TRAFFIC AND PARKING STUDY

For
Proposed Indoor Children's Playground

Property Located at:

468 Valley Street
Block 2215 – Lot 26
Township of South Orange Village, Essex County, NJ

Prepared by:

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INTRODUCTION

It is proposed to perform a re-use of a 1-1/2-story building in the B-2 Business zone to an Indoor Children's Playground (The Project) on a parcel of land located along the east side of Valley Street and north side of Hixon Place (northeast corner of the intersection) in the Township of South Orange Village, Essex County, New Jersey. The site is designated as Block 2215– Lot 26 on the Township Tax Maps. The site is currently developed with a 1-1/2-story structure. The existing access will remain with one (1) full movement driveway on Valley Street and one (1) full movement driveway on Hixon Place. A total of six (6) parking spaces inclusive of an ADA Handicap space.

Dynamic Traffic, LLC has been retained to prepare this study to assess the traffic and parking impact associated with the implementation of The Project on the adjacent roadway network. 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.

- Parking accumulation counts were conducted within an approximate two (2) block distance of the site during the weekday morning, midday, and afternoon time periods, to establish the sufficiency of parking for the proposed operations.

- Projections of traffic to be generated by the proposed development were prepared utilizing trip generation data as published by the Institute of Transportation Engineers, and/or the operators information, and any impacts were assessed.

- The site layout and design were analyzed and assessed to ensure it meets proper design standards, and will operate safely and efficiently for the intended use.

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 and collection of traffic volume data.

Existing Roadway Conditions

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

Valley Street is classified as an urban minor arterial under the jurisdiction of the County of Essex as County Road 638. In the vicinity of the site the posted speed limit is 35 mph and the roadway provides one travel lane in each direction with a general north/south orientation. Along both sides of Valley Street, on-street parking is permitted along both sides of the roadway with curb and sidewalk provided along both sides. Valley Street provides a straight horizontal alignment and a relatively flat vertical alignment. The primary land use along Valley Street in the vicinity of The Project is commercial. Side streets off of Valley Street are primarily residential.

Parking along Valley Street in the vicinity of the site is limited to a 2-Hour maximum from 8AM to 6PM, except Sat., Sun. & Holidays. Also, there is no parking 2AM – 6AM and when road is snow covered.

Hixon Place is a local roadway that is a one-way in the eastbound direction. No parking is permitted on both sides from 9AM-11Am and 1PM – 3PM School Days.

Arnold Terrace is a local roadway that is a one-way in the westbound direction. No parking is permitted along the southerly side and parking is limited on the northerly side to a 2-Hour maximum from 8AM to 6PM, except Sat., Sun. & Holidays.

Existing Traffic Volumes Flow Conditions

Observations were made of Valley Street at the site, and the surrounding roadways and intersections during the typical weekday AM and PM peak hours. There were no congestive traffic conditions observed.

It should be noted that stay-at-home protocols and travel restrictions associated with the COVID-19 pandemic were in effect as of the time of preparation of this report. As a result, current traffic volumes on the surrounding roadways are atypically low at this time and would not be representative of normal "existing" traffic conditions. Based on recent comparisons of traffic counts taken before and during the pandemic, traffic volumes are generally one-half to three-quarters of normal conditions. However, even with a doubling of observed traffic volumes, no congestion or excessive delays are expected to occur.

There are two (2) day care centers (Totri and The Village Baby Development Center) located along the west side of Valley Street in close proximity of the subject site, as well as other commercial businesses (i.e., Stop & Shop supermarket, CVS pharmacy, Blink Fitness Center, Liquor Store, restaurant, etc.) All businesses in the area were observed to be open and in operation during the times of observations.

Parking Counts

Public, on-street parking accumulation counts were conducted on Wednesday, January 13, 2021 between 8:00 AM to 6:00 PM to capture the on-street availability of public parking within close and convenient walking distance to the site. The following are descriptions of the locations of the parking counts as well as the available on-street parking:

The stay-at-home protocols, business closures, and travel restrictions associated with the COVID-19 pandemic have also increased the parking demand within residential neighborhoods, such as the subject site is located within, so that while traffic volumes may be lessened, parking accumulations in residential neighborhoods are likely increased. The point being; the parking counts taken are likely conservative, particularly in light of the fact that the businesses in the immediate area were observed to be open and in operation.

Table I
Vacant Parking Spaces

TIME	Valley Street		Hixon	Arnold	TOTAL
	Hixon to Arnold	Arnold to Roland			
8:00am	10	7	45	16	78
8:30am	10	7	45	16	78
9:00am	9	9	46	15	79
9:30am	8	8	46	15	77
10:00am	9	9	47	16	79
10:30am	8	9	46	16	79
12:00pm	6	5	46	17	74
12:30pm	5	5	46	18	74
1:00pm	6	5	45	18	74
1:30pm	7	6	45	18	74
2:00pm	8	5	46	17	76
2:30 pm	7	5	46	17	75
3:00 pm	8	5	45	17	75
4:30 pm	9	6	44	15	74
5:00 pm	9	7	44	15	75
5:30 pm	10	7	43	15	75
6:00 pm	10	7	42	14	73

Note: Only legal parking spaces were included in the surveys. Areas in front of hydrants, driveways, within 50' of Stop signs, etc. were not included.

As can be seen from the results of the parking survey, there is a minimum of 16 vacant spaces during the morning hours, 10 vacant spaces during the midday period and 15 vacant spaces during the afternoon period.

