



HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum

Date: December 21, 2020

To: Mr. Michael J. Castro, Brereton Architects

From: Gary Black, Jocelyn Lee

Subject: Retail Development at 4962 Almaden Expressway in San Jose, California

Hexagon Transportation Consultants, Inc. has completed a transportation study for the proposed retail development at 4962 Almaden Expressway in San Jose, California (see Figure 1). The site is currently occupied by a gas station with 6 pumps and a market, totaling 4,470 square feet (s.f.). The project would demolish the existing gas station and market and construct a Building D with 7,800 s.f. of retail space in the current shopping center that has 144,451 s.f. of existing retail developments (see Figure 2). Access to the shopping center is currently provided by multiple driveways located on Almaden Expressway and Cherry Avenue. While the project proposes to close the existing westernmost driveway on Cherry Avenue, the proposed retail building and parking would continue to be accessed from the main shopping center driveway on Almaden Expressway and the two remaining driveways on Cherry Avenue. Due to the raised center median on Cherry Avenue, the driveway closest to the project site is limited to right turns only for inbound and outbound traffic. The driveway on Almaden Expressway is also limited to right turns only for inbound and outbound traffic due to the median.

Existing Roadways

Local access to the site is provided Almaden Expressway and Cherry Avenue. These facilities are described below.

Almaden Expressway is a north/south expressway that extends from Harry Road in south San Jose to Almaden Road, just south of downtown San Jose. Near the project site, Almaden Expressway is eight lanes wide and has a posted speed limit of 45 miles per hour (mph). North of Branham Lane, the posted speed limit is 50 mph. It has a raised, landscaped median with left-turn pockets provided at intersections. Sidewalks exist along both sides of Almaden Expressway near the project site. Bicycles are allowed along expressways, and bike lanes are provided along the project frontage and various other segments on Almaden Expressway. Access to the project is provided via its intersection with Cherry Avenue and the plaza driveways along Almaden Expressway. The driveway on Almaden Expressway is limited to right turns only for inbound and outbound traffic due to the median.

Cherry Avenue is a predominantly north-south local connector street that extends from Curtner Avenue in the north and turns into an east-west local connector street after Russo Drive. It transitions into Sanchez Drive south of the SR 85 overpass. Near the project site, Cherry Avenue is 2 lanes wide with a two-way left turn lane west of Speak Lane. Cherry Avenue is 4 lanes wide east of Almaden Expressway with a raised, landscaped median with left-turn pockets provided at intersections. It has a speed limit of 35 mph. Sidewalks and bicycle lanes exist along both sides of the street. There is direct access to the project site from Cherry Avenue via two existing

driveways of the plaza. The driveway closest to the project site is limited to right turns only for inbound and outbound traffic due to the median.

Vehicle Miles Traveled (VMT) Analysis

The City of San Jose's Transportation Analysis Policy establishes procedures for determining project impacts on VMT based on project description, characteristics, and/or location. VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT measures the full distance of personal motorized vehicle-trips with one end within the project. Typically, development projects that are farther from other, complementary land uses (such as a business park far from housing) and in areas without transit or active transportation infrastructure (bike lanes, sidewalks, etc.) generate more driving than development near complementary land uses with more robust transportation options. Therefore, developments located in a central business district with high density and diversity of complementary land uses and frequent transit services are expected to internalize trips and generate shorter and fewer vehicle trips than developments located in a suburban area with low density of residential developments and no transit service in the project vicinity.

Screening Criteria for VMT Analysis

The City of San Jose's *Transportation Analysis Handbook* includes screening criteria for projects that are expected to result in less-than-significant VMT impacts based on the project description, characteristics and/or location. Projects that meet the screening criteria do not require a CEQA transportation analysis but may be required to provide an LTA. The type of development projects that may meet screening criteria include small infill projects, local-serving retail, or local-serving public facilities.

Retail projects of 100,000 s.f. or less are considered local-serving projects and result in less-than-significant VMT impacts according to the screening criteria. Retail projects part of a larger shopping center that is over 100,000 s.f. typically do not meet the screening criteria and a CEQA transportation analysis is typically required to evaluate the project's VMT against the threshold of significance. However, in this case the project is not expected to generate new trips (see Table 1), so the VMT impact is considered less than significant, and a detailed CEQA analysis is not required.

