



May 9, 2018

Mr. Zach Dahl
City of Los Altos
1 North San Antonio Road
Los Altos, CA 94022

***Subject: Traffic Report for the Proposed Residential Project at 4856 & 4846
El Camino Real, Los Altos***

Dear Mr. Dahl:

Hexagon Transportation Consultants, Inc. has completed this traffic report for the proposed residential project at 4856 & 4846 El Camino Real, Los Altos (see Figure 1). The project is proposing a total of 50 condominium units, including 9 one-bedroom units, 30 two-bedroom units, and 11 three-bedroom units. The project proposes 108 parking spaces.

The project would replace the existing buildings on two different sites: 4856 El Camino Real and 4846 El Camino Real. The existing two-story building at 4856 El Camino Real consists of Fit Theory gym (2,896 square feet) and Bay Area Hyperbaric (1,355 square feet) on the first floor and Think Tank Learning (1,400 square feet) and Pacific Rim Group Sourcing Corporation (1,667 square feet) on the second floor. The existing two unit building at 4846 El Camino Real consists of a startup, Hub Haus (1,000 square feet) in Unit B and Coppers dream pet rescue (1,000 square feet) in Unit A.

A trip generation analysis was conducted for the purpose of identifying the change in traffic due to the proposed development of the site. This study also includes an evaluation of site access and on-site circulation. Trip generation estimates were calculated for the weekday AM and PM peak hours of traffic. The AM peak hour of traffic is generally between 7:00 and 9:00 AM, and the PM peak hour is typically between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on an average day.

Project Trip Generation

The magnitude of traffic generated by the project was estimated by multiplying the applicable trip generation rates by the size of the development. The Institute of Transportation Engineers (ITE) manual entitled *Trip Generation, 10th Edition* was used for the analysis. The trip generation rates used for the proposed development are based on the rates published for "Multi-Family Housing -- Mid-Rise" (ITE Code 221). Based on these rates, the proposed project would generate 272 daily trips with 18 trips during the AM peak hour and 22 trips during the PM peak hour (see Table 1).

The magnitude of traffic that is being generated by the existing businesses on the sites was estimated based on trip generation rates published in the Institute of Transportation Engineers (ITE) manual entitled *Trip Generation, 10th Edition* and information provided by existing tenants. As shown in Table 1, the existing uses on site are estimated to generate 228 daily trips with 13 trips during the AM peak hour and 75 trips during the PM peak hour.

After accounting for the trips generated by the existing businesses, the proposed residential project would generate 44 new daily trips with 5 new trips in the AM peak hour and 53 fewer trips in the PM peak hour (see Table 1). Since the proposed project would add fewer than 50 new daily trips, a



full transportation impact analysis would not be required per the Los Altos General Plan's Circulation Element.

Table 1
Trip Generation Estimates for 4856 & 4846 El Camino Real, Los Altos

Land Use	Size	Unit	Daily Rate	Daily Trips	AM Peak Hour			PM Peak Hour				
					Peak Rate	Trips In	Trips Out	Total Trips	Peak Rate	Trips In	Trips Out	Total Trips
<i>Proposed Project</i>												
Residential ¹	50.0	units	5.44	272	0.36	5	13	18	0.44	13	9	22
<i>Existing Uses</i>												
Gym ²	2.896	ksf	24.171	70	1.31	2	2	4	3.45	6	4	10
Office ³	1.667	ksf	16.19	27	1.92	2	1	3	2.45	1	3	4
Medical Office ⁴	1.355	ksf	38.16	52	3.69	4	1	5	3.28	1	3	4
School ⁵	1.400	ksf		56						28	28	56
R&D ⁶	2.000	ksf	11.26	23	0.42	1	0	1	0.49	0	1	1
<i>Total Existing</i>	9.318	ksf		228		9	4	13		36	39	75
Net Project				44		-4	9	5		-23	-30	-53
Notes:												
All rates are from: Institute of Transportation Engineers, <i>Trip Generation, 10th Edition</i>												
1. Land Use Code 221: Multifamily Housing (Mid-Rise) (average rates, expressed in trips per unit)												
2. Land Use Code 492: Health/Fitness Club (average rates, expressed in trips per 1,000 s.f. gross floor area)												
3. Land Use Code 712: Small Office Building (average rates, expressed in trips per 1,000 s.f. gross floor area)												
4. Land Use Code 630: Clinic (average rates, expressed in trips per 1,000 s.f. gross floor area)												
5. Daily trips were estimated based on information provided by Think Tank Learning Facility: maximum 20 students and 8 staff members on a regular weekday; hours of operation: Noon - 8:00PM.												
6. Land Use Code 760: Research and Development Center (average rates, expressed in trips per 1,000 s.f. gross floor area)												

