



TRAFFIC IMPACT STUDY

PROPOSED MIXED-USE DEVELOPMENT

Proposed Mixed-Use
Development
Block 17905, Lot 23
City of Jersey City,
Hudson County, New Jersey

Prepared For:
Doormart USA

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STONEFIELD

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INTRODUCTION

This Traffic Impact Study was prepared to investigate the potential impacts of the proposed mixed-use development on the adjacent roadway network. The subject property is located along Communipaw Avenue, directly across from Jackson Street, in the City of Jersey City, Hudson County, New Jersey. The site location is shown on appended **Figure I**.

The subject property is designated as Block 17905, Lot 23 as depicted on the City of Jersey City Tax Map. The site has approximately 24 feet of frontage along Communipaw Avenue and 23 feet of frontage along Harrison Avenue. The existing site is vacant with no vehicular access provided. Under the proposed development program, a four (4)-story mixed-used development consisting of 10 residential dwelling units and 690 square feet of retail space would be constructed. No vehicular access to the site would be provided.

METHODOLOGY

Stonefield Engineering & Design, LLC has prepared this Traffic Impact Study in accordance with the recommended guidelines and practices outlined by the Institute of Transportation Engineers (ITE) within Transportation Impact Analyses for Site Development. A detailed field investigation was performed to assess the existing conditions of the adjacent roadway network. A data collection effort was completed to identify the existing traffic volumes at the study intersections to serve as a base for the traffic analyses. Capacity analysis, a procedure used to estimate the traffic-carrying ability of roadway facilities over a range of defined operating conditions, was performed using the Highway Capacity Manual, 6th Edition (HCM) and the Synchro II Software for all study conditions to assess the roadway operations.

For an unsignalized intersection, Level of Service (LOS) A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle. For a signalized intersection, LOS A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 80 seconds per vehicle. The Technical Appendix contains the Highway Capacity Analysis Detail Sheets for the study intersections analyzed in this assessment.

2022 EXISTING CONDITION

2022 EXISTING ROADWAY CONDITIONS

The proposed located along Communipaw Avenue, directly across from Jackson Street, in the City of Jersey City, Hudson County, New Jersey. The subject property is designated as Block 17905, Lot 23 as depicted on the City of Jersey City Tax Map. The site has approximately 24 feet of frontage along Communipaw Avenue and 23 feet of frontage along Harrison Avenue. Land uses in the area are a mix of commercial, retail, and residential uses.

Communipaw Avenue is classified as an Urban Minor Arterial roadway with a general east-west orientation and is under the jurisdiction of the City of Jersey City. Along the site frontage, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 25 mph. Curb and sidewalk are provided along both sides of the roadway, shoulders are not provided, and on-street parking is permitted along both sides of the roadway, with restrictions in effect Monday through Friday from 4:00 p.m. to 7:00 p.m. along the northerly side of the roadway and Monday through Friday from 6:00 a.m. to 10:00 a.m. on the southerly side of the roadway. Communipaw Avenue provides east-west mobility throughout Jersey City and provides access to U.S. Route 9 and NJSH Route 440 at its westerly terminus for a mix of commercial, retail, and residential uses along its length.

Jackson Street is a local roadway with a general north-south orientation and is under the jurisdiction of the City of Jersey City. Within vicinity of the site, the roadway provides one (1) lane of travel in each direction. Curb and sidewalk are provided along both sides of the roadway, shoulders are not provided, and on-street parking is not permitted. Jackson Street connects Communipaw Avenue at its northerly terminus and Clinton Avenue at its southerly terminus for a mix to retail and municipal uses along its length.

Communipaw Avenue and Jackson Street intersect to form an unsignalized T-intersection with the northbound approach of Jackson Street operating under stop control. The eastbound approach of Communipaw Avenue provides one (1) shared through/right-turn lane and the westbound approach of Communipaw Avenue provides one (1) shared left-turn/through lane. The northbound approach of Jackson Street provides one (1) left-turn/right-turn lane. Crosswalks are provided across the southerly leg of the intersection and pedestrian ramps are provided across the westerly and southerly legs of the intersection.

2022 EXISTING TRANSIT SERVICE

The subject site is located within 0.4 miles (nine (9)-minute walk) from the Martin Luther King Drive Light Rail Station which serves NJ Transit's Hudson-Bergen Light Rail Line and provides direct service to Hoboken Terminal, Exchange Place, and Newport Plaza, as well as transfer service to other lines on the NJ Transit system. At Hoboken Terminal, transfers are available to the Port Authority Trans-Hudson (PATH) trains and NY Waterway ferries. Further, the proposed development is located within 150 feet (one (1)-minute walk) from bus stops that service four (4) NJ Transit bus routes, with the nearest stop located at the intersection of Communipaw Avenue and Monticello Avenue. NJ Transit Bus Routes 1, 6, 81, and 87 provide service to Hoboken Terminal, Newark, Bayonne, Journal Square, and various points of interest throughout Hudson and Essex Counties. The non-vehicular transportation modes available in the general vicinity of the subject site are summarized on **Table I**.

TABLE 1: MULTI-MODAL TRANSPORTATION OPTIONS

Travel Mode	Proximity to Site	Peak Commuter Period Headways	Destination(s)	Time Travel to Major Destination
Martin Luther King Drive Light Rail Station	0.4 miles	Inbound: 10 minutes Outbound: 10 minutes	Hoboken Terminal, Exchange Place, West Side Avenue, Tonnelie Avenue	Hoboken Terminal: 15 minutes
NJ Transit Bus Route 1	150 feet	Inbound: 60 minutes Outbound: 20 minutes	Newark, Kearny, Jersey City	Newark: 60 minutes
NJ Transit Bus Route 6	0.3 miles	Inbound: 30 minutes Outbound: 50 minutes	Journal Square	Journal Square: 12 minutes
NJ Transit Bus Route 81	0.3 miles	Inbound: 25 minutes Outbound: 20 minutes	Bayonne, Exchange Place	Bayonne: 30 minutes
NJ Transit Bus Route 87	150 feet	Inbound: 5 minutes Outbound: 3 minutes	Hoboken, Journal Square	Hoboken: 35 minutes

2022 EXISTING TRAFFIC VOLUMES

Turning movement counts were collected during the typical weekday morning and weekday evening time periods to evaluate existing traffic conditions and identify the specific hours when traffic activity on the adjacent roadways is at a maximum and could be potentially impacted by the development of the site. Turning movement counts were collected at the intersection of Communipaw Avenue & Jackson Street on Tuesday, February 15, from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 7:00 p.m.