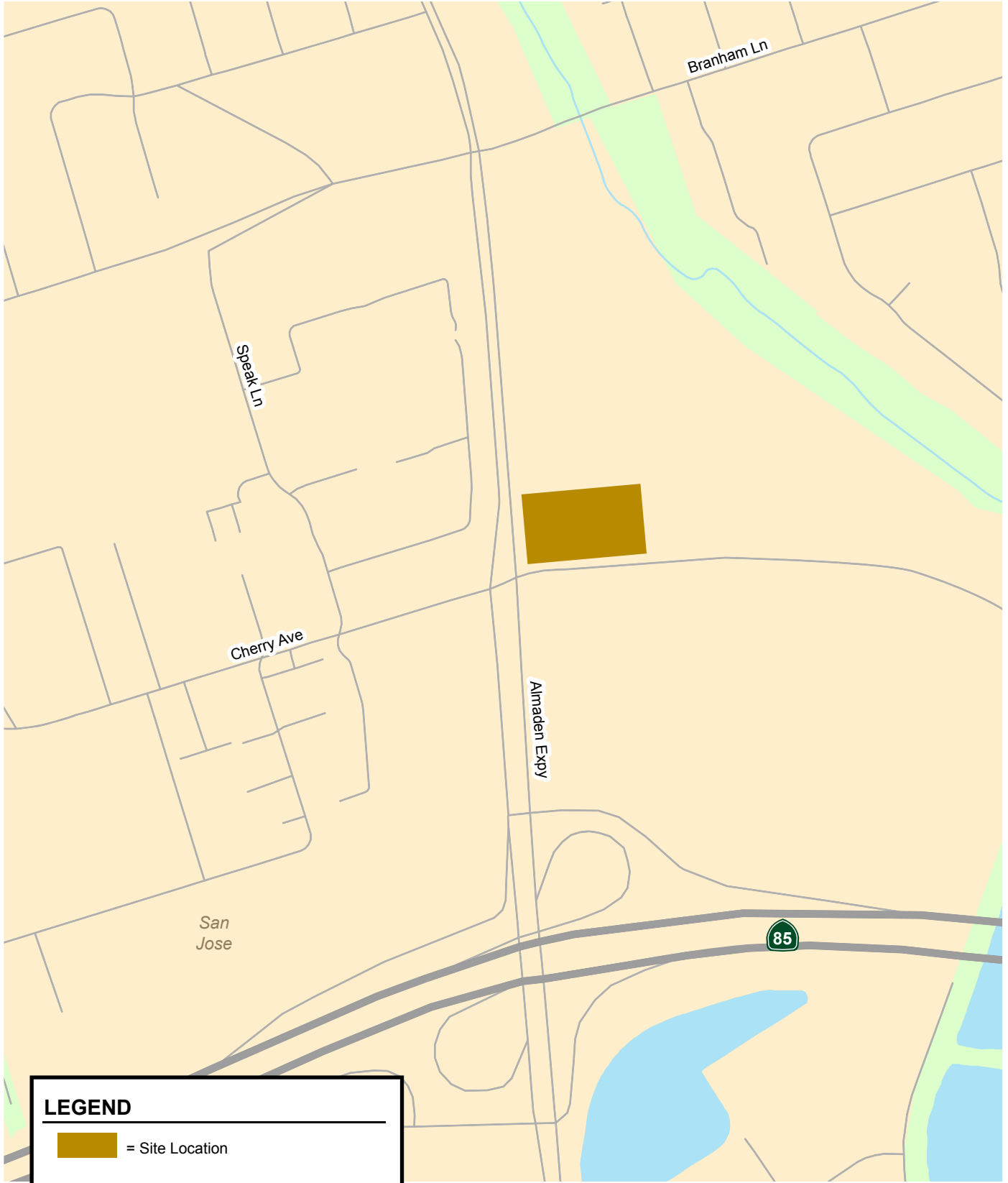


Figure 1
Site Location

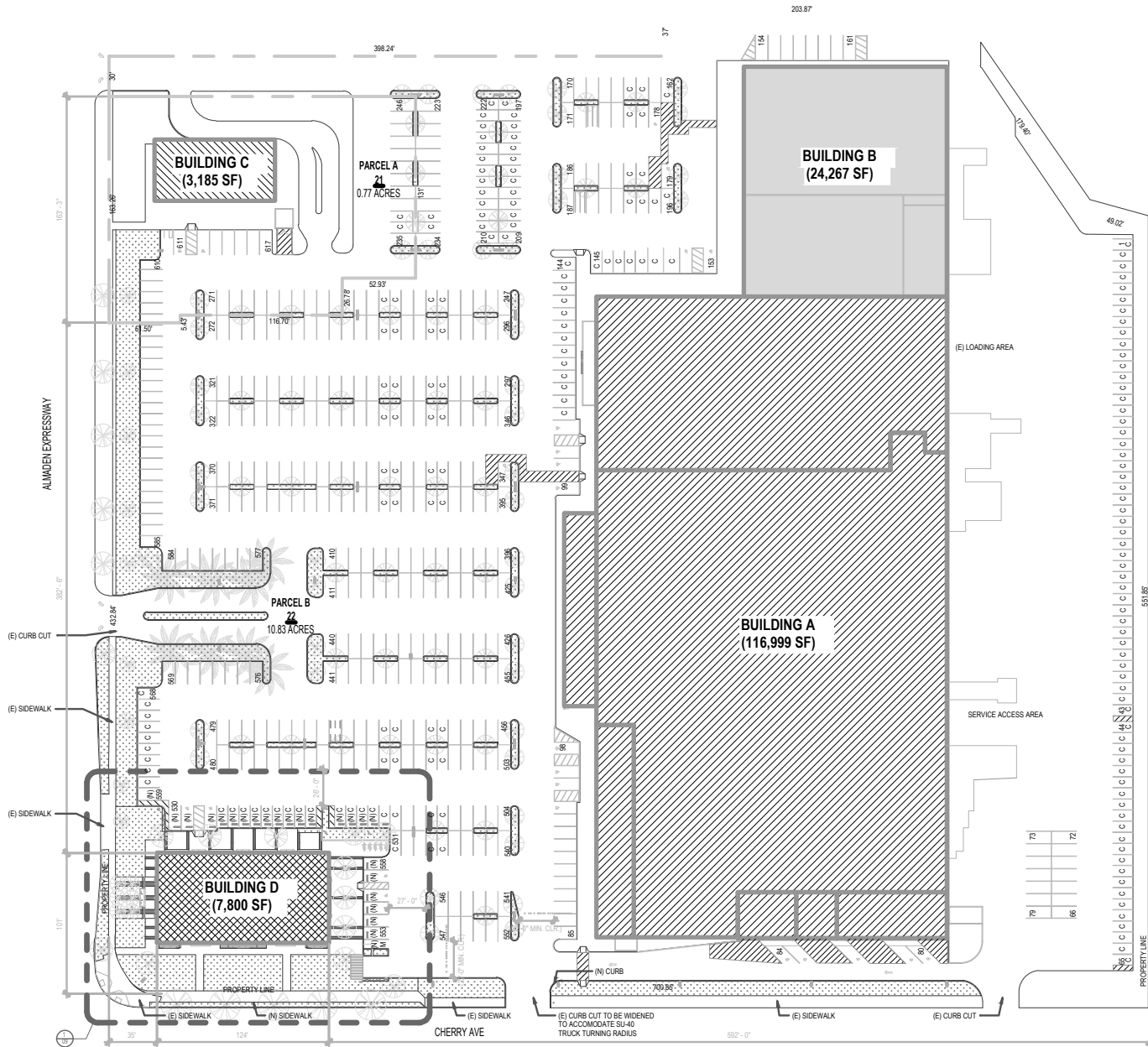


Figure 2
Site Plan

Project Trip Estimates

Trip Generation

Trips generated by new development proposed within the City of San Jose typically are estimated using trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10th Edition. Trips that would be generated by the proposed mixed-use development were estimated using the ITE trip rates for "Shopping Center" (Land Use 820). The "Shopping Center" category refers to an integrated group of commercial establishments. This category includes the trip data for a wide scale of retail uses, from neighborhood centers to regional centers. Since specific uses of the proposed retail spaces are unknown, it is reasonable to use the trip rates for shopping centers for the retail space.

