TRAFFIC IMPACT STUDY

Sands New York Integrated Resort

1255 Hempstead Turnpike and 101 James Doolittle Boulevard, Uniondale, Town of Hempstead, Nassau County

PREPARED FOR

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Introduction

This study summarizes the comprehensive evaluation of the potential traffic impacts associated with the proposed redevelopment of the approximately 71.6 acre Nassau Veterans Memorial site to include a world-class Integrated Resort. The proposed action also includes the reconfiguration of the southernmost parking field associated with the adjacent Marriott Hotel. This study was performed in accordance with the Final Scope for the Draft Environmental Impact Statement for the Sands New York Integrated Resort as adopted by the Nassau County Legislature, as Lead Agency.

The Integrated Resort will offer an array of experiences under a single roof. The destination will feature gaming, four and five-star hotels, meeting spaces, a live performance venue, immersive experiences, and a wide range of restaurant and supportive retail experiences.

The purpose of this study is to evaluate the anticipated traffic impacts associated with the proposed Integrated Resort, to evaluate the adequacy of the adjacent roadway network to accommodate the proposed Integrated Resort, and to identify mitigation measures, if required.[1]

[1] Proposed mitigation measures are subject to the review and approval of the agency with jurisdiction over the affected roadway(s).

Project Description

Sands New York is proposed to be a world-class Integrated Resort that incorporates multiple components of leisure, business and entertainment to provide a wide range of experiences for the local community and guests. The Integrated Resort concept leverages the complementary travel patterns of business travelers who attend meetings and conferences during workdays and that of leisure tourists and visitors who visit on weekends. The Integrated Resort will offer an array of experiences under a single roof. The destination will feature gaming, four and five-star hotels, meeting spaces, a live performance venue, immersive experiences, and a wide range of restaurant and supportive retail experiences. Each component of Sands New York will be thoughtfully integrated and woven together through a series of articulated landscape strategies and united by a common theme of environmentally sustainable design.

The Integrated Resort is proposed to include the following new development:

- Two new hotels with a total of 1,670 rooms,[2] a spa, fitness center and swimming pools
- Casino with 393,726 net square foot (sf) of gaming area
- 147,292 sf of food and beverage service with 3,337 seats
- 213,000 sf meetings and conference space
- 4,500 seat arena/live performance venue
- 60,000 sf public attraction space
- 31,200 net sf of retail space
- Various back of house support spaces, circulation and interior utility spaces
- Three parking garages and three surface parking lots

In addition to the new development on the 71.6-acre Coliseum site, detailed above, the proposed action includes modifications to the current southernmost parking field that serves the existing Marriott Hotel property (and is part of the Marriott Hotel lease) to provide parking for the Integrated Resort, as described in more detail within this study. No other changes are proposed to the Marriott Hotel.

Site access to the Integrated Resort will be provided via use of several existing access points that are to be modified as necessary, as well as a new signalized access on Charles Lindbergh Boulevard.

The site will be served by the following access points both signalized and unsignalized:

- An existing Site Access at Hempstead Turnpike & Glenn Curtiss Boulevard (Signalized)
- An existing Site Access (West Drive) at Hempstead Turnpike & the Memorial Sloan Kettering (MSKCC) access road (Signalized)
- An existing Site Access (South Drive) at Earle Ovington Boulevard & Hofstra East Gate Road (Signalized)
- An existing Site Access (North Drive) at Earle Ovington Boulevard & Charles Lindbergh Boulevard eastbound (EB) (Signalized)

[2] The 1,670 proposed hotel rooms do not include the 618 rooms within the existing Marriott Hotel, which will not be changed by this proposed action.

- A New Site Access at Charles Lindbergh Boulevard & Sands Boulevard (Signalized)
- Two existing access points (unnamed) along Earle Ovington Boulevard at locations of current minor driveways directly to current parking fields (Unsignalized)
- A proposed Truck and Bus access entry and exit point along Charles Lindbergh (Unsignalized)
- Minor Site Access at points along James Doolittle Boulevard (Unsignalized).

These access roadways will connect to individual access points into garages and parking areas. Bicycle and pedestrian access and circulation will be accommodated throughout the site.

Parking for the overall development would be provided by a combination of parking garages and surface parking spaces. The three proposed parking garages (A, B and C), as depicted on the Conceptual Master Plan, contain a total of 9,963 parking stalls, and an additional 2,487 parking stalls are provided in surface parking areas for a total of 12,450 parking stalls. The development also includes areas for bus drop-off/pick-up, taxis, and ride-sharing services (e.g., Uber, Lyft).

While construction on the site will be continuous through total completion (noted in this report as the Full Build Condition in 2030), this study also evaluates a Phase 1 condition in 2027. The Phase 1 condition represents the stage at which the first portion of the Integrated Resort will be completed and open to the public.

Phase 1, which is expected to commence construction in early 2026 and be completed at the end of 2027, consists of the remodeling of the Coliseum such that it is adaptively reused as casino space with supportive services (e.g., food and beverage, limited retail, circulation, support operations). Various site and arrival improvements will also be made, and one of the proposed three parking garages (Parking Garage A) will be constructed, along with one of the central utilities plants (which will be housed within the parking garage).

Construction of Phase 2 will commence in mid-2026, and will overlap with Phase 1 construction. Phase 2 consists of the remainder of the proposed site development, including additional casino gaming space; two hotel towers; additional food and beverage spaces; conference center; entertainment venue; public attraction space, additional retail space; two additional parking garages; a central utilities plant; and associated site improvements. The full build condition (Phases 1 and 2 operational) is expected by the end of 2030.

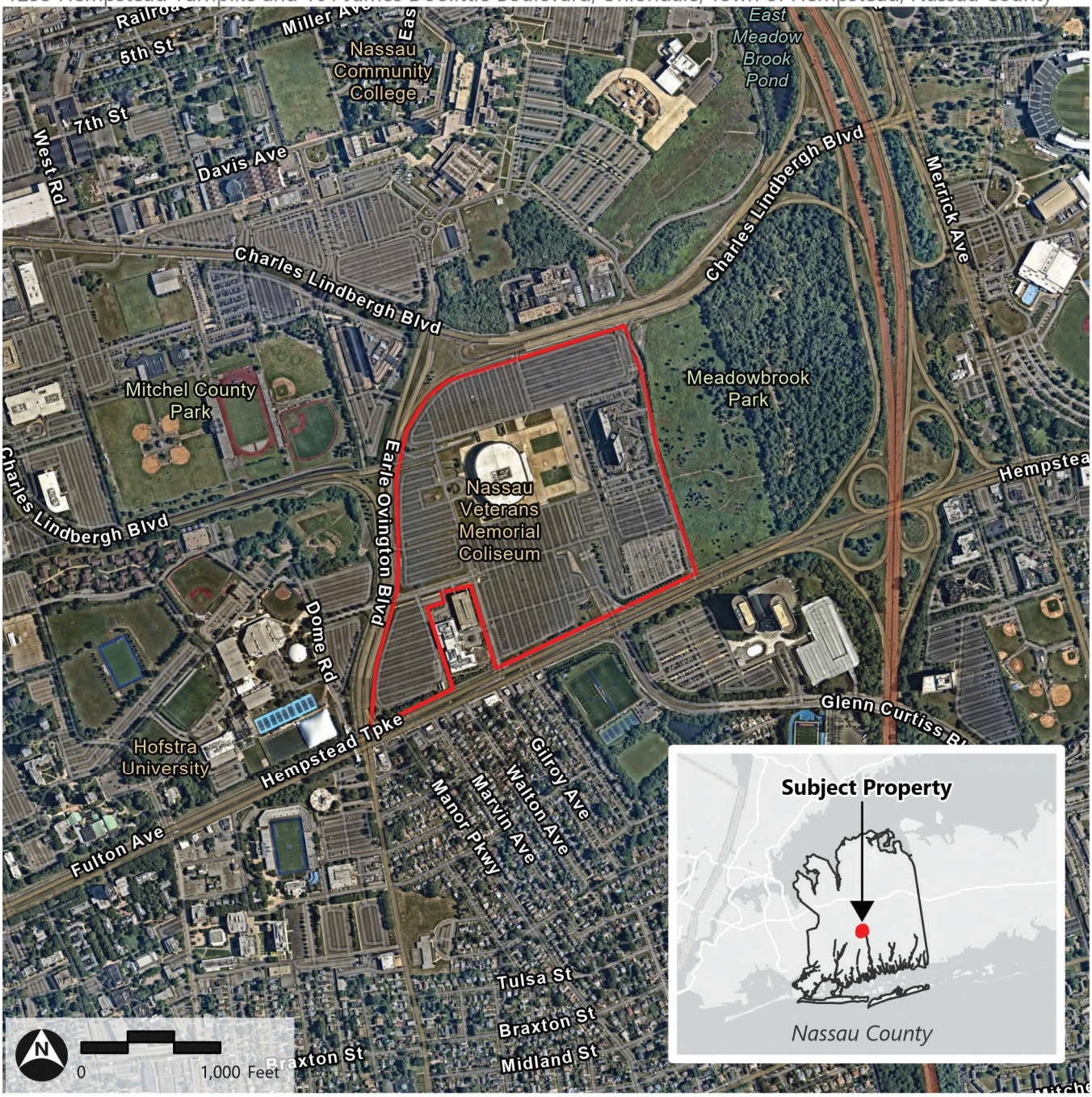
In preparing this Traffic Impact Study (TIS), it is important to note that the Nassau Veterans Memorial Coliseum, located on the project site, is a regional sports and entertainment venue with the potential to draw significant traffic to the area when active. While the level of activity at the Nassau Veterans Memorial Coliseum has substantially waned in recent years primarily due to the relocation of the New York Islanders of the National Hockey League to UBS Arena at Belmont Park in Elmont New York in 2021 and changes in the entertainment market, the site and the major roadways around the site accommodated the traffic associated with the arrival and departure at the venue for events attended by up to 16,000 people. While this is recognized in this report, no credit was taken for the permanent elimination of this use on the site and the base condition for this TIS, in effect, treats the site as vacant for the evaluation of traffic impacts.

The project location is shown in Figure A-1. The Conceptual Master Plan is included in Attachment A.

Figure A-1 Project Location

Sands New York Integrated Resort

1255 Hempstead Turnpike and 101 James Doolittle Boulevard, Uniondale, Town of Hempstead, Nassau County



Subject Property

* Boundaries are approximate

Source: Nassau County GIS, ESRI, Nearmap

Path: \\vhb.com\gbl\proj\Hauppauge\26841.01 CONF-Sands Hotel Nassau\cad\te\planset\Figures for Body of TIS

Study Methodology

This TIS was performed in accordance with the Final Scope for the Draft Environmental Impact Statement (DEIS) for the Sands New York Integrated Resort as adopted by the Lead Agency. This TIS was prepared utilizing standard and accepted traffic engineering practices for the performance of studies to evaluate developments of this nature and includes an evaluation of the existing traffic operations, an assessment of future conditions without development of the proposed Integrated Resort, an estimate of projected trip generation for the proposed Integrated Resort, and the evaluation of the potential impacts of the proposed Integrated Resort on future traffic and transit operations in the study area. Specifically:

- The Conceptual Master Plan and related documents were reviewed to obtain an understanding of the Integrated Resort scope and layout.
- A review was made of the area roadway system and the key intersections that could potentially be significantly impacted by the proposed Integrated Resort were identified and included in the study area (described in Section 2).
- Field inventories were completed to document existing conditions in the study area. Traffic Signal Timings were obtained from the Nassau County Department of Public Works (NCDPW) and New York State Department of Transportation (NYSDOT) for the appropriate intersections and confirmed with field observations.
- Turning movement counts were collected at the study area intersections, as described in Section 2, over the course of extended morning, midday, afternoon and evening peak periods on multiple typical weekdays, a typical Friday and a typical Saturday. These extended count periods account for the unique operational characteristics of the proposed Integrated Resort, which will see some peak periods of site traffic outside of the typical peak periods of study, as described later in this study.
- Automatic Traffic Recorder (ATR) counts were performed for a full week at key locations around the site, as well as on sections and ramps along the Meadowbrook State Parkway within the study area.
- Existing traffic volumes were collected at the study area intersections and along the Meadowbrook State Parkway, the Northern State Parkway and the Southern State Parkway in 2023. The traffic volumes for the study area intersections were expanded to the future development years for Phase 1 (2027) and Full Build (2030). Traffic volumes along the parkways were expanded to the future development year for Full Build (2030). These traffic volumes were collected to provide the basis for the evaluation of the Integrated Resort during a typical (non-summer) period. In addition, traffic volumes were collected during the holiday period (late-November through late-December) at select locations identified in the Final Scope and along the parkways during the peak summer season (a weekend).
- Information about Other Planned Developments (OPDs) was obtained from the area Villages, the Town of Hempstead and the Town of North Hempstead and added to the existing traffic volumes as necessary to produce the No-Build traffic volumes.
- Information regarding planned roadway improvements was obtained from the NYSDOT and NCDPW.

- Traffic generated by the proposed Integrated Resort was estimated, distributed through the study area (described in Section 2), and added to the No-Build volumes to develop the proposed Integrated Resort Build volumes.
- Capacity analyses were performed for the study area intersections, site access points, and sections and ramps along the Meadowbrook State Parkway within the study area for the Existing, No-Build, and Build conditions.
- The need for traffic mitigation measures was evaluated.
- The transit needs of the site were evaluated.
- Pedestrian and bicycle connections to and from the site were developed.
- A crash analysis was conducted for the latest pre-Covid three-year period for the study intersections and roadway segments.
- The adequacy of the proposed off-street parking was evaluated, and the site layout was reviewed.
- The proposed site access configuration and internal circulation were evaluated.

Traffic Data Collection Program

The Traffic Data Collection program consisted of obtaining turning movement counts (TMCs) at the study area intersections and automatic traffic recording (ATR) counts on local roadways and along the Meadowbrook State Parkway, the Northern State Parkway, the Southern State Parkway and their ramps within the study area. This section identifies the study area intersections where TMCs were conducted and the time periods the TMCs were conducted for, as well as the ATR locations and the time periods for which the ATRs were obtained. Figure A-2 shows the study area intersections and Figure A-3 shows the limits of the Parkway analysis. The TMC data is included in Attachment B and the ATR data is included in Attachment C.

Turning Movement Counts

Turning movement counts at study intersections were performed for the entire study area to document traffic volumes during the typical (non-summer) period. In addition, as required in the Final Scope, additional counts were performed at several intersections near the Roosevelt Field Mall for the holiday period (late-November through late-December) to capture traffic volumes during the heavy shopping period which accompanies the Christmas holiday. The specific dates that each intersection was counted for each condition are listed in Attachment B. Typical (non-summer) counts were conducted at the study area intersections during the study periods for the weekday AM peak period from 7:00 to 10:00 a.m. and the extended weekday PM peak period from 3:00 to 11:00 p.m. TMCs were collected on Saturday for the Saturday midday peak period from 11:00 a.m. to 3:00 p.m. and the Saturday extended PM peak period from 4:00 p.m. to 11:00 p.m. Counts performed for the holiday period (late-November through late-December) included the extended weekday PM and Saturday midday peak periods only. The times of day account for the peak periods of ambient traffic on the roadway network for the study periods, as well as the peak hours of operation for the proposed Integrated Resort.

The TMCs were collected and include data on pedestrians and bicycles, as well as a breakdown of the class of vehicles identified between heavy/articulated trucks, light vehicles, and buses for each movement. U-turn and Right-Turn on Red (RTOR) movements were also recorded.

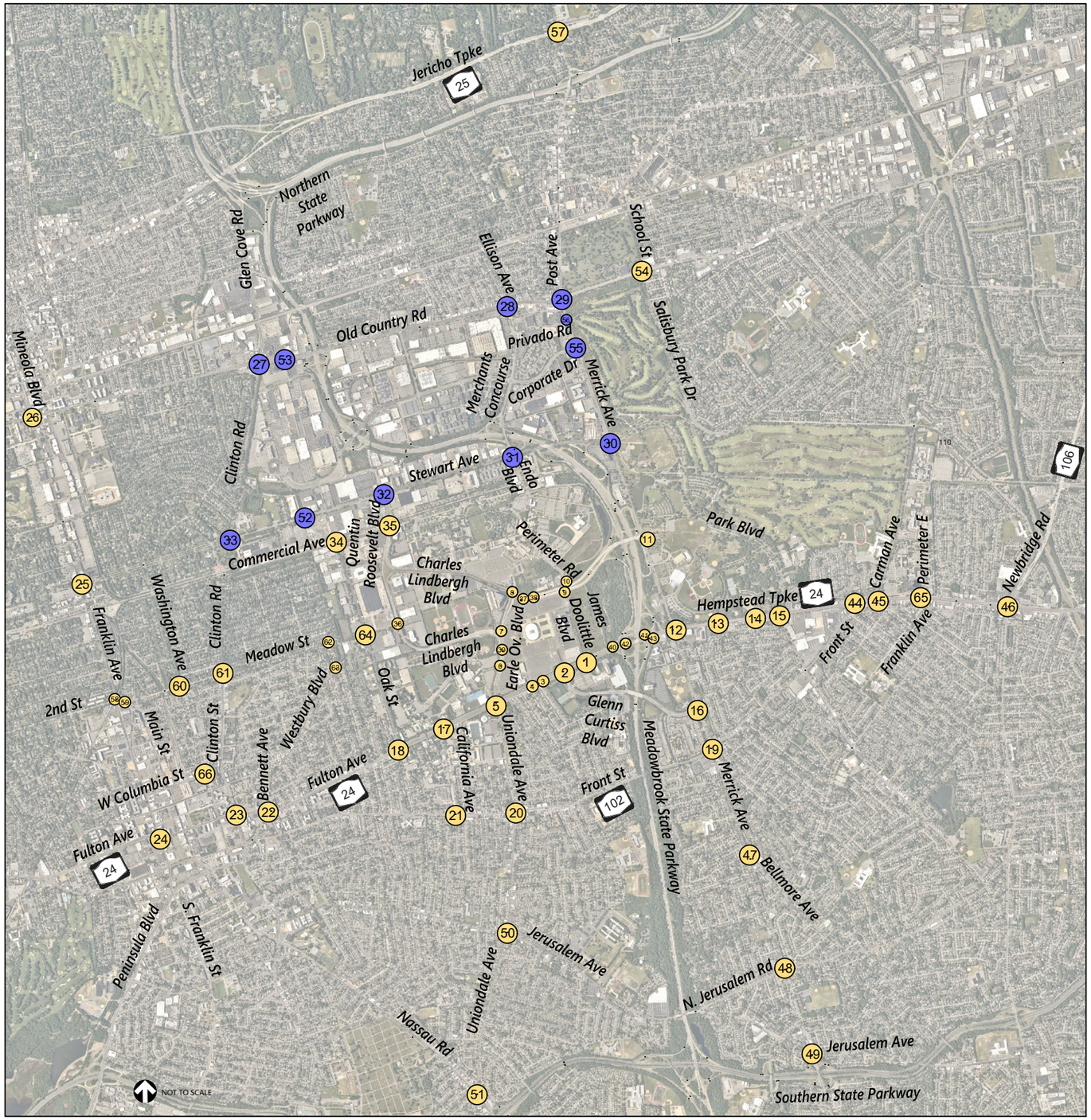
The study area for the proposed Integrated Resort includes the intersections listed below, which were evaluated in detail for the weekday AM and PM commuter peak hours, the Friday evening critical peak hour (combination of peak site traffic and adjacent street traffic), the Saturday midday peak hour and the Saturday evening critical peak hour. The intersections also evaluated for the holiday period are noted with an H.

1. Hempstead Turnpike at James Doolittle Boulevard
2. Hempstead Turnpike at Glenn Curtiss Boulevard/Nassau Coliseum Main Entrance
3. Hempstead Turnpike at Cunningham Avenue
4. Hempstead Turnpike at Memorial Sloan Kettering (MSKCC) Entrance
5. Hempstead Turnpike at Earle Ovington Boulevard/Uniondale Avenue
6. Earle Ovington Boulevard at Hofstra East Gate Road/Site Access
7. Charles Lindbergh Boulevard Eastbound (EB) at Earle Ovington Boulevard/Site Access
8. Charles Lindbergh Boulevard Westbound (WB) at Earle Ovington Boulevard/Nassau Community College
9. Charles Lindbergh Boulevard EB at James Doolittle Boulevard/Site Access
10. Charles Lindbergh Boulevard WB at Nassau Community College Perimeter Road
11. Merrick Avenue at Charles Lindbergh Boulevard
12. Hempstead Turnpike at Merrick Avenue
13. Hempstead Turnpike at Eisenhower Park Pedestrian Entrance
14. Hempstead Turnpike at Coolidge Drive
15. Hempstead Turnpike at Park Boulevard/East Meadow Avenue
16. Merrick Avenue at Glenn Curtiss Boulevard/Peters Gate
17. Hempstead Turnpike at California Avenue/Hofstra Boulevard
18. Hempstead Turnpike at Oak Street/Hofstra
19. Front Street at Merrick Avenue
20. Front Street at Uniondale Avenue
21. Front Street at California Avenue
22. Fulton Avenue at Peninsula Boulevard/Bennett Avenue
23. Fulton Avenue at Clinton Street
24. Fulton Avenue at N Franklin Street
25. Franklin Avenue at Stewart Avenue
26. Old Country Road at Franklin Avenue/Mineola Boulevard
27. Old Country Road at Clinton Road/Glen Cove Road (H)
28. Old Country Road at Merchants Concourse/Ellison Avenue (H)
29. Old Country Road at Merrick Avenue/Post Avenue (H)
30. Merrick Avenue at Stewart Avenue/Park Boulevard (H)
31. Stewart Avenue at Endo Boulevard/Merchants Concourse (H)
32. Stewart Avenue at Quentin Roosevelt Boulevard/South Street (H)
33. Stewart Avenue at Clinton Road (H)
34. Oak Street at Commercial Avenue
35. Commercial Avenue at Quentin Roosevelt Boulevard
36. Charles Lindbergh Boulevard at Westbury Boulevard (Meadow Street)
37. Charles Lindbergh Boulevard WB at U-Turn (near Earle Ovington Boulevard

Figure A-2: Study Area Intersections

Sands New York Integrated Resort

1255 Hempstead Turnpike and 101 James Doolittle Boulevard, Uniondale, Town of Hempstead, Nassau County



1 Hempstead Turnpike at James Doolittle Boulevard
2 Hempstead Turnpike at Glenn Curtiss Boulevard/Nassau Coliseum Main Entrance
3 Hempstead Turnpike at Cunningham Avenue
4 Hempstead Turnpike at Memorial Sloan Kettering (MSK) Entrance
5 Hempstead Turnpike at Earle Ovington Boulevard/Uniondale Avenue
6 Earle Ovington Boulevard at Hofstra East Gate Road/Site Access
7 Charles Lindbergh Boulevard Eastbound at Earle Ovington Boulevard/Site Access
8 Charles Lindbergh Boulevard Westbound at Earle Ovington Blvd/Nassau Community College
9 Charles Lindbergh Boulevard Eastbound at James Doolittle Boulevard/Site Access
10 Charles Lindbergh Boulevard Westbound at Nassau Community College Perimeter Road
11 Merrick Avenue at Charles Lindbergh Boulevard
12 Hempstead Turnpike at Merrick Avenue
13 Hempstead Turnpike at Eisenhower Park Pedestrian Entrance
14 Hempstead Turnpike at Coolidge Drive
15 Hempstead Turnpike at Park Boulevard/East Meadow Avenue
16 Merrick Avenue at Glenn Curtiss Boulevard/Peters Gate
17 Hempstead Turnpike at California Avenue/Hofstra Boulevard
18 Hempstead Turnpike at Oak Street/Hofstra
19 Front Street at Merrick Avenue
20 Front Street at Uniondale Avenue
21 Front Street at California Avenue
22 Fulton Avenue at Peninsula Boulevard/Bennett Avenue
23 Fulton Avenue at Clinton Street
24 Fulton Avenue at N Franklin Street
25 Franklin Avenue at Stewart Avenue
26 Old Country Road at Franklin Avenue/Mineola Boulevard
27 Old Country Road at Clinton Road/Glen Cove Road
28 Old Country Road at Merchants Concourse/Ellison Avenue
29 Old Country Road at Merrick Avenue/Post Avenue
30 Merrick Avenue at Stewart Avenue/Park Boulevard
31 Stewart Avenue at Endo Boulevard/Merchants Concourse
32 Stewart Avenue at Quentin Roosevelt Boulevard/South Street
33 Stewart Avenue at Clinton Road
34 Oak Street at Commercial Avenue
35 Commercial Avenue at Quentin Roosevelt Boulevard
36 Charles Lindbergh Boulevard at Westbury Boulevard
37 Charles Lindbergh Boulevard at Westbound U-Turn (near Earle Ovington Boulevard)
38 Charles Lindbergh Boulevard Eastbound at Coliseum North Exit Gate
39 Earle Ovington Boulevard at Coliseum Media/Staff Parking
40 Hempstead Turnpike Westbound at Meadowbrook State Parkway Southbound Off Ramp
41 Hempstead Turnpike Westbound at Meadowbrook State Parkway Northbound Off Ramp
42 Hempstead Turnpike Eastbound at Meadowbrook State Parkway Southbound Off Ramp
43 Hempstead Turnpike Eastbound at Meadowbrook State Parkway Northbound Off Ramp
44 Hempstead Turnpike at Front Street
45 Hempstead Turnpike at Carman Avenue/3rd Street
46 Hempstead Turnpike at Newbridge Road
47 Merrick Avenue at Bellmore Avenue
48 Merrick Avenue at North Jerusalem Avenue
49 Merrick Avenue at Jerusalem Avenue
50 Uniondale Avenue at Jerusalem Avenue
51 Uniondale Avenue/Brookside Avenue at Nassau Road
52 Stewart Avenue at Ring Road West (Roosevelt Field)
53 Old Country Road at Roosevelt Field Mall Entrance
54 Old Country Road at Salisbury Park Drive/School Street
55 Merrick Avenue at Corporate Drive
56 Merrick Avenue at Privado Road
57 Jericho Turnpike at Post Avenue/Post Road
58 Main Street/2nd Street at Franklin Avenue
59 Main Street at Meadow Street
60 Meadow Street at Washington Avenue
61 Meadow Street at Clinton Road
62 Meadow Street at Lindbergh Street
63 Westbury Boulevard at Lindbergh Street
64 Oak Street at Westbury Boulevard/Meadow Street
65 Hempstead Turnpike at Perimeter Road East/Franklin Avenue
66 Washington Street at W Columbia Street

Legend:
Study intersection - Typical (Non-Summer) Only
Study Intersection - Typical (Non-Summer) and Holiday Period (Late November Through Late December)

Basemap Source: Nearmap
Not to Scale

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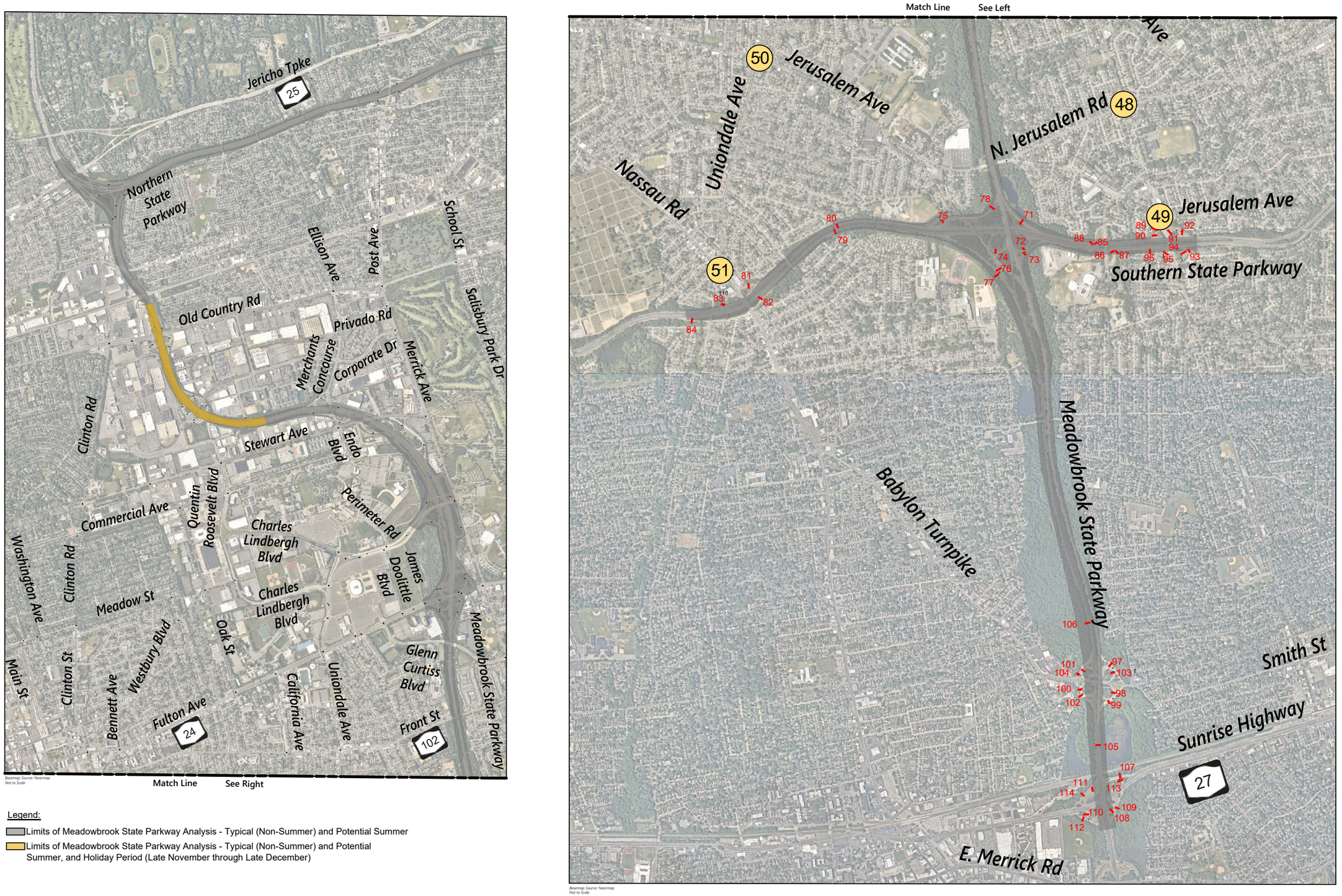
Figure A-3: Parkway Study Area

Sands New York Integrated Resort

1255 Hempstead Turnpike and 101 James Doolittle Boulevard, Uniondale, Town of Hempstead, Nassau County



Legend:

- Limits of Meadowbrook State Parkway Analysis - Typical (Non-Summer) and Potential Summer
- Limits of Meadowbrook State Parkway Analysis - Typical (Non-Summer) and Potential Summer, and Holiday Period (Late November through Late December)

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38. Charles Lindbergh Boulevard EB at Coliseum North Exit Gate
39. Earle Ovington Boulevard at Coliseum Media/Staff Parking
40. Hempstead Turnpike WB at Meadowbrook State Parkway SB Off Ramp
41. Hempstead Turnpike WB at Meadowbrook State Parkway NB Off Ramp
42. Hempstead Turnpike EB at Meadowbrook State Parkway SB Off Ramp
43. Hempstead Turnpike EB at Meadowbrook State Parkway NB Off Ramp
44. Hempstead Turnpike at Front Street
45. Hempstead Turnpike at Carman Avenue/3rd Street
46. Hempstead Turnpike at Newbridge Road
47. Merrick Avenue at Bellmore Avenue
48. Merrick Avenue at North Jerusalem Avenue
49. Merrick Avenue at Jerusalem Avenue
50. Uniondale Avenue at Jerusalem Avenue
51. Uniondale Avenue/Brookside Avenue at Nassau Road
52. Stewart Avenue at Ring Road West (Roosevelt Field) (H)
53. Old Country Road at Roosevelt Field Mall Entrance (H)
54. Old Country Road at Salisbury Park Drive/School Street
55. Merrick Avenue at Corporate Drive (H)
56. Merrick Avenue at Privado Road (H)
57. Jericho Turnpike at Post Avenue/Post Road
58. Main Street/2nd Street at Franklin Avenue
59. Main Street at Meadow Street
60. Meadow Street at Washington Avenue
61. Meadow Street at Clinton Road
62. Meadow Street at Lindbergh Street
63. Westbury Boulevard at Lindbergh Street
64. Oak Street at Westbury Boulevard/Meadow Street
65. Hempstead Turnpike at Perimeter Road East/Franklin Avenue
66. Washington Street at W Columbia St

Note that while the locations on Hempstead Turnpike at the Meadowbrook State Parkway ramps (location numbers 40 through 43 above) are listed amongst the intersections in the Final Scope for the DEIS, they are ramp junctions. Accordingly, they are evaluated in the Parkway and Intersections Analysis in Section 4 of this report.

Automatic Traffic Recorders

Automatic Traffic Recorders (ATR) were installed for seven consecutive days in February and September of 2023, representing typical (non-summer) conditions to document traffic volumes at key locations on area arterials and local surface streets as well as at locations along the Meadowbrook State Parkway, the Northern State Parkway, the Southern State Parkway and their ramps within the study area at the locations below. In addition, ATRs were installed at all locations along the parkways and ramps over the course of a summer weekend to capture a Saturday midday peak hour summer condition. Finally, a number of locations near the Roosevelt Field Mall and nearby areas that are known to experience higher retail-related traffic during the holiday period (late-November through late-December) were counted again with ATRs to provide the volumes necessary for a weekday PM and Saturday midday evaluation during the holiday period on the Meadowbrook State Parkway. The specific dates that each location was counted for each condition are listed in

Attachment C. Locations listed below that were also counted during the summer condition are noted with an S and those also counted during the holiday period are noted with an H. The locations of the ATR counts are shown on Figures included in Attachment C.

1. Hempstead Turnpike (NY 24) between James Doolittle Boulevard and Meadowbrook State Parkway Ramps – Both EB and WB directions
2. Earle Ovington Boulevard between Charles Lindbergh Boulevard EB and Hofstra East Gate Road – Both Northbound (NB) and Southbound (SB) directions
3. Charles Lindbergh Boulevard between Earle Ovington Boulevard and James Doolittle Boulevard - Both EB and WB directions
4. Charles Lindbergh Boulevard WB to EB U-turn
5. Charles Lindbergh Boulevard EB to WB U-turn
6. Hempstead Turnpike west of Newbridge Road (NY 106) – Both EB and WB directions
7. Old Country Road east of Zeckendorf Boulevard – Both EB and WB directions
8. Northern State Parkway EB Exit Ramp to Post Avenue (S)
9. Post Avenue Entrance Ramp to Northern State Parkway EB (S)
10. Northern State Parkway WB Exit Ramp to Post Avenue (S)
11. Post Avenue Entrance Ramp to Northern State Parkway WB (S)
12. Northern State Parkway EB Mainline East of Post Avenue (S)
13. Northern State Parkway WB Mainline East of Post Avenue (S)
14. Northern State Parkway WB Connector to Meadowbrook State Parkway SB (S)
15. Meadowbrook State Parkway NB Ramp to Northern State Parkway EB (S)
16. Northern State Parkway EB Connector to Meadowbrook State Parkway SB (S)
17. Meadowbrook State Parkway NB Connector to Northern State Parkway WB (S)
18. Northern State Parkway EB Mainline through Meadowbrook State Parkway interchange (S)
19. Northern State Parkway WB Exit Ramp to Glen Cove Road NB (S)
20. Glen Cove Road Entrance Ramp to Northern State Parkway EB (S)
21. Glen Cove Road Entrance Ramp to Meadowbrook State Parkway SB (S)
22. Meadowbrook State Parkway NB Mainline North of Old Country Road (S)
23. Meadowbrook State Parkway SB Mainline North of Old Country Road (S)
24. Old Country Road WB Entrance Ramp to Meadowbrook State Parkway NB (S, H)
25. Meadowbrook State Parkway SB Exit Ramp to Old Country Road WB (S, H)
26. Old Country Road Entrance Ramp to Meadowbrook State Parkway SB (S, H)
27. Ring Road East Entrance Ramp to Meadowbrook State Parkway SB (S, H)
28. Meadowbrook State Parkway SB Exit Ramp to Old Country Road EB (S, H)
29. Old Country Road EB Entrance Ramp to Meadowbrook State Parkway NB (S, H)
30. Meadowbrook State Parkway NB Exit Ramp to Old Country Road (S, H)
31. Meadowbrook State Parkway NB Mainline South of Old Country Road (S, H)
32. Meadowbrook State Parkway SB Mainline South of Old Country Road (S, H)
33. Zeckendorf Boulevard WB Entrance Ramp to Meadowbrook State Parkway NB (S, H)
34. Meadowbrook State Parkway NB Exit Ramp to Roosevelt Field (S, H)
35. Zeckendorf Boulevard WB Entrance Ramp to Meadowbrook State Parkway SB (S, H)
36. Meadowbrook State Parkway SB Exit Ramp to Zeckendorf Boulevard EB (S, H)
37. Zeckendorf Boulevard EB Entrance Ramp to Meadowbrook State Parkway SB (S, H)
38. Zeckendorf Boulevard EB Entrance Ramp to Meadowbrook State Parkway NB (S, H)
39. Meadowbrook State Parkway NB Exit Ramp to Zeckendorf Boulevard (Dibblee Drive) (S, H)
40. Meadowbrook State Parkway SB Exit Ramp to Roosevelt Field (S, H)
41. Meadowbrook State Parkway NB Mainline South of Zeckendorf Boulevard (S, H)
42. Meadowbrook State Parkway SB Mainline South of Zeckendorf Boulevard (S, H)

43. Merchants Concourse Entrance Ramp to Meadowbrook State Parkway NB (S)
44. Meadowbrook State Parkway NB Exit Ramp to Merchants Concourse NB (S)
45. Meadowbrook State Parkway SB Exit Ramp to Stewart Ave/Endo Boulevard (S)
46. Meadowbrook State Parkway NB Exit Ramp to Stewart Ave/Endo Boulevard (S)
47. Meadowbrook State Parkway SB Exit Ramp to Merchants Concourse NB (S)
48. Meadowbrook State Parkway north of Stewart Avenue NB (S)
49. Meadowbrook State Parkway north of Stewart Avenue SB (S)
50. EB Stewart Avenue Ramp to NB Meadowbrook State Parkway (S)
51. Meadowbrook State Parkway NB Off-Ramp to EB Stewart Avenue (S)
52. Stewart Avenue Ramp to SB Meadowbrook State Parkway (S)
53. Meadowbrook State Parkway NB between Charles Lindbergh Boulevard and Stewart Avenue ramps (S)
54. Meadowbrook State Parkway NB CD Road between Charles Lindbergh Boulevard and Stewart Avenue ramps (S)
55. Meadowbrook State Parkway SB Off-Ramp to Charles Lindbergh Boulevard (S)
56. Charles Lindbergh Boulevard Ramp to SB Meadowbrook State Parkway (S)
57. Charles Lindbergh Boulevard Ramp to NB Meadowbrook State Parkway (S)
58. Meadowbrook State Parkway NB Off-Ramp to Charles Lindbergh Boulevard (S)
59. Meadowbrook State Parkway SB south of Charles Lindbergh overpass (S)
60. Meadowbrook State Parkway SB CD Road south of Charles Lindbergh overpass (S)
61. Meadowbrook State Parkway SB Off-Ramp to WB Hempstead Turnpike (S)
62. Meadowbrook State Parkway SB Off-Ramp to EB Hempstead Turnpike (S)
63. Meadowbrook State Parkway NB Off-Ramp to WB Hempstead Turnpike (S)
64. Meadowbrook State Parkway NB Off-Ramp to EB Hempstead Turnpike (S)
65. EB Hempstead Turnpike ramp to NB Meadowbrook State Parkway (S)
66. EB Hempstead Turnpike ramp to SB Meadowbrook State Parkway (S)
67. WB Hempstead Turnpike ramp to NB Meadowbrook State Parkway (S)
68. WB Hempstead Turnpike ramp to SB Meadowbrook State Parkway (S)
69. Meadowbrook State Parkway south of Hempstead Turnpike NB (S)
70. Meadowbrook State Parkway south of Hempstead Turnpike SB (S)
71. Southern State Parkway WB Exit Ramp to Meadowbrook State Parkway NB (S)
72. Southern State Parkway EB Exit Ramp to Meadowbrook State Parkway NB (S)
73. Meadowbrook State Parkway NB Exit Ramp to Southern State Parkway EB (S)
74. Meadowbrook State Parkway SB Exit Ramp to Southern State Parkway EB (S)
75. Meadowbrook State Parkway NB Exit Ramp to Southern State Parkway WB (S)
76. Southern State Parkway WB Exit Ramp to Meadowbrook State Parkway SB (S)
77. Southern State Parkway EB Exit Ramp to Meadowbrook State Parkway SB (S)
78. Meadowbrook State Parkway SB Exit Ramp to Southern State Parkway WB (S)
79. Southern State Parkway EB Mainline west of Meadowbrook State Parkway (S)
80. Southern State Parkway WB Mainline west of Meadowbrook State Parkway (S)
81. Southern State Parkway WB Exit Ramp to Nassau Road (S)
82. Nassau Road Entrance Ramp to Southern State Parkway EB (S)
83. Nassau Road Entrance Ramp to Southern State Parkway WB (S)
84. Southern State Parkway EB Exit Ramp to Nassau Road (S)
85. Southern State Parkway WB Exit Ramp to Meadowbrook Road (S)
86. Southern State Parkway EB Exit Ramp to Meadowbrook Road (S)
87. Meadowbrook Road Entrance Ramp to Southern State Parkway EB (S)
88. Meadowbrook Road Entrance Ramp to Southern State Parkway WB (S)

89. Merrick Avenue SB Entrance Ramp to Southern State Parkway WB (S)
90. Southern State Parkway WB Exit Ramp to Merrick Avenue SB (S)
91. Merrick Avenue NB Entrance Ramp to Southern State Parkway WB (S)
92. Southern State Parkway WB Exit Ramp to Merrick Avenue NB (S)
93. Merrick Avenue NB Entrance Ramp to Southern State Parkway EB (S)
94. Southern State Parkway EB Exit Ramp to Merrick Avenue NB (S)
95. Merrick Avenue SB Entrance Ramp to Southern State Parkway EB (S)
96. Southern State Parkway EB Exit Ramp to Merrick Avenue SB (S)
97. Babylon Turnpike WB Entrance Ramp to Meadowbrook State Parkway NB (S)
98. Babylon Turnpike EB Entrance Ramp to Meadowbrook State Parkway NB (S)
99. Meadowbrook State Parkway NB Exit Ramp to Babylon Turnpike EB (S)
100. Meadowbrook State Parkway SB Exit Ramp to Babylon Turnpike EB (S)
101. Babylon Turnpike WB Entrance Ramp to Meadowbrook State Parkway SB (S)
102. Babylon Turnpike EB Entrance Ramp to Meadowbrook State Parkway SB (S)
103. Meadowbrook State Parkway NB Exit Ramp to Babylon Turnpike WB (S)
104. Meadowbrook State Parkway SB Exit Ramp to Babylon Turnpike WB (S)
105. Meadowbrook State Parkway NB Mainline south of Babylon Turnpike (S)
106. Meadowbrook State Parkway SB Mainline north of Babylon Turnpike (S)
107. Sunrise Highway WB Entrance Ramp to Meadowbrook State Parkway NB (S)
108. Sunrise Highway EB Entrance Ramp to Meadowbrook State Parkway NB (S)
109. Meadowbrook State Parkway NB Exit Ramp to Sunrise Highway EB (S)
110. Meadowbrook State Parkway SB Exit Ramp to Sunrise Highway EB (S)
111. Sunrise Highway WB Entrance Ramp to Meadowbrook State Parkway SB (S)
112. Sunrise Highway EB Entrance Ramp to Meadowbrook State Parkway SB (S)
113. Meadowbrook State Parkway NB Exit Ramp to Sunrise Highway WB (S)
114. Meadowbrook State Parkway SB Exit Ramp to Sunrise Highway WB (S)

2

Existing Conditions

Evaluation of the transportation impacts associated with the proposed Integrated Resort requires a thorough understanding of the existing transportation conditions in the study area. Roadway geometry, traffic control, daily and peak hour traffic flow, existing land uses surrounding the site, Multi-Modal accommodations and safety are described in detail below.

Roadway and Intersection Conditions

The principal roadways in the study area are described below. Detailed descriptions of the study area intersections, including the geometric and traffic control characteristics, are provided in Attachment D. As part of this study, field investigations of all study intersections were performed to document existing conditions. These efforts were supplemented with desktop review sources such as publicly available and subscription mapping programs. Field sketches were prepared for all study intersections documenting existing geometric and traffic control conditions and other public infrastructure in the intersection area. These field sketches and aerial imagery are provided in Attachment D.

Principal Roadways

Meadowbrook State Parkway (NY Route 908E)

The Meadowbrook State Parkway (NY 908E) extends approximately 12.5 miles between the Northern State Parkway at its northern terminus in Carle Place southward to its southern terminus in Jones Beach State Park at Bay Parkway and Ocean Parkway. Meadowbrook State Parkway is a heavily traveled Principal Arterial Expressway which provides for north-south travel and includes interchanges with several major east-west roadways, including multiple cloverleaf (or partial

cloverleaf), diamond, and directional interchanges which influence and affect the operations and vehicular capacity of the corridor.

Meadowbrook State Parkway is a north-south limited-access divided highway under the jurisdiction of the NYSDOT. The Parkway is a major Long Island parkway that prohibits commercial traffic north of Merrick Road. Major destinations served by the Parkway include Roosevelt Field Mall, Eisenhower Park, Nassau Veterans Memorial Coliseum, Nassau Community College, Hofstra University, and Jones Beach State Park. In addition to the Northern State and Ocean Parkways, there are major interchanges at Old Country Road, Hempstead Turnpike, Southern State Parkway, Sunrise Highway, and Merrick Avenue.

In general, and within the study area, from its interchange with Sunrise Highway north to the Northern State Parkway, the Parkway consists of three travel lanes in each direction separated by a concrete median barrier or a wide grass and planted median. The study area along the Parkway includes interchanges with:

- Sunrise Highway (NY 27) (M8)
- Babylon Turnpike (M7)
- Southern State Parkway (M6)
- Hempstead Turnpike (NY 24) (M4, M5)
- Charles Lindbergh Boulevard (M4)
- Stewart Avenue (M3W)
- Merchants Concourse (M3E)
- Zeckendorf Boulevard / Roosevelt Field Mall (M2E/M2W)
- Old Country Road (M1)
- Glen Cove Road, and
- Northern State Parkway

A two-lane collector-distributor road system exists in the northbound and southbound directions from immediately north of Hempstead Turnpike to just south of Stewart Avenue. Parking is prohibited on and along the Parkway. The posted speed limit is 55 miles per hour (mph). The key roadways providing access to the site are described below.

Northern State Parkway (NY Route 908G)

The Northern State Parkway (NY 908G) extends approximately 36 miles between the Cross Island Parkway at its westerly terminus to its easterly terminus with NY 454 in Hauppauge, NY. West of the interchange between the Northern State Parkway and the Cross Island Parkway, the designation of this parkway changes to the Grand Central Parkway (and the posted speed limit drops from 55 mph to 50 mph) as it continues through Queens County. The Northern State Parkway is classified as a Principal Arterial Expressway and runs east/west with interchanges at many prominent north/south roadways, including the Meadowbrook State Parkway.

Immediately west of its interchange with the Meadowbrook State Parkway, the Northern State Parkway provides four travel lanes in each direction, reducing to three travel lanes in each direction east of the interchange. The study area along the Parkway includes interchanges with:

- Meadowbrook State Parkway

- Post Avenue

Parking is prohibited on and along the Parkway. Similar to other parkways in the area, commercial vehicles are not permitted on the section of the parkway included in the study area.

Southern State Parkway (NY Route 908M)

The Southern State Parkway (NY 908M) runs approximately 33.5 miles between the Cross Island Parkway/Belt Parkway at its westerly terminus to its easterly terminus entering Heckscher State Park in Great River. At its westerly terminus, after merging into the Cross Island Parkway, the designation changes to the Belt Parkway (and the speed limit drops from 55 mph to 50 mph) as it continues into Queens and then through Brooklyn. The Southern State Parkway is classified as a Principal Arterial Expressway and runs east/west with interchanges at many prominent north/south roadways along the south shore of Long Island, including the Meadowbrook State Parkway.

In general, through the study area, the Southern State Parkway provides three travel lanes in each direction of travel separated by a vegetated median with barrier. The study area along the Parkway includes interchanges with:

- Nassau Road
- Meadowbrook State Parkway
- Meadowbrook Road
- Merrick Avenue

Parking is prohibited on and along the Parkway. Similar to other parkways in the area, commercial vehicles are not permitted on the section of the parkway included in the study area.

Hempstead Turnpike (NY Route 24)

Hempstead Turnpike (NY 24) is a major east-west principal arterial other roadway that falls under the jurisdiction of the NYSDOT. The section of NY 24 between Meadowbrook Road and the Suffolk County Line is designated as Hempstead Turnpike. West of Meadowbrook Road the designation changes to Fulton Avenue and the roadway is designated as Conklin Street as it enters Suffolk County. Within the study area, Hempstead Turnpike is divided by a landscaped median and runs along the southerly frontage of the site. Hempstead Turnpike provides three travel lanes in each direction with additional turn lanes at intersections. The posted speed limit along the site frontage is 50 mph. Along the site frontage on-street stopping is prohibited on the north side of Hempstead Turnpike but parking is permitted on the south side of the roadway.

Earle Ovington Boulevard

Earle Ovington Boulevard is a north-south minor arterial roadway that falls under the jurisdiction of the NCDPW. It runs north from Hempstead Turnpike along the western frontage of the property to its intersection with Charles Lindbergh Boulevard at the Nassau Community College main access. It provides three travel lanes in each direction with additional turn lanes at intersections. The roadway provides access to the Nassau Veterans Memorial Coliseum property to the east, Hofstra University to the west and the Omni office building to the northwest. Parking is not permitted. There is no posted speed limit on Earle Ovington Boulevard.

Charles Lindbergh Boulevard

Charles Lindbergh Boulevard is an east-west minor arterial roadway that falls under the jurisdiction of the NCDPW. The roadway connects with Merrick Avenue to the east and Quentin Roosevelt Boulevard to the west, crossing over the Meadowbrook State Parkway. The roadway provides access to Meadowbrook State Parkway, Nassau Veterans Memorial Coliseum, Mitchel Athletic Complex, Nassau Community College, Museum Row and Hofstra University, as well as office and industrial buildings in the area.

It generally provides three travel lanes in each direction with additional turn lanes at intersections. West of Earle Ovington Boulevard, Charles Lindbergh Boulevard is a one-way counterclockwise loop circling Mitchel Athletic Complex, connecting with Quentin Roosevelt Boulevard and terminating back at Earl Ovington Boulevard. The speed limit is 45 mph. On-street parking is not permitted.

James Doolittle Boulevard

James Doolittle Boulevard is a north-south local roadway under the jurisdiction of the Town of Hempstead that connects Hempstead Turnpike and Charles Lindbergh Boulevard and runs along the east side of the project site. It provides one travel lane in each direction and there is no posted speed limit on the roadway. A formal bike lane exists in each direction along James Doolittle Boulevard and parking is therefore prohibited.

Glenn Curtiss Boulevard

Glenn Curtiss Boulevard is an east-west minor arterial roadway that falls under the jurisdiction of NCDPW. Glenn Curtiss Boulevard connects Hempstead Turnpike and the Nassau Veterans Memorial Coliseum site to the west with Merrick Avenue and Peters Gate to the east. It provides three travel lanes in each direction divided by a raised median with additional turn lanes at intersections. The posted speed limit is 40 mph. On-street parking is not permitted.

Merrick Avenue

Merrick Avenue is a north-south minor arterial roadway that falls under the jurisdiction of the NCDPW. It runs south from Post Avenue and Old Country Road to the south shoreline and provides two travel lanes in each direction with additional turn lanes at intersections. The posted speed limit on Merrick Avenue is 40 mph within the study area. On-street parking is permitted on certain sections of Merrick Avenue.

Study Area Intersections

The study area for the proposed Integrated Resort includes 66 intersections within the Town of Hempstead, Town of North Hempstead, Village of Mineola, Village of Garden City, Village of Hempstead and Village of Westbury.

The 66 intersections are listed previously in the Traffic Data Collection Program Section of this report and are shown on Figure A-2. Detailed descriptions of these intersections, which include an aerial image, geometric conditions and traffic control characteristics, are included in Attachment D.

Critical Peak Hours Determination

As described above, the nature of the proposed Integrated Resort and its peaks of activity result in different site traffic volume patterns than the typical peak periods on the adjacent roadway network. A total of five distinct peak hours were chosen for analysis to capture all peak periods (adjacent roadway peaks and Integrated Resort peaks). A common network peak hour was selected within the lengthier count periods for the intersections immediately surrounding the site. Given the proximity of these intersections to the site and each other, it was deemed important that these intersections be evaluated at a common peak hour to ensure the most accurate balancing of network volumes and interaction of intersection operations. The peak hours selected are as follows:

- Weekday AM Peak Hour: 7:30 a.m. to 8:30 a.m. – This hour represents the combined peak of area background and site traffic within the weekday morning peak commuting period (traditionally 7:00 a.m. to 9:00 p.m.). This condition represents the weekday morning peak condition of background traffic and congestion along with site traffic volumes.
- Weekday PM Peak Hour: 5:00 p.m. to 6:00 p.m. - This hour represents the combined peak of area background and site traffic within the weekday afternoon peak commuting period (traditionally 4:00 p.m. to 6:00 p.m.). This condition represents the weekday afternoon peak condition of background traffic and congestion along with site traffic volumes.
- Friday Evening Peak Hour: 6:00 p.m. to 7:00 p.m. – This hour represents the combined peak hour during the Friday evening where the area background traffic has not dropped significantly from the commuting periods and the site traffic level is higher than during the traditional commuter peak period.
- Saturday Midday Peak Hour: 1:15 p.m. to 2:15 p.m. – This hour represents the combined peak of area background and site traffic within the Saturday midday peak period (traditionally 10:00 a.m. to 2:00 p.m.). This condition represents the Saturday midday peak condition of background traffic and congestion along with the site traffic volumes.
- Saturday Evening Peak Hour: 7:15 p.m. to 8:15 p.m. – This hour represents the absolute peak of hourly site traffic along with Saturday evening background traffic. While background traffic at this hour has eased, the peak of site traffic generation will be present at this time, the study area will see the largest increases due to site traffic, and the site access points will see their highest traffic levels.

