

11.0 TRAFFIC & TRANSPORTATION

Introduction

This DEIS section provides a summary of the traffic study conducted for the project. Refer to Appendix J for the complete report.

11.1 Existing Conditions

A study of existing and proposed conditions was undertaken by DTS Provident Design Engineering, LLP, in late 2021. Area roads described for the study were:

- Interstate Route 84 - a multi-lane, limited access interstate highway
- US Route 6 (Carmel Avenue) - two-lane
- New York State Route 312 - two-lane
- Pugsley Road - a two-way, unimproved Town road
- Fields Corner Road - a seasonal dirt road, closed in the winter

The study takes into account the recently approved Northeast Interstate Logistics Center project¹ to be located on Pugsley and Fields Corner roads. The Logistics Center proposes to improve Pugsley Road to provide proper lane widths, shoulders, grades and turning radii meeting Town road standards from NYS Route 312 to Barrett Road right-of-way (ROW). Improvements at the Pugsley Road/Route 312 intersection are also proposed by the Logistics Center, to meet NYS Department of Transportation (NYSDOT) standards.

Existing road conditions and traffic volumes were recorded at the following intersections, the locations of which are shown in Figure 11-1:

- US Route 6 and New York State Route 312
- New York State Route 312 and Pugsley Road
- New York State Route 312 and Interstate Route 84 Eastbound Ramps/Independent Way
- New York State Route 312 and Interstate Route 84 Westbound Ramps
- Fair Street and Fields Corner Road

With existing traffic conditions known to not be representative of typical (pre-COVID) conditions, traffic volumes recorded in 2017/18 from the Logistics Center traffic study were utilized and escalated 1.0 percent per year for four years to represent 2021 volumes. This approach was verified from automatic traffic recorder (ATR) counts taken for one week in October 2021 on Route 312. Peak traffic volumes were identified for weekday AM, weekday PM and Saturday peak hour time periods when traffic impacts would be at their greatest. Any potential traffic impacts from the proposed project would be less throughout the rest of the day.

Based on the traffic data collected, the following Peak Roadway Hours were determined:

- Peak Weekday AM Roadway Hour: 7:30 – 8:30 AM
- Peak Weekday PM Roadway Hour: 5:00 – 6:00 PM
- Peak Saturday Roadway Hour: 12:15 – 1:15 PM

¹ The Northeast Interstate Logistics Center project is currently called Lincoln Logistics Brewster and was formerly called Commercial Campus at Fields Corner.

The 2021 Existing Traffic Volumes used in this study are shown in DEIS Appendix J, Figure 2.

A capacity analysis was conducted for each peak traffic period at each of the study intersections to identify the existing Levels of Service for each traffic movement and each intersection as a whole.²

The traffic study also included collection and assessment of accident statistics. Accident data was obtained from the NYSDOT for the segment of NYS Route 312 from its intersection with US Route 6 to its intersection with the Interstate 84 Westbound Ramps, including the intersections contained in this Study, as well as Pugsley Road/Fields Corner Road from its intersection with NYS Route 312 to its intersection with Fair Street. The data reviewed was for the latest available three-year period from April 2018 to March 2021. The accident summary provided in the traffic report recites the numbers of accidents reported at the study intersections (see Section 4 of DEIS Appendix J). Copies of the accident data are contained in DEIS Appendix J (sub-appendix E of the Traffic Study).

11.2 Future Without the Proposed Project (No Build Condition)

For purposes of the traffic analyses, the anticipated build year for the proposed project is 2023. The traffic study utilized a 1.0 percent per year growth factor to account for background traffic growth and other projects that may contribute traffic to the study area. The 2023 Build Traffic Volumes taken from the Commercial Campus at Fields Corner FEIS, which included general background traffic volume growth and traffic volumes associated with several proposed nearby development projects, were combined with traffic from the additional proposed developments identified by the Town's Traffic Consultant to form the 2023 No-Build Traffic Volumes (illustrated in Figure No. 3 in DEIS Appendix J).

As part of the Logistics Center project and irrespective of the Brewster Yards project, the intersection at NYS Route 312 and Pugsley Road will be upgraded with additional through lanes, turn lanes and a traffic signal to accommodate traffic volumes associated with that project. The FEIS for that project presented two options for improvements to the intersection, identified as Alternative A and Alternative B. (These are described further in Section 3.2 of the Traffic Study report.) The NYSDOT will ultimately decide which improvement option will be constructed, however that is unknown at the time of the Brewster Yards traffic study. Therefore, this study analyzed both improvement Alternatives.