Trip Adjustments and Reductions

In accordance with the *Transportation Analysis Handbook* (Section 4.8, "Intersection Operations Analysis"), the project qualifies for a location-based trip adjustment from the baseline trip generation. The location-based adjustment reflects the project's vehicle mode share based on the "place type" in which the project is located per the San Jose Travel Demand Model. The project's place type was obtained from the San Jose VMT evaluation tool. Based on the VMT evaluation tool, the project site is located within a designated Suburban with Multi Family Homes area. Therefore, the baseline project trips were adjusted to reflect a Suburban with Multi Family Homes mode share. Retail developments within the Suburban with Multi Family Homes areas have a vehicle mode share of 88 percent. Thus, a 12% reduction was applied to the retail use in the trip generation estimates.

In addition, trip generation for retail uses are typically adjusted to account for pass-by trips. Pass-by trips are trips that would already be on the adjacent roadways (and are therefore already counted in the existing traffic) but would turn into the site while passing by. Pass-by trips are therefore excluded from the traffic projections (although pass-by traffic is account for at the site entrances). An average pass-by trip reduction of 34% was applied to the PM peak-hour trips of the retail component of the project based on the ITE *Trip Generation Handbook*, 3rd Edition.

Existing Trip Credits

The project site is currently occupied by a gas station that would be demolished as part of the proposed project. Trips that are generated by the existing building can be subtracted from the gross project trip generation estimates. Trips generated by the existing building were estimated based on the ITE trip rates for "Gasoline/Service Station" (Land use 944). The average rates per vehicle fueling station were used to estimate the existing trips.

In addition, trip generation for gas stations is typically adjusted to account for pass-by trips. An average pass-by trip reduction of 58% was applied to the AM peak hour trips and 42% was applied to the PM peak-hour trips of the existing gas station based on the ITE *Trip Generation Handbook*, 3rd Edition.

Net Project Trips

Based on the ITE trip generation rates and applicable reductions, it is estimated that the proposed project would generate 301 fewer daily trips, with 19 fewer trips (-9 in and -10 out) occurring during the AM peak hour and 31 fewer trips (-16 in and -15 out) occurring during the PM peak hour (see Table 1) compared to the existing gas station on the site.

**Table 1
Estimated Project Trip Generation**

Land Use	ITE Land Use Code	Size	Daily		AM Peak Hour			PM Peak Hour				
			Rate	Trip	Rate	Trip		Rate	Trip			
						In	Out	Total		In	Out	Total
Proposed Land Use												
Shopping Center	820	7,800 Square Feet	37.750	294	0.940	4	3	7	3.810	14	16	30
<i>Location-Based Mode Share Adjustment (12%)¹</i>				-35		0	0	0		-2	-2	-4
<i>Pass-By Reduction (17% Daily/34% PM)²</i>				-44		0	0	0		-4	-5	-9
Total Project Trips				215		4	3	7		8	9	17
Existing Land Use												
Gasoline/Service Station	944	6 Fuel Stations	172.010	1,032	10.280	31	31	62	14.030	42	42	84
<i>Pass-By Reduction (50% Daily/58% AM/42% PM)³</i>				-516		-18	-18	-36		-18	-18	-36
Total Existing Trips				516		13	13	26		24	24	48
Net Project Trips				-301		-9	-10	-19		-16	-15	-31

Source: ITE Trip Generation Manual, 10th Edition 2017

Notes:

1. A 12% reduction for the retail use was applied to the project based on the location-based vehicle mode share percentage outputs (Table 6 of TA Handbook) produced from the San Jose Travel Demand Model for the Suburban with Multi Family Homes area.
2. An average 34% pass-by trip reduction was applied to the retail PM peak-hour trips based the ITE Trip Generation Handbook, 3rd Edition, for shopping center.
3. An average 58% pass-by trip reduction was applied to the gas station AM peak-hour and 42% to the PM peak-hour, based on the ITE Trip Generation Handbook, 3rd Edition, for gas station.