The intersections closest to the site for which the specific peak hour volumes listed above were used include:

- Hempstead Turnpike at James Doolittle Boulevard
- Hempstead Turnpike at Glenn Curtiss Boulevard/Nassau Coliseum Main Entrance
- Hempstead Turnpike at Cunningham Avenue
- Hempstead Turnpike at Memorial Sloan Kettering (MSK) Entrance
- Hempstead Turnpike at Earle Ovington Boulevard/Uniondale Avenue
- Earle Ovington Boulevard at Hofstra East Gate Road/Site Access
- Charles Lindbergh Boulevard Eastbound (EB) at Earle Ovington Boulevard/Site Access
- Charles Lindbergh Boulevard Westbound (WB) at Earle Ovington Boulevard/Nassau Community College
- Charles Lindbergh Boulevard EB at James Doolittle Boulevard/Site Access
- Charles Lindbergh Boulevard WB at Nassau Community College Perimeter Road
- Merrick Avenue at Charles Lindbergh Boulevard

› Hempstead Turnpike at Merrick Avenue

For the balance of the study intersections that extend outside of the intersections immediately surrounding the site, the actual peak hour based in intersection volumes (which may vary from the specific hours listed above) counted for each intersection was used for the weekday AM, weekday PM and Saturday midday peak hours to provide an analysis for the worst-case scenario at each location. In doing so, the study represents a conservatively high estimate of roadway conditions at those locations. For the Friday and Saturday evening, the Friday evening peak hour of 6:00 p.m. to 7:00 p.m. and Saturday evening peak hour of 7:15 p.m. to 8:15 p.m. were used for all intersections.

The roadway network volumes immediately surrounding the site were balanced, where appropriate, to represent a consistent flow of traffic where the roadway network is uninterrupted. Locations outside of the intersections listed above were not balanced due to fluctuations in the peak hours as well as intersections and driveways between the intersections, creating minor imbalances in the volumes.

The existing Weekday AM, Weekday PM, Friday Evening, Saturday Midday, and Saturday Evening peak hour intersection traffic volumes are included in Attachment E on Figures A-4 through A-8.

The evaluation of the Parkway sections and ramps relied on the same hours used for the intersections close to the site and the data were balanced along the parkways to create the final Vissim[3] networks. The existing Weekday AM, Weekday PM, Friday Evening, Saturday Midday, and Saturday Evening peak hour traffic volumes on the Parkway sections and ramps are included in Attachment F on Figures V-A-1 through V-A-5.

Holiday Season Volumes

As required in the Final Scope, additional counts were performed at several intersections near the Roosevelt Field Mall for the holiday period (late-November through late-December), as well as for a section of the Meadowbrook State Parkway to capture traffic volumes during the heavy retail periods which typically accompany the December holiday timeframe. As discussed previously, these counts were performed to capture holiday period volume conditions during a weekday PM period and a Saturday midday period. Within the peak periods studied, the intersection peak hours were determined for each of the signalized intersections. The Parkway and ramp volumes utilized the same common peak hour as utilized in the larger Vissim model, as described above.

The existing Weekday PM peak hour and Saturday Midday peak hour intersection traffic volumes are shown in Figures A-9 and A-10 in Attachment E. The existing holiday peak hour weekday PM peak and Saturday Midday peak hour traffic volumes on the Parkway sections and ramps are shown on Figures V-A-6 and V-A-7 in Attachment F.

Summer Season Evaluation

As required by the Final Scope for the DEIS, traffic volumes were collected using ATRs on a Saturday in August on the Meadowbrook State Parkway between the Northern State Parkway and Sunrise Highway. These counts are included in Attachment C. These volumes reflect a fair weather condition to capture increases in traffic related to the use of ocean beaches to the south. The Saturday midday summer volumes were compared to volumes present during the same time period in September to

[3] Vissim is a traffic simulation software developed by PTV Group.

determine if traffic volumes were 10 percent or more higher during the summer season. In accordance with the Final Scope, if the Saturday midday summer season volumes were 10 percent or more higher than September, a detailed evaluation of the impacts of the project would be necessary reflecting the summer background condition. Table 1 summarizes the summer season and September Saturday midday volumes and a comparison of the two at a number of key locations along the Parkway. To provide additional information, the daily volume collected at each location is also provided.

Table 1 Meadowbrook State Parkway Saturday Volumes – September vs. August

Count No.	Count Location	Time Period	Count		% Difference-Aug vs Sept
			Aug-23	Sep-23	
22	Meadowbrook State Parkway Northbound Mainline North of Old Country Road	Midday	4,437	4,886	-9%
		Daily	60,695	67,180	-10%
23	Meadowbrook State Parkway Southbound Mainline North of Old Country Road	Midday	5,018	5,027	0%
		Daily	64,879	67,810	-4%
31	Meadowbrook State Parkway Northbound Mainline South of Old Country Road	Midday	3,697	4,104	-10%
		Daily	52058	58,238	-11%
32	Meadowbrook State Parkway Southbound Mainline South of Old Country Road	Midday	4,816	4,592	5%
		Daily	58,458	63,572	-8%
41	Meadowbrook State Parkway Northbound Mainline South of Zeckendorf Blvd	Midday	3,374	3,548	-5%
		Daily	46,412	51,364	-10%
42	Meadowbrook State Parkway Southbound Mainline South of Zeckendorf Blvd	Midday	4,336	4,042	7%
		Daily	55,770	58,006	-4%
105	Meadowbrook State Parkway Northbound Mainline south of Babylon Turnpike	Midday	2,807	3,210	-13%
		Daily	44,732	49,862	-10%
106	Meadowbrook State Parkway Southbound Mainline north of Babylon Turnpike	Midday	3,788	3,354	13%
		Daily	57,191	48,433	18%
	Averages	**Midday**	**4,034**	**4,095**	**-1%**
		Daily	**55,024**	**58,058**	**-5%**

As shown in Table 1, the average Saturday midday volumes on the Meadowbrook State Parkway average one percent lower in August than in September. At most locations, the summer volumes are in fact lower than the September volumes. At a single location and direction, Meadowbrook State Parkway north of Babylon Turnpike, southbound volumes on the Meadowbrook State Parkway are 13 percent higher in August than in September during the Saturday midday peak hour. It is noted that this single location is south of the Southern State Parkway, where site traffic levels have dropped significantly and impacts are unlikely.

At all other locations the August volumes are comparable to the September volumes (lower or less than 10 percent greater than September volumes). Based on the traffic volumes collected and presented in the table above, the summer season traffic volumes on the Meadowbrook State Parkway do not meet the threshold in the Final Scope that would require a summer season analysis of the Parkway. It is also noted that the months of November and December do not coincide with the months of peak activity at the Integrated Resort which occurs in March and May as discussed in the Section 3. In fact, the months of November and December are the two slowest months in the calendar with regards to casino patronage. Increases in traffic levels in this area during the holiday period are related to increased activity at the regional mall and other area retail and service attractions.

Existing Multi-Modal Accommodations

This section provides information on existing transit and non-motorized services in the vicinity of the subject property. Transit services within the study area include commuter rail and public bus. Commuter travel patterns in the study area are generally oriented towards New York City and surrounding business districts. The area of the proposed Integrated Resort also includes a significant network of pedestrian and shared-use facilities that promote non-motorized travel within and V

Commuter Rail

The Long Island Rail Road (LIRR) serves commuters to and from New York City and points east, with bus service from the LIRR also serving New York City and Nassau and Suffolk Counties. The recent completion of the LIRR Mainline Expansion Project provided for a third track on the LIRR's Mainline Branch east through this area to Hicksville. This third track allows the LIRR to provide increased levels of "reverse commute" service and additional flexibility in maintenance activities. The LIRR stations nearest the project site include Hempstead, Mineola, Garden City, Westbury, Country Life Press, and Carle Place and are shown on Figure A-11; however, none are situated within a generally accepted maximum ¾ mile walkable radius of the subject property.[4] Improvements to train station access are discussed later in this report.

While this TIS identifies the various LIRR stations in the area, as explained in Section 6 of this TIS, Sands will only be providing shuttle service to the Hempstead Station.

Hempstead Station

The Hempstead Station is located across the street from the Hempstead Transit Center, at Columbia Street, east of Main Street and Station Plaza, on the Hempstead Branch of the LIRR, southwest of the project site. The station is approximately 21.6 miles from Penn Station, is the eastern terminus of the Hempstead Branch, and travel times are typically less than one hour during peak commuting periods. Connecting bus service to and from the subject property and Hempstead Station is provided by Nassau Inter-County Express (NICE) bus system via the N16, N35, and N70, and N71 routes. The Hempstead Station is located proximate to the Rosa Parks Hempstead Transit Center which provides convenient connections between the LIRR and NICE Bus, as discussed below.

[4] CNU. *The 5-minute neighborhood, 15-minute city, and 20-minute suburb* (January 8, 2024). Available at: https://www.cnu.org/publicsquare/2024/01/08/5-minute-neighborhood-15-minute-city-and-20-minute-suburb

Mineola Station

The Mineola Station is located at Mineola Boulevard and Front Street, on the Port Jefferson Branch of the railroad, northwest of the project site. The station is 20 miles from Penn Station, with travel times typically less than 30 minutes during peak commuting periods. The LIRR Oyster Bay Branch originates at Mineola. Connecting bus service to and from the proposed Integrated Resort and Mineola Station is provided by NICE Bus via the N22, N23, N24, N40, N41, N78, and N79 routes. The Mineola Station is located adjacent to the Mineola Intermodal Center, which provides convenient connections between the LIRR and the NICE Bus System, as discussed below.

Garden City Station

The Garden City Station is located at Cathedral Avenue and 7th Street, on the Hempstead Branch of the LIRR and west of the project site. The station is 20 miles from Penn Station with travel times of around 50 minutes during peak commuting periods. NICE Bus does not provide connecting bus service to or from the subject property and Garden City Station on any of the routes.

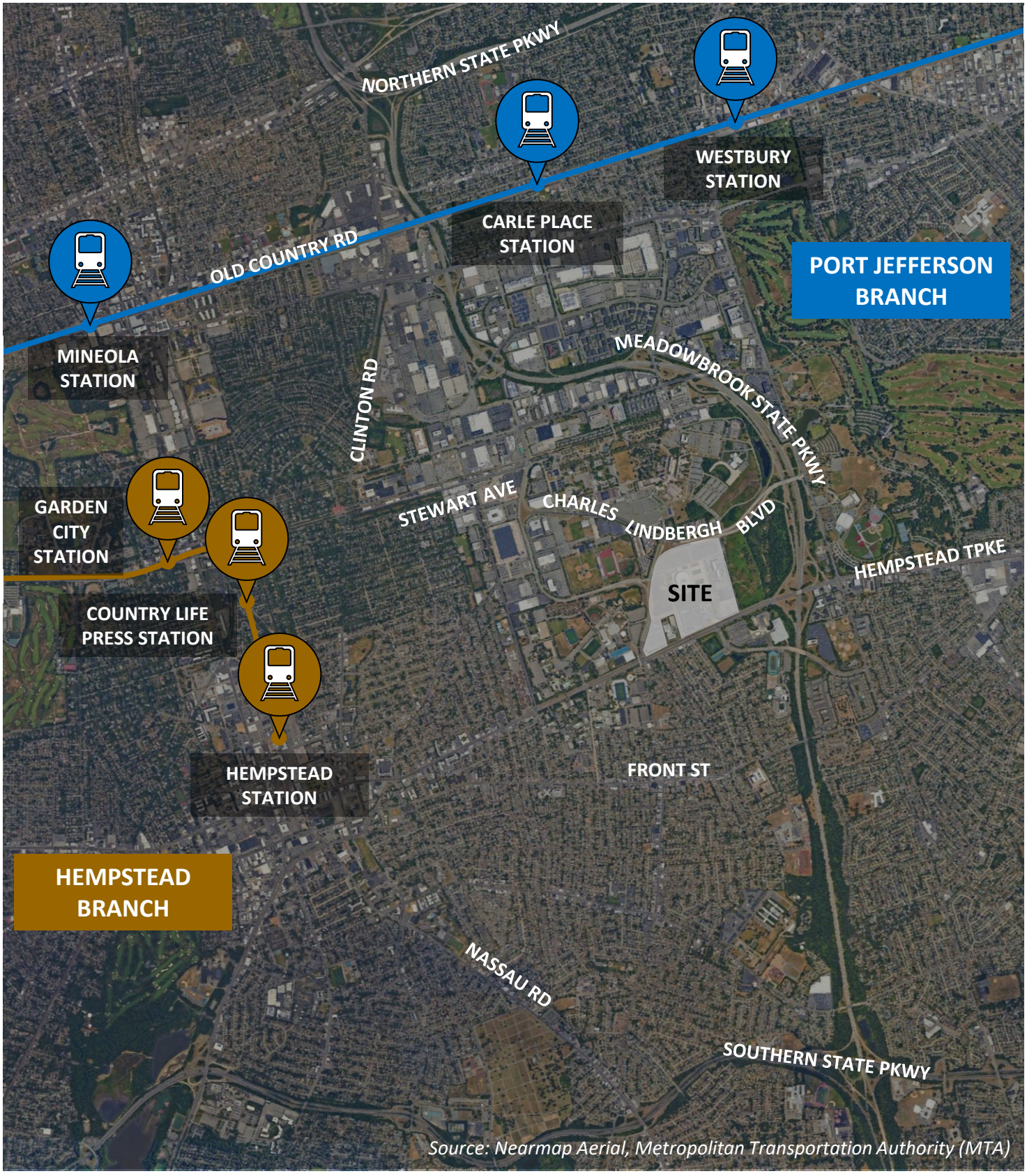
Country Life Press Station

The Country Life Press Station is located east of the Garden City Station on St. James Street between Damson Street and Garden Street, on the Hempstead Branch of the LIRR and west of the project site. The station is 20 miles from Penn Station with travel times of around 50 minutes during peak commuting periods. NICE Bus does not provide connecting bus service to or from the subject property and Country Life Press Station on any of the routes.

Figure A-11 LIRR Stations

Sands New York Integrated Resort

1255 Hempstead Turnpike and 101 James Doolittle Boulevard, Uniondale, Town of Hempstead, Nassau County



Westbury Station

The Westbury Station is located north of the project site at Post Avenue and Union Avenue, 23.2 miles from Penn Station, on the Port Jefferson Branch of the railroad. Travel times to Penn Station are typically less than 50 minutes during peak commuting periods. Connecting bus service to and from the proposed Integrated Resort and the Westbury Station is provided by NICE Bus Routes N22 and N35.

Carle Place Station

The Carle Place Station is located at Cherry Avenue and Atlantic Avenue, on the Port Jefferson Branch of the LIRR, north of the project site. The station is 22.2 miles from Penn Station, and travel times during peak commuting periods are generally under 50 minutes. Connecting bus service to and from the subject property and Carle Place Station is provided by NICE Bus Route N22.

Public Bus Services

Nassau County oversees the operation of the NICE Bus system throughout Nassau County with some routes extending into western Suffolk and eastern Queens. NICE Bus routes closest to the project site with stops along the site borders include the N16x, N43, N70, and N71. Other NICE bus routes with stops within a one mile radius include N16, N27, N35, N48, and N49. Additionally, there are multiple NICE bus hubs including the Rosa Parks Hempstead Transit Center, the Mineola Intermodal Center, the Roosevelt Field Mall Hub, and the Mineola Courthouse providing connectivity to multiple routes throughout Nassau County. The schedules for these routes are included in Attachment G.

Rosa Parks Hempstead Transit Center

The Hempstead Transit Center (HTC) is an indoor customer facility situated between Jackson and Columbia Streets in Hempstead and serves as the terminus of the LIRR Hempstead Branch and for NICE Bus. The HTC provides services for 18 of the 54 routes, and it is the major transfer point for riders using either a second NICE Bus route or the LIRR. The HTC contains a waiting area, transit information center, MetroCard vending machines, a newsstand, and restrooms.

Mineola Intermodal Center

The Mineola Intermodal Center provides convenient connections between the LIRR and NICE Bus routes. The Center is located on the south side of LIRR Mineola Station and includes four levels of parking with more than 700 commuter spaces. The Center is also a stop for seven NICE Bus routes, which provides convenient connections between the LIRR and NICE Bus. In addition, long-term parking is available for riders who are taking the LIRR to connect with MTA's AirTrain light-rail service to JFK International Airport. The Mineola Intermodal Center has an Audio-Visual Paging System (AVPS) installed on each of the facility's four parking garage levels providing advance information on train arrivals and departures. The facility is universally accessible, contains an overpass connecting the north and south sides of the station, and has offices for MTA Police and NICE Bus Dispatch.

Site Area Transit Bus Routes

Mass transit options for the Integrated Resort Project are available within a ¼ mile of the site. There are three NICE bus stops located along the north side of Hempstead Turnpike immediately fronting the project site: one midblock between Earle Ovington Boulevard and Cunningham Avenue, one adjacent to the main site entrance (opposite Glenn Curtiss Boulevard), and one adjacent to James Doolittle Boulevard. There are also three bus stops located on the south side of Hempstead Turnpike opposite the site frontage: one immediately west of Manor Parkway, one west of Walton Avenue, and one at the intersection of Glenn Curtiss Boulevard/Coliseum Entrance. All stops along Hempstead Turnpike are served by routes N70 and N71 service.

On the east and west sides of Earle Ovington Boulevard immediately north of the Hofstra East Gate Road/Site Access intersection, bus stops for the route N43 service are provided. The existing bus routes serving the site are shown on Figure A-12.

The N70 and N71 routes serve the Hempstead Turnpike corridor, providing six stops along the project site frontage. Both routes terminate to the west at the HTC and to the east in either southeastern Nassau County or southwestern Suffolk County. Both of these routes serve the HTC, Hofstra University, Nassau Community College, Nassau Veterans Memorial Coliseum, Eisenhower Park, Nassau University Medical Center, St. Joseph Hospital in Bethpage, as well as the East Meadow, Levittown, and Farmingdale areas. The N70 travels east and ends at Farmingdale State College. The N71 travels east to serve Sunrise Mall and the Massapequa Park area.

The N43 route serves the Freeport LIRR station, Freeport, Roosevelt, Uniondale, East Meadow, and Westbury, including major land uses, such as Hofstra University, Nassau Veterans Memorial Coliseum, Nassau Community College and Roosevelt Field. Within the study area, the N43 operates along Earle Ovington Boulevard and Uniondale Avenue, providing two stops along the project site frontage.

The N16 Express route serves Nassau Community College, Hofstra University, and the HTC. Within the study area, the N16x operates along Earle Ovington Boulevard and Charles Lindbergh Boulevard. The N16 stop closest to the site is just over a ¼-mile from the site, at the Nassau Community College Student Union.

Figure A-12 below gives a summary of existing bus services operating within ½ mile of the project site.

Figure A-12 NICE Bus Routes

Sands New York Integrated Resort

1255 Hempstead Turnpike and 101 James Doolittle Boulevard, Uniondale, Town of Hempstead, Nassau County

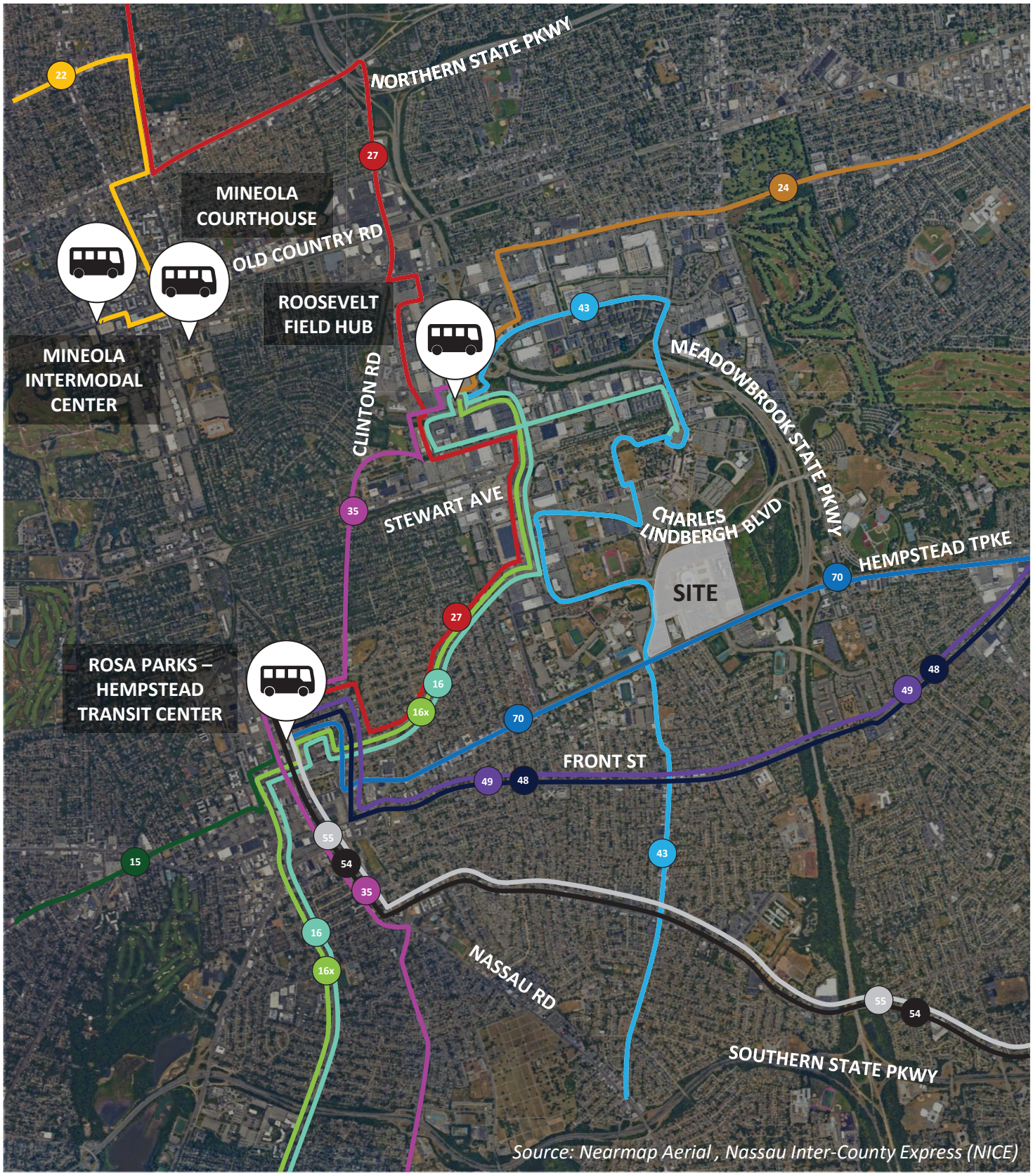


Table 2 Existing Bus Service with Stops within ½ mile

Route	Location	Time Period [1]	Hours of Operation [2]	Peak Hour Frequency [3]	December 2021 Ridership (Average Daily Boardings / % of Total System)[4]
N43	Garden City to Freeport	M-F	4:27 a.m.-12:40 a.m.	25-35	1,325 / 2.33%
		Sat, Sun	5:26 a.m.-11:10 p.m.	30	
N70	Hempstead to Farmingdale State College	M-F	4:15 a.m.-12:42 a.m.	15-20	2,434 / 4.28%
		Sat, Sun	4:38 a.m.-12:56 a.m.	27-30	
N71	Hempstead to Sunrise Mall/Amityville	M-F	6:45 a.m.-10:28 p.m.	45-60	
		Sat, Sun	6:59 a.m.-7:59 p.m.	60	
N16	Garden City to Rockville Centre	M-F	5:30 a.m.-12:08 a.m.	29-30	1,494 / 2.63%
N16x	Hempstead to Nassau Community College (Express)	M-F	5:45 a.m.-9:58 a.m. 12:33 p.m.-5:49 p.m.	18-20	
N27	Hempstead to Glen Cove	M-F	5:01 a.m.-11:34 p.m.	15-35	749 / 1.32%

Source: Nassau Inter-County Express Map & Schedules, effective February 12, 2024.

1 M-F is Monday through Friday

2 Time of day that bus service is provided

3 Headways between buses on the route, in minutes

4 Source: 2021/2022 Title VI Survey (Nassau Inter-County Express), pp. 6-7. Published on February 1, 2022. Available online at: https://www.nicebus.com/NICE/media/assets/img/2021-Title-VI-Survey-FINAL-VERSION-2022-02-01-4.pdf (see Attachment G)

Of routes serving the project site, in Fall 2023, weekday ridership for Routes N43 and N70 were 1,934 and 3,257 daily boardings, respectively.[5] Routes N43, N70, and N71 serve the project site on weekdays with peak hour headways of between 15 and 60 minutes, and on weekends with peak hour headways between 27 and 60 minutes. NICE bus service is not provided at the project site between the hours of approximately 12:40 a.m. and 4:15 a.m. on weekdays, or between 12:50 a.m. and 4:40 a.m. on weekends.

Table 3, below, gives a summary of existing bus stop access directly adjacent to the project site, including average weekday boardings and alightings from Fall 2023.

[5] Data provided by Nassau County Transit Division on January 30, 2024.

Table 3 Existing Busses Providing Access to the Project Site

Route	Service	Nearest Stop	Stop Distance[1]	Daily Average Stop Boardings[2]	Daily Average Stop Alightings[2]
N43	Northbound	Hofstra University / East Gate	Adjacent to project site	2.9	4.8
	Southbound	Hofstra University / East Gate	Adjacent to project site	4.3	0.8
N70	Westbound	Hempstead Tpke & James Doolittle Blvd	Adjacent to project site	15.9	7.4
	Westbound	Hempstead Tkpe. Opp Glenn Curtiss Blvd	Adjacent to project site	11.3	5.1
	Westbound	Hempstead Tpke. Opp Walton Ave	Adjacent to project site	29.9	19.6
N71	Eastbound	Hempstead Tpke & Manor Pkwy – Uniondale Ave	Adjacent to project site	36.7	40.1
	Eastbound	Hempstead Tpke & Walton Ave	Adjacent to project site	11.6	20.6
	Eastbound	Hempstead Tpke Opp James Doolittle Blvd	Adjacent to project site	43.3	0.8

Source: Nassau Inter-County Express Map & Schedules, effective February 12, 2024.

1 Stop distance is measured "as the crow flies," rather than by walking route.

2 Alighting (disembarking) data provided by Nassau County Transit Division on February 26, 2024.

Of the NICE bus stops directly serving the project site, the stop with the highest average weekday boardings is Hempstead Turnpike opposite James Doolittle Boulevard, with approximately 43.3 average daily boardings and 0.8 average daily alightings. This stop is one of 57 eastbound stops along the N70 route and one of 31 eastbound stops along the N71.

Typical buses on NICE bus routes have capacity for 39 seated passengers and 28 standing passengers, for a total of 67 passengers. Nassau County guidelines provide maximum acceptable passenger loads for peak and off-peak periods: for a weekday peak period, the capacity threshold is 150% of a seated load (approximately 59 passengers), and during all other times, the capacity threshold is 125% of a seated load (approximately 49 passengers)[6].

Nassau County has been planning a Bus Rapid Transit (BRT) system which, when implemented, will serve the site of the proposed Integrated Resort. This BRT system, and its ability to reduce private vehicle trips, is discussed in further detail later in this report. Overall public transit access to the subject property and proposed Integrated Resort and the anticipated impacts on public transportation services (existing and proposed), as well as use of non-motorized modes, are also discussed in further detail below.

Area Pedestrian and Bicycle Accommodations

The proposed Integrated Resort has been developed to provide a walkable setting within the limits of the site, and there will likely be some increased level of pedestrian activity between the areas immediately surrounding the project site. To present a high-side conservative estimate of traffic impacts, only modest credits for pedestrian and bicycle use to and from the site were taken in the

[6] Bus capacity and acceptable policy thresholds for passenger load were provided by Nassau County Transit Division on January 30, 2024.

performance of this study. Off-site locations within the ¾ mile walking distance (established as the 15-minute walk shed and the maximum walkable distance) include portions of the Hofstra University campus to the west (which do not include dormitory areas), parts of the Nassau Community College campus to the north (which also do not include dormitory areas), the Omni Office Building to the northwest, and the RXR Plaza office building to the southeast. Additionally, there is a portion of a residential community and some limited commercial properties on the south side of Hempstead Turnpike within the ¾-mile walking distance.

Within a three-mile[7] bikeable distance of the site, there are significantly more residents, commercial properties and college campus space. To support increases in pedestrian and bicycle activity that will be associated with the Integrated Resort, there exists a shared use path system of pedestrian/bicycle connectivity immediately surrounding the subject property in addition to pedestrian accommodations at signalized intersections. Shared use (multi-use) paths are present along each of the roadways surrounding the site, including Hempstead Turnpike (NY 24), Charles Lindbergh Boulevard, and Earle Ovington Boulevard. A formal bike lane exists in each direction along James Doolittle Boulevard. The paths eventually connect to the Mitchel Field pedestrian path and bikeway, which provides greater connectivity for pedestrians and bicyclists throughout the area as a whole. The nearby multi-use paths and trails are shown on Figure A-13.

Pedestrian accommodations for crossing are provided in the form of marked crosswalks and dedicated pedestrian signal equipment at the major intersections in the vicinity of the project site. A summary follows:

- Hempstead Turnpike at Glenn Curtiss Boulevard/Nassau Veterans Memorial Coliseum Main Entrance
  - Marked crosswalks across the eastbound, northbound, and southbound approaches.
  - Pedestrian push buttons and indicators are provided at each of these crossings.
- Hempstead Turnpike at Cunningham Avenue/MSKCC Entrance:
  - Marked crosswalks across the northbound, southbound, and westbound approaches.
  - Pedestrian push buttons and indicators are provided on each of the three marked crossings.
- Hempstead Turnpike at Earle Ovington Boulevard/Uniondale Avenue:
  - Marked crosswalks across the eastbound, northbound, and southbound approaches.

[7] CNU. *Defining the 15-minute city* (February 8, 2021). Available at: https://www.cnu.org/publicsquare/2021/02/08/defining-15-minute-city

Figure A-13 Multiuse Paths & Trails

Sands New York Integrated Resort

1255 Hempstead Turnpike and 101 James Doolittle Boulevard, Uniondale, Town of Hempstead, Nassau County

Source: Nearmap Aerial, Conceptual Master Plan, H2M Architects + Engineers 04/02/2024

- Pedestrian push buttons and indicators are provided at each of these crossings.
- A pedestrian bridge is provided immediately west of the eastbound approach.

› Earle Ovington Boulevard at Hofstra East Gate Road/Site Access:

- Marked crosswalks across the eastbound, westbound, and southbound approaches.
- Pedestrian push buttons and indicators are provided at each of these crossings.

› Earle Ovington Boulevard at Charles Lindbergh Boulevard Eastbound:

- Marked crosswalks across the westbound, eastbound, and northbound approaches.
- Pedestrian push buttons and indicators are provided at each of these crossings.

› Earle Ovington Boulevard at Charles Lindbergh Boulevard Westbound/Nassau Community College Access:

- Marked crosswalks across the eastbound, westbound, northbound, and southbound legs.
- Pedestrian push buttons and indicators are provided on each of these crossings.

Crash History

Study Intersections

In accordance with the Final Scope for the DEIS, crash data for the study area were obtained from the NYSDOT for the latest three-year period exclusive of the COVID-19 Pandemic from March 1, 2017, to February 28, 2020, for the study area intersections as described above, as well as selected segments of Charles Lindbergh Boulevard, Earle Ovington Boulevard, Hempstead Turnpike, and James Doolittle Boulevard between the intersections. Also, as required by the Final Scope, a discussion of crash history in the study area in 2022 and 2023 is included later in this section, consisting of an examination of the more recent crash history at select locations in the study area.

Review of the data shows that during the three-year period, a total of 3,516 crashes occurred at the 66 study area intersections, and a total of 34 crashes occurred on the 11 roadway segments. Table 4 and Table 5 summarize the intersection and segment crashes. Detailed crash data can be found in Attachment H.

Table 4 Summary of Three-Year Crash History – Study Intersections

Intersection	Total Crashes	Severity Fatal	INJ [1]	PDO [2]	NR [3]
Hempstead Turnpike at James Doolittle Boulevard	13	0	2	9	2
Hempstead Turnpike at Glenn Curtiss Boulevard/Nassau Coliseum Main Entrance	49	0	15	21	13
Hempstead Turnpike at Cunningham Avenue	67	0	17	32	18
Hempstead Turnpike at Memorial Sloan Kettering (MSKCC) Entrance	4	0	2	2	0
Hempstead Turnpike at Earle Ovington Boulevard/Uniondale Avenue	121	0	38	47	36
Earle Ovington Boulevard at Hofstra East Gate Road/Site Access	7	0	3	2	2
Charles Lindbergh Boulevard eastbound (EB) at Earle Ovington Boulevard/Site Access	17	0	2	9	6
Charles Lindbergh Boulevard westbound (WB) at Earle Ovington Boulevard/Nassau Community College	59	0	14	28	17
Charles Lindbergh Boulevard EB at James Doolittle Boulevard/Site Access	2	0	0	1	1
Charles Lindbergh Boulevard WB at Nassau Community College Perimeter Road	3	0	1	2	0
Merrick Avenue at Charles Lindbergh Boulevard	18	0	5	11	2
Hempstead Turnpike at Merrick Avenue	130	0	34	59	37
Hempstead Turnpike at Eisenhower Park Pedestrian Entrance	0	0	0	0	0
Hempstead Turnpike at Coolidge Drive	24	0	6	11	7
Hempstead Turnpike at Park Boulevard/East Meadow Avenue	84	1	19	46	18
Merrick Avenue at Glenn Curtiss Boulevard/Peters Gate	37	0	9	14	14
Hempstead Turnpike at California Avenue/Hofstra Boulevard	55	0	24	23	8
Hempstead Turnpike at Oak Street/Hofstra	51	0	18	24	9
Front Street at Merrick Avenue	83	0	25	30	28
Front Street at Uniondale Avenue	70	0	21	35	14
Front Street at California Avenue	22	0	12	6	4
Fulton Avenue at Peninsula Boulevard/Bennett Avenue	74	0	38	35	1

Source: NYSDOT crash data dated March 2017 through February 2020.
1 Personal Injury
2 Property-Damage Only
3 Non-Reportable

Table 4 Summary of Three Year Crash History – Study Intersection (Continued)

Intersection	Total Crashes	Fatal	INJ [1]	PDO [2]	NR [3]
Fulton Avenue at Clinton Street	66	1	30	33	2
Fulton Avenue at N Franklin Street	79	0	25	53	1
Franklin Avenue at Stewart Avenue	83	0	36	47	0
Old Country Road at Franklin Avenue/Mineola Boulevard	102	1	24	52	25
Old Country Road at Clinton Road/Glen Cove Road	38	0	8	25	5
Old Country Road at Merchants Concourse/Ellison Avenue	94	0	17	48	29
Old Country Road at Merrick Avenue/Post Avenue	230	0	53	110	67
Merrick Avenue at Stewart Avenue/Park Boulevard	121	0	27	54	40
Stewart Avenue at Endo Boulevard/Merchants Concourse	137	0	37	58	42
Stewart Avenue at Quentin Roosevelt Boulevard/South Street	149	0	40	64	45
Stewart Avenue at Clinton Road	84	0	26	58	0
Oak Street at Commercial Avenue	33	0	9	19	5
Commercial Avenue at Quentin Roosevelt Boulevard	39	0	8	22	9
Charles Lindbergh Boulevard at Westbury Boulevard (Meadow Street)	24	0	6	15	3
Charles Lindbergh Boulevard Westbound at U-Turn (near Earle Ovington Boulevard)	2	0	0	0	2
Charles Lindbergh Boulevard Eastbound at Coliseum North Exit Gate	0	0	0	0	0
Earle Ovington Boulevard at Coliseum Media/Staff Parking	1	0	0	0	1
Hempstead Turnpike Westbound at Meadowbrook State Parkway Southbound Off Ramp	21	0	3	8	10
Hempstead Turnpike Westbound at Meadowbrook State Parkway Northbound Off Ramp	56	0	13	35	8
Hempstead Turnpike Eastbound at Meadowbrook State Parkway Southbound Off Ramp	10	0	2	5	3

Source: NYSDOT crash data dated March 2017 through February 2020.
1 Personal Injury
2 Property-Damage Only
3 Non-Reportable

Table 4 Summary of Three Year Crash History – Study Intersection (Continued)

Intersection	Total Crashes	Fatal	INJ [1]	PDO [2]	NR [3]
Hempstead Turnpike Eastbound at Meadowbrook State Parkway Northbound Off Ramp	6	0	0	5	1
Hempstead Turnpike at Front Street	33	0	7	21	5
Hempstead Turnpike at Carman Avenue/3rd Street	123	0	20	72	31
Hempstead Turnpike at Newbridge Road	149	1	21	77	50
Merrick Avenue at Bellmore Avenue	34	0	11	14	9
Merrick Avenue at North Jerusalem Road	24	0	10	8	6
Merrick Avenue at Jerusalem Avenue	84	0	19	47	18
Uniondale Avenue at Jerusalem Avenue	113	0	30	54	29
Uniondale Avenue/Brookside Avenue at Nassau Road	96	0	27	34	35
Stewart Avenue at Ring Road West (Roosevelt Field Mall)	16	0	5	9	2
Old Country Road at Roosevelt Field Mall Entrance	161	0	20	89	52
Old Country Road at Salisbury Park Drive/School Street	74	1	19	35	19
Merrick Avenue at Corporate Drive	40	0	12	22	6
Merrick Avenue at Privado Road	20	0	6	9	5
Jericho Turnpike at Post Avenue/Post Road	53	0	15	37	1
Main Street/2nd Street at Franklin Avenue	21	0	9	11	1
Main Street at Meadow Street	9	0	4	5	0
Meadow Street at Washington Avenue/Washington Street	12	0	7	5	0
Meadow Street at Clinton Road	16	0	5	11	0
Meadow Street at Lindbergh Street	1	0	0	1	0
Westbury Boulevard at Lindbergh Street	6	0	1	5	0
Oak Street at Westbury Boulevard/Meadow Street	55	0	12	26	17
Hempstead Turnpike at Franklin Avenue/Perimeter East	5	0	2	2	1
West Columbia Street at Washington Avenue	6	0	0	5	1
Total	**3,516**	**5**	**931**	**1757**	**823**

Source: NYSDOT crash data dated March 2017 through February 2020.
1 Personal Injury
2 Property-Damage Only
3 Non-Reportable

As shown in Table 4, of the 3,516 total intersection crashes, there were 932 injury crashes, 1,757 property-damage collisions and 823 non-reportable incidents (no injury and less than $1,000 in property damage). There were five fatalities reported in the three-year study period. A discussion of

intersection crashes at locations closest to the project site follows, and the crash summaries for the remaining locations are provided in Attachment H.

Hempstead Turnpike at James Doolittle Boulevard

A total of 13 crashes were reported at this intersection, with two of those resulting in injuries, while the remaining crashes resulted in 9 property damage only (PDO) crashes and two nonreportable crashes. The intersection saw a higher incidence of rear-end collisions, totaling 8. A closer look revealed that most rear-end collisions were due to drivers following too closely, while cars ahead slowed or stopped. Most rear-end crashes also occurred in the westbound lanes and both injury crashes were a result of rear-end crashes. The remaining crashes resulted in property damage only and were due to a mix of right turn crashes, a sideswipe, a collision with a guiderail, and an unspecified other type crash.

Hempstead Turnpike at Glenn Curtiss Boulevard/Nassau Veterans Memorial Coliseum Main Entrance

A total of 49 crashes were reported at this intersection, 14 of which reported a possible injury while one resulted in an injury. The remaining crashes reported 21 property damage only crashes and 13 nonreportable crashes. The predominant type of collision was rear-end, with 32 total crashes and 8 crashes leading to possible injuries. The possible injuries were mainly due to drivers following too closely or failing to yield right-of-way, particularly when vehicles ahead were slowing or stopped. Rear-end collisions occurred primarily in the east or westbound lanes. Overtaking maneuvers also contributed to 12 crashes, often involving improper lane usage or unsafe lane changes. Most crashes occurred during clear daylight conditions, pointing to driver error rather than weather or visibility issues as the primary cause.

Hempstead Turnpike at Cunningham Avenue

A total of 67 crashes were reported at this intersection, 14 of which reported a possible injury while two resulted in an injury and one resulted in a serious injury. The remaining crashes are made up of 32 property damage only crashes and 18 nonreportable crashes. Overtaking was the most frequent collision type with 21 instances. However, right-angle collisions led to the most injuries, with 6 reported cases including one serious injury crash. There were two serious injury crashes: one as a result of a right-angle collision as a vehicle failed to yield while turning right in the northeast lane, and the second in a left-turn collision as a vehicle failed to yield the right-of-way while turning left. There was one crash involving a pedestrian that resulted in a possible injury. The crash took place at night and was due to a vehicle making an improper right turn.

A closer examination reveals that failures to yield the right-of-way were a major contributing factor, mentioned in 28 crashes. Following too closely was the next most common cause, contributing to 12 collisions. In terms of direction, eastbound lanes were most commonly involved in these incidents, followed by northbound lanes. The data suggests that improper turning and unsafe lane changes were notable issues, especially for right-angle collisions. Despite the predominance of overtaking incidents, these did not lead to as many injuries as right-angle collisions.

Hempstead Turnpike at MSKCC Entrance

A total of 4 crashes were reported at this intersection, two of which reported a possible injury while the remaining two resulted in property damage only. The two possible injuries both occurred in the eastbound lane and were due to a rear-end crash under dark road lighted conditions as a vehicle followed too closely and another collision type due to unsafe speed, respectively.

Hempstead Turnpike at Earle Ovington Boulevard/Uniondale Avenue

A total of 121 crashes were reported at this intersection, 35 of which reported a possible injury, while one resulted in an injury and two resulted in a serious injury. The remaining crashes are made up of 47 property damage only crashes and 36 nonreportable crashes. The predominant type of collision was rear-end, with 75 total crashes, with 25 leading to possible injuries and one confirmed injury. Overtaking was the second most common collision type, contributing to 29 crashes and 4 possible injuries. Three of these injuries occurred during dusk or dark road lighted conditions. Notably, there were 6 right angle collisions, with one resulting in a serious injury due to a failure to yield the right-of-way while heading north. Another serious injury involved a pedestrian when a vehicle failed to yield the right-of-way while turning left in the northwest direction. Most collisions occurred in eastbound and westbound lanes, with driver behavior such as following too closely and improper lane usage being the most common contributing factors.

Earle Ovington Boulevard at Hofstra East Gate Road/Site Access

A total of 7 crashes were reported at this intersection, 3 of which reported a possible injury, while the remaining 4 were split between property damage only crashes and nonreportable crashes with two each. The predominant type of collision was rear-end, with 4 crashes; however, none led to injuries. There were two right-angle collisions, both leading to possible injuries, and one left-turn against another car that also led to a possible injury. The rear-end collisions were primarily due to drivers following too closely in the southbound lanes. Both the left turn collision and right-angle collisions took place in the westbound lanes with two of the three happening as vehicles made left turns.

Charles Lindbergh Boulevard eastbound (EB) at Earle Ovington Boulevard/Site Access

A total of 17 crashes were reported at this intersection, two of which reported a possible injury, while the remaining 15 were split between property damage only crashes and nonreportable crashes, with 9 and 6 respectively. The most frequent type of collision was rear-end, with 5 crashes, one of which resulted in a possible injury. There were also 4 overtaking and 4 other type crashes. Right-angle collisions were reported three times and as was one left-turn (against another car) collision neither of which resulted in any injuries.

Pavement being slippery was a notable contributing factor in 5 crashes, while following too closely was reported in 4 collisions. Unsafe speed and improper passing or lane usage also played a role in several incidents. 5 crashes occurred while a vehicle was turning left. The majority of the crashes occurred in the east and south directions.

Charles Lindbergh Boulevard Westbound (WB) at Earle Ovington Boulevard/Nassau Community College

A total of 59 crashes were reported at this intersection during the study period, 13 of which reported a possible injury, while one resulted in an injury. The remaining crashes are made up of 28 property

damage only crashes and 17 nonreportable crashes. The most frequent type of collision was overtaking, with 24 crashes. Rear-end collisions were also notable, totaling 19, seven of which led to possible injuries. In addition to these, there were 6 other type crashes, 5 left-turn (against other car) collisions, two of which resulted in possible injuries, and 3 right-angle collisions, one leading to an injury. Key contributing factors to these collisions included following too closely and improper passing or lane usage, each cited in 16 incidents. Additionally, failure to yield right-of-way was a significant factor in 9 crashes, and improper turning was noted in 7 crashes.

The crashes were distributed across various directions, with west and southbound directions witnessing the most incidents. Despite the prevalence of overtaking incidents, rear-end collisions accounted for most of the injuries and were primarily due to vehicles following too closely. Five crashes occurred while a vehicle was making a U-turn in various directions, but primarily in the northbound lane.

Charles Lindbergh Boulevard EB at James Doolittle Boulevard/Site Access

A total of two crashes were reported at this intersection, with one property damage only crash and one nonreportable crash.

Charles Lindbergh Boulevard WB at Nassau Community College Perimeter Road

A total of 3 crashes were reported at this intersection, one of which reported a possible injury, while the remaining two were property damage only crashes.

Merrick Avenue at Charles Lindbergh Boulevard

A total of 18 crashes were reported at this intersection, 5 of which reported a possible injury. The remaining crashes are made up of 11 property damage only crashes and two nonreportable crashes. Rear-end collisions were the most common at this intersection, with 9 reported incidents, two of which resulted in possible injuries. Other type crashes also occurred, totaling 4, with two leading to possible injuries. Additionally, there were 3 left-turn (against other car) collisions, one of which resulted in a possible injury, and single instances of right-angle and overtaking collisions.

Following too closely was a significant factor in 6 crashes, particularly in rear-end collisions. Failure to yield right-of-way contributed to 4 incidents and was a notable cause in left-turn collisions. Driver inattention was also identified as a cause in 3 crashes. The crashes were fairly evenly distributed across different directions of travel, with west, south, and north directions each experiencing 4 crashes.

Hempstead Turnpike at Merrick Avenue

A total of 130 crashes were reported at this intersection, 28 of which reported a possible injury while 4 resulted in an injury and two resulted in a serious injury. The remaining crashes are made up of 59 property damage only crashes and 37 nonreportable crashes. Rear-end collisions were the most frequent at this intersection, accounting for 50 of the 130 total crashes. Of these, 19 led to possible injuries, and two resulted in serious injuries. The rear-end collisions occurred mostly due to vehicles following too closely. Overtaking maneuvers were also prominent, contributing to 42 crashes, with two leading to possible injuries. They were primarily due to either vehicles passing improperly or executing and unsafe lane change. There were 15 other type crashes and 12 right-angle collisions, five of which resulted in possible injuries.

Of the remaining collision types besides rear-end and overtaking, there were many instances of failure to yield the right-of-way and improper turning. The two serious injuries from rear-end collisions were caused by a combination of following too closely and, in one case, unsafe speed, both occurring in eastbound and westbound lanes, respectively. Westbound and eastbound lanes were most frequently involved in these incidents. There were two collisions that involved a bicyclist. One resulted in an injury after a vehicle turned left in the northbound lane and the other resulted in property damage only after a vehicle followed the bicyclist too closely.

Table 5 Summary of Three-Year Crash History – Study Segments

Segment	Total Crashes	Severity			
		Fatal	INJ [1]	PDO [2]	NR [3]
Charles Lindbergh Boulevard EB from Coliseum North Exit Gate to James Doolittle Boulevard	1	0	0	1	0
Charles Lindbergh Boulevard EB from U-Turn (near Earle Ovington Boulevard) to Coliseum North Exit Gate	0	0	0	0	0
Charles Lindbergh Boulevard EB from Earle Ovington Boulevard/Site Access to U-Turn (near Earle Ovington Boulevard)	6	0	0	4	2
Earle Ovington Boulevard from Coliseum Media/Staff Parking to Charles Lindbergh Boulevard EB/Site Access	3	0	0	2	1
Earle Ovington Boulevard from Hofstra East Gate Road/Site Access to Coliseum Media/Staff Parking	0	0	0	0	0
Earle Ovington Boulevard from Hempstead Turnpike to Hofstra East Gate Road/Site Access	4	0	0	3	1
Hempstead Turnpike from Memorial Sloan Kettering (MSKCC) Access to Earle Ovington Boulevard/Uniondale Avenue	12	0	5	3	4
Hempstead Turnpike from Cunningham Avenue to Memorial Sloan Kettering (MSKCC) Entrance	0	0	0	0	0
Hempstead Turnpike from Glenn Curtiss Boulevard/Nassau Coliseum Main Entrance to Cunningham Avenue	3	0	2	1	0
Hempstead Turnpike from James Doolittle Boulevard to Glenn Curtiss Boulevard/Nassau Coliseum Main Entrance	2	0	0	2	0
James Doolittle Boulevard from Hempstead Turnpike to Charles Lindbergh Boulevard EB	3	0	0	2	1
Total	**34**	**0**	**7**	**18**	**9**

As shown in Table 5, there were 34 total segment crashes, of which there were 7 injury crashes, 18 property-damage only collisions, and 9 non-reportable incidents (no injury and less than $1,000 in property damage). There were no fatalities reported in the three-year study period. The following is noted regarding the segment crashes:

Charles Lindbergh Boulevard EB from Coliseum North Exit Gate to James Doolittle Boulevard

In this segment, there was one property damage only crash due to a rear-end in the westbound lane.

Charles Lindbergh Boulevard EB from U-Turn (near Earle Ovington Boulevard) to Coliseum North Exit Gate

There were no reported crashes on this segment during the three-year study period.

Charles Lindbergh Boulevard EB from Earle Ovington Boulevard/Site Access to U-Turn (near Earle Ovington Boulevard)

There were 4 property damage only crashes and two nonreportable crash and no reported injuries along this segment. The majority of collisions were other type and occurred in the southbound direction. Contributing factors to the crashes include following too closely, defective brakes, driver inattention, and unsafe lane change.

Earle Ovington Boulevard from Coliseum Media/Staff Parking to Charles Lindbergh Boulevard EB/Site Access

There were two property damage only crashes and one nonreportable crash and no reported injuries along this segment. All three crashes occurred during the rain in the southbound direction due to either following too closely or failure to yield the right-of-way.

Earle Ovington Boulevard from Hofstra East Gate Road/Site Access to Coliseum Media/Staff Parking

There were no reported crashes on this segment during the three-year study period.

Earle Ovington Boulevard from Hempstead Turnpike to Hofstra East Gate Road/Site Access

There were 3 property damage only crashes and one nonreportable crash and no reported injuries along this segment. Three of the four crashes occurred due to overtaking in the southbound direction.

Hempstead Turnpike from Memorial Sloan Kettering (MSKCC) Access to Earle Ovington Boulevard/Uniondale Avenue

There were 3 property damage only crashes and 4 nonreportable crash and 5 reported injuries along this segment for a total of 12 crashes. The majority of crashes (10) were rear-end collisions, four of which resulted in possible injuries and one in an injury. All of the injury crashes occurred in the westbound direction due to either following too closely, driver inattention, or reaction of other uninvolved vehicle.

Hempstead Turnpike from Cunningham Avenue to Memorial Sloan Kettering (MSKCC) Entrance

There were no reported crashes on this segment during the three-year study period.

Hempstead Turnpike from Glenn Curtiss Boulevard/Nassau Veterans Memorial Coliseum Main Entrance to Cunningham Avenue

There was one nonreportable crash and two reported injury crashes along this segment. All three crashes were due to rear-ends and for following too closely.

Hempstead Turnpike from James Doolittle Boulevard to Glenn Curtiss Boulevard/Nassau Veterans Memorial Coliseum Main Entrance

There were two property damage only crashes along this segment during the three-year study period. The collision types were overtaking and rear-end, both occurring in the westbound direction.

James Doolittle Boulevard from Hempstead Turnpike to Charles Lindbergh Boulevard EB

There were two property damage only crashes and one nonreportable crash and no reported injuries along this segment. Two of the crashes were overtaking collisions and the final crash was a rear-end.

Meadowbrook State Parkway

In addition to the study intersections discussed above and as per the Final Scope of the DEIS, historic crash data for the same three-year period was obtained for the Meadowbrook State Parkway Mainline and ramp junctions for the section between and including the parkway's interchanges with Hempstead Turnpike and Charles Lindbergh Boulevard.

Review of the data shows that during the three-year period, a total of 286 crashes occurred at the along this section of the parkway, Table 6 summarizes these crashes by location and severity. Detailed crash data can be found in Attachment H.

