



# DeAnza College

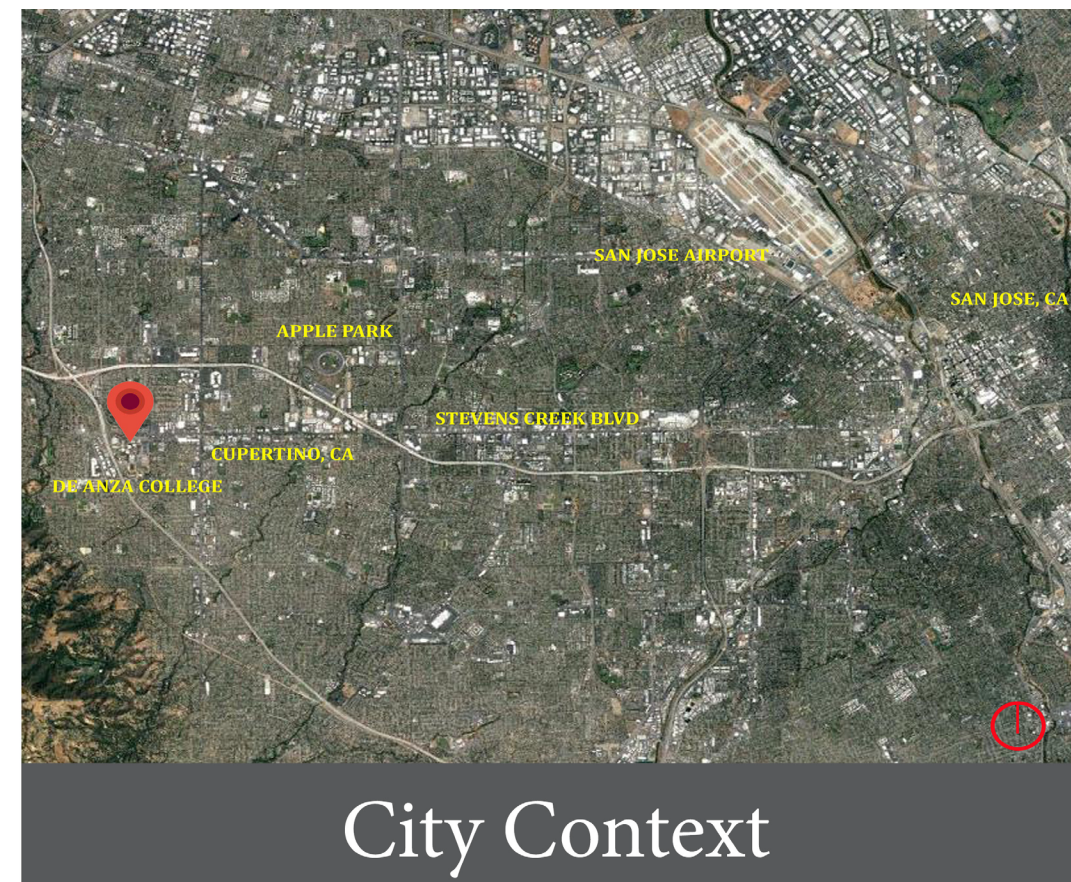
