasonably feasible, and has been precluded as an option. However, there is a series of transportation demand management measures and operational strategies comprising a comprehensive TMP that can be effective in both reducing and managing traffic demand along key segments of the Cross Island Parkway and other regional highways linking to the Cross Island Parkway as well as the local street network. Even with these strategies in place, it is expected that there would still be some highway segments where the TMP would not be sufficient to fully mitigate significant adverse traffic impacts. However, as discussed above, the TMP would, if necessary, be refined during the Proposed Project's operations as real-time information becomes available through future monitoring of traffic conditions during events.

The traffic analyses for the 2021 With Action condition use a conservative approach in that they have assessed scenarios with sold-out arena events, along with trips associated with the retail village and other project uses, and daytime racing at Belmont Park with no reductions to project-generated trips associated with non-arena uses or levels of background traffic. As such, the With Action analyses represent worst-case scenarios and may not be indicative of what would typically occur during most days over the course of the year.

Bus Service

It is likely that the Proposed Project would result in a significant adverse impact to Nassau Inter-County Express (NICE) and MTA bus routes during time periods before and after arena events, requiring some increases in bus service to accommodate bus rider trips made by arena patrons. Bus operators normally adjust their service based on ridership and market demand and it is anticipated that such increases in service would be coordinated with NYAP as part of the TMP for the arena. Absent the implementation of increased frequency of bus service before and after arena events, which would fully mitigate the significant adverse impact, the identified significant adverse impact to bus service would be unmitigated.

Parking

Although the parking demand for the Proposed Project and the combined parking demand for the Proposed Project and Belmont Park could be accommodated on-site, it is acknowledged that there is a possibility that some attendees may attempt to park for free in the surrounding neighborhoods and walk to the arena. As part of the TMP, a traffic monitoring program would be developed that would include surveys of on-street parking spaces in the surrounding residential neighborhoods during different types of events and on non-event days. If it is determined that project-generated vehicles are parking off-site in the surrounding neighborhoods on a recurrent basis, NYAP would coordinate with stakeholders including local municipalities, to monitor parking conditions and prevent these areas from being impacted by parking demand generated by arena events. Potential mitigation measures to address such impacts could include strict enforcement of existing parking regulations by ticketing and/or towing illegally parked vehicles, or by implementing new parking regulations on streets in the surrounding areas.

CONSTRUCTION

Transportation

As described in Chapter 15, "Construction," construction activities associated with the Proposed Actions during the projected peak quarter of construction would result in significant adverse traffic impacts at three intersections during the 6:00 AM - 7:00 AM peak hour. Implementation of traffic engineering improvements such as the installation of new traffic signals at currently unsignalized

intersections and modification of signal phasing and timing at currently signalized intersections would provide mitigation for all of the anticipated significant adverse traffic impacts at those locations. Implementation of the recommended traffic engineering improvements for these intersections, all of which are located within Queens, is subject to review and approval by NYCDOT. In the absence of the application of traffic mitigation measures during construction, these construction-period impacts would remain unmitigated or partially unmitigated.

Noise

Chapter 15, "Construction," concludes that construction of the Proposed Project would have the potential to result in significant adverse construction noise impacts at residential locations immediately adjacent to Site B and certain Belmont Park Dormitories. As a result of the construction noise levels that would occur at these locations over an extended duration, residences along Huntley Road, both sides of Wellington Road between Hempstead Turnpike and 109th Avenue, the west side of Wellington Road between 109th Avenue and Hathaway Avenue, and the north side of Hathaway Avenue west of Wellington Road would have the potential to experience significant adverse construction noise impacts. As a result of the construction noise levels that would occur at these locations over an extended along the western edge of the stable area and along the northwestern edge of the stable area near the Training Track would have the potential to experience significant adverse construction noise impacts.

For residences and dormitories that do not have insulated glass windows, the Applicant would offer to provide and install laminated glass storm windows or replacement insulated glass windows for each room that has a window that faces the construction noise source. For residences and dormitories that do not have alternate means of ventilation (i.e., air conditioning), the Applicant would offer to provide and install one through-window air conditioning unit for each room that has a window that faces the construction noise source to allow for the maintenance of a closed-window condition. A survey and in-field verification would be undertaken to confirm which residences and dormitories would be eligible for this mitigation. With the provision of such measures, the façades of these buildings would be expected to provide approximately 25 dBA window/wall attenuation. Therefore, interior noise levels would be reduced to less than the 45 dBA threshold recommended for residential use during worst case construction activity. Consequently, construction noise impacts at these receptors would be fully mitigated.

For the outdoor spaces (e.g., yards, decks) of the residences adjacent to Site B, there would be no feasible or practicable measures to mitigate the construction noise impacts. However, outdoor spaces could still be used without the effects of construction noise outside of the hours that construction would occur, i.e., during the late afternoon, night time, and on most weekends.

B. TRANSPORTATION

As discussed in Chapter 11, "Transportation," the Proposed Project would result in significant adverse impacts on the local street network, the highway network, and bus service, as well as potential impacts to parking. Significant impacts on LIRR service, pedestrian circulation, and vehicular and pedestrian safety were not identified. This section describes the mitigation measures that could reduce or eliminate significant impacts, or indicates whether impacts would remain unmitigated. An extensive set of proposed mitigation measures have been developed to address these impacts consisting of standard traffic engineering improvements, adjustments to bus service, and the implementation of a comprehensive TMP.