Table 6 Summary of Three-Year Crash History

Segment/Location	Total Crashes	Severity			
		Fatal	INJ [1]	PDO [2]	NR [3]
Meadowbrook State Parkway Northbound at Exit Ramp to Eastbound Hempstead Turnpike	1	0	0	1	0
Meadowbrook State Parkway Northbound weaving section between Inner Loop Ramps at Hempstead Turnpike, including beginning of Northbound C-D Road	55	0	7	40	8
Meadowbrook State Parkway Northbound Mainline section between beginning and end of northbound C-D Road	98	0	33	57	8
Meadowbrook State Parkway Northbound at Entrance Ramp at end of northbound C-D Road	1	0	1	0	0
Northbound C-D Road at Entrance Ramp from Westbound Hempstead Turnpike	10	0	3	5	2
Northbound C-D Road weaving section between Charles Lindbergh Boulevard Ramps	8	0	0	7	1
Northbound C-D Road at Exit Ramp to Stewart Avenue	1	0	0	1	0
Northbound C-D Road at Entrance Ramp from Stewart Avenue	1	0	0	1	0
Meadowbrook State Parkway Southbound at Entrance Ramp from Stewart Avenue	10	0	1	6	3
Meadowbrook State Parkway Southbound Mainline Section between Entrance Ramp from Stewart Avenue and eastbound entrance ramp from Charles Lindbergh Boulevard	74	0	20	44	10
Meadowbrook State Parkway Southbound at eastbound entrance ramp from Charles Lindbergh Boulevard	0	0	0	0	0
Meadowbrook State Parkway Southbound weaving section between Inner Loop Ramps at Hempstead Turnpike	23	0	8	11	4
Meadowbrook State Parkway Southbound at Entrance Ramp from Eastbound Hempstead Turnpike	3	0	0	3	0
Southbound C-D Road at Exit Ramp to Charles Lindbergh Boulevard	1	0	0	1	0
Total	**286**	**0**	**73**	**177**	**36**

Source: NYSDOT crash data dated March 2017 through February 2020.

1 Personal Injury

2 Property-Damage Only

3 Non-Reportable

As shown in Table 6, of the 286 total crashes during the study period, there were 73 injury crashes, 177 property-damage collisions and 36 non-reportable incidents (no injury and less than $1,000 in property damage). There were no fatalities reported in the study area in the three-year period. The following is noted regarding the crashes:

Meadowbrook State Parkway Northbound at Exit Ramp to Eastbound Hempstead Turnpike

There was one property damage only crash along this segment during the three-year study period that occurred due to a rear end.

Meadowbrook State Parkway Northbound weaving section between Inner Loop Ramps at Hempstead Turnpike, including beginning of Northbound C-D Road

Of the 55 crashes that occurred along this segment, there were 30 rear-end crashes, 13 overtaking crashes, and 10 other crashes. The remaining crash was a left turn crash. A closer look revealed that the rear end crashes were primarily due to driver error, including following too closely and unsafe speed. Four of the nine other crashes occurred during snow/ice or wet pavement conditions and resulted in collisions with barriers and guiderails.

Meadowbrook State Parkway Northbound mainline section between beginning and end of northbound C-D Road

Of the 98 crashes that occurred along this segment, there were 40 rear-end crashes, 27 overtaking crashes, and 18 other crashes. The remaining crashes were made up of fixed object crashes and a head on collision. A closer look revealed that the rear end crashes were primarily due to driver error, including following too closely or driver inattention. The fixed object crashes were due to a variety of factors including unsafe speed, unsafe lane change, and reaction to another uninvolved vehicle. 17 crashes, including 7 injury crashes, occurred while the road surface was either wet or covered with snow/ice.

Meadowbrook State Parkway Northbound at Entrance Ramp at end of northbound C-D Road

There was one property damage only crash along this segment during the three-year study period that occurred due to a rear end.

Northbound C-D Road at Entrance Ramp from Westbound Hempstead Turnpike

Of the 10 crashes that occurred along this segment, there were two rear-end crashes, 6 overtaking crash and two other crashes. A closer look revealed that both rear end crashes resulted in possible injuries and were due to following too closely. Half of the overtaking crashes occurred along a curve and all were primarily due to unsafe lane changes. The other crashes were due to following too closely in a collision with another vehicle and then remaining other crashes was a collision with a guiderail due to driver inattention.

Northbound C-D Road weaving section between Charles Lindbergh Boulevard Ramps

Of the 8 crashes that occurred along this segment, there were 4 overtaking crashes, 3 fixed object crashes, and two rear end crashes. A closer look revealed that all three fixed object crashes were due to vehicles traveling at an unsafe speed, primarily in wet road surface conditions. Of the four overtaking crashes, three occurred along a curve. All crashes resulted in property damage only.

Northbound C-D Road at Exit Ramp to Stewart Avenue

There was one property damage only overtaking crash along this segment during the three-year study period that occurred due to an unsafe lane change in dark road lighting conditions.

Northbound C-D Road at Entrance Ramp from Stewart Avenue

There was one property damage only crash with a guiderail along this segment during the three-year study period that occurred due to unsafe speed in dark-road lighted and wet road conditions.

Meadowbrook State Parkway Southbound at Entrance Ramp from Stewart Avenue

Of the 10 crashes that occurred along this segment, there were 3 rear-end crashes, 4 overtaking crash, two other crashes, and one right-angle crash. A closer look revealed that the rear end crashes were primarily due to driver error, including unsafe speed or following too closely. The overtaking crashes were primarily due to unsafe lane changes.

Meadowbrook State Parkway Southbound Mainline Section between Entrance Ramp from Stewart Avenue and eastbound entrance ramp from Charles Lindbergh Boulevard

Of the 74 crashes that occurred along this segment, there were 39 rear-end crashes, 14 overtaking crashes, and 18 other crashes. The remaining crashes were made up of two fixed object crashes and one right-angle collision. A closer look revealed that the rear end crashes were primarily due to driver error, including following too closely or unsafe speed. A significant number of the rear end collisions occurred during dark-road lighted conditions. The other crashes were due to a variety of factors including unsafe speed, unsafe lane change, and reaction to another uninvolved vehicle. 28 crashes, including 7 injury crashes, occurred under dark-road lighted conditions.

Meadowbrook State Parkway Southbound at eastbound entrance ramp from Charles Lindbergh Boulevard

There were no reported crashes along this segment during the three-year study period.

Meadowbrook State Parkway Southbound weaving section between Inner Loop Ramps at Hempstead Turnpike

Of the 23 crashes that occurred along this segment, there were 14 rear-end crashes, two overtaking crashes, and five other crashes. The remaining two crashes were a fixed object and bicyclist-involved crash. A closer look revealed that the rear end crashes were primarily due to following too closely. Of the 14 rear end crashes, 7 resulted in an injury. Both overtaking crashes occurred under dark-road lighted conditions. The crash involving a bicyclist resulted in an injury and occurred due to a failure to yield the right of way.

Meadowbrook State Parkway Southbound at Entrance Ramp from Eastbound Hempstead Turnpike

There were 3 crashes that occurred along this segment. All three crashes occurred along a curve during dark-road lighted conditions. There was one rear end crash that occurred due to following too closely while the remaining two crashes occurred due to unsafe speed and a reaction to another uninvolved vehicle.

Southbound C-D Road at Exit Ramp to Charles Lindbergh Boulevard

There was one property damage only rear end crash along this segment during the three-year study period.

2022 and 2023 Crash History

The COVID-19 Pandemic and the related public health response had significant impacts to travel in the United States. The number of people commuting to work, travel for other reasons and even the methods of travel were affected in a number of ways. In acknowledgement of this, traffic studies such as this one have avoided the use of crash data after February of 2020 when the COVID-19 Pandemic effects became pronounced. The three-year period prior to the onset of the COVID-19 Pandemic has been used to represent typical conditions given that the period of data available after the COVID-19 Pandemic effects subsided (to the degree they have) does not yet contain three years of data to evaluate. Studies of crash data traditionally use at least three years of data to provide a statistically relevant and stable sample. The Final Scope for this DEIS includes the review of 2022 and 2023 crash data to determine if the frequency of crashes has changed from the period prior to the COVID-19 Pandemic to this two-year period.

To determine the potential change in crash experience, an analysis comparing the number of crashes at five selected key intersections over the two distinct time periods: three years prior to the COVID-19 Pandemic (March 2017 through February 2020) and January 2022 to December 2023 was performed. These intersections were selected as representative of the crash experience in the study area and due to their relatively high crash totals in the pre-COVID period. Detailed crash data for this later time period can be found in Attachment H.

Table 7 represents the total crash histories for each period of these two periods at these locations, broken down by the severity of crashes: fatalities, injury crashes, PDO crashes, and non-reportable (NR) crashes. Table 8 presents the same data on an annualized basis, providing a clearer comparison of yearly trends. Table 9 shows the percentage change in crashes between the pre-COVID and post-COVID periods, highlighting the differences in crash frequencies and severities.

Table 7 Summary of Pre-COVID and Post-COVID Crash History – Intersections

	Pre-COVID (3 Years)					January 2022 to December 2023 (2 Years)				
		Severity					Severity			
Intersection	Total Crashes	Fatal	INJ [1]	PDO [2]	NR [3]	Total Crashes	Fatal	INJ [1]	PDO [2]	NR [3]
Hempstead Turnpike at Earle Ovington Boulevard/Uniondale Avenue	121	0	38	47	36	86	0	29	46	11
Hempstead Turnpike at Merrick Avenue	130	0	34	59	37	90	1	20	52	17
Old Country Road at Merrick Avenue/Post Avenue	230	0	53	110	67	166	0	49	95	22
Hempstead Turnpike at Newbridge Road	149	1	21	77	50	125	0	22	78	25
Old Country Road at Roosevelt Field Mall Entrance	161	0	20	89	52	136	0	16	93	27
Total	**791**	**1**	**166**	**382**	**242**	**603**	**1**	**136**	**364**	**102**

Source: NYSDOT crash data dated March 2017 through February 2020 and January 2022 through December 2023
1 Personal Injury
2 Property-Damage Only
3 Non-Reportable

Table 8 Annual Average of Pre-COVID and Post-COVID Crashes Per Year

	Pre-COVID					January 2022 to December 2023				
		Severity					Severity			
Intersection	Total Crashes	Fatal	INJ [1]	PDO [2]	NR [3]	Total Crashes	Fatal	INJ [1]	PDO [2]	NR [3]
Hempstead Turnpike at Earle Ovington Boulevard/Uniondale Avenue	40.3	0	12.7	15.7	12	43	0	14.5	23	5.5
Hempstead Turnpike at Merrick Avenue	43.3	0	11.3	19.7	12.3	45	0.5	10	26	8.5
Old Country Road at Merrick Avenue/Post Avenue	76.7	0	17.7	36.7	22.3	83	0	24.5	47.5	11
Hempstead Turnpike at Newbridge Road	49.7	0.3	7	25.7	16.7	62.5	0	11	39	12.5
Old Country Road at Roosevelt Field Mall Entrance	53.7	0	6.7	29.7	17.3	68	0	8	46.5	13.5
Total	**263.7**	**0.3**	**55.3**	**127.3**	**80.6**	**301.5**	**0.5**	**68**	**182**	**51**

Source: NYSDOT crash data dated March 2017 through February 2020 and January 2022 through December 2023
1 Personal Injury
2 Property-Damage Only
3 Non-Reportable

Table 9 Percentage Change Between Annual Average of Pre-Covid and January 2022 to December 2023 Crashes – Intersections

		Severity			
Intersection	**Total Crashes**	**Fatal**	**INJ [1]**	**PDO [2]**	**NR [3]**
Hempstead Turnpike at Earle Ovington Boulevard/Uniondale Avenue	6%	0%	14%	46%	-54%
Hempstead Turnpike at Merrick Avenue	4%	*	-12%	32%	-31%
Old Country Road at Merrick Avenue/Post Avenue	8%	0%	38%	29%	-51%
Hempstead Turnpike at Newbridge Road	25%	*	57%	52%	-25%
Old Country Road at Roosevelt Field Mall Entrance	26%	0%	19%	57%	-22%
Total	**14%**	*	**23%**	**43%**	**-37%**

Source: NYSDOT crash data dated March 2017 through February 2020 and January 2022 through December 2023

1 Personal Injury

2 Property-Damage Only

3 Non-Reportable

(*) – Percent change for fatal crashes cannot be calculated in this instance as the number of fatal crashes in one condition is zero

It is important to note that while Table 8 shows a fractional increase in annual average fatalities, this figure can be misleading. There was a single fatality in each of the pre-covid and 2022/2023 time periods. However, the pre-covid period is three years while the 2022/2023 period is only two years, resulting in a calculated increase on a yearly basis because the number of instances is only one. This single fatality should not be considered indicative of a broader trend in fatal crashes. Overall, the data indicates that annual crashes have increased by 14%, injury crashes have increased by 23%, and PDO crashes have increased by 43% while NR crashes decreased by 37%. Notably, injury crashes increased by 57% at Hempstead Turnpike at Newbridge Bridge, the largest increase in injury crashes among the selected intersections. At Hempstead Turnpike at Merrick Avenue, injury crashes decreased by 12%, the only such decrease among all selected intersections.

This exercise, as summarized in Table 9, indicates a few trends in the data that while apparent, should be considered very preliminary given that traffic conditions during the time frame evaluated have likely not yet stabilized and represent only two years of data. There has been, based on this sample, a small but not insignificant increase in the number of crashes in the area on an annual basis. In addition, while there has been no spike in severity toward fatal crashes in the data, there is a shift away from minor, non-reportable crashes toward property damage and injury. The reasons for this are unclear and any conclusions drawn should consider the fact that only two years of data were used and it is not clear that a condition that could be referred to as a "post-Pandemic normal" has been reached in either of the two later study years. In addition, the way in which New York State Department of Motor Vehicles and NYSDOT classifies crash severity has been subject to change including a change in coding of crash severity that may influence the 2022 and 2023 data.

Crash History Considerations

Given the nature of the roadways in the study area, which includes a mix of local roadways, as well as urban arterials and connectors with multiple intersecting side streets, frequent curb cuts providing

access from adjacent properties, and high traffic volumes, the level of crash experience that was indicated by the accident data is not unusual. The introduction of the traffic due to the development of the project site will increase traffic levels in the study area. However, with a well-developed access plan, the operation of the Integrated Resort will not unduly increase the rate of accident occurrence in the study area.

3

Future Conditions

The analysis of future conditions, without and with the proposed Integrated Resort, was performed to evaluate the effect of the proposed Integrated Resort in the study area. Background traffic volumes in the study area were projected to the Phase 1 Build year (2027) and the Full Build year (2030). As discussed in Section 1 of this report, Phase 1 represents the stage in the Integrated Resort's build-out that the initial portions of the Integrated Resort are operational and open to the public. The No-Build condition represents the future traffic conditions without construction of the proposed Integrated Resort.

For the purposes of evaluation, the Full Build condition (2030) was evaluated prior to the Phase 1 Build condition (2027).[8] As required in the Final Scope for the DEIS, the evaluation of the Full Build condition established the necessary mitigation measures for the Integrated Resort and that mitigation was then the focus of a sensitivity analysis with Phase 1 Build volumes to

[8] The schedule for the construction of the Integrated Resort includes Phase 1 opening to the public in 2027. However, at the time the Phase 1 traffic analysis was conducted, the Phase 1 build year was projected at 2026. The 2026 build year was no longer feasible due to, among other factors, changes in the New York State Gaming Facility Location Board's schedule for submission and evaluation of gaming license applications. Based on the way the Phase 1 Build condition analysis was developed in accordance with the Final Scope, it is concluded that the results for 2026 remain valid in 2027. The evaluated 2026 Phase 1 Build condition modifications were developed to accommodate Full Build condition volumes and are, therefore, adequate in 2027, a condition which represents 0.6 percent in background traffic growth greater than 2026, but significantly lower than Full Build 2030.

confirm the mitigation required to provide adequate traffic service in the Phase 1 condition. It is apparent that the mitigation implemented for the Full Build condition is suitable for traffic generated in Phase 1 of the Integrated Resort.

The anticipated Multi-Modal trips associated with the development of the Integrated Resort were calculated for both the Full Build and Phase 1 conditions and distributed based on likely travel patterns and on type of trip (employee or patron) and anticipated capture areas. The site-related trips were added to the No-Build condition to determine the Build Condition for the site.

No-Build Condition – 2030

No-Build traffic volumes include existing traffic and new traffic due to general traffic growth and other planned developments (OPDs) near the subject property, as identified by local and/or nearby municipalities and review agencies.

Background Traffic Growth

To account for increases in general population and background growth not related to the proposed Integrated Resort, an annual growth factor was applied to the existing traffic volumes. Based on review of NYSDOT published growth rates for the study area and correspondence with the NCDPW (provided in Attachment I), the anticipated growth rate for the study area was established at 0.6 percent per year. The 0.6 percent annual growth rate was applied to the 2023 existing traffic volumes for seven years to represent 2030 background traffic volumes.

Other Planned Developments (OPDs)

The following municipalities and agencies were contacted for information relating to OPDs that may affect traffic volumes or conditions in the study area.

- NYSDOT
- NCDPW
- Town of Hempstead
- Town of North Hempstead
- Incorporated Village of Mineola
- Incorporated Village of Garden City
- Incorporated Village of Hempstead
- Incorporated Village of Westbury

› Incorporated Village of Freeport

Neither NYSDOT nor NCDPW identified any significant projects within the study area that were to be considered for the future conditions. However, several of the municipalities identified projects for consideration based on the parameters of the request and the future build year for the proposed development. Additionally, information available from the files of VHB was also consulted, as appropriate, regarding other developments which were not directly identified, but which should be considered. The responses and related projects are as follows, organized by municipality. The relevant correspondence from each municipality, as well as the reviewing agencies is included in Attachment I. The locations of these OPD are presented on Figure A-14.

Town of Hempstead

The Town of Hempstead indicated that there were no responsive documents in an email reply from the Records Access Officer dated September 15, 2023. However, discussions with Town officials and information available from the files of VHB identified the following projects.

Roosevelt Field Mall Pad Sites is a proposed addition to the existing mall campus in Garden City, NY. As currently proposed, the project includes the following components:

› 90,000 sf medical office space

› 170 room hotel with 85-seat restaurant and 3,000 sf of meeting space

› 15,000 sf of additional retail space

The project is presently under municipal review but is expected to be constructed prior to the 2030 Build year for this development. Accordingly, trips associated with this project were distributed to the study area intersections as appropriate and are included in the No-Build traffic volumes.

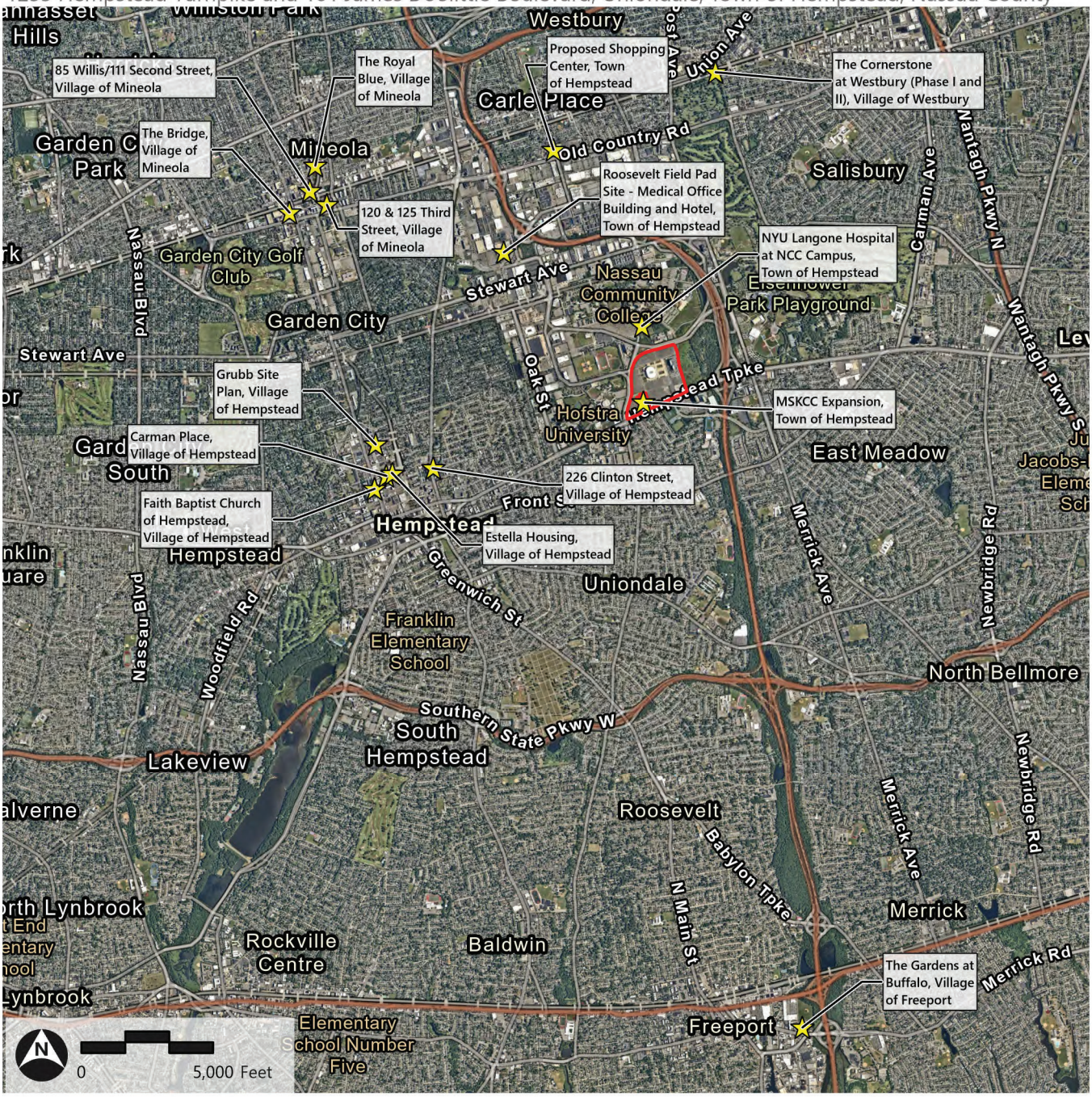
Memorial Sloan Kettering Cancer Center Expansion is a proposed expansion to the existing 144,000 sf facility on Hempstead Turnpike which is an out-parcel to the project site. The original approvals for the cancer center reflected the ultimate construction of 170,000 sf of space and it is understood that the expansion will result in that total. Therefore, the expansion of the existing building will provide 26,000 sf of additional floor area.

The expansion is expected to be constructed prior to the 2030 Build year. The trips associated with the expansion were developed based on existing entering and existing volumes at the facility in relation to the relative size of the expansion and distributed to the study area intersections as appropriate and are included in the No-Build traffic volumes.

Figure A-14 Other Planned Developments

Sands New York Integrated Resort

1255 Hempstead Turnpike and 101 James Doolittle Boulevard, Uniondale, Town of Hempstead, Nassau County



Subject Property

Other Planned Developments

* Boundaries are approximate

Source: Nassau County GIS, ESRI, NYSDEC, Nearmap

Path: \\vhb.com\gis\proj\Hauppauge\26841.01 CONF-Sands Hotel Nassau\Project\SiteLocationMap_CONFsands_20230214\SiteLocationMap_CONFsands_20230214.aprx

NYU Langone Hospital Facility includes the contemplated construction of a Hospital Facility on the southeast portion of the Nassau Community College campus opposite the project site on Charles Lindbergh Boulevard. No applications are pending for this facility. The Final Scope for this EIS indicates that the contemplated development would consist of the following components:

- 800 bed hospital
- 350,000 sf academic/research and administrative offices
- 200,000 sf student/staff housing
- 250,000 sf ambulatory medical use

As noted in the Final Scope, the build year for the Hospital Facility is at least two years after the 2030 full-build year for the Integrated Resort. Therefore, as per the Final Scope, the Hospital Facility is not reflected in the future Full Build scenario in this study but is reflected in an additional and separate sensitivity analysis to determine the additive impact of the Hospital Facility to the Integrated Resort Full Build condition. This analysis is discussed later in this report in Section 8 and evaluates the weekday AM and weekday PM time periods at specific intersections identified in the Final Scope.

Town of North Hempstead

The Town of North Hempstead indicated that there was one significant project for inclusion in an email reply from the Records Access Officer dated August 24, 2023.

347-357 Old Country Road is a proposed redevelopment of an existing catering facility and shopping center in Carle Place, NY. As currently proposed, the project includes the following components:

- 35,558 sf of new retail space
- 2,818 sf fast-food use
- 3,015 sf bank with drive-through

The project is presently under municipal review but is expected to be constructed prior to the 2030 Build year for this development. Accordingly, trips associated with this project were distributed to the study area intersections as appropriate and are included in the No-Build traffic volumes.

In addition to the above referenced project, the Town of North Hempstead also identified a project located at 371-381 and 401 Old Country Road in Carle Place which involves the conversion of a retail/restaurant building to medical office space. The project currently only involves demolition of existing space, and the buildout of the tenant space is currently unknown; therefore, the trips associated with the project are included in the background volume growth.

Incorporated Village of Mineola

The Incorporated Village of Mineola indicated that there were four substantial projects in an email reply from the Village Clerk dated September 27, 2023.

The Royal Blue is a proposed residential development located at 101 Searing Avenue in Mineola. This project involves the construction of 54 apartment units. This project is currently under construction and is expected to be fully built and occupied by 2030. Trips associated with the

proposed project were distributed to the study area intersections as appropriate and are included in the No-Build traffic volumes.

The Bridge is a proposed residential development located at 212 3rd Street in Mineola. This project involves the construction of 121 apartment units. This project is currently approved and is expected to be fully built and occupied by 2030. Trips associated with the proposed project were distributed to the Study Area intersections as appropriate and are included in the No-Build traffic volumes.

120 and 125 3rd Street is a proposed residential development located at 114 & 110 Old Country Road, 109 Front Street, and 120 & 125 3rd Street in Mineola. This proposal involved the construction of 490 apartment units but was approved for 440 units and is expected to be fully built and occupied by 2030. Trips associated with the proposed project were distributed to the study area intersections as appropriate and are included in the No-Build traffic volumes.

111 2nd Street is a proposed residential development located at 111 2nd Street in Mineola. This project, which is currently approved, involves the construction of 92 apartment units. It is expected to be fully built and occupied by 2030. Trips associated with the proposed project were distributed to the study area intersections as appropriate and are included in the No-Build traffic volumes.

In addition to the above referenced projects, the Incorporated Village of Mineola also identified a fifth project located at 228 Harrison Avenue in Mineola. However, it was further indicated that the project does not have approval, nor is a traffic impact study available at this time. Therefore, the project's specific potential trips associated with the project were not considered, and are assumed to be included in the background volume growth.

Incorporated Village of Garden City

In an email reply from the Records Access Officer dated September 18, 2023, the Incorporated Village of Garden City indicated that there were no responsive documents.

Incorporated Village of Hempstead

The Incorporated Village of Hempstead indicated that there were five substantial projects in an email reply from the Village Clerk dated October 31, 2023.

Faith Baptist Church of Hempstead is a proposed mixed-use development located at 145 North Franklin Street in Hempstead. This project involves the construction of 244 senior apartment units and 8,667 sf of retail space. This project is currently approved and is expected to be fully built and occupied by 2030. Trips associated with the proposed project were distributed to the study area intersections as appropriate and are included in the No-Build traffic volumes.

Carman Place is a proposed mixed-use development located at 126 Bedell Street in Hempstead. This project involves the construction of 228 apartment units and 22,290 sf of retail space. This project is currently approved and is expected to be fully built and occupied by 2030. Trips associated with the proposed project were distributed to the Study Area intersections as appropriate and are included in the No-Build traffic volumes.

226 Clinton Street is a proposed residential development that involves the construction of 60 senior housing and 60 multifamily housing units, and is expected to be fully built and occupied by 2030.

Trips associated with the proposed project were distributed to the Study Area intersections as appropriate and are included in the No-Build traffic volumes.

Estella Housing is a proposed mixed-use development located on Bedell Street in Hempstead. This project involves the construction of 66 apartment units, 30 "independent living" dwelling units, and 5,540 sf of retail space. This project is currently approved and is expected to be fully built and occupied by 2030. Trips associated with the proposed project were distributed to the study area intersections as appropriate and are included in the No-Build traffic volumes.

Grubb Site Plan is a proposed mixed-use development located at 257 Main Street in Hempstead. This project involves the construction of 173 apartment units and 2,069 sf of retail space. This project is currently approved and is expected to be fully built and occupied by 2030. Trips associated with the proposed project were distributed to the study area intersections as appropriate and are included in the No-Build traffic volumes.

In addition to the above referenced project, the Incorporated Village of Hempstead also identified projects located at 281 Clinton Street (which involved the conversion of a day school into a retail use) and 600 Front Street (which involves the construction of 30 apartment units). Based on the size of these developments, it was concluded that the traffic associated with each would be assumed to be included in the background growth of activity attributed to the study area.

Incorporated Village of Westbury

The Incorporated Village of Westbury indicated that there were two substantial projects in an email reply from the Village Attorney dated August 23, 2023.

Cornerstone at Westbury Phase I is a proposed residential development located at 461 Railroad Avenue in Westbury, NY. This project involves the construction of 72 apartment units and is currently approved and is expected to be fully built and occupied by 2030. Trips associated with the proposed project were distributed to the study area intersections as appropriate and are included in the No-Build traffic volumes.

Cornerstone at Westbury Phase II is a proposed residential development located at 425 Railroad Avenue in Westbury, NY. This project involves the construction of 59 apartment units. This project is currently under municipal review and is expected to be fully built and occupied by 2030. Trips associated with the proposed project were distributed to the Study Area intersections as appropriate and are included in the No-Build traffic volumes.

In addition to the above referenced projects, the Incorporated Village of Westbury also identified projects located at 249 Drexel Avenue (which involves construction of 18 apartment units) and 353 Union Avenue (which involves the construction of 193 apartment units). Based on the size of the application at 249 Drexel Avenue, it was concluded that the traffic associated with that project would be assumed to be included in the background growth of activity assessed to the study area. With respect to the application located at 353 Union Avenue, the correspondence from the Village specified that there was no current action on the application. Therefore, it was also not specifically included in the No-Build condition.

Village of Freeport

The Village of Freeport provided its site application log via email correspondence from the Village Clerk's office, dated September 13, 2023. From review of this application log, as well as from review of the files of VHB, one other planned development was identified for inclusion in the analysis.

BOSFA Freeport is a proposed residential development located at 17 Buffalo Avenue in Freeport, NY. This project involves the construction of 200 apartment units and is currently approved and is expected to be fully built and occupied by 2030. Trips associated with the proposed project were distributed to the Study Area intersections as appropriate and are included in the No-Build traffic volumes.

Summary of Background Trips and No-Build Networks

The cumulative trips associated with the above noted projects are included in the 2030 No-Build conditions and are shown in Attachment E on Figures B2 through B6 for the Weekday AM, Weekday PM, Friday Evening, Saturday Midday, and Saturday Evening peak hours, respectively. As previously noted, the relevant correspondence from each municipality is included in Attachment H. These same OPD's are included in the 2027 No-Build and 2027 Phase I Build conditions as discussed later in this Section.

The 2030 No-Build traffic volumes for the Weekday AM, Weekday PM, Friday Evening, Saturday Midday, and Saturday Evening peak hours are shown in Figures C1 through C5, respectively, in Attachment E. The 2030 No-Build traffic volumes for the Weekday PM peak hour and Saturday midday peak hour for the Holiday are shown in Figures C-6 and C-7, respectively.

Planned Roadway Improvements

NYSDOT and NCDPW were contacted to determine if there were planned roadway and infrastructure improvements within the study area that should be accounted for by 2030. According to both agencies, there are no planned roadway/infrastructure improvements that should be included. The relevant correspondence from each agency is included in Attachment H.

Planned Transit System Improvements

For many years, Nassau County has been studying and planning to implement a Bus Rapid Transit (BRT) System in the area of the proposed Integrated Resort. This effort is referred to as the Nassau County Nassau Hub Transit Initiative. Nassau County maintains a website[9] dedicated to the initiative whereby it shares information on the project. The following information was gleaned from review of this website.

Nassau Hub Transit Initiative

The website identifies a future BRT system in the Nassau Hub area in terms of an Initial Operating Segment (IOS, in two phases) and ultimately an expanded system, which would connect the IOS to

[9] Nassau County. *The Nassau Hub Transit Initiative* (updated March 20, 2023). Available at: https://www.nassauhubtransit.com/default.htm

the LIRR Main Line. While the IOS Phases are defined, the website presents a number of alternatives for connection of the IOS to the LIRR Main Line at the Mineola and Westbury LIRR Stations.

Initial Operating Segment – The IOS of the BRT would run from downtown Hempstead Village at the Rosa Parks – HTC, which is adjacent to the Hempstead Village LIRR Station on the Hempstead Branch, to Roosevelt Field Mall. The IOS will use Village roadways to access Hempstead Turnpike easterly to Earle Ovington Boulevard where it will turn north and enter NCC. From NCC it would transit to Roosevelt Field Mall via Charles Lindbergh Boulevard, Quentin Roosevelt Boulevard and South Street and enter the Mall at its southeast corner. The BRT will operate on a loop between the Village of Hempstead and the Mall. The first phase of the IOS would operate in mixed traffic with no dedicated lanes and benefit from Transit Signal Priority which would preempt the normal signal sequence to favor an approaching bus, at up to five locations. Stops would be provided at major activity centers; at the routes termini and four intermediate stops. The second phase would see the construction of some dedicated BRT lanes, the addition of two additional intermediate stops and Transit Signal Priority at 24 locations.

Alternative for LIRR Main Line Connection – The information provided indicates a number of alternatives being examined for completion of a connection of the IOS to the LIRR Main Line. While there are a number of routes that are being considered in each case, connections to the Mineola Station and Transit Hub are one focus while a connection to the Westbury LIRR Station is also being evaluated.

The schedule for the implementation of the BRT IOS and later Mainline Connections is unclear from the information provided. The developer of the Integrated Resort is committed to working with Nassau County on the BRT implementation to better serve the project site and the general area with convenient public transit to reduce the need for private vehicles trips and provide additional viable travel options.

Full Build Condition – 2030

The Final Scope for the DEIS identifies two build phases for the Integrated Resort for evaluation. Phase 1, to be completed and operating in 2027, represents the stage of site development where significant elements of the Integrated Resort will be opened to the public including a portion of the casino, food service, and parking reconfiguration at the Marriott Hotel property. From this point, construction would continue to completion of Phase 2 at Full Build in 2030.

To estimate the traffic impact of the proposed Integrated Resort, the traffic anticipated to be generated by the proposed development was estimated and added to future 2030 No-Build traffic volumes at the study area and site access intersections.

Project Generated Traffic Volumes

In determining the trip generation associated with the Integrated Resort, each component of the overall development plan must be considered, along with the relationships between the uses within the site. Interaction between the Integrated Resort components will significantly reduce the external traffic generation due to internal credits resulting from the use of multiple amenities on site in a

single trip -- for example, a casino patron eating at a restaurant and/or staying at the hotel during a single visit.

The site generated trips were estimated for each of the resort components using the Institute of Transportation Engineer's (ITE) *Trip Generation Manual, 11th Edition*,[10] data provided by Sands, and other available information discussed below for the five identified peak hours. To capture the peaking characteristics of the site, the weekday and Saturday daily trips were calculated and distributed throughout the day based on ITE, Lessee-supplied, and other available data to define the trip generation during the five peak hours. The peak hour trip generation estimates for the specific land uses are summarized below and the detailed trip generation tables are included in Attachment J.

Casino

ITE provides a limited set of trip generation data for casinos under Land Use Code (LUC) 473 – Casino. The data set includes four data points with a maximum square footage of 50,000 sf. The proposed Integrated Resort is significantly different from those reflected in the data points provided by ITE. Given the small sample size (number of data points), and the fact that the proposed Integrated Resort is outside of the data limits (zero to 50,000 sf), ITE methodology recommends using site-specific data, when available, rather than the ITE rates.

The casino facility will be the primary trip generator for the site. The trip generation for this main component of the resort has been developed based on information provided by Sands regarding the projected number of annual patron visitation of approximately 10 million. The annual visitation was based on market research that considered factors specific to the proposed Integrated Resort and its location.

Summaries of monthly and daily travel patterns provided by Philip Habib & Associates (PHA) obtained from existing casinos in the New York City Metro Area were utilized to determine the peak operational month and peak weekday operations for three key days during a week; a typical peak weekday (Monday through Thursday), a Friday, and a weekend day. Monthly distribution data from 2013 and 2016 were averaged and summarized in Table 10. This table shows that the months of March and May are the peak operational months with 9.3 percent of the annual patrons attending the casino. Daily distributions summarized in Table 11 illustrate that the highest typical weekday is Tuesday, with Friday at 14.5 percent and the peak weekend day of Saturday at 23.3 percent.

[10] *Trip Generation Manual, 11th Edition*, Institute of Transportation Engineers.

Table 10 Monthly Distribution – Casino Patrons

Month	Average Percent Distribution
January	8.7
February	8.5
March	**9.3**
April	9.1
May	**9.3**
June	8.5
July	8.5
August	8.3
September	7.7
October	7.8
November	7.2
December	7.4

Table 11 Daily Distribution – Casino Patrons

Day of Week	Weekly Distribution Percent
Monday	10.5%
Tuesday	**11.7%**
Wednesday	10.5%
Thursday	10.8%
Friday	**14.5%**
Saturday	**23.3%**
Sunday	18.8%

The peak daily attendance (peak month and peak day) was distributed throughout a 24-hour period for a weekday, Friday, and Saturday using 15-minute volume distributions developed using traffic volume data collected in October 2022 for vehicles entering and exiting Jake's 58 Casino in the Village of Islandia, Suffolk County, New York. This resulted in hourly entering and exiting patrons for the casino at 15-minute intervals for a typical weekday, Friday, and Saturday. The detailed trip generation by time of day is included in Attachment J.

Hotel

The proposed Integrated Resort will include two new hotel towers with a total of 1,670 new rooms. There would be no change in operations of the Marriott Hotel; therefore, no new trips are associated with the Marriott Hotel.

The total daily vehicle trips for the proposed hotel towers were developed using peak hour trip rates for ITE LUC 330 – Resort Hotel. ITE does not provide an hourly trip distribution for Resort Hotel. Other available hotel land uses (e.g., Hotel, All-Suites Hotel, Business Hotel) do not reflect the significant leisure nature of the proposed hotels and, therefore, the daily distribution for the

proposed hotels will likely be different from those uses. To provide a best fit estimate of the hourly distribution of the proposed hotels, the hourly distribution for LUC 260 – Recreational Homes, was utilized as this best represents the variation in hourly trips associated with recreational lodging. The available information for Resort Hotel does not include data on total daily hotel trips. Therefore, the peak hour trips for Resort Hotel were used in conjunction with the available daily distribution for Recreational Homes to arrive at the number of total daily trips for the proposed hotel towers. The detailed trip generation by time of day is included in Attachment J.

Retail

The proposed Integrated Resort consists of approximately 31,200 net sf of supportive retail uses. Weekday trips for the retail portion of the site were estimated using ITE LUC 822 – Strip Retail Plaza (<40k). To estimate the Saturday daily trips, a comparison was made between the weekday daily and Saturday daily trip generation rates for LUC 821 – Shopping Plaza (40-150k). The daily trips were then distributed throughout the day based on daily distributions for LUC 822. The detailed trip generation by time of day is included in Attachment J.

Food and Beverage (Restaurant)

The proposed Integrated Resort includes new food and beverage uses totaling approximately 147,292 sf. Review of the detailed dimensional site plan shows that approximately one-third (48,940 sf) of the food and beverage space will be occupied by "destination" type restaurants. The balance includes food court, coffee shop, fast-food, bar and lounge, and private gaming food service that will be associated strongly with serving the patrons of the casino use and are not anticipated to generate external trips. Trips for the restaurant portion of the site were estimated using ITE LUC 931 – Fine Dining, for the 48,940 sf that is likely to generate external attraction to the site for a weekday and Saturday. The peak hour trips were then estimated by applying the adjusted external trips to hourly distributions for the food and beverage uses. The hourly distribution for the food and beverage uses were based upon LUC 932 – High-Turnover (Sit-Down) Restaurant, since hourly distribution data for LUC 931 is not available and similar driving characteristics are anticipated. The detailed trip generation by time of day is included in Attachment J.

Meetings and Conference

The proposed Integrated Resort includes a total of approximately 213,000 sf of new meetings and conference space. ITE does not provide trip generation information for a convention center; therefore, the trip generation estimate for the meetings and conference space was developed based on the typical event anticipated at the proposed site. Information provided by Sands indicates a daily average of 1,000 attendees in the meeting space. The entering and exiting trips for attendees were distributed throughout the day based on convention event information assembled for the FEIS for the Proposed No. 7 Subway Extension-Far West Midtown Manhattan Rezoning.[11] The detailed trip generation estimate is included in Attachment J.

[11] Memorandum, Metzger, E. *Convention Center Expansion Transportation Planning Assumptions* (September 28, 2004)

Public Attraction

The proposed Integrated Resort includes a total of approximately 60,000 sf of public attraction space. ITE does not provide trip generation information for a public attraction land use; therefore, the trip generation estimate for the public attraction was determined based on the typical event proposed for that space by Sands. The public attraction is expected to generate a maximum daily attendance of 3,000 patrons spread throughout the course of the day. The entering and exiting trips for the weekday and Saturday were distributed throughout the day based on ITE LUC 411 – Public Park. The daily trips were shifted to account for the hours of operation for the public attraction space. The detailed trip generation estimate is included in Attachment J.

Arena/Live Performance Venue

The proposed Integrated Resort includes a 4,500-seat arena/live performance venue for concerts and other live performances. ITE does not provide trip generation information for an arena/live performance venue land use; therefore, the trip generation estimate for this use was completed using Lessee provided site-specific data. Events are expected to primarily occur during Friday and Saturday evenings (e.g., 4:00 p.m. to 12:45 a.m.) overlapping with the Friday evening and Saturday evening peak hours. The entering and exiting trips were distributed throughout Friday and Saturday based on arrival and departure distributions associated with a New York Islanders Hockey game. The detailed trip generation estimate is included in Attachment J.

Employees

Sands provided information regarding the number of employees and shift information for the existing Marina Bay Sands (MBS) casino in Singapore. This information was utilized to determine the characteristics of employee arrivals and departures at the integrated resort as it is operated by Sands, contains the same components and is operated in a similar manner. This included the number of people in each shift, the shift start and end times over the course of the day. While specific shift details regarding the number of people per shift for the proposed Integrated Resort are not available, Sands has indicated that the total number of employees at the proposed Integrated Resort will be fewer than at MBS.

Information provided by Sands indicates that the employee shifting patterns will be similar between MBS and the proposed Integrated Resort, though the exact number of employees per shift is currently unknown. Therefore, the employee trips were estimated using the employee numbers and shift information directly from MBS.

Based on the data provided by Sands, the employee trips were divided into two groups: casino gaming and all other employees. The trip generation estimates using ITE data for the hotel, restaurant, and retail uses include employees, so there is some level of double-counting between the ITE trip generation and employees for these specific uses and is therefore high-side conservative.

Travel Mode, Vehicle Occupancy, and Internal Trips

Travel Mode

Given the location and operations of the proposed Integrated Resort and characteristics of the site, patrons and employees will have several mode choices (automobile, ride hailing, bus transit, LIRR, coach buses provided by Sands, and biking/walking) to arrive and depart from the site. The site generated trips were apportioned based upon the various modal factors for each land use. Personal automobile usage ranges between 82 and 92 percent and ride hailing was projected at approximately four to five percent (lower for employees). Transit bus service provided by NICE Bus was projected at two percent for all uses except for employees, which ranges between six and 13 percent.

Sands will employ two bus services in support of the Integrated Resort. A Sands-sponsored shuttle will connect the site with the LIRR Hempstead Station and the adjacent Rosa Parks HTC. Sands will also use larger coach buses to transport casino patrons from longer distances. Shuttle usage (LIRR and long-distance coach) ranges between zero and five percent; and walking ranges between zero and two percent. Table 12 summarizes the factors used to estimate the travel mode for each land use.

Table 12 Summary of Travel Mode Factors

Land Use	Mode					
	Auto	Ride-Hail	Bus	LIRR Shuttle	Coach Shuttle	Walk/ Bike
Weekday						
Casino	83%	4%	2%	5%	5%	1%
Hotel	90%	5%	2%	2%	1%	0%
Retail	90%	5%	2%	2%	1%	0%
Restaurant	90%	5%	2%	2%	1%	0%
Conference	90%	5%	2%	2%	1%	0%
Public Attraction	90%	5%	2%	2%	1%	0%
Theater	90%	5%	2%	2%	1%	0%
Non-Casino Employees	84.7%	0.3%	13%	0%	0%	2%
Casino Employees	91.7%	0.3%	6%	0%	0%	2%
Saturday						
Casino	82%	5%	2%	5%	5%	1%
Hotel	90%	5%	2%	2%	1%	0%
Retail	90%	5%	2%	2%	1%	0%
Restaurant	90%	5%	2%	2%	1%	0%
Conference	90%	5%	2%	2%	1%	0%
Public Attraction	90%	5%	2%	2%	1%	0%
Theater	90%	5%	2%	2%	1%	0%
Non-Casino Employees	84.7%	0.3%	13%	0%	0%	2%
Casino Employees	91.7%	0.3%	6%	0%	0%	2%

The table shows that the only difference between the Weekday and Saturday travel mode factors is for casino patrons. On weekdays, the auto use is estimated at 83 percent with four percent Ride-Hail. On a Saturday the estimate is 82 percent auto travel and five percent Ride-Hail.

Vehicle Occupancy

Vehicle occupancy was also considered, as several proposed land uses rely on the use of person visitation in the determination of trip generation. Occupancy factors range from 1.1 to 2.8 persons per vehicle for automobiles, ride hailing, and transit bus; 25 persons per vehicle for the LIRR shuttle; and 45 persons per bus for the Coach shuttle. ITE trip generation rates account for vehicle occupancy; therefore, trip generation estimates using ITE methodologies included a vehicle occupancy rate of 1.0 for passenger vehicles and Ride-Hailing. Table 13 summarizes the vehicle occupancy rates for each land use and employee type.

Table 13 Summary of Vehicle Occupancy

Land Use	Occupancy					
	Auto	Ride-Hail	Bus	LIRR Shuttle	Coach Shuttle	Walk/ Bike
Weekday						
Casino	2.0	2.0	10.0	25.0	45.0	0.0
Hotel	1.0	1.0	10.0	25.0	45.0	0.0
Retail	1.0	1.0	10.0	25.0	45.0	0.0
Restaurant	1.0	1.0	10.0	25.0	45.0	0.0
Conference	1.8	1.8	10.0	25.0	45.0	0.0
Public Attraction	2.3	2.3	10.0	25.0	45.0	0.0
Theater	2.3	2.3	10.0	25.0	45.0	0.0
Non-Casino Employees	1.1	1.1	10.0	25.0	45.0	0.0
Casino Employees	1.1	1.1	10.0	25.0	45.0	0.0
Saturday						
Casino	2.3	2.3	10.0	25.0	45.0	0.0
Hotel	1.0	1.0	10.0	25.0	45.0	0.0
Retail	1.0	1.0	10.0	25.0	45.0	0.0
Restaurant	1.0	1.0	10.0	25.0	45.0	0.0
Conference	2.8	2.8	10.0	25.0	45.0	0.0
Public Attraction	2.3	2.3	10.0	25.0	45.0	0.0
Theater	2.3	2.3	10.0	25.0	45.0	0.0
Non-Casino Employees	1.1	1.1	10.0	25.0	45.0	0.0
Casino Employees	1.1	1.1	10.0	25.0	45.0	0.0

The table shows that the only difference between the Weekday and Saturday travel mode factors is for casino and conference patrons. The vehicle occupancy for these two uses is higher on Saturdays.

Internal Trips

Due to the mixed-use nature of the proposed Integrated Resort, which will offer an array of uses/experiences under one roof, many visitors to the site will take advantage of more than one of the resort offerings during each visit. This results in internal trips, meaning that trips to more than one use on the site are generated internally and do not add an additional trip to the adjacent

roadway network. For example, casino patrons may stay at the hotel and visit a restaurant during their stay or a visitor to the arena/live performance venue may patronize a restaurant prior to the event. Information provided by Sands has indicated that, based on its experience with other similar developments and its business model, a large portion of the hotel, restaurant, retail, meetings and conference, public attraction, and arena/live performance venue guests will also be casino patrons.

Credits to account for internal trips were initially estimated using the ITE publication *Trip Generation Handbook, 3rd Edition*.[12] After review of the internal capture land use categories available through ITE, it was determined that Sands-provided site-specific data and engineering judgment were appropriate when estimating internal capture for the proposed Integrated Resort. The internal capture rates applied to each of the land uses range from zero to 80 percent for each of the peak hours as summarized in Table 14.

Table 14 Summary of Internal Capture Percentages

Land Use	Day of the Week	
	Monday – Thursday	Friday – Sunday
Casino	0	0
Hotel	50	75
Retail	80	80
Restaurant	30	30
Conference	15	15
Public Attraction	25	25
Theater	25	25
Non-Casino Employees	0	0
Casino Employees	0	0

The table shows that the only difference between the Monday through Thursday and Friday through Sunday internal capture percentages is for the hotel use, which is 50 percent Monday through Thursday and 75 percent Friday through Sunday.

Total External Vehicular Site Trips

The travel mode factors, vehicle occupancy, and internal capture percentages summarized in Table 12 through Table 14 were applied to the trip generation estimates described above and included in Attachment J. Table 15 through Table 19 summarize the total external trips by mode for the five peak hours. The tables show that, except for the Weekday AM peak hour, casino patrons account for the highest number of trips travelling to and from the site. During the weekday AM peak hour, the general employees (non-gaming table and slot positioning) account for the most trips to and from the site.

[12] *Trip Generation Handbook, 3rd Edition*, Institute of Transportation Engineers.

Table 15 Weekday AM Peak Hour External Trips by Mode

Land Use	Auto	Ride-Hail	Bus	LIRR Shuttle	Coach Shuttle	Walk/ Bike	Total
Casino	351	17	2	2	1	9	382
Hotel	175	9	0	0	0	0	184
Retail	6	0	0	0	0	0	6
Restaurant	76	4	0	0	0	0	80
Conference	72	4	0	0	0	0	76
Public Attraction	0	0	0	0	0	0	0
Theater	0	0	0	0	0	0	0
Non-Casino Employees	680	3	12	0	0	18	713
Casino Employees	14	0	0	0	0	0	14
Total	**1,374**	**37**	**14**	**2**	**1**	**27**	**1,455**

Table 16 Weekday PM Peak Hour External Trips by Mode

Land Use	Auto	Ride-Hail	Bus	LIRR Shuttle	Coach Shuttle	Walk/ Bike	Total
Casino	1,036	51	5	5	2	25	1,124
Hotel	284	16	0	0	0	0	300
Retail	24	2	0	0	0	0	26
Restaurant	220	12	0	0	0	0	232
Conference	5	1	0	0	0	0	6
Public Attraction	206	11	2	0	0	0	219
Theater	0	0	0	0	0	0	0
Non-Casino Employees	380	1	6	0	0	10	39 7
Casino Employees	0	0	0	0	0	0	0
Total	**2,155**	**94**	**13**	**5**	**2**	**35**	**2,304**

Table 17 Friday Evening Peak Hour External Trips by Mode

Land Use	Auto	Ride-Hail	Bus	LIRR Shuttle	Coach Shuttle	Walk/ Bike	Total
Casino	1,912	92	9	9	5	47	2,074
Hotel	117	7	0	0	0	0	124
Retail	24	2	0	0	0	0	26
Restaurant	242	13	0	0	0	0	255
Conference	1	0	0	0	0	0	1
Public Attraction	178	10	2	0	0	0	190
Theater	164	9	1	0	0	0	174
Non-Casino Employees	252	1	4	0	0	6	263
Casino Employees	0	0	0	0	0	0	0
Total	**2,890**	**134**	**16**	**9**	**5**	**53**	**3,107**

Table 18 Saturday Midday Peak Hour External Trips by Mode

Land Use	Auto	Ride-Hail	Bus	LIRR Shuttle	Coach Shuttle	Walk/ Bike	Total
Casino	2,009	122	11	11	6	55	2,214
Hotel	142	8	0	0	0	0	150
26	2	0	0	0	0	0	28
Restaurant	214	12	0	0	0	0	226
Conference	43	3	0	0	0	0	46
Public Attraction	194	11	2	0	0	0	207
Theater	0	0	0	0	0	0	0
Non-Casino Employees	134	1	2	0	0	3	140
Casino Employees	0	0	0	0	0	0	0
Total	**2,762**	**159**	**15**	**11**	**6**	**58**	**3,011**

Table 19 Saturday Evening Peak Hour External Trips by Mode

Land Use	Auto	Ride-Hail	Bus	LIRR Shuttle	Coach Shuttle	Walk/ Bike	Total
Casino	2,815	171	15	15	9	77	3,102
Hotel	79	4	0	0	0	0	83
Retail	32	2	0	0	0	0	34
Restaurant	206	12	0	0	0	0	218
Conference	71	5	0	0	0	0	76
Public Attraction	140	8	1	0	0	0	149
Theater	35	2	0	0	0	0	37
Non-Casino Employees	235	1	4	0	0	7	247
Casino Employees	231	1	2	0	0	6	240
Total	**3,844**	**206**	**22**	**15**	**9**	**90**	**4,186**

Table 20 summarizes the total external entering and exiting trips during each peak hour of analysis. The table shows that the Integrated Resort is expected to generate 1,455 trips during the Weekday AM peak hour, 2,304 trips during the Weekday PM peak hour, 3,107 trips during the Friday Evening peak hour, 3,011 trips during the Saturday Midday peak hour, and 4,186 trips during the Saturday Evening peak hour. Of these total trips, walking/bicycle trips range from 27 to 90 trips depending on the peak hour.

