

STONEFIELD

June 23, 2020

Zoning Board of Adjustment
Township of West Orange
66 Main Street
West Orange, New Jersey 07052

**RE: Traffic and Parking Assessment Letter Report
Proposed Self-Storage Facility
955 & 963 Pleasant Valley Way
Township of West Orange, Essex County, New Jersey
SE&D Job No. S-19153**

Dear Board Members:

Stonefield Engineering and Design, LLC ("Stonefield") has prepared this analysis to examine the potential traffic and parking impacts of the proposed self-storage facility on the adjacent roadway network. The subject property is located along Pleasant Valley Way in the Township of West Orange, Essex County, New Jersey. The subject property is designated as Block 172.02, Lot 8.01 and 8.03 as depicted on the Township of West Orange Tax Map. The site has approximately 384 feet of frontage along Pleasant Valley Way. The existing site contains a vacant lot. The existing access is provided via one (1) ingress-only driveway, one (1) egress-only driveway, and one (1) full-movement driveway along Pleasant Valley Way. Under the proposed development program, a four (4)-story, 126,804-square-foot self-storage facility would be constructed. Access is proposed via one (1) ingress-only driveway and one (1) egress-only driveway, approximately in the same location that they are currently in.

2019 Existing Condition

The subject property is located along Pleasant Valley Way in the Township of West Orange, Essex County, New Jersey. The subject property is designated as Block 172.02, Lot 8.01 and 8.03. The site has approximately 384 feet of frontage along Pleasant Valley Way. Land uses in the area are a mix of commercial, recreational, and residential.

Pleasant Valley Way is classified as an Urban Principal Arterial roadway with a general north-south orientation and is under Essex County jurisdiction. Along the site frontage, the roadway provides two (2) lanes of travel in each direction and has a posted speed limit of 40 mph. Curb is provided along both sides of the roadway, sidewalk is provided along the westerly side of the roadway, shoulders are not provided along either side of the roadway, and on-street parking is not provided along either side of the roadway. Pleasant Valley Way provides north-south mobility through West Orange and the surrounding municipalities and provides access to Interstate 280 and NJSH Route 10 for a mix of commercial, recreational, and residential uses along its length.

Trip Generation

Trip generation projections for the proposed self-storage facility were prepared utilizing the ITE Trip Generation Manual, 10th Edition. Trip generation rates associated with Land Use 151 "Mini Warehouse" were cited for the proposed 154,584-square-foot self-storage facility. **Table I** provides the weekday morning, weekday evening, and Saturday midday peak hour trip generation volumes associated with the proposed development.

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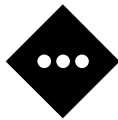


TABLE 1 – PROPOSED TRIP GENERATION

Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
126,804 SF Self-Storage Facility <i>ITE Land Use 151</i>	8	5	13	10	12	22	23	16	39

As shown in Table 1, the site is calculated to generate 13 trips during the weekday morning peak hour, 22 trips during the weekday evening peak hour, and 39 trips during the Saturday midday peak hour. Based on Transportation Impact Analysis for Site Development published by the ITE, a trip increase of less than 100 vehicles trips would likely not change the level of service of the roadway system or appreciably increase the volume-to-capacity ratio of an intersection approach. Additionally, the proposed development is only expected increase the existing roadway volume by approximately 0.5% during the critical weekday morning peak hour. As such, the proposed development is not anticipated to significantly impact the operations of the adjacent roadway network.

It is noted that under existing conditions, self-storage is not a permitted use within the B-2 zone, where the site is located. However, self-storage would be a significantly lower trip generator than the permitted uses within the B-2 zone, such as retail use or child daycare center. **Table 2** compares the trip generation of the proposed self-storage use and the previously approved 3,010-square-foot 7-Eleven convenience store. **Table 3** compares the trip generation of the proposed self-storage use and the permitted child day care center use. Trip generation rates associated with Land Use 851 “Convenience Market” were cited for the previously approved 3,010-square-foot 7-Eleven and Land Use 565 “Day Care Center” were cited for the permitted 9,418-square-foot child day care center.

TABLE 2 – SELF-STORAGE VS. RETAIL USE TRIP GENERATION

Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
	Enter	Enter	Total	Total	Exit	Total	Enter	Exit	Total
Proposed 126,804 SF Self-Storage Facility <i>ITE Land Use 151</i>	8	5	13	10	12	22	23	16	39
Approved 3,010 SF Retail <i>ITE Land Use 851</i>	94	94	188	75	73	148	119	119	238
Difference	-86	-89	-175	-65	-61	-126	-96	-103	-199

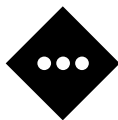


TABLE 3 – SELF-STORAGE VS. DAY CARE CENTER TRIP GENERATION

Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
	Enter	Enter	Total	Total	Exit	Total	Enter	Exit	Total
Proposed 126,804 SF Self-Storage Facility <i>ITE Land Use 151</i>	8	5	13	10	12	22	23	16	39
Permitted 9,418 SF Day Care Center <i>ITE Land Use 565</i>	55	49	104	49	56	105	10	6	16
Difference	-47	-44	-91	-39	-44	-83	+13	+10	+23

As can be seen in Tables 2 and 3 above, the proposed self-storage facility would generate significantly less traffic than the permitted uses with the B-2 zone. Additionally, based on ITE standards, the permitted uses would likely increase the level of service of the roadway and would increase the volume-to-capacity ratio of an intersection approach.