The TMP would include a combination of transportation demand management measures (e.g., carpooling and incentives to use transit) and operational strategies (e.g., management of parking

facility utilization and communication of event-day transportation conditions) with the goal of reducing the volume of project-generated vehicular traffic overall and redistributing vehicular traffic away from the peak arrival and departure hours for arena events, and from critical highway segments. The TMP would be implemented from the opening of the arena and then reviewed and refined on a regular basis, enabling continued improvement and adaptation to reflect actual conditions. A traffic monitoring program during Proposed Project operations would be undertaken to identify the most effective transportation demand measures and operational strategies for minimizing impacts to the maximum extent feasible. The TMP would identify actions needed for different days of the year, and for different types and sizes of events. The TMP would serve as an integral component of Proposed Project operations and it would be included in the environmental commitments that will be imposed on the Applicant.

TRAFFIC

LOCAL STREET NETWORK

As identified in Chapter 11, "Transportation," the Proposed Project is expected to create significant adverse traffic impacts at 11 intersections during one or more analyzed peak hours; specifically the impacted locations comprise five intersections during the weekday AM peak hour, six intersections during the weekday PM peak hour (which includes arrivals for a sold-out hockey game), nine intersections during the Saturday Midday peak hour (which includes departures for a sold-out Disney on Ice event), and six intersections during the Saturday PM peak hour (which includes arrivals for a sold-out hockey game), and three intersections during the Saturday night peak hour (which includes departures from a sold-out hockey game).

Table 17-1 below presents a summary of intersections that would have significant adverse traffic impacts during one or more analyzed peak hours, and indicates whether traffic improvement measures could fully mitigate the impacts. As shown in the table, most of the significant adverse traffic impacts would occur along the segment of Hempstead Avenue/Turnpike in the vicinity of the Project Sites between the intersections of Springfield Boulevard and School Road/Marguerite Avenue. Most of the impacted intersections could be fully mitigated, except one intersection—Hempstead Avenue at Springfield Boulevard—would remain unmitigated during the weekday AM peak hour; and an additional intersection—Hempstead Avenue at 225th Street—would remain unmitigated during the Saturday Midday peak hour.

A discussion of the recommended mitigation measures/improvements that would be needed to mitigate significant adverse impacts at each impacted intersection is provided below. These mitigation measures/improvements include standard traffic engineering improvements such as the installation of new traffic signals at currently unsignalized intersections, modification of signal phasing and timing at currently signalized intersections, deployment of TEAs before or after arena events, implementation of turn prohibitions where needed, geometric improvements at specific intersections to provide improved channelization, lane re-striping, and/or new lane designations.

Implementation of these measures is subject to review and approval by NYSDOT, the Nassau County Department of Public Works, or NYCDOT, depending upon the location of the intersection. If any of these measures are deemed infeasible and no alternative mitigation measures can be identified at a particular location, then the identified significant adverse traffic impacts at such location would be unmitigated. Between the DEIS and FEIS, the feasibility of other mitigation measures may be explored to further address the identified impacts. In the absence of the application of additional mitigation measures, the impacts would remain unmitigated.

	Peak Hour				
Intersection	Weekday AM	Weekday PM	Saturday Midday	Saturday PM	Saturday Night
Hempstead Turnpike at					
Locustwood Boulevard/Gate 5 Road		•		•	U
Hempstead Turnpike at Louis Avenue &					
School Road/Marguerite Avenue		•	•	•	
Hempstead Turnpike					
at Terrace Avenue			•		
Plainfield Avenue					
at Tulip Avenue	•				
Jericho Turnpike					
at Plainfield Avenue/Emerson Avenue	•		•		
Jericho Turnpike					
at New Hyde Park Road			•		
Jamaica Avenue					
at 213th Street/Hempstead Avenue	•				
Hempstead Avenue	\cap				
at Springfield Boulevard	0	•		•	
Hempstead Avenue			\cap		
at 225th Street		•	0	•	•
Hempstead Avenue at					
Cross Island Parkway Southbound off-ramp	•	•		•	
Hempstead Avenue at					
Cross Island Parkway Northbound off-ramp		•	•	•	•
Key:					
Mitigated impact					
 Unmitigated impact 					

Tab	le 17-1
Summary of Significant Adverse Traffic Impacts on the Local Street No.	etwork

A summary of proposed traffic mitigation measures, detailed traffic level of service tables showing the effects of proposed mitigation measures, and schematic drawings of proposed traffic mitigation measures are presented in **Appendix F**.

Hempstead Turnpike at Locustwood Boulevard/Gate 5 Road

As described in Chapter 11, "Transportation," the analysis of the Proposed Project's transportation impacts accounted for proposed improvements at the intersection of Hempstead Turnpike at Locustwood Boulevard/Gate 5 Road as part of the 2021 With Action condition. These improvements were developed as part of the project design process to address site access and egress to the parking facilities located on the north side of Hempstead Turnpike, including the new parking within and below the hotel's podium, the South Lot, and the East Lot. This section discusses measures that would mitigate the significant adverse traffic impacts identified at this location.