Table 20 Total External Trip Generation – All Modes

Peak Hour	Hour	Entering	Exiting	Total
Weekday AM	7:30 to 8:30 a.m.	956	499	1,455
Weekday PM	5:00 to 6:00 p.m.	1,001	1,303	2,304
Friday Evening	6:00 to 7:00 p.m.	1,575	1,532	3,107
Saturday Midday	1:15 to 2:15 p.m.	1,701	1,310	3,011
Saturday Evening	7:15 to 8:15 p.m.	2,013	2,173	4,186

Comparisons to Other Resort Casino Vehicular Trip Generation

Although each casino resort is different, there are a number that include multiple components with a casino, a large number of hotel rooms, and conference and entertainment venues. Trip generation for other resorts was collected and reviewed. An excerpt from a memo prepared by The Engineering Corp, dated September 20, 2013 containing information on the trip rates at other casinos is included in Attachment J. Although many of the data points were for significantly smaller casinos, which are unlikely to generate trips at similar rates to the proposed casino, the MGM Springfield traffic documents included portions of trip generation data for the Mohegan Sun Casino and the MGM Detroit. These facilities had components consistent with the proposed Integrated Resort (including full casino offerings, hotels, entertainment space). The Friday and Saturday evening peak hour trip rate for casino patrons, for employees and for the hotel component were included in the data. A comparison of the anticipated casino patron trips reveals that the Mohegan Sun rates result in a peak casino patron trip generation of 2,665 during the Saturday evening peak hour. The trip profiles

determined above resulted in 3,102 peak casino patrons during the Saturday evening peak hour. Once the other components are included, the resulting effective trip generation remains lower than has been calculated above for Sands. The data provided for the MGM Detroit results in a lower trip rate than that provided for Mohegan Sun. Therefore, the methodology to determine trip generation for the Integrated Resort is conservatively high compared to other large casino developments.

Comparison to Previous Use of the Site

The Nassau Veterans Memorial Coliseum previously hosted large events including concerts and sporting events. The trip generation outlined above for the Integrated Resort was compared with the trip generation noted at the site during a peak event. Count data collected on April 1, 2019 from 5:00 to 11:00 p.m. during an Islanders vs. Maple Leafs hockey game was used to determine the number of trips entering and exiting the subject property. As illustrated in Table 21, trip generation for the Coliseum was determined for the weekday evening peak hour consistent with the Integrated Resort (6:00 to 7:00 p.m.). In addition, although on the date noted, the hockey game exiting time period occurs on a Monday, it illustrates that the most intensive peak hour of the Coliseum was higher than the most intensive peak hour of the Integrated Resort.

Table 21 Peak Hour Comparison – Integrated Resort and Coliseum

Time Period	Movement	Sands Integrated Resort	Coliseum Event[1]
Weekday Evening Peak Hour[2]	Enter	1,575	3,017
	Exit	1,532	332
	Total	3,107	3,349
Evening Peak Hour[3]	Enter	2,013	338
	Exit	2,173	4,526
	Total	4,186	4,864

1 Counts at NYCB Live (4/1/2019 Islanders Game when attendance was 13,917)
2 Weekday evening 6:00 to 7:00 PM for both uses
3 Sands Saturday evening peak hour and Coliseum exiting peak hour on observed Monday

Trip Distribution and Assignment

Based on the nature of the proposed Integrated Resort, the characteristics of trip making to and from the site regionally can be best described in two categories: Regional and Local. It is expected that travel to and from the site for casino patrons and hotel guests would be from a larger geographical footprint (Regional or beyond) with heavier reliance of travel on higher classification roadways when traveling to and from the site (e.g., Interstates, Parkways). The other components, as well as the employee trips, would have a more local distribution pattern (Local). Sands has indicated that the drawing area for the casino/hotel is defined by an approximate two-hour drive time from the site, while the more local trips (employees and visitors to other uses on the site) are defined by an approximate 20-minute drive time from the site.

The development of each of these distributions utilized population data sourced from the United States Census Bureau. The census data were obtained at the census tract level and imported into

ArcGIS,[13] as available from the New York State GIS Website. Figures D-1a and D-1b show the two drawing areas. With the ArcGIS census tract population data sets, individual census tracts were grouped and assigned to common routes to and from the site. This provided a population on each route that was used (relative to the total population in the drawing area) to establish the percent of arriving and departing traffic that is expected to travel on each route. Attachment K contains additional data on the trip distribution calculations.

Casino and Hotel Patrons Distribution

The Casino and Hotel Patrons Distribution was developed based on the area encompassed by the two-hour drive time shown on Figure D-1a in Attachment K. Given the longer travel times, persons who reside in areas further away from the Integrated Resort would not visit the site as frequently as those with a shorter trip.

To account for this characteristic, the drawing area was divided into three sub areas by travel time, and the populations in each area were weighed based on the travel time. An area encompassing a 20-minute drive time received a weight of 1.0, acknowledging that this is the area in which a resident would most frequently visit the site. A second area, from 20 minutes to 60 minutes, received a weight of 0.45, while the outermost area, from 60 minutes to two hours, received a weight of 0.05, reflecting a lower likelihood of visitation from this distance on any given day. The area encompassed by the 60-minute and two-hour drive times are shown on Figures D-1c and D-1d. The trip distribution patterns associated with the three drive-time population data sets were combined to identify a single regional trip distribution pattern and shown on Figure D-1e. The detailed study area trip distribution for the casino and hotel patrons is shown on Figures D-2a through D-2l Trip Distribution - Casino/Hotel in Attachment E and considers the population/census tract evaluation, local knowledge of study area roadways and intersections, and engineering judgement.

The automobile trips shown in Tables 15 through 19 for the casino and hotel land uses were assigned to the study area intersections based on the detailed trip distribution patterns and are shown on Figures E-1 figures group in Attachment K.

Local Distributions

The Local Distributions are applied to all site automobile trips not associated with casino patrons and hotel guests. The area encompassed by the local, 20-minute drive time, is the smallest and closest geographic range generating trips in the study area. Persons residing in this area will be the patrons more likely to visit the restaurants, theater, meetings and conference space, and public attractions, and it is expected that most of the employees at the site will reside in this area.

Each of the census tracts (or groups of census tracts, as appropriate) was assigned to the roadway system based on available and likely routes that the population would take to the site based on local knowledge and engineering judgment. Trips were further distributed based on the site access points, locations of attractions within the site, and location of site parking. The resulting detailed trip distributions are included in Attachment E on the following figures:

› Figures D-3a through D-3l, Trip Distribution – Employee

[13] ArcGIS, ESRI

- Figures D-4a through D-4l, Trip Distribution – Restaurant/Retail/Public Attraction
- Figures D-5a through D-5l, Trip Distribution – Theater
- Figures D-6a through D-6l, Trip Distribution – Meetings and Conference
- Figures D-7a through D-7l, Trip Distribution – Ride-Hailing

Shuttle and Delivery Distributions

In addition to the site being served by public bus in the form of the County's NICE Bus system and a proposed BRT system in this area, as previously noted, two bus systems will be operated to support the Integrated Resort. A Sands shuttle bus operation will be established between the site and the Rosa Parks HTC in the Village of Hempstead that provides connection to the LIRR service and additional local NICE bus routes that service a larger area. Longer distance charter buses will also be operated by Sands from points further away from the site to provide an alternate travel option aside from a personal vehicle or mass transit.

The Sands-sponsored shuttle will travel between the Integrated Resort and the HTC using Hempstead Turnpike. The longer-distance coach buses will originate primarily from points to the west. These coach busses will travel to and from the site via the Long Island Expressway (I-495) using Glen Cove Road, Old Country Road, and Merrick Avenue. They will enter the resort via Charles Lindbergh Boulevard.

The distribution patterns developed for the LIRR and coach shuttles and facility deliveries avoid roadways with heavy vehicle limitations and the origins of the shuttle services. The detailed trip distributions are included in Attachment E on the following figures:

- Figures D-8a through D-8l, Trip Distribution – LIRR Shuttle
- Figures D-9a through D-9l, Trip Distribution – Coach Shuttle
- Figures D-10a through D-10l, Trip Distribution – Deliveries

Trip Assignment and Build Volumes

The external trips shown in Table 15 through Table 19 were applied to the individual trip distribution patterns included in Attachment E to create Trip Assignment figures for the various land uses and user groups for the five peak hours. The resulting trip assignment for each land use and user group is included in Attachment E on the following groups of figures:

- E-1 Figures, Trip Assignment – Casino/Hotel
- E-2 Figures, Trip Assignment – Employee
- E-3 Figures, Trip Assignment – Restaurant/Retail/Public Attraction
- E-4 Figures, Trip Assignment – Theater
- E-5 Figures, Trip Assignment – Meetings and Conference
- E-6 Figures, Trip Assignment – Ride-Hailing
- E-7 Figures, Trip Assignment – LIRR Shuttle
- E-8 Figures, Trip Assignment – Coach Shuttle
- E-9 Figures, Trip Assignment – Deliveries

The trips associated with the land uses and user groups were combined to create a single 2030 Combined Trip Assignment for the five peak hours and are shown on Figures E-1a through E-5f in Attachment E. The 2030 Combined Trip Assignment was added to the 2030 No-Build peak hour volumes for the Weekday AM, Weekday PM, Friday Evening, Saturday Midday, and Saturday Evening peak hours to develop the 2030 Build traffic volumes shown in Figures F-1 through F-5. The 2030 Combined Trip Assignment was also added to the 2030 No-Build Weekday PM peak hour – Holiday and Saturday Midday peak hour to develop the 2030 Build Holiday traffic volumes on Figures F-6 through F-7.

No-Build Condition – 2027

Consistent with development of the 2030 No-Build conditions, the 2027[14] No-Build traffic volumes were developed by applying the 0.6 percent annual background growth rate to the 2023 existing traffic volumes and adding in the traffic from all the OPDs discussed under the No-Build Condition - 2030 section of this report.

Phase 1 Condition – 2027

As discussed earlier in this report, the development plan for the Integrated Report included the early operation of a Phase 1 that includes the renovation of the existing coliseum building and related sight improvements and parking. Phase 1 is scheduled to be operational in 2027.

The site trip generation associated with the operation of Phase 1 has been developed following the same methodology as detailed above for the Full-Build condition and accounts for the limited components of the overall resort that will be operational with Phase 1. The details of these calculations are included in Attachment J. Table 22 presents the total external trip generation for Phase 1 for the five key peak hours evaluated.

Table 22 Total External Trip Generation – Phase 1 – All Modes

Peak Hour	Hour	Entering	Exiting	Total
Weekday AM	7:30 to 8:30 a.m.	273	128	401
Weekday PM	5:00 to 6:00 p.m.	241	339	580
Friday Evening	6:00 to 7:00 p.m.	408	439	847
Saturday Midday	1:15 to 2:15 p.m.	472	368	840
Saturday Evening	7:15 to 8:15 p.m.	595	640	1235

[14] See footnote 8 for a discussion of the change in schedule from 2026 to 2027 for the completion of Phase 1

Trip Distribution and Assignment

Casino and Hotel Patrons, and Local Distributions

Phase 1 utilized the same methodology as the Full Build methodology for the Casino and Hotel patrons and Local trip distributions. The detailed trip distributions are included in Attachment E on the following figures:

- Figures D-11a through D-11l, Trip Distribution – Casino/Hotel
- Figures D-12a through D-12l, Trip Distribution – Employee
- Figures D-13a through D-13l, Trip Distribution – Restaurant/Retail/Public Attraction
- Figures D-16a through D-16l, Trip Distribution – Ride-Hailing

Shuttle and Delivery Distributions

The detailed trip distributions are included in Attachment E on the following figures:

- Figures D-17a through D-17l, Trip Distribution – LIRR Shuttle
- Figures D-18a through D-18l, Trip Distribution – Coach Shuttle
- Figures D-19a through D-19l, Trip Distribution – Deliveries

Trip Assignment and Build Volumes

The external trips shown in Table 22 were applied to the individual trip distribution patterns included in Attachment E to create Trip Assignment figures for the various land uses and user groups for the five peak hours. The resulting trip assignment for each land use and user group is included in Attachment E on the following groups of figures:

- E-10 Figures, Trip Assignment – Casino/Hotel
- E-11 Figures, Trip Assignment – Employee
- E-12 Figures, Trip Assignment – Restaurant/Retail/Public Attraction
- E-15 Figures, Trip Assignment – Ride-Hailing
- E-16 Figures, Trip Assignment – LIRR Shuttle
- E-17 Figures, Trip Assignment – Coach Shuttle
- E-18 Figures, Trip Assignment – Deliveries

The trips associated with the land uses and user groups were combined to create a single 2027 Combined Trip Assignment for the five peak hours and are shown on Figures E-6a through E-10f in Attachment E. The 2030 Combined Trip Assignment was added to the 2030 No-Build peak hour volumes for the Weekday AM, Weekday PM, Friday Evening, Saturday Midday, and Saturday Evening peak hours to develop the 2030 Build traffic volumes shown in Figures F-8a through F-12f. The 2030 Combined Trip Assignment was also added to the 2030 No-Build Weekday PM peak hour – Holiday and Saturday Midday peak hour to develop the 2030 Build Holiday traffic volumes on Figures F-13a through F-14f.

4

Traffic Operations Analysis

Measuring existing traffic volumes and projecting future traffic volumes quantifies traffic flow within the study area. To assess the quality of traffic flow, roadway capacity analyses were conducted with respect to the existing, future No-Build, and future Build conditions. These capacity analyses provide an indication of the adequacy of the roadway facilities to serve the anticipated traffic demands.

In accordance with the Final Scope for the DEIS, this study evaluates the potential transportation-related impacts of the development of the Integrated Resort on surface roadways and intersections within the study area, as well as on portions of the Meadowbrook State Parkway, the Northern State Parkway and the Southern State Parkway as noted previously in Section 1. This section presents the results of the evaluation of the operations of each of these facilities.

Intersection Level-of-Service and Delay Criteria

Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them. Roadway operating conditions are classified by calculated levels-of-service (LOS). The evaluation criteria used to analyze the study area intersections is based on the procedures set forth in the latest version of the Highway Capacity Manual (HCM).[15] LOS is a measure of intersection operations that considers many factors including roadway geometry, speed, and travel delay. Levels of service range from A to F, with LOS A representing short vehicle delays and LOS F representing

[15] *Highway Capacity Manual*, 6th Edition, Transportation Research Board, Washington D.C., 2016

longer vehicle delays. The LOS designations, which are based on delay, are reported differently for signalized and unsignalized intersections. The LOS definitions are included in Attachment L.

Improvements Necessary to Facilitate Site Access

In order to facilitate traffic movements at the site access points, improvements will be required to the site access points and the roadways immediately adjacent to the site. These improvements are not mitigation in the conventional sense in that they are proposed to provide access to the site and are not necessarily required to increase intersection capacity. Table 23 summarizes the proposed geometric changes to the existing site access points for the proposed Integrated Resort:

Table 23 Improvements to Site Access

Intersection	Existing Geometry	Improvement	Proposed Build Geometry
Hempstead Turnpike (NY 24) at Glenn Curtiss Boulevard/Site Access	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR, R SB: L, LT, TR, R	WB: Modify right-turn lane to eliminate uncontrolled movement SB: Restripe southbound approach to provide two left-turn lanes and a shared thru-right lane	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR, R SB: LL, TR
Earle Ovington Boulevard at Charles Lindbergh Boulevard (EB)/Site Access	EB: LL, T, R WB: LL, R NB: TTT, TR SB: L, TT	WB: Remove one left-turn lane, construct an additional channelized right turn lane	EB: LL, T, R WB: L, RR NB: TTT, TR SB: L, TT
Earle Ovington Boulevard and Charles Lindbergh Boulevard at Site Access Bus Loop	NA	Construct Bus deceleration lane and off ramp from Earle Ovington Boulevard. Construct a right out only from the site onto Charles Lindbergh Boulevard.	NA
Charles Lindbergh Boulevard at Site Access (Sands Blvd.)	NA	Construct Intersection and Signalize with optimized timing/phasing	EB: TTTT, TR WB: LL, TTT NB: RR
Charles Lindbergh Boulevard at James Doolittle Boulevard	EB: TTT, TR, R WB: TTTT NB: RR	EB: Remove right-turn lane NB: Remove right-turn lane	EB: TTT, TR WB: TTTT NB: R

Geometry Notes:

Approach lane designations are separated by commas. For instance, L represents a single left turn lane. LL represents two left-turn lanes. LT represents a shared left-turn/through lane. Right turn lanes are designed R.

The access improvements described above would be constructed prior to the operation of Phase 1 of the Integrated Resort (subject to the approval of the entities with jurisdiction over the affected roadways) and are included in the Build condition analysis described below.

Intersection Capacity Analysis

LOS analyses were conducted using Synchro/SimTraffic[16] software for the 2023 Existing, 2030 No-Build, and 2030 Build conditions for the study area intersections for the identified key peak hours. Table 24 through Table 28 summarize the capacity analysis results included in expanded tables found in Attachment M. Copies of the detailed capacity analysis worksheets are found in Attachment N. Intersection signal timing and phasing obtained from the NYSDOT and NCDPW are included in Attachment S.

[16] Synchro/SimTraffic are traffic simulation and modeling software developed by CUBIC Transportation Systems.

Table 24 Weekday AM Peak Hour

Weekday AM peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at James Doolittle Blvd	0.1	A	0.1	A	0.1	A
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	33.5	C	36.0	D	49.6	D
Hempstead Tpke at Cunningham Ave & West Drive	8.2	A	8.3	A	8.1	A
Hempstead Tpke at MSKCC Entrance	4.9	A	5.1	A	6.3	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	65.5	E	69.7	E	77.4	E
Earle Ovington Blvd at East Gate Rd/Nassau Coliseum Access	11.1	B	11.1	B	17.7	B
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	13.7	B	13.9	B	15.1	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	41.3	D	47.1	D	52.2	D
Charles Lindbergh Blvd EB at James Doolittle Blvd	See Note 1		See Note 1		0.2	A
Charles Lindbergh Blvd WB at Perimeter Rd	See Note 1		See Note 1		0.8	A
Charles Lindbergh Blvd at Merrick Ave	11.2	B	11.7	B	12.0	B
Hempstead Tpke at Merrick Ave	56.1	E	59.4	E	60.4	E
Hempstead Tpke at Eisenhower Park Pedestrian Entrance	1.9	A	1.9	A	2.0	A
Hempstead Tpke at Coolidge Dr	6.5	A	7.4	A	7.7	A
Hempstead Tpke at Park Blvd/East Meadow Ave	45.1	D	47.0	D	47.4	D
Merrick Ave at Glenn Curtiss Blvd/Peters Gate	12.9	B	13.3	B	13.3	B
Hempstead Tpke at California Ave/ Hofstra Blvd	22.6	C	23.2	C	23.1	C
Hempstead Tpke at Oak St/Hofstra Blvd	26.0	C	26.4	C	26.5	C
Front St at Merrick Ave	42.6	D	45.3	D	45.4	D
Front St at Uniondale Ave	33.9	C	35.8	D	36.8	D
Front St at California Ave	14.5	B	15.3	B	15.3	B
Fulton Ave at Peninsula Blvd/Bennett Ave	40.6	D	45.0	D	46.0	D
Fulton Ave at Clinton St	36.1	D	38.1	D	38.7	D
Fulton Ave at N Franklin St	25.8	C	28.5	C	28.8	C
Stewart Ave at Franklin Ave	64.5	E	101.8	F	101.9	F
Old Country Rd at Franklin Ave/ Mineola Blvd	46.9	D	52.9	D	54.6	D
Old Country Rd at Clinton Rd/Glen Cove Rd	37.7	D	38.3	D	39.7	D
Old Country Rd at Merchants Concourse/Ellison Ave	31.7	C	32.7	C	32.7	C
Old Country Rd at Merrick Ave/Post Ave	46.6	D	47.6	D	47.6	D
Merrick Ave at Stewart Ave/Park Blvd	44.9	D	47.9	D	48.7	D
Stewart Ave at Endo Blvd/Merchants Concourse	32.2	C	33.6	C	33.6	C
Stewart Ave at Quentin Roosevelt Blvd/South St	36.7	D	37.6	D	37.6	D
Stewart Ave at Clinton Rd	58.1	E	87.8	F	88.2	F
Oak St at Commercial Ave	8.3	A	8.6	A	8.6	A

Notes:
LOS = Level of Service

[1] - HCM cannot analyze the geometry at this intersection

[2] - Intersection does not exist in this condition

Table 24 Weekday AM Peak Hour (Continued)

Weekday AM peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Quentin Roosevelt Blvd at Commercial Ave	14.5	B	14.8	B	14.8	B
Meadow St at Charles Lindbergh Blvd	9.3	A	10.0	A	10.3	B
Hempstead Tpke at Front St	21.4	C	33.7	C	38.6	D
Hempstead Tpke at Carman Ave/3rd St	80.4	F	79.4	E	79.2	E
Hempstead Tpke at Newbridge Rd	55.4	E	57.6	E	58.5	E
Merrick Ave at Bellmore Ave	24.4	C	27.4	C	27.8	C
Merrick Ave at North Jerusalem Rd	19.7	B	20.2	C	20.3	C
Merrick Ave at Jerusalem Ave	39.8	D	46.1	D	46.3	D
Uniondale Ave at Jerusalem Ave	34.8	C	37.0	D	37.6	D
Nassau Rd at Uniondale Ave/Brookside Ave	27.2	C	28.4	C	28.5	C
Stewart Ave at Ring Road West (Roosevelt Field)	14.0	B	15.9	B	15.9	B
Old Country Rd at Roosevelt Field Entrance	22.4	C	20.6	C	24.0	C
Old Country Rd at Salisbury Park Dr/School St	35.7	D	37.6	D	38.1	D
Merrick Ave at Corporate Dr	15.7	B	17.0	B	17.9	B
Merrick Ave at Privado Rd	14.7	B	18.2	B	19.2	B
Jericho Tpke at Post Ave/Post Rd	54.0	D	64.1	E	69.1	E
Franklin Ave at Main St/2nd St	16.3	B	18.6	B	18.7	B
Main St at Meadow St	6.0	A	6.1	A	6.2	A
Meadow St at Washington Ave	18.2	B	19.6	B	19.6	B
Meadow St at Clinton Rd	12.2	B	12.9	B	13.0	B
Meadow St at Lindbergh St	4.7	A	4.7	A	4.6	A
Westbury Blvd at Lindbergh St	2.2	A	2.4	A	2.7	A
Westbury Blvd at Oak St/Meadow St	18.8	B	20.9	C	21.1	C
Hempstead Turnpike at Franklin Ave/Perimeter E/Hospital St	22.6	C	23.2	C	23.3	C
Peninsula Blvd at Fulton Ave	2.5	A	2.5	A	2.5	A
Peninsula Blvd at Bennett Ave	3.6	A	3.5	A	3.6	A
Charles Lindbergh Blvd at Sands Ave	See Note 2		See Note 2		6.1	A
James Doolittle Blvd & Parking F	See Note 2		See Note 2		4.4	A
James Doolittle Blvd at Aisle North of Parking Lot F	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Exist Hotel Access	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Marriott Driveway	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Parking E	See Note 2		See Note 2		5.7	A
Sands Avenue at Aisle North of Parking Lot F	See Note 2		See Note 2		1.9	A

Notes:
LOS = Level of Service
[1] - HCM cannot analyze the geometry at this intersection
[2] - Intersection does not exist in this condition

Table 24 Weekday AM Peak Hour (Continued)

Weekday AM peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
East Dr/ Sands Ave at North Ave	See Note 2		See Note 2		7.5	A
Sands Ave at Parking E	See Note 2		See Note 2		0.0	A
East Dr/ Sands Ave at North Ave	See Note 2		See Note 2		1.7	A
West Dr & Garage C	See Note 2		See Note 2		0.2	A
Parking & Nassau Coliseum Access/ South Dr	See Note 2		See Note 2		0.2	A
MSKCC/South Dr	See Note 2		See Note 2		0.0	A
South Dr at MSKCC Parking Garage/Parking Garage B	See Note 2		See Note 2		3.9	A
Valet Below Meetings and Conference Space/Garage A & Nassau Coliseum Access/North Drive	See Note 2		See Note 2		2.7	A
North Dr & Rideshare Entrance	See Note 2		See Note 2		1.8	A
South Dr at Garage B Exit	See Note 2		See Note 2		4.7	A
Washington St & W Columbia St/Driveway	11.4	B	11.9	B	11.9	B

Notes:
LOS - Level of Service

[1] - HCM cannot analyze the geometry at this intersection

[2] - Intersection does not exist in this condition

Table 25 Weekday PM Peak Hour

Weekday PM peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at James Doolittle Blvd	0.1	A	0.1	A	0.1	A
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	42.5	D	50.0	D	74.1	E
Hempstead Tpke at Cunningham Ave & West Drive	8.7	A	9.2	A	14.1	B
Hempstead Tpke at MSKCC Entrance	6.3	A	6.5	A	9.0	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	63.3	E	66.5	E	93.3	F
Earle Ovington Blvd at East Gate Rd/Nassau Coliseum Access	15.5	B	16.6	B	25.2	C
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	21.9	C	23.3	C	32.7	C
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	27.3	C	27.8	C	28.8	C
Charles Lindbergh Blvd EB at James Doolittle Blvd	See Note 1		See Note 1		0.4	A
Charles Lindbergh Blvd WB at Perimeter Rd	See Note 1		See Note 1		1.1	A
Charles Lindbergh Blvd at Merrick Ave	14.4	B	15.3	B	15.9	B
Hempstead Tpke at Merrick Ave	62.0	E	64.0	E	64.1	E
Hempstead Tpke at Eisenhower Park Pedestrian Entrance	1.5	A	1.7	A	1.8	A
Hempstead Tpke at Coolidge Dr	6.2	A	6.6	A	7.1	A
Hempstead Tpke at Park Blvd/East Meadow Ave	65.9	E	75.0	E	80.4	F
Merrick Ave at Glenn Curtiss Blvd/Peters Gate	18.3	B	19.3	B	19.4	B
Hempstead Tpke at California Ave/ Hofstra Blvd	25.4	C	25.9	C	26.0	C
Hempstead Tpke at Oak St/Hofstra Blvd	37.7	D	39.0	D	39.2	D
Front St at Merrick Ave	44.9	D	48.0	D	48.2	D
Front St at Uniondale Ave	36.9	D	39.3	D	40.8	D
Front St at California Ave	17.9	B	18.9	B	19.0	B
Fulton Ave at Peninsula Blvd/Bennett Ave	30.9	C	33.9	C	34.9	C
Fulton Ave at Clinton St	42.7	D	45.5	D	46.4	D
Fulton Ave at N Franklin St	36.4	D	54.7	D	57.9	E
Stewart Ave at Franklin Ave	76.2	E	124.7	F	125.3	F
Old Country Rd at Franklin Ave/ Mineola Blvd	47.0	D	54.5	D	56.6	E
Old Country Rd at Clinton Rd/Glen Cove Rd	46.9	D	53.3	D	54.3	D
Old Country Rd at Merchants Concourse/Ellison Ave	46.5	D	48.8	D	48.9	D

Notes
LOS = Level of Service

[1] - HCM cannot analyze the geometry at this intersection

[2] - Intersection does not exist in this condition

Table 25 Weekday PM Peak Hour (Continued)

Weekday PM peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Old Country Rd at Merrick Ave/Post Ave	75.2	E	90.0	F	93.1	F
Merrick Ave at Stewart Ave/Park Blvd	50.2	D	57.8	E	59.5	E
Stewart Ave at Endo Blvd/Merchants Concourse	54.5	D	62.4	E	62.7	E
Stewart Ave at Quentin Roosevelt Blvd/South St	45.0	D	48.2	D	48.6	D
Stewart Ave at Clinton Rd	87.1	F	128.3	F	129.6	F
Oak St at Commercial Ave	10.7	B	11.3	B	11.3	B
Quentin Roosevelt Blvd at Commercial Ave	16.9	B	17.6	B	17.7	B
Meadow St at Charles Lindbergh Blvd	12.1	B	12.5	B	12.6	B
Hempstead Tpke at Front St	20.1	C	20.7	C	20.8	C
Hempstead Tpke at Carman Ave/3rd St	64.7	E	69.4	E	70.4	E
Hempstead Tpke at Newbridge Rd	57.8	E	59.7	E	60.2	E
Merrick Ave at Bellmore Ave	18.7	B	19.0	B	19.2	B
Merrick Ave at North Jerusalem Rd	18.8	B	19.3	B	19.4	B
Merrick Ave at Jerusalem Ave	43.4	D	50.7	D	51.2	D
Uniondale Ave at Jerusalem Ave	35.8	D	37.9	D	38.4	D
Nassau Rd at Uniondale Ave/Brookside Ave	24.2	C	25.1	C	25.2	C
Stewart Ave at Ring Road West (Roosevelt Field)	15.0	B	17.4	B	17.5	B
Old Country Rd at Roosevelt Field Entrance	33.8	C	48.0	D	50.7	D
Old Country Rd at Salisbury Park Dr/School St	50.3	D	61.0	E	62.0	E
Merrick Ave at Corporate Dr	86.4	F	101.4	F	105.9	F
Merrick Ave at Privado Rd	45.5	D	59.2	E	62.6	E
Jericho Tpke at Post Ave/Post Rd	117.2	F	137.1	F	144.8	F
Franklin Ave at Main St/2nd St	13.9	B	16.0	B	16.0	B
Main St at Meadow St	6.9	A	7.3	A	7.3	A
Meadow St at Washington Ave	17.9	B	19.4	B	19.4	B
Meadow St at Clinton Rd	13.7	B	14.6	B	14.7	B
Meadow St at Lindbergh St	6.2	A	6.3	A	6.3	A
Westbury Blvd at Lindbergh St	2.1	A	2.4	A	2.5	A
Westbury Blvd at Oak St/Meadow St	43.0	D	57.9	E	60.8	E
Hempstead Turnpike at Franklin Ave/Perimeter E/Hospital St	10.3	B	10.4	B	10.3	B
Peninsula Blvd at Fulton Ave	2.0	A	2.0	A	2.0	A
Peninsula Blvd at Bennett Ave	2.6	A	2.6	A	2.6	A

Notes
LOS = Level of Service

[1] - HCM cannot analyze the geometry at this intersection

[2] - Intersection does not exist in this condition

Table 25 Weekday PM Peak Hour (Continued)

Weekday PM peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Charles Lindbergh Blvd at Sands Ave	See Note 2		See Note 2		25.4	C
James Doolittle Blvd & Parking F	See Note 2		See Note 2		5.1	A
James Doolittle Blvd at Aisle North of Parking Lot F	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Exist Hotel Access	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Marriott Driveway	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Parking E	See Note 2		See Note 2		5.2	A
Sands Avenue at Aisle North of Parking Lot F	See Note 2		See Note 2		3.2	A
East Dr/ Sands Ave at North Ave	See Note 2		See Note 2		11.8	B
Sands Ave at Parking E	See Note 2		See Note 2		0.0	A
East Dr/ Sands Ave at North Ave	See Note 2		See Note 2		3.0	A
West Dr & Garage C	See Note 2		See Note 2		0.5	A
Parking & Nassau Coliseum Access/ South Dr	See Note 2		See Note 2A		0.2	A
MSKCC/South Dr	See Note 2		See Note 2		0.0	A
South Dr at MSKCC Parking Garage/Parking Garage B	See Note 2		See Note 2		5.4	A
Valet Below Meetings and Conference Space/Garage A & Nassau Coliseum Access/North Drive	See Note 2		See Note 2		3.4	A
North Dr & Rideshare Entrance	See Note 2		See Note 2		1.4	A
South Dr at Garage B Exit	See Note 2		See Note 2		7.2	A
Washington St & W Columbia St/Driveway	15.2	B	16.3	B	16.4	B

Notes
LOS = Level of Service

[1] - HCM cannot analyze the geometry at this intersection

[2] -Intersection does not exist in this condition

Table 26 Friday Evening Peak Hour

Friday Evening peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at James Doolittle Blvd	0.3	A	0.3	A	0.3	A
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	19.1	B	19.3	B	26.8	C
Hempstead Tpke at Cunningham Ave & West Drive	8.6	A	8.7	A	7.6	A
Hempstead Tpke at MSKCC Entrance	4.4	A	4.6	A	6.7	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	49.7	D	50.7	D	61.0	E
Earle Ovington Blvd at East Gate Rd/Nassau Coliseum Access	12.0	B	12.4	B	24.9	C
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	10.2	B	10.3	B	11.9	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	19.0	B	19.2	B	19.9	B
Charles Lindbergh Blvd EB at James Doolittle Blvd	See Note 1		See Note 1		0.4	A
Charles Lindbergh Blvd WB at Perimeter Rd	See Note 1		See Note 1		0.1	A
Charles Lindbergh Blvd at Merrick Ave	8.7	A	9.4	A	9.8	A
Hempstead Tpke at Merrick Ave	45.7	D	46.9	D	47.1	D
Hempstead Tpke at Eisenhower Park Pedestrian Entrance	0.8	A	0.9	A	1.1	A
Hempstead Tpke at Coolidge Dr	5.5	A	5.7	A	5.7	A
Hempstead Tpke at Park Blvd/East Meadow Ave	44.6	D	46.2	D	47.2	D
Merrick Ave at Glenn Curtiss Blvd/Peters Gate	9.3	A	9.6	A	9.6	A
Hempstead Tpke at California Ave/ Hofstra Blvd	18.4	B	18.3	B	17.9	B
Hempstead Tpke at Oak St/Hofstra Blvd	25.8	C	26.0	C	25.8	C
Front St at Merrick Ave	31.3	C	32.3	C	32.5	C
Front St at Uniondale Ave	31.2	C	32.5	C	33.4	C
Front St at California Ave	10.7	B	11.0	B	11.0	B
Fulton Ave at Peninsula Blvd/Bennett Ave	25.0	C	26.4	C	27.4	C
Fulton Ave at Clinton St	36.5	D	38.8	D	40.6	D
Fulton Ave at N Franklin St	26.1	C	29.1	C	29.9	C

Notes
LOS = Level of Service

[1] - HCM cannot analyze the geometry at this intersection

[2] - Intersection does not exist in this condition

Table 26 Friday Evening Peak Hour (Continued)

Friday Evening peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Stewart Ave at Franklin Ave	27.4	C	33.6	C	34.3	C
Old Country Rd at Franklin Ave/ Mineola Blvd	36.4	D	39.5	D	41.1	D
Old Country Rd at Clinton Rd/Glen Cove Rd	41.1	D	44.4	D	45.3	D
Old Country Rd at Merchants Concourse/Ellison Ave	35.3	D	37.6	D	37.7	D
Old Country Rd at Merrick Ave/Post Ave	43.9	D	45.6	D	46.4	D
Merrick Ave at Stewart Ave/Park Blvd	30.9	C	32.3	C	33.0	C
Stewart Ave at Endo Blvd/Merchants Concourse	24.0	C	24.6	C	24.7	C
Stewart Ave at Quentin Roosevelt Blvd/South St	36.9	D	37.5	D	37.6	D
Stewart Ave at Clinton Rd	54.9	D	73.0	E	74.8	E
Oak St at Commercial Ave	6.7	A	6.8	A	6.8	A
Quentin Roosevelt Blvd at Commercial Ave	12.3	B	12.4	B	12.6	B
Meadow St at Charles Lindbergh Blvd	5.9	A	5.9	A	6.0	A
Hempstead Tpke at Front St	23.0	C	23.3	C	23.0	C
Hempstead Tpke at Carman Ave/3rd St	47.2	D	48.8	D	49.7	D
Hempstead Tpke at Newbridge Rd	53.0	D	54.3	D	54.6	D
Merrick Ave at Bellmore Ave	17.8	B	18.0	B	18.3	B
Merrick Ave at North Jerusalem Rd	16.7	B	17.0	B	17.2	B
Merrick Ave at Jerusalem Ave	25.9	C	27.4	C	27.6	C
Uniondale Ave at Jerusalem Ave	35.3	D	37.5	D	38.1	D
Nassau Rd at Uniondale Ave/Brookside Ave	25.4	C	26.4	C	26.8	C
Stewart Ave at Ring Road West (Roosevelt Field)	13.6	B	14.6	B	14.6	B
Old Country Rd at Roosevelt Field Entrance	38.0	D	40.3	D	41.6	D
Old Country Rd at Salisbury Park Dr/School St	35.8	D	39.4	D	40.7	D
Merrick Ave at Corporate Dr	32.3	C	41.3	D	51.2	D
Merrick Ave at Privado Rd	16.7	B	18.4	B	20.3	C
Jericho Tpke at Post Ave/Post Rd	31.5	C	33.2	C	37.8	D
Franklin Ave at Main St/2nd St	11.0	B	11.7	B	11.7	B
Main St at Meadow St	5.4	A	5.3	A	5.3	A

Notes
LOS = Level of Service

[1] - HCM cannot analyze the geometry at this intersection

[2] - Intersection does not exist in this condition

Table 26 Friday Evening Peak Hour (Continued)

Friday Evening peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Meadow St at Washington Ave	12.1	B	12.5	B	12.6	B
Meadow St at Clinton Rd	9.1	A	9.4	A	9.5	A
Meadow St at Lindbergh St	5.0	A	5.1	A	4.9	A
Westbury Blvd at Lindbergh St	1.4	A	1.5	A	1.8	A
Westbury Blvd at Oak St/Meadow St	12.4	B	12.7	B	12.8	B
Hempstead Turnpike at Franklin Ave/Perimeter E/Hospital St	9.4	A	9.5	A	9.5	A
Peninsula Blvd at Fulton Ave	1.9	A	1.9	A	1.9	A
Peninsula Blvd at Bennett Ave	3.2	A	3.2	A	3.2	A
Charles Lindbergh Blvd at Sands Ave	See Note 2		See Note 2		13.7	B
James Doolittle Blvd & Parking F	See Note 2		See Note 2		5.0	A
James Doolittle Blvd at Aisle North of Parking Lot F	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Exist Hotel Access	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Marriott Driveway	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Parking E	See Note 2		See Note 2		5.1	A
Sands Avenue at Aisle North of Parking Lot F	See Note 2		See Note 2		3.9	A
East Dr/ Sands Ave at North Ave	See Note 2		See Note 2		17.6	B
Sands Ave at Parking E	See Note 2		See Note 2		0.0	A
East Dr/ Sands Ave at North Ave	See Note 2		See Note 2		3.3	A
West Dr & Garage C	See Note 2		See Note 2		0.1	A
Parking & Nassau Coliseum Access/ South Dr	See Note 2		See Note 2		0.1	A
MSKCC/South Dr	See Note 2		See Note 2		0.0	A
South Dr at MSKCC Parking Garage/Parking Garage B	See Note 2		See Note 2		7.3	A
Valet Below Meetings and Conference Space/Garage A & Nassau Coliseum Access/North Drive	See Note 2		See Note 2		4.2	A
North Dr & Rideshare Entrance	See Note 2		See Note 2		1.5	A
South Dr at Garage B Exit	See Note 2		See Note 2		3.7	A
Washington St & W Columbia St/Driveway	7.8	A	8.0	A	8.0	A

Notes
LOS = Level of Service

[1] - HCM cannot analyze the geometry at this intersection

[2] - Intersection does not exist in this condition

Table 27 Saturday Midday Peak Hour

Saturday Midday peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at James Doolittle Blvd	0.2	A	0.2	A	0.3	A
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	13.1	B	13.3	B	19.9	B
Hempstead Tpke at Cunningham Ave & West Drive	7.5	A	7.6	A	7.0	A
Hempstead Tpke at MSKCC Entrance	5.2	A	5.3	A	6.3	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	51.6	D	52.5	D	56.0	E
Earle Ovington Blvd at East Gate Rd/Nassau Coliseum Access	13.6	B	14.1	B	16.4	B
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	8.6	A	8.6	A	10.2	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	24.0	C	24.3	C	26.5	C
Charles Lindbergh Blvd EB at James Doolittle Blvd	See Note 1		See Note 1		0.4	A
Charles Lindbergh Blvd WB at Perimeter Rd	See Note 1		See Note 1		0.2	A
Charles Lindbergh Blvd at Merrick Ave	8.5	A	9.1	A	9.4	A
Hempstead Tpke at Merrick Ave	42.1	D	42.8	D	43.0	D
Hempstead Tpke at Eisenhower Park Pedestrian Entrance	5.6	A	6.2	A	6.4	A
Hempstead Tpke at Coolidge Dr	9.0	A	9.3	A	9.4	A
Hempstead Tpke at Park Blvd/East Meadow Ave	41.8	D	42.8	D	43.1	D
Merrick Ave at Glenn Curtiss Blvd/Peters Gate	10.5	B	10.6	B	10.8	B
Hempstead Tpke at California Ave/ Hofstra Blvd	21.0	C	21.0	C	20.9	C
Hempstead Tpke at Oak St/Hofstra Blvd	25.1	C	25.8	C	25.6	C
Front St at Merrick Ave	32.6	C	33.8	C	34.0	C
Front St at Uniondale Ave	30.4	C	31.6	C	32.3	C
Front St at California Ave	8.6	A	8.7	A	8.7	A
Fulton Ave at Peninsula Blvd/Bennett Ave	26.3	C	28.1	C	28.4	C
Fulton Ave at Clinton St	28.9	C	29.9	C	30.6	C
Fulton Ave at N Franklin St	24.9	C	27.9	C	28.4	C

Notes
LOS = Level of Service
[1] - HCM cannot analyze the geometry at this intersection
[2] - Intersection does not exist in this condition

Table 27 Saturday Midday Peak Hour (continued)

Saturday Midday peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Stewart Ave at Franklin Ave	27.3	C	43.7	D	43.9	D
Old Country Rd at Franklin Ave/ Mineola Blvd	36.5	D	41.7	D	43.0	D
Old Country Rd at Clinton Rd/Glen Cove Rd	44.5	D	49.1	D	50.4	D
Old Country Rd at Merchants Concourse/Ellison Ave	35.8	D	37.5	D	37.5	D
Old Country Rd at Merrick Ave/Post Ave	43.0	D	44.5	D	44.8	D
Merrick Ave at Stewart Ave/Park Blvd	32.0	C	33.7	C	34.1	C
Stewart Ave at Endo Blvd/Merchants Concourse	27.6	C	28.7	C	28.7	C
Stewart Ave at Quentin Roosevelt Blvd/South St	38.8	D	39.5	D	39.6	D
Stewart Ave at Clinton Rd	47.8	D	59.7	E	60.3	E
Oak St at Commercial Ave	6.7	A	6.8	A	6.8	A
Quentin Roosevelt Blvd at Commercial Ave	12.8	B	13.0	B	13.1	B
Meadow St at Charles Lindbergh Blvd	5.6	A	5.7	A	5.7	A
Hempstead Tpke at Front St	19.2	B	19.3	B	19.0	B
Hempstead Tpke at Carman Ave/3rd St	57.5	E	70.5	E	75.4	E
Hempstead Tpke at Newbridge Rd	49.6	D	51.4	D	51.8	D
Merrick Ave at Bellmore Ave	19.9	B	20.2	C	20.5	C
Merrick Ave at North Jerusalem Rd	17.1	B	17.5	B	17.6	B
Merrick Ave at Jerusalem Ave	30.1	C	31.8	C	32.1	C
Uniondale Ave at Jerusalem Ave	32.0	C	33.0	C	33.2	C
Nassau Rd at Uniondale Ave/Brookside Ave	26.4	C	27.7	C	28.0	C
Stewart Ave at Ring Road West (Roosevelt Field)	21.0	C	29.5	C	30.1	C
Old Country Rd at Roosevelt Field Entrance	65.5	E	91.0	F	96.6	F
Old Country Rd at Salisbury Park Dr/School St	34.0	C	37.3	D	38.0	D
Merrick Ave at Corporate Dr	26.6	C	34.7	C	39.8	D
Merrick Ave at Privado Rd	15.2	B	16.2	B	17.0	B
Jericho Tpke at Post Ave/Post Rd	25.5	C	26.4	C	27.3	C

Notes
LOS = Level of Service
[1] - HCM cannot analyze the geometry at this intersection
[2] - Intersection does not exist in this condition

Table 27 Saturday Midday Peak Hour (continued)

Saturday Midday peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Franklin Ave at Main St/2nd St	11.2	B	12.0	B	12.0	B
Main St at Meadow St	5.0	A	4.9	A	5.0	A
Meadow St at Washington Ave	10.7	B	11.0	B	11.1	B
Meadow St at Clinton Rd	9.9	A	10.5	B	10.5	B
Meadow St at Lindbergh St	5.2	A	5.2	A	5.2	A
Westbury Blvd at Lindbergh St	1.2	A	1.3	A	1.4	A
Westbury Blvd at Oak St/Meadow St	10.6	B	10.8	B	10.9	B
Hempstead Turnpike at Franklin Ave/Perimeter E/Hospital St	16.8	B	17.0	B	17.1	B
Peninsula Blvd at Fulton Ave	2.4	A	2.4	A	2.3	A
Peninsula Blvd at Bennett Ave	3.4	A	3.2	A	3.2	A
Charles Lindbergh Blvd at Sands Ave	See Note 2		See Note 2		12.4	B
James Doolittle Blvd & Parking F	See Note 2		See Note 2		4.8	A
James Doolittle Blvd at Aisle North of Parking Lot F	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Exist Hotel Access	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Marriott Driveway	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Parking E	See Note 2		See Note 2		5.1	A
Sands Avenue at Aisle North of Parking Lot F	See Note 2		See Note 2		3.3	A
East Dr/ Sands Ave at North Ave	See Note 2		See Note 2		15.5	B
Sands Ave at Parking E	See Note 2		See Note 2		0.0	A
East Dr/ Sands Ave at North Ave	See Note 2		See Note 2		3.6	A
West Dr & Garage C	See Note 2		See Note 2		0.3	A
Parking & Nassau Coliseum Access/ South Dr	See Note 2		See Note 2		0.0	A
MSKCC/South Dr	See Note 2		See Note 2		0.0	A
South Dr at MSKCC Parking Garage/Parking Garage B	See Note 2		See Note 2		5.1	A
Valet Below Meetings and Conference Space/Garage A & Nassau Coliseum Access/North Drive	See Note 2		See Note 2		4.2	A
North Dr & Rideshare Entrance	See Note 2		See Note 2		1.4	A
South Dr at Garage B Exit	See Note 2		See Note 2		2.1	A
Washington St & W Columbia St/Driveway	9.6	A	9.7	A	8.8	A

Notes
LOS = Level of Service
[1] - HCM cannot analyze the geometry at this intersection
[2] - Intersection does not exist in this condition

Table 28 Saturday Evening Peak Hour

Saturday Evening peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at James Doolittle Blvd	0.2	A	0.2	A	0.2	A
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	8.6	A	8.6	A	19.8	B
Hempstead Tpke at Cunningham Ave & West Drive	7.7	A	7.7	A	5.9	A
Hempstead Tpke at MSKCC Entrance	4.3	A	4.3	A	7.7	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	41.3	D	41.9	D	53.2	D
Earle Ovington Blvd at East Gate Rd/Nassau Coliseum Access	8.6	A	8.6	A	21.9	C
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	8.4	A	8.4	A	13.8	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	13.2	B	13.3	B	14.0	B
Charles Lindbergh Blvd EB at James Doolittle Blvd	See Note 1		See Note 1		0.6	A
Charles Lindbergh Blvd WB at Perimeter Rd	See Note 1		See Note 1		0.0	A
Charles Lindbergh Blvd at Merrick Ave	7.4	A	7.7	A	8.3	A
Hempstead Tpke at Merrick Ave	34.6	C	35.2	D	35.0	D
Hempstead Tpke at Eisenhower Park Pedestrian Entrance	4.9	A	5.4	A	6.1	A
Hempstead Tpke at Coolidge Dr	8.5	A	8.7	A	8.9	A
Hempstead Tpke at Park Blvd/East Meadow Ave	29.2	C	29.4	C	29.0	C
Merrick Ave at Glenn Curtiss Blvd/Peters Gate	7.0	A	7.1	A	7.0	A
Hempstead Tpke at California Ave/ Hofstra Blvd	14.7	B	14.5	B	14.1	B
Hempstead Tpke at Oak St/Hofstra Blvd	17.5	B	17.4	B	17.3	B
Front St at Merrick Ave	24.2	C	24.6	C	24.7	C
Front St at Uniondale Ave	26.5	C	27.7	C	28.7	C
Front St at California Ave	8.3	A	8.3	A	8.4	A
Fulton Ave at Peninsula Blvd/Bennett Ave	22.1	C	23.3	C	23.5	C
Fulton Ave at Clinton St	27.1	C	27.6	C	28.1	C
Fulton Ave at N Franklin St	23.7	C	25.4	C	26.2	C
Stewart Ave at Franklin Ave	23.1	C	26.7	C	26.9	C

Notes
LOS = Level of Service
[1] - HCM cannot analyze the geometry at this intersection
[2] - Intersection does not exist in this condition

Table 28 Saturday Evening Peak Hour (Continued)

Saturday Evening peak hour	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Old Country Rd at Franklin Ave/ Mineola Blvd	30.9	C	33.7	C	34.8	C
Old Country Rd at Clinton Rd/Glen Cove Rd	34.8	C	36.4	D	36.5	D
Old Country Rd at Merchants Concourse/Ellison Ave	28.9	C	29.9	C	29.9	C
Old Country Rd at Merrick Ave/Post Ave	39.5	D	40.5	D	41.0	D
Merrick Ave at Stewart Ave/Park Blvd	22.3	C	23.1	C	23.4	C
Stewart Ave at Endo Blvd/Merchants Concourse	26.1	C	26.1	C	26.1	C
Stewart Ave at Quentin Roosevelt Blvd/South St	33.7	C	34.0	C	34.0	C
Stewart Ave at Clinton Rd	36.2	D	41.6	D	42.3	D
Oak St at Commercial Ave	5.9	A	6.0	A	6.1	A
Quentin Roosevelt Blvd at Commercial Ave	8.3	A	8.4	A	9.3	A
Meadow St at Charles Lindbergh Blvd	4.1	A	4.1	A	4.1	A
Hempstead Tpke at Front St	17.5	B	17.2	B	16.7	B
Hempstead Tpke at Carman Ave/3rd St	36.1	D	36.8	D	36.8	D
Hempstead Tpke at Newbridge Rd	40.4	D	40.8	D	40.7	D
Merrick Ave at Bellmore Ave	16.4	B	16.6	B	16.9	B
Merrick Ave at North Jerusalem Rd	14.3	B	14.5	B	14.7	B
Merrick Ave at Jerusalem Ave	20.4	C	20.9	C	21.1	C
Uniondale Ave at Jerusalem Ave	28.2	C	28.8	C	29.2	C
Nassau Rd at Uniondale Ave/Brookside Ave	22.7	C	23.2	C	23.5	C
Stewart Ave at Ring Road West (Roosevelt Field)	9.2	A	9.7	A	9.9	A
Old Country Rd at Roosevelt Field Entrance	39.3	D	40.8	D	41.2	D
Old Country Rd at Salisbury Park Dr/School St	19.5	B	20.5	C	20.7	C
Merrick Ave at Corporate Dr	15.0	B	15.6	B	15.8	B
Merrick Ave at Privado Rd	7.6	A	8.0	A	8.5	A
Jericho Tpke at Post Ave/Post Rd	18.1	B	18.4	B	20.2	C
Franklin Ave at Main St/2nd St	7.1	A	7.2	A	7.3	A
Main St at Meadow St	4.7	A	4.4	A	4.5	A

Notes
LOS = Level of Service
[1] - HCM cannot analyze the geometry at this intersection
[2] - Intersection does not exist in this condition

Table 28 Saturday Evening Peak Hour (Continued)

Saturday Evening peak hour Intersection	2023 EXISTING CONDITIONS Delay (sec)	LOS	2030 NO-BUILD CONDITIONS Delay (sec)	LOS	2030 BUILD CONDITIONS Delay (sec)	LOS
Meadow St at Washington Ave	9.0	A	9.0	A	9.1	A
Meadow St at Clinton Rd	7.0	A	7.0	A	8.0	A
Meadow St at Lindbergh St	5.4	A	5.4	A	5.5	A
Westbury Blvd at Lindbergh St	0.7	A	0.7	A	0.8	A
Westbury Blvd at Oak St/Meadow St	10.0	B	10.1	B	10.2	B
Hempstead Turnpike at Franklin Ave/Perimeter E/Hospital St	14.5	B	14.6	B	14.7	B
Peninsula Blvd at Fulton Ave	1.6	A	1.5	A	1.5	A
Peninsula Blvd at Bennett Ave	3.8	A	3.6	A	3.6	A
Charles Lindbergh Blvd at Sands Ave	See Note 2		See Note 2		15.1	B
James Doolittle Blvd & Parking F	See Note 2		See Note 2		5.0	A
James Doolittle Blvd at Aisle North of Parking Lot F	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Exist Hotel Access	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Marriott Driveway	See Note 2		See Note 2		0.0	A
James Doolittle Blvd & Parking E	See Note 2		See Note 2		5.2	A
Sands Avenue at Aisle North of Parking Lot F	See Note 2		See Note 2		4.2	A
East Dr/ Sands Ave at North Ave	See Note 2		See Note 2		20.4	C
Sands Ave at Parking E	See Note 2		See Note 2		0.0	A
East Dr/ Sands Ave at North Ave	See Note 2		See Note 2		3.7	A
West Dr & Garage C	See Note 2		See Note 2		0.2	A
Parking & Nassau Coliseum Access/ South Dr	See Note 2		See Note 2		0.2	A
MSKCC/South Dr	See Note 2		See Note 2		0.0	A
South Dr at MSKCC Parking Garage/Parking Garage B	See Note 2		See Note 2		5.9	A
Valet Below Meetings and Conference Space/Garage A & Nassau Coliseum Access/North Drive	See Note 2		See Note 2		4.6	A
North Dr & Rideshare Entrance	See Note 2		See Note 2		1.5	A
South Dr at Garage B Exit	See Note 2		See Note 2		7.7	A
Washington St & W Columbia St/Driveway	5.6	A	7.0	A	6.9	A

Notes
LOS = Level of Service
[1] - HCM cannot analyze the geometry at this intersection
[2] - Intersection does not exist in this condition

The results of the capacity analyses conducted for proposed Integrated Resort indicate that some intersections with project-related increases in delay and decreases in LOS will require modifications. In order to improve those operations, mitigation is proposed to accommodate site-generated traffic from the Integrated Resort.

