



Corbin Drive Development
Darien, CT

Traffic Impact Study

Prepared For:

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May 25, 2018

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Section 1

Introduction

This Traffic Study evaluates the potential traffic impact of the proposed Corbin Drive development (the Site) located along Corbin Drive and Boston Post Road (U.S. Route 1) in downtown Darien, Connecticut. The Site includes the block southeast of the Boston Post Road at Corbin Drive intersection as well as the parcels fronting the north side of Corbin Drive. The Site has frontage along Boston Post Road to the west, Old Kings Highway South to the east, Interchange 95 to the south, with Corbin Drive bisecting the development Site. The Site is within a quarter-mile walking distance to the Darien Metro-North Railroad Station. Figure 1 shows the Site location relative to the surrounding roadway network.

The Site currently contains approximately 52,579 square feet of retail space and 45,961 square feet of office space. The proposed project will replace the existing uses with 117 residential units, 81,200 square feet of office, 81,730 square feet of retail and 16,910 square feet of quality restaurant space. The Site will provide 744 parking spaces including 22 handicap accessible spaces. The proposed project is expected to be completed in 2022.

This study concludes that based on the results of the analysis, it is the professional opinion of Tighe & Bond that the additional traffic expected to be generated by the proposed Corbin Drive development is not expected to have a significant impact to traffic operations within the study area. In addition, the reconfiguration of Site driveway(s) on Boston Post Road to be ingress-only, the conversion of perpendicular on-street parking spaces to parallel on-street parking spaces along the Boston Post Road frontage, and the improvements to pedestrian infrastructures including sidewalks, pedestrian crossings, and sidewalk ramps along Boston Post Road and Corbin Drive will significantly improve traffic operations and safety adjacent to the Site. Section 6 provides a summary of the analyses performed and the results, which are the basis of this conclusion.

Section 2

Existing Conditions

The Site is primarily located at the southeast corner of the intersection of Boston Post Road and Corbin Drive. The Site also include the parcels fronting north side of Corbin Drive. Site frontage includes Boston Post Road to the west, Old Kings Highway South to the east, Interchange 95 to the south, with Corbin Drive bisecting the development Site. The Site is currently occupied by approximately 52,579 square feet of retail space and 45,961 square feet of office space and accessed via one ingress-only driveway, one egress-only driveway and one full access driveway on Boston Post Road, in addition to two full access driveways on Corbin Drive. Along the north end of the Boston Post Road frontage there are perpendicular parking spaces that are directly accessed from Boston Post Road.

The Site is within a quarter-mile walking distance to Darien Metro-North Train Station providing service between New York City and New Haven. In addition, Connecticut Transit (CTTransit) Route 344 provides weekday and Saturday service connecting Darien Railroad Station to Noroton Heights Railroad Station, Glenbrook Railroad Station, and Stamford Transportation Center with a bus stop on West Avenue at Darien Train Station. CT Transit Route 341 provides weekday, Saturday and Sunday service connecting downtown Darien to the Stamford Transportation Center and Norwalk Wheels hub with bus stops on Boston Post Road at Leroy Avenue, Corbin Drive and Center Street.

2.1 Roadways

The following sections provide details on the roadways within the study area.

2.1.1 Boston Post Road (U.S. Route 1)

Boston Post Road is designated as U.S. Route 1 and classified by the Connecticut Department of Transportation (CTDOT) as a principal arterial and by the Town of Darien Plan of Conservation and Development (POCD) as an arterial. The roadway runs northeast-southwest in vicinity of the Site providing regional connections to I-95, other municipalities and local access to abutting properties. Within the study area, Boston Post Road is a four-lane roadway with two lanes in each direction at the intersections with the I-95 On/Off Ramps and narrows down to one lane in each direction north of Corbin Drive. On Boston Post Road (northbound) approaching Corbin Drive, an exclusive right-turn lane is designated for movements onto Corbin Drive. On-street parking is permitted on both sides of Boston Post Road in vicinity of the Site. The railroad bridge over Boston Post Road, located within a quarter mile north of Corbin Drive, limits Boston Post Road to a single lane in each direction. This bridge has signed limited vertical clearance of 11'-3" which prohibits truck passage. Sidewalks are present along both sides of Boston Post Road with crosswalks provided at signalized intersections within the study area. The posted speed limit on Boston Post Road is 35 miles per hour south of Leroy Avenue but becomes 25 miles per hour north of Leroy Avenue in vicinity of the Site.