The significant adverse impact at the eastbound left turn movement of this intersection during the weekday PM peak hour could be fully mitigated by modifying the signal timing.

The significant adverse impact at the southbound Gate 5 Road approach of this intersection during the Saturday Midday peak hour (which includes departures for a sold-out Disney on Ice event) could be fully mitigated by modifying the signal timing, using cones and signage to temporarily provide a free-flowing southbound right turn from Gate 5 Road to Hempstead Turnpike, and using cones and signage to temporarily reconfigure Hempstead Turnpike to include one westbound left turn lane, two westbound through lanes, and one westbound right turn lane.

The significant adverse impacts at the eastbound left turn movement and the southbound Gate 5 Road approach of this intersection during the Saturday PM peak hour could be fully mitigated by modifying the signal timing.

The significant adverse impact at the southbound Gate 5 Road of this intersection during the Saturday night peak hour (which includes departures from a sold-out hockey game) could be fully mitigated by modifying the signal timing, using cones and signage to temporarily reconfigure Gate 5 Road to include two southbound right turn lanes, one southbound shared left turn and through lane, and one northbound receiving lane, using cones and signage to temporarily reconfigure Hempstead Turnpike and close the inner eastbound left turn lane, and temporarily prohibiting northbound left turns from Locustwood Boulevard to Hempstead Turnpike (northbound vehicles would be directed to make left turns at the intersection of Hempstead Turnpike at Wellington Road, which is the next intersection where a northbound left turn to Hempstead Turnpike is possible).

Schematic drawings of the proposed mitigation measures involving temporary changes to operational patterns during event egress periods in the Saturday Midday and Saturday night peak hours are presented in **Appendix F**.

Hempstead Turnpike at Louis Avenue & School Road/Marguerite Avenue

The significant adverse impact at the eastbound approach of this intersection during the weekday PM, Saturday Midday, and Saturday PM peak hours could be fully mitigated by modifying the signal timing.

Hempstead Turnpike at Terrace Avenue

The significant adverse impact at the eastbound left turn movement of this intersection during the Saturday Midday peak hour could be fully mitigated by modifying the signal timing.

Plainfield Avenue at Tulip Avenue

The significant adverse impact at the northbound approach of this intersection during the weekday AM peak hour could be fully mitigated by modifying the signal timing.

Jericho Turnpike at Plainfield Avenue/Emerson Avenue

The significant adverse impacts at the westbound left turn movement and northbound approach of this intersection during the weekday AM peak hour could be fully mitigated by modifying the signal timing.

The significant adverse impact at the westbound left turn movement of this intersection during the Saturday Midday peak hour could be fully mitigated by modifying the signal timing.

Jericho Turnpike at New Hyde Park Road

The significant adverse impact at the eastbound shared through and right turn movement of this intersection during the Saturday Midday peak hour could be fully mitigated by modifying the signal timing.

Jamaica Avenue at 213th Street/Hempstead Avenue

The significant adverse impact at the northbound shared left turn and through movement of this intersection during the weekday AM peak hour could be fully mitigated by modifying the signal timing.

Hempstead Avenue at Springfield Boulevard

The significant adverse impacts at the westbound left turn and southbound left turn movements of this intersection during the weekday AM peak hour, which would experience an increase of only 10 project-generated trips, could not be mitigated. Given the presence of lead pedestrian intervals (allowing for exclusive pedestrian crossings) and geometric constraints, modifying the signal timing to reallocate green time is not feasible without creating new unavoidable impacts at other intersection movements. Therefore the significant adverse impacts during this period are considered unavoidable (refer to Chapter 18, "Unavoidable Adverse Impacts").

The significant adverse impact at the westbound left turn movement of this intersection during the weekday PM peak hour could be fully mitigated by modifying the signal timing.

The significant adverse impacts at the eastbound left turn, westbound left turn, and westbound shared through and right movements of this intersection during the Saturday Midday peak hour could be fully mitigated by modifying the signal timing.

The significant adverse impacts at the eastbound left turn and westbound left turn movements of this intersection during the Saturday PM peak hour could be fully mitigated by modifying the signal timing.

Hempstead Avenue at 225th Street

The significant adverse impact at the eastbound shared through and right turn movement of this intersection during the weekday PM peak hour could be fully mitigated by increasing the cycle length from 90 to 100 seconds and modifying the signal timing.

The significant adverse impact at the westbound de facto left turn movement of this intersection during the Saturday Midday peak hour could not be fully mitigated. Therefore, this intersection could not be mitigated and the significant adverse impacts are considered unavoidable (refer to Chapter 18, "Unavoidable Adverse Impacts"). Conditions at this intersection could be improved by increasing the cycle length from 90 to 110 seconds, modifying the signal timing, and allowing northbound right turns to proceed during the westbound left turn phase. Since the need for signal timing changes would only occur during a post-event period, it is recommended that TEAs be deployed to control the intersection. As discussed further below, a TMP would be developed with the goal of reducing the volume of project-generated vehicular traffic overall and redistributing vehicular traffic away from the peak arrival and departure hours for arena events, and from critical highway segments, to the extent possible. The effects of these strategies would likely improve conditions at this intersection.