Parking

The proposed project would provide 8 Below Market Rate (BMR) units, which is more than 10 percent of the total number of units. According to the Los Altos Municipal Code Ordinance 14.28.040 (C), the project would be eligible for a density bonus and would be qualified for or a parking requirement alteration. according to the Los Altos Municipal Code, Ordinance 14.28.040 (G), for any development eligible for a density bonus, upon the request of the developer, the city shall not impose a parking requirement, inclusive of handicapped and guest parking, of a development, that exceeds the following requirements:

- i. For zero to one bedroom, one onsite parking space.
- ii. For two to three bedrooms, two onsite parking spaces.
- iii. For four and more bedrooms, two and one-half parking spaces.

According to the city code, the project would require a total of 91 parking spaces (9 for one-bedroom units and 82 for two- and three-bedroom units). The site plan shows a two-level underground parking garage with 108 parking spaces. There would be 40 tandem spaces, 65



regular spaces, and 3 handicapped accessible spaces. Eight of the spaces (1 accessible) would be labeled for visitors. Thus, the parking would meet the City requirement.

Project Site Circulation and Access

The project's site circulation and access were evaluated in accordance with generally accepted traffic engineering standards based on project plans dated May 15, 2018. The project would provide a single two-way driveway onto El Camino Real. Parking would be provided in a two-level basement garage as shown on Figures 2A and 2B. There would be a ramp off of El Camino Real leading to the parking garage and gated at the bottom of the ramp. A description of the various design elements of the site circulation and access is provided below.

Driveway Design. The project driveway on El Camino Real would be approximately 20 feet wide leading in and out of the basement parking garage. This width is adequate for a low-volume, two-way driveway. Because of the median on El Camino Real, only right turns in and out would be possible. The low volume of project traffic would result in only brief delays for exiting vehicles. Outbound vehicle queues would rarely exceed one or two vehicles. Sight distance at the project driveway would be adequate provided (1) the landscaping is kept at a low level within 10 feet of the curb face on El Camino Real and (2) sight distance is not blocked by parked vehicles. Parking should be prohibited on El Camino Real within 10 feet west of the driveway (i.e. looking left for an outbound driver from the project driveway).

Ramp Design. The proposed garage ramps were measured to be 21 feet wide, which meets the minimum width for a two-way drive aisle set forth by the City of Los Altos Zoning Code (14.74.200). The proposed garage ramp is shown to have a maximum slope of 20% with 10% transitions on each side. These dimensions are acceptable. Commonly cited parking publications recommend grades of up to 16% on ramps where no parking is permitted, but grades of up to 20% are cited as acceptable when ramps are covered (i.e. protected from weather) and not used for pedestrian walkways. It should be noted that the vast majority of ramp users will be residents, and thus, will quickly become accustomed to steeper grades.