The study time periods were chosen as they are representative of the peak periods of both the adjacent roadway network and the proposed development. The traffic volume data was collected and analyzed to identify the design peak hour in accordance with HCM and ITE guidelines. Based on the review of the count data the weekday morning peak hour occurred from 7:30 a.m. to 8:30 a.m. and the weekday evening peak hour occurred from 5:30 p.m. to 6:30 p.m. The Technical Appendix contains a summary of the turning movement count data. The 2022 Existing weekday morning and weekday evening peak-hour volumes are summarized on appended **Figure 2**.

2022 EXISTING LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was conducted for the 2022 Existing Condition during the weekday morning and weekday evening peak hours at the study intersection. Under the existing condition, the turning movements at the unsignalized intersection of Communipaw Avenue and Jackson Street are calculated to operate at Level of Service C or better during the weekday morning and weekday evening peak hours. The 95th percentile queue at the Jackson Street approach is calculated to be under one (1) vehicle during the weekday morning and weekday evening peak hours.

2024 NO-BUILD CONDITION

BACKGROUND GROWTH

The 2022 Existing Condition traffic volume data was grown to a future horizon year of 2024, which is a conservative estimate for when the proposed mixed-use development is expected to be fully constructed. In accordance with industry guidelines, the existing traffic volumes at the study intersections were increased by 1.00% annually for two (2) years. The 1.00% background growth rate was obtained from the New Jersey Department of Transportation (NJDOT) Annual Background Growth Rate Table.

OTHER PLANNED DEVELOPMENT PROJECTS

To evaluate the future traffic conditions, it is important to consider the potential site-generated traffic of other projects that could influence the traffic volume at the study intersections. Other planned development projects include those that are either in the entitlement process or have recently been approved for building permits in proximity to the proposed development. Based on research with the City of Jersey City Planning Board meeting minutes and agendas, there are no planned development projects within the area of the subject site. As such, the application of the background growth rate would be adequate to account for background traffic growth.

2024 NO-BUILD TRAFFIC VOLUMES

The background growth rate was applied to the 2022 Existing Traffic Volumes to calculate the 2024 No-Build Traffic Volumes for the weekday morning and weekday evening peak hours. These volumes are summarized on appended **Figure 3**.

2024 NO-BUILD LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was also conducted for the 2024 No-Build Condition during the weekday morning and weekday evening peak hours at the study intersection. The turning movements at the unsignalized intersection of Communipaw Avenue and Jackson Street are calculated to operate generally consistent with the findings of the Existing Condition during the weekday morning and weekday evening peak hours. The 95th percentile queue at the Jackson Street approach is calculated to be under one (1) vehicle during the weekday morning and weekday evening peak hours.

2024 BUILD CONDITION

The site-generated traffic volume of the proposed mixed-use development was estimated to identify the potential impacts of the project. For the purpose of this analysis, a complete project “build out” is assumed within two (2) years of the preparation of this study.

TRIP GENERATION

Trip generation projections for passenger vehicle trips, walking trips, and bicycle trips for the proposed mixed-use development were prepared utilizing ITE's Trip Generation Manual, 11th Edition. Trip generation rates associated with Land Use 221 "Multifamily Housing (Mid-Rise)" and Land Use 822 "Strip Retail Plaza" were cited for proposed mixed-use development consisting of 10 residential dwelling units and 690 square feet of retail. **Table 2** provides the weekday morning and weekday evening peak hour trip generation volumes associated with the proposed development.

TABLE 2 – PROPOSED TRIP GENERATION

Land Use	Modal Type	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
10 Unit Multifamily Housing (Mid-Rise) <i>ITE Land Use 221</i>	Vehicle	2	1	3	1	2	3
	Walk	0	1	1	0	1	1
	Bicycle	0	0	0	0	0	0
	Subtotal	2	2	4	1	3	4
690 SF Strip Retail Plaza <i>ITE Land Use 822</i>	Vehicle	1	1	2	2	3	5
	Walk	0	0	0	0	0	0
	Bicycle	0	0	0	0	0	0
	Subtotal	1	1	2	2	3	5
Total		3	3	6	3	6	9

The proposed development is expected to generate six (6) new trips (five (5) of which would be vehicle trips) during the weekday morning peak hour and nine (9) new trips (eight (8) of which would be vehicle trips) during the weekday evening peak hour. Based on Transportation Impact Analysis for Site Development published by ITE, a trip increase of less than 100 vehicle trips would likely not change the level of service of the adjacent roadway system or appreciably increase the volume-to-capacity ratio of an intersection approach. As such, the proposed development is not anticipated to significantly impact the operations of the adjacent roadway network.

TRIP ASSIGNMENT/DISTRIBUTION

The trips generated by the proposed development were distributed according to the existing travel pattern along the adjacent roadway. It is noted that the site does not provide on-site parking. It is assumed that vehicles travelling to and from the site would utilize on-street parking along Communipaw Avenue to access the site. It is also assumed that a number of passenger vehicle trips would utilize taxis and other ride share methods to access the site. The Site-Generated Traffic Volumes are illustrated on **Figure 4**.

2024 BUILD TRAFFIC VOLUMES

The site-generated trips were added to the 2024 No-Build Traffic Volumes to calculate the 2024 Build Traffic Volumes and are shown on appended **Figure 5**.

2024 BUILD LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was also conducted for the 2024 Build Condition during the weekday morning and weekday evening peak hours at the study intersection. **Tables 3** and **4** compare the Existing, No-Build, and Build Conditions Level of Service and delay values.

The turning movements at the unsignalized intersection of Communipaw Avenue and Jackson Street are calculated to operate generally consistent with the findings of the No-Build Condition during the weekday morning and weekday evening peak hours. The 95th percentile queue at the Jackson Street approach is calculated to be under one (1) vehicle during the weekday morning and weekday evening peak hours.

COMPARATIVE LEVEL OF SERVICE (DELAY) TABLES

COMMUNPAW AVENUE & JACKSON STREET

EB (Eastbound) and WB (Westbound) approaches are the Communipaw Avenue approaches
NB (Northbound) approach is the Jackson Street approach
X (n) = Level of Service (seconds of delay)

TABLE 3 – WEEKDAY MORNING PEAK HOUR

Lane Group	2022 Existing Condition	2024 No-Build Condition	2024 Build Condition
WB Left/Through	A (9.7)	A (9.8)	A (9.8)
NB Left/Right	C (23.6)	C (24.3)	C (24.4)

TABLE 4 – WEEKDAY EVENING PEAK HOUR

Lane Group	2022 Existing Condition	2024 No-Build Condition	2024 Build Condition
WB Left/Through	A (9.1)	A (9.1)	A (9.1)
NB Left/Right	C (22.9)	C (23.5)	C (23.7)

MOTOR VEHICLE COLLISION ANALYSIS

In order to assess the safety of the intersection of Communipaw Avenue and Jackson Street, three (3) years of motor vehicle collision data were obtained from the NJDOT's Safety Voyager data base. The study time period spans from January 2019 to December 2021. **Table 5** provides a summary of the manner and severity of the motor vehicle collisions reported at the intersection of Communipaw Avenue and Jackson Street.