The significant adverse impact at the eastbound shared through and right turn movement of this intersection during the Saturday PM peak hour could be fully mitigated by modifying the signal timing.

The significant adverse impact at the westbound de facto left turn movement of this intersection during the Saturday night peak hour could be fully mitigated by modifying the signal timing.

Hempstead Avenue at Cross Island Parkway Southbound Off-Ramp

The significant adverse impacts at the northbound right turn movement of this intersection during the weekday AM, weekday PM, Saturday Midday, and Saturday PM peak hours could be fully mitigated by creating curb extensions and a bus lay-by lane on the south side of Hempstead Avenue upstream of the intersection to create a lane addition for the off-ramp leading away from the intersection. This would eliminate the need for vehicles on the off-ramp to wait for gaps in

eastbound traffic after stopping at the stop sign. During the event ingress periods in the weekday PM and Saturday PM peak hours, a TEA would be used to temporarily provide a free-flowing northbound right turn for vehicles on the off-ramp, with the TEA stopping traffic in instances when pedestrians would use the south crosswalk. As discussed further below, as part of the event management strategies in the TMP, an additional TEA could be deployed at this location when necessary during event ingress periods to monitor queue lengths on the off-ramp and prevent queues from spilling back onto the Cross Island Parkway mainline. Schematic drawings of the proposed curb extensions and bus lay-by lane are presented in **Appendix F**.

Hempstead Avenue at Cross Island Parkway Northbound Off-Ramp

The significant adverse impacts at the southbound right turn movement of this intersection during the weekday PM, Saturday Midday, Saturday PM, and Saturday night peak hours could be fully mitigated with the installation of a new traffic signal with a 90-second cycle and two phases and widening of the northbound off-ramp at the southbound intersection approach to two 11-foot-wide travel lanes. Based on existing and projected vehicle volumes, this traffic signal has been found to conditionally satisfy the Manual of Uniform Traffic Control Devices' (MUTCD) peak hour warrant (Warrant 3). Schematic drawings of the proposed geometric changes are presented in **Appendix F**.

Potential for Traffic Diversions

As acknowledged in Chapter 11, "Transportation," certain routes in the vicinity of the traffic study area may be susceptible to traffic diversions by drivers using mobile navigation apps with realtime traffic data (e.g., Google Maps or Waze) to avoid congestion, or by other motorists with a high degree of familiarity with the local street network.

As discussed further below, as part of the TMP, a traffic monitoring program would be developed that would include the collection of traffic volume data along the Cross Island Parkway and major roadways in the local street network for different types of arena events. Such data could be used to determine the extent to which traffic diversions may occur as a result of traffic congestion caused by project-generated vehicle trips. The TMP would also include comprehensive sets of event management strategies that would be would be reviewed and refined on a regular basis at meetings with stakeholders such as transportation agencies, police departments, and local municipalities. If it is determined that traffic congestion caused by project-generated vehicle trips are causing traffic diversions to occur on a recurrent basis at unacceptable levels, potential mitigation measures to address such impacts could involve refinements to the TMP to further reduce the volume of project-generated vehicle trips during peak hours or to redistribute project-generated vehicle trips away from critical highway segments through event management strategies. Other potential mitigation measures to address potential traffic diversions could involve the implementation of signage, turn restrictions, or traffic calming measures along routes susceptible to traffic diversions.

Several professional sports franchises including the Detroit Lions, Toronto Maple Leafs, and Washington Nationals have partnered with Waze as part of its Global Event Partner Program, which helps event organizers optimize traffic flow to sports and entertainment venues by allowing the operator to integrate parking facility information into the app, allowing users who have paid for parking in advance to get customized directions to a specific lot based on their origin. Event partners can monitor Waze traffic data in real-time and obtain traffic data for each event day that could be used to better understand travel patterns to improve traffic management during events. Similarly, stakeholders such as transportation agencies and local municipalities could partner with

Waze by becoming a member of Waze's Connected Citizens Program, allowing them to provide information related to construction and road closures and receiving real-time incident information and other traffic data.

HIGHWAY NETWORK

As described in Chapter 11, "Transportation," the Proposed Project would result in significant adverse traffic impacts to six highway segments during the weekday AM peak hour, 15 highway segments during the weekday PM peak hour, 24 highway segments during the Saturday Midday peak hour, 22 highway segments during the Saturday PM peak hour, and 21 highway segments during the Saturday night peak hour along the northbound and southbound Cross Island Parkway between the Southern State Parkway and Jamaica Avenue. The Proposed Project would also result in significant adverse traffic impacts at one weaving segment during the Saturday Midday peak hour and two merge segments during the Saturday PM peak hour at the interchanges of the Cross Island Parkway with the Long Island Expressway and Grand Central Parkway.

The identification of significant adverse impacts on the highway network is not unusual for projects of this scale. Many of these highway segments operate at congested or near-congested conditions in at least one direction during some of those peak periods under existing conditions; the Cross Island Parkway is in immediate proximity to the Project Sites, and it is projected to be used by approximately 85 percent of those driving to the Proposed Project.