Garage Design. On each level of the parking garage, there are two sections of parking: to the east of the ramp and to the west of the ramp. On both sides parking would be provided at 90 degrees to the main drive aisle. The drive aisles through the parking garage are shown to be 26 feet wide, which would provide sufficient room for vehicles to enter or back out of the 90-degree parking stalls, including the tandem stalls. Site access and circulation were evaluated using AutoTurn with vehicle turning movement templates for a typical AASHTO Passenger Car defined in AASHTO handbook 2011. Some examples of this type of vehicles are: 2018 Cadillac Escalade, 2018 GMC Yukon, 2018 Chevrolet Suburban, 2018 Ford Expedition, and 2018 Toyota Sequoia. The turning template check shows that large passenger vehicles would be able to access, circulate, and exit the garage without operational issues. The turning template check also indicates that vehicles would be able to access and exit from the parking spaces at the end of the drive aisle that are adjacent to the rear basement walls on each level without operational issues (see Figures 2A and 2B).

The plan shows guest parking spaces to the east of the garage ramp on the upper level of the garage. There should be signage directing guests to these parking spaces. The guest parking area has dead-end aisles, but they are very short, so motorists would be able to



see if there were any available spaces. Guests finding no available spaces would be able to exit the parking garage relatively easily. The resident parking area also has dead-end aisles, but residents would be familiar with the garage operations and would know where to find available spaces. There are some places in the upper level of the garage where visibility would be limited where the ramps and aisles turn corners. Vehicles parked on the parking spaces located opposite the entrance to the lower level ramp would need to be careful and pay attention to vehicles driving towards the ramps when backing out of those spaces. Hexagon recommends that convex mirrors be placed at all locations in the garage where visibility is limited.

Access to El Camino Real. Outbound at the project driveway on El Camino Real, the low volume of project traffic would result in brief delays for vehicles. Outbound vehicle queues would rarely exceed one or two vehicles. Sight distance at the project driveway would be adequate provided (1) the landscaping is low level within 10 feet of the curb face on El Camino Real (the height of the planned landscaping is not shown) and (2) it is not blocked by parked vehicles. Parking should be prohibited on El Camino Real within 10 feet west of the driveway (i.e. looking left for an outbound driver from the project driveway).

Truck Access. A 10' x 25' loading space has been designated adjacent to the project driveway, which would meet the City's minimum requirement for a loading area. As an alternative option, a larger loading space could be provided either adjacent to the driveway or on the street along El Camino Real. According to the project applicant, dumpsters would be staged on-site and would be pulled out by the garbage company.

Bike Parking. The Valley Transportation Authority (VTA) provides guidelines for bike parking in its publication *Bike Technical Guidelines*. Class I spaces are defined as spaces that protect the entire bike and its components from theft, such as in a secure designated room or a bike locker. Class II spaces provide an opportunity to secure at least one wheel and the frame using a lock, such as bike racks. For multi-family dwelling units, VTA recommends one Class I space per three dwelling units and one Class II space per 15 dwelling units. For the proposed project, this would equate to 17 Class I spaces and 4 Class II spaces. The project site plan shows a bicycle room under the garage ramp that would accommodate 10 bicycle lockers and 16 bike racks. The project also proposes to provide 19 bike lockers under the stairs near the tandem parking areas and 4 bike racks at street level near the front entrance.

Pedestrian Access. The project would provide a paved walkway between the existing sidewalk on El Camino Real and the building entrance.

Generally, the design of the project site circulation and access is consistent with urban design practices. The presence of the garage ramp, short onsite drive aisles, and "confined" feel of the parking garage would serve to keep vehicles operating at very low speeds. In addition, the low traffic volume onsite, one trip every two minutes, means that the frequency of vehicle conflicts would be relatively low.

Conclusions

This analysis produced the following conclusions:

- Relative to the existing use, the project would generate 44 new daily trips, including 5 new trips during the AM peak hour and 53 fewer trips during the PM peak hour. The amount of



additional traffic generated would be low, and the impact on the greater transportation network would be negligible.

