

TRAFFIC IMPACT STUDY

For

Bayonne 2019 Waterfront, LLC

Property Located at:

**219 West 5th Street
Block 301.01 – Lots 1 & 6
City of Bayonne, Hudson County, NJ**

Prepared by:



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3026-99-001TE

INTRODUCTION

It is proposed to construct a 7-story building with one hundred eighty (180) residential units (The Project) on a parcel of land located along West 5th Street, west of its intersections with Avenue A, in the City of Bayonne, Hudson County, New Jersey as shown on Figure 1 contained in Appendix A. The site is designated as Block 301.01 – Lots 1 and 6 on the City Tax Maps.

Dynamic Traffic, LLC has been retained to prepare this study to assess the viability of the adjacent roadway network to accommodate the additional traffic associated with the construction of The Project. This study documents the methodology, analyses, findings and conclusions of our study and includes:

- A detailed field inspection was conducted to obtain an inventory of existing roadway geometry, traffic control, and location and geometry of existing driveways and intersections.
- Projections of traffic to be generated by the proposed residential development were prepared utilizing trip generation data as published by the Institute of Transportation Engineers.
- An assessment of any applicable trip generation credits for local characteristics regarding mass transit utilization.
- A trip distribution analysis was prepared to assign the site traffic to the adjacent street system based upon the anticipated directional distribution.
- An evaluation of adjacent intersection impacts based on published State and national standards for a significant increase in traffic.

EXISTING CONDITIONS

A review of the existing roadway conditions near the subject site was conducted to provide the basis for assessing the traffic impact of the development. This included field investigations of the surrounding roadways and intersections, collection of traffic volume data, and extensive analyses.

Existing Roadway Conditions

The following are descriptions of the roadways in the study area:

West 5th Street is a local roadway under the jurisdiction of the City of Bayonne. In the vicinity of the site the speed limit is not posted and the roadway provides one travel lane in each direction with a general east/west orientation. On-street parking is not permitted west of Avenue A and curb and sidewalk is not provided. West 5th Street provides a straight horizontal alignment and a relatively flat vertical alignment. The land uses along West 5th Street in the vicinity of The Project are a mix of industrial and residential.

Avenue A is a local roadway under the jurisdiction of the City of Bayonne. In the vicinity of the site the speed limit is not posted and the roadway provides one travel lane in each direction with a general north/south orientation. On-street parking is permitted along both sides of the roadway with curb and sidewalk provided along both sides of the roadway. East 25th Street provides a straight horizontal alignment and a relatively flat vertical alignment. The land uses along East 25th Street in the vicinity of The Project are primarily residential.

John F. Kennedy Boulevard (CR 501) is an urban minor arterial under the jurisdiction of Hudson County. In the vicinity of the site the speed limit is 25 MPH and the roadway provides two travel lanes in each direction with a general north/south orientation. On-street parking is permitted along both sides of the roadway with curb and sidewalk provided along both sides of the roadway. John F. Kennedy Boulevard provides a curved horizontal alignment as it passes under NJ Route 440 and a relatively flat vertical alignment.

North Street is an urban minor arterial under the jurisdiction of the City of Bayonne. In the vicinity of the site the speed limit is 25 MPH and the roadway provides one travel lane in each direction with a general east/west orientation. On-street parking is permitted along both sides of the roadway with curb and sidewalk provided along both sides of the roadway. North Street provides a straight horizontal alignment and a relatively flat vertical alignment. The land uses along North Street in the vicinity of The Project are primarily residential.

FUTURE CONDITIONS

Traffic Generation

Projections of future traffic volumes were developed utilizing data as published in the Institute of Transportation Engineers (ITE) publication *Trip Generation, 10th Edition* for Land Use Code (LUC) 221 – Multifamily Housing (Mid-Rise). Table I summarizes the projected trips generated by the proposed residential development utilizing the ITE data.

