

APPENDIX 8.6
Traffic Technical Memorandum

Self-Storage Project at 985 Montague Expressway

Traffic and Transportation Review Abrams Associates – January 11, 2016

Background. The site has been used in the past as a contractor storage area for equipment and materials. The total proposed project would develop a self-storage facility with 171,924 gross square feet. The available rental space will be 132,288 square feet, with 1,241 storage units. The site will also include a customer service office and approximately 35 marked parking spaces. The property is designated as Heavy Industrial.

The property will have a single access onto Montague Expressway, which would be located about 300 feet from the CMP signalized intersection with South Milpitas Boulevard. Berryessa Creek borders the property on the west. As a result, there is no direct access to South Milpitas Boulevard. The principal traffic flow, or trips generated to the site, would be from the I-680 and I 880 at interchanges with Montague Expressway, and from there to the project driveway.

Traffic Guidelines. The TIA guidelines for the Santa Clara Valley Transportation Authority are described in the *Transportation Impact Analysis (TIA) Guidelines, Updated in 2009*. These are part of the *Technical Standards and Procedures for the Santa Clara County Congestion Management Program*.

Per Chapter 2 in the TIA Guidelines a complete TIA shall be performed for any project in Santa Clara County expected to generate 100 or more new weekday (AM or PM peak hour) or weekend peak hour trips, including both inbound and outbound trips. An intersection shall be included in a TIA where the proposed development project is expected to add 10 or more peak hour vehicles per lane to any intersection movement.

Trip Generation. Trip Generation is a collection of information about vehicular traffic that is generated by particular land uses. This information is based on studies made to determine the number of vehicles that enter and exit a particular land use type. In this case, the use is 132,288 gross floor area used for public, mini-storage purposes. When analyzing a project such as this, the trip generation for the peak hour is the determining factor. The peak hour is defined as the highest volume hour of traffic during the AM or PM peak period, which occur during the hours of 6:00 to 9:00 AM and 4:00 to 6:30 PM.

Per the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 7th Edition*, mini-storage (ITE Land Use Code 151) will generate an ADT of 2.5 trips per every 1,000 square feet. This equates to a total of 330 vehicle trips per day. During the PM peak hour, the project will generate 17 inbound trips and 17 outbound trips.

Trip Distribution. Since access to the site is limited to right turns only, all of the entering vehicle trips will turn right into the site from Montague Expressway. All of the exiting traffic (17 vehicle trips per hour) will turn right onto Montague Expressway westbound. From this point, the traffic will be split into right turns, through traffic and U-turns. The largest amount of traffic (about 10 vehicles per hour) is expected to be through traffic.

Table 1
Trip Generation – 985 Montague Expressway
(Number of Vehicle-Trips)

Land Use	ITE Code	Size	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
ITE Rates (per 1,000 sq ft) for Mini-Warehouse (Self-storage)	151	1,000 Sq Ft	2.5	0.077	0.063	0.14	0.130	0.130	0.26
Trip Generation for Mini-Warehouse (Self-Storage) –	-----	132,288 Sq Ft	330	10	8	19	17	17	34

Mini-storage (self-storage) facilities generate a relatively low amount of traffic (2.5 trips per 1,000 square feet) in comparison to other types of industrial uses. R&D would generate 8.11 trips per 1,000 square feet, while business parks would generate 12.76 trips 1,000 square feet. The proposed project will generate less than 100 vehicle trips per hour, and therefore will not require a Transportation Impact Analysis (TIA). The proposed development project is not expected to add 10 or more peak hour vehicles to any lane at the nearest intersection, which would be at Montague Expressway and South Milpitas Boulevard.

The previous uses on the site (storage of construction materials) generated very little traffic. It is estimated that this use generated peak hour traffic (4:30 PM to 5:30 PM), with an average of one vehicle entering and one vehicle exiting. Therefore, this factor has not been considered in the analysis.

Traffic Impacts. As noted, the project trips that would be added to the existing traffic at South Milpitas Boulevard would be split between the various turning movements. There will be a small number of U-turns (no more than 5 trips per hour), but this is not considered to be a significant impact.

Montague Expressway is proposed to be widened along the frontage of the property. Ultimately, there will be two left lanes, four (4) through lanes, and a right turn lane on the approach to South Milpitas Boulevard. The site plan shows the driveway in relation to this future improvement.

Site Access and Sight Distance. The project will have a single driveway connection with Montague Expressway. The driveway will be 30 feet wide, and will be located about 300 feet from the intersection at South Milpitas Boulevard. This is the only driveway access along the entire block between Montague Court and South Milpitas Boulevard, a distance of about ¼ mile.

All traffic in and out of the self-storage will be making right turns at the project driveway. The sight distance for this location is unrestricted.

On-site parking. The City zoning standards require one space for each 5,000 square feet, which would equate to the need for 32 parking spaces. The plans show approximately 35 marked parking spaces. There will also be parking available for customers loading and unloading at the storage facility. The site will have ample parking to meet the needs of its customers and to comply with the City's requirements.

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