2.1.2 Corbin Drive

CTDOT classifies Corbin Drive as a collector, while the POCD identifies it as a local roadway. Corbin Drive runs from west to east from Boston Post Road to Old Kings Highway South. The roadway provides one lane in each direction and widens at the

intersection with Boston Post Road to provide a designated westbound left turn lane and a right turn lane. On-street parking is permitted on both sides of Corbin Drive. Sidewalks are present along both sides of this roadway. Corbin Drive provides direct access to the existing properties on the Site. There is no posted speed limit sign on Corbin Drive.

2.1.3 Old Kings Highway South

Old Kings Highway South runs north to south from Tokeneke Road (S.R. 136) to Boston Post Road, fronting the Site on its eastern portion. Both CTDOT and the POCD classify Old Kings Highway South as a collector. The roadway provides one lane in each direction within the study area with no marked shoulder. On-street parking is permitted on the east side of Old Kings Highway South in vicinity of the Site. Sidewalks are provided along both sides of the roadway within the study area. Old Kings Highway South mainly provides access to the commercial and residential uses north and south of the Site. The posted speed limit on Old Kings Highway South is 25 miles per hour traveling northbound but 30 miles per hour traveling southbound.

2.1.4 Leroy Avenue

Leroy Avenue begins at Boston Post Road to the south and terminates at Middlesex Road to the northwest providing access to the residential neighborhoods in the area. Leroy Avenue is classified as a collector by both CTDOT and the POCD. This roadway has one lane in each direction with no marked shoulder. Sidewalk is present primarily along the east/north side of Leroy Avenue. The posted speed limit is 25 miles per hour on Leroy Avenue.

2.1.5 Ledge Road

Ledge Road is classified as a minor arterial by CTDOT and a collector by the POCD. The roadway begins at the intersection with Noroton Avenue and continues east to Boston Post Road towards downtown Darien. The roadway provides a single lane in each direction for the majority of its length, widening to provide an exclusive left and an exclusive right turn at the intersection with Boston Post Road. Ledge Road provides access to I-95 Interchanges 10 and 11 on the west and east ends, respectively. No sidewalk is present along Ledge Road within the study area. Between Noroton Avenue and Boston Post Road, Ledge Road provides access to a small number of residential homes and a senior living facility to the west and commercial/industrial properties to the east. The posted speed limit on Ledge Road is 35 miles per hour.

2.1.6 Interstate 95

Interstate 95 (I-95) intersects the south end of the study area along Boston Post Road with the Interchange 11 northbound and southbound on/off ramps. In the vicinity of the Site, I-95 has three travel lanes in each direction. The southbound exit ramp is located along the south boundary of the Site and intersects Boston Post Road at two traffic control signals at Leroy Avenue and Ledge Road. The I-95 southbound entrance ramp is accessed from Ledge Road. The northbound ramps intersection Boston Post Road south of the I-95 overpass. The exit ramp is controlled by a traffic control signal that provides an exclusive left turn and right turn lane. I-95 provides convenient regional access to the Site.

2.1.7 Center Street/Squab Lane

Center Street is classified by CTDOT as a collector, while the POCD considers it a local roadway. Center Street runs from west to east from Boston Post Road to Old Kings

Highway South, while Squab Lane, opposite to Center Street along Boston Post Road, serves as the ingress-only driveway to the parking lot for Darien Railroad Station at the intersection. Center Street has one lane in each direction and widens to provide an exclusive left and an exclusive right turn lane at the intersection with Boston Post Road. Sidewalks are present along the roadway. There is no posted speed limit sign on Center Street.