TABLE 5 – MOTOR VEHICLE COLLISION SUMMARY

Intersection/Corridor	Collision Type	Number of Collisions	Collisions Resulting in Injury	Collisions Resulting in Fatality
Communipaw Avenue & Jackson Avenue	Rear End	3	0	0
	Right Angle	2	0	0
	Pedestrian	2	1	0
	Left-Turn	1	1	0
	Same Direction - Sideswipe	1	1	0
	Total	9	3	0

As shown in Table 5, a total of nine (9) collisions were reported at the intersection of Communipaw Avenue and Jackson Street over the 36-month period; this equates to approximately three (3) collisions per year. It is important to note that zero (0) fatalities occurred as a result of the reported motor vehicle collisions at the study intersection. Based on historical data published by NJDOT, Communipaw Avenue experienced approximately 19.1 million entering vehicles over the 3-year study period. The collision rate is calculated to be 0.47 collisions per million entering vehicles. The proposed development is not anticipated to have an adverse impact on the motor vehicle collision rates of the study roadway network.

SITE CIRCULATION/PARKING SUPPLY

A review was conducted of the proposed mixed-use development using the Site Plan prepared by our office, dated June 8, 2022. In completing this review, particular attention was focused on the site access, circulation, and parking supply.

Under the proposed development program, a four (4)-story mixed-used building consisting of 10 residential dwelling units and 690 square feet of retail space would be constructed. The ground-floor of the development would consist of the 690 square feet of retail space and one (1) residential dwelling unit. Floors two through four would consist of three (3) dwelling units each. Vehicular access to the site would not be provided. Pedestrian access would be provided via two (2) entrances along Communipaw Avenue and one (1) entrance along Harrison Avenue. A number of sidewalk improvements are proposed along Communipaw Avenue and Harrison Avenue. Bicycle parking spaces would be provided on the ground floor of the proposed development.

Regarding the parking requirements for the proposed development, the Jackson Hill Redevelopment Plan prohibits curb cuts along Communipaw Avenue. As a result, parking is prohibited on the subject property which does not have access to an alternative rights-of-ways. Regarding the bicycle parking requirements for the proposed development, the City of Jersey City Ordinance requires 0.5 bicycle parking spaces per dwelling unit in a residential development. For the proposed mixed-use development with 10 dwelling units, this equates to five (5) required bicycle spaces. The site would provide five (5) total bicycle parking spaces, which meets the requirement and would be sufficient to support this project's bicycle parking demand.

Based on American Community Survey data provided by the U.S. Census Bureau, approximately 51% of residents living in Census Tract 41.02, where the site is located, use public transportation, walk, or use means other than single-passenger vehicles to commute to work, and approximately 26% of households do not own a vehicle. The location of the proposed development is particularly suited to provide transit options for its occupants as it is located within 0.4 miles (nine (9)-minute walk) from the Martin Luther King Drive Light Rail Station which serves NJ Transit's Hudson-Bergen Light Rail Line and provides direct service to Hoboken Terminal, Exchange Place, and Newport Plaza, as well as transfer service to other lines on the NJ Transit system. At Hoboken Terminal, transfers are available to the Port Authority Trans-Hudson (PATH) trains and NY Waterway ferries. Further, the proposed development is located within 150 feet (one (1)-minute walk) from bus stops that service four (4) NJ Transit bus routes, with the nearest stop located at the intersection of Communipaw Avenue and Monticello Avenue. NJ Transit Bus Routes 1, 6, 81, and 87 provide service to Hoboken Terminal, Newark, Bayonne, Journal Square, and various points of interest throughout Hudson and Essex Counties. These available transit options within walking distance of the proposed development would likely reduce vehicular travel by residents to and from the subject property, thus reducing the parking demand of the proposed development.

JERSEY CITY VISION ZERO

Jersey City's Vision Zero Action Plan, dated February 2019, was developed with the goal of achieving zero traffic deaths and serious injuries through all city transportation plans, policies, programs, and projects. The Bicycle Master Plan, Pedestrian Enhancement Plan, and School Travel Plan described herein were developed in direct support of the Vision Zero Initiative. The Jersey City Zero Vision Plan will provide a number of speed humps and other traffic calming measures along Communipaw Avenue to reduce speeds along the roadway and increase the safety of the area.

JERSEY CITY BIKE MASTER PLAN

The Jersey City Bike Master Plan, dated September 2019, is designed to promote the goal of making Jersey City a place where cycling is a viable and enjoyable transportation option. Based on the Ward F plan, a protected bike lane would be provided along Communipaw Avenue. Additionally, a number of shared streets are proposed within the vicinity of the site. The development is conveniently located proximate to Lincoln Park, with access to CitiBike stations along commercial corridors. **Exhibit I** shows the Jersey City Bike Master Plan Map proximate to the subject site, detailing the existing and planned bicycle facilities in the site vicinity.