Hempstead Turnpike at Glenn Curtiss Boulevard/Nassau Coliseum Main Entrance

During the Weekday AM, Weekday PM, Friday Evening, Saturday Midday, and Saturday Evening peak hours the Hempstead Turnpike at Glenn Curtiss Boulevard/Nassau Coliseum Main Entrance intersection experiences significant increases in delay. The intersection experiences an overall drop in LOS between the No-Build and Build Condition during the Weekday PM, Friday Evening, and Saturday Evening peak hours.

The recommended mitigation includes removing the channelization of the westbound right-turn lane, removing the southbound left-turn lane, and replacing the southbound shared through/right-turn lane with a right turn lane. Additionally, it is recommended that westbound U-turns be restricted during the Weekday PM peak hour and the signal timing and phasing be optimized for all peak periods.

Hempstead Turnpike at Cunningham Avenue & Hempstead Turnpike at Memorial Sloan Kettering (MSKCC) Entrance

The Hempstead Turnpike at the Memorial Sloan Kettering (MSKCC) Entrance Driveway and Hempstead Turnpike at Cunningham Avenue intersections are coordinated with the surrounding signals. Due to the recommended improvements at the surrounding signals in the coordinated network, it is recommended that the signal timing, phasing, and offsets be optimized at these intersections.

Hempstead Turnpike at Earle Ovington Boulevard/Uniondale Avenue

During the Weekday AM, Weekday PM, Friday Evening, Saturday Midday, and Saturday Evening peak hours, the Hempstead Turnpike at Earle Ovington Boulevard/Uniondale Avenue intersection experiences significant increases in delay. The intersection experiences an overall drop in LOS between the No-Build and Build Condition during the Weekday PM, Friday Evening, and Saturday Midday peak hours.

The recommended mitigation includes constructing an additional southbound right-turn lane. Additionally, it is recommended that the signal timing and phasing be optimized for all peak periods.

Charles Lindbergh Boulevard EB at Earle Ovington Boulevard/Nassau Coliseum Access

During the Weekday PM peak hour the Earle Ovington Boulevard at Charles Lindbergh Boulevard EB/Coliseum VIP Entrance intersection experiences an approximately 10 second increase in delay. The intersection experiences an overall drop in LOS between the No-Build and Build Condition during the Saturday Midday and Saturday Evening peak hours, although the increases in delay associated with these peak periods are approximately 5 seconds or less.

The recommended mitigation includes constructing an additional eastbound left-turn lane, removing one westbound left-turn lane, constructing an additional westbound right-turn lane, and constructing a southbound U-turn only lane. Additionally, it is recommended that the signal timing and phasing be optimized for all peak periods.

Charles Lindbergh Boulevard WB at Earle Ovington Boulevard/Nassau Community College

The Earle Ovington Boulevard at Charles Lindbergh Boulevard WB intersection does not provide a southbound left-turn. Due to this the delays seen at the Earle Ovington Boulevard at Charles Lindbergh Boulevard EB/Coliseum VIP Entrance intersection are increased because of the large volume of southbound U-turns. To provide better circulation around the proposed Integrated Resort site as well as reduce the burden on the Earle Ovington Boulevard at Charles Lindbergh Boulevard EB/Coliseum VIP Entrance intersection it is recommended that receiving lanes be constructed on the eastbound approach, a southbound left-turn lane be constructed, modify the northbound right turn lanes from the swooping northbound channelized right turn lanes to northbound right turn lanes at the intersection, and remove a northbound through lane.. Additionally, it is recommended that the signal timing and phasing be optimized for all peak periods.

Hempstead Turnpike at Park Boulevard/East Meadow Avenue

During the Weekday PM peak hour, the Hempstead Turnpike at Park Boulevard/East Meadow Avenue intersection experiences an overall drop in LOS between the No-Build and Build Condition, from LOS E to LOS F. It is recommended that the signal timing and phasing be optimized for the weekday PM peak period.

Hempstead Turnpike at California Avenue/Hofstra Boulevard

The Hempstead Turnpike at California Avenue/Hofstra Boulevard intersection is coordinated with the surrounding signals. Due to the recommended improvements at the surrounding signals in the coordinated network, it is recommended that the signal timing, phasing, and offsets be optimized at this intersection.

Hempstead Turnpike at Oak Street/Hofstra South Campus Driveway

The Hempstead Turnpike at Oak Street/Hofstra South Campus Driveway intersection is coordinated with the surrounding signals. Due to the recommended improvements at the surrounding signals in the coordinated network, it is recommended that the signal timing, phasing, and offsets be optimized at this intersection.

Fulton Avenue at N Franklin Street

During the Weekday PM peak hour, the Fulton Avenue at N Franklin Street intersection experiences an overall drop in LOS between the No-Build and Build Condition, from LOS D to LOS E. It is recommended that the signal timing and phasing be optimized for the weekday PM peak period.

Franklin Avenue at Stewart Avenue

During the Weekday PM peak hour, the Franklin Avenue at Stewart intersection experiences an LOS F for the No-Build and Build condition. It is recommended that the signal timing and phasing be optimized for the weekday PM peak period. Signal timing changes can be made to reduce the delay at the intersection by approximately 25 seconds, although the intersection will continue to operate at a LOS F.

Merrick Avenue at Corporate Drive

During the Weekday PM and Saturday Midday peak hours the Merrick Avenue at Corporate Drive intersection experiences significant delays at the southbound approach. The intersection experiences an overall drop in LOS between the No-Build and Build Condition during the Saturday Midday peak hours, from LOS C to D.

It is recommended that the signal timing and phasing be optimized for the Weekday PM and Saturday Midday peak periods.

Merrick Avenue at Privado Road

During the Weekday PM peak period the Merrick Avenue at Privado Road intersection experiences significant delays at the southbound approach. It is recommended that the signal timing and phasing be optimized for the Weekday PM peak period.

Jericho Turnpike at Post Avenue/Post Road

During the Weekday PM and Friday Evening peak hours the Jericho Turnpike at Post Avenue/Post Road intersection experiences significant delays at the southbound and westbound approaches. It is recommended that the signal timing and phasing be optimized for the Weekday PM and Friday Evening peak periods.

Oak Street at Westbury Boulevard/Meadow Street

During the Weekday PM peak hour, the Oak Street at Westbury Boulevard/Meadow Street intersection experiences significant delays at the eastbound and westbound approaches. It is recommended that the signal timing and phasing be optimized for the Weekday PM peak period.

Table 29 summarizes the proposed mitigation measures at the study intersection developed for the 2030 Full Build Condition. It is noted that the improvements required to accommodate site access identified previously in Table 23 are include in Table 29. For ease of comparison, the No-Build and Build conditions are included with the Build with Mitigation Condition results in Table 30 through Table 34 below.

Table 29 Mitigation Measures

Intersection	Existing/No-Build Geometry	Improvement	Build with Mitigation Geometry
Hempstead Turnpike (NY 24) at Glenn Curtiss Boulevard/Site Access	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR, R SB: L, LT, TR, R	WB: Modify right-turn lane to eliminate uncontrolled movement SB: Restripe southbound approach to provide two left-turn lanes and a shared thru-right lane NB: Restripe approach to provide two left-turn lanes, a shared thru-right lane and a right-turn lane Restrict WB U-Turns (PM Peak) Optimize signal timing/ phasing (AM, PM, SAT MID, SAT EVE, FRI EVE)	EB: LL, TTT, R WB: LL, TTT, R NB: LL, TR, R SB: LL, TR
Hempstead Turnpike (NY 24) at Cunningham Avenue	EB: TT, TR WB: L, TTT, R NB: LR	Optimize signal timing/ phasing/ Offsets (AM, PM, SAT EVE, FRI EVE, SAT MID)	EB: TT, TR WB: L, TTT, R NB: LR
Hempstead Turnpike (NY 24) at MSKCC Entrance	EB: LL, TTT WB: TTT, R SB: RR	Optimize signal timing/ phasing/ Offsets (AM, PM, SAT EVE, FRI EVE, SAT MID)	EB: LL, TTT WB: TTT, R SB: RR
Hempstead Turnpike (NY Route 24) at Earle Ovington Boulevard/Uniondale Avenue	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR SB: L, LT, TR, R	SB: Construct additional right-turn lane. Restripe southbound approach to provide two left-turn lanes, a thru lane, a shared thru-right lane, and a right-turn lane Optimize signal timing/ phasing (AM, PM, SAT EVE, FRI EVE, SAT MID)	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR SB: LL, T, TR, R
Earle Ovington Boulevard at Charles Lindbergh Boulevard (EB)/Site Access	EB: LL, T, R WB: LL, R NB: TTT, TR SB: L, TT	EB: Construct an additional left-turn lane WB: Remove one left-turn lane, construct an additional channelized right turn lane SB: Construct an additional U-turn only lane (AM, PM, SAT MID, SAT EVE, FRI EVE)	EB: LLL, T, R WB: L, RR NB: TTT, TR SB: U, L, TT

Table 29 Mitigation Measures (Continued)

Intersection	Existing/No Build Geometry	Improvements	Build with Mitigation Geometry
Hempstead Turnpike (NY 24) at Park Boulevard/E. Meadow Avenue	EB: L, TT, TR WB: L, TTT, R NB: LL, TR SB: LL, TR	Optimize signal timing/ phasing (PM)	EB: L, TT, TR WB: L, TTT, R NB: LL, TR SB: LL, TR
Hempstead Turnpike (NY 24) at Hofstra Boulevard/California Avenue	EB: L, TTT, R WB: L, TTT, R NB: LT, R SB: L, T, R	Optimize signal timing/ phasing/offset (AM, PM, SAT MID, SAT EVE, FRI EVE)	EB: L, TTT, R WB: L, TTT, R NB: LT, R SB: L, T, R
Hempstead Turnpike (NY 24) at Oak Street/Hofstra Boulevard	EB: LL, TT, R WB: L, TT, R NB: LTR SB: LL, TR, R	Optimize signal timing/ phasing/offset (AM, PM, SAT MID, SAT EVE, FRI EVE)	EB: LL, TT, R WB: L, TT, R NB: LTR SB: LL, TR, R
Fulton Avenue at N. Franklin Street	EB: L, TT, R WB: LT, TR NB: L, T, TR SB: L, T, TR	Optimize signal timing/ phasing (PM)	EB: L, TT, R WB: LT, TR NB: L, T, TR SB: L, T, TR
Stewart Avenue at Franklin Avenue	EB: T, TR WB: L, TT, R NB: T, TR SB: L, T, TR	Optimize signal timing/ phasing (PM)	EB: T, TR WB: L, TT, R NB: T, TR SB: L, T, TR
Merrick Avenue at Corporate Drive	EB: LL, R NB: L, TT SB: T, TR	Optimize signal timing/ phasing (PM, SAT MID)	EB: LL, R NB: L, TT SB: T, TR
Merrick Avenue at Privado Road	EB: L, R NB: L, TTT SB: T, TR	Optimize signal timing/ phasing (PM)	EB: L, R NB: L, TTT SB: T, TR
Jericho Turnpike at Post Avenue	EB: L, TTT, R WB: L, TTT, R NB: L, TR SB: LTR	Optimize signal timing/ phasing (PM, FRI EVE)	EB: L, TTT, R WB: L, TTT, R NB: L, TR SB: LTR
Oak Street at Westbury Boulevard/Meadow Street	EB: L, T, R WB: LT, R NB: L, TT, R SB: L, TT, R	Optimize signal timing/ phasing (PM)	EB: L, T, R WB: LT, R NB: L, TT, R SB: L, TT, R
Charles Lindbergh Boulevard at Site Access (Sands Blvd.)	NA	Optimize signal timing/ phasing/offset (AM, PM, SAT MID, SAT EVE, FRI EVE)	EB: TTTT, TR WB: LL, TTT NB: RR

Table 30 Weekday AM Peak Hour – Mitigation

Weekday AM Peak Hour – Mitigation	2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS		2030 BUILD WITH MITIGATION CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	36.0	D	49.6	D	34.7	C
Hempstead Tpke at Cunningham Ave & West Drive	8.3	A	8.1	A	7.3	A
Hempstead Tpke at MSKCC Entrance	5.1	A	6.3	A	4.5	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	69.7	E	77.4	E	54.5	D
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	13.9	B	15.1	B	16.2	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	47.1	D	52.2	D	34.9	C
Hempstead Tpke at California Ave/ Hofstra Blvd	23.2	C	23.1	C	26.1	C
Hempstead Tpke at Oak St/Hofstra Blvd	26.4	C	26.5	C	25.7	C
Charles Lindbergh Blvd at Sands Ave	See Note 1		6.1	A	7.1	A

Notes
LOS = Level of Service
[1] - Intersection does not exist in this condition

Table 31 Weekday PM Peak Hour – Mitigation

Weekday PM Peak Hour – Mitigation	2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS		2030 BUILD WITH MITIGATION CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	50.0	D	74.1	E	55.7	E
Hempstead Tpke at Cunningham Ave & West Drive	9.2	A	14.1	B	8.9	A
Hempstead Tpke at MSKCC Entrance	6.5	A	9.0	A	4.7	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	66.5	E	93.3	F	59.1	E
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	23.3	C	32.7	C	26.2	C
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	27.8	C	28.8	C	13.8	B
Hempstead Tpke at Park Blvd/East Meadow Ave	75.0	E	80.4	F	66.5	E
Hempstead Tpke at California Ave/ Hofstra Blvd	25.9	C	26.0	C	30.2	C
Hempstead Tpke at Oak St/Hofstra Blvd	39.0	D	39.2	D	38.2	D
Fulton Ave at N Franklin St	54.7	D	57.9	E	53.9	D
Stewart Ave at Franklin Ave	124.7	F	125.3	F	98.4	F
Merrick Ave at Corporate Dr	101.4	F	105.9	F	24.3	C
Merrick Ave at Privado Rd	59.2	E	62.6	E	8.7	A
Jericho Tpke at Post Ave/Post Rd	137.1	F	144.8	F	134.4	F
Westbury Blvd at Oak St/Meadow St	57.9	E	60.8	E	23.0	C
Charles Lindbergh Blvd at Sands Ave	See Note 1		25.4	C	18.9	B

Notes
LOS = Level of Service
[1] - Intersection does not exist in this condition

Table 32 Friday Evening Peak Hour – Mitigation

Friday Evening Peak Hour – Mitigation	2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS		2030 BUILD WITH MITIGATION CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	19.3	B	26.8	C	31.8	C
Hempstead Tpke at Cunningham Ave & West Drive	8.7	A	7.6	A	13.8	B
Hempstead Tpke at MSKCC Entrance	4.6	A	6.7	A	4.6	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	50.7	D	61.0	E	47.1	D
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	10.3	B	11.9	B	16.3	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	19.2	B	19.9	B	9.1	A
Hempstead Tpke at California Ave/ Hofstra Blvd	18.3	B	17.9	B	21.5	C
Hempstead Tpke at Oak St/Hofstra Blvd	26.0	C	25.8	C	28.9	C
Jericho Tpke at Post Ave/Post Rd	33.2	C	37.8	D	34.8	C
Charles Lindbergh Blvd at Sands Ave	See Note 1		13.7	B	14.5	B

Notes
LOS = Level of Service
[1] - Intersection does not exist in this condition

Table 33 Saturday Midday Peak Hour – Mitigation

Saturday Midday Peak Hour – Mitigation	2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS		2030 BUILD WITH MITIGATION CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	13.3	B	19.9	B	18.9	B
Hempstead Tpke at Cunningham Ave & West Drive	7.6	A	7.0	A	11.4	B
Hempstead Tpke at MSKCC Entrance	5.3	A	6.3	A	5.1	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	52.5	D	56.0	E	44.5	D
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	8.6	A	10.2	B	14.2	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	24.3	C	26.5	C	11.2	B
Hempstead Tpke at California Ave/ Hofstra Blvd	21.0	C	20.9	C	24.8	C
Hempstead Tpke at Oak St/Hofstra Blvd	25.8	C	25.6	C	25.5	C
Merrick Ave at Corporate Dr	34.7	C	39.8	D	19.2	B
Charles Lindbergh Blvd at Sands Ave	See Note 1		12.4	B	14.7	B

Notes
LOS = Level of Service
[1] - Intersection does not exist in this condition

Table 34 Saturday Evening Peak Hour – Mitigation

Saturday Evening Peak Hour – Mitigation	2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS		2030 BUILD WITH MITIGATION CONDITIONS	
I Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	8.6	A	19.8	B	17.7	B
Hempstead Tpke at Cunningham Ave & West Drive	7.7	A	5.9	A	4.4	A
Hempstead Tpke at MSKCC Entrance	4.3	A	7.7	A	4.7	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	41.9	D	53.2	D	40.5	D
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	8.4	A	13.8	B	16.8	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	13.3	B	14.0	B	6.4	A
Hempstead Tpke at California Ave/ Hofstra Blvd	14.5	B	14.1	B	16.0	B
Hempstead Tpke at Oak St/Hofstra Blvd	17.4	B	17.3	B	17.5	B
Charles Lindbergh Blvd at Sands Ave	See Note 1		15.1	B	17.1	B

Notes
LOS = Level of Service
[1] - Intersection does not exist in this condition

The results of the intersection capacity analysis reported in Table 30 through Table 34 above indicate that for all time periods analyzed, the mitigation proposed retains good levels of traffic service or returns intersection levels of service and delay to No-Build Condition levels.

All costs associated with the design, permitting and construction of the identified mitigation and access improvements shall be borne by the developer of the Integrated Resort with no cost to the public.

Charles Lindbergh Boulevard Site Frontage

The Final Scope for the DEIS includes a merge/weave analysis of the two U-turn areas on Charles Lindbergh Boulevard that exist in the vicinity of the project site's northerly frontage. These U-turn areas were historically used by vehicles entering and exiting the site before and after an event at the Coliseum. Entering vehicles from the east would utilize the two-lane westbound to eastbound U-turn to access the main northerly entrance and manned pay booths near the north end of James Doolittle Boulevard. The eastbound to westbound U-turn was used by vehicles that exited the property after an event and wished to head northwest toward Garden City and Mineola along Charles Lindbergh Boulevard. While the Final Scope calls for an analysis of their operation, proposed changes along Charles Lindberg Boulevard related to access improvements for the Integrated Resort and mitigation obviate the need for this analysis in this study.

As described earlier in this section, changes are proposed along Charles Lindbergh Boulevard along the site's frontage as part of the Integrated Resort. These changes are presented graphically on concept plans prepared and included in Attachment P. Included is the construction of a new signalized site access intersection on Charles Lindbergh Boulevard as well as the reconfiguration of the signalized intersection of Charles Lindbergh Boulevard at Earle Ovington Boulevard and the NCC main access. Improvements will include, as shown on the concept plans, a relocation of the northbound Earle Ovington Boulevard right-turn movement to eastbound Charles Lindbergh Boulevard northerly to the signalized intersection and a removal of the westbound to eastbound U-turn. These changes provide more direct and efficient access into the proposed Integrated Resort and out of NCC to the east.

With the changes in area circulation gained with these changes, it is not anticipated that any traffic volume of any significance would utilize the remaining eastbound to westbound U-turn. Access to NCC from the west and south is provided directly at the reconfigured signalized main entrance. Entrance to the Integrated Resort is provided directly at the new signalized access point on Charles Lindbergh Boulevard. Vehicles exiting the Integrated Resort that wish to go east will exit to Earle Ovington Boulevard as they exit from Garage A, B or C. The only potential users of the remaining U-turn would be employees of the Engie Facility arriving from the south or a small number of NCC-bound vehicles that choose not to enter via the main entrance. It is noted that the maximum number of vehicles using this U-turn currently, based on ATR counts performed for the Integrated Resort, is 28 over the course of an hour, an average of one U-turn every two minutes.

Parkways and Interchanges Analysis

Although Synchro/SimTraffic can be used to develop very basic microsimulation models, it allows only a limited range of driver behavior and car-following characteristic parameter adjustments for calibration. As such, it does not produce reliable results for parkway facilities, especially if the network frequently experiences traffic congestion. Additionally, certain interchange and ramp geometry can be very challenging to code in Synchro/SimTraffic. Conversely, Vissim allows coding very complex roadway geometry, and it is the state-of-the-art tool to simulate real-world traffic behavior, even for a typically congested network. Vissim is the most advanced microsimulation platform that offers realistic and widely accepted car-following models for both arterial and freeway/expressway traffic. It also offers a detailed list of lane-change parameters and full user control to adjust the parameters to best fit local/regional driver characteristics. Vissim was also anticipated to accurately replicate the impact of entrance and exit ramps serving the Proposed Integrated Resort on the immediately adjacent segments of the Meadowbrook State Parkway.

The HCM 6th Edition defines levels of service thresholds using density for basic freeway, weaving, merge and diverge segments and weaving segments on collector-distributor (C-D) roads; these thresholds have been used for the assessment of vehicular traffic on the parkway network. The levels of service are described qualitatively below:

LOS A describes operations with very low densities and high free flow speeds.

LOS B describes operations with fairly low densities and moderate to high free flow speeds.

LOS C describes operations with moderate densities and moderate free flow speeds.

LOS D describes operations with moderate to high densities and moderate to low free flow speeds. A mid-LOS D density (e.g., 31.5 passenger cars per mile per lane [pc/mi/ln] for freeway weaving, merge and diverge segments) is considered the high range of acceptable density. Densities greater than

mid-LOS D are unacceptable but are commonplace on highways in Nassau County and New York City.

LOS E describes operations with high densities and low free flow speeds. 45 pc/mi/ln is considered the maximum density for sustained flows at capacity on a typical basic freeway segment. Queuing occurs at densities higher than this.

LOS F describes operations with very high densities and very low free flow speeds. Queuing is common within LOS F, which leads to failure conditions and congestion.

Vissim software was used to assess vehicular traffic operations on the adjacent highway network, which provides a detailed analysis of traffic conditions on Meadowbrook State Parkway, Southern State Parkway, Northern State Parkway, Sunrise Highway, and their interchanges with local streets. The Meadowbrook State Parkway is located near the project site and is anticipated to be a primary route used by project-generated traffic. Two separate interchanges on the Meadowbrook State Parkway, Hempstead Turnpike and Charles Lindbergh Boulevard, provide access to the project site. While these interchanges will experience the greatest level of project-generated trips, traffic flow can be potentially impacted on a wider area which is why the two Meadowbrook State Parkway major system-interchanges, Northern State Parkway and Southern State Parkway, were analyzed. In addition to the Parkway analysis, a merge/weave analysis for vehicles traveling from the U-turn to eastbound on Charles Lindbergh Boulevard was completed for the five critical peak hours.

VHB conducted a comprehensive Vissim traffic analysis of the parkway network surrounding the proposed Integrated Resort. The analysis aimed to evaluate the existing and future traffic conditions, identify potential impacts and potential mitigation measures. The scope of work included collecting and processing traffic data, developing and calibrating a Vissim model, testing various development scenarios and mitigation alternatives, and preparing a technical report. The results of the analysis provided valuable insights and recommendations for improving the mobility and safety of the parkway network and the Integrated Resort. Vissim microsimulation traffic analysis is the industry best practice tool for evaluating oversaturated freeway systems. Oversaturation occurs when traffic volume demand exceeds the capacity of the roadway. The parkway study area – encompassing portions of Meadowbrook State Parkway, Northern State Parkway, and Southern State Parkway – experiences oversaturation in existing conditions.

Tables 35 through Table 41, below, outline the speeds and LOS for segments along Meadowbrook State Parkway during the weekday AM and PM, Friday critical (adjacent street and project peak overlap), Saturday midday and Saturday evening peak hours. More detailed information on inputs and results of the Parkway analysis are included in Attachment O.

In Existing and No Build 2030 conditions, the parkway study network experiences significant congestion and delay, especially during peak hours. Table 35 shows the simulated average corridor speed in Existing and No Build 2030 conditions for the five peak periods modeled in this study. Spot speeds at different locations throughout the network are higher and lower than these average corridor speeds. With posted parkway speed limits of 55 mph on all the roadways, the data in Table 34 indicates that even in existing conditions, there is not a single corridor and peak hour combination that operates in free flow average speed conditions. The corridor travel speeds decrease in the No Build 2030 conditions as the forecasted additional traffic volume (without the proposed action) is loaded into the network. In short, notable capacity issues existing in the Existing and No build conditions on all the parkways studied.

Table 35 Average Corridor Speed in Existing and No Build 2030 Conditions

Corridor	Weekday AM	Weekday PM	Friday PM	Saturday Midday	Saturday Evening
Existing Average Speed (mph)					
Meadowbrook State Parkway Southbound	55	45	53	51	55
Meadowbrook State Parkway Northbound	25	28	29	28	29
Northern State Parkway Eastbound	54	30	46	53	55
Northern State Parkway Westbound	50	55	54	54	55
Southern State Parkway Eastbound	42	39.	46	42	53
Southern State Parkway Westbound	36	31	40	46	51
No Build 2030 Average Speed (mph)					
Meadowbrook State Parkway Southbound	55	39	43	50	55
Meadowbrook State Parkway Northbound	23	25	26	26	29
Northern State Parkway Eastbound	54.	28	39	48	54
Northern State Parkway Westbound	50.	39	54	53	55
Southern State Parkway Eastbound	31	34	38	35	52
Southern State Parkway Westbound	24	27	33	37	48

As part of the traffic impact analysis for the proposed development, the number of vehicle trips that would be generated by the new land uses were projected and assigned to the parkway network based on the expected origins and destinations of the travelers. The results of the trip assignment are shown in Table 36, which documents the increase in traffic volumes on Meadowbrook State Parkway from the proposed Integrated Resort for the five analysis peak hours. The Integrated Resort is projected to add a significant amount of traffic to the parkway, especially north of the development site between Charles Lindbergh Boulevard and Northern State Parkway. The highest increase would occur on this segment of Meadowbrook State Parkway in the Friday Evening, Saturday Midday, and Saturday Evening peak hours. When combined with the traffic operation results of the Existing and No Build 2030 conditions, this volume growth suggests that the traffic analysis with the proposed Integrated Resort traffic will result in impacts on the Meadowbrook State Parkway, particularly to/from the north, and mitigation measures would be needed to address the potential congestion and safety issues.

Table 36 Increase in Traffic Volumes on Meadowbrook State Parkway from the Proposed Integrated Resort

Direction	Weekday AM	Weekday PM	Friday Evening	Saturday Midday	Saturday Evening
From North	425	575	900	975	1,200
To North	250	650	825	775	1,175
From South	350	300	450	500	550
To South	175	425	475	375	650

Vissim is a powerful traffic simulation tool that outputs traffic metrics (Measures of Effectiveness) for every simulated vehicle in every area of the model in every simulation time step. As such, traffic metrics need to be aggregated to identify the critical performance areas of the network. In an oversaturated parkway system, such as the one in this study, traffic choke points can significantly impact upstream portions of the system and result in congested metrics upstream. These upstream congested areas cannot be mitigated without addressing the downstream choke point that is the source of the congestion. To aggregate the data and identify the congestion bottlenecks, VHB reviewed various traffic metrics, such as speed, volume throughout, and density, over different spatial and temporal scales. By locating the congestion bottlenecks, VHB pinpointed the areas where the traffic flow breaks down and causes upstream congestion, and then evaluated the effects of these bottlenecks on the upstream sections by comparing the change in traffic metrics before and after the breakdown point. This process resulted in the identification of five focal areas of the parkway system that are congestion bottlenecks and that experience increased congestion from the proposed development traffic volumes. However, mitigation measures were not proposed for these two bottlenecks as both locations already experience significant congestion in Existing and No Build 2030 conditions, and experience lower traffic volumes from the proposed Integrated Resort. Proposed mitigation measures are focused on providing improvements north of the site where site volumes are highest and investments can result in the most significant improvements in traffic conditions for visitors and the motoring public in general. The first identified congestion bottleneck is southbound Meadowbrook State Parkway immediately south of Northern State Parkway, including the ramps from Northern State Parkway onto southbound Meadowbrook State Parkway. This bottleneck is created by three high-volume ramps merging to create southbound Meadowbrook State Parkway; additionally, the on-ramp from westbound Northern State Parkway drops from two-to-one lane immediately prior to the merge. In existing conditions, this bottleneck results in traffic backing up onto eastbound Northern State Parkway in the Weekday PM and Saturday Midday peak hours and onto westbound Northern State Parkway in Weekday AM and Weekday PM peak hours. In the No Build 2030 Condition with increased volume demand, traffic additionally backs up onto eastbound Northern State Parkway in the Saturday Midday peak hour and onto westbound Northern State Parkway in the Saturday Midday and Saturday Evening peak hours. The increased volume demand in the Build 2030 condition further exacerbates the congestion bottleneck and upstream slow vehicle speeds on both directions of Northern State Parkway approaching the interchange. The traffic demand in the Build condition exceeds 6,000 vehicles per hour in some peak hours, which is the capacity of a three-lane parkway.

Mitigation is proposed to address this congestion bottleneck, including the removal of the existing lane drop to widen to two full lanes the ramp from westbound Northern State Parkway to

southbound Meadowbrook State Parkway as well widen to a fourth lane southbound Meadowbrook State Parkway from Northern State Parkway to Zeckendorf Boulevard. Proposed improvements on the parkways are shown in Attachment P. It is noted that this mitigation, as well as proposed mitigation in the northbound direction in this area, requires and includes the replacement of two bridges over the parkway to provide additional width needed for the new lanes to pass under as well as the widening of a third bridge to carry the new lanes over a surface street. As shown in Attachment P, the Old Country Road bridge over the parkway will be replaced with a longer span as will the MTA LIRR bridge over the parkway to its north. The bridge carrying the parkway over Westbury Avenue will be widened along its length to accommodate a fourth lane on the parkway in each direction. With regard to the southbound direction, this mitigation is projected to increase traffic speed on both Northern State Parkway ramps to southbound Meadowbrook State Parkway. Table 37 documents the speed data for this congestion bottleneck in each scenario and peak hour.

Table 37 Speed (mph) Metrics for Southbound Meadowbrook State Parkway (South of Northern State Parkway)

Roadway	Scenario	Weekday AM	Weekday PM	Friday PM	Saturday Midday	Saturday Evening
Ramp from Northern State Parkway eastbound to Meadowbrook State Parkway southbound	Existing	54	16	52	16	55
	No Build 2030	54	13	26	11	54
	Build 2030	54	12	22	15	53
	Build 2030 with Mitigation	54	30	22	23	53
Ramp from Northern State Parkway westbound to Meadowbrook State Parkway southbound	Existing	23	10	41	31	51
	No Build 2030	21	6	19	7	51
	Build 2030	8	6	11	8	49
	Build 2030 with Mitigation	52	52	52	52	53
Meadowbrook State Parkway southbound	Existing	53	17	49	17	55
	No Build 2030	53	15	25	15	55
	Build 2030	52	15	26	18	54
	Build 2030 with Mitigation	54	26	21	28	53

The second identified congestion bottleneck is northbound Meadowbrook State Parkway approaching Northern State Parkway, including the ramp from Meadowbrook State Parkway onto eastbound Northern State Parkway. This bottleneck is influenced by traffic changing lanes to appropriately exit Meadowbrook State Parkway onto either eastbound or westbound Northern State Parkway. In existing conditions, two travel lanes head westbound and a single travel lane heads eastbound. In existing conditions, northbound Meadowbrook State Parkway traffic is slowed in both the Weekday PM and Saturday Midday peak hours. In No Build 2030 Conditions northbound Meadowbrook State Parkway traffic is additionally slowed in the Friday PM peak hour. Although under increased traffic demand in Build 2030 Conditions, northbound Meadowbrook State Parkway traffic increases in speed in this scenario due to upstream traffic metering on the northbound Meadowbrook State Parkway C-D Road, which limits the ability of traffic to reach this segment of the Parkway.

The traffic demand in the Build condition exceeds 6,000 vehicles per hour in some peak hours, which is above the capacity of a three-lane parkway. Mitigation is proposed to address this congestion bottleneck, including the widening of northbound Meadowbrook State Parkway to four lanes from

Old Country Road to the Northern State Parkway ramps and the widening of the ramp to eastbound Northern State Parkway to two lanes all the way onto Northern State Parkway. This mitigation is projected to improve traffic speed on northbound Meadowbrook State Parkway, including to speeds greater than in the No Build 2030 condition despite the increase in traffic volume. Table 38 documents the speed data for this congestion bottleneck in each scenario and peak hour.

Table 38 Speed (mph) Metrics for Northbound Meadowbrook State Parkway (South of Northern State Parkway)

Roadway	Scenario	Weekday AM	Weekday PM	Friday PM	Saturday Midday	Saturday Evening
Meadowbrook State Parkway northbound	Existing	48	41	53	33	51
	No Build 2030	43	31	28	36	48
	Build 2030	46	38	46	34	37
	Build 2030 with Mitigation	54	49	55	49	35
Ramp from Meadowbrook State Parkway northbound to Northern State Parkway eastbound	Existing	48	34	46	43	49
	No Build 2030	48	25	24	44	49
	Build 2030	47	47	43	46	48
	Build 2030 with Mitigation	49	29	47	47	48

The third identified congestion bottleneck is the northbound Meadowbrook State Parkway C-D Road at the Stewart Avenue ramps. This bottleneck is introduced in the Build 2030 condition with the increase in traffic demand on the C-D Road exiting the Sands development site. The bottleneck is caused by the two-to-one lane drop on the C-D Road, which is overcapacity relative to the projected volume demand. In existing conditions and No Build 2030 conditions, the traffic demand is lower, and traffic operates at speed along the C-D Road. In Build 2030 conditions, the bottleneck introduces average vehicle speeds less than 20 mph in four peak hours.

Mitigation is proposed to address this bottleneck, including widening the entirety of the northbound Meadowbrook State Parkway C-D Road to two lanes and merging both lanes onto Meadowbrook State Parkway Mainline. The third northbound Meadowbrook State Parkway Mainline travel lane would be dropped prior to the C-D road merge to accommodate the extra merge lane. This proposed mitigation significantly improves traffic speed on the northbound Meadowbrook State Parkway C-D Road, including to speeds comparable or greater than the No Build 2030 condition despite the increase in traffic volume. There is also no significant speed degradation on the northbound Meadowbrook State Parkway Mainline despite the three-to-two lane drop. Table 39 documents the speed data for this congestion bottleneck in each scenario and peak hour.

Table 39 Speed (mph) Metrics for Northbound Meadowbrook State Parkway C-D Road (at Stewart Avenue Ramps)

Roadway	Scenario	Weekday AM	Weekday PM	Friday PM	Saturday Midday	Saturday Evening
Meadowbrook State Parkway Northbound C-D Road at Stewart Avenue Ramps	Existing	43	48	49	49	52
	No Build 2030	43	45	49	49	52
	Build 2030	39	17	13	18	9
	Build 2030 with Mitigation	55	55	55	47	55
Meadowbrook State Parkway Northbound Mainline at Build Mitigation 3-to-2 lane drop	Existing	55	55	55	55	55
	No Build 2030	55	54	55	55	55
	Build 2030	55	55	55	54	55
	Build 2030 with Mitigation	55	54	55	49	55

The fourth identified congestion bottleneck is southbound Meadowbrook State Parkway, beginning at Charles Lindbergh Boulevard and extending through Hempstead Turnpike. In existing conditions, southbound Meadowbrook State Parkway traffic is slow in the Weekday PM peak hour. In No Build 2030 Conditions, southbound Meadowbrook State Parkway traffic is also slow in the Friday PM peak hour. Under increased traffic demand in Build 2030 Conditions, there is slower traffic in the Weekday PM, Friday PM, and Saturday Evening peak hours. The primary cause of this bottleneck is the downstream choke point at the Meadowbrook State Parkway/Southern State Parkway interchange that causes traffic slowdowns and congestion spillback onto southbound Meadowbrook State Parkway within this area. Secondary to that condition, the ramps are closely spaced within this segment of the Parkway, the acceleration lanes are relatively short, and south of Hempstead Turnpike, the traffic demand in the Build condition exceeds 6,000 vehicles per hour in some peak hours, which is above the capacity of a three-lane parkway.

Multiple mitigation measures were evaluated at this bottleneck, including extending the southbound Meadowbrook State Parkway acceleration lane from Hempstead Turnpike and widening to four lanes southbound Meadowbrook State Parkway between Hempstead Turnpike and Southern State Parkway. Extending the acceleration lane had insignificant impact to traffic operations and widening to four lanes did not substantively address the congestion bottleneck source, which is the Southern State Parkway interchange. Table 40 documents the speed data for this congestion bottleneck in each scenario and peak hour. It was concluded that traffic speeds in this area could not be improved without addressing the Southern State Parkway interchange, which is next discussed as the fifth congestion bottleneck.

Table 40 Speed (mph) Metrics for Southbound Meadowbrook State Parkway (at Charles Lindbergh Boulevard and Hempstead Turnpike)

Roadway	Scenario	Weekday AM	Weekday PM	Friday PM	Saturday Midday	Saturday Evening
Meadowbrook State Parkway southbound at Charles Lindbergh Boulevard	Existing	55	31	54	55	55
	No Build 2030	55	16	41	55	55
	Build 2030	55	9	39	55	54
	Build 2030 with Mitigation	55	7	38	55	42*
Meadowbrook State Parkway southbound at Hempstead Turnpike	Existing	54	22	53	54	54
	No Build 2030	54	20	34	54	54
	Build 2030	53	14	29	51	15
	Build 2030 with Mitigation	53	15	27	53	26

*Upstream mitigation on southbound Meadowbrook State Parkway facilitates more traffic reaching this congested area of the network, which decreases traffic speeds.

The fifth identified congestion bottleneck is the Meadowbrook State Parkway/Southern State Parkway interchange. As previously mentioned, this bottleneck impacts southbound Meadowbrook State Parkway traffic; additionally, it impacts eastbound Southern State Parkway traffic. Both impacts are due to an existing substandard interchange weave segment on eastbound Southern State Parkway. This weave segment is between the southbound Meadowbrook State Parkway ramp to eastbound Southern State Parkway and the eastbound Southern State Parkway ramp to northbound Meadowbrook State Parkway. In existing conditions, this weave segment is already congested and overcapacity, resulting in slow traffic on eastbound Southern State Parkway in all five peak hours and slow traffic on southbound Meadowbrook State Parkway in the Weekday PM peak hour. In No Build 2030 conditions, traffic flow continues to degrade.

In Build 2030 conditions, despite the addition of only a few hundred additional vehicles to the weave segment, the traffic flow breaks down in the Saturday Midday and Saturday Evening peak hours. This appears to be a condition where the interchange is already overcapacity, and the addition of demand pushed it into a "failing" condition. It is important to note that traffic demand would eventually materialize within a few additional years even without the Integrated Resort. Mitigating the overcapacity weave segment would require an interchange modification, including the construction of at least one new flyover ramp. This level of mitigation is beyond the contributing impact associated with this project, particularly given the existing congested state of the interchange and the relatively low amount of traffic that the Integrated Resort is adding to this specific interchange. Table 41 documents the speed data for this congestion bottleneck in each scenario and peak hour.

Table 41 Speed (mph) Metrics for Meadowbrook State Parkway / Southern State Parkway Interchange

Roadway	Scenario	Weekday AM	Weekday PM	Friday PM	Saturday Midday	Saturday Evening
Meadowbrook State Parkway southbound at Southern State Parkway	Existing	54	32	52	53	53
	No Build 2030	53	34	51	53	52
	Build 2030	53	34	32	11	13
	Build 2030 with Mitigation	52	33	28	10	16
Southern State Parkway eastbound at Meadowbrook State Parkway	Existing	23	22	26	23	38
	No Build 2030	20	23	24	21	33
	Build 2030	29	15	21	15	20
	Build 2030 with Mitigation	29	15	20	11	22

The Vissim traffic analysis completed for the proposed action focused on the parkway network in the study area. The comprehensive analysis identified five congestion bottleneck locations that were significantly impacting upstream locations within the system. Mitigating infrastructure improvements for three bottleneck locations were identified and demonstrated that the mitigation will improve vehicle travel speeds at these locations. For the remaining two bottleneck locations, the Meadowbrook State Parkway/Southern State Parkway interchange was identified as the constraining factor. Traffic modeling indicates that this interchange is overcapacity in Existing and No Build 2030 Conditions and that while relatively low in trips, the additional development traffic pushes the interchange operations into a "failing" condition. This "failing" condition would be expected to occur over time without the Integrated Resort. However, the required mitigation for this interchange (a new flyover) is beyond the contributing impact of this project. This evaluation and the identified mitigation measures, even though being funded by Sands, would be subject to review and approval of the NYSDOT, who has jurisdiction over these roadways.

Hempstead Turnpike at Meadowbrook State Parkway

As noted above in the Intersection Capacity Analysis section of this report, the Final Scope for the DEIS includes the evaluation of four of the ramp junctions along Hempstead Turnpike that serve its interchange with the Meadowbrook State Parkway. While considering the evaluation of these ramps it was concluded that an evaluation of all eight ramp junctions associated with this interchange along Hempstead Turnpike would be more appropriate to better identify impacts of the proposed Integrated Resort at this location.

As was done for the Meadowbrook State Parkway, Northern State Parkway and Southern State Parkway above, Vissim parkway analysis was performed for the section of Hempstead Turnpike in the vicinity of the Meadowbrook State Parkway to capture the operations of the eight ramp junctions. This analysis was performed for all five peak hours analyzed for the Existing conditions, the No-Build 2030 Conditions, and the Build 2030 conditions.

The analysis performed, which is summarized in Tables 42 through Tables 46 below, indicates that levels of traffic service in the Build conditions would be consistent with No Build conditions with the exception of the ramp junction from Hempstead Turnpike Eastbound to the off-ramp to Meadowbrook State Parkway Southbound. During the weekday PM peak hour, the ramp junction on Hempstead Turnpike is expected to experience delays (LOS F) as an increased number of vehicles

attempt to enter the southbound Parkway from eastbound Hempstead Turnpike. This condition is mitigated with a proposed extension of the deceleration lane onto the ramp from Hempstead Turnpike (approximately 500 feet) and an extension of the acceleration lane from the ramp onto the Meadowbrook State Parkway (approximately 400 feet). As shown in Table 43, with the implementation of this improvement, this ramp junction will operate similar to as in the existing condition.

The proposed improvements at each end of this ramp are depicted in concept on graphics included in Attachment P

Table 42 AM – Hempstead Turnpike Ramp Junctions

Ramp Junctions	Existing Conditions			2030 No-Build Conditions			2030 Build Conditions			2030 Build with Mitigation Conditions		
	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)
Hempstead Tpke. EB at Off Ramp to Meadowbrook State Parkway SB	A	2.0	0	A	2.6	0	A	1.4	0.5	A	0.2	0
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway SB	D	26.8	85	C	24.0	73	C	20.5	54.4	C	17.6	41
Hempstead Tpke. EB Off Ramp to Meadowbrook State Parkway NB	A	1.1	0	A	1.1	0	A	1.6	0.4	A	1.8	1
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway NB	A	5.4	9	A	6.7	13	A	7.0	13.8	A	6.8	13
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway SB	A	0.3	0	A	0.3	0	A	0.3	0.0	A	0.4	0
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway SB	A	4.9	6	A	4.6	5	A	9.2	28.6	A	9.4	27
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway NB	A	1.6	1	A	1.5	0	A	1.6	0.4	A	1.4	0
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway NB	A	0.2	1	A	0.2	1	A	0.2	0.6	A	0.2	1

Notes:
LOS = Level of Service

Table 43 PM – Hempstead Turnpike Ramp Junctions

Ramp Junctions	Existing Conditions			2030 No-Build Conditions			2030 Build Conditions			2030 Build with Mitigation Conditions		
	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)
Hempstead Tpke. EB at Off Ramp to Meadowbrook State Parkway SB	B	12.0	33	B	11.9	35	F	97.5	901.5	B	10.7	45
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway SB	F	100.1	1,015	F	103.5	1,121	F	63.9	398.7	F	88.6	690
Hempstead Tpke. EB Off Ramp to Meadowbrook State Parkway NB	A	0.9	0	A	0.8	0	A	0.7	0.0	A	1.4	26
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway NB	B	10.4	11	B	12.0	13	A	5.4	3.8	A	7.7	30
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway SB	A	0.3	0	A	0.3	0	A	0.3	0.0	A	0.3	0
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway SB	A	7.1	9	A	7.9	11	B	13.4	43.0	B	14.3	170
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway NB	A	3.9	6	A	3.7	5	A	5.2	10.9	B	14.0	51
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway NB	A	0.2	1	A	0.2	1	A	0.2	1.3	A	1.5	9

Notes:
LOS = Level of Service

Table 44 Friday PM Evening – Hempstead Turnpike Ramp Junctions

Ramp Junctions	Existing Conditions			2030 No-Build Conditions			2030 Build Conditions			2030 Build with Mitigation Conditions		
	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)
Hempstead Tpke. EB at Off Ramp to Meadowbrook State Parkway SB	A	1.1	0	A	1.3	0	C	22.4	102.9	B	12.5	16
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway SB	C	20.2	51	C	24.5	66	C	17.2	37.0	C	17.4	37
Hempstead Tpke. EB Off Ramp to Meadowbrook State Parkway NB	A	0.6	0	A	0.7	0	A	0.7	0.0	A	0.8	0
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway NB	A	7.6	26	A	8.7	34	A	9.3	31.5	A	8.6	85
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway SB	A	0.2	0	A	0.2	0	A	0.3	0.0	A	0.3	0
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway SB	A	2.9	2	A	3.0	2	A	5.7	13.5	A	5.3	12
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway NB	A	1.8	1	A	1.8	1	A	2.2	0.7	A	1.9	1
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway NB	A	0.1	0	A	0.1	0	A	0.1	0.6	A	0.1	0

Notes:
LOS = Level of Service

Table 45 Saturday Midday Peak – Hempstead Turnpike Ramp Junctions

Ramp Junctions	Existing Conditions			2030 No-Build Conditions			2030 Build Conditions			2030 Build with Mitigation Conditions		
	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)
Hempstead Tpke. EB at Off Ramp to Meadowbrook State Parkway SB	A	0.8	0	A	0.9	0	A	1.4	0.1	A	8.7	12.9
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway SB	C	16.1	34	C	16.1	34	B	13.6	24.3	B	13.8	24.9
Hempstead Tpke. EB Off Ramp to Meadowbrook State Parkway NB	A	0.5	0	A	0.5	0	A	0.7	0.0	A	0.7	0.0
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway NB	A	4.0	5	A	4.2	6	A	4.6	7.1	A	4.7	8.0
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway SB	A	0.2	0	A	0.2	0	A	0.2	0.0	A	0.2	0.0
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway SB	A	2.6	1	A	3.0	1	A	6.0	14.9	A	6.3	16.7
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway NB	A	1.9	1	A	2.0	1	A	2.1	1.0	A	2.0	1.0
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway NB	A	0.2	0	A	0.2	0	A	0.2	0.6	A	2.7	6.6

Notes:
LOS = Level of Service

Table 46 Saturday Evening Peak – Hempstead Turnpike Ramp Junctions

Ramp Junctions	Existing Conditions			2030 No-Build Conditions			2030 Build Conditions			2030 Build with Mitigation Conditions		
	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)
Hempstead Tpke. EB at Off Ramp to Meadowbrook State Parkway SB	A	0.5	0	A	0.3	0	F	76.0	496.8	A	3.4	5
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway SB	B	11.2	14	B	11.7	15	B	10.9	12.3	B	11.6	15
Hempstead Tpke. EB Off Ramp to Meadowbrook State Parkway NB	A	0.4	0	A	0.4	0	A	0.5	0.0	A	0.6	0
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway NB	A	2.8	2	A	3.1	4	A	4.0	6.9	A	3.6	5
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway SB	A	0.2	0	A	0.2	0	A	0.2	0.0	A	0.3	0
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway SB	A	2.5	1	A	2.6	2	A	5.4	14.6	A	6.3	23
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway NB	A	1.3	0	A	1.5	0	A	1.5	0.5	A	1.6	0
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway NB	A	0.1	0	A	0.1	0	A	0.1	0.2	A	0.2	0

Notes:
LOS = Level of Service

Charles Lindbergh Boulevard at Meadowbrook State Parkway

The Final Scope for the DEIS includes only the evaluation of four of the ramp junctions along Hempstead Turnpike that serve its interchange with the Meadowbrook State Parkway. As discussed above this study was expanded to include all eight ramps along Hempstead Turnpike that compose that interchange. Similarly, given the proximity of the parkways interchange with Charles Lindbergh Boulevard to the site, the four ramps along Charles Lindbergh Boulevard serving the parkway have also been included in this study to provide a complete picture of potential traffic impacts.

As was done for the Meadowbrook State Parkway, Northern State Parkway and Southern State Parkway above, Vissim parkway analysis was performed for the section of Charles Lindbergh Boulevard in the vicinity of the Meadowbrook State Parkway to capture the operations of the four ramp junctions. This analysis was performed for all five peak hours analyzed for the Existing conditions, the No-Build 2030 Conditions, and the Build 2030 conditions.

The analysis performed, which is summarized in Tables 47 through Tables 51 below, indicates that levels of traffic service in the Build conditions would be consistent with No Build conditions or operate with good levels of service, with the exception of the ramp junction from Charles Lindbergh Boulevard Eastbound to the off-ramp to Meadowbrook State Parkway Southbound. During the weekday PM peak hour, the ramp junction on Charles Lindbergh Boulevard is expected to experience delays (LOS E) as an increased number of vehicles enter the southbound Parkway from eastbound Charles Lindbergh Boulevard. This condition is mitigated with a proposed extension of the length of the lane section of the ramp (approximately 350 feet) and an extension of the acceleration lane from the ramp onto the Meadowbrook State Parkway (approximately 450 feet). As shown in Table 48, with the implementation of this improvement, this ramp junction will operate with improved and acceptable delay (LOS D).

The proposed improvements on this ramp are depicted in concept on graphics included in Attachment P.

Table 47 AM – Charles Lindbergh Boulevard Ramp Junctions

Ramp Junctions	Existing Conditions			2030 No-Build Conditions			2030 Build Conditions			2030 Build with Mitigation Conditions		
	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)
EB Charles Lindbergh Blvd to SB MSP	A	0.1	0	A	0.0	0	A	0.1	0	A	0.0	0
EB Charles Lindbergh Blvd to NB MSP	A	0.0	0	A	0.1	0	A	0.1	0	A	0.1	0
NB MSP Ramp to WB Charles Lindbergh Blvd	A	0.2	0	A	0.0	0	A	0.2	0	A	0.2	0
SB MSP Ramp to WB Charles Lindberg Blvd.	A	0.2	0	A	0.2	0	A	0.3	0	A	0.3	0

Notes:
LOS = Level of Service

Table 48 PM – Charles Lindbergh Boulevard Ramp Junctions

Ramp Junctions	Existing Conditions			2030 No-Build Conditions			2030 Build Conditions			2030 Build with Mitigation Conditions		
	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)
EB Charles Lindbergh Blvd to SB MSP	A	0.6	0.5	A	2.8	7	E	43.0	234	D	26.3	137
EB Charles Lindbergh Blvd to NB MSP	A	0.1	0	A	0.1	0	A	1.9	4	A	0.3	0
NB MSP Ramp to WB Charles Lindbergh Blvd	A	0.0	0	A	0.0	0	A	0.2	0	A	0.2	0
SB MSP Ramp to WB Charles Lindberg Blvd.	A	0.1	0	A	0.1	0	A	0.3	0	A	0.3	0

Notes:
LOS = Level of Service

Table 49 Friday PM Evening – Charles Lindbergh Boulevard Ramp Junctions

Ramp Junctions	Existing Conditions			2030 No-Build Conditions			2030 Build Conditions			2030 Build with Mitigation Conditions		
	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)
EB Charles Lindbergh Blvd to SB MSP	A	0.1	0	A	0.1	0	A	0.0	0	A	0.2	0
EB Charles Lindbergh Blvd to NB MSP	A	0.0	0	A	0.0	0	A	0.1	0	A	0.2	0
NB MSP Ramp to WB Charles Lindbergh Blvd	A	0.0	0	A	0.1	0	A	0.2	0	A	0.2	0
SB MSP Ramp to WB Charles Lindberg Blvd.	A	0.1	0	A	0.1	0	A	0.5	0	A	0.5	0

Notes:
LOS = Level of Service

Table 50 Saturday Midday Peak – Charles Lindbergh Boulevard Ramp Junctions

Ramp Junctions	Existing Conditions			2030 No-Build Conditions			2030 Build Conditions			2030 Build with Mitigation Conditions		
	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)
EB Charles Lindbergh Blvd to SB MSP	A	0.1	0	A	0.0	0	A	5.0	63	A	2.0	31
EB Charles Lindbergh Blvd to NB MSP	A	0.0	0	A	0.0	0	E	40.4	233	C	17.9	129
NB MSP Ramp to WB Charles Lindbergh Blvd	A	0.1	0	A	0.2	0	A	0.1	0	A	0.2	0
SB MSP Ramp to WB Charles Lindberg Blvd.	A	0.1	0	A	0.1	0	A	0.5	0	A	0.5	0

Notes:
LOS = Level of Service

Table 51 Saturday Evening Peak – Charles Lindbergh Boulevard Ramp Junctions

Ramp Junctions	Existing Conditions			2030 No-Build Conditions			2030 Build Conditions			2030 Build with Mitigation Conditions		
	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)
EB Charles Lindbergh Blvd to SB MSP	A	0.0	0	A	0.0	0	A	0.3	0	A	0.1	0
EB Charles Lindbergh Blvd to NB MSP	A	0.0	0	A	0.0	0	A	0.2	0	A	0.3	0
NB MSP Ramp to WB Charles Lindbergh Blvd	A	0.0	0	A	0.2	0	A	0.1	0	A	0.2	0
SB MSP Ramp to WB Charles Lindberg Blvd.	A	0.1	0	A	0.1	0	A	0.6	0	A	0.7	0

Notes:
LOS = Level of Service

Holiday Period Analysis

Traffic Impacts related to the Integrated Resort were evaluated for a holiday period (late-November through late-December) at the intersections and at the segments/ramp junctions in the vicinity of the Roosevelt Field Mall and adjacent retail area in accordance with the Final Scope of the DEIS. This evaluation includes the weekday PM and the Saturday midday peak periods to capture the traffic associated with increased shopping activity during the holiday season.