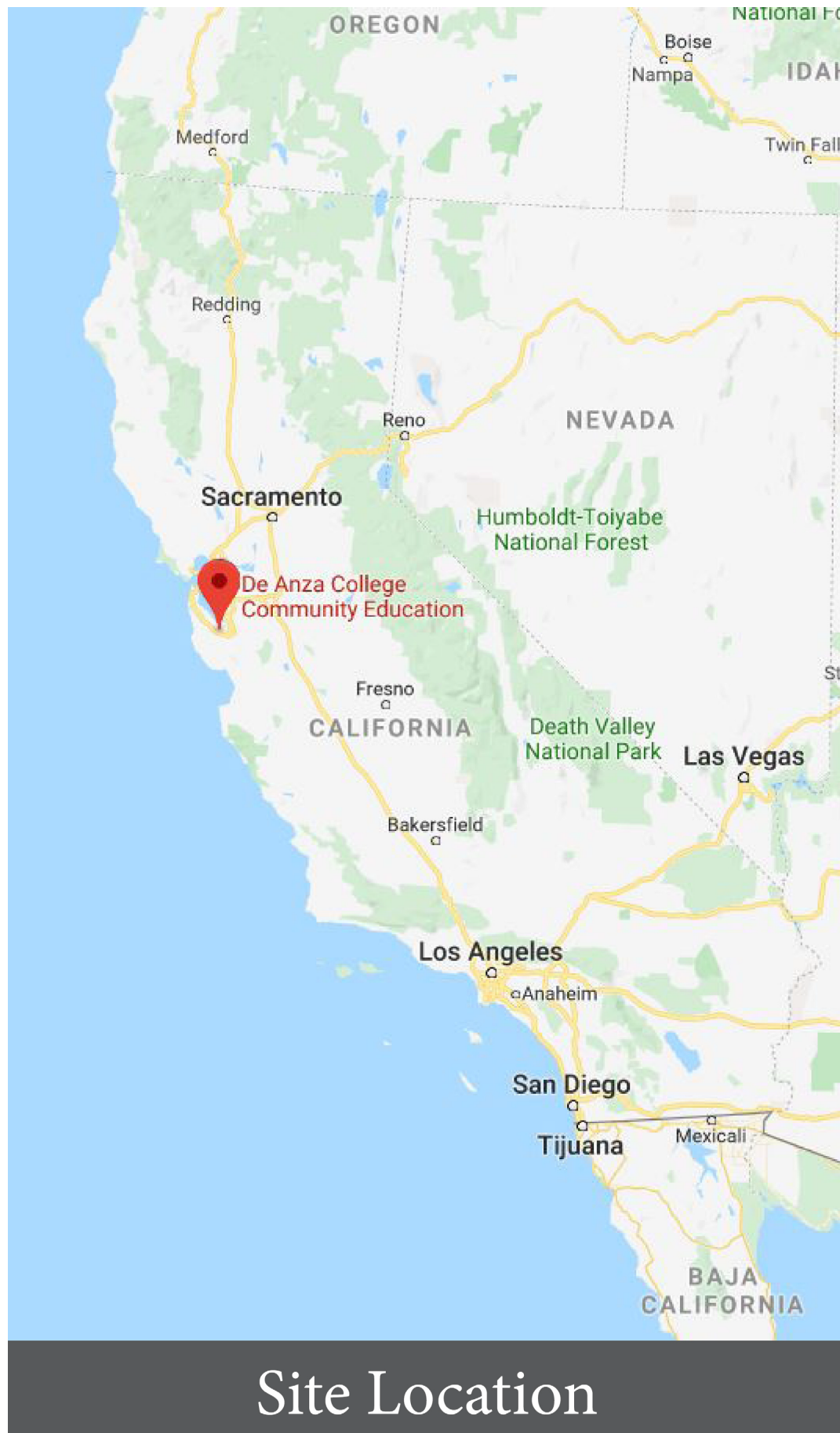
& Surrounding Area