Widening of the Cross Island Parkway to provide more capacity is neither practical nor reasonably feasible, and has been precluded as an option. However, there is a series of transportation demand management measures and operational strategies comprising a comprehensive TMP that can be effective in both reducing and managing traffic demand. A description of the TMP follows below within its own section since it would benefit both the highway network as well as the local street network. Even with these strategies in place, it is expected that there would still be some highway segments where the TMP would not be sufficient to fully mitigate significant adverse traffic impacts (see Chapter 18, "Unavoidable Adverse Impacts"). However, as discussed below, the TMP would, if necessary, be refined during the Proposed Project's operations as real-time information becomes available through future monitoring of traffic conditions during events.

The traffic analyses for the 2021 With Action condition use a conservative approach in that they have assessed representative worst-case scenarios with sold-out arena events along with trips associated with the retail village and other project uses and daytime racing at Belmont Park, with no reductions to project-generated trips associated with non-arena uses or levels of background traffic. Overall, the conditions identified in the analysis of peak hours that include trips by arena patrons for sold-out events are expected to occur at only limited instances over the course of the year, and non-sell-out conditions on most days with arena events would experience fewer trips. The analyses neither account for the presence of empty arena seats due to no-shows, take reductions for the retail uses attributable to a stay-away factor, which would involve shoppers who choose to stay away from the Project Sites during times of major arena events, nor account for the diversions of background traffic to alternate routes during the time periods immediately before and after arena events or to alternative time periods on the days of major arena events. With regards to the analysis of highway segments along the Cross Island Parkway corridor, the results of the VISSIM model are conservative since the analysis does not reflect how congestion on upstream portions of the highway network could serve to meter the demand of vehicles on the analyzed highway segments. As such, the With Action analyses represent worst-case scenarios and may not be indicative of what would typically occur during most days over the course of the year.

BUS SERVICE

It is likely that the Proposed Project would result in a significant adverse impact to NICE and MTA bus routes during time periods before and after arena events, requiring some increases in bus service to accommodate bus rider trips made by arena patrons. Bus operators normally adjust their service based on ridership and market demand and it is anticipated that such increases in service on the N6, N6X, Q2, and/or Q110 bus routes would be coordinated with NYAP as part of the TMP for the arena. Absent the implementation of increased frequency of bus service before and after arena events, which would fully mitigate the significant adverse impact, the identified significant adverse impact to bus service would be unmitigated.

PARKING

As described in Chapter 11, "Transportation," although the parking demand for the Proposed Project and the combined parking demand for the Proposed Project and Belmont Park could be accommodated on-site, it is acknowledged that there is a possibility that some attendees may attempt to park for free in the surrounding neighborhoods and walk to the arena.

As discussed further below, a traffic monitoring program would be developed as part of the TMP that would include surveys of on- and off-site parking utilization. This would assess the use of onstreet parking spaces in the surrounding residential neighborhoods during different types of events and on non-event days. If it is determined that project-generated vehicles are parking off-site in the surrounding neighborhoods on a recurrent basis, NYAP would coordinate with stakeholders, including local municipalities, to monitor parking conditions and prevent these areas from being impacted by arena events. Potential mitigation measures to address such impacts could include strict enforcement of existing parking regulations by ticketing and/or towing illegally parked vehicles, or by implementing new parking regulations on streets in the surrounding areas.

TRANSPORTATION MANAGEMENT PLAN (TMP)

As part of the Proposed Project, a comprehensive TMP would be implemented from the opening of the arena. This TMP would include a combination of transportation demand management measures and operational strategies with the goal of reducing the volume of project-generated vehicular traffic overall and redistributing vehicular traffic away from the peak arrival and departure hours for arena events, and from critical highway segments, to the extent possible. No single strategy or action could create the level of traffic reduction or traffic redistribution being sought. Rather, a combination of multiple measures and strategies would reduce congestion and significant adverse traffic impacts to the highway and local street networks.

CARPOOLING AND SHARED RIDE STRATEGIES

To reduce the volume of project-generated vehicular traffic, a multi-faceted carpooling and shared ride program could be developed and promoted for arena events, particularly focusing on Islanders season ticket and ticket plan holders. In addition to reducing the use of single occupant vehicles, carpooling would allow arena patrons to share the driving and the cost of parking and gas. As an example, Commuter Connections' CarpoolNow app helps to connect fans who plan to drive when traveling to/from sporting events in Washington, DC. Carpooling options could also enable attendees living on Long Island and working in New York City to arrive at weeknight events via transit and carpool home. During the 2016 Major League Baseball playoffs, fans attending the Washington Nationals home games used the Twitter hashtag #NatsRide to connect with drivers looking to share rides on social media.

The promotion of the use of shared ride options offered by transportation network companies (e.g., UberPOOL, Lyft Line) and/or providing discounts to arena event attendees using these services by combining trips could also be implemented, thus increasing the vehicle occupancy of rideshare vehicles.

Group sales programs could also encourage large groups of attendees to ride to events together in charter buses and reduce the number of trips made by private autos. As an example, the Barclays Center in Brooklyn partners with an official charter bus sponsor that offers 10 percent off travel for all groups traveling to events at the arena.