The capacity analysis conducted for each peak traffic period at each of the study intersections in the No Build condition identified the anticipated Levels of Service for each intersection in 2023 without the proposed project. The results of the capacity analyses are shown in the Level of Service Summary Table 11-2.

² Capacity analysis is a method by which traffic volumes are compared to calculated roadway and intersection capacities to evaluate future traffic conditions. The methodology utilized is described in the 2010 Highway Capacity Manual published by the Transportation Research Board. The term "Level of Service" provides a qualitative rating for the average delay experienced at an intersection. The definitions of Level of Service are provided in Appendix B of the Traffic Report. In general, Level of Service "A" represents the best traffic operating condition.

11.3 Potential Impacts (Build Condition)

The study developed arrival and departure patterns for the Proposed Project (illustrated in Figures No. 4 and 5 in DEIS Appendix J). The project will seek to discourage drivers leaving the site from making right-turns towards Fields Corner Road by installing No-Right-Turn traffic signs at the driveway approaches to Pugsley Road. However, to assess potential impacts to the intersection of Fair Street and Fields Corner Road from site-generated traffic, the study assumes 1.0 percent of the traffic volumes exiting the site would travel towards Fair Street via Fields Corner Road.

Peak hour traffic volumes to be generated by the Proposed Project were determined based on actual surveys of a similar facility utilizing StreetLight Data. This facility is the Connecticut Sportsplex located in North Branford, CT. Similar to the Proposed Project, the Sportsplex facility contains a comparable mix of recreational fields and an indoor facility as the Proposed Project. Traffic volumes were surveyed during summer months and non-summer months at the Sportsplex and used the highest hour of trip generation to provide a conservative analysis. Based upon these data, trip generation anticipated for the Proposed Project is tabulated below:

Table 11-1

<u>BREWSTER YARDS</u>					
TRIP GENERATION TABLE					
Peak Weekday AM Hour		Peak Weekday PM Hour		Peak Saturday Hour	
Enter	Exit	Enter	Exit	Enter	Exit
46	6	239	45	265	218

Accounted for in the peak volumes projected for this facility is utilization of the site for various simultaneous or overlapping activities -- practice sessions, on-field and in-building training classes, playground use, parent spectators, event room use in the building and tournaments. All activities at the site will center around one primary focus of the project: baseball and softball. Facility use will vary hour-to-hour and day-to-day depending on the programming, season of the year and events scheduled.

The Applicant’s projections of site usage are based on similar facilities in the Northeast region. Weekday afterschool and weekend patronage during the baseball season is projected to be up to 1023 persons -- players, spectators and staff. On school days, after-school field use is expected to be up to 358 persons. During peak use the project is anticipated to employ up to 63 people.

The estimated traffic volumes listed in the Trip Generation table above were assigned to the roadway network with the Arrival and Departure Distributions to form the Site-generated Traffic Volumes, which are illustrated on Figure No. 6 in DEIS Appendix J.

The Site-generated Traffic Volumes were combined with the 2023 No-Build Traffic Volumes to form the 2023 Build Traffic Volumes, which are illustrated on Figure No. 7 in DEIS Appendix J.

The capacity analysis conducted for each peak traffic period at each of the study intersections in the Build condition identified the traffic impact associated with the project. Where the analysis

showed a significant impact due to the addition of project traffic volumes to the roadway system, an improvement was recommended and implemented within the analysis, resulting in the 2023 Build with Improvements analysis. The capacity analyses worksheets are contained in DEIS Appendix J (sub-appendix D of the Traffic Study).

Field observations and detailed analysis undertaken in preparation of the Traffic Study resulted in the following findings:

- The Proposed Project is provided good regional and local vehicular access via New York State Route 312, which ultimately connects to Interstate Route 84 to the east and US Route 6 to the west.
- The Proposed Project and associated parking areas will be accessed from two STOP-controlled access driveways, one along Pugsley Road and one along Zimmer Road. The Proposed Project will seek to discourage drivers leaving the Site from making right-turns towards Fields Corner Road by installing No-Right-Turn traffic signs at their driveway approaches to Pugsley Road.
- Based upon Trip Generation rates obtained from an analysis of a similar type and size facility located in Connecticut, it is anticipated that the Proposed Project will generate approximately 46 entering vehicles and 6 exiting vehicles during the Peak Weekday AM Hour, 239 entering vehicles and 45 exiting vehicles during the Peak Weekday PM Hour, and 265 entering vehicles and 218 exiting vehicles during the Peak Saturday Hour.
- The table below summarizes the results of the capacity analyses conducted for each intersection in the Study. Average delay, expressed in seconds per vehicle, is listed below each Level of Service (LOS).
- The following roadway improvements are recommended in association with the Proposed Project:
 - Intersection of US Route 6 & NYS Route 312 traffic signal timing adjustments during the Peak Weekday PM Hour and Peak Saturday Hour
 - Intersection of NYS Route 312 & Pugsley Road (Alternative A) traffic signal timing adjustments during the Peak Weekday PM Hour and Peak Saturday Hour
 - NYS Route 312 & Interstate Route 84 Eastbound Ramps/Independent Way traffic signal timing adjustments during the Peak Saturday Hour
 - NYS Route 312 & Interstate Route 84 Westbound Ramps traffic signal timing adjustments during the Peak Weekday PM Hour and Peak Saturday Hour

Table 11-2

BREWSTER YARDS									
LEVEL OF SERVICE SUMMARY TABLE									
2023 NO-BUILD VS. 2023 BUILD/BUILD WITH IMPROVEMENTS									
INTERSECTION	PEAK AM HOUR			PEAK PM HOUR			PEAK SAT HOUR		
	2023 NO- BUILD	2023 BUILD	2023 BUILD W/ IMPV.	2023 NO- BUILD	2023 BUILD	2023 BUILD W/ IMPV.	2023 NO- BUILD	2023 BUILD	2023 BUILD W/ IMPV.
	LOS DELAY	LOS DELAY	LOS DELAY	LOS DELAY	LOS DELAY	LOS DELAY	LOS DELAY	LOS DELAY	LOS DELAY
US Rt. 6 & NY Rt. 312	C 28.0	C 29.0	-	D 41.1	D 52.3	D 46.7	D 41.8	E 57.1	D 46.9
NY Rt. 312 & Pugsley Rd. (Alternative A)	A 8.0	A 8.1	-	B 10.2	B 15.6	B 11.2	A 5.1	B 12.8	B 11.4
NY Rt. 312 & Pugsley Rd. (Alternative B)	A 4.8	A 6.2	-	A 7.1	B 10.4	-	A 2.5	B 11.6	-
NY Rt. 312 & I-84 EB Ramps/Independent Way	D 42.2	D 42.4	-	D 50.1	D 51.6	-	D 53.4	E 62.9	D 56.2
NY Rt. 312 & I-84 WB Ramps	C 20.4	C 21.5	-	D 54.2	E 76.6	D 42.9	D 36.8	E 57.9	C 33.6
Fair St. & Fields Corner Rd.	c 18.5	c 18.5	-	b 14.2	b 14.3	-	b 12.4	b 12.3	-

Table Notes:

- Unsignalized intersection Level of Service is represented by lowercase letters.
- Signalized intersection Level of Service is represented by UPPERCASE letters.
- Delays are provided for the most critical side street approach for unsignalized intersections.
- Delay is presented in Seconds per Vehicle.
- "Build w/ Impv." represents the Build condition with the infrastructure improvements recommended in the Traffic Study for the respective intersections/time periods. A "-" indicates no improvements are recommended for the particular intersection during the respective time period.
- At the intersection of NYS Route 312 & Pugsley Road, "Alternative A" and "Alternative B" represent the two intersection geometry layouts studied in the FEIS for the Northeast Interstate Logistics Center project. These are described further in Section 3.2 of the Traffic Study report.

The traffic impact analysis concludes that the Proposed Project will have no significant traffic impacts on the adjacent roadway network with the recommended improvements. With the improvements recommended, all intersections will see minor increases in average delay and will be adequately mitigated.

Parking

The Town Zoning regulations do not appear to have a comparable parking ratio for the recreation building use so the Applicant has applied a parking multiplier taken from the Institute

of Transportation Engineers (ITE) *Parking Generation Manual*. The following parking ratios are required for each associated use:

- Recreation in Building - 1 parking space per 250 square feet ³
- Athletic Field Seating - 1 space per 5 spectator seats ⁴

Based on the foregoing, the total number of parking spaces required for the Proposed Project would be 345 parking spaces, as listed in Table 11-3. The Applicant’s plan proposes a total of 449 parking spaces which exceeds the calculated parking requirement but is based on the expected peak parking need from the Applicant’s observations at similar recreation venues (approximately 50 spaces per active ballfield). Two parking spaces will be allocated for users of the woodland trail at the proposed parking lot south of Zimmer Road (demand for such use is not known). These parking numbers do not include the additional 8 bus parking spaces proposed, which is again based on the expected peak need from the Applicant’s observations (two buses/two teams on up to four fields at one time).