DEVELOPMENT PROPOSAL

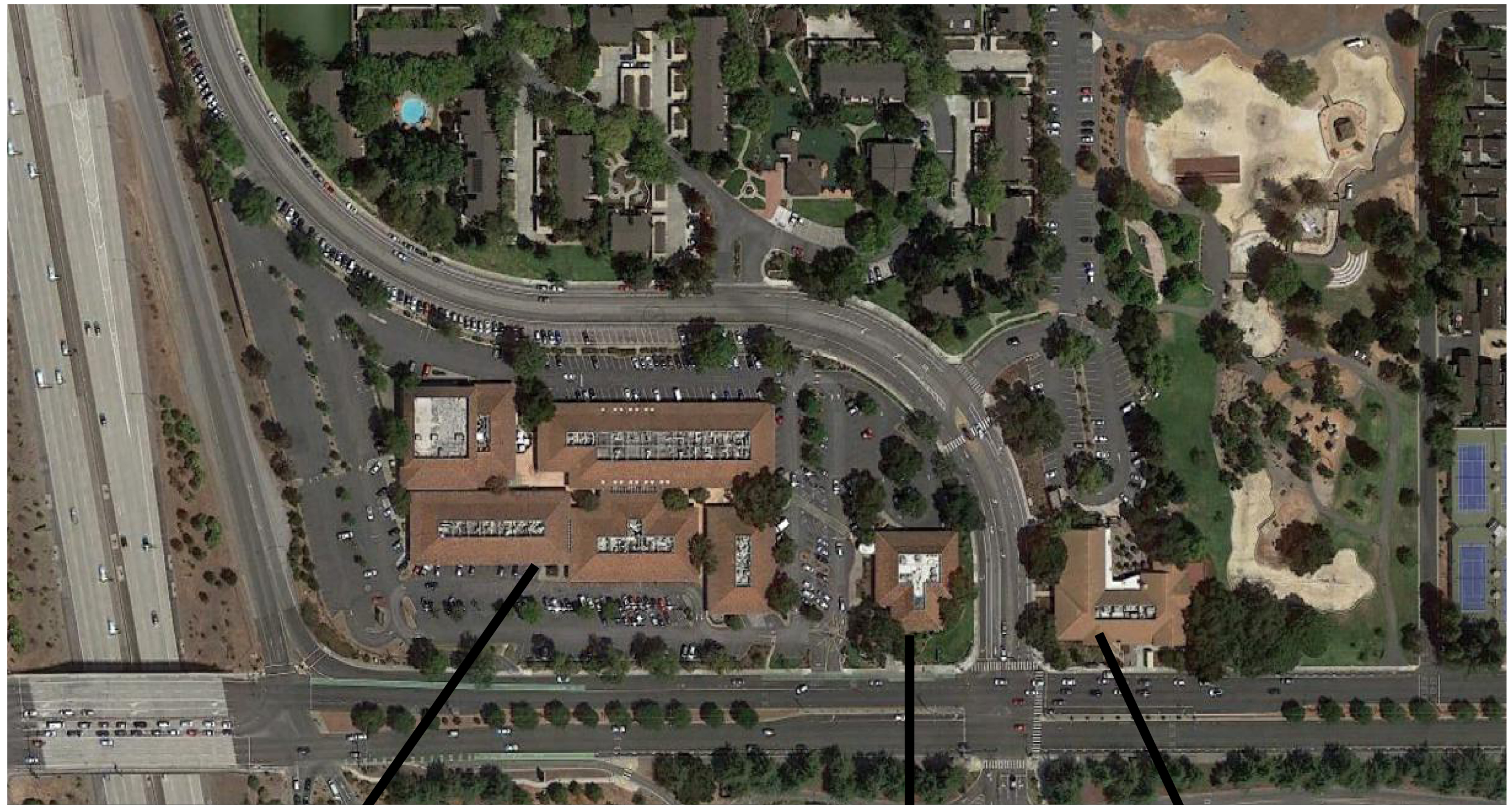
ARC 55I PROFESSOR McDONALD  
CHASETON HOLDMAN, TIM MEHTA,  
JOSEPH PLUMMER



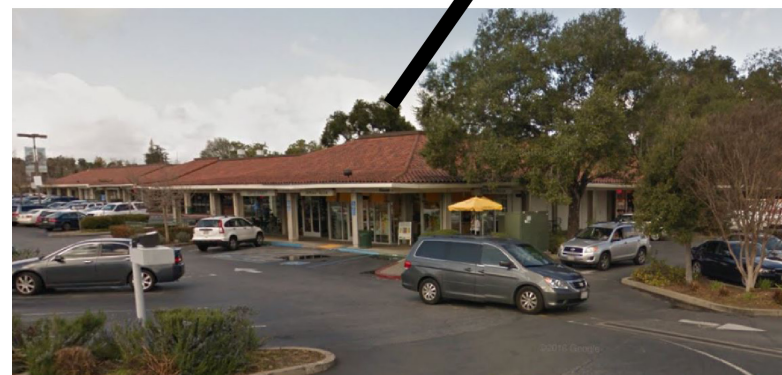
# LOCATION







Current Site



Oaks Shopping



Shane Co.