2.1.8 Tokeneke Road (S.R. 136)/Squab Lane

Tokeneke Road is designated as State Highway 136 and classified as a minor arterial by both CTDOT and the POCD. Tokeneke Road begins at Boston Post Road to the west and continues to the east to the town line. Squab Lane, opposite to Tokeneke Road at Boston Post Road, serves as the egress-only driveway of the parking lot for the Darien Railroad Station at the intersection. Within the study area, Tokeneke Road provides one lane in each direction with striped shoulders and a posted speed limit of 30 miles per hour. Sidewalk is present along the north side of the roadway. Tokeneke Road provide access to the commercial properties adjacent to Boston Post Road and residential neighborhoods for the majority of its length.

2.1.9 West Avenue/Mechanic Street

West Avenue is classified as a minor arterial and Mechanic Street is classified as a collector by CTDOT and the POCD. West Avenue begins to the west at Holmes Avenue continuing east to Boston Post Road. Mechanic Street starts opposite West Avenue at Boston Post Road and continues east to Brookside Road and Old Kings Hwy N. Both roadways are a single lane in each direction. Within the study area, sidewalks are present along the north side of the roadways. West Avenue provides access to the parking lot of Darien Railroad Station, business properties close to Boston Post Road, and residential neighborhoods traveling to the west. Mechanic Street provides direct access to the abutting business properties. The posted speed limit on West Avenue is 35 miles per hour and there is no posted speed limit sign on Mechanic Street.

2.2 Study Area Intersections

Generally, the study area intersections are selected based upon the proposed land use, size of the development and previous traffic studies in the area. Based on discussions with Town staff, the following 13 intersections constitute the study area intersections:

- Boston Post Road at I-95 Northbound On/Off-Ramps
- Boston Post Road at I-95 Northbound On-Ramp
- Boston Post Road at Ledge Road/I-95 Southbound Off-Ramp
- Boston Post Road at Leroy Avenue/I-95 Southbound Off-Ramp
- Boston Post Road at Corbin Drive
- Boston Post Road at Center Street/Squab Lane
- Boston Post Road at Tokeneke Road/Squab Lane
- Boston Post Road at West Avenue/Mechanic Street
- Ledge Road at I-95 Southbound On-Ramp
- Old Kings Highway South at Corbin Drive
- Proposed Site Driveway with Boston Post Road (1 proposed location)
- Proposed Site Driveways with Corbin Drive (2 proposed locations)

All the study area intersections on Boston Post Road operate under traffic signal control with the exception of the intersection of Boston Post Road at I-95 Northbound On-Ramp which is uncontrolled for left turns onto the ramp, and the proposed Site Driveway, which is one-way ingress into the Site. The remaining study area intersections are unsignalized with stop sign control on the side street approach, with major street traffic free flowing.

The Boston Post Road signals at I-95 northbound On/Off-Ramp, Ledge Road/I-95 southbound Off-Ramp, Leroy Avenue/I-95 southbound Off-Ramp, Corbin Drive, Center Street, Tokeneke Road, and West Avenue/Mechanic Street are coordinated along Boston Post Road to promote north/south progression through the corridor. Due to the proximity, the Boston Post Road intersections with Ledge Road/I-95 southbound Off-Ramp and Leroy Avenue/I-95 southbound Off-Ramp, as well as the Boston Post Road intersections with Center Street, Tokeneke Road, and West Avenue/Mechanic Street operate under cluster intersection configurations. The cluster intersection operation allows for coordination of side street and main line movements for closely spaced intersections that would not allow efficient progression under separate, coordinated operation.

All the signalized intersections within the study area have pedestrian-actuated side street pedestrian accommodations. At these intersections, the pedestrian actuation calls the minor street (side street) pedestrian clearance green time to allow pedestrians to cross concurrently with vehicular traffic.

2.3 Traffic Volumes

The study analyses focus on the weekday morning, Friday afternoon and Saturday midday peak hours, the periods when residential and/or retail related trips are at their highest levels. In order to determine the traffic impact of the proposed development on adjacent study area roadways, weekday morning (7:00 – 9:00 AM), Friday afternoon (4:00 PM to 6:00 PM), and Saturday midday (11:00 AM to 1:00 PM) peak hour manual intersection turning movement counts were collected in May and June 2017 at the study area intersections. The traffic count data indicates that the weekday morning peak hour occurred from 8:00 to 9:00 AM, the Friday afternoon peak hour occurred from 4:45 to 5:45 PM and the Saturday midday peak hour occurred from 11:45 AM to 12:45 PM. Traffic flows between intersections were balanced necessary adjustments were made (increased slightly) particularly at closely spaced intersections. These 2017 existing traffic volumes for the three peak hours are shown in Figures 2 through 4, respectively.