Truck Access and Circulation

The project site plan was reviewed for truck access using truck turning-movement templates for a SU-40 truck type (single unit trucks), which represents emergency vehicles, garbage trucks, and large delivery trucks. Based on the site plan configuration, adequate access would be provided for trucks to access the site from Cherry Avenue and Almaden Expressway and maneuver through the site via the drive aisles provided.

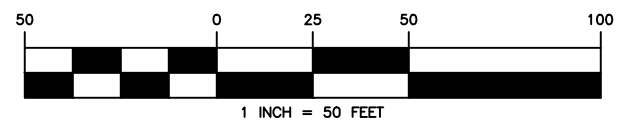
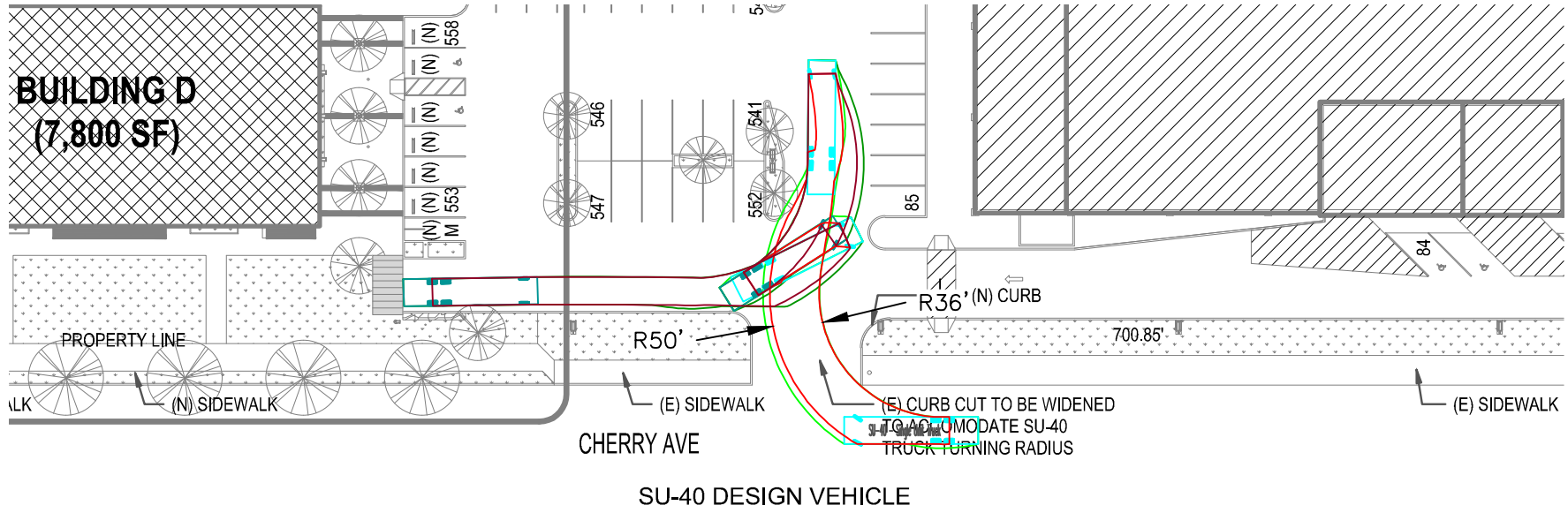
Garbage Collection

The site plan shows trash enclosures in the southeast corner of the project site. It is assumed that garbage vehicles would access the project site using the driveways on Cherry Avenue and Almaden Expressway (see Appendix A). The project plans to widen the driveway on Cherry Avenue to 32 feet and align it to the existing drive aisle within the site. Thus, the project would provide adequate access and circulation for garbage collection.

