



Transportation
Land Development
Energy

January 28, 2019

Nadine Marrero, AICP
Director of Planning
Office of Strategic Planning
901 City Hall
Buffalo, NY 14202

Re: Trip Generation Letter
Larkin Development Group
Proposed Mixed-Use Buildings
Mill Race Commons, 799 Seneca Street and
864-872 Seneca Street, Buffalo, NY

Dear Ms. Marrero:

The purpose of this letter is to provide an assessment of the trip generation and potential traffic impacts of development being proposed by Larkin Development Group (LDG) at 799 Seneca Street and 864-872 Seneca Street. This letter estimates the number of trips that will be generated by the proposed development and likely distribution of new traffic through the adjacent intersection based on existing travel patterns and considers the thresholds that are commonly used for completing a detailed Traffic Impact Study (TIS).

Project Description

The proposed project at 799 Seneca Street (a/k/a Mill Race Commons) will consist of approximately 140,651 square feet of mixed use development that consists of 70 apartments, 44,959 square feet of office space 3,400 square feet of restaurant space and 9,800 square feet of ground-floor commercial/retail space in a 5-story building. Access will be provided through a driveway onto Carroll Street and with parking provided for 72 vehicles.

The proposed mixed use project at 864-872 Seneca Street will consist of two, 2-story buildings with a total of 12,504 square feet. The smaller building, approximately 4,468 square feet, will include one commercial space on the ground floor and two, 2-bedroom apartments on the second floor. The larger building, approximately 8,036 square feet, will include one ground floor commercial space housing a Paula's Donuts restaurant (1,800 SF of net usable area) and four apartments (2, 2-bedroom and 2, 1-bedroom) on the upper floor. Access will be provided through full access driveways on Seneca Street and Smith Street. Parking will be provided for 49 vehicles.

Trip Generation

The number of trips generated by each development was estimated using **Trip Generation, 10th Edition**, published by the Institute of Transportation Engineers for the weekday AM and PM peak hours. For trip generation purposes, both developments were considered separately; however, the estimated total number of new trips that will be added to the local



roadway network will be the sum of both developments considering the close proximity of each development to each other.

For mixed use developments, the total number of new trips added to the local roadway network will be less than the total number of trips that are generated. The total number of trips is comprised of new trips, internal trips and pass-by trips. According to the Institute of Transportation Engineers:

“....A multi-use development is typically a single real estate project that consists of two or more ITE land use classifications between which trips can be made without using the off-site road system. Because of the nature of these land uses, the trip making characteristics are interrelated, and some trips are made among on-site uses. This capture of trips internal to the site has the net effect of reducing vehicle trip generation between the overall development site and the external street system (compared to the total number of trips generated by comparable, standalone sites).”

The ITE Trip Generation Handbook estimates internal capture rates for trips within a multi-use development based upon the type of land uses and the peak hour of the day. Using the information in this handbook, the number of internal trips was estimated and illustrated in Table 1 below.

Pass-by trips refer to the amount of existing traffic already on the roadway network adjacent to the proposed development that, and as it passes by the site, enters the driveway to patronize the development before continuing on its way to its ultimate destination. The number of pass-by trips has the net result of reducing the amount of new traffic that is added to the adjacent roadway network.

Both projects are proposed to have a small commercial/retail component. Pass-by trip rates for commercial/retail land uses based on ITE data ranges from 8% to 74% with an average of 34%. Both sites are likely to exhibit some level of pass-by traffic therefore, we have assumed a pass-by rate of 30%.

The handbook does not have pass-by trip rates for Coffee/Donut shop without a drive-through window, therefore the most closely representative land use was utilized, which was Coffee/Donut Shop with drive-through window along with previous experience studying traffic operations associated with Coffee/Donut Shops. The pass-by trip rate for this land use ranged from 83% to 95% with an average of 89%. However, given the proposed coffee/donut shop does not have a drive-through window, pass-by trip rates are likely to be slightly lower than the average rate for coffee/donut shops with a drive-through window. Consequently, we have conservatively assumed a 70% pass-by trip rate for the AM peak hour and 50% for the PM peak hour. Note, in-line with common practices for donut/coffee shop land uses, the square footage used for calculations associated with the Coffee/Donut shop was reduced to the estimated square feet of customer and counter space.