Furthermore, turning movement traffic counts at the existing driveway access points along Boston Post Road and Corbin Drive were conducted during all three peak periods for two separate periods in May 2017 and March 2018. The driveway counts are needed to identify existing site trip generation characteristics of the site. The existing traffic volumes at the existing driveways for the three peak hours are shown in Figures 5 through 7, respectively.

In addition to the TMC data, Automatic Traffic Recorder (ATR) counts were also conducted on Boston Post Road and Corbin Drive, in the vicinity of the Site frontage, to record hourly traffic volumes and vehicular speeds. The ATR was conducted in May 2017. The ATR data showed that the average daily traffic (ADT) were approximately 13,727 vehicles on Boston Post Road north of Leroy Avenue, and 5,264 vehicles on Corbin Drive for a typical weekday. The measured 85th percentile speeds, also known as the operating speed of the roadway, were 29 miles per hour and 32 miles per hour in the northbound and southbound directions on Boston Post Road, respectively. The measured 85th percentile speeds on Corbin Drive were 27 miles per hour traveling eastbound and 25 miles per hour traveling westbound, respectively. The raw turning movement counts and ATR data are provided in Appendix A.

2.4 Capacity and Queue Analyses - Existing Condition

Capacity and queue analyses were performed for the study intersections for the Existing Condition traffic volumes during the weekday morning, Friday afternoon, and Saturday midday peak hours using Trafficware Synchro Studio 9 – Traffic Analysis Software. The software conducts the analyses based upon the methodology provided in the *Highway Capacity Manual (HCM), 2010*. The analysis results are categorized in terms of Level of Service (LOS), which describes the qualitative intersection operational conditions based on the calculated average delay per vehicle. A summary of the HCM capacity analysis methodology and a detailed definition of LOS is provided in Appendix B. The queue analysis results are summarized in terms of the 50th percentile queue length, and the 95th percentile queue length. The 50th percentile queue length represents the approximate average queue length, and the 95th percentile queue length represents the design queue length under peak traffic conditions. Tables 1 and 2 summarize the capacity and queue analyses results, respectively. Capacity analysis worksheets with full inputs, settings, and results are provided in Appendix C.

As shown in Tables 1 and 2, the majority of the overall intersections and intersection approaches operate acceptably at LOS D during the three peak hours with the exception of the following:

- The I-95 northbound Off-Ramp eastbound left-turn approach to Boston Post Road experiences LOS E operation during Friday PM and Saturday Midday peak periods, with average delay of 58 to 59 seconds per vehicle and queues ranging from 186 feet to 203 feet.
- The Ledge Road eastbound left-turn approach to Boston Post Road experiences LOS E operation during Saturday Midday peak period, with average delay of 55.7 seconds per vehicle and queue of 192 feet. The I-95 southbound Off-Ramp westbound left-turn approach (opposite to Ledge Road) to Boston Post Road experiences LOS E operation during all three peak periods, with average delay of 57.1 to 71.4 seconds per vehicle and queues ranging from 183 feet to 283 feet.
- The intersection of Boston Post Road at West Avenue/Mechanic Street operates at an overall LOS E during Friday PM peak period with average delay of 57.2 seconds per vehicle. The West Avenue eastbound shared left-through approach to Boston Post Road experiences LOS F during Weekday PM peak period with average delay of 87.5 seconds per vehicle and queue of 332 feet. The Boston Post Road southbound shared left-through approach also experiences LOS F during Weekday PM peak period with average delay of 156.3 seconds per vehicle and queue of 588 feet.