TRANSIT STRATEGIES

As described in Chapter 11, "Transportation," it is anticipated that the LIRR would provide shuttle service between Jamaica Station and Belmont Park Station on days with scheduled events at the proposed arena, with two eastbound trains arriving at Belmont Park prior to the start of the event and two westbound trains departing from Belmont Park following the conclusion of the event. To further enhance the use of the LIRR as a travel mode by arena patrons, consideration could also be given to implementing shuttle bus service between the arena and other LIRR stations (e.g., Queens Village, Mineola and Valley Stream), to intercept attendees traveling to/from eastern Long Island so they do not have to backtrack through Jamaica.

As discussed above, it is anticipated that increases in bus service during time periods before and after arena events for the NICE and MTA routes serving the Proposed Project would be coordinated with NYAP as part of the TMP for the arena. These bus routes provide connections to other bus routes operating in Nassau County in Queens as well as subway lines in Queens.

Efforts could also be made to provide express bus service from major demand centers (e.g., parkand-ride lots in eastern Long Island), possibly with fare discount incentives. As an example, the Regional Transportation Commission of Southern Nevada (RTC) operates a special service called the RTC Golden Knights Express before and after NHL games in Las Vegas, providing multiple departures to four locations in the surrounding area.

STRATEGIES THAT ENCOURAGE ARENA PATRONS TO ARRIVE EARLY AND/OR STAY LATER

The goal of these strategies is to redistribute vehicular traffic away from the peak arrival and departure hours for arena events by incentivizing event attendees to arrive early and/or stay later. These strategies could include specific actions such as scheduling and promoting pregame and postgame events and activities in the plazas (e.g., live music, Islanders alumni and mascot appearances, games for adults and children, promotions, drawings and contests, food and beverage vendors, and interactive sponsor booths). They could also include offering pregame and postgame television and radio shows in locations that are accessible to fans; and encouraging fans to arrive early to watch teams warm up before games. Travel packages could also be offered to visiting fans to see a hockey game and stay at the on-site hotel. Getting a portion of arena patrons to come early and/or leave later could reduce the level of congestion that may otherwise occur during the arena's peak arrival and departure hours.

PARKING STRATEGIES

Additional strategies involving parking would be considered to encourage attendees to carpool to events and/or arrive early including: providing significant discounts to large carpools (4+ occupant cars), providing preferential parking locations to large carpools (4+ occupant cars), limiting

reserved parking permits based on the amount of tickets purchased (e.g., one parking space per every four tickets purchased), charging market rates for parking, and/or providing discounts for arena attendees that arrive and park on-site early (with additional discounts for large carpools). These parking strategies would be further evaluated as part of the traffic monitoring program discussed below, which would identify the effectiveness of these measures.

Consideration could also be given to pre-selling parking permits by parking location (e.g., retail village, hotel garage, North Lot, South Lot, East Lot) through a website or app. Limiting the sales of on-site parking permits could control on-site demand, encourage more arena patrons to carpool, and reduce attendee confusion by guaranteeing a parking spot in a specific location.

Parking permits could also be used to facilitate traffic management and as a navigation tool. A color-coded permit parking system could help event staff directing traffic identify a motorist's parking location based on the color of the motorist's permit and the backs of permits could be used to provide maps and directions for drivers. The use of permits could manage the allocation of utilized parking spaces among parking facilities to help distribute vehicles among the site access/egress locations and to multiple Cross Island Parkway interchanges. Recommended driving directions and parking locations could be given to attendees when purchasing tickets, helping to minimize congestion in the vicinity of the Project Sites. For example, recommendations could be given to: (a) arena patrons traveling from the north shore of Long Island via the Long Island Expressway to park in the North Lot and use Exit 26D on the Cross Island Parkway and (b) arena patrons traveling from the south shore of Long Island via the Southern State Parkway to park below the retail village and use Exit 26A on the Cross Island Parkway—allowing motorists to avoid congestion from project-generated traffic at other site access/egress locations before and after events.

The Proposed Project could also explore parking space occupancy technology to minimize circulation within structured parking facilities and/or using staff to help direct drivers to unoccupied parking spaces in surface parking lots to park vehicles in a more efficient manner. Event-based signage could also be used to help direct motorists to parking facilities.

PROVIDING TRANSPORTATION INFORMATION TO EVENT ATTENDEES

A transportation section on the arena's and Islanders' apps and websites would be created to provide information about transportation options to the arena for event attendees. This would include maps and diagrams showing the locations of parking facilities, arrival and departure routes for autos, the LIRR station, bus stops, and rideshare pick-up/drop-off locations. To promote the use of alternate modes of transportation, this information could also include maps and schedules for public transportation services operating to and from the site. The arena could also provide real-time transit departure information at key locations. For major events with high expected attendance levels, social media services (e.g., Facebook and Twitter) could be used to recommend that arena patrons carpool, arrive early, and/or use public transportation.