**Table I
Trip Generation**

Land Use	AM PSH			PM PSH		
	In	Out	Total	In	Out	Total
180 Unit Residential Development	16	45	61	48	30	78

It should also be noted that within ½ of a mile from the site there is access to New Jersey Transit bus lines 10, and 119 along John F. Kennedy Boulevard. Additionally, within ¾ of a mile from the site there is access to the 8th Street Hudson-Bergen Light Rail (HBLR) Station. Based on data published by the US Census Bureau, approximately 18% of Bayonne residents utilize public transportation as their primary means of commuting and an additional 8% walk. This would equate to a 26% reduction in the trip generation contained in Table I. Table II summarizes the trip generation of the residential development with consideration of the mass transit and walking reductions on vehicular trip generation.

**Table II
Trip Generation with Consideration of Mass Transit**

Land Use	AM PSH			PM PSH		
	In	Out	Total	In	Out	Total
180 Unit Residential Development	12	33	45	36	22	58

Once the magnitude of traffic to be generated by the site is known, it is necessary to assign that traffic to the adjacent street system. The distribution of site traffic to the surrounding roadways is based on the location of primary arterial roadways, major signalized intersections, and existing traffic patterns. Located in Appendix A, Figure 2 illustrates the site generated traffic distribution for The Project. The site generated volumes were distributed to the adjacent intersections during the critical peak hours, which are shown in Figure 3.

Future Intersection Impacts

Table III summarizes the peak hour traffic increases as a result of The Project at the intersections adjacent to the site with consideration of the mass transit credits. Based on *Transportation Impact Analysis for Site Development*, published by the ITE “it is suggested that a transportation impact study be conducted whenever a proposed development will generate 100 or more added (new) trips during the adjacent roadways’ peak hour or the development’s peak hour.” NJDOT has determined that the same 100 vehicle threshold is considered a “significant increase in traffic,” hence, it is not anticipated

that The Project would have any perceptible impact on the traffic operation of the adjacent roadway network as the number of new trips falls well below the industry accepted standard of a significant increase in traffic of 100 trips.

**Table III
Future Intersection Impacts**

Intersection	AM PSH		PM PSH	
	Total Site Traffic	Significant Increase	Total Site Traffic	Significant Increase
Avenue A and West 5 th Street	45	No	58	No
Avenue A and NJ Route 440 Ramps	25	No	34	No
Avenue A and North Street	7	No	8	No
JFK Boulevard and NJ Route 440 Ramps	20	No	24	No
JFK Boulevard and North Street	4	No	5	No

Avenue A and West 5th Street

With the addition of the site traffic, a maximum increase in peak hour traffic at the intersection is 58 trips which is not considered significant as it falls below the 100 trip threshold for a significant increase in traffic.

Avenue A and NJ Route 440 Ramps

With the addition of the site traffic, a maximum increase in peak hour traffic at the intersection is 34 trips which is not considered significant as it falls below the 100 trip threshold for a significant increase in traffic.

Avenue A and North Street

With the addition of the site traffic, a maximum increase in peak hour traffic at the intersection is 8 trips which is not considered significant as it falls below the 100 trip threshold for a significant increase in traffic.

JFK Boulevard and NJ Route 440 Ramps

With the addition of the site traffic, a maximum increase in peak hour traffic at the intersection is 24 trips which is not considered significant as it falls below the 100 trip threshold for a significant increase in traffic.

Avenue A and North Street

With the addition of the site traffic, a maximum increase in peak hour traffic at the intersection is 5 trips which is not considered significant as it falls below the 100 trip threshold for a significant increase in traffic.

FINDINGS & CONCLUSIONS

Findings

Based upon the detailed analyses as documented herein, the following findings are noted:

- The proposed 180 residential units will generate 12 entering trips and 33 exiting trips during the morning peak hour and 36 entering trips and 22 exiting trips during the evening peak hour with consideration of the mass transit credit.
- With an increase of less than 100 trips per hour, which is defined as a recognized threshold of potential impact to the surrounding roadway network, it can be concluded that no off-site traffic improvements are necessary to offset and mitigate any potential negative traffic impacts.
- The Project is located within $\frac{3}{4}$ mile of the Hudson-Bergen Light Rail Station on 8th Street and within $\frac{1}{2}$ mile of the NJ Transit bus stops on John F. Kennedy Boulevard.
- With the addition of the site generated traffic, none of the adjacent intersections will experience a significant increase in traffic (100 or more trips) during either of the weekday morning or evening peak hours.