- The project meets the city requirements for the number of parking spaces.
- Commonly cited parking publications recommend grades of up to 16% on ramps where no parking is permitted, but grades of up to 20% are cited as acceptable under conditions that are present here. The grade of the garage access ramp is acceptable.
- The proposed plan shows good circulation through the two levels of the garage. The drive aisle is shown to be 26 feet wide and would provide sufficient room for vehicles to back out of the 90-degree parking stalls including the tandem stalls. The vehicle turning paths are constrained by the inner wall of the ramp at both ends under the current design. Hexagon recommends the design be revised to move back the wall to provide enough spaces for vehicles to make turns to and from the ramps.
- There are some places in the garage where visibility would be limited. . Hexagon recommends that convex mirrors be placed at all locations in the garage where visibility is limited.
- Outbound at the project driveway on El Camino Real, the low volume of traffic would result in brief delays and short vehicle queues. Sight distance at the project driveway would be adequate provided (1) the landscaping is kept at a low level within 10 feet of the curb face on El Camino Real and (2) sight distance is not blocked by parked vehicles. Parking should be prohibited on El Camino Real within 10 feet west of the driveway.
- The project would exceed the bike parking standards recommended by VTA.

Sincerely,

HEXAGON TRANSPORTATION CONSULTANTS, INC.

A handwritten signature in black ink, appearing to read "Gary K. Black", with a long horizontal flourish extending to the right.