Senior Center



# LOCATION



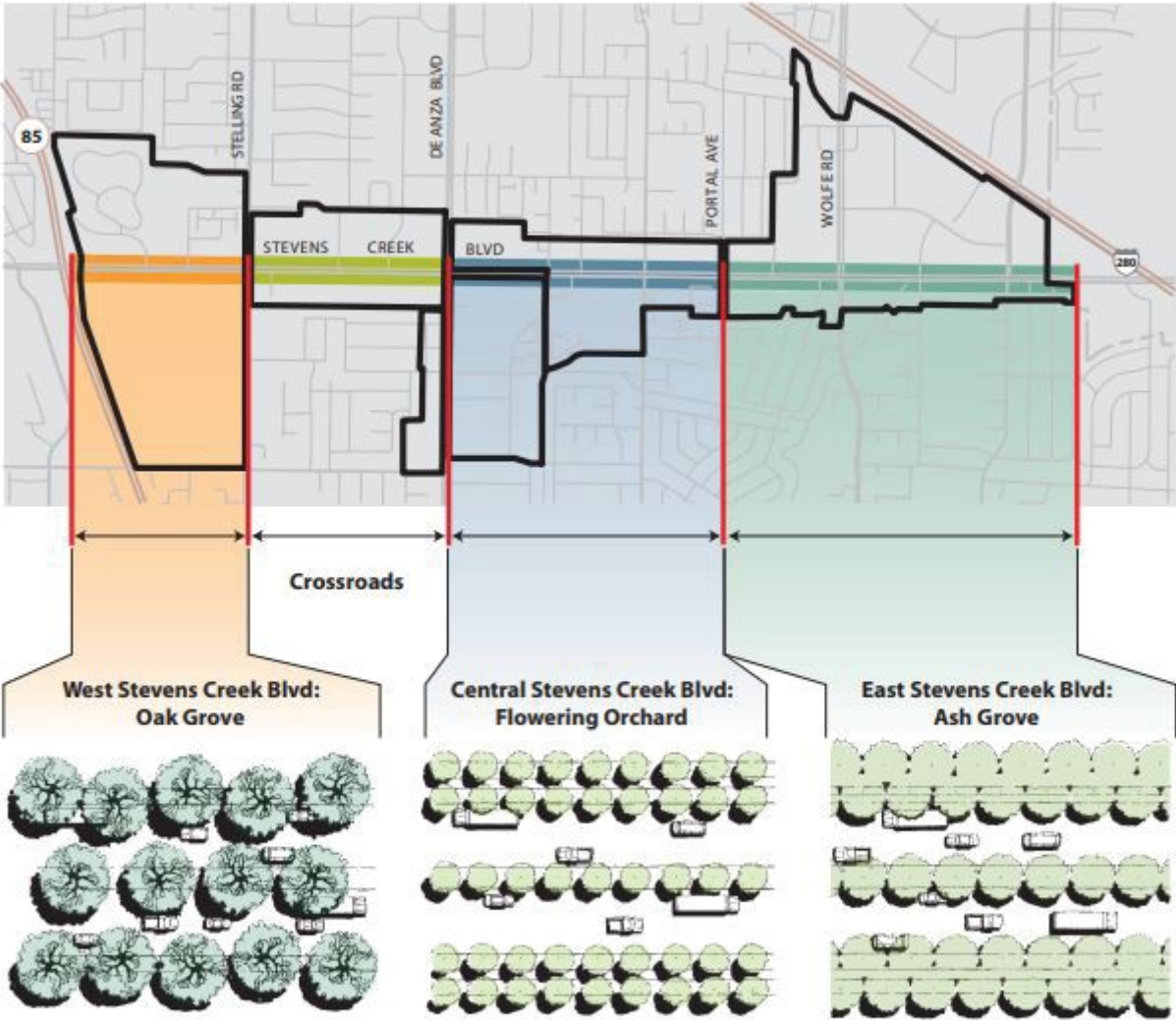


# RESEARCH- LANDSCAPING

## Streetscape Concept

### Principles:

- Unify Visual Appearance of Street with Orchard/Grove Street Tree Plantings, Consistent Furnishings, and Civic Landmarks.
- Improve Pedestrian Environment Along Street Frontage with Planting Strips and Buffering Trees and Shrubs.
- Allow Flexibility to Address Access and Visibility Needs of Adjacent Commercial Development.
- Accommodate Options for Implementing Streetscape Improvements: e.g. City Construction, Renovation of Existing Development, Standards for New Development.
- Create a Unique Pedestrian-Oriented Activity Center at the Crossroads.



- Informal Arrangement of Native Trees and Wild Flowers Along Frontage and in Median.
- Consider Removing Curbs and Walks and Replacing with Crushed Granite Surface.
- Focuses Character of De Anza College, Memorial Park, Oaks Center.
- Formal Grid of Flowering Trees and Low-Growing Ground Cover Along Frontage and in Median.
- Focuses Character of City Center, Target, Office Buildings.
- Semi-Formal Arrangement of Large Shade Trees, Low-Growing Ground Cover, and Flowering Shrubs Along Frontage and in Median.
- Focuses Character of Vallco, Marketplace Center, Wolfe Road.