A review of the queuing results shows that the majority of the design queues are accommodated within available storage between intersections. The queues during the Weekday AM peak hour and Saturday Midday peak hour on West Avenue eastbound right-turn lane approaching Boston Post Road extend beyond available storage with queues of 95 feet and 97 feet, respectively.

2.5 Collision History

Vehicle collision history was collected from the Connecticut (UCONN) Crash Data Repository, between January 2015 and April 2018, at the study area intersections. Table 3 provides a summary of the collisions at each of the study area intersections as well as the types and severity of the collisions. Appendix D includes detailed collision summaries for each of the intersections.

As shown in Table 3, there were 105 reported motor vehicle collisions at the study area intersections within the 3-year period analyzed. Boston Post Road at West Avenue/Mechanic Street and Leroy Avenue/I-95 southbound Off-Ramp experienced the most frequent collision rate, with an average of approximately 7 collisions per year. The remaining intersections had a rate of 5 collisions per year or less. The most frequent type of collisions were rear end, accounting for over 35% of the collisions within the study area. The second most frequent collision type was angle, accounting for almost 24% of the collisions. Sideswipe-same direction and fixed object were the third and fourth most frequent collision types at 18% and 14% of the study area collisions, respectively. The remainder of the collision types were each less than 5% of the total collisions.

The collision analysis results do not identify a significant or notable pattern of collisions in the study area. Throughout the time period analyzed, there were no fatalities, with only 2% (2 collisions) where evident injuries were reported. The addition of the proposed development's site generated traffic is not anticipated to negatively impact existing collision patterns or overall roadway safety at the study area intersections.

It should be noted that the Connecticut Crash Data Repository shows only one collision record for the study area for 2018. Additional vehicle collision data for 2018 at the study intersections was requested but has not yet been received from the Darien Police Department. Vehicle collision data for Corbin Drive between 2015 and 2018 was also requested from the Darien Police Department to confirm the collision data obtained from the Connecticut Crash Data Repository but has not yet been received. A summary of any additional accident information will be provided once they are provided by the Darien Police Department.

Section 3

Background Conditions

The Background Condition represents the projection of traffic volumes and operating conditions without the anticipated site traffic. The proposed development is scheduled to be completed in 2022, and therefore 2022 was selected as the Background Condition year.

3.1 Background Traffic Volumes

Upon consultation with CTDOT and Town of Darien staff, it was determined that there are no new major developments in the vicinity of the Site to be included as part of the background traffic volumes. However, CTDOT advised that an ambient growth rate of 0.4 percent per year should be used to estimate the increase in traffic between 2017 and 2022. The resulting traffic volumes are shown in Figures 8 through 10 as the 2022 Background Condition traffic volumes for the three peak hours, respectively.

3.2 Capacity and Queue Analyses – Background Conditions

Capacity and queue analyses were conducted for the 2022 Background Condition traffic volumes for the three peak hours, using the methodology described in Section 2.4. Tables 1 and 2 summarize the capacity and queue results, respectively. Capacity analysis worksheets with full inputs, settings, and results are provided in Appendix C.

Under the Background Conditions, the study area intersections are projected to continue operating at similar LOS as in the Existing Condition during the peak hours with minor increases in average delays and queues due to the additional traffic in the Background Condition. The Ledge Road eastbound right-turn approach to Boston Post Road experiences a drop to LOS E operation during the Saturday Midday peak hour with the growth as it was previously on the threshold between LOS D and LOS E operation.

Section 4

Development Plan - Proposed Conditions

The applicant proposes to redevelop the existing retail and office uses to create a mixed-use development on the Site in downtown Darien. The proposed mixed-use development is expected to include 117 residential units, 81,200 square feet of office, 81,730 square feet of retail and 16,910 square feet of quality restaurant space along with 744 parking spaces including 22 handicap accessible spaces.

4.1 Site Access

Site access will be provided via one driveway on Boston Post Road and two driveways on Corbin Drive for the proposed development. The proposed site driveway along Boston Post Road will be ingress-only to eliminate the site-generated traffic exiting directly onto Boston Post Road. This will significantly improve traffic operation and safety along Boston Post Road adjacent to the Site. The proposed site driveway along Corbin Drive closer to Boston Post Road will be egress-only on the south leg from the larger development but full access on the north leg, while the proposed site driveway along Corbin Drive closer to Old Kings Hwy South will be full access on both legs. Parallel on-street parking spaces will be provided along the site frontage on both Boston Post Road and Corbin Drive.