Gary K. Black
President

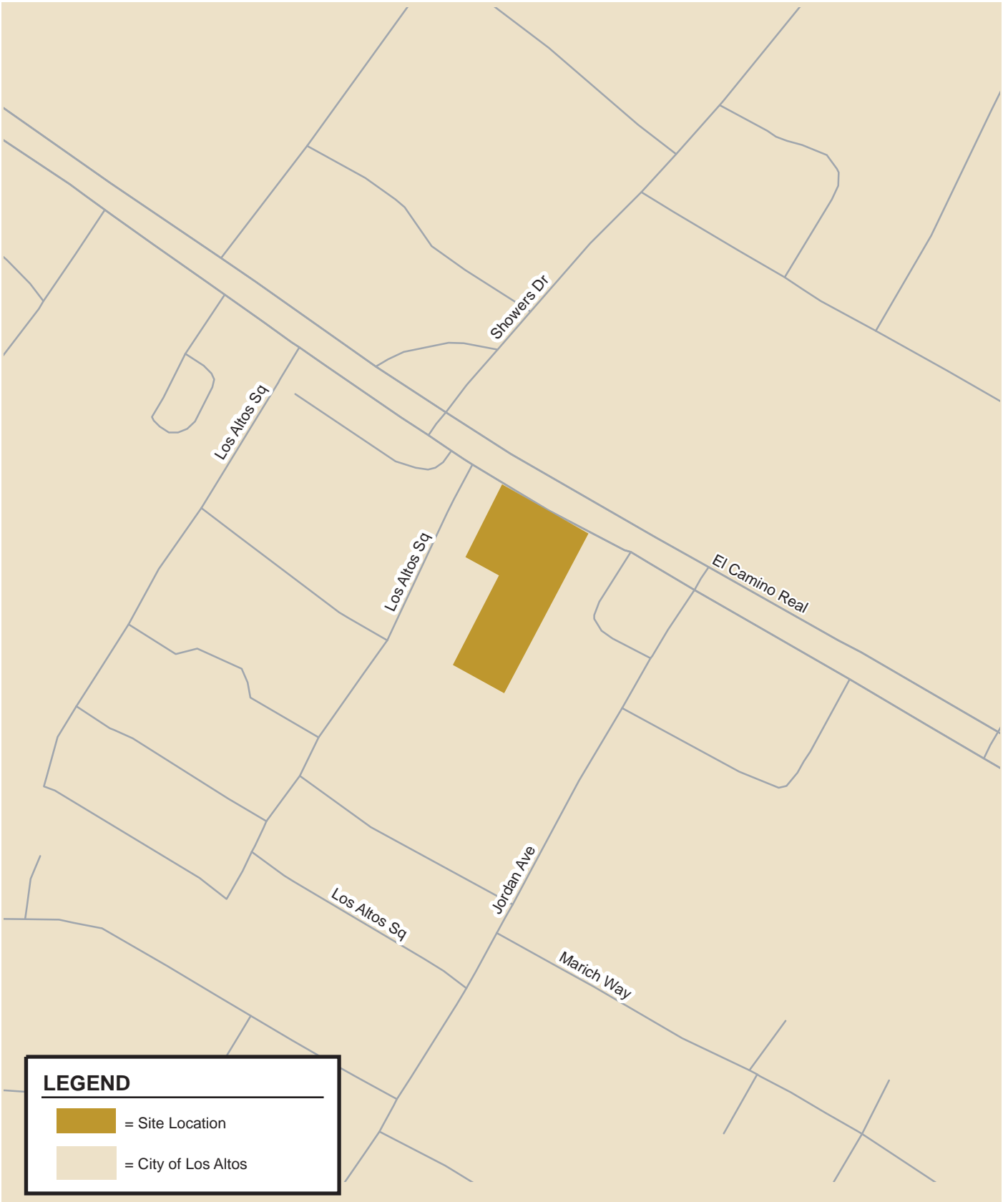


Figure 1
Site Location

BUILDING EXIT ANALYSIS PLAN

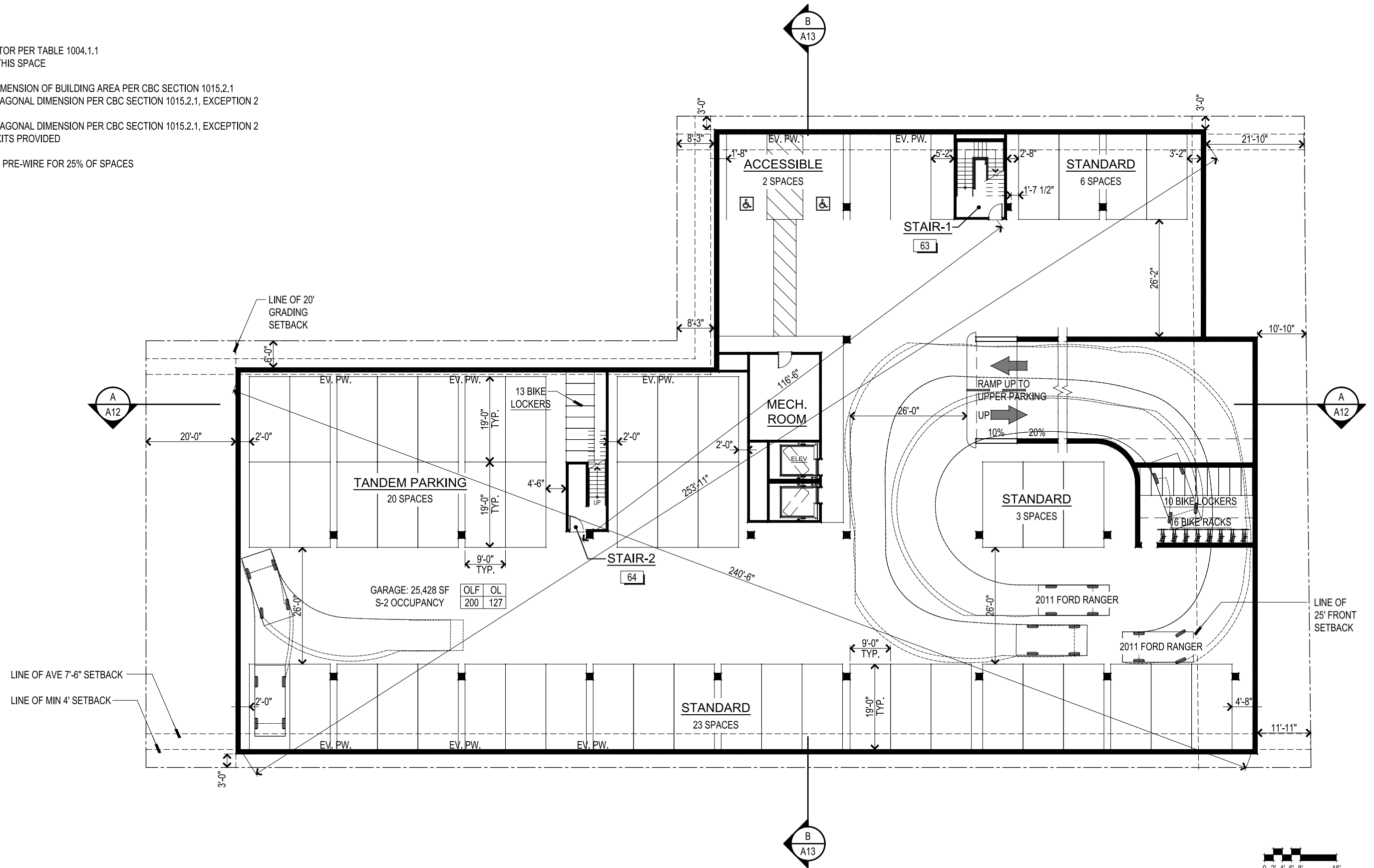
25 OCCUPANCY EXITING LOAD

OLF	OL	OLF = OCCUPANT LOAD FACTOR PER TABLE 1004.1.1
200	127	OL = OCCUPANT LOAD FOR THIS SPACE

MD	1/3	MD = MAXIMUM DIAGONAL DIMENSION OF BUILDING AREA PER CBC SECTION 1015.2.1
253'	84'	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2

1/3	DE	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2
28'	85'	DE = DISTANCE BETWEEN EXITS PROVIDED

EV. PW. PROVIDE ELECTRIC VEHICLE PRE-WIRE FOR 25% OF SPACES



ALTOS ONE

4846 & 4856 El Camino Real
Los Altos, CA
May 15, 2018

LUXONE LLC

572 Chimalus Dr.
Palo Alto, CA 94306

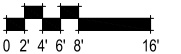


Figure 2A

LOWER LEVEL BASEMENT FLOOR PLAN

3361 Walnut Blvd. Suite 120 Brentwood, CA 94513
925.634.7000
www.strausdesign.com



SDG Architects, Inc.

BUILDING EXIT ANALYSIS PLAN

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PARKING STANDARDS

• PARKING STANDARDS (PER LAMC 14.28.040 SECTION G2)