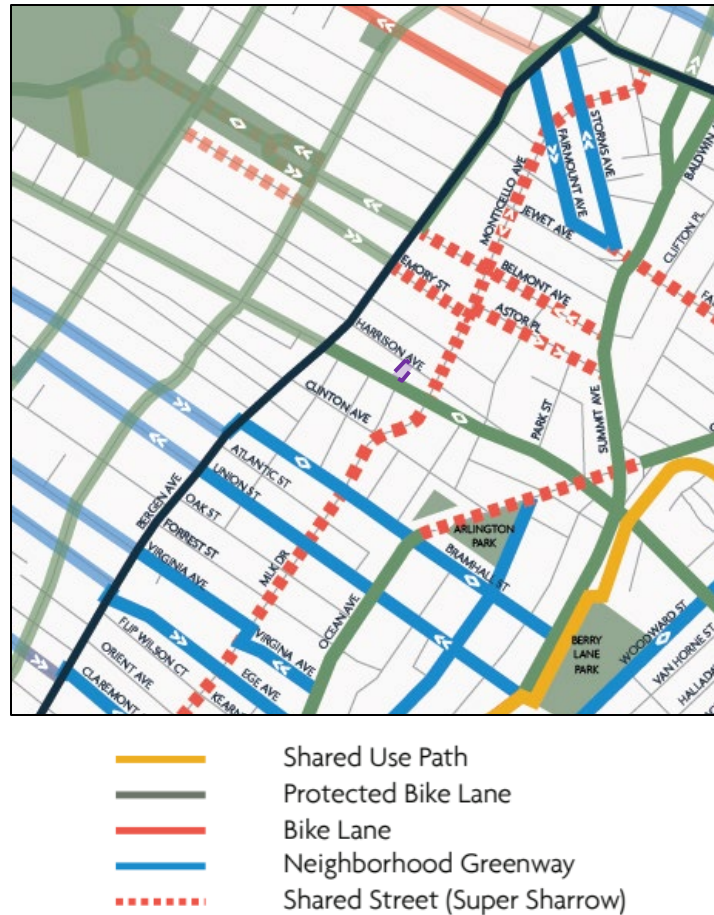


Exhibit I. Jersey City Bike Master Plan Map proximate to subject site

JERSEY CITY PEDESTRIAN ENHANCEMENT PLAN

The Pedestrian Enhancement Plan, dated May 2018, has been developed by Jersey City to prioritize the pedestrian experience with improvements to safety and aesthetics to foster active public places. Under the proposed development plan, the sidewalks along the Communipaw Avenue and Harrison Avenue frontages would be improved with new concrete and concrete pavers. Additionally, an ADA-accessible ramp would be provided across Communipaw Avenue along the site frontage.

JERSEY CITY SCHOOL TRAVEL PLAN

The proposed development is located within a “priority area” based on the Jersey City School Travel Plan. It is important to note that Learning Community Charter School, Jersey City Community Charter School, Badr School, Al Ghazaly School, Lincoln High School, Joseph H. Brensinger School (PS 17), Julia A. Barnes School (PS 12), and Ollie Culbreth Jr. School (PS 14) are all within 0.5 miles of the site. There is an existing network of crosswalks and sidewalks that provide access from the subject site to the schools, with crossing guards facilitating safe crossing at major intersections. The City’s Safe Routes to School initiative as described in the

Jersey City School Travel Plan, dated July 2019, aspires to create safe walking and biking environments for children. In order to support these goals, school zone identification, sign visibility, pedestrian actuated beacons, curb extensions, road diets, bike parking, and sidewalk maintenance will be improved throughout the city to provide another safe walking environment for students.

CONCLUSIONS

This report was prepared to examine the potential traffic impact of the proposed mixed-use development. The analysis findings, which have been based on industry-standard guidelines, indicate that the proposed development would not have a significant impact on the traffic operations of the adjacent roadway network. The proximity of the site to the Martin Luther King Light Rail station and nearby bus stops, as well as the walkable nature of the surrounding area would result in a reduced traffic generation as compared to a similar development with no transit access. Based on the Jackson Hill Redevelopment Plan, on-site parking is prohibited, and the bicycle parking provided would be sufficient to support this project.

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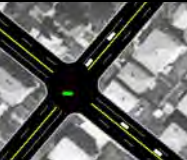
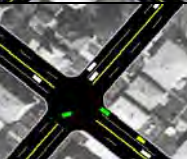
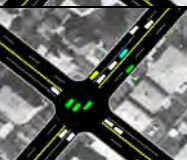
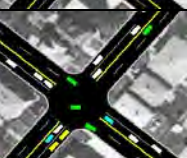
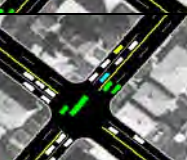
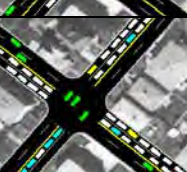
TECHNICAL APPENDIX

LEVEL OF SERVICE/AVERAGE CONTROL DELAY CRITERIA

LEVEL OF SERVICE /AVERAGE CONTROL DELAY CRITERIA

The ability of a roadway to effectively accommodate traffic demand is determined through an assessment of the volume-to-capacity ratio, delay and Level of Service of the lane group and/or intersection. The volume-to-capacity ratio is the ratio of traffic flow rate to capacity for a given transportation facility. As defined within the Highway Capacity Manual, 6th Edition (HCM), intersection delay is the total additional travel time experienced by drivers, passengers, or pedestrians as a result of control measures and interaction with other users of the facility, divided by the volume departing from the corresponding cross section of the facility. Level of service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience.

For an unsignalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle. For a signalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle and LOS F denotes operations with delay in excess of 80 seconds per vehicle.

	Level Of Service (LOS)	Signalized Delay Range (average control delay in sec/veh)	Unsignalized Delay Range (average control delay in sec/veh)
	A	≤ 10	≤ 10
	B	> 10 and ≤ 20	> 10 and ≤ 15
	C	> 20 and ≤ 35	> 15 and ≤ 25
	D	> 35 and ≤ 55	> 25 and ≤ 35
	E	> 55 and ≤ 80	> 35 and ≤ 50
	F	> 80	> 50

Source: Highway Capacity Manual, 6th Edition

TURNING MOVEMENT COUNT DATA

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Intersection of Communipaw Avenue (E/W)
and Jackson Street (N/S)
Jersey City, Hudson County, New Jersey
Tuesday, February 15, 2022