Site Circulation/Parking Supply

A review was conducted of the proposed self-storage facility using the Concept Plan prepared by Stonefield Engineering, dated May 6, 2020. In completing this review, particular attention was focused on the site access, circulation, and parking supply.

Access to the proposed self-storage facility is proposed via one (1) ingress-only driveway and one (1) egress-only driveway along Pleasant Valley Way. The proposed egress driveway would be placed in the most northerly site location in an effort to enhance the sight distance for a driver exiting the site. The proposed four (4)-story self-storage facility would be located along the westerly portion of the site. One-way circulation about the site would be facilitated via a minimum 28-foot-wide drive-aisle.

Although self-storage is not a permitted use within the B-2 zone, where the site is located, self-storage is a permitted use within the I zone, and as such, the Township of West Orange has established parking requirements for self-storage use. The Township of West Orange Ordinance requires one (1) space per 600 square-feet for self-storage facilities. For the proposed 126,804-square-foot self-storage facility, this equates to 212 required spaces. The Township of West Orange Ordinance also requires three (3) loading spaces for the first 100,000 square-feet and one (1) additional space per additional 40,000 square-feet for self-storage facilities. For the proposed 126,804-square-foot self-storage facility, this equates to four (4) required loading spaces. The site would provide 12 standard parking spaces, inclusive of one (1) ADA-accessible parking stall and four (4) loading spaces. The parking stalls would be a minimum of 9 feet wide by 20 feet deep in accordance with industry standards and the loading stalls would be 12 feet wide by 40 feet deep.

In order to assess the typical parking demand of self-storage facilities, parking studies were conducted at four (4) existing self-storage facilities of similar size in New Jersey and New York. Specifically, parking counts were conducted at Storage America in New Hyde Park, NY and three Public Storage facilities in Hempstead, NY, Port Washington, NY, and Rochelle Park, NJ during the typical weekday morning, weekday evening, and Saturday time periods. A summary of the peak period counts can be found in appended **Figure 1**. The parking counts indicate that the average parking demand during a weekday is 0.045 spaces per 1,000 square feet, and the maximum weekday parking demand across the counted sites was found to be six (6) vehicles. The average Saturday parking demand was found to be 0.051 spaces per 1,000 square feet, and the maximum Saturday parking demand across the sites was found to be nine (9) vehicles. For the proposed 126,804-square-foot self-storage



facility, this equates to an anticipated parking demand of six (6) vehicles during the weekday Saturday peak periods. Due to the nature of the proposed development, a portion of the anticipated vehicles visiting the site will be moving vehicles that will utilize the loading spaces. Further, the proposed self-storage facility would consist of approximately 1,050 storage units. According data published within the ITE Parking Generation, 5th Edition for Land Use 151 "Mini-Warehouse," the 85th percentile peak parking demand is 1.18 vehicles per 100 storage units. It is important to note that facilities with at least 500 storage units were considered for this analysis. Only data from facilities with at least 500 units were considered as they are more representative and reflect the style and nature of the proposed development. For the proposed self-storage facility with 1,050 units, this equates to an anticipated parking demand of 12 vehicles. Based on the data from the parking counts and published data provided by ITE, the parking supply of 12 parking spaces and four (4) loading spaces, for an effective total of 16 vehicle spaces, would be sufficient to accommodate the anticipated parking demand.

Conclusions

This report was prepared to examine the potential traffic impact of the proposed four (4)-story 126,804-square-foot self-storage facility. 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 site driveways and on-site layout have been designed to provide for effective access to and from the subject property. Based on the parking count data collected, the parking supply would be sufficient to support this project.

Best regards,

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Stonefield Engineering and Design, LLC

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Stonefield Engineering and Design, LLC

FIGURE 1: SELF-STORAGE FACILITIES PARKING STUDY

Weekday Peak Demand

Name	Location	Approx. Square Footage	Total Number of Storage Units	Total Parking Supply	Max. Parking Demand	Parked Vehicles per 1,000 Square Feet
Storage America	New Hyde Park, NY	96,132	750	20	6	0.062
Public Storage	Hempstead, NY	90,000	768	7	4	0.044
Public Storage	Port Washington, NY	126,280	952	39	4	0.032
Public Storage	Rochelle Park, NJ	96,000	--	26	4	0.042
Average	--	102,103	823	23	5	0.045

Saturday Peak Demand

Name	Location	Approx. Square Footage	Total Number of Storage Units	Total Parking Supply	Max. Parking Demand	Parked Vehicles per 1,000 Square Feet
Storage America	New Hyde Park, NY	96,132	750	20	9	0.094
Public Storage	Hempstead, NY	90,000	768	7	4	0.044
Public Storage	Port Washington, NY	126,280	952	39	3	0.024
Public Storage	Rochelle Park, NJ	96,000	--	26	4	0.042
Average	--	102,103	823	23	5	0.051