Intersection Capacity Analysis - Holiday

The study area for the holiday analysis includes the following intersections, which were evaluated for the weekday PM commuter peak hour and the Saturday midday peak hour:

- Old Country Road at Clinton Road/Glen Cove Road
- Old Country Road at Merchants Concourse/Ellison Avenue
- Old Country Road at Merrick Avenue/Post Avenue
- Merrick Avenue at Stewart Avenue/Park Boulevard
- Stewart Avenue at Endo Boulevard/Merchants Concourse
- Stewart Avenue at Quentin Roosevelt Boulevard/South Street
- Stewart Avenue at Clinton Road
- Stewart Avenue at Ring Road West (Roosevelt Field)
- Old Country Road at Roosevelt Field Mall Entrance
- Merrick Avenue at Corporate Drive
- Merrick Avenue at Privado Road

The study area for the holiday analysis includes the ramps and parkway sections along the Meadowbrook State Parkway from a point south of the Zeckendorf Boulevard interchange northward to a point north of its interchange with Old Country Road.

LOS analyses were conducted for the 2023 Existing, 2030 No-Build, and 2030 Build conditions for the holiday period study area intersections for the identified key peak hours. Table 52 and Table 53 summarize the capacity analysis results included in expanded tables found in Attachment M. Copies of the detailed capacity analysis worksheets are found in Attachment N. It is noted that the results in Table 52 and Table 53 do not reflect the signal timing mitigation identified for some of these locations in the non-holiday condition.

Table 52 `Weekday PM Peak Hour - Holiday

Weekday PM Peak Hour - Holiday	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Old Country Rd at Clinton Rd/Glen Cove Rd	42.5	D	45.3	D	45.4	D
Old Country Rd at Merchants Concourse/Ellison Ave	43.9	D	46.3	D	46.3	D
Old Country Rd at Merrick Ave/Post Ave	69.2	E	81.7	F	84.2	F
Merrick Ave at Stewart Ave/Park Blvd	37.1	D	39.3	D	40.3	D
Stewart Ave at Endo Blvd/Merchants Concourse	34.0	C	35.3	D	35.4	D
Stewart Ave at Quentin Roosevelt Blvd/South St	40.8	D	42.2	D	42.4	D
Stewart Ave at Clinton Rd	66.7	E	89.4	F	90.1	F
Stewart Ave at Ring Road West (Roosevelt Field)	14.7	B	16.4	B	16.5	B
Old Country Rd at Roosevelt Field Entrance	41.2	D	56.6	E	59.4	E
Merrick Ave at Corporate Dr	45.7	D	57.1	E	60.6	E
Merrick Ave at Privado Rd	20.1	C	25.8	C	28.2	C

Notes
LOS = Level of Service

Table 53 Saturday Midday Peak Hour – Holiday

Saturday Midday Peak Hour - Holiday	2023 EXISTING CONDITIONS		2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Old Country Rd at Clinton Rd/Glen Cove Rd	41.6	D	45.4	D	45.9	D
Old Country Rd at Merchants Concourse/Ellison Ave	35.6	D	37.5	D	37.5	D
Old Country Rd at Merrick Ave/Post Ave	45.9	D	47.7	D	48.2	D
Merrick Ave at Stewart Ave/Park Blvd	34.8	C	36.8	D	37.4	D
Stewart Ave at Endo Blvd/Merchants Concourse	28.3	C	29.0	C	29.0	C
Stewart Ave at Quentin Roosevelt Blvd/South St	37.1	D	37.8	D	37.7	D
Stewart Ave at Clinton Rd	48.2	D	60.1	E	60.7	E
Stewart Ave at Ring Road West (Roosevelt Field)	14.6	B	16.0	B	16.1	B
Old Country Rd at Roosevelt Field Entrance	53.6	D	73.0	E	77.9	E
Merrick Ave at Corporate Dr	30.9	C	41.6	D	47.2	D
Merrick Ave at Privado Rd	14.2	B	15.2	B	15.7	B

Notes
LOS = Level of Service

To address deficiencies identified in Table 52 and Tables 53, first the traffic signal timing mitigation identified in the non-holiday 2030 Build Condition was applied and were found to also mitigate Integrated Resort related operational concerns at those locations. However, some additional deficiencies were identified that the non-holiday mitigation did not address and are noted below.

Old Country Road at Merrick Avenue/Post Avenue

During the Holiday Weekday PM peak hour, the Old Country Road at Merrick Avenue/Post Avenue intersection experiences delay during both the No-Build and Build conditions, both operating at a LOS F. It is recommended that the Weekday PM peak hour signal timing and phasing be optimized to mitigate this condition

Stewart Avenue at Clinton Road

During the Holiday Weekday PM and Holiday Saturday Midday peak hours, the Stewart Avenue at Clinton Road intersection experiences delay during both the No-Build and Build conditions, both operating at a LOS E. It is recommended that the Weekday PM and Saturday Midday peak hour signal timing and phasing be optimized to mitigate this condition

Old Country Road at Roosevelt Field Mall Entrance

During the Holiday Saturday Midday peak hour, the Old Country Road at Roosevelt Field Mall Entrance intersection experiences significant increases in delay on the eastbound approach during

both the No-Build and Build conditions. It is recommended that the Saturday Midday peak hour signal timing and phasing be optimized to mitigate this condition.

Merrick Avenue at Corporate Drive

During the Holiday Saturday Midday peak hour, the Merrick Avenue at Corporate Drive intersection experiences significant delays, LOS F, at the southbound approach. It is recommended that the signal timing and phasing be optimized for the Saturday Midday peak period to mitigate this condition

Conditions at each of these intersections can be addressed by optimizing signal timing and phasing, which would return the operations to a condition consistent with the No-Build Condition. This mitigation is presented in Table 54.

Table 54 Mitigation Measures – Holiday

Intersection	Existing/No-Build Geometry	Improvement	Build with Mitigation Geometry
Old Country Road at Merrick Avenue/Post Avenue	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR, R SB: L, LT, TR, R	Optimize signal timing/ phasing (PM)	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR, R SB: L, LT, TR, R
Stewart Avenue at Clinton Road	EB: L, TT, TR WB: LL, T, TR NB: LT, TR SB: LT, TR	Optimize signal timing/ phasing (PM, SAT MID)	EB: L, TT, TR WB: LL, T, TR NB: LT, TR SB: LT, TR
Old Country Road at Roosevelt Field Mall Entrance	EB: L, TTT, R WB: LL, TTT, TR NB: LL, LTR, R SB: L, TR, R	Optimize signal timing/ phasing/ Offsets (SAT MID)	EB: L, TTT, R WB: LL, TTT, TR NB: LL, LTR, R SB: L, TR, R
Merrick Avenue at Corporate Drive	EB: LL, R NB: L, TT SB: T, TR	Optimize signal timing/ phasing (SAT MID)	EB: LL, R NB: L, TT SB: T, TR

Tables 55 and 56 show the capacity analysis result at these locations with the implementation of that mitigation.

Table 55 Weekday PM Peak Hour – Holiday – Mitigation

Weekday PM Peak Hour – Holiday - Mitigation	2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS		2030 BUILD WITH MITIGATION CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Old Country Rd at Merrick Ave/Post Ave	81.7	F	84.2	F	76.3	E
Stewart Ave at Clinton Rd	89.4	F	90.1	F	74.1	E

Notes
LOS = Level of Service

Table 56 Saturday Midday Peak Hour – Holiday – Mitigation

Saturday Midday Peak Hour – Holiday - Mitigation	2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS		2030 BUILD WITH MITIGATION CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Stewart Ave at Clinton Rd	60.1	E	60.7	E	54.0	D
Old Country Rd at Roosevelt Field Entrance	73.0	E	77.9	E	72.6	E
Merrick Ave at Corporate Dr	41.6	D	47.2	D	19.8	B

Notes
LOS = Level of Service

The results of the intersection capacity analysis reported in Table 55 and Table 56 indicate that for all time periods analyzed, the mitigation proposed retains good levels of traffic service or returns intersection levels of service and delay to No-Build Condition levels.

It is noted that all costs associated with the design, permitting and construction of the identified mitigation and access improvements shall be borne by the developer of the Integrated Resort with no cost to the public. Mitigation would be subject to review and approval of the entities with jurisdiction over the roadways.

Parkways and Interchanges Analysis - Holiday

The study area for the holiday analysis includes the ramps and parkway sections along the Meadowbrook State Parkway from a point south of the Zeckendorf Boulevard interchange northward to a point north of its interchange with Old Country Road. This section of Meadowbrook State Parkway was analyzed using Vissim software for the weekday PM and Saturday midday peak hours. The reduction of the model to include only this section removes many of the network constraints located beyond these limits and, and, as a result, does not consider the impact congestion on the Northern State Parkway may have on this segment.

The analysis was performed for 2023 Existing, 2030 No-Build, and 2030 Build conditions in both the northbound and southbound directions for the weekday holiday PM peak hour and holiday Saturday Midday peak hours. Table 57 presents the analysis results. The analysis uses the existing counts that were performed in December 2023 and are included in Attachment F (Figures V-A-6, V-A-7, V-C-6, V-C-7, V-E-6 and V-E-7). The Vissim reports can be found in Attachment O.

Table 57 Meadowbrook Holiday Vissim Operations - Speeds

Roadway	Scenario	PM Peak Hour	SAT Peak Hour
Northbound		**MPH**	**MPH**
Mainline South of Zeckendorf Blvd	Existing	54.2	54.9
	No Build 2030	32.7	47.0
	Build 2030	27.5	43.7
Weave Zeckendorf Blvd On-Ramp to Old Country Off-Ramp	Existing	50.8	52.7
	No Build 2030	48.6	52.3
	Build 2030	33.8	50.9
Mainline North of Old Country Rd	Existing	49.6	49.9
	No Build 2030	48.2	49.6
	Build 2030	46.6	46.4
Southbound			
Mainline North of Old Country Rd	Existing	31.4	39.6
	No Build 2030	28.8	29.2
	Build 2030	29.8	27.1
Weave Old Country On-Ramp to Zeckendorf Blvd Off-Ramp	Existing	52.6	46.4
	No Build 2030	52.4	28.1
	Build 2030	52.4	35.8
Mainline South of Zeckendorf Blvd	Existing	53.3	53.4
	No Build 2030	53.1	53.4
	Build 2030	53.1	53.2

The analysis shows that during the holiday period, for all conditions, this segment of the Meadowbrook State Parkway experiences reduced highway speeds, as would be expected as a result of the influences of heavy holiday traffic entering and exiting the retail establishments located just off the Parkway network. However, these speed reductions are similar to the reductions that were noted in the metrics of the five critical (non-holiday) peak hours. Review of the Measures of Effectiveness in Attachment O show that the results of the holiday conditions are consistent with or better than the non-holiday conditions.

As can be seen in Table 53, in the Saturday midday, southbound south of Old Country Road the Build scenario shows a minor increase in speed in from the No Build scenario. This is due to a slight "bottleneck" effect, at the north end of the network, which subsequently results in a minor increase in speed and a decrease in density further downstream, between the Old Country Road and the Zeckendorf Blvd interchanges.

This section previously identified the Meadowbrook State Parkway Mitigation, which is applicable to the holiday condition. Given that the proposed mitigation addresses the non-holiday critical periods and the results for the holiday periods are consistent with or better than the non-holiday periods, the proposed mitigation measures will improve the operations during the holiday periods and no further mitigation is necessary to accommodate holiday period traffic.

Phase 1 Analysis

The Final Scope requires that all study intersections be analyzed for the five peak hour periods for the Full Build condition to identify project impacts and mitigation measures. With respect to the operation of Phase 1 only, the Final Scope requires a sensitivity analysis to identify operations and mitigation necessary for the operation of Phase 1 only. As explained earlier in this section, Sands will be implementing the intersection mitigation necessary for the Full Build condition during construction of Phase 1 of the Integrated Resort. This being the case, the operation of Phase 1 will benefit from the mitigation for Full Build being in place at all intersections where mitigation is proposed. These intersections include:

1. Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access
2. Hempstead Tpke at Cunningham Ave & West Drive
3. Hempstead Tpke at MSKCC Entrance
4. Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave
5. Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access
6. Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access
7. Hempstead Tpke at Park Blvd/East Meadow Ave
8. Hempstead Tpke at California Ave/ Hofstra Blvd
9. Hempstead Tpke at Oak St/Hofstra Blvd
10. Fulton Ave at N Franklin St
11. Stewart Ave at Franklin Ave
12. Merrick Ave at Corporate Dr
13. Merrick Ave at Privado Rd
14. Jericho Tpke at Post Ave/Post Rd
15. Westbury Blvd at Oak St/Meadow St
16. Charles Lindbergh Blvd at Sands Blvd

LOS analyses were conducted for the 2023 Existing, 2027 No-Build, and 2027 Build conditions for the Phase 1 Analysis at the relevant study area intersections where mitigation was proposed for a particular peak hour. Tables 58 through 62 summarize the capacity analysis results included in Attachment F. Copies of the detailed capacity analysis worksheets are found in Attachment Q.

Table 58 Weekday AM Peak Hour – Phase 1

Weekday AM Peak Hour – Phase 1	2023 EXISTING CONDITIONS		2027 NO-BUILD CONDITIONS		2027 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	33.5	C	34.2	C	37.8	D
Hempstead Tpke at Cunningham Ave & West Drive	8.2	A	8.3	A	7.9	A
Hempstead Tpke at MSKCC Entrance	4.9	A	5.0	A	5.0	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	65.5	E	67.5	E	68.2	E
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	13.7	B	13.8	B	14.5	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	41.3	D	43.7	D	44.0	D
Hempstead Tpke at California Ave/ Hofstra Blvd	22.6	C	22.9	C	22.8	C
Hempstead Tpke at Oak St/Hofstra Blvd	26.0	C	26.0	C	26.0	C
Charles Lindbergh Blvd at Sands Ave	See Note 1		See Note 1		4.6	A

Notes
LOS = Level of Service
[1] - NA - Intersection does not exist in this condition

Table 59 Weekday PM Peak Hour – Phase 1

Weekday PM Peak Hour – Phase 1	2023 EXISTING CONDITIONS		2027 NO-BUILD CONDITIONS		2027 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	42.5	D	46.6	D	48.2	D
Hempstead Tpke at Cunningham Ave & West Drive	8.7	A	8.8	A	8.6	A
Hempstead Tpke at MSKCC Entrance	6.3	A	6.5	A	6.4	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	63.3	E	65.0	E	65.1	E
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	21.9	C	22.6	C	23.2	C
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	27.3	C	27.5	C	27.7	C
Hempstead Tpke at Park Blvd/East Meadow Ave	65.9	E	70.8	E	72.1	E
Hempstead Tpke at California Ave/ Hofstra Blvd	25.4	C	25.4	C	25.4	C
Hempstead Tpke at Oak St/Hofstra Blvd	37.7	D	38.2	D	38.2	D
Fulton Ave at N Franklin St	36.4	D	50.3	D	51.4	D
Stewart Ave at Franklin Ave	76.2	E	119.3	F	119.4	F
Merrick Ave at Corporate Dr	86.4	F	94.5	F	96.0	F
Merrick Ave at Privado Rd	45.5	D	53.8	D	55.0	E
Jericho Tpke at Post Ave/Post Rd	117.2	F	125.4	F	127.0	F
Westbury Blvd at Oak St/Meadow St	43.0	D	49.8	D	50.2	D
Charles Lindbergh Blvd at Sands Ave	See Note 1		See Note 1		11.8	B

Notes

LOS = Level of Service

[1] - NA - Intersection does not exist in this condition

Table 60 Friday Evening Peak Hour – Phase 1

Friday Evening Peak Hour – Phase 1	2023 EXISTING CONDITIONS		2027 NO-BUILD CONDITIONS		2027 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	19.1	B	19.2	B	24.3	C
Hempstead Tpke at Cunningham Ave & West Drive	8.6	A	8.6	A	7.9	A
Hempstead Tpke at MSKCC Entrance	4.4	A	4.4	A	4.3	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	49.7	D	50.2	D	49.8	D
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	19.0	B	19.1	B	19.2	B
Hempstead Tpke at California Ave/ Hofstra Blvd	18.4	B	18.2	B	18.0	B
Hempstead Tpke at Oak St/Hofstra Blvd	25.8	C	25.7	C	25.6	C
Jericho Tpke at Post Ave/Post Rd	31.5	C	32.4	C	32.9	C
Charles Lindbergh Blvd at Sands Ave	See Note 1		See Note 1		8.7	A

Notes

LOS = Level of Service

[1] - NA - Intersection does not exist in this condition

Table 61 Saturday Midday Peak Hour – Phase 1

Saturday Midday Peak Hour – Phase 1	2023 EXISTING CONDITIONS		2027 NO-BUILD CONDITIONS		2027 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	13.1	B	13.2	B	16.9	B
Hempstead Tpke at Cunningham Ave & West Drive	7.5	A	7.5	A	6.8	A
Hempstead Tpke at MSKCC Entrance	5.2	A	5.1	A	5.0	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	51.6	D	52.0	D	52.1	D
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	8.6	A	8.6	A	9.1	A
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	24.0	C	24.2	C	24.3	C
Hempstead Tpke at California Ave/ Hofstra Blvd	21.0	C	20.8	C	20.7	C
Hempstead Tpke at Oak St/Hofstra Blvd	25.1	C	25.4	C	25.4	C
Merrick Ave at Corporate Dr	26.6	C	30.3	C	31.8	C
Charles Lindbergh Blvd at Sands Ave	See Note 1		See Not 1		8.0	A

Notes

LOS = Level of Service

[1] - NA - Intersection does not exist in this condition

Table 62 Saturday Evening Peak Hour – Phase 1

Saturday Evening Peak Hour – Phase 1	2023 EXISTING CONDITIONS		2027 NO-BUILD CONDITIONS		2027 BUILD CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	8.6	A	8.6	A	18.5	B
Hempstead Tpke at Cunningham Ave & West Drive	7.7	A	7.7	A	7.1	A
Hempstead Tpke at MSKCC Entrance	4.3	A	4.3	A	4.3	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	41.3	D	41.6	D	42.4	D
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	8.4	A	8.4	A	9.5	A
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	13.2	B	13.2	B	13.4	B
Hempstead Tpke at California Ave/ Hofstra Blvd	14.7	B	14.4	B	14.3	B
Hempstead Tpke at Oak St/Hofstra Blvd	17.5	B	17.4	B	17.3	B
Charles Lindbergh Blvd at Sands Ave	See Note 1		See Note 1		7.8	A

Notes
LOS = Level of Service
[1] - NA - Intersection does not exist in this condition

As stated previously, Sands intends to implement all mitigation measures associated with the Full Build condition during the Phase 1 construction. Accordingly, the capacity analysis was run for the Phase 1 condition assuming these improvements were put in place. Tables 63 through 67 show the capacity analysis results at these locations with the implementation of that mitigation.

Table 63 Weekday AM Peak Hour – Phase 1 – Mitigation

Weekday AM Peak Hour – Phase 1 - Mitigation	2027 NO-BUILD CONDITIONS		2027 BUILD CONDITIONS		2027 BUILD WITH 2030 MITIGATION CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	34.2	C	37.8	D	32.0	C
Hempstead Tpke at Cunningham Ave & West Drive	8.3	A	7.9	A	7.5	A
Hempstead Tpke at MSKCC Entrance	5.0	A	5.0	A	4.1	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	67.5	E	68.2	E	47.6	D
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	13.8	B	14.5	B	14.9	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	43.7	D	44.0	D	30.1	C
Hempstead Tpke at California Ave/ Hofstra Blvd	22.9	C	22.8	C	26.7	C
Hempstead Tpke at Oak St/Hofstra Blvd	26.0	C	26.0	C	25.2	C
Charles Lindbergh Blvd at Sands Ave	See Note 1		4.6	A	3.8	A

Notes

LOS = Level of Service

[1] - NA - Intersection does not exist in this condition

Table 64 Weekday PM Peak Hour – Phase 1 – Mitigation

Weekday PM Peak Hour – Phase 1 – Mitigation	2027 NO-BUILD CONDITIONS		2027 BUILD CONDITIONS		2027 BUILD WITH 2030 MITIGATION CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	46.6	D	48.2	D	38.1	D
Hempstead Tpke at Cunningham Ave & West Drive	8.8	A	8.6	A	8.0	A
Hempstead Tpke at MSKCC Entrance	6.5	A	6.4	A	4.2	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	65.0	E	65.1	E	45.9	D
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	22.6	C	23.2	C	21.5	C
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	27.5	C	27.7	C	14.0	B
Hempstead Tpke at Park Blvd/East Meadow Ave	70.8	E	72.1	E	62.1	E
Hempstead Tpke at California Ave/ Hofstra Blvd	25.4	C	25.4	C	30.4	C
Hempstead Tpke at Oak St/Hofstra Blvd	38.2	D	38.2	D	37.6	D
Fulton Ave at N Franklin St	50.3	D	51.4	D	47.4	D
Stewart Ave at Franklin Ave	119.3	F	119.4	F	92.2	F
Merrick Ave at Corporate Dr	94.5	F	96.0	F	23.2	C
Merrick Ave at Privado Rd	53.8	D	55.0	E	8.7	A
Jericho Tpke at Post Ave/Post Rd	125.4	F	127.0	F	120.6	F
Westbury Blvd at Oak St/Meadow St	49.8	D	50.2	D	22.6	C
Charles Lindbergh Blvd at Sands Ave	See Note 1		11.8	B	10.9	B

Notes

LOS = Level of Service

[1] - NA - Intersection does not exist in this condition

Table 65 Friday Evening Peak Hour – Phase 1 – Mitigation

Friday Evening Peak Hour – Phase 1 – Mitigation	2027 NO-BUILD CONDITIONS		2027 BUILD CONDITIONS		2027 BUILD WITH 2030 MITIGATION CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	19.2	B	24.3	C	28.1	C
Hempstead Tpke at Cunningham Ave & West Drive	8.6	A	7.9	A	11.9	B
Hempstead Tpke at MSKCC Entrance	4.4	A	4.3	A	6.1	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	50.2	D	49.8	D	38.4	D
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	19.1	B	19.2	B	9.2	A
Hempstead Tpke at California Ave/ Hofstra Blvd	18.2	B	18.0	B	19.1	B
Hempstead Tpke at Oak St/Hofstra Blvd	25.7	C	25.6	C	26.7	C
Jericho Tpke at Post Ave/Post Rd	32.4	C	32.9	C	32.3	C
Charles Lindbergh Blvd at Sands Blvd	See Note 1		8.7	A	9.9	A

Notes
LOS = Level of Service
[1] - NA - Intersection does not exist in this condition

Table 66 Saturday Midday Peak Hour – Phase 1 – Mitigation

Saturday Midday Peak Hour – Phase 1 – Mitigation	2027 NO-BUILD CONDITIONS		2027 BUILD CONDITIONS		2027 BUILD WITH 2030 MITIGATION CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	13.2	B	16.9	B	16.5	B
Hempstead Tpke at Cunningham Ave & West Drive	7.5	A	6.8	A	10.8	B
Hempstead Tpke at MSKCC Entrance	5.1	A	5.0	A	5.9	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	52.0	D	52.1	D	41.4	D
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	8.6	A	9.1	A	11.4	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	24.2	C	24.3	C	12.2	B
Hempstead Tpke at California Ave/ Hofstra Blvd	20.8	C	20.7	C	24.5	C
Hempstead Tpke at Oak St/Hofstra Blvd	25.4	C	25.4	C	25.1	C
Merrick Ave at Corporate Dr	30.3	C	31.8	C	18.3	B
Charles Lindbergh Blvd at Sands Ave	See Note 1		8.0	A	9.8	A

Notes

LOS = Level of Service

[1] - NA - Intersection does not exist in this condition

Table 67 Saturday Evening Peak Hour – Phase 1 – Mitigation

Saturday Evening Peak Hour – Phase 1 – Mitigation	2027 NO-BUILD CONDITIONS		2027 BUILD CONDITIONS		2027 BUILD WITH 2030 MITIGATION CONDITIONS	
Intersection	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	8.6	A	18.5	B	16.8	B
Hempstead Tpke at Cunningham Ave & West Drive	7.7	A	7.1	A	5.3	A
Hempstead Tpke at MSKCC Entrance	4.3	A	4.3	A	4.0	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	41.6	D	42.4	D	33.8	C
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	8.4	A	9.5	A	11.1	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	13.2	B	13.4	B	8.0	A
Hempstead Tpke at California Ave/ Hofstra Blvd	14.4	B	14.3	B	16.2	B
Hempstead Tpke at Oak St/Hofstra Blvd	17.4	B	17.3	B	22.0	C
Charles Lindbergh Blvd at Sands Ave	See Note 1		7.8	A	10.2	B

Notes
LOS = Level of Service
[1] - NA - Intersection does not exist in this condition

Potential for Traffic Diversions

The proposed Integrated Resort is well situated for immediate access to the Meadowbrook State Parkway, which provides connections to the Northern State Parkway and Southern State Parkway and beyond. As shown in Section 3, based on the anticipated capture area, arrival and departure patterns for visitors to the Integrated Resort are heavily oriented to and from these regional parkways. Even when employees are considered, most of the resulting trips are oriented to and from regional roadways, particularly to and from north of the site on Meadowbrook State Parkway with easy access to and from Charles Lindbergh Boulevard and direct access via an improved signalized intersection to access the site on Charles Lindbergh Boulevard. The trips were also distributed along local roadways as well for employees located in populated areas near the site or employee home locations with local routing shorter or equivalent to traveling along Parkways.

Certain assigned routes in the vicinity of the proposed Integrated Resort may experience delays caused by crashes or other events and result in traffic diversions when using navigation apps with real time data. As shown above, geometric improvements and traffic signal improvements are proposed at intersections surrounding the Integrated Resort along Charles Lindbergh Boulevard and

Hempstead Turnpike. As a more significant percentage of traffic is oriented to and from the north, potential diversion routes to and from the north were considered.

One such diversion is for traffic from the northeast that may be redirected to travel via Merrick Avenue. Merrick Avenue is an arterial where a number of traffic signal timing changes have been proposed in order to improve the operations along this corridor to help get the most efficiency out of those intersections during the typical condition or during a particular diversion period. Specifically, there are traffic signal improvements proposed at Merrick Avenue at Corporate Drive and Merrick Avenue at Privado Road. Another potential diversion would be if drivers were to leave the Meadowbrook State Parkway due to congestion or an event on that roadway. An evaluation of routing provided by Google Maps indicates that even if vehicles leave the Meadowbrook State Parkway, they will then access the site via Quentin Roosevelt Boulevard and Charles Lindbergh Boulevard. Based on the levels of service summarized in the tables above, with the traffic signal improvements described above, capacity on critical approaches likely to accommodate diversion traffic was increased by as much as 50 percent. Therefore, both of these roadways have the capacity to accommodate additional traffic. Based on review of the roadway systems and routing provided by Google Maps, these are the likely roadways to receive traffic from Meadowbrook State Parkway diversions from the north. While it is possible that a driver may divert to another roadway, there is no traffic engineering methodology that can accurately predict the personal choice that a driver may make regarding specific roadway diversion.

Traffic Signal Warrant Analysis

During the scoping process, a comment was raised regarding the consideration of roundabouts as an alternative to signalized intersections. Due to the importance of facilitating significant levels of pedestrian traffic on the site, the use of traditional intersections with pedestrian accommodations, including positive pedestrian control (as opposed to roundabouts), was chosen due to the safety and capacity advantages of the intersections. Regarding site access points, the site is currently served by five signalized points of access that will remain signalized. A new traffic signal is proposed at a new main access point on Charles Lindbergh Boulevard at Sands Boulevard. In this location, the potential for a roundabout was dismissed given the nature of Charles Lindbergh Boulevard (the number of lanes) and necessary proximity of the entry onto the roadway from the truck/bus exit from the lower level of Garage A.

Consistent with the Final Scope, a traffic signal warrant analysis was conducted for the intersection of Charles Lindbergh Boulevard and the proposed Sands Boulevard (proposed new external signal), which will provide access to the project site as well as locations internal to the site where traffic signals are proposed (1 external location, 6 internal locations). These analyses were performed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) 11th Edition[17] There are nine warrants described in the MUTCD and it indicates that a traffic control signal should not be installed unless one of more of the factors described in Chapter 4C., Traffic Control Signal Needs Studies are met, and in consideration of engineering judgement. For this analysis, the four traffic signal warrants were considered and are outlined below:

› Warrant 1, Eight-Hour Vehicle Volume

[17] Manual on Uniform Traffic Control Devices 11th Edition, FHWA, December 2023

- Warrant 2, Four-Hour Vehicle Volume
- Warrant 3, Peak Hour
- Warrant 4, Pedestrian Volume

The results of the 2030 Build condition traffic signal warrant analysis for Warrants 1, 2, 3, and 4 are discussed below and summarized in Table 68. The detailed technical analysis is provided in Attachment T. The intersections for which traffic signal warrants were considered are as follows:

- Charles Lindbergh Boulevard at Sands Boulevard
- Sands Boulevard at North Drive
- Sands Boulevard at Hotel Tower 1 Loop
- North Drive at Hotel Tower 2 Loop/Garage A West Access
- North Drive at Garage A East Access
- South Drive at Garage B Access
- West Drive at Garage C Access/MSKCC Access

The warrant analyses presented in Attachment T indicate that of the seven locations noted above, four meet at least one warrant as discussed below.

Charles Lindbergh Boulevard at Sands Boulevard

The 2030 Build condition hourly data for the proposed Charles Lindbergh Boulevard and Site Access intersection was adjusted to reflect hourly volumes per lane and evaluated against the signal warrant criteria. As shown in Table 68 below, the future traffic volumes satisfy the traffic volume criteria for Warrants 1, 2, and 3. Based upon the results of the signal warrant analysis, a traffic signal is warranted at this location based on all three hourly criteria.

Table 68 Signal Warrant Analysis Summary- Charles Lindbergh Boulevard at Sands Boulevard

Condition	Warrant 1: Eight Hour	Warrant 2: Four Hour	Warrant 3: Peak Hour Volume
2030 Build	Met	Met	Met

Sands Boulevard at North Drive

The 2030 Build condition hourly data for the proposed Sands Boulevard and North Drive intersection was used to evaluate the signal warrants. As shown in Table 69 below, the future traffic volumes satisfy the traffic volume criteria for Warrants 1, 2 and 3. Based upon the results of the signal warrant analysis, a traffic signal is warranted at this location.

Table 69 Signal Warrant Analysis Summary- Sands Boulevard at North Drive

Condition	Warrant 1: Eight Hour	Warrant 2: Four Hour	Warrant 3: Peak Hour Volume
2030 Build	Met	Met	Met

North Drive at Hotel Tower 2 Loop/Garage A West Access and North Drive at North Drive at Garage A East Access (Two Locations)

The 2030 Build condition hourly data for the proposed intersections along North Drive include high volumes entering the parking garage at the east end and exiting the parking garage at the west end. Between these two locations is the area in which pedestrians will cross from the parking garage into the Integrated Resort. Because the anticipated travel patterns result in lower conflicting vehicular traffic at these locations, the vehicular traffic signal warrants are not met. However, traffic signals are critical to providing safe crossings for the over 1,000 peak hour pedestrians that will cross this segment during the peak hour. This level of pedestrian volume is significantly higher than the pedestrian volume criteria for Warrant 4. Therefore, a traffic signal is warranted at this location.

Table 70 Signal Warrant Analysis Summary- North Drive at Garage Access Points (Two Locations)

Condition	Warrant 1: Eight Hour	Warrant 2: Four Hour	Warrant 3: Peak Hour	Warrant 4: Pedestrian Volume
2030 Build	Not Met	Not Met	Not Met	Met

Regarding the remaining three proposed signalized intersections, the MUTCD indicates that a traffic control signal should not be installed unless one or more of the factors described in this Chapter are met and should also consider engineering judgement. Although based on the anticipated capture area and arrival and departure patterns, trips were assigned to their closest access point and garage that is accessible to them (employees were only assigned to employee garages), once the Integrated Resort is operating, there may be some redistributions of regular patrons from Garage A to Garage B and C which are likely to have significant availability during the weekdays. If this redistribution is to occur, the traffic signal infrastructure needs to be in place to safely process those trips. Further, when peak events occur in the Meetings and Conference space or Theater, significant entries and exits will occur at the intersections along West Street and South Street and significant levels of pedestrian crossings could be experienced there as well as at the intersection of Sands Boulevard at the Hotel Tower 1 Loop and surface parking field access. The presences of traffic signals will ensure that these trips, and trips in to and out of MSK, continue to be processed efficiently and safely. It is therefore, based on engineering judgement, recommended that these traffic signals be installed.

Roadway Improvement Permitting Agencies

The roadways and intersections in the study area identified for evaluation in this TIS fall under the jurisdiction of several municipalities and agencies. The responsible jurisdiction for the principal roadways in this study are identified previously in Section 2 of this report. Any roadway improvements identified in this report as mitigation or access improvements will require design review and a Highway Work Permit from the appropriate jurisdiction for each location. Table 71 below presents the governing jurisdiction responsible for this review and permitting for the roadways and intersections in this study.

Table 71 Roadway and Intersection Governing Jurisdictions

Roadway or Intersection	Jurisdiction
Meadowbrook State Parkway	NYSDOT with consultation with NYS Office of Parks, Recreation & Historic Preservation
Roadway Segments away from intersections	NYSDOT, NCDPW or Town
Intersection of State Highways	NYSDOT
Intersection of Nassau County (NC) Highways	NCDPW
Intersection of State with NC and/or Town Roadways	NYSDOT
Intersection of NC with Town Roadways	NCDPW

5

Parking, Site Access and Circulation

The success of an Integrated Resort is deeply connected to the ability for the employees and visitors to access and circulate around the site. The provision of enough parking to adequately accommodate future needs, while not inadvertently incentivizing vehicular travel is also connected to the success. The following section outlines details of the parking, site access and circulation of the site.

Parking

The proposed Integrated Resort will be served by both surface parking fields and structured parking. These parking garages and parking fields are located such that ample parking will be available close and convenient to the components of the resort to serve site visitors and employees. The sections below evaluate and discuss the parking needs associated with the components of the Integrated Resort, the overall Integrated Resort site and how those needs are met with the parking provided.

Off-Street Parking Requirements

With the proposed establishment of the Mitchel Field Integrated Resort District (MF-IRD), specific parking requirements related to the non-residential uses proposed will be as follows:

- Casino/Gaming Area: One Space per 200 Square Feet
- Gaming Circulation and Support: One Space per 200 Square Feet
- Conference Center: One Space per 200 Square Feet
- Conference Banquet Hall: One Space per 100 Square Feet

- Support Areas (back and front of house): One Space per 500 Square Feet
- Central Utility/Mechanical Area: One Space per 10,000 Square Feet

In addition, any non-residential uses that are not specifically referenced in the proposed MF-IRD zoning refers back to the parking requirements enumerated within §319A of the Town of Hempstead Building Zone Ordinance. From a review of this section, the following requirements are relevant to the proposed Integrated Resort:

- Hotel: One Space per Room
- Retail Area: One Space per 200 Square Feet
- Restaurant Area: One Space per 100 Square Feet or One Space per 3 Seats (whichever is higher) plus One Space Per 4 Employees
- Entertainment Venue: One Space per 3 Seats
- Public Attraction: One Space per 200 Square feet

Applying these regulations to the Integrated Resort as proposed, the total parking requirement is show in Table 72 below.

Table 72 Parking Required per Proposed MF-IRD Code

Component	Town Code	Proposed Square Footage	Parking Required (stalls)
Casino/Gaming	1 per 200 sf	393,726 sf	1,969
Gaming Circulation/Support	1 per 200 sf	300,196 sf	1,501
Support Areas	1 per 500 sf	688,068 sf	1,377
Conference Center	1 per 200 sf	234,653 sf	1,175
Hotel	1 per Room	2,288 Rooms	2,288
Retail	1 per 200 sf	55,507 sf	278
Restaurant	1 per 100 sf	162,792 sf	1,628
Rest. Employees	1 per 4 Employees	1,411 emp.	353
Entertainment Venue	1 per 3 Seats	4,500 seats	1,500
Public Attraction	1 Per 200 sf	60,000 sf	300
Central Utility Plant/Mechanical Space	1 per 10,000 sf	416,874 sf	42
Total			12,411

As depicted on the Conceptual Master Plan prepared by H2M dated July 17, 2023, the Integrated Resort will provide 9,963 spaces within the on-site parking garages and another 2,487 parking stalls in surface level lots. Therefore, 12,450 spaces in total will be provided, which results in more than adequate parking with respect to the MF-IRD regulations.

Parking Demand – Full Build

As presented above, parking is provided on the site through a combination of on-grade surface parking and as well as above-, at-, and below-grade parking in garages. As described in a later section of this report, certain garages and parking areas are intended for specific patrons or employees of the facility. While it has been demonstrated above that the parking provided meets town code requirements under the proposed MF-IRD , as required in the Final Scope, a parking demand analysis has been performed to confirm the parking provided will accommodate actual anticipated peak parking demands.

This parking demand analysis relies on data contained in ITE's *Parking Generation, 6th Edition*,[18] which is a widely used and accepted source for parking demand data for various land uses, including many proposed in the Integrated Resort.

From these references, the peak parking demand rates used for each of these uses on a typical weekday, on Friday and on Saturday are as follows:

Quality Restaurant (ITE LUC 931):	19.66 parked vehicles per 1,000 SF GLA on a weekday
	22.41 parked vehicles per 1,000 SF GLA on a Friday
	27.35 parked vehicles per 1,000 SF GLA on a Saturday
Shopping Center (ITE LUC 822):	4.44 parked vehicles per 1,000 SF GLA on a weekday
	5.45 parked vehicles per 1,000 SF GLA on a Friday
	4.36 parked vehicles per 1,000 SF GLA on a Saturday
Live Theater (ITE LUC 441):	0.52 parked vehicles per seat on a weekday
Hotel (ITE LUC 310):	0.87 parked vehicles per room on a weekday
	0.87 parked vehicles per room on a Friday
	0.98 parked vehicles per room on a Saturday

In addition, the following peak parking demand rates represent the peak expected for the gross square feet of uses not provided in available industry standard data, but as derived from information provided by Sands.

Casino Patrons:	2.50 parked vehicles per 1,000 SF gaming space on a weekday
	3.87 parked vehicles per 1,000 SF gaming space on a Friday
	7.71 parked vehicles per 1,000 SF gaming space on a Saturday

[18] Institute of Transportation Engineers. *Parking Generation*, Sixth Edition (2023).

Casino Employees:	2.53 parked vehicles per 1,000 SF gaming space on a weekday
	2.94 parked vehicles per 1,000 SF gaming space on a Friday
	2.94 parked vehicles per 1,000 SF gaming space on a Saturday
Public Attraction:	0.87 parked vehicles per 1,000 SF on a weekday
	3.17 parked vehicles per 1,000 sf on a Friday
	3.17 parked vehicles per 1,000 SF on a Saturday
Meetings and Conference Space	1.68 parked vehicles per 1,000 SF on a weekday
	1.68 parked vehicles per 1,000 sf on a Friday
	0.51 parked vehicles per 1,000 SF on a Saturday

These parking demand rates were used in the parking analysis spreadsheets included in Attachment U.

The parking spreadsheet was populated with the following uses and sizes in keeping with the scenario analyzed for the Full Build condition:

1. 31,200 sf Leasable Retail Space (ITE LUC 822)
2. 48,940 sf Leasable Restaurant Space (ITE LUC 931)
3. 2,288 Room[19] Hotel (ITE LUC 310)
4. 4,500 Seat Live Theater (ITE LUC 441)
5. 393,726 sf of Casino Gaming Space (FOH)
6. 60,000 sf Public Attraction Space
7. 234,653 sf Meetings and Conference Center Space

As shown in the spreadsheets, the peak level of activity is projected to be 7,995 parked vehicles on the typical weekday and 8,861 parked vehicles on a Friday. In comparison with the parking to be provided on the site, the peak demand during either a typical weekday or a Friday would be accommodated with the parking capacity proposed on site.

In comparison with the weekday and Friday, the peak demand for parking for the Integrated Resort on a Saturday will be greater than any other day. The maximum overall parking demand for the Integrated Resort is estimated to be 10,561 parked vehicles on Saturday. Accordingly, even on the highest demand day of the week, the parking provided would still be adequate to accommodate this activity without resulting in undue congestion.

[19] This includes the proposed 1,670 hotel rooms at the Integrated Resort as well as the existing 618 Marriott hotel rooms, as parking at the Marriott is proposed to be reconfigured and also serve the proposed Integrated Resort.

As explained later in this study, virtually all parking on the site will be required during construction and particularly during the time of overlap when Phase 1 is operational, and Phase 2 is under construction. Sands will work with the Town of Hempstead during site plan review to potentially landbank[20] surface parking areas along Hempstead Turnpike to increase landscaping until a time when additional parking is required to support Integrated Resort operations (if such condition occurs).

Parking Demand - Phase 1

A parking demand analysis was prepared for the Phase 1 buildout scenario to demonstrate the adequacy of parking during that time period. The methodology and assumptions employed for this scenario were the same as those utilized for the full build scenario, but the development includes only the following components:

1. 1,200 sf Gross Leasable Retail Space (ITE LUC 822)
2. 17,200 sf Gross Leasable Restaurant Space (ITE LUC 931)
3. 618 Room Hotel (ITE LUC 310)[21]
4. 129,071 sf of Casino Gaming Space (FOH)

It is noted that the hotel component of the Phase 1 scenario is associated with the rooms contained within the existing Marriott Hotel; Phase1 of the Integrated Resort does not include the construction of new hotels. Regardless, the above components were incorporated into similar parking analysis spreadsheets to those developed for the Full Build condition to determine the parking demand associated with Phase 1.

The results of the parking demand calculations are contained in Attachment U.

As depicted in Attachment U, the parking demand analysis forecasts similar trends in peak demands for Phase 1 as with the Full Build. The peak demand for a typical non-Friday weekday was calculated to be 1,437 parked vehicles and the peak demand for the typical Friday was calculated to be 1,808 parked vehicles.

In comparison with the weekday and Friday, the peak parking demand for Phase 1 of the Integrated Resort on a Saturday will be greater than any other day. This is to be expected as the activity for the restaurants, hotel, and the gaming space of the casino is projected to be greatest on this day of the week. Due to this, the maximum overall parking demand for the Integrated Resort is estimated to be 2,365 parked vehicles on the Saturday. However, despite the fact that this demand is higher than any other day of the week, the parking provided would still be more than adequate to accommodate this activity without resulting in undue congestion.

Based on the above analysis, the proposed parking provided on site will be adequate to accommodate the generated activity with both Phase 1 and Full Build.

[20] Landbanking would allow for temporary landscaping of surface parking spaces until such time the parking spaces are needed to accommodate visitors to the proposed Integrated Resort.

[21] Represents existing Marriott Hotel

Site Access and Circulation

As shown in Figure A-15, the proposed Integrated Resort will include the modification of several of the existing site driveways along with the addition of new access points in order to help minimize the impacts to the surrounding roadway network. On-site circulation will be accomplished via a series of internal roadways configured to efficiently allow the various types of site users (e.g., passenger cars, shuttle buses, delivery trucks) to access and move about the site.

Site Access

The project site is bounded by four roadways of Town, Nassau County and New York State ownership and currently served by a number of access points which accommodated well attended events at the Nassau Veterans Memorial Coliseum. While activity at the Coliseum in recent years has declined, the access points to the site accommodated events at the location which were regularly attended by up to 16,000 people.

Access to the project site is currently provided via both signalized and unsignalized access points. The proposed access plan is well developed to accommodate all visitors to the site and works in a coordinated manner with the proposed internal roadway system. The proposed access points are indicated on the Conceptual Master Plan and described as follows:

Hempstead Turnpike – Currently, access is provided via two direct signalized access points and indirectly via James Doolittle Boulevard. The current main access to the site is a signalized access point opposite Glenn Curtiss Boulevard. The second signalized access point is provided to the west adjacent to the Memorial Sloan Kettering Cancer Center and serves the project site as well as that medical facility. As depicted on the CMP, access to two surface parking fields will be provided from James Doolittle Boulevard which currently, and will continue to be accessed via right-turns in and out only at its intersection with Hempstead Turnpike. The Integrated Resort main entrance on Hempstead Turnpike (noted as Sands Boulevard on the CMP) will be reconfigured at the intersection as shown on the CMP to better accommodate projected traffic levels. These proposed changes are depicted on the Mitigation Concept Plans contained in Attachment P to this report. The intersection to the west that (labeled West Drive on the CMP) serves both the site and MSKCC will be essentially retained as is.

Earle Ovington Boulevard – Currently, access is provided via two direct signalized access points as well as a pair of unsignalized, gated access points that were used only during large events at the Coliseum. The southern signalized access point, opposite the East Gate Drive access to Hofstra University would continue in that location with minor changes to the westbound site exit as shown on the CMP. The signalized intersection at the northern access point on Earle Ovington Boulevard would see significant changes to the westbound approach as well as the provision of an additional eastbound left turn lane and the addition of a southbound U-turn lane. These proposed changes are depicted on the Mitigation Concept Plans contained in Attachment P to this report. The existing unsignalized access points will continue to provide access to the proposed site via unsignalized right turn out only intersections. As shown on the CMP, a new one-way access roadway is proposed from Earle Ovington Boulevard just north of the northerly signalized access point. This roadway will provide direct access to the lower level of Garage A and serve buses and delivery vehicles.

Charles Lindbergh Boulevard – Currently, access along Charles Lindbergh Boulevard is provided via two unsignalized access points via right-turns only. A gated exit-only access is present central to the site that was used only during large events at the Coliseum. To the east, James Doolittle Boulevard provides access into the site. The operation of these right-in/right-out access points is supported by the presence of large turnarounds in the roadway median that allow vehicles from either direction to enter and exit the site on Charles Lindbergh Boulevard.

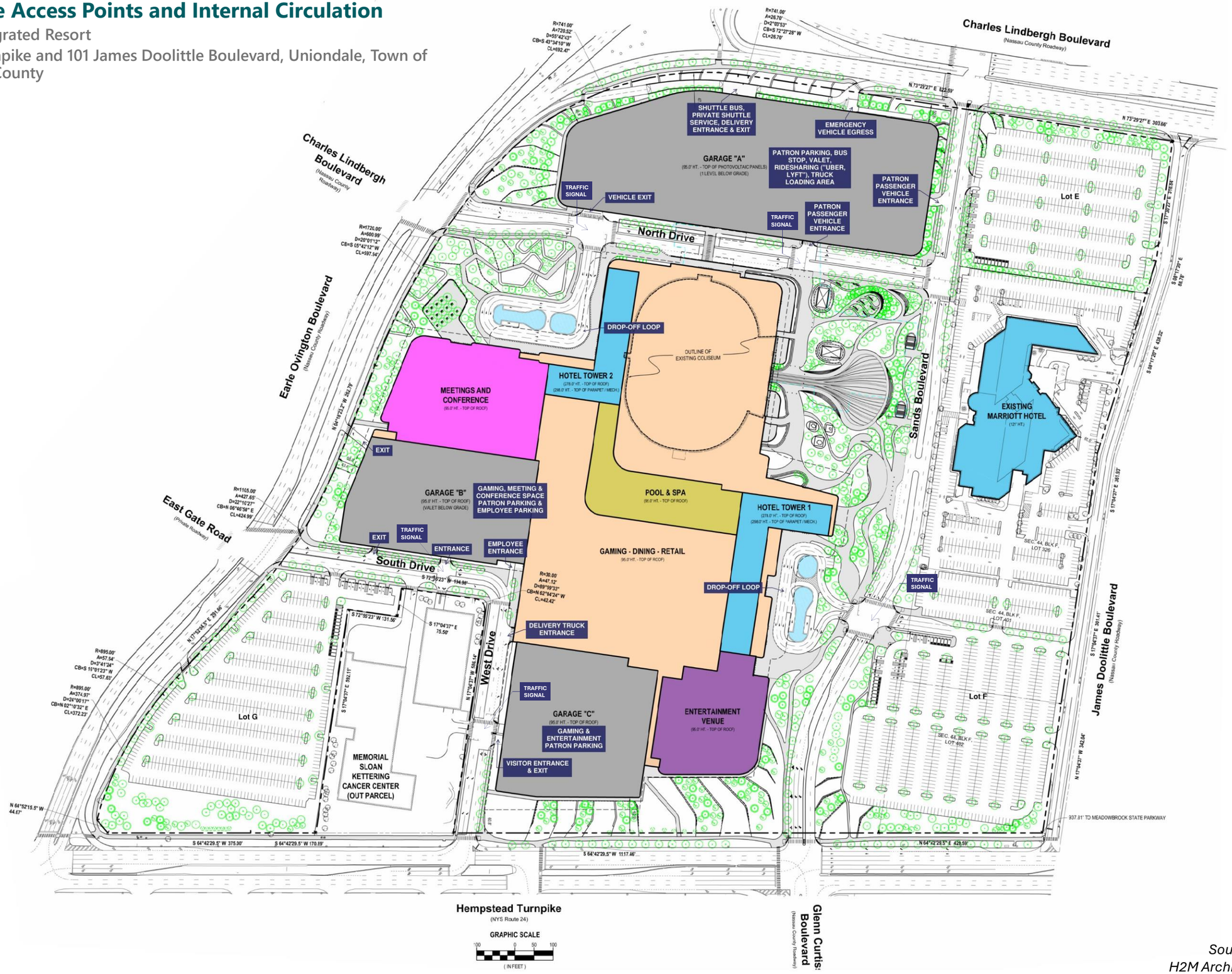
Significant changes are proposed along Charles Lindbergh Boulevard and to the site's access in this area as part of the Integrated Resort. These proposed changes are depicted on the CMP as well as on Mitigation Concept Plans contained in Attachment P to this report. A new signalized intersection is proposed at the northern terminus of Sands Boulevard in the vicinity of the existing gated egress to Charles Lindbergh Boulevard currently used at the end of large events at the Coliseum. This new intersection will allow for westbound left-turns into the site and efficient movement of vehicles between the site and the Meadowbrook State Parkway. The intersection of James Doolittle Boulevard at Charles Lindbergh Boulevard will be modified to a more conventional geometry and remain as right-turns in and out only. The westerly median turnaround will be removed as U-turns will be accommodated as left turns at the signalized Sands Boulevard intersection. A one-way exit from the lower level of Garage A that will serve exiting buses and delivery vehicles will join Charles Lindbergh Boulevard west of the Sands Boulevard intersection.

James Doolittle Boulevard – As depicted on the CMP, James Doolittle Boulevard will continue to provide access to the existing hotel, as well as surface parking fields to its north and south at unsignalized access points. In addition, a third access on James Doolittle Boulevard is proposed connecting east-west to Sands Boulevard.

Figure A-15 Site Access Points and Internal Circulation

Sands New York Integrated Resort

1255 Hempstead Turnpike and 101 James Doolittle Boulevard, Uniondale, Town of Hempstead, Nassau County



Source: Conceptual Master Plan, H2M Architects + Engineers 04/02/2024

Site Circulation

The development of the Integrated Resort will include a robust set of internal roadways to allow for the efficient circulation of all users to and from the site access points to their destinations on the site. The site access points are depicted on the CMP and described above. Additional details related to the discussion below are depicted on Figure A-15. Destination points on the site include parking areas (both structured and surface), passenger pick-up and drop-off areas, valet services, shuttle and bus operations areas and delivery services. The site design, as depicted on the CMP provides four site roadways for vehicular circulation within the site.

Sands Boulevard -The major site roadway is noted as Sands Boulevard on the CMP and extends from Hempstead Turnpike northerly through the site to a new signalized intersection at Charles Lindbergh Boulevard. Each end of this roadway serves as a major access point to the Resort and will be signalized. The roadway is generally two lanes in each direction divided by a raised median. Sands Boulevard provides direct access to both easterly surface parking fields, the drop-off loop adjacent to Hotel Tower 1 and Garage A. Circulation to and from Earle Ovington Boulevard is provided via its intersection with North Drive, which also provides access to Garage A and the drop-off loop adjacent to Hotel Tower 2. Sands Boulevard will be signalized at its intersection with the drop-off loop to Hotel Tower 1 and at North Drive.

North Drive – North Drive extends from its signalized intersection with Earle Ovington Boulevard, opposite the terminus of the eastbound leg of Charles Lindbergh Boulevard to its terminus at Sands Boulevard, also signalized. The roadway is generally two lanes in each direction divided by a narrow median. North Drive provides direct access to Garage A and the drop-off area adjacent to Hotel Tower 2 at two signalized intersections as shown on the CMP.

West Drive – West Drive extends north from its signalized intersection with Hempstead Turnpike to South Drive. At Hempstead Turnpike, the access road is offset to the west along Hempstead Turnpike from Cunningham Avenue which is under common traffic signal control. The roadway is generally two lanes in each direction. West Drive will provide direct access to Parking Garage C as well as continue to provide access to MSKCC. West Drive provides indirect access to Earle Ovington Boulevard via South Drive. West Drive's intersection with South Drive is provided with a roadway curvature through the intersection rather than traffic control.

South Drive - South Drive extends from its signalized intersection with Earle Ovington Boulevard, opposite the East Gate Drive access to Hofstra University to its terminus at West Drive. The roadway is generally two lanes in each direction. South Drive provides direct access to Garage B, the southwest surface parking field and MSKCC.