Table 11-3

Computation of required off-street parking and loading spaces:				
Use:		Loading	Parking	Factor
Recreation in bldg (sf)	35,459	0	142	1 space / 250 sf (ITE)
Athletic Fields (seats)	1,001	0	201	1 space / 5 spectator seats
Public Trail Use		0	2	
Total Spaces Required:		0	345	
Total Spaces Provided:		0	449	

The proposed land use does not require provision of a loading space on the site plan, pursuant to Code §138-69.

Site Circulation

Review of vehicular circulation within the project was undertaken for passenger vehicles, emergency and delivery vehicles, and pedestrian circulation.

The internal driveways and parking lot aisles to be used by the public will measure 24 feet in width to allow for two-way vehicular traffic flow throughout the project. Parking spaces are proposed to be 9 feet by 18 feet in accordance with the Town standard.

Buses, emergency vehicles and delivery vehicles will utilize the same travel ways as for passenger vehicles. Turning movement diagrams for buses and emergency vehicles are illustrated on Figures No. F-1, F-2 and F-3 contained in DEIS Appendix J (sub-appendix F of the Traffic Study). The turning diagrams demonstrate that the layout of site elements will be able to accommodate these larger vehicles without significant impact to circulation. As the site design details are developed through site plan review, adjustments are likely to improve on turning and other aspects of circulation.

³ Source: ITE Parking Generation Manual, 5th Edition – Land Use 495 (Recreational Community Center)

⁴ Source: Town of Southeast Zoning Regulations (§138-67.G)

Pedestrian circulation will be accommodated throughout the project site, linking the parking areas with the recreation facilities via sidewalks, crosswalks and curb ramps. For pedestrians that may need to cross Zimmer Road from the main parking area to the showcase baseball field on the south side of the project, a marked and signed pedestrian crosswalk will be installed.

Public Transportation

The Putnam Area Rapid Transit (PART) system currently runs a weekly bus route, Route No. 3, along NYS Route 312 and Fair Street. This route runs hourly on Monday through Friday, from 8:00 AM to 5:00 PM. Requests can be made to PART to determine if potential site usage will warrant a service route change. Once the proposed project is operational, the Applicant may solicit PART to determine if the project meets the requirements to be added as a regular or on-call stop along this route.

Construction Impacts

The vast majority of construction employees will arrive and depart the Project Site out of phase with the Peak Weekday AM and Peak Weekday PM traffic hours. Construction truck traffic is anticipated to access the Site primarily from nearby Interstate Route 84. Access to and from Interstate 84 is within 1.5 miles of the site via NYS Route 312. This access route is in a commercial area and therefore will not impact the area residential neighborhoods and local roads. No construction traffic will be allowed to utilize Fields Corner Road to Fair Street.

11.4 Mitigation Measures

The following measures are proposed to mitigate traffic impacts of the project:

- The Proposed Project will seek to discourage drivers leaving the Site from making right-turns towards Fields Corner Road by installing No-Right-Turn traffic signs at their driveway approaches to Pugsley Road. The Brewster Yards website will include in directions that all traffic to and from the site shall use Pugsley Road from NYS Route 312. North of the northerly site driveway, no improvement is proposed to Fields Corner Road. Signage will state the unimproved condition of the road north of the site driveway.
- The following roadway improvements are recommended as part of the project:
 - Intersection of US Route 6 & NYS Route 312 traffic signal timing adjustments during the Peak Weekday PM Hour and Peak Saturday Hour
 - Intersection of NYS Route 312 & Pugsley Road (Alternative A) traffic signal timing adjustments during the Peak Weekday PM Hour and Peak Saturday Hour
 - NYS Route 312 & Interstate Route 84 Eastbound Ramps/Independent Way traffic signal timing adjustments during the Peak Saturday Hour
 - NYS Route 312 & Interstate Route 84 Westbound Ramps traffic signal timing adjustments during the Peak Weekday PM Hour and Peak Saturday Hour
- Once the proposed project is operational, the Applicant may solicit PART to determine if the project meets the requirements to be added as a regular or on-call stop along its bus route along NYS Route 312.
- Most construction employees will arrive and depart the Project Site out of phase with the peak traffic hours.