ENCOURAGING BACKGROUND TRAFFIC TO AVOID USING THE CROSS ISLAND PARKWAY NEAR BELMONT PARK IMMEDIATELY BEFORE AND AFTER LARGE EVENTS

For many motorists, it may be self-evident that they should try to avoid major highways immediately adjacent to major sports venues in the half-hour or hour immediately preceding or following a major sports event or concert. This is readily apparent today for highways adjacent to major sports venues in the New York metropolitan area such as Citi Field, Yankee Stadium, and MetLife Stadium. But those many others who are not aware of a special event that is taking place that day, they contribute to overcrowding on key local highways without knowing it and cannot

change course until it is too late. Advising background traffic (motorists not attending an event) of an upcoming arena event and to avoid using the Cross Island Parkway near Belmont Park immediately before and after large events would result in some motorists changing their travel patterns by shifting to alternate routes, traveling earlier or later in the day, or by traveling on a different day, thus reducing the volume of traffic on the Cross Island Parkway during the peak arrival and departure hours and reducing the extent of congestion projected in this DEIS. This background trip reduction "credit" was conservatively not assumed in either the With Action analyses or the Mitigation analyses of this DEIS, but would serve as a traffic reduction factor at the Project Sites.

Background traffic using the Cross Island Parkway in the vicinity of the Project Sites could be diverted by coordination with NYSDOT and NYCDOT, and variable message signs could be used to advise motorists on east-west limited access highways such as the Long Island Expressway, Northern State Parkway, Southern State Parkway, Grand Central Parkway, and Belt Parkway of anticipated conditions on the Cross Island Parkway near Belmont Park and to use alternate routes such as the Meadowbrook State Parkway, Wantagh Parkway, and Seaford-Oyster Bay Expressway. Variable message signage does not need to advise motorists of any single alternate highway in particular to use, but would merely advise, starting earlier on the day of an event, a message such as "BELMONT PARK EVENT, TODAY AT 7:30 PM, PLAN ALT ROUTE." In addition, permanent or temporary variable message signs could be placed on the Cross Island Parkway near and approaching Belmont Park to advise motorists of anticipated conditions prior to major events. As an example, diversionary signage is used on the New Jersey Turnpike when events are held at MetLife Stadium to advise motorists of congestion on the Western Spur (Exits 16W and 18W) and the use of the Eastern Spur (Exits 16E, 17, and 18E) as an alternate route. This strategy could also include proactively using radio and other media outlets to advise motorists of event congestion on the Cross Island Parkway and the use of alternate routes.

EVENT MANAGEMENT STRATEGIES

The use of the transportation demand management measures and operational strategies described above would be combined into multi-tiered and comprehensive sets of event management strategies tailored for different types of arena events (e.g., hockey games, concerts, and family events), event sizes (e.g., full house versus half house), and ranges of attendance levels (e.g., soldout events, non-sellout events with significant sales, and events with limited sales). Major sports and entertainment venues in the United States have different attendance thresholds at which traffic congestion begins to materialize and at which point it becomes noticeably severe.

The TMP would include a comprehensive traffic monitoring program starting in its opening year that would allow for the detailed measurement of actual transportation conditions for different types of arena events. Before the opening of the arena, the scope of work for a traffic monitoring program would be developed. The scope of work would include collecting several types of field data (e.g., Automatic Traffic Recorder [ATR] counts along the Cross Island Parkway and major roadways in the local street network, turning movement counts and field observations at key intersections, vehicle occupancies, on- and off-site parking utilization, and/or transit ridership), and conducting surveys of arena patrons to understand their origins and destinations and the travel characteristics used by attendees in traveling to and from different types of events. The traffic monitoring program would help identify the transportation demand management measures and operational strategies proving to be most effective and those that are not, thus enabling continued improvement of the TMP on a regular basis and allowing it to adapt to reflect actual conditions.

The TMP would be reviewed and refined on a regular basis at meetings with stakeholders such as transportation agencies, police departments, and local municipalities. The event management strategies would also include provision of an on-site transportation management center to monitor conditions in real-time, manage and respond to issues during events, and to share information with relevant agencies. An on-site event transportation coordinator would be included as part of the arena staff to coordinate and manage the TMP. The transportation coordinator would be responsible for coordinating traffic, parking, transit, pedestrian, and/or shuttle bus operations on or around the site. This person would also coordinate with transportation agencies, public safety organizations, parking and shuttle bus operators, and/or rideshare operators to ensure the effective implementation of the TMP. In addition, the on-site event transportation coordinator would be responsible for daily monitoring of traffic data on the Cross Island Parkway, regional highways feeding the Cross Island Parkway, plus Hempstead Turnpike, Jericho Turnpike, Plainfield Avenue and other key local streets of concern to the community with regard to volume changes and congestion to detect how traffic conditions change based on the type and attendance level of the events held at the arena.

As part of the TMP, specific operational strategies would be developed to effectively manage traffic flow during event ingress and egress periods and manage the use of parking facilities. As an example, operational strategies could be used during event egress periods to facilitate vehicles exiting parking facilities after major events, such as stationing police before certain on-ramps to the Cross Island Parkway and temporarily closing the curb lane upstream of the entrance ramp to divert traffic into other lanes and allow vehicles departing the event to enter the parkway without having to merge onto the mainline.