The drop-off loops adjacent to the two hotel towers will serve hotel guests that wish to valet their vehicles that will then be stored via underground connections to Garage C for Hotel Tower 1 and Garage B for Hotel Tower 2. Garage C will be used by patrons visiting the Integrated Resort that wish to park near to the Entertainment Venue, while Garage B would be used by visitors to the Meetings and Conference Space. Garage B will also be used by employees with private vehicles and for employee drop-off. It is expected that Garage A will be used by the majority of visitors to the Integrated Resort, as explained below.

Garage A will be accessed at five points. A right-turn enter only access is provided from southbound Sands Boulevard for patron passenger vehicles. On North Drive, the easterly access allows entry for

both eastbound and westbound patron vehicles at a signalized access. The westerly access allows for vehicles to exit to the east and west on North Drive at a traffic signal.

Garage A also accommodates both shuttle buses associated with the proposed private shuttle service to and from the transit center and LIRR station in Hempstead Village and the larger private bus service that will serve the larger area to bring patrons to the site. As depicted on the CMP, a dedicated site roadway is provided from Earle Ovington Boulevard at the northwest corner of the site that enters Garage A on the north side. These buses are accommodated in the underground level of the parking garage and a pedestrian walkway provided into the casino building under North Drive. Buses exit Garage A in the same location, leaving the site via a site roadway that then connects to eastbound on Charles Lindbergh Boulevard. Finally, an exit only is provided on the north side of Garage A to facilitate the easy egress of emergency vehicles which will be staged on the east side of the ground floor of the garage. Valet service for patron passenger cars is provided in a dedicated area on the ground floor of Garage A as is ridesharing/Ride-Hailing such as Uber and Lyft.

Garage A and Garage C will accommodate delivery vehicles to the site. Garage A will accommodate delivery trucks on its north side, using the same access and egress method as the buses, described above and will use a dedicated loading area in the underground level. Delivery trucks will access Garage C at the north entrance along West Drive. It is noted that security measures will be in place at each of these garages to control the entry of the buses and delivery vehicles into the building.

Garage B will have four points of access. At the intersection of West Drive and South Drive a northbound, entrance-only access from Hempstead Turnpike is provided for employees. A central signalized access point is provided for entering vehicles only from either direction, while the westerly access point provides for exiting vehicles to the west only. On Earle Ovington Boulevard, and exit-only to the northbound direction is provided in the location of an existing exit from what is now a surface parking field. This additional exit will allow for travel to the north only. Garage B will accommodate personal vehicles of the employees of the Integrated Resort.

Garage C is served by two access points, the northern being the above-discussed delivery truck access. A visitor access is provided on West Drive central to the garage opposite the MSKCC access and will be signalized.

The proposed access points and internal roadways are designed to well accommodate anticipated traffic levels at the site in an efficient and safe manner and have been evaluated in detail to ensure their operations.

6

Transportation Demand Management

The Project Transportation Demand Management (TDM) plan provides a cohesive approach to establish a targeted set of strategies aimed at reducing single occupancy vehicle trips to and from the proposed site. The TDM plan describes how the Integrated Resort will provide information and education, enhance alternative transportation infrastructure and mobility and incentivize staff and visitors so that they use more sustainable, Multi-Modal commuting options such as walking, bicycling, transit, and carpooling.

Mobility Context

As described in earlier sections, the project site is located in an area well served by an extensive multi-use path system and sidewalk network to provide connections into adjacent residential neighborhoods and college campuses, as well as numerous transit opportunities via NICE Bus routes N16x, N43, N70 and N71 that stop along the site borders and additional routes that pass nearby and provide connections to the LIRR and beyond. As previously discussed, Nassau County is proposing a BRT project that will provide an upgrade and extension of the transit network in the area known as the "Nassau Hub." The Integrated Resort will leverage and expand upon these base options to encourage a significant number of trips by alternative modes.

Transit Impacts on Public Bus Services

The proposed Integrated Resort is anticipated to generate additional ridership demand on existing local transit services, specifically NICE Bus service. This section evaluates the anticipated transit ridership for the proposed Integrated Resort and compares the Integrated Resort's demands against existing NICE bus capacity. LIRR train stations in the vicinity of the site were presented previously in Section 2 of this report on Figure A – 11. Existing NICE bus routes in the project area were presented in that section on Figure A – 12.

Based on the trip generation estimates for the proposed Integrated Resort, Table 73 below presents a summary of total external person-trips for transit services, including bus (NICE bus) and shuttle service to the LIRR and NYC. These values represent the total number of people using transit modes to travel to/from the Site, consistent with the previously presented assumptions regarding travel modes, vehicle occupancy, and internal capture presented in Tables 12, 13, and 14 respectively. The assumed vehicle occupancy factors for transit services are 10, 25, and 45 passengers per trip for Bus, LIRR Shuttle, and Coach Shuttle, respectively. Of the peak hours evaluated, the period with the highest transit trip impact is the Saturday Evening Peak Hour, with 1,072 total transit person trips, 248 bus person trips.

Table 73 Project-Generated Transit Person Trips by Transit Mode

Peak Hour	Bus	LIRR Shuttle	Coach Shuttle	Total
Weekday AM (7:30 to 8:30 a.m.)	146	55	49	250
Weekday PM (5:00 to 6:00 p.m.)	149	160	144	453
Friday Evening (6:00 to 7:00 p.m.)	177	274	254	705
Saturday Midday (1:15 to 2:15 p.m.)	172	314	296	782
Saturday Evening (7:15 to 8:15 p.m.)	248	423	401	1,072
Total	**892**	**1,226**	**1,144**	**3,262**

Note: Person trips presented in Table 61 represent both entering and exiting trips.

NICE Bus routes closest to the project site include the N43, N70, N71, N16/16x, and N27 as described earlier in Section 2 of this document. Based on recent (2024) information from Nassau County Transit Division, typical buses along NICE Bus routes have capacity for 39 seated passengers and 28 standing passengers, for a total of 67 passengers. Nassau County guidelines provide maximum acceptable passenger loads for peak and off-peak periods: for a weekday peak period, the capacity threshold is 150% of a seated load (approximately 59 passengers), and during all other times, the capacity threshold is 125% of a seated load (approximately 49 passengers). These passenger capacity guidelines can be used in conjunction with existing bus schedules to develop total policy capacity thresholds for a service day, or for a specific peak period.

Table 74 below provides a summary of the existing (Fall 2023) ridership and capacity characteristics of routes serving the proposed Integrated Resort. For each route, the number of trips over the course of the service day was multiplied by the passenger capacity thresholds (peak and off-peak) to determine a daily policy capacity threshold, or the maximum number of riders who could use the service at any given time.

Table 74 Comparison of Daily Boardings and Passenger Capacity by Bus Route

Route	Direction	Fall 2023 Average Daily Boardings (Sum of All Trips)[1]	Peak Trips[2]	Off-Peak Trips	Total Trips	Daily Policy Capacity Threshold[3]	Average Policy Capacity by Trip
N43	Northbound	899	8	29	37	1,882	50.9
	Southbound	1,103	8	28	36	1,833	50.9
N70/71	Eastbound	944	14	41	55	2,818	51.2
	Westbound	1,127	15	40	55	2,828	51.4
N16/16x	Northbound	877	8	26	36	1,736	48.2
	Southbound	768	8	28	34	1,833	53.9
N27	Northbound	418	7	15	22	1,141	51.9
	Southbound	530	8	17	25	1,297	51.9

1 Source: Data provided by Nassau County Transit Division on January 30 and February 26, 2024.

2 Source: Nassau Inter-County Express Map & Schedules, effective February 12, 2024. Note that "peak" trips were assumed to occur between the hours of 7:00 – 9:00 a.m. and 4:00 – 6:00 p.m.

3 Represents the total number of peak and off-peak trips, multiplied by their respective passenger capacity thresholds.

Of the existing NICE Bus routes serving the subject property, routes N70/71 (ridership data for these two routes is combined) have the most frequent service (and thus, the highest daily policy capacity threshold). This service runs 55 eastbound trips with a total maximum capacity of 2,818 passengers and 55 westbound trips with a total maximum capacity of 2,828 passengers. For comparison, the average daily boardings in Fall 2023 were 944 passengers for eastbound service and 1,127 passengers for westbound service. It should be noted that the policy capacity threshold refers to a maximum passenger load (rather than boardings). Because not all passengers who board will remain on the bus for the entire route, the number of daily boardings cannot be compared with the daily policy capacity threshold as an indication of existing passenger loads. Because existing passenger load information was not available upon request[22], this comparison is simply meant to illustrate that there is ample capacity among local NICE bus services. Electronic correspondence requesting passenger load information is included in Attachment I.

In Table 75, the total project-generated bus riders are compared against the policy capacity thresholds calculated for each individual peak hour.

[22] Electronic correspondence between VHB and NICE Bus representatives, February 9, 2024

Table 75 Bus Capacity by Peak Hour vs. Project-Generated Bus Ridership

Peak Hour	Number of Trips Serving Project Site[1]								Total	Peak Hour Policy Capacity Threshold[2]	Total Project-Generated Bus Riders
	N43		N70/71		N16/16x		N27				
	NB	SB	EB	WB	NB	SB	NB	SB			
Weekday AM (7:30 to 8:30 a.m.)	2	2	4	4	3	3	3	3	24	1,404	146
Weekday PM (5:00 to 6:00 p.m.)	2	2	3	4	2	3	1	2	19	1,112	149
Friday Evening (6:00 to 7:00 p.m.)	2	2	3	4	2	3	1	1	18	878	177
Saturday Midday (1:15 to 2:15 p.m.)	2	2	2	2	0	0	0	0	8	390	172
Saturday Evening (7:15 to 8:15 p.m.)	2	1	2	2	0	0	0	0	7	341	248

1 Source: Nassau Inter-County Express Map & Schedules, effective February 12, 2024.

Of the peak hours analyzed, the Weekday AM peak hour has the most existing bus service at the proposed Integrated Resort (24 trips with a total maximum capacity of 1,404 passengers). During this period, the Integrated Resort is anticipated to generate 146 bus riders, which represents a small portion of the peak hour capacity (approximately 10%). The peak hour with the highest volume of project-generated bus riders is the Saturday Evening peak hour, during which 248 bus riders are anticipated to travel to/from the Site. The total available capacity during this hour is 341 passengers, representing N43 and N70/71 bus service (the N16 and N27 services do not run on weekends). The sum of all Integrated Resort riders on public buses would therefore account for approximately 73% of the total available capacity during the Saturday Evening peak hour.

However, each bus may have both boardings (trips exiting the Site and boarding a bus) and alightings (trips alighting a bus and entering the Site) associated with the Integrated Resort. The 248 Saturday Evening peak hour person trips represent 116 entering trips and 132 exiting trips, which, if distributed evenly among the seven buses during this time period, would account for 17 passengers alighting and 19 passengers subsequently boarding each bus. Based on the off-peak policy capacity of 49 passengers, among the seven Saturday Evening bus trips at the Site, on average, the existing passenger load would need to remain at or below 30 passengers to stay under the policy capacity threshold.

As a point of reference, the average boardings for each bus trip in Fall 2023 were provided by Nassau County Transit Division. On Route N43 during the Saturday evening peak hour, the trip with the highest average number of passengers had 21.5 total boardings (for all stops along the trip). On Route N70/71, the trip with the highest average number of passengers had 26.8 total boardings. Because these values represent total boardings for the trip, average existing passenger loads at any given point will be lower than 21.5 or 26.8 on N43 and N70/71 services, respectively. Therefore, it is anticipated that the Integrated Resort, while accounting for an increase in demand at NICE bus stops near the Site, will likely not trigger any passenger crowding exceedances during the analysis periods.

Transit Impacts on Long Island Rail Road

As outlined above, the proposed Integrated Resort is anticipated to generate additional ridership demand as a result of the Sands-provided shuttle to and from the LIRR Hempstead Station. Thus, the anticipated ridership demand on the LIRR was reviewed.

Based on review of publicly available documents[23], summarizing ridership data on the LIRR, the capacity to accommodate potential increased ridership associated with the proposed Integrated Resort can be assessed. In 2023, the LIRR carried 65.2 million riders, which represents 25.9 million riders, or 28 percent, fewer than the peak ridership of 91.1 million riders in 2019. A significant LIRR Origin-Destination study[24] was conducted in 2014 that noted the boardings and alightings associated with the Hempstead line at that time. During the AM peak, 4,707 riders boarded the Hempstead line and during the PM peak, 4,378 riders alighted on the Hempstead line. On the entire Saturday, only 1,968 boarded on the Hempstead line over the course of the day and only 2,224 riders alighted. Applying a similar reduction factor on the Hempstead line, as has been observed throughout the LIRR network, this results in a corresponding reduction of over 1,000 riders since pre-pandemic peak levels during the highest period of ridership in the PM peak.

As outlined in Table 68 above, the Integrated Resort demand for the LIRR Hempstead Line during the PM commuter peak hour is 160 person trips, which is significantly less than the post-pandemic difference in ridership on this line. The highest LIRR demand due to the Integrated Resort is expected in the Saturday evening peak hour with 423 peak hour person trips. Although site related demand is higher during the Saturday evening peak hour than the LIRR critical PM peak, the added demand would still result in ridership significantly below the peak ridership experienced in 2019. Thus, capacity exists to accommodate projected LIRR Hempstead Line commuters destined to/from the proposed Integrated Resort.

Pedestrian and Bicycle Infrastructure

As outlined in the existing conditions section, the transportation infrastructure around the proposed Integrated Resort includes extensive pedestrian and bicycle accommodation. The Integrated Resort is surrounded by the Nassau Hub Trail Network, an existing paved multi-use path. This path around the site provides connections to all area sidewalks, crosswalks and other transportation infrastructure with multi-use paths extending along Hempstead Turnpike, Earle Ovington Boulevard and Charles Lindbergh Boulevard. The system of multi-use paths in the context of the site area and the internal pedestrian sidewalks proposed for the Integrated Resort are presented on Figure A-13.

The ability for pedestrians to connect to and from transit accommodations and the adjacent neighborhoods is a critical piece of the TDM plan. The Integrated Resort plans to leverage the existing system by providing pedestrian connections into its major entrances for both visitors and employees. The pedestrian accommodations around the site will continue to be via the multi-use

[23] Long Island Rail Road: On-Time Performance by the Numbers (2023), https://www.osc.ny.gov/files/reports/pdf/report-9-2025.pdf and MTA Long Island Rail Road, 2023 Annual Ridership Report, 138216 (mta.info)

[24] 2012-2014 LIRR Origin and Destination Report, Abt/SRBI, August 2016, Microsoft Word - 2012 LIRR OD Report Volume I 08232016.doc (mta.info)

path. Crosswalks are provided at signalized intersections to provide connection to and from the surrounding areas.

Once at the site, primary access is provided via the main entrance roadways described in Section 5, Site Access and Circulation. Sands Boulevard, North Drive, West Drive, and South Drive will each include sidewalks for pedestrian access to and through the site. In addition, based on the level of pedestrian traffic anticipated to use transit to access the site, the Integrated Resort will include a pedestrian connection from midblock on Earle Ovington Boulevard, between South Drive and Charles Lindbergh Boulevard. This will provide a direct connection into the Integrated Resort from the west, including from transit along Earle Ovington Boulevard which is anticipated to be a large portion of alternative mode trips, in particular for employees. For visitors to the site from the west, the main pedestrian access point will be from the intersection of Earle Ovington Boulevard and North Drive, where a path will travel southeast to the entrance at Hotel Tower 2 and a sidewalk will connect directly east to the main Integrated Resort entrance along North Drive.

From the south, visiting pedestrians will be mainly served by a pedestrian connection along Sands Boulevard into the Hotel Tower 2 arrival area. Pedestrian employees arriving from the south will enter via West Drive. To and from the north, the primary pedestrian access for all users will be Sands Boulevard and sidewalks that connect to entrances on the north and east sides of the facility.

Project Related Infrastructure and Commitments

Transportation Management Association

The Integrated Resort will investigate membership in a local area Transportation Management Association (TMA). A TMA is a non-profit organization that is member-supported to provide and/or promote transportation services. A TMA provides incentives and awareness of alternative mode choices available in the area and work to connect partners to continue to improve those choices.

Transportation Coordinator

The Integrated Resort will appoint a Transportation Coordinator that will be in charge of monitoring usage of the various TDM measures outlined herein. This includes tracking shuttle usage and increasing supply as required, monitoring carpool and bicycle parking supply adequacy. In addition, the Transportation Coordinator will work with supervisors in each of the various uses in the Integrated Resort to schedule employee shift start and end times outside of the peak traffic periods identified in this report.

The Transportation Coordinator will work with employees to encourage use of alternate modes of travel by posting information on bicycling infrastructure and transit options and schedules in employee spaces. The Transportation Coordinator will work with operators of various uses on the site to consider the opportunity to provide transit passes as a pre-tax offering and other levels of support.

Pedestrian and Bicycle Infrastructure

As indicated above, the Integrated Resort is committed to leveraging the existing pedestrian and bicycle infrastructure by providing connections from the Nassau Hub Trail Network into key access points of the site. There will be a number of points of connection from that trail network into the site roadways (Sands Boulevard and North Avenue). There will be sidewalks provided to key guest arrival areas as well as sidewalks provided into key employee access points. In addition, there will be bicycle parking provided in convenient locations for both guests and employees. For guests, bicycle parking will be located on the ground floor of Garage A and for employees, there will be bicycle parking provided in Garage B.

Long Island Rail Road Shuttle

The Integrated Resort is committed to encouraging use of non-vehicular modes and plans to leverage the proximity of the LIRR by providing a shuttle from the Hempstead LIRR Station directly to the site. Based on comments that Sands has received, this shuttle service will only serve the Hempstead LIRR Station (and by proximity the Rosa Parks Transit Center) and will not provide service to other area railroad stations.[25] The cost of this service will be borne by Sands for the Integrated Resort. The provision of this service will provide a direct connection and convenient service to access the Integrated Resort. During the peak hour of site trip generation, approximately 25 people are estimated to be on each shuttle. This shuttle could run as frequently as 10 times per hour (10 trips in and 10 trips out) in order to accommodate the demand anticipated.

Coach Shuttle

In order to further reduce automobile trips to the subject property, the Integrated Resort will provide direct bus connection from New York City and potential other locations. This will provide a single seat trip between the highest population in the capture area and the Integrated Resort. Based on the peak conditions analyzed, the Integrated Resort is committed to accommodating up to five Coach shuttles per hour (five trips in and five trips out). The shuttles are estimated to accommodate 45 people per shuttle, significantly reducing the lower occupancy vehicle count for the site.

Parking Policies

In order to encourage carpooling, the Integrated Resort will provide priority parking for carpoolers in its staff parking areas. These parking spaces will be closely located to the entrances into the employee work spaces. The exact number of carpool spaces will be based on demand and is expected to grow over time.

[25] During the public scoping process, comments were issued by the Village of Westbury[25] confirming the Village's opposition to the use of the Westbury LIRR Station. This correspondence is included in Attachment I.

TDM Conclusions

The combination of infrastructure and incentives proposed by the Integrated Resort will combine to encourage transit, bicycle, and pedestrian use as well as higher occupancy vehicle trips reducing the transportation demand on the roadway network. Although a portion of site trips were assigned to these modes of travel, the Integrated Resort has goals of meeting and surpassing those mode shares with the TDM plan measures outlined above.

7

Construction Impacts

Impacts related to construction are temporary and associated with the phased construction of the Integrated Resort. The Integrated Resort will be developed in two phases: Phase 1, consisting of the redevelopment of the Nassau Veterans Memorial Coliseum with a casino, Parking Garage A, CUP-1, and surface Parking Lot E, which are anticipated to be completed in 2027; and Phase 2, which is the remainder of the Integrated Resort, which is expected to be completed in 2030. In accordance with §144-3.G of the Hempstead Town Code, construction would occur between the hours of 7:00 a.m. and 6:00 p.m. (weather permitting), Monday through Friday. Construction work would begin at about 7:00 a.m. on weekdays, with most workers arriving between 6:00 a.m. and 7:00 a.m.

Detailed construction logistics plans have been prepared depicting the construction phasing and sequencing of the demolition of existing site features and construction of new buildings and supporting infrastructure. Section 3.15 of the DEIS presents this information and the logistics plans are included in Appendix 3.15-1 to the DEIS. In addition, included in Appendix 3.15-1 to the DEIS is a letter[26] from Sands detailing key aspects of the construction operations as they pertain to access and parking for construction workers.

A variety of construction work would be performed throughout the subject property including that related to utility and stormwater infrastructure, buildings, roadways, parking structures and landscaping. The development is proposed to occur in two major phases. This would require coordination amongst various parties, including Sands, community service providers, utility purveyors, various town departments and officials, and Nassau County agencies, among others.

Construction traffic associated with these operations will include construction vehicles for performing operations on the site as well as for the delivery and removal of construction materials as well as worker's vehicles and tradesman vans. The number and types of construction vehicles will vary considerably depending on the stage of construction and the operations underway at any given time.

[26] August 9, 2024, Mel Ruffini, Senior Vice President, Construction, Sands

Construction-Related Traffic and Parking

Detailed Construction Logistics Plans have been prepared for the construction of the improvements to the site to minimize any impacts to the area around the site and area roadways to the extent possible. These plans set forth the methods and areas on the site to be used during construction for site access, parking for construction workers and areas on the site for use in the various operations, laydown and storage area during the progression of demolition and construction activities from the existing condition through the opening of Phase 1 and then to Full Build and occupancy.

Impacts or disruptions to traffic flow during construction are temporary in nature and steps will be taken to minimize impacts to the extent practicable. In addition, the mitigation identified to accommodate Full Build Condition operations at study intersections and surface roadways around the site will be constructed and in place prior to the operation of Phase 1, subject to approvals from entities with jurisdiction over the roadways. The construction of roadway improvements will involve the issuance of permits to perform the work after review of construction plans by the appropriate agency with jurisdiction at a particular location. In this case, the permitting of roadway improvements will be the responsibility of the NYSDOT and NCDPW. Each of these agencies require that Work Zone Traffic Control Plans (WZTCP) be included in roadway improvement plans and impose certain restrictions on construction activities to minimize disruptions to traffic flow during road construction. The WZTCP will be designed to conform to applicable regulations, standards and agency requirements for safety and to minimize disruption to roadway users including vehicles and pedestrians/bicyclists. Restrictions imposed on construction activities commonly include a requirement for no lane closures during peak periods of street traffic to avoid construction bottlenecks to the extent possible. These restrictions on construction operations will apply to construction on surface streets as well as the Meadowbrook State Parkway.

Construction Traffic Operations

Types of vehicles which will visit and operate on the site include:

- Construction workers private vehicles
- Tradesman's vehicles (plumbers, electricians, etc.)
- Construction vehicles used for operations on site (backhoes, cranes, excavators, lifts, compactors, etc.
- Vehicles delivering construction materials
- Vehicles for removal of materials from demolition and excavations

As noted above, Sands has provided a letter detailing key aspects of the operation of site access and parking during construction. This letter puts forth the following:

- Requires all workers to carpool with a minimum of two workers per vehicle during peak calendar quarters of construction
- Shuttle bus service to be provided if necessary
- Encourage workers to utilize public transportation
- Workers will not be permitted to park on streets in adjacent neighborhoods (these areas will be spot checked to ensure workers are complying with this policy)

› No vehicles will be permitted access to the site without prior submission and approval of plan

All vehicles involved in construction will be contained on site, no vehicles will park or stage on adjacent streets. The logistics plans provide for the onsite parking of worker vehicles, construction vehicles, areas for loading and unloading materials and spoil and staging of material stockpiles and other support operations. While the locations of these areas may move as the site is built out, there is always adequate designated area on the site to fully support all operations. As noted previously, construction activity at the site will occur weekdays between 7:00 a.m. and 6:00 p.m. It is anticipated that the majority of construction workers will be onsite prior to 7:00 a.m. at the start of the construction day. It is also anticipated that at least 75% of the construction work force will exit the site by 3:00 p.m. As such, the arrival and departure of the bulk of construction workers will occur prior to the peak period of commuting traffic in the morning and prior to the peak period of commuting traffic in the afternoon, limiting traffic impacts.

All vehicles entering and exiting the site will do so via existing signalized access points along the surrounding roadways or via a right-turn in or out of the site only. In addition, all construction workers and business entities working on the site will abide by specific direction from the development construction management team as to the entry and exit points on the site they shall use, and in the case of construction trucks, the routes they shall take to arrive at and depart from the site. This will ensure that trucking activities remain on the designated major roadways and do not impact other, more minor roads less suited for heavy vehicles. Site access would be controlled using gates and a badging system; access gates would be attended during working hours and locked during non-work hours.

Construction workers will arrive and depart the site in a similar manner and direction as depicted in the directional distribution developed for the Alternative Development Scenario of the site presented in Section 9 of this report. Unlike the proposed use of the site as an Integrated Resort, the construction activities will not draw patrons and visitors from such a distance. This being the case, the travel patterns for the workers will not rely nearly as much on the Meadowbrook State Parkway as the resort will. The number of construction workers that will be on the site will vary as the construction process moves forward. The anticipated number of construction workers has been estimated as follows on an annual basis:

› Year 1, 2026 - 584 persons

› Year 2, 2027 - 1,481 persons

› Year 3, 2028 - 1,775 persons

› Year 4, 2029 - 1,838 persons

› Year 5, 2030 – 1,341 persons

As noted above, the number of construction workers that will be on site ranges from a low of 584 persons in year 1 to a high of 1,838 persons in year 4.

Based on the previously described key aspects of operations as noted in the letter from Sands, the number of construction vehicles that will arrive at the site will be significantly lower than the numbers of persons listed above.

Vehicles used for construction activities on the site, including but not limited to excavators, cranes, lifts, trenchers and compactors, will be brought to the site one time and will remain on the site for the duration of their use. When not in active use, they will be stored on the site. In the rare event that these vehicles are moved off site, they will do so via the prescribed routes identified and described below.

Construction vehicles would arrive and depart via access points on Hempstead Turnpike (NYS Route 24), Charles Lindbergh Boulevard and Earle Ovington Boulevard. The construction logistics plan identifies several routes to and from the site. Graphics indicating these routes are included in Section 3.15 of the DEIS.

Two routes are identified for vehicles arriving from eastern Long Island:

- Long Island Expressway (I-495) westbound to the Seaford-Oyster Bay Expressway (NYS Route 135) southbound to Hempstead Turnpike (NYS Route 24) westbound.
- Long Island Expressway (I-495) westbound to Newbridge Road (NYS Route 106) southbound to Hempstead Turnpike (NYS Route 24) westbound.

Similarly, three routes were identified for vehicles arriving from western Long Island, two from the Long Island Expressway and one along Sunrise Highway:

- Long Island Expressway (I-495) eastbound to New Hyde Park Road, southbound to Hillside Avenue (NYS route 25B), eastbound to Glen Cove Road, southbound to Old Country Road, eastbound to either Merrick Avenue, southbound to either Charles Lindbergh Boulevard or to Hempstead Turnpike.
- Long Island Expressway (I-495) eastbound to Glen Cove Road to Old Country Road, to Merrick Avenue to either Charles Lindbergh Boulevard or to Hempstead Turnpike.
- Southern East-West Access – Sunrise Highway (NYS Route 27) to NYS Route 106N (Newbridge Road) to Hempstead Turnpike.

The largest number of construction trucks are associated with demolition and excavation. The material to be removed has been estimated at 660,000 CY (the amount would be further refined as the detailed building designs are developed). This material would be removed from the site over the course of the build-out period, reducing the frequency of truck trips. Based upon this above estimate and assuming the use of trucks with a 30 cy capacity and 200 working days per year over approximately 16 months yields an average of trucks laden with cut material leaving the site per day. Over an 11- hour day, this equates to an average of just under 8 trucks coming to and leaving the site per hour. While these removals would result in trips from the subject property to more than one location, they would be controlled, and would use major roadways and not local secondary streets.

Material deliveries will occur over the course of the construction period. Delivery trucks from further distance will arrive via the truck routes identified above. Local suppliers of construction material may arrive from other roadways to the site based on their origin.

While it is difficult to determine the specific traffic levels that would be generated by the construction activities on the site, they would not approach the levels of traffic that would occur once the site is fully constructed and occupied, as evaluated in this Traffic Impact Study. The majority of vehicular activity will be associated with construction worker vehicles and, based on the carpool requirement, range from approximately 300 to 900 vehicles arriving in the morning, prior to the morning

commuting peak and departing prior to the afternoon commuting peak. In this way, any temporary impacts due to this activity during construction will be minimized given the lower levels of background traffic on area roadways. The number of construction worker vehicles would not approach the numbers of workers, visitors and residents that would result in peak period traffic levels that are projected to exist once the development is complete. Material deliveries, removal of debris and other trucking operations would take place over the course of an entire day, as permitted by Town Code, as necessary, thereby reducing impacts on adjacent roadways.

Construction Phase Parking

Parking and storage of all construction worker vehicles and construction equipment will be maintained on site over the entire course of the construction phasing. No parking of vehicles or equipment will occur on the surrounding roadways. Laydown areas for materials that will be stockpiled will be provided on site. Staging areas for contractor trailers, dining halls, first aid stations and other supportive operations are noted on the Logistics Plans, which depict conditions for the five build years. The number of parking spaces available for construction workers for each yearly condition is noted on the plans, which indicate the following numbers of spaces:

- Year 1, 2026 - 2,681 spaces
- Year 2, 2027 - 1,870 spaces
- Year 3, 2028 - 1,803 spaces
- Year 4, 2029 - 1,803 spaces
- Year 5, 2030 – 1,803 spaces

As noted previously in Section 5 of this report, analysis of the parking necessary to support the operation of the Integrated Resort during operation of Phase 1 and Full Build has indicated that ample parking is available for the patrons and employees of the Resort during the operation of Phase 1 as construction continues to Full Build as well as when the project is fully completed and operating.

The number of construction workers is presented previously in this Section and indicates a peak worker load of 1,838 persons in year 4 (2029). The Logistics Plans indicate that at this time 1,803 parking spaces are available to accommodate these workers vehicles. Based on the Sands letter and the requirement for carpooling to an occupancy of two persons per vehicle, the actual parking demand for construction workers is estimated at 920 vehicles. It is clear from this comparison that there will be ample parking for construction workers on the site even if the vehicle occupancy requirement is not achieved. In fact, a very low level of carpooling would be necessary as average vehicle occupancy of just 1.02 persons per vehicle would result in adequate parking. A study published by TRIP[27] in 2020 includes data that indicates that in Nassau and Suffolk Counties 8 percent of persons carpool to work while 11 percent take some form of transit. If these rates are applied directly to the number of construction workers, even without accounting for the requirement of carpooling, more than adequate parking will be available for construction worker vehicles over the course of the construction period.

[27] TRIP. *Keeping Long Island Mobile* (September 2020). Available at: https://tripnet.org/wp-content/uploads/2020/09/TRIP_Keeping_Long_Island_Mobile_Report_September_2020.pdf

8

NYU Langone

An NYU Langone Hospital Facility is being contemplated as a significant future development that may affect traffic volumes and conditions in the vicinity of the proposed Integrated Resort. As noted in the Final Scope, completion of this contemplated NYU Langone project would not occur until after the 2030 full-build year for the Integrated Resort. A sensitivity analysis has been conducted to determine the additive impact of the Hospital Facility to the Full Build Sands condition. This sensitivity analysis consists of an evaluation of the weekday AM and weekday PM peak hours at the specific intersections identified in the Final Scope.

NYU Langone Development

The NYU Langone Hospital Facility contemplated for development on the southeast portion of the Nassau Community College campus. The campus is located on opposite side of Charles Lindbergh Boulevard from the proposed Integrated Resort and the development of same would have the potential to impact local area traffic volumes. The Final Scope for the Integrated Resort DEIS indicates the following components for the NYU Langone Hospital Facility:

- 800 bed hospital
- 350,000 sf academic/research and administrative offices
- 200,000 sf student/staff housing
- 250,000 sf ambulatory medical use

While the Build year for the full NYU Langone Hospital Facility is yet to be determined, the Final Scope requires an examination of the operation of the local roadway network accounting for the

cumulative impacts for a Build Year at least two years removed from the 2030 Build Year for the Integrated Resort. Accordingly, the sensitivity analysis was prepared under these parameters utilizing the methodology described in detail below.

NYU Langone Build Condition

Background Growth

To account for increases in general population and background growth not related to this project, an annual growth factor of 0.6 percent per year, consistent with the Integrated Resort, was included to accommodate the growth that is likely to occur between 2030 and 2032. The site specific OPDs discussed in Section 3 of this Traffic Impact Study are also included.

Site Generated Traffic Volumes

The site generated trips for this facility were estimated using the ITE *Trip Generation Manual, 11th Edition*,[28] which are summarized in Table 64.

The number of vehicle trips generated was estimated based on the following ITE Land Use Code (LUC) codes:

- ITE LUC 221 – Multifamily Housing (Mid-Rise) – 240 Units in 200,000 sf building for student/staff housing
- ITE LUC 610 – Hospital – 800 Bed Hospital
- ITE LUC 760 – Research and Development Center – 350,000 sf R&D Center
- ITE LUC 720 – Medical-Dental Office – 250,000 sf Ambulatory Medical Use

Due to the nature of the proposed Hospital Facility, it is expected that some vehicle trips at the site will be multi-use or "internal," meaning that trips to more than one land use on the site are generated internally and do not add an additional trip to the adjacent roadway network. The internal trip credit was estimated using the procedures outlined in the ITE publication Trip Generation Handbook, 3rd Edition[29] and is also included in Table 76.

[28] Institute of Transportation Engineers. *Trip Generation Manual*, 11th Edition.

[29] Institute of Transportation Engineers. *Trip Generation Handbook*, 3rd Edition,.

Table 76 Net Trip Generation – NYU Langone

Land Use	AM Peak Hour			PM Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Student/Staff Housing [a]	22	72	94	57	37	94
Hospital [b]	1,031	401	1,432	446	906	1,352
R&D Center [c]	276	60	336	51	268	319
Medical-Dental Office [d]	550	128	678	189	566	755
Internal Capture [e]	-60	-32	-92	-32	-59	-91
Total	1,819	629	2,448	711	1,718	2,429

a Trip generation estimate based on ITE LUC 221 – Multifamily Residential Mid-Rise 3-10 Levels for 240 Units
b Trip generation estimate based on ITE LUC 610 – Hospital for 800 beds
c Trip generation estimate based on ITE LUC 760 – Research and Development Center for 350,000 sf
d Trip generation estimate based on ITE LUC 720 – Medical-Dental Office Building for 250,000 sf
e Internal Capture based on National Cooperative Highway Research Program [NCHRP] 684 Guidelines

Based upon the information included in Table 76, NYU Langone is estimated to generate 2,448 new trips (1,819 entering, 629 exiting) during the weekday a.m. peak hour and 2,429 new trips (711 entering, 1,718 exiting) during the weekday p.m. peak hour.

Trip Distribution and Assignment

During the peak hours that were analyzed, which coincide with the commuter peak hours for local area roadways on a typical weekday, the NYU Hospital Facility represents a large center of employment for individuals from the local area. As such, the distribution of traffic would be expected primarily from areas within 20 to 30 minutes of the facility rather than regional areas with greater travel times as was used for the Integrated Resort.

As no concept plans are available access to the NYU Hospital Facility was assumed to be provided from Charles Lindbergh Boulevard, with one access point on either side of the proposed signalized northernmost signalized entrance to the Integrated Resort. Based on that assumption, and the local nature of the workforce for the facility, it can be assumed that the overall distribution of traffic to the facility will be similar to the overall distribution of the workforce for the Integrated Resort itself; therefore, this overall distribution was adopted for the NYU Langone Hospital Facility. The local distribution was then modified via local adjustments at selected locations, to account for the location of the various site access points.

The distribution of traffic that resulted from these efforts and the trips generated by the Hospital Facility were assigned to the local roadway network. The resulting site generated traffic volumes analyzed for this condition are shown in Figures G-1a through G-1f for the weekday AM peak hour and Figures G-2a through Figure G-2f for the weekday PM peak hour, which are included in Attachment E of this report.

Traffic Operations Analysis

Traffic Impacts were evaluated for this sensitivity analysis which consists of the additive impact of the Hospital Facility to the Full Build Sands condition for the weekday AM and weekday PM peak hours.

Based on the location of the NYU Langone Hospital Facility relative to the Integrated Resort and the fact that the timeline for the completion of the project is well after the completion of the Integrated Resort Full Build Condition, the sensitivity analysis was conducted at the following intersections consistent with the Final Scope:

- Charles Lindbergh Boulevard at Merrick Avenue
- Charles Lindbergh Boulevard WB at NCC Perimeter Road
- Charles Lindbergh Boulevard EB at James Doolittle Boulevard
- Charles Lindbergh Boulevard WB at Earle Ovington Boulevard/NCC Access
- Earle Ovington Boulevard at Charles Lindbergh Boulevard EB/Nassau Coliseum Access
- Earle Ovington Boulevard at East Gate Road/Nassau Coliseum Access
- Hempstead Turnpike at Earle Ovington Boulevard/Uniondale Avenue
- Hempstead Turnpike at Glenn Curtiss Boulevard/Nassau Coliseum Access
- Hempstead Turnpike at Merrick Avenue
- Quentin Roosevelt Boulevard at Commercial Avenue
- Stewart Avenue at Quentin Roosevelt Boulevard/South Street
- Stewart Avenue at Endo Boulevard/Merchants Concourse

The LOS analyses were conducted using Synchro/SimTraffic software for the 2032 Build conditions for the study area intersections for the weekday AM and PM peak hours. The results were compared with the 2030 Full Build Condition and the 2030 Full Build Condition with Mitigation. The 2032 Sensitivity Condition incorporated the mitigation associated with the Sands Full Build Condition and those mitigation measures are discussed in detail in Chapter 3 of this report. Tables 77 and 78 summarize the capacity analysis results included in Attachment N.

Table 77 Weekday AM Peak Hour – Sensitivity Analysis

Intersection	2030 BUILD CONDITIONS		2030 BUILD WITH MITIGATION CONDITIONS		2032 SENSITIVITY CONDITIONS	
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	49.6	D	34.7	C	37.8	D
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	77.4	E	54.5	D	66.6	E
Earle Ovington Blvd at East Gate Rd/Nassau Coliseum Access	17.7	B	See Note 1		20.7	C
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	15.1	B	16.2	B	18.7	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	52.2	D	34.9	C	566.6	F
Charles Lindbergh Blvd EB at James Doolittle Blvd	0.2	A	See Note 1		0.1	A
Charles Lindbergh Blvd WB at Perimeter Rd	0.8	A	See Note 1		2.4	A
Charles Lindbergh Blvd at Merrick Ave	12.0	B	See Note 1		12.3	B
Hempstead Tpke at Merrick Ave	60.4	E	See Note 1		69.2	E
Stewart Ave at Endo Blvd/Merchants Concourse	33.6	C	See Note 1		34.2	C
Stewart Ave at Quentin Roosevelt Blvd/South St	37.6	D	See Note 1		38.0	D
Quentin Roosevelt Blvd at Commercial Ave	14.8	B	See Note 1		15.1	B

Notes
LOS = Level of Service
[1] - Not Applicable for this condition

Table 78 Weekday PM Peak Hour – Sensitivity Analysis

Intersection	2030 BUILD CONDITIONS Delay (sec)	LOS	2030 BUILD WITH MITIGATION CONDITIONS Delay (sec)	LOS	2032 SENSITIVITY CONDITIONS Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	74.1	E	55.7	E	69.4	E
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	93.3	F	59.1	E	71.3	E
Earle Ovington Blvd at East Gate Rd/Nassau Coliseum Access	25.2	C	See Note 1		28.5	C
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	32.7	C	26.2	C	29.3	C
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	28.8	C	13.8	B	836.3	F
Charles Lindbergh Blvd EB at James Doolittle Blvd	0.4	A	A Note 1		0.2	A
Charles Lindbergh Blvd WB at Perimeter Rd	1.1	A	See Note 1		1.3	A
Charles Lindbergh Blvd at Merrick Ave	15.9	B	See Note 1		17.2	B
Hempstead Tpke at Merrick Ave	64.1	E	See Note 1		62.2	E
Stewart Ave at Endo Blvd/Merchants Concourse	62.7	E	See Note 1		65.8	E
Stewart Ave at Quentin Roosevelt Blvd/South St	48.6	D	See Note 1		50.8	D
Quentin Roosevelt Blvd at Commercial Ave	17.7	B	See Note 1		18.1	B

Notes
LOS = Level of Service
[1] - Not Applicable for this condition

The capacity analyses for the weekday AM and PM peak hours shows that all the intersections will operate with the same overall intersection LOS with the NYU Langone Hospital Facility as the Integrated Sands Resort Build except for the following:

- Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access – AM
- Earle Ovington Blvd at East Gate Rd/Nassau Coliseum Access - AM
- Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave – AM
- Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access – AM and PM

The difference in the overall intersection delay for any of the Sensitivity Analysis intersections is 14 seconds or less for most of the intersections and, based on the magnitude of the increase in time delay, mitigation would not be warranted for these locations. However, the increase in delay for the Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access intersection warrants further evaluation for both the AM and PM Peak Hours.

Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access

The analysis for the Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access intersection shows with the NYU Langone Hospital Facility, this intersection will operate at LOS F during both the AM and PM peak hours, which is a drop in LOS from LOS C and LOS B, respectively. It is important to note that this location presently serves as a point of access for the Nassau Community College, and given that no information is available for actual proposed access, it has been assumed that this access point would also receive significant portions of the traffic for the NYU Langone Hospital Facility in the future condition as well. Thus, improvements would be required to this intersection, beyond those proposed by the Integrated Resort, to accommodate Hospital-generated increased traffic that occurs to the westbound right turn and the southbound left turn movements. The improvements necessary to accommodate the operations of the Hospital Facility at this intersection are not associated with Integrated Resort. It is also noted that this intersection is located in an area where the intersecting roadways have significant rights-of-way widths, such that if the Hospital access is located here, area would be available for mitigation improvements.

9

Alternative Development Scenario

In the event that the gaming license is not granted for the Integrated Resort, Sands has committed to pursuing an Alternative Development Scenario for the property. In accounting for this, the Final Scope for the DEIS identifies that an analysis must be prepared to evaluate the impacts associated with the redevelopment of the property should the gaming license not be awarded. Both the Nassau Veterans Memorial Coliseum property and the Marriott Hotel property would be rezoned to MF-IRD under this Alternative CMP – the Nassau Veterans Memorial Coliseum would be demolished and removed under this alternative, but the Marriott Hotel would remain as is (no reconfiguration of parking is proposed, as it is with the proposed action). In addition, no changes in use or expansion of the Marriott Hotel are proposed under this alternative, thus, the Marriott Hotel is not depicted on the Alternative CMP.

The Alternative Development Scenario is visually depicted on the Alternative Conceptual Master Plan for the MF-IRD Zone prepared by H2M, included in Attachment R and reflects the following components:

- 500 Apartment Units
- 180,058 sf Medical Office Space
- 100,384 sf R&D Office Space
- 40,000 sf Gross Retail Space
- 50,000 sf Restaurant Space
- 500 Room Hotel[30]
- 200,000 sf Multipurpose Recreational Facility
- 3,600 Seat Performing Arts Center
- 23,031 sf Veterans Memorial.

To estimate the traffic impact of the Alternative Development Scenario, the traffic anticipated to be generated was estimated and added to future 2030 No-Build traffic volumes at each of

[30] The analysis does not include the 618 rooms of the existing Marriott Hotel.

the Study Area intersections in a manner similar to the analysis prepared for the Integrated Resort.

Alternative Development Scenario Project Generated Traffic Volumes

The Alternative Development Scenario includes a mix of residential, office, and commercial uses which could potentially be constructed on the Nassau Veterans Memorial Coliseum property based on the zoning for the site. The Coliseum building would be removed under this Alternative. For each of these components, there is an equivalent Land Use Code (LUC) as defined in the of the ITE *Trip Generation Manual 11th Edition*. This publication represents an industry standard source for trip generation rate for a range of land uses and the LUC for each use associated with the alternative scenario was utilized to estimate the traffic generated by this Alternative Development Scenario.

The following components constitute the scenario that was analyzed in detail in this study, along with the associated ITE LUC selected to prepare this traffic estimate:

1. 500 Apartment Units (ITE LUC 221 – Multifamily Residential Mid-Rise)
2. 180,000 sf Medical Office Space (ITE LUC 720 – Medical/Dental Office)
3. 80,000 sf R&D Office Space (ITE LUC 760 – Research and Development Office)
4. 40,000 sf Gross Retail Space (LUC 822 – Shopping Center (>150k))
5. 50,000 sf Restaurant Space (LUC 931 – Quality Restaurant)
6. 570 Room Hotel (LUC 310 – Hotel)
7. 200,000 sf Multipurpose Recreational Facility (LUC 435 – Multipurpose Recreational Facility)
8. 3,600 Seat Performing Arts Center (Based upon Vehicle Occupancy/Entering and Exiting Counts at Nassau Veterans Memorial Coliseum)
9. 44,286 sf Memorial (LUC 411 – Public Park)

In the time since the Alternative Conceptual Master Plan was initially prepared and the traffic analysis commenced, the Alternative Conceptual Master Plan has been advanced to include minor changes in the development plan that will not result in any meaningful changes in the detailed analysis performed.[31]

[31] In comparison with the current Alternative Conceptual Master Plan, the analysis scenario above includes 70 additional hotel rooms and an additional 20,000 square feet of floor area for the memorial, and a reduction of approximately 20,000 square feet of R&D Office Space. Given this very small change the detailed evaluation in this study was not revisited as the findings and conclusions relating to impacts and mitigation would not differ due to these changes.

Utilizing the rates for each of the weekday a.m. weekday p.m., and Saturday midday peak periods, for the LUCs indicated above, the trip generation estimate for the Alternative Development Scenario is detailed in Table 79, below. It is noted that this estimate represents the gross trip generation estimate for the development. Similar to the Integrated Resort, the Alternative Development Scenario is a mixed-use project. This results in a number of internal trips, meaning that trips to more than one use on the site are generated internally and do not add an additional trip to the adjacent roadway network. Credits to account for internal trips were determined using the ITE publication *Trip Generation Handbook, 3rd Edition*[32] and is also included in Table 79.

In addition to internal capture, it is also noted that portions of the gross trips generated by any particular use would also utilize mass transit, resulting in lesser volumes of net traffic generated by the Alternative Development Scenario. To account for this and to remain consistent with previous development efforts for the property, a reduction of five percent was applied to each individual land use to reflect the use of mass transit.

Finally, it is assumed that portions of the traffic generated by certain uses represent "pass-by" trips, which originate from the existing flow of traffic passing the site and do not represent a new vehicle on the roadway. This results in a lesser impact upon area traffic conditions. To account for this, based on guidance included in the ITE *Trip Generation Handbook*, a 25 percent trip reduction was applied to the retail and restaurant trips during the weekday AM and weekday PM peak hours while a 20 percent reduction was applied to the retail and restaurant trips during the Saturday midday peak hours.

The net trip generation for the Alternative Development Scenario is presented in Table 79, below.

[32] Institute of Transportation Engineers. *Trip Generation Handbook*, 3rd Edition.

Table 79 Net Trip Generation – Alternative Development Scenario

Land Use	AM Peak Hour			PM Peak Hour			Sat Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Apartments [a]	43	142	185	119	76	195	99	96	195
Medical Office Space [b]	441	117	558	212	495	707	310	234	544
R&D Office Space [c]	68	14	82	12	66	78	9	10	19
Gross Retail Space [d]	43	29	72	104	104	208	134	129	263
Restaurant Space [e]	18	19	37	261	129	390	315	219	534
Hotel [f]	147	116	263	171	165	336	230	180	410
Video Arcade [g]	0	0	0	394	322	716	394	322	716
Performance Arts Center [h]	0	0	0	398	81	479	1065	217	1282
Memorial [i]	0	0	0	0	0	0	0	0	0
Subtotal Before Credits	**760**	**437**	**1197**	**1671**	**1438**	**3109**	**2556**	**1407**	**396**
Internal Capture [j]	-68	-68	-136	-253	-253	-506	-319	-319	-638
Transit [k]	-34	-19	-53	-70	-60	-130	-112	-54	-166
Pass-by Trips [l]	-7	-6	-13	-52	-17	-69	-50	-27	-77
Total Credits	**-109**	**-93**	**-202**	**-375**	**-330**	**-705**	**-481**	**-400**	**-881**
Total Net Trips	**651**	**344**	**995**	**1296**	**1108**	**2404**	**2075**	**1007**	**3082**

a Trip generation estimate based on ITE LUC 221 – Multifamily Residential Mid-Rise 3-10 Levels for 500 Units
b Trip generation estimate based on ITE LUC 720 – Medical/Dental Office for 180,000 sf
c Trip generation estimate based on ITE LUC 760 – Research and Development Office for 80,000 sf
d Trip generation estimate based on ITE LUC 822 – Shopping Center (<40k sf) for 40,000 sf
e Trip generation estimate based on ITE LUC 931 – Quality Restaurants for 50,000 sf
f Trip generation estimate based on ITE LUC 310 – Hotel for 570 Rooms
g Trip generation estimate based on ITE LUC 435 – Multipurpose Recreational Facility for 200,000 sf; assumes PM Rates for Saturday
h Trip generation estimate based on Vehicle Occupancy/Entering and Exiting Counts at Nassau Veterans Memorial Coliseum
i Trip generation estimate based on ITE LUC 411 – Public Park for 1 Acre
j Internal Capture based on NCHRP 684 Guidelines – Assumes PM Percentages for Saturday
k Assumes 5% trip reduction for Mass Transit Utilization
l Assumes 25% pass-by rate for restaurant/retail uses during AM/PM and 20% pass-by for restaurant/retail uses during Saturday

In considering this Alternative Development Scenario, it is important to note that a typical mixed-use development will experience its peak activity more in line with the commuter peak hours for the roadway network. This is to say, unlike the Integrated Resort, the level of traffic activity would be reduced for this alternative during the evening hours when area traffic volumes are also lower. Therefore, in order to evaluate the impacts of the Alternative Development Scenario, the analysis focused in on the typical commuter peak hours on a weekday (7:00 AM to 9:00 AM in the AM and 4:00 PM to 6:00 PM in the PM) as well as the Saturday midday peak hours.

Based upon the information included in Table 79 above, the Alternative Development Scenario would generate 995 net trips (651 entering, 344 exiting) during the weekday AM peak hour, 2,404 net trips (1,296 entering, 1108 exiting) during the weekday PM peak hour, and 3,082 net trips (2075 entering, 1007 exiting) during the Saturday midday peak hour. For comparison, the Integrated Resort is expected to generate 1,455 net trips, 2,304 net trips, and 3,011 during each of those three respective time periods. As a result, the net trip generation for both the Integrated Resort and Alternative Development scenarios would be

similar, particularly during the weekday PM and Saturday midday periods when the highest site traffic levels would occur.

Trip Distribution and Assignment

The Alternative Development Scenario is a mixed-use development for the Nassau Veterans Memorial Coliseum Property. As there have been multiple studies of this property that were mixed-use in nature, including the adoption of the Mitchel Field Mixed-Use District (analyzed as a part of the MFM Final Generic Environmental Impact Statement), the overall distribution of site generated traffic for the Alternative Development Scenario was adopted from the MFM study to remain consistent with the prior approved methodology. This overall distribution was modified to account for the location of the various site access points and the larger study area.

Unlike the proposed Integrated Resort that is the main focus of this study, it should be noted that the Alternative Development Plan will not draw visitors on a regional level to anywhere near the same degree. As such, the traffic generation patterns are focused more on the local roadway system in the vicinity of the Nassau Veterans Memorial Coliseum property. Furthermore, as with past studies of mixed use development proposals, as each component of the alternative development would draw from the same pool of local residents, a single distribution was developed which was applied to the entire net trip generation for the scenario. This remains consistent with the previously approved methodologies employed for a mixed-use development on the Nassau Veterans Memorial Coliseum property.

The distribution of traffic that resulted from these efforts is depicted on Figures H-1a through H-1l of the Attachment E and the trips generated by the Alternative Development Scenario were assigned to the local roadway network as shown in Figures H-2a through H-5f. The resulting site generated traffic volumes analyzed for this condition are then depicted in Figures H-7a through H-10f. All of these figures are included in Attachment E to this report.

Alternative Development Scenario Traffic Operations Analysis

Traffic Impacts were evaluated for the for the Alternative Development Scenario defined above at each of the intersections identified in the Final Scope of the DEIS for the Integrated Resort. This evaluation includes the Weekday AM, Weekday PM, and the Saturday midday peak periods to capture the periods when the prevailing level of traffic is highest. Levels-of-service (LOS) analyses were conducted using Synchro/SimTraffic software for the 2023 Existing, 2030 No-Build, and 2030 Build conditions for the study area intersections for the identified key peak hours. Tables 80 through 82 summarize the capacity analysis results included in Attachment F.