When considering the side street available parking along Hixon and Arnold, there is as many as a total of a total of 79 vacant spaces within the area. It is noted that during school days, Hixon Place on-street parking is not allowed between 9 – 11 AM and 1 – 3 PM, therefore there is a total of approximately 35 vacant spaces available.

FUTURE CONDITIONS

Traffic Generation

Projections of future traffic volumes and parking demand were developed utilizing operational information by the Applicant/Operator of the proposed indoor playground. Pertinent information that relates to traffic and parking are as follows:

1). Hours of operation; **8:30 am to 5:30pm**
2) Busiest Time Periods; **Weekdays, between 9am and 11am and between 1pm and 3pm.**
3) Maximum occupancy by parents/staff: **The Applicant (Ms. Roddi) and a cleaning person. Ms. Roddi lives within the neighborhood, literally minutes walking away from the site. They can park at the home and walk to the site. Typical maximum occupancy will be less than 10 parents, generating less than 10 cars. Some parents come with more than one (1) child, so the building occupancy could be more than 10 children at any one time.**
4) Typical time a parent stays; **The typical stay for a parent and their child/children is 1-1/2 hours or less.**
5) Where is the majority of the clientele expected from? **The proposed indoor playground is a neighborhood business and most parents/guardians of children who are projected to utilize it will be from the surrounding neighborhood. There are two (2) child day care centers in the immediate area, and parents who may drop off a child at one of the day cares, very well may avail themselves of the proposed indoor playground with another child. This is traffic and a parked vehicle that is already in the area, and not new or additional to the area.**
6) Weekends? **The same operations as weekdays will occur on weekends with the possible exception of parties typically in the afternoon. Such parties will be attended by five (5) to ten (10) children with parents/guardians. There will be a clean-up time by the staff between parties so that there is no parking overlap (i.e., no arrivals of a next party attendees before the previous party attendees have left the premises.)**

Table I
Trip Generation

Land Use	AM PSH			PM PSH		
	In	Out	Total	In	Out	Total
Indoor Playground	8	7	15	7	8	15

With a typical maximum occupancy of 10 parents and a stay of 1-1/2 hours or less, the projected trip generation is 15 trips per hour during the peak period hours of 9am to 11am and 1pm to 3pm. It is noted that these peak hours of site traffic activity are non-coincidental with the peak hours of the roadway (7am – 9 am and 4 pm – 6 pm).

This order of magnitude of traffic activity will not have any significant impact on the surrounding roadway network.

Since no appreciable increase in trip generation is projected to be generated by the site, the operational conditions of the surrounding roadway network are not anticipated to change. The minimal delays and queues in the area will remain as existing and it is likely that there will be no perceptible change in the traffic conditions with the construction of the proposed project. In fact, both ITE and NJDOT define a "significant" increase in traffic as 100 or more peak hour trips. As shown in Table I, the subject property will generate 15% of this threshold.

SITE PLAN

Parking

Given the fact that the proposed children playground will be neighborhood-oriented, a significant number of walk-ins are anticipated. This in conjunction with the staff/management will walk also to and from the facility will decrease parking demand as well as trip generation. The ordinance requirement of eight (8) parking spaces versus six (6) parking spaces provided is justified by these attributes. It is projected that with these client and staff walk-ins, the amount of parking provided will be sufficient. However, even considering a worst-case scenario whereby the proposed land use is contemplated to generate a maximum of ten (10) parking spaces, six (6) parking spaces provided on-site, would result in an overflow onto the adjacent streets of up to four (4) parked cars. Based on the parking surveys taken, there is many times that number of available, vacant parking spaces on the adjoining or adjacent streets.

Valley Street alone was observed to have a minimum of ten (10) vacant parking spaces within two (2) "short" blocks of the site. There is a 2-hour limitation on parking along Valley Street between 8am and 6 pm, Sat., Sun. and Holidays. The typical stay for a parent is less than two (2) hours, so this restriction is compatible with the utilization of the site.

There is also parking available along Hixon Place, but it is restricted between 9am -11am and 1pm – 3pm on school days. Otherwise, there are no other restrictions. Arnold Street has a similar restriction to Valley Street of 2-hour parking between 8am and 6 pm, Sat., Sun. and Holidays. Given the availability and typical stay of less than 2 hours, there is more than sufficient public street parking available to accommodate the incidental overflow from the site that may occur.

The access to the parking area is currently provided by two (2) full movement driveways; one (1) on Valley Street and one (1) on Hixon Place. It is proposed to maintain this access configuration under proposed conditions.

FINDINGS & CONCLUSIONS

Findings

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

- The proposed indoor playground will generate a maximum hourly rate of 15 trips, which will likely not be coincidental with the peak hour of the surrounding roadway network.

- According to thresholds set forth by both NJDOT and ITE, the increase in trip generation to be generated by the site is not considered "significant", and therefore the minimal delays and queues in the area will remain as existing and it is likely that there will be no perceptible change in the traffic conditions with the construction of the proposed project.

- The amount of on-site parking is projected to be adequate to accommodate the demands of the proposed operation. There is more than sufficient public, on-street parking in the area to accommodate the incidental overflow of parking that may occur from the site.

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 Township of South Orange will not experience any significant change in operating conditions with the construction of The Project. The site driveways are located to provide safe and efficient access to the adjacent roadway system. The site plan as proposed provides for good circulation within the parking area and provides adequate parking supply to accommodate the majority of The Project's needs. Any incidental parking beyond the site can be accommodated by available public, on-street parking resources.

TECHNICAL APPENDIX

PARKING SURVEYS