The sight line looking in each direction from the egress location of the proposed driveways on Corbin Drive provides sight distance to the end of the roadway at the signalized intersection of Boston Post Road to the west and the un-signalized intersection of Old Kings Hwy South to the east.

4.2 Trip Generation

Site generated traffic volumes for the proposed development were estimated using rates published in the Institute of Transportation Engineers (ITE) Trip Generation, 10th Edition, 2017. The proximity of the Darien Train Station and the mix of uses on Site will reduce automobile trips to and from the development in favor of transit utilization and internal trips (customers visiting more than one use per trip or residents visiting retail uses). Industry standards suggest a reduction of 7% for internal trips and an additional 20% reduction for transit-oriented trips for locations proximate to transit stations. As such, a conservative 20% reduction in the total site generated traffic was included. The proposed site generated traffic is summarized in Table 4. It is estimated that the proposed development may generate a total of 278 trips (180 in/98 out) during weekday morning peak hour, 596 trips (288 in/308 out) during weekday afternoon peak hour, and 646 trips (346 in/300 out) during Saturday midday peak hour, respectively. It should be noted that, as a conservative measure, no credit was taken to account for commercial pass-by trips.

As mentioned, the existing retail and office uses on the site will be replaced by the proposed development. Therefore, the existing site-generated trips, which were collected by intersection turning movement counts, need to be subtracted from the proposed site-generated trips to obtain the new trips that will be generated by the proposed development. The net of site-generated traffic is summarized in Table 5. It is anticipated that the proposed development may generate a total of 25 new trips (10 in/15 out) during weekday morning peak hour, 309 new trips (167 in/142 out) during

weekday afternoon peak hour, and 318 trips (167 in/151 out) during Saturday midday peak hour, respectively.

4.3 Arrival and Departure Distribution

The distribution of the proposed site-generated traffic entering and exiting the Site was applied to the road network based on existing traffic patterns within the study area, as well as the roadway layout and expectation of vehicles accessing the Site from local roadways/neighborhoods and I-95. The following arrival/departure distributions are anticipated:

- 30% to/from each of the following:
 - I-95 south of the Site
 - I-95 north of the Site
- 15% to/from Boston Post Road north of the Site
- 10% to/from each of the following:
 - Leroy Avenue south of the Site
 - Boston Post Road south of the Site
- 5% to/from Old Kings Hwy South south of the Site

Figure 11 presents the arrival and departure distributions through the study area. Figures 12 through 14 show the proposed site-generated traffic distributed to the study area roadways for the three peak hours, respectively.

4.4 Existing Site Traffic To Be Removed

As mentioned in Section 4.2, the proposed development plan will replace the existing retail and office uses on the site. Due to the redevelopment, the existing traffic flowing into and out of the site will be removed from the roadway network upon the development of the proposed project. The existing site trips to be removed from the roadway network within the study area were reviewed and identified based on the existing traffic patterns and expectation of vehicles accessing the existing site from local roadways and I-95. The existing site traffic to be remove traffic volumes are illustrated on Figures 15 through 17 for the three peak hours, respectively.

Section 5

Combined Conditions

The anticipated site generated traffic volumes associated with the proposed Site development were added to the 2022 Background Condition traffic volumes and then the existing site traffic volumes were subtracted as described in Section 4 to develop the 2022 Combined Condition traffic volumes. Figures 18 through 20 present the 2022 Combined Conditions traffic volumes for the three peak hours, respectively.

5.1 Capacity and Queue Analyses - Combined Condition

Capacity and queue analyses were conducted for the 2022 Combined Condition for the peak hours using the methodology described in Section 2.4. Tables 1 and 2 summarize the capacity and queue results, respectively. Capacity analysis worksheets with full inputs, settings, and results are provided in Appendix C.