### Protected Trees

**Heritage Trees** designated for special aesthetic, cultural or historical value or significance

**Specimen Trees** of the species listed below with either a minimum single trunk diameter of 12 inches (38 inch circumference) or a minimum multi-trunk diameter of 24 inches (75 inch circumference) measured 4.5 feet above ground level

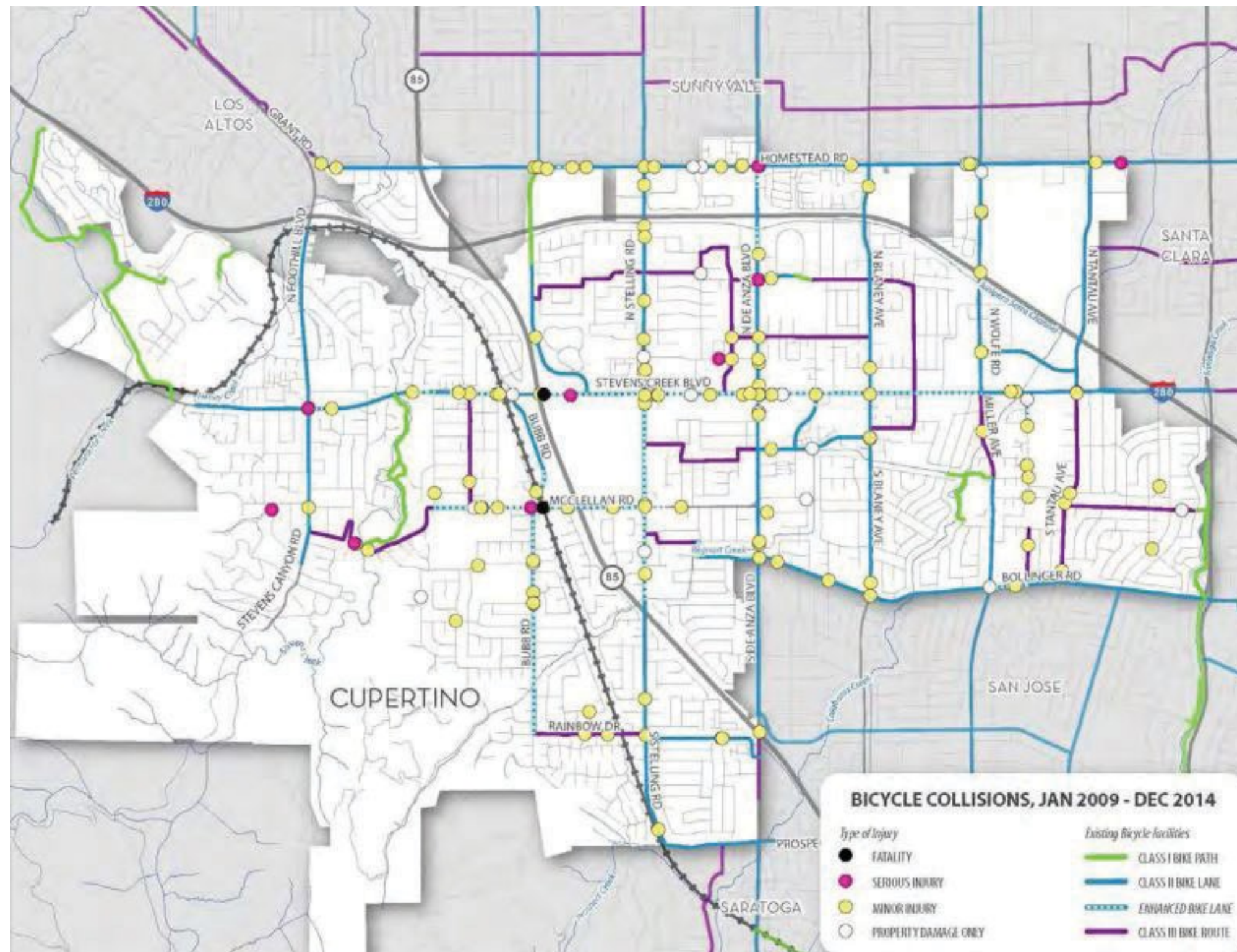
Scientific Name	Common Name
<i>Aesculus californica</i>	California Buckeye
<i>Acer macrophyllum</i>	Big Leaf Maple
<i>Cedrus atlantica 'Glauca'</i>	Blue Atlas Cedar
<i>Cedrus deodara</i>	Deodar Cedar
<i>Platanus racemosa</i>	Western Sycamore
<i>Quercus</i>	Native Oak trees, including the following:
<i>Quercus agrifolia</i>	Coast Live Oak
<i>Quercus douglasii</i>	Blue Oak
<i>Quercus kelloggii</i>	California Black Oak
<i>Quercus lobata</i>	Valley Oak
<i>Quercus wislizenii</i>	Interior Live Oak
<i>Umbellularia californica</i>	California Bay Laurel