File Name : RUT-210406
Site Code : 00210406
Start Date : 2/15/2022
Page No : 1

Groups Printed- Auto - HV - B/SB

	Communipaw Avenue Eastbound				Communipaw Avenue Westbound				Jackson Street Northbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	162	8	170	2	98	0	100	2	0	1	3	273
07:15 AM	0	175	9	184	1	88	0	89	5	0	2	7	280
07:30 AM	0	203	2	205	2	101	0	103	0	0	0	0	308
07:45 AM	0	199	5	204	1	132	0	133	1	0	0	1	338
Total	0	739	24	763	6	419	0	425	8	0	3	11	1199
08:00 AM	0	184	0	184	2	130	0	132	2	0	1	3	319
08:15 AM	0	156	4	160	2	136	0	138	2	0	1	3	301
08:30 AM	0	152	8	160	2	117	0	119	0	0	0	0	279
08:45 AM	0	144	3	147	4	114	0	118	1	0	0	1	266
Total	0	636	15	651	10	497	0	507	5	0	2	7	1165
*** BREAK ***													
04:00 PM	0	136	10	146	7	121	0	128	2	0	2	4	278
04:15 PM	0	142	8	150	6	136	0	142	2	0	0	2	294
04:30 PM	0	154	4	158	3	127	0	130	2	0	0	2	290
04:45 PM	0	151	5	156	8	113	0	121	0	0	0	0	277
Total	0	583	27	610	24	497	0	521	6	0	2	8	1139
05:00 PM	0	164	6	170	7	134	0	141	4	0	0	4	315
05:15 PM	0	121	6	127	8	146	0	154	1	0	1	2	283
05:30 PM	0	163	6	169	6	124	0	130	2	0	0	2	301
05:45 PM	0	124	8	132	6	159	0	165	1	0	1	2	299
Total	0	572	26	598	27	563	0	590	8	0	2	10	1198
06:00 PM	0	145	2	147	1	193	0	194	3	0	3	6	347
06:15 PM	0	151	7	158	3	155	0	158	2	0	2	4	320
06:30 PM	0	125	6	131	4	142	0	146	1	0	1	2	279
06:45 PM	0	146	7	153	2	141	0	143	3	0	3	6	302
Total	0	567	22	589	10	631	0	641	9	0	9	18	1248
Grand Total	0	3097	114	3211	77	2607	0	2684	36	0	18	54	5949
Apprch %	0	96.4	3.6		2.9	97.1	0		66.7	0	33.3		
Total %	0	52.1	1.9	54	1.3	43.8	0	45.1	0.6	0	0.3	0.9	
Auto	0	2964	113	3077	75	2483	0	2558	34	0	18	52	5687
% Auto	0	95.7	99.1	95.8	97.4	95.2	0	95.3	94.4	0	100	96.3	95.6
HV	0	96	0	96	1	88	0	89	1	0	0	1	186
% HV	0	3.1	0	3	1.3	3.4	0	3.3	2.8	0	0	1.9	3.1
B/SB	0	37	1	38	1	36	0	37	1	0	0	1	76
% B/SB	0	1.2	0.9	1.2	1.3	1.4	0	1.4	2.8	0	0	1.9	1.3

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

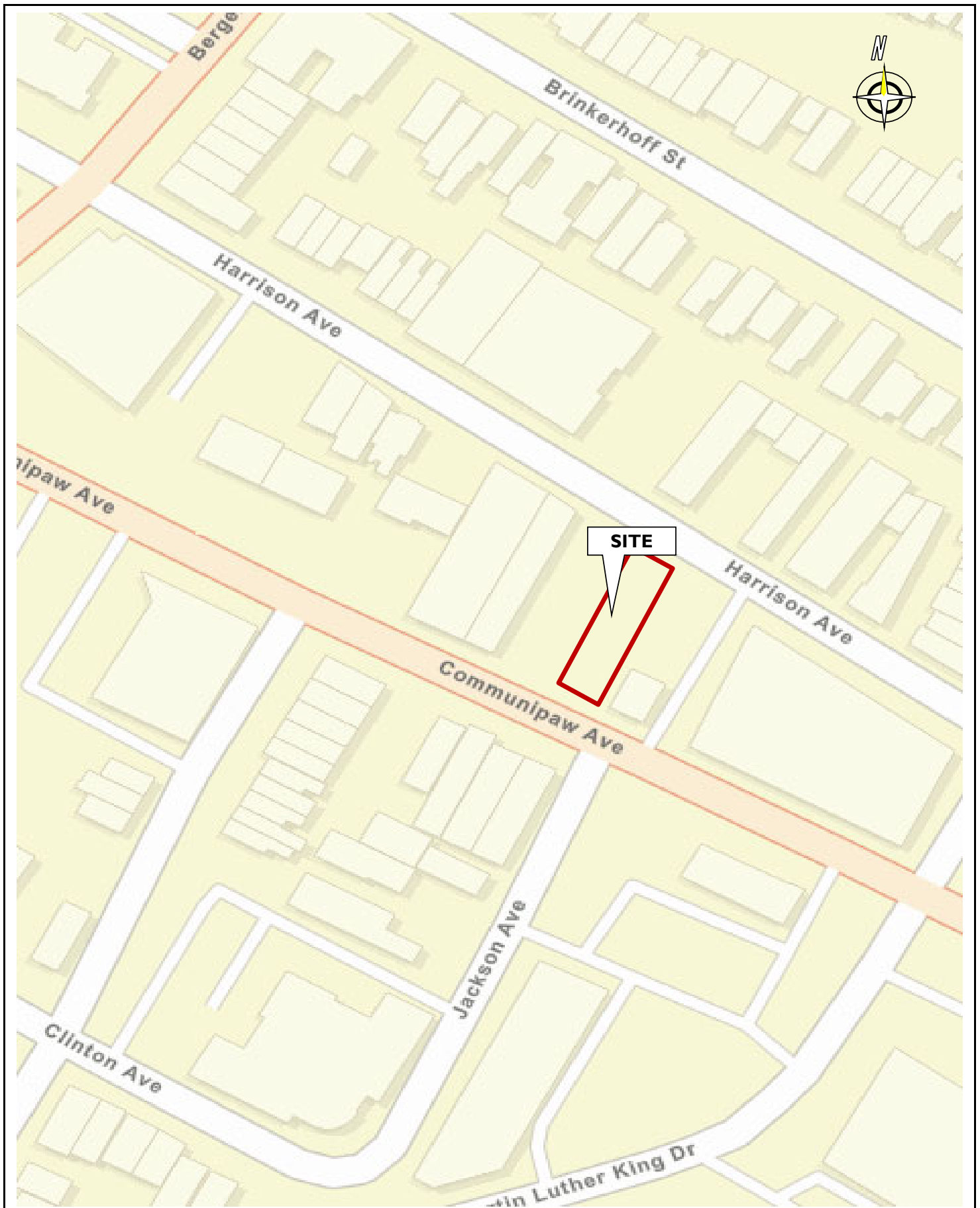
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Intersection of Communipaw Avenue (E/W)
and Jackson Street (N/S)
Jersey City, Hudson County, New Jersey
Tuesday, February 15, 2022