Conclusions

Based upon our Traffic Impact Study as detailed in the body of this report, it is the professional opinion of Dynamic Traffic, LLC that the adjacent street system of the City of Bayonne will not experience any significant degradation in operating conditions with the construction of The Project. Further, the proposed residential development will not generate a significant increase in traffic as defined by the ITE and NJDOT.

Appendix A
Traffic Volume Figures



Proposed Residential Development
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Figure 1

Site Location Map



LEGEND

-  Existing Roadway
-  Proposed Roadway
-  IN (OUT)
-  Signalized Intersection

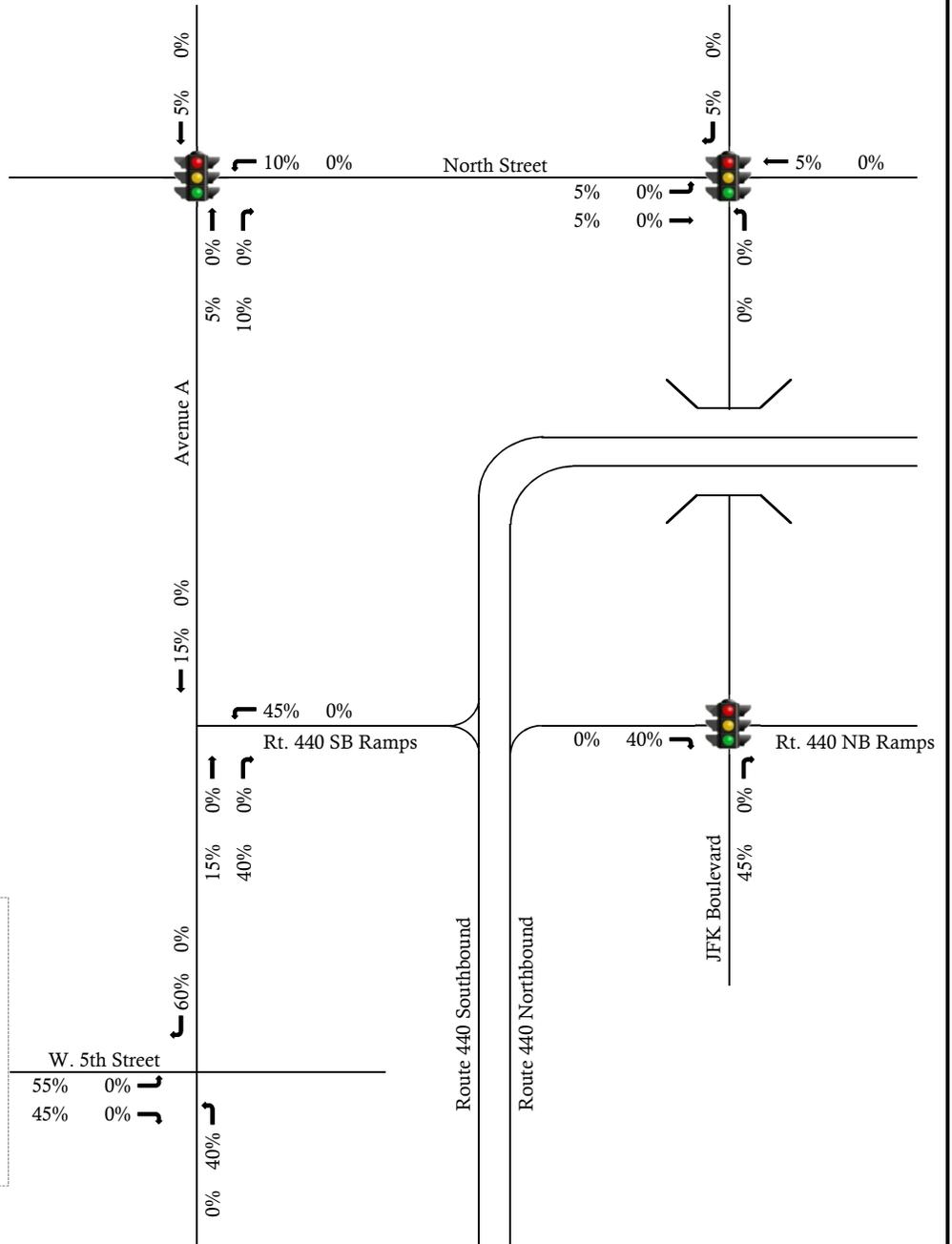
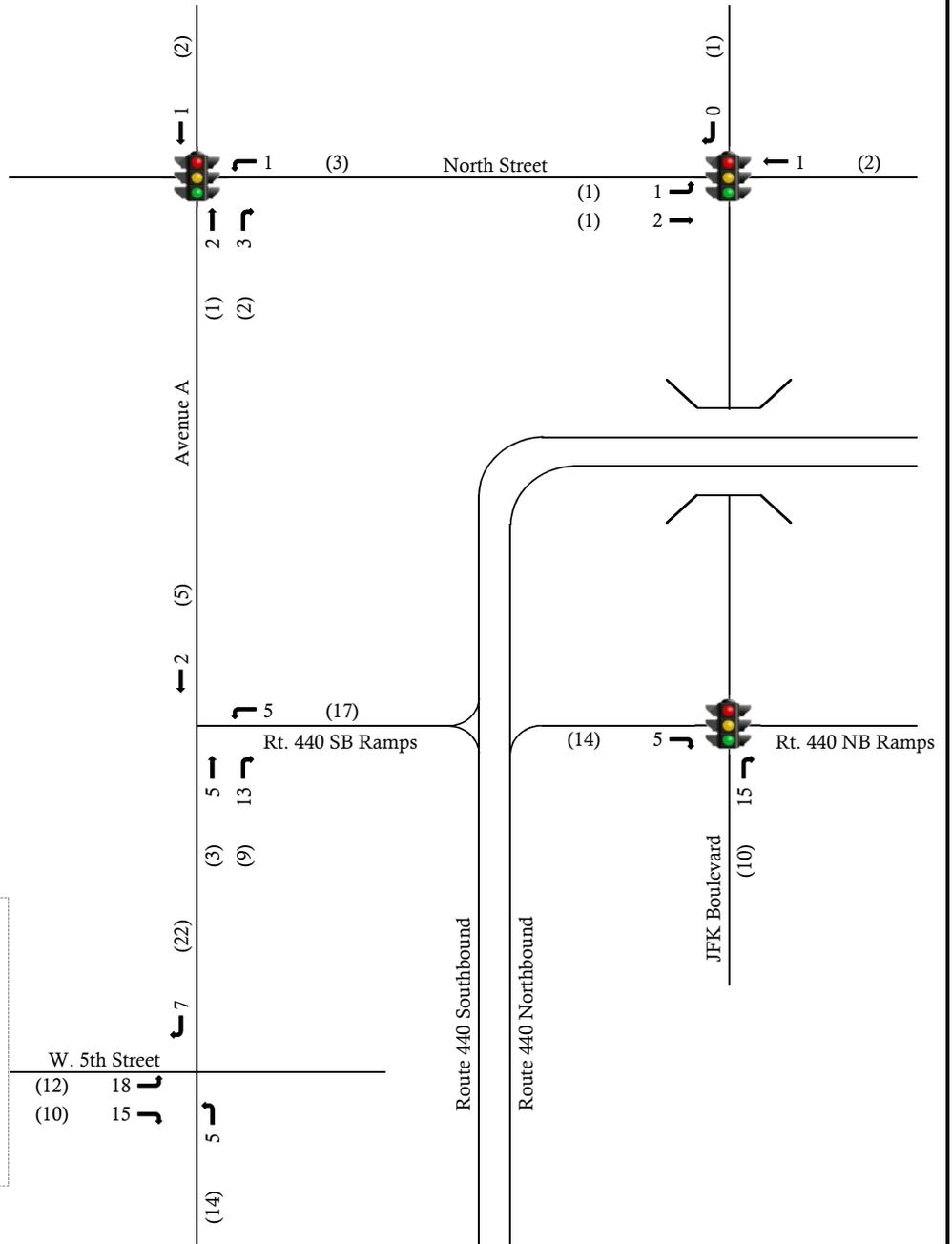


Figure 2
Percent Distribution



LEGEND

-  Existing Roadway
-  Proposed Roadway
-  AM (PM)
-  Signalized Intersection



Proposed Residential Development
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Figure 3

Site Generated Trips