The study area intersections will continue to operate with the same overall LOS under the Combined Condition as in the Background Condition during the peak hours, with two exceptions. The Boston Post Road at Leroy Avenue/I-95 Southbound Off-Ramp intersection experiences a decrease to an acceptable LOS C operation during Saturday Midday peak hour. The Boston Post Road at Corbin Drive intersection experiences a decrease to an acceptable LOS C during Friday PM peak hour and LOS D during Saturday midday peak hour due to the addition of new site traffic.

The majority of the signalized and unsignalized intersection approaches will also continue to operate at Background Condition levels with increases in average delay of less than 8.0 second per vehicle. The Leroy Avenue eastbound approach to Boston Post Road experiences a decrease to acceptable LOS C and D operation during Friday PM peak hour and Saturday Midday peak hour, respectively. The West Avenue eastbound shared left/through approach to Boston Post Road experiences a decrease to LOS E and a negligible decrease in delay from 55.0 seconds to 55.2 seconds. The Corbin Drive westbound left-turn approach at Boston Post Road intersection experiences a decrease to LOS E and F operation during the Friday PM peak and Saturday Midday peak, respectively, due to the addition of the site-generated traffic. However, with minor timing adjustments at the traffic signal, the Corbin Drive westbound left-turn approach will operate at acceptable LOS D without degrading the overall LOS of the intersection. The Site driveways are expected to operate at acceptable LOS D or better during all peak periods and queues of 4 vehicle lengths or less are expected on all approaches.

Section 6

Conclusions & Recommendations

1. The Corbin Drive development proposes to replace the existing 52,579 square feet of retail space and 45,961 square feet of office space with 117 residential units, 81,200 square feet of office, 81,730 square feet of retail and 16,910 square feet of quality restaurant space. The Site will provide 744 parking spaces including 22 handicap accessible spaces. The proposed redevelopment is expected to be complete in 2022.
2. Transit service is provided by the nearby Darien Metro-North train station and CT Transit Route 344. Together, these services provide convenient, walkable access to regional transit trips serving the Connecticut coast line and New York City for future residents and customers of the redevelopment..
3. Vehicle collision history, collected from the Connecticut Crash Data Repository from January 2015 through April 2018, do not indicate a significant or notable pattern of collisions in the study area. The addition of the proposed development's site generated traffic is not anticipated to effect collision occurrences in the vicinity of the Site.
4. Site access will be provided via one driveway on Boston Post Road and two driveways on Corbin Drive. The proposed site driveway along Boston Post Road will be ingress-only, which will significantly improve traffic operations and safety along Boston Post Road adjacent to the Site. The proposed site driveway along Corbin Drive closer to Boston Post Road will be egress-only on the south leg (main site) but full access on the north leg, while the proposed site driveway along Corbin Drive closer to Old Kings Hwy South will be full access on both legs. Parallel on-street parking spaces will be provided along the site frontage on both Boston Post Road and Corbin Drive.
5. The proposed redevelopment is expected to generate 25 new vehicle trips (10 entering, 15 exiting) during the weekday morning peak hour, 309 new vehicle trips (167 entering, 142 exiting) during the Friday afternoon peak hour, and 318 new vehicle trips (167 entering, 151 exiting) during the Saturday midday peak hour. The Site trip generation was conservatively reduced with a transit-oriented development and internal trip credit of 20% accounting for customers/residents accessing the Site via transit, customers visiting multiple uses on the Site during one trip, and/or development residents visiting the retail uses within the Site.
6. The study area intersections will continue to operate at 2022 Background Condition levels with minor increases in average delay on the majority of approaches. The Corbin Drive westbound left-turn approach to Boston Post Road experiences a decrease to LOS E and F operation during the Friday PM peak and Saturday Midday peak, respectively, due to the addition of the site-generated traffic. However, with minor timing adjustments at the existing traffic signal, the Corbin Drive westbound left-turn approach may operate at acceptable LOS D without degrading the overall LOS of the intersection.

7. Based on the results of the foregoing analysis, it is the professional opinion of Tighe & Bond that the additional traffic expected to be generated by the proposed Corbin Drive development is not expected to have a significant impact to traffic operations within the study area.