Trip generation estimates for the 799 Seneca Street development and 864-872 Seneca Street development are illustrated in Table 1 below.

Table 1
Estimated Trip Generation
799 Seneca Street & 864-872 Seneca Street

Land Use	ITE Land Use Code	799 Seneca Street				864-872 Seneca Street			
		AM		PM		AM		PM	
		Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit
Apartment	221	8	26	27	16	1	2	3	2
Office	710	59	10	8	45	-	-	-	-
Restaurant	932	20	16	22	13	-	-	-	-
Retail	820	5	4	18	29	1	1	4	4
Coffee/Donut	936	-	-	-	-	93	89	32	33
Total Trips		92	56	75	93	95	92	39	39
Internal Trips		16	16	24	24	0	0	4	4
Total External Trips		76	40	51	69	95	92	35	35
Pass-By Trips		1	1	6	6	64	64	16	17
Total New Trips		75	39	45	63	31	28	19	18

The total number of new trips that will be added to the local roadway network for both developments combined is illustrated in Table 2.

Table 2
Total Combined New Trips
799 Seneca Street & 864-872 Seneca Street

Development	AM		PM	
	Enter	Exit	Enter	Exit
799 Seneca Street	75	39	45	63
864-872 Seneca Street	31	28	19	18
Total	106	67	64	81

The total number of trips illustrated in Table 2 assume that all trips are made by single occupancy vehicles. In reality, a number of trips will be made by other modes (walk, bike or transit). The Travel Demand Management (TDM) Plan analysis shows that there will likely be a 50% reduction in trips during both the AM and PM peak hours when one considers alternative modes of transportation. However, to be conservative for this analysis, we have assumed all trips will be made by single occupancy vehicles.

Trip Distribution Analysis

Using the GBNRTC Transportation Data Management System, historical traffic volumes for the intersection of Seneca Street/Smith Street/Fillmore Avenue and Seneca Street/Swan Street/Emslie Street were used to estimate the distribution of traffic arriving and departing



from the proposed developments. This traffic data indicates that during the AM peak hour, approximately 70% of entering traffic will come through the Smith Street intersection and 30% from Swan Street intersection and for exiting traffic, 26% will leave the area through the Smith Street intersection and 74% will exit through the Swan Street intersection. During the PM peak hour, approximately 29% of entering traffic will come through the Smith Street intersection and 71% through Swan Street intersection and for exiting traffic, 66% will leave the area through the Smith Street intersection and 34% will exit through the Swan Street intersection.

Using these distribution patterns and applying the traffic volumes in Table 2, the net effect is that during the AM peak hour there will be approximately 92 new trips passing through the Smith Street intersection and 81 new trips passing through the Swan Street intersection. During the PM peak hour, it is estimated that there will be 72 new trips passing through the Smith Street intersection and 73 trips passing through the Swan Street intersection.

Traffic Impact Study Thresholds

The agencies that evaluate the potential traffic impacts of proposed development projects utilize a guideline in evaluating whether a proposed development needs a full TIS. The guideline that is used relates to the total number of new trips on any of the approaches to an intersection. If a development were to add 100 new trips on any one approach then a TIS is necessary. This guideline was developed as a tool to identify locations where the amount of traffic generated has the potential to impact intersection operations.

Given that the anticipated distribution of new traffic will generate less than 100 trips **total** at any one given intersection during both the AM and PM peak hours, none of the adjacent intersections are likely to experience potentially adverse traffic impacts and, therefore, the preparation of a detailed TIS is not warranted. Additionally, as described previously, this is a very conservative analysis. When one considers the potential for alternative modes of transportation, this will further reduce the number of new trips traveling by single occupancy vehicles to and from each development through any of the adjacent intersections.

Conclusions and Recommendations

Given the volume of projected site generated traffic presented in the preceding analysis, the estimated volume of new vehicle trips and the distribution of new trips through the adjacent intersections, it is our opinion the combined transportation impacts associated with the proposed mixed-use development projects at 799 Seneca Street and 864-872 Seneca Street will not have a significant adverse impact on traffic operations within the project area. Therefore, no additional traffic studies are warranted or recommended.



If you have any questions or require additional information, please contact me directly by phone at (716) 858-1234 ext. 267 or by email at tfaulkner@fisherassoc.com.

Respectfully,
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