Numerous sports and entertainment venues have implemented similar TMPs in congested urban and suburban environments using many of these strategies to create an effective overall coordinated plan that is constantly reviewed and modified to increase its effectiveness to reduce vehicular traffic volumes overall. A TMP would be specifically developed for the Proposed Project, focusing on the most sensitive locations such as the Cross Island Parkway and along residential streets such as Plainfield Avenue. The traffic mitigation measures described above and the TMP would reduce the magnitude of significant adverse traffic impacts. However, the TMP would not likely result in the mitigation of all significant impacts because the potential would still exist for unavoidable adverse impacts to highway segments on the Cross Island Parkway during sold-out events at the arena. However, with advance publicity and advertising of such sold-out events, a substantial portion of background traffic would avoid using the segment of the Cross Island Parkway adjacent to the Proposed Project during the half-hour or hour immediately preceding or following a major sports event or concert, as often happens at other major venues. Over time, knowledge of the extent of congestion typically arising under events that are less than sellouts and events that are very close to sellouts would allow the arena and its transportation coordinator to roll out a plan that is matched to the level of traffic expected from historical data and monitoring, just as NYCDOT is able to predict "Gridlock Alert Days" from its established historical database.

C. CONSTRUCTION

TRANSPORTATION

TRAFFIC

As described in Chapter 15, "Construction," construction activities associated with the Proposed Actions during the projected peak quarter of construction would result in significant adverse traffic

impacts at three intersections during the 6:00 AM - 7:00 AM peak hour. Implementation of traffic engineering improvements such as the installation of new traffic signals at currently unsignalized intersections and modification of signal phasing and timing at currently signalized intersections would fully mitigate all of the anticipated significant adverse construction traffic impacts. In the absence of the application of traffic mitigation measures during construction, these construction-period impacts would remain unmitigated or partially unmitigated.

A discussion of the recommended mitigation measures/improvements that would be needed to mitigate significant adverse impacts at each impacted intersection is provided below. Implementation of the recommended traffic engineering improvements for these intersections, all of which are located within Queens, is subject to review and approval by NYCDOT. If any of these measures are deemed infeasible and no alternative mitigation measures can be identified at a particular location, then the identified significant adverse construction traffic impacts at such location would be unmitigated.

A summary of proposed traffic mitigation measures, detailed traffic level of service tables showing the effects of proposed mitigation measures, and schematic drawings of proposed traffic mitigation measures are presented in **Appendix F**.

Jamaica Avenue at 213th Street/Hempstead Avenue

The significant adverse impacts at the northbound left turn and shared left turn and through movements of this intersection could be fully mitigated by modifying the signal timing.

Hempstead Avenue at Springfield Boulevard

The significant adverse impacts at the eastbound left turn and westbound shared through and right turn movements of this intersection could be fully mitigated by modifying the signal timing.

Hempstead Avenue at Cross Island Parkway Northbound Off-Ramp

The significant adverse impacts to the northbound off-ramp right turn movement at this intersection could be fully mitigated by advancing the proposed mitigation for this location described above, which involves the installation of a new traffic signal with a 90-second-cycle and two phases and widening of the northbound off-ramp at the southbound intersection approach to two 11-foot-wide travel lanes.

NOISE

Chapter 15, "Construction," concludes that construction of the Proposed Project would have the potential to result in significant adverse construction noise impacts at residential locations immediately adjacent to Site B and certain Belmont Park Dormitories in the stable area of Belmont Park.

As a result of the construction noise levels that would occur at these locations over an extended duration, residences along Huntley Road, both sides of Wellington Road between Hempstead Turnpike and 109th Avenue, the west side of Wellington Road between 109th Avenue and Hathaway Avenue, and the north side of Hathaway Avenue west of Wellington Road would have the potential to experience significant adverse construction noise impacts. These residences consist of single-family homes that generally have insulated glass windows and some form of alternate means of ventilation (i.e., air conditioning), which would be expected to provide at least 25 A-weighted decibels (dBA) window/wall attenuation. Buildings with these specifications would be expected to experience interior noise levels at times during the most noise-intensive construction activities up to approximately 45 dBA, which is generally regarded as acceptable for

residential use.¹ With these façade noise attenuation measures already in place, there are no additional feasible and practicable mitigation measures that would be effective in further reducing the construction noise.

As a result of the construction noise levels that would occur at these locations over an extended duration, Belmont Park Dormitories located along the western edge of the stable area and along the northwestern edge of the stable area near the Training Track would have the potential to experience significant adverse construction noise impacts.

For residences and dormitories that do not have insulated glass windows, the Applicant would offer to provide and install laminated glass storm windows or replacement insulated glass windows for each room that has a window that faces the construction noise source. For residences and dormitories that do not have alternate means of ventilation (i.e., air conditioning), the Applicant would offer to provide and install one through-window air conditioning unit for each room that has a window that faces the construction noise source to allow for the maintenance of a closed-window condition. A survey and in-field verification would be undertaken to confirm which residences and dormitories would be eligible for this mitigation. With the provision of such measures, the façades of these buildings would be expected to provide approximately 25 dBA window/wall attenuation. Therefore, interior noise levels would be reduced to less than the 45 dBA threshold recommended for residential use during worst case construction activity. Consequently, construction noise impacts at these receptors would be fully mitigated.

For the outdoor spaces (e.g., yards, decks) of the residences adjacent to Site B, there would be no feasible or practicable measures to mitigate the construction noise impacts. However, outdoor spaces could still be used without the effects of construction noise outside of the hours that construction would occur, i.e., during the late afternoon, night time, and on most weekends.

¹ https://www.hudexchange.info/onecpd/assets/File/Noise-Guidebook-Chapter-2.pdf