REQUIRED SPACES

1 SPACE PER 1 BEDROOM UNIT:	9 SPACES
2 SPACES PER 2+ BEDROOM UNIT:	82 SPACES
TOTAL REQUIRED:	91 SPACES

INCLUDES GUEST AND HANDICAPPED SPACES

PROVIDED SPACES

TANDEM PARKING:	40 SPACES
STANDARD PARKING:	65 SPACES
ACCESSIBLE PARKING:	3 SPACES
TOTAL PROVIDED:	108 SPACES

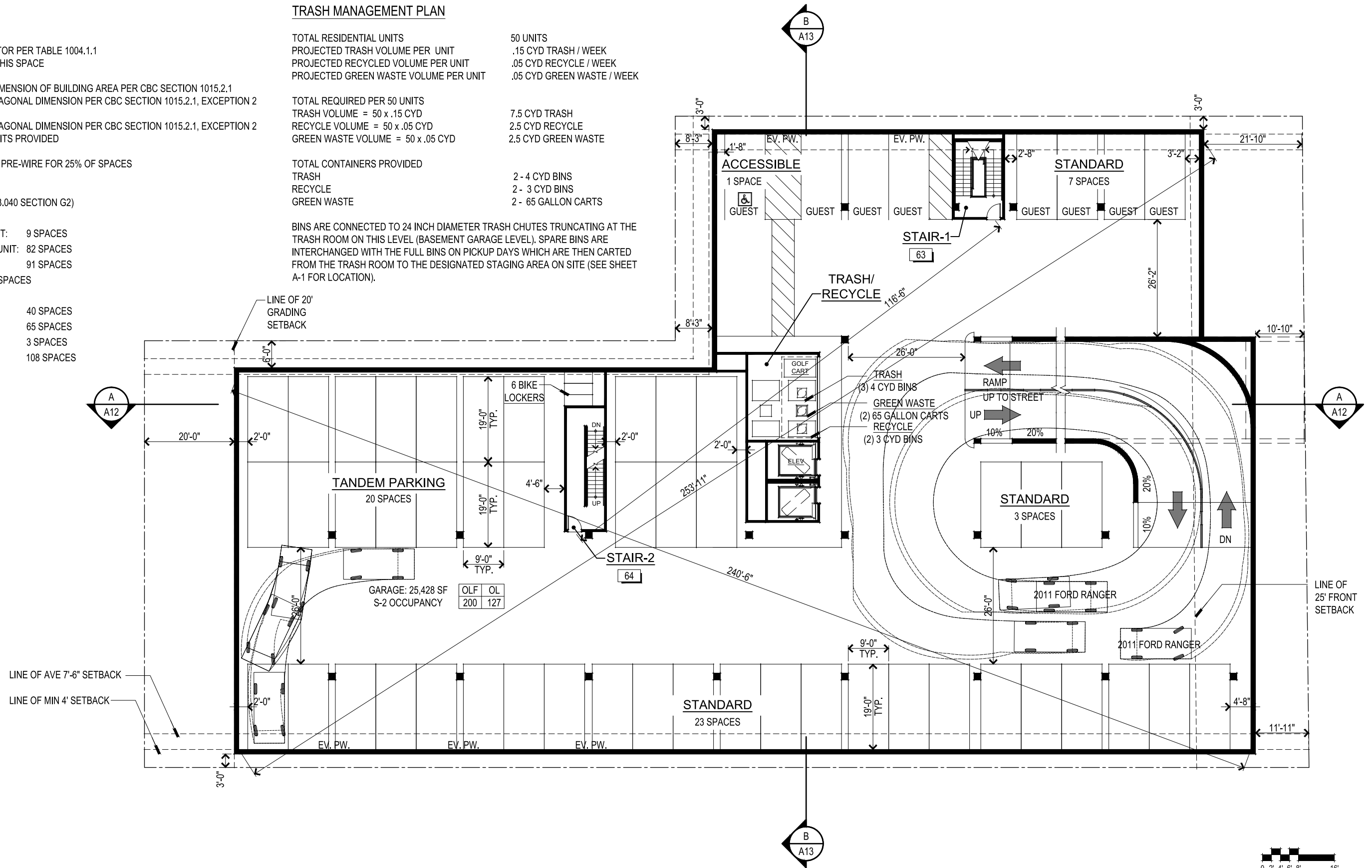
TRASH MANAGEMENT PLAN

TOTAL RESIDENTIAL UNITS	50 UNITS
PROJECTED TRASH VOLUME PER UNIT	.15 CYD TRASH / WEEK
PROJECTED RECYCLED VOLUME PER UNIT	.05 CYD RECYCLE / WEEK
PROJECTED GREEN WASTE VOLUME PER UNIT	.05 CYD GREEN WASTE / WEEK

TOTAL REQUIRED PER 50 UNITS	
TRASH VOLUME = 50 x .15 CYD	7.5 CYD TRASH
RECYCLE VOLUME = 50 x .05 CYD	2.5 CYD RECYCLE
GREEN WASTE VOLUME = 50 x .05 CYD	2.5 CYD GREEN WASTE

TOTAL CONTAINERS PROVIDED	
TRASH	2 - 4 CYD BINS
RECYCLE	2 - 3 CYD BINS
GREEN WASTE	2 - 65 GALLON CARTS

BINS ARE CONNECTED TO 24 INCH DIAMETER TRASH CHUTES TRUNCATING AT THE TRASH ROOM ON THIS LEVEL (BASEMENT GARAGE LEVEL). SPARE BINS ARE INTERCHANGED WITH THE FULL BINS ON PICKUP DAYS WHICH ARE THEN CARTED FROM THE TRASH ROOM TO THE DESIGNATED STAGING AREA ON SITE (SEE SHEET A-1 FOR LOCATION).



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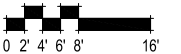


Figure 2B
UPPER LEVEL BASEMENT FLOOR PLAN

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