File Name : RUT-210406
Site Code : 00210406
Start Date : 2/15/2022
Page No : 2

	Communipaw Avenue Eastbound				Communipaw Avenue Westbound				Jackson Street Northbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	0	203	2	205	2	101	0	103	0	0	0	0	308
07:45 AM	0	199	5	204	1	132	0	133	1	0	0	1	338
08:00 AM	0	184	0	184	2	130	0	132	2	0	1	3	319
08:15 AM	0	156	4	160	2	136	0	138	2	0	1	3	301
Total Volume	0	742	11	753	7	499	0	506	5	0	2	7	1266
% App. Total	0	98.5	1.5		1.4	98.6	0		71.4	0	28.6		
PHF	.000	.914	.550	.918	.875	.917	.000	.917	.625	.000	.500	.583	.936
Auto	0	712	11	723	6	469	0	475	5	0	2	7	1205
% Auto	0	96.0	100	96.0	85.7	94.0	0	93.9	100	0	100	100	95.2
HV	0	23	0	23	0	24	0	24	0	0	0	0	47
% HV	0	3.1	0	3.1	0	4.8	0	4.7	0	0	0	0	3.7
B/SB	0	7	0	7	1	6	0	7	0	0	0	0	14
% B/SB	0	0.9	0	0.9	14.3	1.2	0	1.4	0	0	0	0	1.1
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:30 PM													
05:30 PM	0	163	6	169	6	124	0	130	2	0	0	2	301
05:45 PM	0	124	8	132	6	159	0	165	1	0	1	2	299
06:00 PM	0	145	2	147	1	193	0	194	3	0	3	6	347
06:15 PM	0	151	7	158	3	155	0	158	2	0	2	4	320
Total Volume	0	583	23	606	16	631	0	647	8	0	6	14	1267
% App. Total	0	96.2	3.8		2.5	97.5	0		57.1	0	42.9		
PHF	.000	.894	.719	.896	.667	.817	.000	.834	.667	.000	.500	.583	.913
Auto	0	570	23	593	15	607	0	622	8	0	6	14	1229
% Auto	0	97.8	100	97.9	93.8	96.2	0	96.1	100	0	100	100	97.0
HV	0	9	0	9	1	15	0	16	0	0	0	0	25
% HV	0	1.5	0	1.5	6.3	2.4	0	2.5	0	0	0	0	2.0
B/SB	0	4	0	4	0	9	0	9	0	0	0	0	13
% B/SB	0	0.7	0	0.7	0	1.4	0	1.4	0	0	0	0	1.0

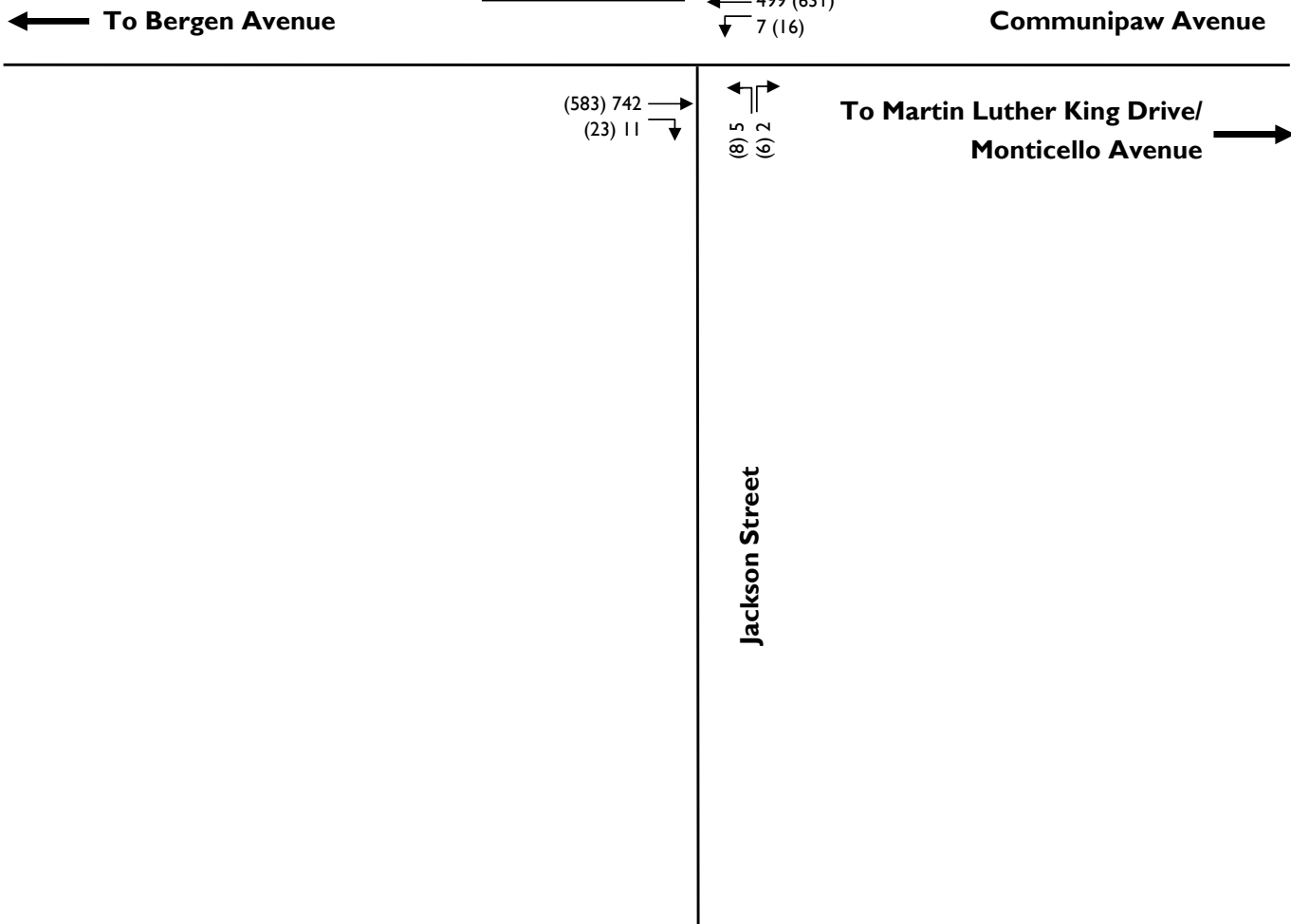
FIGURES



STONEFIELD

Proposed Mixed-Use Development
610 Communipaw Avenue
Jersey City, Hudson County, New Jersey
Traffic Impact Study