Appendix A

Truck Turning Templates





DRAWN
T. CHANG

CHECKED

SCALE
1" = 50'

DATE
12/18/2020

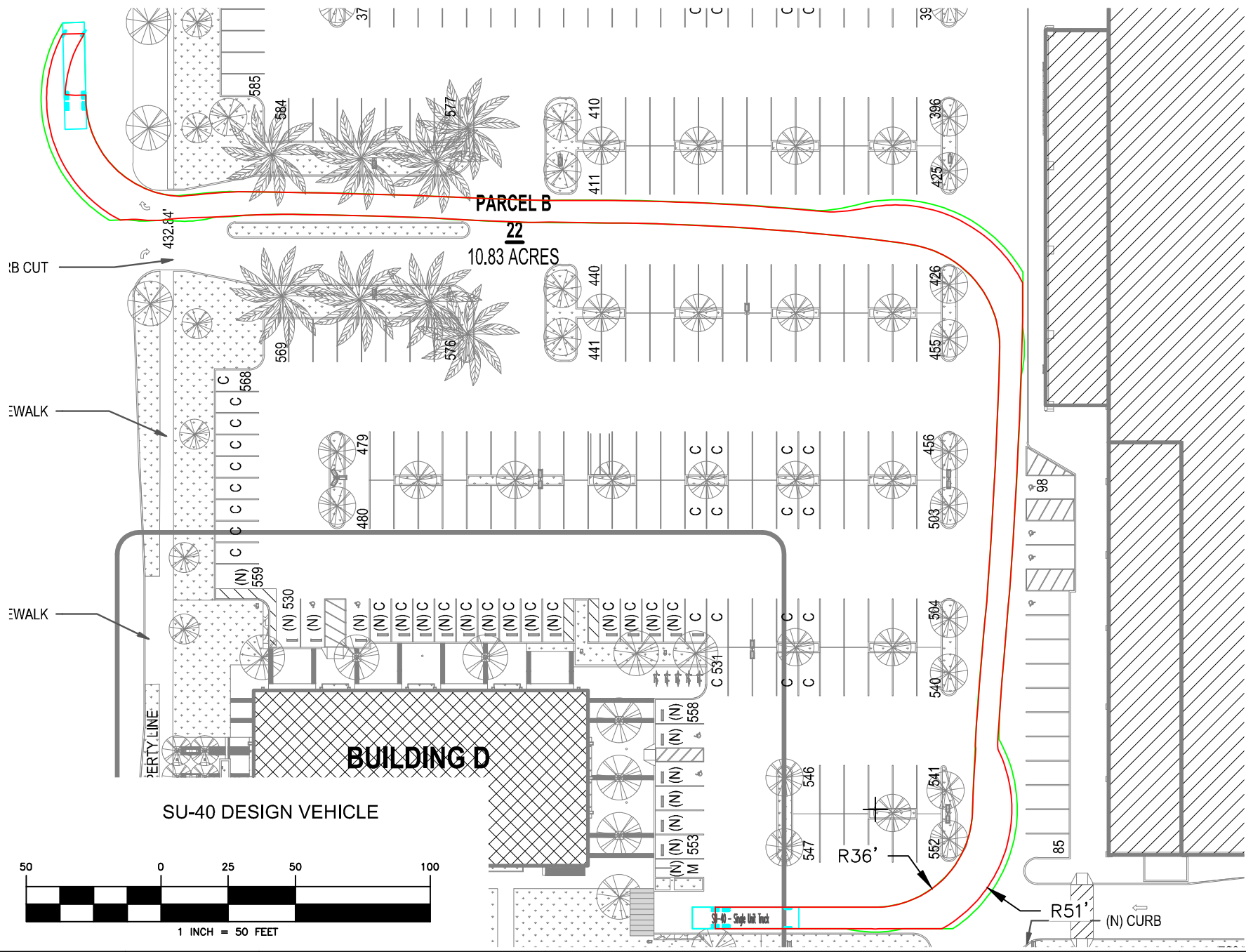
**HEXAGON TRANSPORTATION
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CITY OF SAN JOSE

4962 ALMADEN EXPRESSWAY
GARBAGE TRUCK TURNING TEMPLATE
INBOUND

DRAWING NO.
1



DRAWN
T. CHANG

CHECKED

SCALE
1" = 50'

DATE
12/18/2020

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DRAWING NO.
2