- Construction traffic will be directed to access the site via NYS Route 312 and Interstate Route 84 which will avoid traffic traveling through residential neighborhoods and on local roads.
- No construction traffic will be allowed to utilize Fields Corner Road to Fair Street.

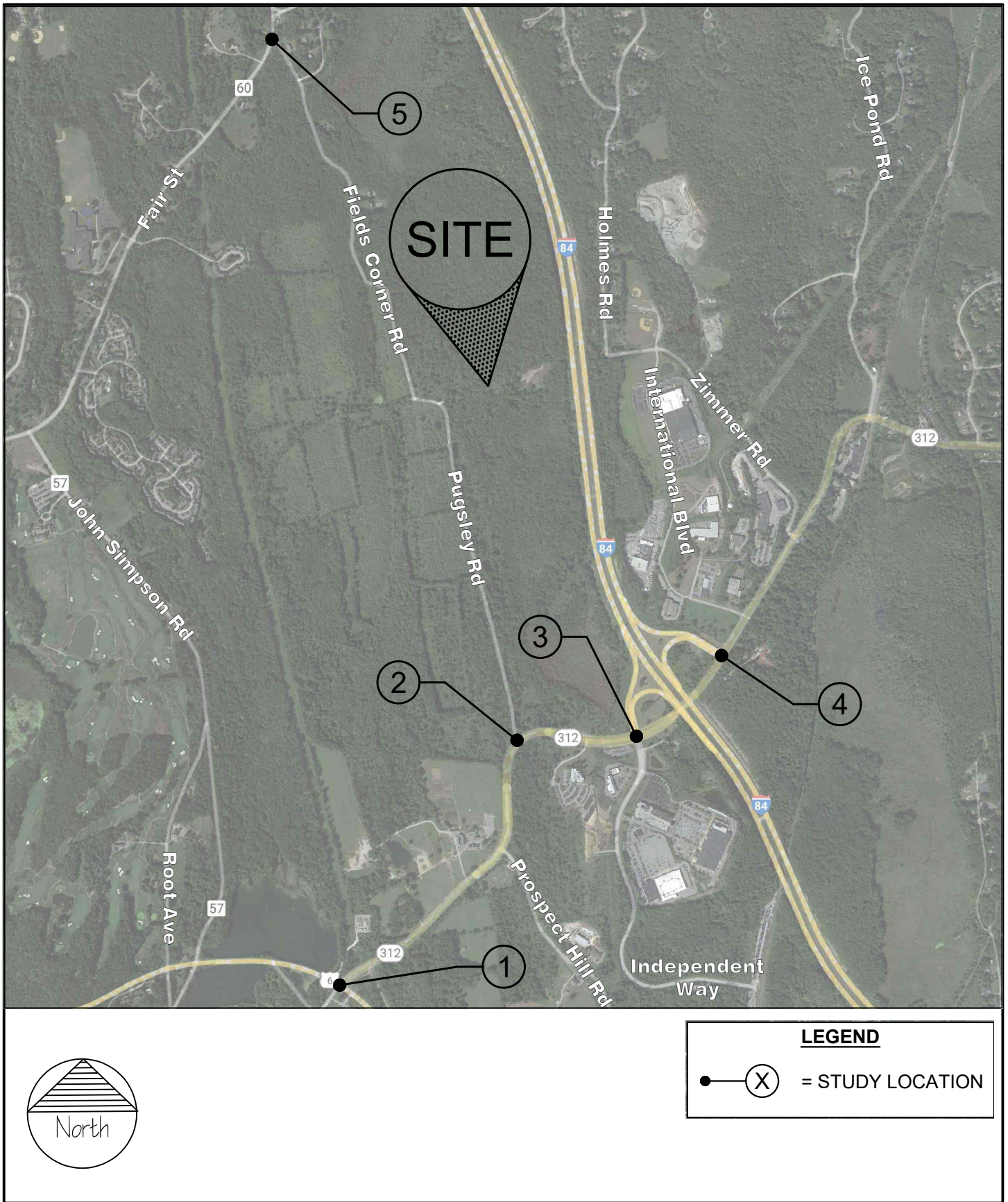


Figure 11-1: Traffic Study Intersections
 BREWSTER YARDS DEIS
 Town of Southeast, Putnam County, New York

3/31/22
 Scale: Approx. 1:36,000
 KG+D 2020-1054