FIGURE I
Site Location Map

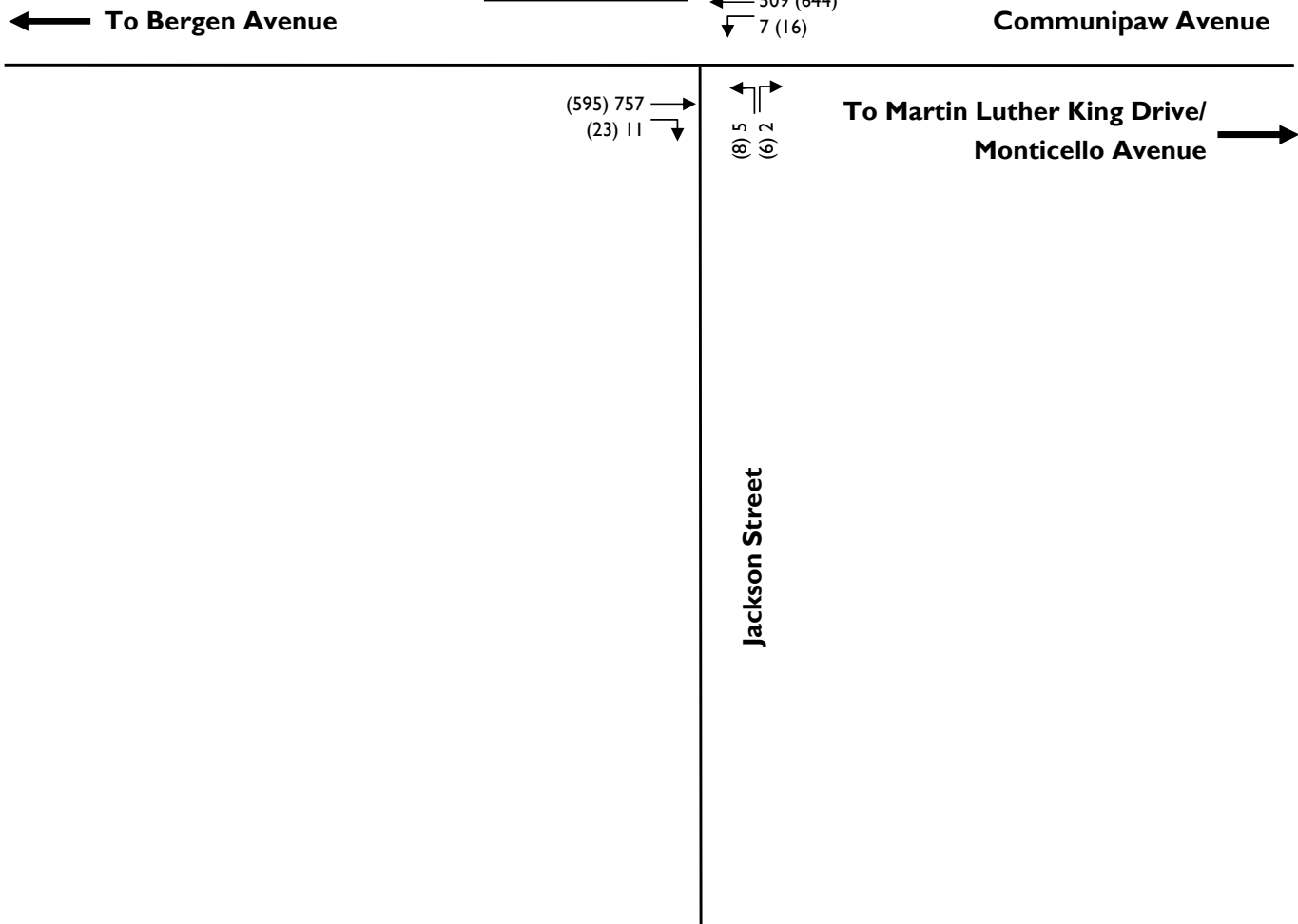


not to scale

STONEFIELD

Proposed Mixed-Use Development
610 Communipaw Avenue
Jersey City, Hudson County, New Jersey
Traffic Impact Study

FIGURE 2
2022 Existing Traffic
Volumes



LEGEND

- Existing Roadway
- ← AM (PM) Peak Hour Volumes

not to scale

STONEFIELD

Proposed Mixed-Use Development
610 Communipaw Avenue
Jersey City, Hudson County, New Jersey
Traffic Impact Study

FIGURE 3
2024 No-Build Traffic
Volumes



← To Bergen Avenue

← 3 (4)

Communipaw Avenue

(4) 2 →

To Martin Luther King Drive/
Monticello Avenue →

Jackson Street

LEGEND

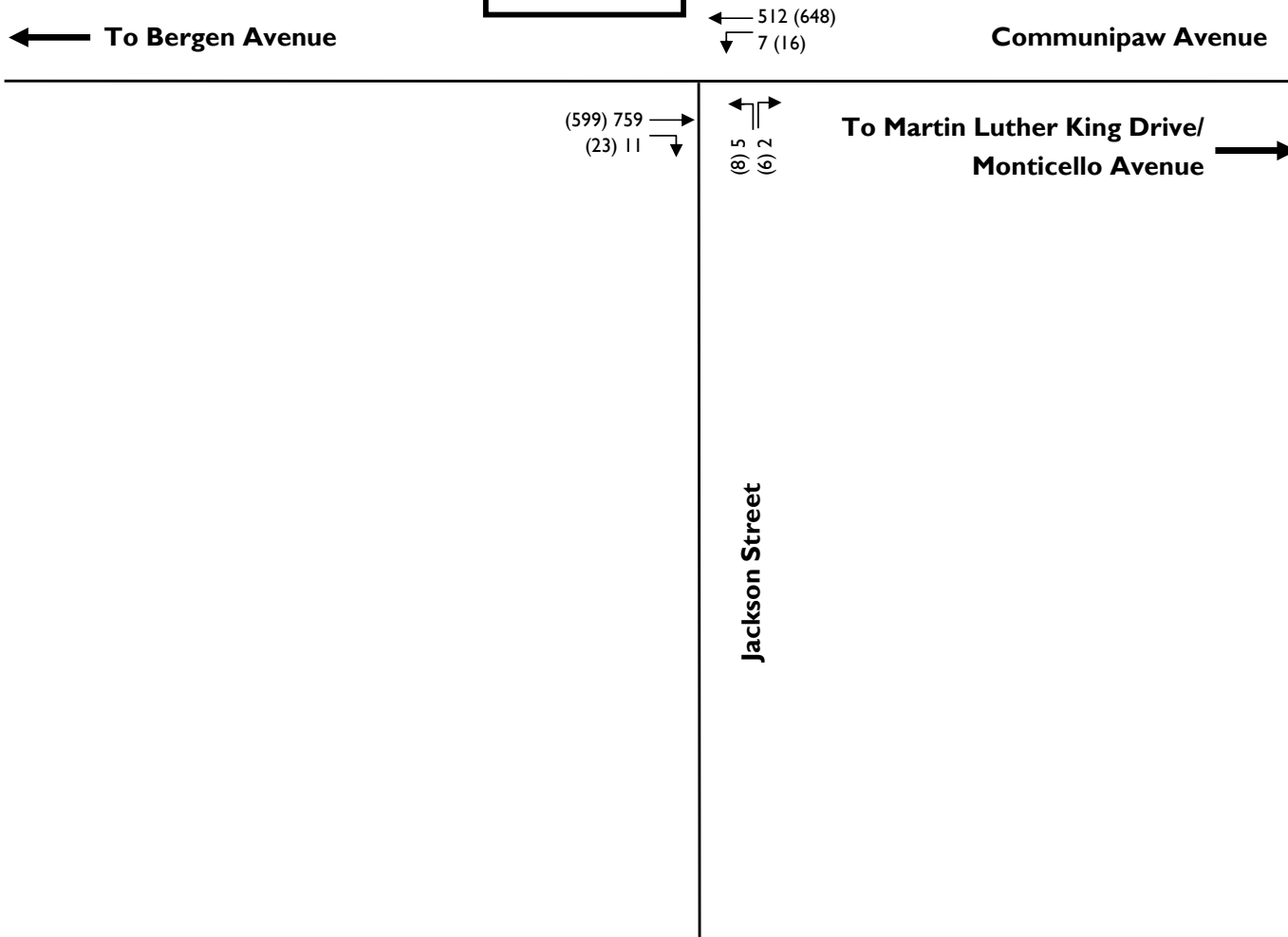
- Existing Roadway
- ← AM (PM) Peak Hour Volumes