Table 80 Weekday AM Peak Hour – Alternative

Notes	2023 EXISTING CONDITIONS Delay (sec)	LOS	2030 NO-BUILD CONDITIONS Delay (sec)	LOS	2030 BUILD CONDITIONS Delay (sec)	LOS
Hempstead Tpke at James Doolittle Blvd	0.1	A	0.1	A	0.1	A
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	33.5	C	36.0	D	54.1	D
Hempstead Tpke at Cunningham Ave & West Drive	8.2	A	8.3	A	7.8	A
Hempstead Tpke at MSKCC Entrance	4.9	A	5.1	A	5.8	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	65.5	E	69.7	E	80.7	F
Earle Ovington Blvd at East Gate Rd/Nassau Coliseum Access	11.1	B	11.1	B	13.2	B
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	13.7	B	13.9	B	15.2	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	41.3	D	47.1	D	48.9	D
Charles Lindbergh Blvd EB at James Doolittle Blvd	See Note 1		See Note 1		0.6	A
Charles Lindbergh Blvd WB at Perimeter Rd	See Note 1		See Note 1		0.8	A
Charles Lindbergh Blvd at Merrick Ave	11.2	B	11.7	B	12.7	B
Hempstead Tpke at Merrick Ave	56.1	E	59.4	E	65.5	E
Hempstead Tpke at Eisenhower Park Pedestrian Entrance	1.9	A	1.9	A	1.9	A
Hempstead Tpke at Coolidge Dr	6.5	A	7.4	A	7.6	A
Hempstead Tpke at Park Blvd/East Meadow Ave	45.1	D	47.0	D	46.5	D
Merrick Ave at Glenn Curtiss Blvd/Peters Gate	12.9	B	13.3	B	13.5	B
Hempstead Tpke at California Ave/ Hofstra Blvd	22.6	C	23.2	C	23.2	C
Hempstead Tpke at Oak St/Hofstra Blvd	26.0	C	26.4	C	26.8	C
Front St at Merrick Ave	42.6	D	45.3	D	52.3	D
Front St at Uniondale Ave	33.9	C	35.8	D	37.2	D
Front St at California Ave	14.5	B	15.3	B	15.5	B
Fulton Ave at Peninsula Blvd/Bennett Ave	40.6	D	45.0	D	48.1	D
Fulton Ave at Clinton St	36.1	D	38.1	D	40.0	D
Fulton Ave at N Franklin St	25.8	C	28.5	C	30.4	C
Stewart Ave at Franklin Ave	64.5	E	101.8	F	102.5	F
Old Country Rd at Franklin Ave/ Mineola Blvd	46.9	D	52.9	D	53.6	D
Old Country Rd at Clinton Rd/Glen Cove Rd	37.7	D	38.3	D	39.6	D
Old Country Rd at Merchants Concourse/Ellison Ave	31.7	C	32.7	C	32.7	C
Old Country Rd at Merrick Ave/Post Ave	46.6	D	47.6	D	48.0	D
Merrick Ave at Stewart Ave/Park Blvd	44.9	D	47.9	D	49.0	D
Stewart Ave at Endo Blvd/Merchants Concourse	32.2	C	33.6	C	33.6	C
Stewart Ave at Quentin Roosevelt Blvd/South St	36.7	D	37.6	D	37.8	D
Stewart Ave at Clinton Rd	58.1	E	87.8	F	90.3	F
Oak St at Commercial Ave	8.3	A	8.6	A	8.6	A

Notes
LOS = Level of Service

[1] - HCM cannot analyze the geometry at this intersection

[2] - Intersection does not exist in this condition

Table 80 Weekday AM Peak Hour -Alternative (Continued)

Intersection	2023 EXISTING CONDITIONS Delay (sec)	LOS	2030 NO-BUILD CONDITIONS Delay (sec)	LOS	2030 BUILD CONDITIONS Delay (sec)	LOS
Quentin Roosevelt Blvd at Commercial Ave	14.5	B	14.8	B	15.0	B
Meadow St at Charles Lindbergh Blvd	9.3	A	10.0	A	10.0	A
Hempstead Tpke at Front St	21.4	C	33.7	C	37.0	D
Hempstead Tpke at Carman Ave/3rd St	80.4	F	79.4	E	78.9	E
Hempstead Tpke at Newbridge Rd	55.4	E	57.6	E	58.0	E
Merrick Ave at Bellmore Ave	24.4	C	27.4	C	39.9	D
Merrick Ave at North Jerusalem Rd	19.7	B	20.2	C	22.3	C
Merrick Ave at Jerusalem Ave	39.8	D	46.1	D	49.9	D
Uniondale Ave at Jerusalem Ave	34.8	C	37.0	D	38.0	D
Nassau Rd at Uniondale Ave/Brookside Ave	27.2	C	28.4	C	28.7	C
Stewart Ave at Ring Road West (Roosevelt Field)	14.0	B	15.9	B	15.8	B
Old Country Rd at Roosevelt Field Entrance	22.4	C	20.6	C	23.9	C
Old Country Rd at Salisbury Park Dr/School St	35.7	D	37.6	D	37.7	D
Merrick Ave at Corporate Dr	15.7	B	17.0	B	18.4	B
Merrick Ave at Privado Rd	14.7	B	18.2	B	19.8	B
Jericho Tpke at Post Ave/Post Rd	54.0	D	64.1	E	67.0	E
Franklin Ave at Main St/2nd St	16.3	B	18.6	B	18.6	B
Main St at Meadow St	6.0	A	6.1	A	6.1	A
Meadow St at Washington Ave	18.2	B	19.6	B	19.6	B
Meadow St at Clinton Rd	12.2	B	12.9	B	12.9	B
Meadow St at Lindbergh St	4.7	A	4.7	A	4.7	A
Westbury Blvd at Lindbergh St	2.2	A	2.4	A	2.4	A
Westbury Blvd at Oak St/Meadow St	18.8	B	20.9	C	20.9	C
Hempstead Turnpike at Franklin Ave/Perimeter E/Hospital St	22.6	C	23.2	C	23.2	C
Peninsula Blvd at Fulton Ave	2.5	A	2.5	A	2.6	A
Peninsula Blvd at Bennett Ave	3.6	A	3.5	A	3.8	A
Charles Lindbergh Blvd at Sands Ave	See Note 2		See Note 2		4.0	A
Washington St & W Columbia St/Driveway	11.4	B	11.9	B	11.9	B

Notes
LOS = Level of Service

[1] - HCM cannot analyze the geometry at this intersection

[2] - Intersection does not exist in this condition

Table 81 Weekday PM Peak Hour - Alternative

Intersection	2023 EXISTING CONDITIONS Delay (sec)	LOS	2030 NO-BUILD CONDITIONS Delay (sec)	LOS	2030 BUILD CONDITIONS Delay (sec)	LOS
Hempstead Tpke at James Doolittle Blvd	0.1	A	0.1	A	0.1	A
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	42.5	D	50.0	D	72.7	E
Hempstead Tpke at Cunningham Ave & West Drive	8.7	A	9.2	A	8.5	A
Hempstead Tpke at MSKCC Entrance	6.3	A	6.5	A	8.0	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	63.3	E	66.5	E	78.3	E
Earle Ovington Blvd at East Gate Rd/Nassau Coliseum Access	15.5	B	16.6	B	16.5	B
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	21.9	C	23.3	C	30.4	C
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	27.3	C	27.8	C	28.8	C
Charles Lindbergh Blvd EB at James Doolittle Blvd	See Note 1		See Note 1		2.8	A
Charles Lindbergh Blvd WB at Perimeter Rd	See Note 1		See Note 1		1.1	A
Charles Lindbergh Blvd at Merrick Ave	14.4	B	15.3	B	21.1	C
Hempstead Tpke at Merrick Ave	62.0	E	64.0	E	66.9	E
Hempstead Tpke at Eisenhower Park Pedestrian Entrance	1.5	A	1.7	A	1.9	A
Hempstead Tpke at Coolidge Dr	6.2	A	6.6	A	7.0	A
Hempstead Tpke at Park Blvd/East Meadow Ave	65.9	E	75.0	E	82.2	F
Merrick Ave at Glenn Curtiss Blvd/Peters Gate	18.3	B	19.3	B	24.0	C
Hempstead Tpke at California Ave/ Hofstra Blvd	25.4	C	25.9	C	27.1	C
Hempstead Tpke at Oak St/Hofstra Blvd	37.7	D	39.0	D	40.4	D
Front St at Merrick Ave	44.9	D	48.0	D	55.2	E
Front St at Uniondale Ave	36.9	D	39.3	D	43.6	D
Front St at California Ave	17.9	B	18.9	B	19.3	B
Fulton Ave at Peninsula Blvd/Bennett Ave	30.9	C	33.9	C	39.2	D
Fulton Ave at Clinton St	42.7	D	45.5	D	49.4	D
Fulton Ave at N Franklin St	36.4	D	54.7	D	70.6	E
Stewart Ave at Franklin Ave	76.2	E	124.7	F	125.5	F
Old Country Rd at Franklin Ave/ Mineola Blvd	47.0	D	54.5	D	56.4	E
Old Country Rd at Clinton Rd/Glenn Cove Rd	46.9	D	53.3	D	55.6	E
Old Country Rd at Merchants Concourse/Ellison Ave	46.5	D	48.8	D	49.1	D
Old Country Rd at Merrick Ave/Post Ave	75.2	E	90.0	F	98.2	F
Merrick Ave at Stewart Ave/Park Blvd	50.2	D	57.8	E	62.6	E
Stewart Ave at Endo Blvd/Merchants Concourse	54.5	D	62.4	E	62.4	E
Stewart Ave at Quentin Roosevelt Blvd/South St	45.0	D	48.2	D	50.6	D
Stewart Ave at Clinton Rd	87.1	F	128.3	F	135.9	F
Oak St at Commercial Ave	10.7	B	11.3	B	11.3	B

Notes
LOS = Level of Service

[1] - HCM cannot analyze the geometry at this intersection

[2] - Intersection does not exist in this condition

Table 81 Weekday PM Peak Hour -Alternative (Continued)

Intersection	2023 EXISTING CONDITIONS Delay (sec)	LOS	2030 NO-BUILD CONDITIONS Delay (sec)	LOS	2030 BUILD CONDITIONS Delay (sec)	LOS
Quentin Roosevelt Blvd at Commercial Ave	16.9	B	17.6	B	18.1	B
Meadow St at Charles Lindbergh Blvd	12.1	B	12.5	B	12.5	B
Hempstead Tpke at Front St	20.1	C	20.7	C	20.7	C
Hempstead Tpke at Carman Ave/3rd St	64.7	E	69.4	E	71.4	E
Hempstead Tpke at Newbridge Rd	57.8	E	59.7	E	60.3	E
Merrick Ave at Bellmore Ave	18.7	B	19.0	B	24.7	C
Merrick Ave at North Jerusalem Rd	18.8	B	19.3	B	24.2	C
Merrick Ave at Jerusalem Ave	43.4	D	50.7	D	61.8	E
Uniondale Ave at Jerusalem Ave	35.8	D	37.9	D	39.4	D
Nassau Rd at Uniondale Ave/Brookside Ave	24.2	C	25.1	C	25.5	C
Stewart Ave at Ring Road West (Roosevelt Field)	15.0	B	17.4	B	17.8	B
Old Country Rd at Roosevelt Field Entrance	33.8	C	48.0	D	52.8	D
Old Country Rd at Salisbury Park Dr/School St	50.3	D	61.0	E	61.9	E
Merrick Ave at Corporate Dr	86.4	F	101.4	F	119.5	F
Merrick Ave at Privado Rd	45.5	D	59.2	E	73.9	E
Jericho Tpke at Post Ave/Post Rd	117.2	F	137.1	F	144.8	F
Franklin Ave at Main St/2nd St	13.9	B	16.0	B	16.0	B
Main St at Meadow St	6.9	A	7.3	A	7.3	A
Meadow St at Washington Ave	17.9	B	19.4	B	19.4	B
Meadow St at Clinton Rd	13.7	B	14.6	B	14.6	B
Meadow St at Lindbergh St	6.2	A	6.3	A	6.3	A
Westbury Blvd at Lindbergh St	2.1	A	2.4	A	2.4	A
Westbury Blvd at Oak St/Meadow St	43.0	D	57.9	E	57.9	E
Hempstead Turnpike at Franklin Ave/Perimeter E/Hospital St	10.3	B	10.4	B	10.4	B
Peninsula Blvd at Fulton Ave	2.0	A	2.0	A	2.1	A
Peninsula Blvd at Bennett Ave	2.6	A	2.6	A	2.7	A
Charles Lindbergh Blvd at Sands Ave	See Note 2		See Note 2		11.8	B
Washington St & W Columbia St/Driveway	15.2	B	16.3	B	16.3	B

Notes
LOS = Level of Service

[1] - HCM cannot analyze the geometry at this intersection

[2] - Intersection does not exist in this condition

Table 82 Saturday Midday Peak Hour - Alternative

Intersection	2023 EXISTING CONDITIONS Delay (sec)	LOS	2030 NO-BUILD CONDITIONS Delay (sec)	LOS	2030 BUILD CONDITIONS Delay (sec)	LOS
Hempstead Tpke at James Doolittle Blvd	0.2	A	0.2	A	0.2	A
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	13.1	B	13.3	B	39.6	D
Hempstead Tpke at Cunningham Ave & West Drive	7.5	A	7.6	A	14.2	B
Hempstead Tpke at MSKCC Entrance	5.2	A	5.3	A	8.8	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	51.6	D	52.5	D	63.3	E
Earle Ovington Blvd at East Gate Rd/Nassau Coliseum Access	13.6	B	14.1	B	13.4	B
Earle Ovington Blvd at Charles Lindbergh Blvd EB/Nassau Coliseum Access	8.6	A	8.6	A	12.4	B
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	24.0	C	24.3	C	26.6	C
Charles Lindbergh Blvd EB at James Doolittle Blvd	See Note 1		See Note 1		1.7	A
Charles Lindbergh Blvd WB at Perimeter Rd	See Note 1		See Note 1		0.3	A
Charles Lindbergh Blvd at Merrick Ave	8.5	A	9.1	A	11.1	B
Hempstead Tpke at Merrick Ave	42.1	D	42.8	D	46.2	D
Hempstead Tpke at Eisenhower Park Pedestrian Entrance	5.6	A	6.2	A	6.6	A
Hempstead Tpke at Coolidge Dr	9.0	A	9.3	A	9.3	A
Hempstead Tpke at Park Blvd/East Meadow Ave	41.8	D	42.8	D	42.9	D
Merrick Ave at Glenn Curtiss Blvd/Peters Gate	10.5	B	10.6	B	12.3	B
Hempstead Tpke at California Ave/ Hofstra Blvd	21.0	C	21.0	C	21.1	C
Hempstead Tpke at Oak St/Hofstra Blvd	25.1	C	25.8	C	26.8	C
Front St at Merrick Ave	32.6	C	33.8	C	41.2	D
Front St at Uniondale Ave	30.4	C	31.6	C	33.4	C
Front St at California Ave	8.6	A	8.7	A	10.3	B
Fulton Ave at Peninsula Blvd/Bennett Ave	26.3	C	28.1	C	30.5	C
Fulton Ave at Clinton St	28.9	C	29.9	C	33.2	C
Fulton Ave at N Franklin St	24.9	C	27.9	C	31.4	C
Stewart Ave at Franklin Ave	27.3	C	43.7	D	45.6	D
Old Country Rd at Franklin Ave/ Mineola Blvd	36.5	D	41.7	D	42.7	D
Old Country Rd at Clinton Rd/Glen Cove Rd	44.5	D	49.1	D	50.0	D
Old Country Rd at Merchants Concourse/Ellison Ave	35.8	D	37.5	D	37.7	D
Old Country Rd at Merrick Ave/Post Ave	43.0	D	44.5	D	46.3	D
Merrick Ave at Stewart Ave/Park Blvd	32.0	C	33.7	C	35.1	D
Stewart Ave at Endo Blvd/Merchants Concourse	27.6	C	28.7	C	28.7	C
Stewart Ave at Quentin Roosevelt Blvd/South St	38.8	D	39.5	D	39.7	D
Stewart Ave at Clinton Rd	47.8	D	59.7	E	63.2	E
Oak St at Commercial Ave	6.7	A	6.8	A	6.8	A

Notes
LOS = Level of Service
[1] - HCM cannot analyze the geometry at this intersection
[2] - Intersection does not exist in this condition

Table 82 Saturday Midday Peak Hour -Alternative (Continued)

Intersection	2023 EXISTING CONDITIONS Delay (sec)	LOS	2030 NO-BUILD CONDITIONS Delay (sec)	LOS	2030 BUILD CONDITIONS Delay (sec)	LOS
Quentin Roosevelt Blvd at Commercial Ave	12.8	B	13.0	B	13.6	B
Meadow St at Charles Lindbergh Blvd	5.6	A	5.7	A	5.7	A
Hempstead Tpke at Front St	19.2	B	19.3	B	18.9	B
Hempstead Tpke at Carman Ave/3rd St	57.5	E	70.5	E	80.7	F
Hempstead Tpke at Newbridge Rd	49.6	D	51.4	D	52.4	D
Merrick Ave at Bellmore Ave	19.9	B	20.2	C	32.8	C
Merrick Ave at North Jerusalem Rd	17.1	B	17.5	B	23.8	C
Merrick Ave at Jerusalem Ave	30.1	C	31.8	C	36.9	D
Uniondale Ave at Jerusalem Ave	32.0	C	33.0	C	34.0	C
Nassau Rd at Uniondale Ave/Brookside Ave	26.4	C	27.7	C	28.8	C
Stewart Ave at Ring Road West (Roosevelt Field)	21.0	C	29.5	C	31.6	C
Old Country Rd at Roosevelt Field Entrance	65.5	E	91.0	F	101.5	F
Old Country Rd at Salisbury Park Dr/School St	34.0	C	37.3	D	38.0	D
Merrick Ave at Corporate Dr	26.6	C	34.7	C	58.6	E
Merrick Ave at Privado Rd	15.2	B	16.2	B	21.1	C
Jericho Tpke at Post Ave/Post Rd	25.5	C	26.4	C	27.7	C
Franklin Ave at Main St/2nd St	11.2	B	12.0	B	12.0	B
Main St at Meadow St	5.0	A	4.9	A	4.9	A
Meadow St at Washington Ave	10.7	B	11.0	B	11.0	B
Meadow St at Clinton Rd	9.9	A	10.5	B	10.5	B
Meadow St at Lindbergh St	5.2	A	5.2	A	5.2	A
Westbury Blvd at Lindbergh St	1.2	A	1.3	A	1.3	A
Westbury Blvd at Oak St/Meadow St	10.6	B	10.8	B	10.8	B
Hempstead Turnpike at Franklin Ave/Perimeter E/Hospital St	16.8	B	17.0	B	17.2	B
Peninsula Blvd at Fulton Ave	2.4	A	2.4	A	2.4	A
Peninsula Blvd at Bennett Ave	3.4	A	3.2	A	3.0	A
Charles Lindbergh Blvd at Sands Ave	See Note 2		See Note 2		7.2	A
Washington St & W Columbia St/Driveway	9.6	A	9.7	A	9.7	A

Notes
LOS = Level of Service
[1] - HCM cannot analyze the geometry at this intersection
[2] - Intersection does not exist in this condition

The results of the capacity analyses conducted for the Alternative Development Scenario indicate that some intersections with site related increases in delay and decreases in LOS will require modifications. In order to improve those operations, mitigation is proposed to accommodate site generated traffic from this Alternative. Table 83 summarizes the proposed mitigation measures for this Alternative. As with the proposed Integrated Resort the cost of implementation of all mitigation measures would be borne by the developer. For ease of comparison, the No Build and Build conditions are included with the Build with Mitigation Condition results in Table 84 through Table 86 below.

Table 83 Mitigation Measures – Alternative Development Scenario

Intersection	Existing/No-Build Geometry	Improvement	Build with Mitigation Geometry
Hempstead Turnpike (NY 24) at Glenn Curtiss Boulevard/Site Access	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR, R SB: L, LT, TR, R	WB: Modify right-turn lane to eliminate uncontrolled movement NB: Add a lane on the NB Approach. Restripe NB approach to include two left turn lanes, a through lane and two right-turn lanes. SB: Restripe SB approach to include two left-turn lanes, a through lane, and a shared through/right-turn lane Restrict WB U-Turns Optimize signal timing/ phasing	EB: LL, TTT, R WB: LL, TTT, R NB: LL, T, RR SB: LL, T, TR
Hempstead Turnpike (NY 24) at Cunningham Avenue	EB: TT, TR WB: L, TTT, R NB: LR	Optimize signal timing/ phasing/ Offsets	EB: TT, TR WB: L, TTT, R NB: LR
Hempstead Turnpike (NY 24) at MSKCC Entrance	EB: LL, TTT WB: TTT, R SB: RR	Optimize signal timing/ phasing/ Offsets	EB: LL, TTT WB: TTT, R SB: RR
Hempstead Turnpike (NY Route 24) at Earle Ovington Boulevard/Uniondale Avenue	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR SB: L, LT, TR, R	SB: construct additional right-turn lane. Restripe southbound approach to provide two left-turn lanes, a thru lane, a shared thru-right lane, and a right-turn lane Optimize signal timing/ phasing	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR SB: LL, T, TR, R

Table 83 Mitigation Measures – Alternate Development Scenario (Continued)

Intersection	Existing/No-Build Geometry	Improvements	Build with Mitigation Geometry
Charles Lindbergh Boulevard at Earle Ovington Boulevard	WB: L, LT, TR, R NB: LL, TT SB: T, TR	EB: Add EB receiving lanes SB: Add SB Left-Turn Lane NB: Remove one through lane, add two Channelized Right Turns	WB: L, LT, T, R NB: LL, T, RR SB: L, T, TR
Hempstead Turnpike at Merrick Avenue	EB: L, TTT, R WB: L, TTT, TR NB: LL, T, TR SB: LL, TT, R	Optimize signal timing/ phasing	EB: L, TTT, R WB: L, TTT, TR NB: LL, T, TR SB: LL, TT, R
Hempstead Turnpike at Eisenhower Park Pedestrian Entrance	EB: U, TT, TR WB: UL, TTT	Optimize signal timing/ phasing	EB: U, TT, TR WB: UL, TTT
Hempstead Turnpike at Coolidge Drive)	EB: U, TT, TR WB: UL, TTT NB: L, R	Optimize signal timing/ phasing	EB: U, TT, TR WB: UL, TTT NB: L, R
Hempstead Turnpike (NY 24) at Park Boulevard/E. Meadow Avenue	EB: L, TT, TR WB: L, TTT, R NB: LL, TR SB: LL, TR	Add a lane to EB approach, Restripe EB approach to include one left turn lane, three through lanes and a right-turn lane. Optimize signal timing/ phasing	EB: L, TTT, TR WB: L, TTT, R NB: LL, TR SB: LL, TR
Hempstead Turnpike (NY 24) at Hofstra Boulevard/California Avenue	EB: L, TTT, R WB: L, TTT, R NB: LT, R SB: L, T, R	Optimize signal timing/ phasing/offset	EB: L, TTT, R WB: L, TTT, R NB: LT, R SB: L, T, R
Hempstead Turnpike (NY 24) at Oak Street/Hofstra Boulevard	EB: LL, TT, R WB: L, TT, R NB: LTR SB: LL, TR, R	Optimize signal timing/ phasing/offset	EB: LL, TT, R WB: L, TT, R NB: LTR SB: LL, TR, R

Table 83 Mitigation Measures – Alternate Development Scenario (Continued)

Intersection	Existing/No-Build Geometry	Improvements	Build with Mitigation Geometry
Front Street at Merrick Avenue	EB: L, T, R WB: L, T, TR NB: L, T, TR SB: L, TT, R	Add NB right turn lane Optimize signal timing/ phasing/offset	EB: L, T, R WB: L, T, TR NB: L, T, T, R SB: L, TT, R
Fulton Avenue at Peninsula Boulevard /Bennett Avenue	EB: L, TT WB: L, T, TR NB: L, T SB: LT, TR	Add a lane to WB approach, Restripe WB approach to include two left turn lanes, a through lane and a shared through/right-turn lane.	EB: L, TT WB: LL, T, TR NB: L, T SB: LT, TR
Fulton Avenue at Clinton Street	EB: L, T, TR WB: L, T, TR NB: L, T, TR SB: L, T, TR	Optimize signal timing/ phasing/offset	EB: L, T, TR WB: L, T, TR NB: L, T, TR SB: L, T, TR
Fulton Avenue at N. Franklin Street	EB: L, TT, R WB: LT, TR NB: L, T, TR SB: L, T, TR	Add WB right turn lane	EB: L, TT, R WB: LT, T, R NB: L, T, TR SB: L, T, TR
Old Country Road at Franklin Avenue/Mineola Boulevard	EB: L, TT, R WB: L, TT, R NB: L, T, TR SB: L, T, TR	Optimize signal timing/ phasing/offset	EB: L, TT, R WB: L, TT, R NB: L, T, TR SB: L, T, TR
Old Country Road at Glen Cove Road/Clinton Road	EB: LL, TTT, R WB: LL, TTTT, R NB: L, TT, R SB: LL, TT, R	Optimize signal timing/ phasing/offset	EB: LL, TTT, R WB: LL, TTTT, R NB: L, TT, R SB: LL, TT, R
Old Country Road at Merrick Avenue/Post Avenue	EB: L, TT, TR WB: LL, T, TR NB: L, T, TR, R SB: L, TT, R	Add a lane to EB approach, Restripe EB approach to include one left turn lane, three through lanes and a right-turn lane. Add a lane to NB approach, Restripe NB approach to include one left turn lane, two through lanes and two right-turn lanes.	EB: L, TTT, R WB: LL, T, TR NB: L, TT, RR SB: L, TT, R
Merrick Avenue at Stewart Avenue/Park Boulevard	EB: LL, TT, R WB: L, T, TR NB: L, T, TR SB: L, T, TR, R	Optimize signal timing/ phasing	EB: LL, TT, R WB: L, T, TR NB: L, T, TR SB: L, T, TR, R

Table 83 Mitigation Measures – Alternate Development Scenario (Continued)

Intersection	Existing/No-Build Geometry	Improvements	Build with Mitigation Geometry
Hempstead Turnpike at Front Street	EB: TTT, RR WB: LL, TT, TR NB: RR SB: R	Optimize signal timing/ phasing	EB: TTT, RR WB: LL, TT, TR NB: RR SB: R
Hempstead Turnpike (NY 24) at Carmen Avenue/3rd Street	EB: LL, TT, TR WB: L, TT, TR NB: L, TR SB: L, TR, R	Add a lane to WB approach, Restripe WB approach to include one left turn lane, three through lanes and a right-turn lane.	EB: LL, TT, TR WB: L, TTT, R NB: L, TR SB: L, TR, R
Hempstead Turnpike at Newbridge Rd	EB: LL, TT, TR WB: LL, TT, TR NB: LL, TT, R SB: LL, TT, R	Optimize signal timing/ phasing	EB: LL, TT, TR WB: LL, TT, TR NB: LL, TT, R SB: LL, TT, R
Merrick Avenue at Bellmore Avenue	NWB: RR NB: T, TR SB: LL, TT	Optimize signal timing/ phasing	NWB: RR NB: T, TR SB: LL, TT
Merrick Avenue at N. Jerusalem Avenue	EB: L, T, TR WB: L, T, TR NB: L, T, TR SB: L, T, TR	Optimize signal timing/ phasing	EB: L, T, TR WB: L, T, TR NB: L, T, TR SB: L, T, TR
Merrick Avenue at Jerusalem Avenue	EB: L, T, TR WB: L, T, TR NB: L, T, TR SB: L, T, TR	Optimize signal timing/ phasing	EB: L, T, TR WB: L, T, TR NB: L, T, TR SB: L, T, TR
Old Country Road at Roosevelt Field Mall Entrance	EB: L, TTT, R WB: LL, TTT, TR NB: LL, LTR, R SB: L, LT, R	Optimize signal timing/ phasing	EB: L, TTT, R WB: LL, TTT, TR NB: LL, LTR, R SB: L, LT, R
Old Country Road at Salisbury Park Drive/School Street	EB: L, TT, R WB: L, T, TR NB: LL, TR SB: L, TR	Optimize signal timing/ phasing/Offset	EB: L, TT, R WB: L, T, TR NB: LL, TR SB: L, TR
Merrick Avenue at Corporate Drive	EB: LL, R NB: L, TT SB: T, TR	Optimize signal timing/ phasing	EB: LL, R NB: L, TT SB: T, TR
Merrick Avenue at Privado Road	EB: L, R NB: L, TTT SB: T, TR	Optimize signal timing/ phasing	EB: L, R NB: L, TTT SB: T, TR

Table 83 Mitigation Measures – Alternate Development Scenario (Continued)

Intersection	Existing/No-Build Geometry	Improvements	Build with Mitigation Geometry
Jericho Turnpike at Post Avenue	EB: L, TTT, R WB: L, TTT, R NB: L, TR SB: LTR	Add WB left turn lane Add SB left turn lane Optimize signal timing/ phasing	EB: L, TTT, R WB: L, TTT, R NB: L, TR SB: LTR
Hempstead Turnpike at Perimeter Rd East/Franklin Avenue	EB: L, TT, TR, R WB: L, TT, TR NB: L, LTR SB: LT, TR	Optimize signal timing/ phasing	EB: L, TT, TR, R WB: L, TT, TR NB: L, LTR SB: LT, TR
Charles Lindbergh Boulevard at Sands Boulevard	EB: TTT, TR WB: TTTT NB: R	Optimize signal timing/ phasing	EB: TTTT, R WB: LL, TTT NB: RR

Table 84 Weekday AM Peak Hour – Mitigation – Alternative Development Scenario

Intersection	2030 NO-BUILD CONDITIONS Delay (sec)	LOS	2030 BUILD CONDITIONS Delay (sec)	LOS	2030 BUILD WITH MITIGATION CONDITIONS Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	36.0	D	54.1	D	38.0	D
Hempstead Tpke at Cunningham Ave & West Drive	8.3	A	7.8	A	7.1	A
Hempstead Tpke at MSKCC Entrance	5.1	A	5.8	A	4.3	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	69.7	E	80.7	F	55.5	E
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	47.1	D	48.9	D	31.3	C
Hempstead Tpke at Park Blvd/East Meadow Ave	47.0	D	46.5	D	45.4	D
Hempstead Tpke at California Ave/ Hofstra Blvd	23.2	C	23.2	C	23.1	C
Hempstead Tpke at Oak St/Hofstra Blvd	26.4	C	26.8	C	26.5	C
Front St at Merrick Ave	45.3	D	52.3	D	45.5	D
Fulton Ave at Peninsula Blvd/Bennett Ave	45.0	D	48.1	D	32.5	C
Fulton Ave at Clinton St	38.1	D	40.0	D	40.1	D
Old Country Rd at Merrick Ave/Post Ave	47.6	D	48.0	D	40.1	D
Hempstead Tpke at Carman Ave/3rd St	79.4	E	78.9	E	78.8	E
Merrick Ave at Bellmore Ave	27.4	C	39.9	D	25.1	C
Charles Lindbergh Blvd at Sands Ave	See Note 1		4.0	A	3.1	A

Notes
LOS = Level of Service

[1] - Intersection does not exist in this condition

Table 85 Weekday PM Peak Hour – Mitigation – Alternative Development Scenario

Intersection	2030 NO-BUILD CONDITIONS		2030 BUILD CONDITIONS		2030 BUILD WITH MITIGATION CONDITIONS	
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	50.0	D	72.7	E	54.0	D
Hempstead Tpke at Cunningham Ave & West Drive	9.2	A	8.5	A	8.2	A
Hempstead Tpke at MSKCC Entrance	6.5	A	8.0	A	8.8	A
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	66.5	E	78.3	E	62.7	E
Charles Lindbergh Blvd WB at Earle Ovington Blvd/NCC Access	27.8	C	28.8	C	11.6	B
Hempstead Tpke at Merrick Ave	64.0	E	66.9	E	49.6	D
Hempstead Tpke at Eisenhower Park Pedestrian Entrance	1.7	A	1.9	A	2.8	A
Hempstead Tpke at Coolidge Dr	6.6	A	7.0	A	6.3	A
Hempstead Tpke at Park Blvd/East Meadow Ave	75.0	E	82.2	F	61.0	E
Hempstead Tpke at California Ave/ Hofstra Blvd	25.9	C	27.1	C	24.3	C
Hempstead Tpke at Oak St/Hofstra Blvd	39.0	D	40.4	D	35.7	D
Front St at Merrick Ave	48.0	D	55.2	E	53.4	D
Fulton Ave at Peninsula Blvd/Bennett Ave	33.9	C	39.2	D	31.8	C
Fulton Ave at Clinton St	45.5	D	49.4	D	43.0	D
Fulton Ave at N Franklin St	54.7	D	70.6	E	50.7	D
Old Country Rd at Franklin Ave/ Mineola Blvd	54.5	D	56.4	E	54.8	D
Old Country Rd at Clinton Rd/Glen Cove Rd	53.3	D	55.6	E	55.0	D
Old Country Rd at Merrick Ave/Post Ave	90.0	F	98.2	F	61.2	E
Merrick Ave at Stewart Ave/Park Blvd	57.8	E	62.6	E	57.7	E
Hempstead Tpke at Front St	20.7	C	20.7	C	15.9	B
Hempstead Tpke at Carman Ave/3rd St	69.4	E	71.4	E	62.6	E
Hempstead Tpke at Newbridge Rd	59.7	E	60.3	E	54.0	D
Merrick Ave at North Jerusalem Rd	19.3	B	24.2	C	22.4	C
Merrick Ave at Jerusalem Ave	50.7	D	61.8	E	44.6	D
Old Country Rd at Roosevelt Field Entrance	48.0	D	52.8	D	61.9	E
Old Country Rd at Salisbury Park Dr/School St	61.0	E	61.9	E	54.1	D
Merrick Ave at Corporate Dr	101.4	F	119.5	F	24.4	C
Merrick Ave at Privado Rd	59.2	E	73.9	E	9.7	A
Jericho Tpke at Post Ave/Post Rd	137.1	F	144.8	F	140.0	F
Hempstead Turnpike at Franklin Ave/Perimeter E/Hospital St	10.4	B	10.4	B	14.9	B
Charles Lindbergh Blvd at Sands Ave	See Note 1		11.8	B	8.5	A

Notes
LOS = Level of Service
[1] - NA - Intersection does not exist in this condition

Table 86 Saturday Midday Peak Hour - Mitigation – Alternative Development Scenario

Intersection	2023 EXISTING CONDITIONS Delay (sec)	LOS	2030 NO-BUILD CONDITIONS Delay (sec)	LOS	2030 BUILD WITH MITIGATION CONDITIONS Delay (sec)	LOS
Hempstead Tpke at Glenn Curtiss Blvd/Nassau Coliseum Access	13.3	B	39.6	D	36.4	D
Hempstead Tpke at Cunningham Ave & West Drive	7.6	A	14.2	B	4.9	A
Hempstead Tpke at MSKCC Entrance	5.3	A	8.8	A	13.0	B
Hempstead Tpke at Earle Ovington Blvd/Uniondale Ave	52.5	D	63.3	E	50.5	D
Hempstead Tpke at Park Blvd/East Meadow Ave	42.8	D	42.9	D	40.4	D
Hempstead Tpke at California Ave/ Hofstra Blvd	21.0	C	21.1	C	20.9	C
Hempstead Tpke at Oak St/Hofstra Blvd	25.8	C	26.8	C	25.7	C
Fulton Ave at Peninsula Blvd/Bennett Ave	28.1	C	30.5	C	25.8	C
Fulton Ave at Clinton St	29.9	C	33.2	C	33.2	C
Old Country Rd at Merrick Ave/Post Ave	44.5	D	46.3	D	40.8	D
Hempstead Tpke at Carman Ave/3rd St	70.5	E	80.7	F	59.4	E
Merrick Ave at Bellmore Ave	20.2	C	32.8	C	27.4	C
Merrick Ave at North Jerusalem Rd	17.5	B	23.8	C	20.2	C
Merrick Ave at Jerusalem Ave	31.8	C	36.9	D	33.8	C
Merrick Ave at Corporate Dr	34.7	C	58.6	E	20.5	C
Charles Lindbergh Blvd at Sands Ave	See Note 1		7.2	A	6.2	A

Notes:
LOS = Level of Service
[1] - NA - Intersection does not exist in this condition

The results of the intersection capacity analysis reported in Table 84 through Table 86 above indicate that for all time periods analyzed, the mitigation proposed retains good levels of traffic service or returns intersection levels of service and delay to No-Build Condition levels.

Hempstead Turnpike at Meadowbrook State Parkway

As noted above in the Intersection Capacity Analysis section of this report the Final Scope for the DEIS includes the evaluation of four of the ramp junctions along Hempstead Turnpike that serve as its interchange with the Meadowbrook State Parkway. While considering the evaluation of these ramps it was concluded that an evaluation of all eight ramp junctions along Hempstead Turnpike associated with this interchange would be more appropriate to better identify any impacts of the Alternative Development at this location. Vissim parkway analysis was performed for the section of Hempstead Turnpike in the area of the Meadowbrook State Parkway in order to capture the operations of the eight ramp junctions. This analysis was performed for the three peak hours for the Existing conditions, the No-Build 2030 Conditions and the Build 2030 conditions.

The analysis performed, which is summarized in Tables 87 through Tables 89 below, indicates that levels of traffic service in the Build conditions would be consistent with No Build conditions

Table 87 AM – Alternative Hempstead Turnpike Ramp Junctions

Ramp Junctions	Existing Conditions			2030 No-Build Conditions			2030 Build Conditions		
	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)
Hempstead Tpke. EB at Off Ramp to Meadowbrook State Parkway SB	A	2.0	0	A	2.6	0	A	1.5	0.4
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway SB	D	26.8	85	C	24.0	73	C	20.4	53.7
Hempstead Tpke. EB Off Ramp to Meadowbrook State Parkway NB	A	1.1	0	A	1.1	0	A	2.5	1.9
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway NB	A	5.4	9	A	6.7	13	A	7.7	15.2
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway SB	A	0.3	0	A	0.3	0	A	0.3	0.0
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway SB	A	4.9	6	A	4.6	5	B	10.1	32.7
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway NB	A	1.6	1	A	1.5	0	A	1.7	0.6
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway NB	A	0.2	1	A	0.2	1	A	0.2	0.9

Notes:
LOS = Level of Service

Table 88 PM – Alternative Hempstead Turnpike Ramp Junctions

Ramp Junctions	Existing Conditions			2030 No-Build Conditions			2030 Build Conditions		
	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)
Hempstead Tpke. EB at Off Ramp to Meadowbrook State Parkway SB	B	12.0	33	B	11.9	35	D	29.8	125.6
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway SB	F	100.1	1,015	F	103.5	1,121	F	75.4	492.7
Hempstead Tpke. EB Off Ramp to Meadowbrook State Parkway NB	A	0.9	0	A	0.8	0	A	0.8	0.2
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway NB	B	10.4	11	B	12.0	13	A	6.2	4.3
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway SB	A	0.3	0	A	0.3	0	A	0.3	0.0
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway SB	A	7.1	9	A	7.9	11	C	16.5	55.0
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway NB	A	3.9	6	A	3.7	5	A	6.6	20.5
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway NB	A	0.2	1	A	0.2	1	A	0.2	0.8

Notes:
LOS = Level of Service

Table 89 Saturday - Alternative Midday Peak – Hempstead Turnpike Ramp Junctions

Ramp Junctions	Existing Conditions			2030 No-Build Conditions			2030 Build Conditions		
	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)	LOS	Avg. Delay (Sec)	Avg. Queue (Ft)
Hempstead Tpke. EB at Off Ramp to Meadowbrook State Parkway SB	A	0.8	0	A	0.9	0	A	1.0	0.0
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway SB	C	16.1	34	C	16.1	34	B	13.7	24.8
Hempstead Tpke. EB Off Ramp to Meadowbrook State Parkway NB	A	0.5	0	A	0.5	0	A	0.7	0.1
Hempstead Tpke. EB On Ramp from Meadowbrook State Parkway NB	A	4.0	5	A	4.2	6	A	4.5	7.2
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway SB	A	0.2	0	A	0.2	0	A	0.2	0.0
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway SB	A	2.6	1	A	3.0	1	A	7.6	22.9
Hempstead Tpke. WB On Ramp from Meadowbrook State Parkway NB	A	1.9	1	A	2.0	1	A	2.9	2.5
Hempstead Tpke. WB Off Ramp to Meadowbrook State Parkway NB	A	0.2	0	A	0.2	0	A	0.1	0.2

Notes:
LOS = Level of Service

Alternative Development Off-Street Parking Requirements

In addition to the area traffic operations, the off-street parking requirement for the Alternative Development Scenario was also evaluated. As the Mitchel Field Integrated Resort District (MF-IRD) is proposed for the property even in the event the gaming license is not granted, specific parking requirements related to the non-residential uses proposed will be as follows:

- Multipurpose Recreational Facility: One Space per 200 Square Feet
- R&D Office Space: One Space per 200 Square Feet
- Veterans Memorial: One Space per 200 Square Feet
- Medical Office Building: One Space per 200 Square Feet

The requirements for the various remaining components of the development are enumerated within §319A of the Town of Hempstead Building Zone Ordinance as follows:

- Residential: Five Spaces per three dwelling units and One Space per Unit for Visitors (Eight Spaces per three units overall)
- Hotel: One Space per Room
- Retail Area: One Space per 200 Square Feet
- Restaurant Area: One Space per 100 Square Feet or One Space per 3 Seats (whichever is higher) plus One Space Per 4 Employees
- Entertainment Venue: One Space per 3 Seats

Applying these regulations to the Integrated Resort as proposed, the total parking requirement is show in Table 90 below:

Table 90 Parking Required per Town Code and Proposed MF-IRD for Alternative Development Scenario

Component	Town Code	Proposed Square Footage	Parking Required (stalls)
Residential	8 per 3 Units	500 Units	1,334
Retail	1 per 200 sf	40,000 sf	200
Restaurant	1 per 100 sf	50,000 sf	500
Rest. Employees	1 per 4 Employees	435 emp.	109
Hotel	1 per Room	500 Rooms	500
Entertainment Venue	1 per 3 Seats	3,600 seats	1,200
Multi-purpose Recreation Center	1 per 200 sf	200,000 sf	1,000
R&D Office	1 per 200 sf	100,384 sf	502
Veterans Memorial	1 Per 200 sf	23,031 sf	116
Medical Office Building	1 per 200 sf	180,058 sf	901
Total			6,362

As depicted on the Alternative Conceptual Master Plan prepared by H2M dated 6/21/2023, the Alternative Development Scenario will provide 6,380 parking spaces, including 1,281 surface level spaces and 5,099 spaces in parking garages. Therefore, sufficient parking will be provided to meet the existing and proposed requirements of the Town of Hempstead.

Alternative Development Site Access and Circulation

The Alternative Development Scenario would include the modification of several of the existing site access points to better serve the site and minimize the impacts to the surrounding roadway network. Because each site access driveway will be shared in nature, connectivity within the interior of the site will allow for internal circulation and prevent vehicles from having to enter and exit the local street network unnecessarily.

Site Access

Access to the project site is currently provided via both signalized and unsignalized access points. By and large, the Alternative Development Scenario would utilize the existing points of signalized access while modifying (and in some cases closing) the unsignalized access driveways. The proposed access points are indicated on the Alternative CMP and described as follows:

Overall, the property will be accessed by seven separate driveways, three on Hempstead Turnpike (NYS Route 24), two on Earle Ovington Boulevard, and two along Charles Lindbergh Boulevard.

Hempstead Turnpike – Access is currently provided by the traffic signal located opposite Glenn Curtiss Boulevard and the Traffic Signal located immediately east of MSKCC. Both signals would be maintained with only small modifications proposed to the southbound approach exiting the Glenn Curtiss Boulevard traffic signal. Indirect access to the site is also provided via James Doolittle Boulevard and this would be maintained in the future condition.

Earle Ovington Boulevard – Currently, access is provided via two signals (which would be maintained). Both signals would remain in their current overall layout, with only small modifications to the westbound approaches exiting the property, as depicted on the Alternative Conceptual Master Plan. The unsignalized gated access driveways which currently exist along this frontage would be closed as a part of the proposed action.

Charles Lindbergh Boulevard – Currently, access along Charles Lindberg Boulevard is provided via two unsignalized access points that only permit right-turns out of the site. Both of these driveways would be closed and a new unsignalized access driveway would be proposed at the midpoint of the Charles Lindbergh Boulevard property frontage. To the east, James Doolittle Boulevard provides indirect access into the site and would be reconfigured to better accommodate right-turns into and out James Doolittle Boulevard.

Internal Site Circulation

The internal roadway layout is depicted on the Alternative CMP for the development. The layout includes four primary roads -- two in the north-south direction and two in the east-west direction. These roadways would provide two travel lanes in each direction and would provide adequate capacity to accommodate traffic between the various uses and access points. Based upon the internal layout of the roadways and the location of the uses, traffic signal control will be provided at the intersections between each of these roadways.

The individual uses in the interior of the site will be accessed via a series of secondary roadways which will branch off from the primary roadways. These secondary roadways will provide one lane in either direction and will connect to and through the parking areas and garages for the individual uses on the site. The parking stalls and drive aisles would be sized in accordance with the relevant Town of Hempstead standards and will be more than adequate to accommodate the level of vehicular traffic expected for the Alternative Development Scenario.

The proposed access points and internal roadways are designed to well accommodate anticipated traffic levels at the site in an efficient and safe manner.

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Roadway Improvement Summary

This study, performed in accordance with the Final Scope for the DEIS, has identified a range of roadway improvements that are proposed to address existing capacity deficiencies within the study area, facilitate site access and mitigate project traffic impacts. This section summarizes the entirety of these improvements, which are previously discussed in detail in prior sections of this report.

Improvements Necessary to Facilitate Site Access

In order to facilitate traffic movements at the site access points, improvements will be required to the site access points and the roadways immediately adjacent to the site. These improvements are not mitigation in the conventional sense in that they are proposed to provide access to the site and are not necessarily required to increase intersection capacity. Table 91 summarizes the proposed geometric changes to the existing site access points for the proposed Integrated Resort. These proposed changes to the immediate roadway system around the site and the site access points are reflected on the Conceptual Master Plan in Attachment A and the Mitigation Concept Plans in Attachment P.

Table 91 Improvements to Site Access

Intersection	Existing Geometry	Improvement	Proposed Build Geometry
Hempstead Turnpike (NY 24) at Glenn Curtiss Boulevard/Site Access	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR, R SB: L, LT, TR, R	WB: Modify right-turn lane to eliminate uncontrolled movement SB: Restripe southbound approach to provide two left-turn lanes and a shared thru-right lane	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR, R SB: LL, TR
Earle Ovington Boulevard at Charles Lindbergh Boulevard (EB)/Site Access	EB: LL, T, R WB: LL, R NB: TTT, TR SB: L, TT	WB: Remove one left-turn lane, construct an additional channelized right turn lane	EB: LL, T, R WB: L, RR NB: TTT, TR SB: L, TT
Earle Ovington Boulevard and Charles Lindbergh Boulevard at Site Access Bus Loop	NA	Construct Bus deceleration lane and off ramp from Earle Ovington Boulevard. Construct a right out only from the site onto Charles Lindbergh Boulevard.	NA
Charles Lindbergh Boulevard at Site Access (Sands Blvd.)	NA	Construct Intersection and Signalize with optimized timing/phasing	EB: TTTT, TR WB: LL, TTT NB: RR
Charles Lindbergh Boulevard at James Doolittle Boulevard	EB: TTT, TR, R WB: TTTT NB: RR	EB: Remove right-turn lane NB: Remove right-turn lane	EB: TTT, TR WB: TTTT NB: R

The access improvements described above would be constructed prior to the operation of the Integrated Resort in Phase 1, subject to review and approval of the entity with jurisdiction over the roadways, and are included in the Build condition analysis performed for this study.

Study Area Intersection Mitigation

The Intersection capacity analysis performed in this study to gauge the potential for impacts at the 66 study intersections revealed a number of locations where improvements are warranted to address existing traffic conditions and/or site generated traffic. The results of this analysis are presented in detail in Section 4 of this report. The mitigation identified is in addition to that necessary for site access described above. At most locations, this mitigation is limited to simple signal timing or phasing changes and does not include physical changes to the roadway system to increase roadway capacity. This is the case at 12 locations.

Table 92 summarizes the proposed mitigation measures at the study intersections that include physical changes to increase roadway capacity. These measures were developed for the 2030 Full Build Condition and a consistency analysis was performed to ensure that they are appropriate for the

operation of Phase 1 in 2027. It should be noted that the improvements detailed below include those necessary to facilitate site access as presented previously in Table 91.

Table 92 Study Area Intersection Capacity Improvements

Intersection	Existing/No-Build Geometry	Improvement	Build with Mitigation Geometry
Hempstead Turnpike (NY 24) at Glenn Curtiss Boulevard/Site Access	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR, R SB: L, LT, TR, R	WB: Modify right-turn lane to eliminate uncontrolled movement SB: Restripe the southbound approach to provide two left-turn lanes and a shared thru-right turn lane NB: Restripe approach to provide two left-turn lanes, a shared thru-right lane and a right-turn lane Restrict WB U-Turns Optimize signal timing/ phasing (AM, PM, SAT MID, SAT EVE, FRI EVE)	EB: LL, TTT, R WB: LL, TTT, R NB: LL, TR, R SB: LL, TR
Hempstead Turnpike (NY Route 24) at Earle Ovington Boulevard/Uniondale Avenue	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR SB: L, LT, TR, R	SB: construct additional right-turn lane. Restripe southbound approach to provide two left-turn lanes, at thru lane, a shared thru-right lane, and a right-turn lane Optimize signal timing/ phasing (AM, PM, SAT EVE, FRI EVE, SAT MID)	EB: LL, TTT, R WB: LL, TTT, R NB: L, LT, TR SB: LL, T, TR, R
Earle Ovington Boulevard at Charles Lindbergh Boulevard (EB)/Site Access	EB: LL, T, R WB: LL, R NB: TTT, TR SB: L, TT	EB: Construct an additional left-turn lane WB: Remove one left-turn lane, construct an additional channelized right turn lane SB: Construct an additional U-turn only lane (AM, PM, SAT MID, SAT EVE, FRI EVE)	EB: LLL, T, R WB: L, RR NB: TTT, TR SB: U, L, TT

The improvements described above should be constructed prior to the operation of the Integrated Resort in Phase 1.

Parkway and Interchanges Mitigation

In accordance with the Final Scope for the DEIS, this study included and evaluation of the potential traffic impacts of the project on sections of the Northern State Parkway, the Meadowbrook State Parkway and the Southern State Parkway as discussed in detail in Section 4 of this report. In addition, the ramp junctions along Hempstead Turnpike at its interchange with the Meadowbrook State Parkway and ramp junctions along Charles Lindbergh Boulevard were evaluated. This evaluation identified capacity improvements on Hempstead Turnpike, the Northern State Parkway and the Meadowbrook State Parkway to address existing conditions and project impacts as follows:

- Removal of the existing lane drop to widen to two full lanes the ramp from westbound Northern State Parkway to southbound Meadowbrook State Parkway as well widening to provide a fourth lane southbound on the Meadowbrook State Parkway from Northern State Parkway to Zeckendorf Boulevard.
- Widening of northbound Meadowbrook State Parkway to four lanes from Old Country Road to the Northern State Parkway ramps and the widening of the ramp to the eastbound Northern State Parkway to two lanes all the way onto Northern State Parkway.
- Widening the northbound Meadowbrook State Parkway C-D Road to two lanes for its entire length and merging both lanes onto Meadowbrook State Parkway Mainline. The existing third northbound Meadowbrook State Parkway Mainline travel lane would be dropped prior to the C-D road merge to accommodate the additional merge lane prior to the Stewart Avenue overpass.
- An extension of the deceleration lane onto the ramp from eastbound Hempstead Turnpike to southbound Meadowbrook State Parkway (approximately 500 feet) and an extension of the acceleration lane from the same ramp onto the southbound Meadowbrook State Parkway (approximately 400 feet).
- An extension of the two lane section of the ramp from eastbound Charles Lindbergh Boulevard to southbound Meadowbrook State Parkway (approximately 350 feet) and an extension of the acceleration lane from the same ramp onto the southbound Meadowbrook State Parkway (approximately 450 feet).

Details regarding the location and extent of these improvements on the parkways are presented on concept plans in Attachment P. It is noted that this mitigation requires and includes the replacement of two bridges over the parkway to provide additional width needed for the new lanes to pass under as well as the widening of a third bridge to carry the new lanes over a surface street. As shown in Attachment P, the Old Country Road bridge over the parkway will be replaced with a longer span as will the MTA LIRR bridge over the parkway to its north. The bridge carrying the parkway over Westbury Avenue will be widened along its length to accommodate a fourth lane on the parkway in each direction. These improvements are proposed to be constructed prior to full-build out of the Integrated Resort, subject to approval of the NYSDOT.

11

Conclusions

VHB has prepared a traffic impact and parking study for the development of the Integrated Resort. Based on the results of the analysis performed, extensive mitigation measures have been identified and proposed, including significant infrastructure investments, aggressive TDM programs, and Site access upgrades, to minimize impacts to the surrounding roadway network to the maximum extent practicable.

Specifically, the following conclusions have been reached:

- The trip generation calculated for the Integrated Resort were projected for both the 2027 Phase 1 Condition and the 2030 Full Build condition. The magnitude of trips anticipated to visit the site during the weekday peak hour is generally consistent with the projections associated with the traffic study prepared for the Mitchel Field Mixed-Use (MFM) District and past proposals for the site. The Saturday evening peak hour trips generated by the Integrated Resort are consistent with the level of vehicular trips associated with the peak hour of an event at the Coliseum, when it was operating at full capacity.
- The Integrated Resort is truly a mixed-use site with gaming, hotels, entertainment, meetings and conference space, public attraction, restaurants, and retail spaces. The unique nature of the mixed-use development allows for benefits that focus on meaningful reductions in external trip-making as drivers are internally captured on-site traveling among all the various uses, and the creation of a robust internal transportation network connecting all the uses.
- The Integrated Resort has committed to a series of significant Transportation Demand Management strategies aimed at reducing auto use to and from the site. These commitments include provision, accommodation and/or support for numerous transit options and connections to bicycle and pedestrian accommodations, as well as strategies aimed at employees and visitors to discourage the concept of driving solo in an automobile to and from the Integrated Resort.
- The newly generated trips can be accommodated within the study area with the implementation of the proposed site access improvements and the recommended off-site mitigation funded by Sands. The traffic analysis was conducted for periods of peak commuter demand as well as site related peaks to address different impacts associated with each of these periods.

A range of roadway improvements has been identified that focuses on areas of higher increases of site traffic, as well as addressing existing congestion areas. Specifically, geometric and traffic signal operation improvements are proposed at intersections on the local street network, as well as capacity improvements on the Meadowbrook State Parkway to address the combination of existing traffic-related deficiencies and project-related increases.