not to scale

STONEFIELD

Proposed Mixed-Use Development
610 Communipaw Avenue
Jersey City, Hudson County, New Jersey
Traffic Impact Study

FIGURE 4
Site-Generated Traffic
Volumes



STONEFIELD




Proposed Mixed-Use Development
610 Communipaw Avenue
Jersey City, Hudson County, New Jersey
Traffic Impact Study

FIGURE 5
2024 Build Traffic Volumes

CAPACITY ANALYSIS DETAIL SHEETS

HCM 6th TWSC
1: Jackson Street & Communipaw Avenue

2022 Existing Condition
Weekday Morning Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	742	11	7	499	5	2
Future Vol, veh/h	742	11	7	499	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	0	14	6	0	0
Mvmt Flow	789	12	7	531	5	2




Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	801	0	1340
Stage 1	-	-	-	-	795
Stage 2	-	-	-	-	545
Critical Hdwy	-	-	4.24	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.326	-	3.5
Pot Cap-1 Maneuver	-	-	772	-	170
Stage 1	-	-	-	-	448
Stage 2	-	-	-	-	585
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	772	-	168
Mov Cap-2 Maneuver	-	-	-	-	168
Stage 1	-	-	-	-	448
Stage 2	-	-	-	-	577

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	23.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	201	-	-	772	-
HCM Lane V/C Ratio	0.037	-	-	0.01	-
HCM Control Delay (s)	23.6	-	-	9.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-




HCM 6th TWSC
1: Jackson Street & Communipaw Avenue

2022 Existing Condition
Weekday Evening Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	583	23	16	631	8	6
Future Vol, veh/h	583	23	16	631	8	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	0	6	4	0	0
Mvmt Flow	641	25	18	693	9	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	666	0	1383	654
Stage 1	-	-	-	-	654	-
Stage 2	-	-	-	-	729	-
Critical Hdwy	-	-	4.16	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.254	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	905	-	160	470
Stage 1	-	-	-	-	521	-
Stage 2	-	-	-	-	481	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	905	-	155	470
Mov Cap-2 Maneuver	-	-	-	-	155	-
Stage 1	-	-	-	-	521	-
Stage 2	-	-	-	-	466	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		22.9	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	217	-	-	905	-	
HCM Lane V/C Ratio	0.071	-	-	0.019	-	
HCM Control Delay (s)	22.9	-	-	9.1	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	

HCM 6th TWSC
1: Jackson Street & Communipaw Avenue

2024 No-Build Condition
Weekday Morning Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	757	11	7	509	5	2
Future Vol, veh/h	757	11	7	509	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	93
Heavy Vehicles, %	4	0	14	6	0	0
Mvmt Flow	805	12	7	541	5	2




Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	817	0	1366
Stage 1	-	-	-	-	811
Stage 2	-	-	-	-	555
Critical Hdwy	-	-	4.24	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.326	-	3.5
Pot Cap-1 Maneuver	-	-	761	-	164
Stage 1	-	-	-	-	440
Stage 2	-	-	-	-	579
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	761	-	162
Mov Cap-2 Maneuver	-	-	-	-	162
Stage 1	-	-	-	-	440
Stage 2	-	-	-	-	571

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	24.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	194	-	-	761	-
HCM Lane V/C Ratio	0.039	-	-	0.01	-
HCM Control Delay (s)	24.3	-	-	9.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-


HCM 6th TWSC
1: Jackson Street & Communipaw Avenue

2024 No-Build Condition
Weekday Evening Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	595	23	16	644	8	6
Future Vol, veh/h	595	23	16	644	8	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	0	6	4	0	0
Mvmt Flow	654	25	18	708	9	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	679	0	1411	667
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	744	-
Critical Hdwy	-	-	4.16	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.254	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	895	-	154	462
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	473	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	895	-	149	462
Mov Cap-2 Maneuver	-	-	-	-	149	-
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	457	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		23.5	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	210	-	-	895	-	
HCM Lane V/C Ratio	0.073	-	-	0.02	-	
HCM Control Delay (s)	23.5	-	-	9.1	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	




HCM 6th TWSC
1: Jackson Street & Communipaw Avenue

2024 Build Condition
Weekday Morning Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	759	11	7	512	5	2
Future Vol, veh/h	759	11	7	512	5	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	0	14	6	0	0
Mvmt Flow	807	12	7	545	5	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	819	0	1372	813
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	559	-
Critical Hdwy	-	-	4.24	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.326	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	760	-	163	382
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	576	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	760	-	161	382
Mov Cap-2 Maneuver	-	-	-	-	161	-
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	569	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		24.4	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	193	-	-	760	-	
HCM Lane V/C Ratio	0.039	-	-	0.01	-	
HCM Control Delay (s)	24.4	-	-	9.8	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 6th TWSC
1: Jackson Street & Communipaw Avenue

2024 Build Condition
Weekday Evening Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	599	23	16	648	8	6
Future Vol, veh/h	599	23	16	648	8	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	0	6	4	0	0
Mvmt Flow	658	25	18	712	9	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	683	0	1419	671
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	748	-
Critical Hdwy	-	-	4.16	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.254	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	892	-	152	460
Stage 1	-	-	-	-	512	-
Stage 2	-	-	-	-	471	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	892	-	147	460
Mov Cap-2 Maneuver	-	-	-	-	147	-
Stage 1	-	-	-	-	512	-
Stage 2	-	-	-	-	455	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		23.7	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	208	-	-	892	-	
HCM Lane V/C Ratio	0.074	-	-	0.02	-	
HCM Control Delay (s)	23.7	-	-	9.1	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	