**Required Trees** - any tree required to be planted or retained as part of an approved development application, building permit, tree removal permit or code enforcement action

**Privacy Protection Trees** - any tree required to be planted or retained as part of privacy protection landscaping

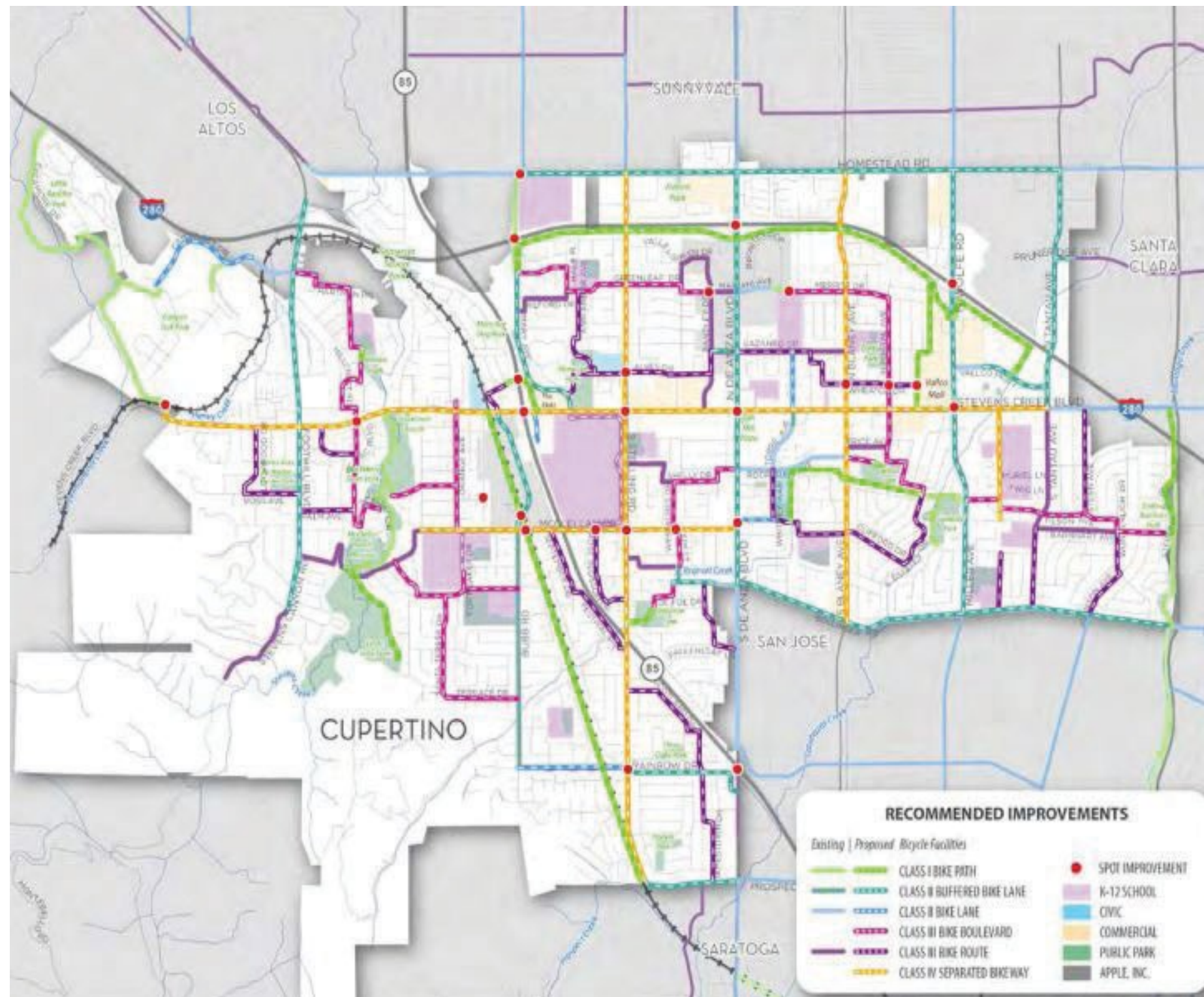


# RESEARCH- BICYCLE



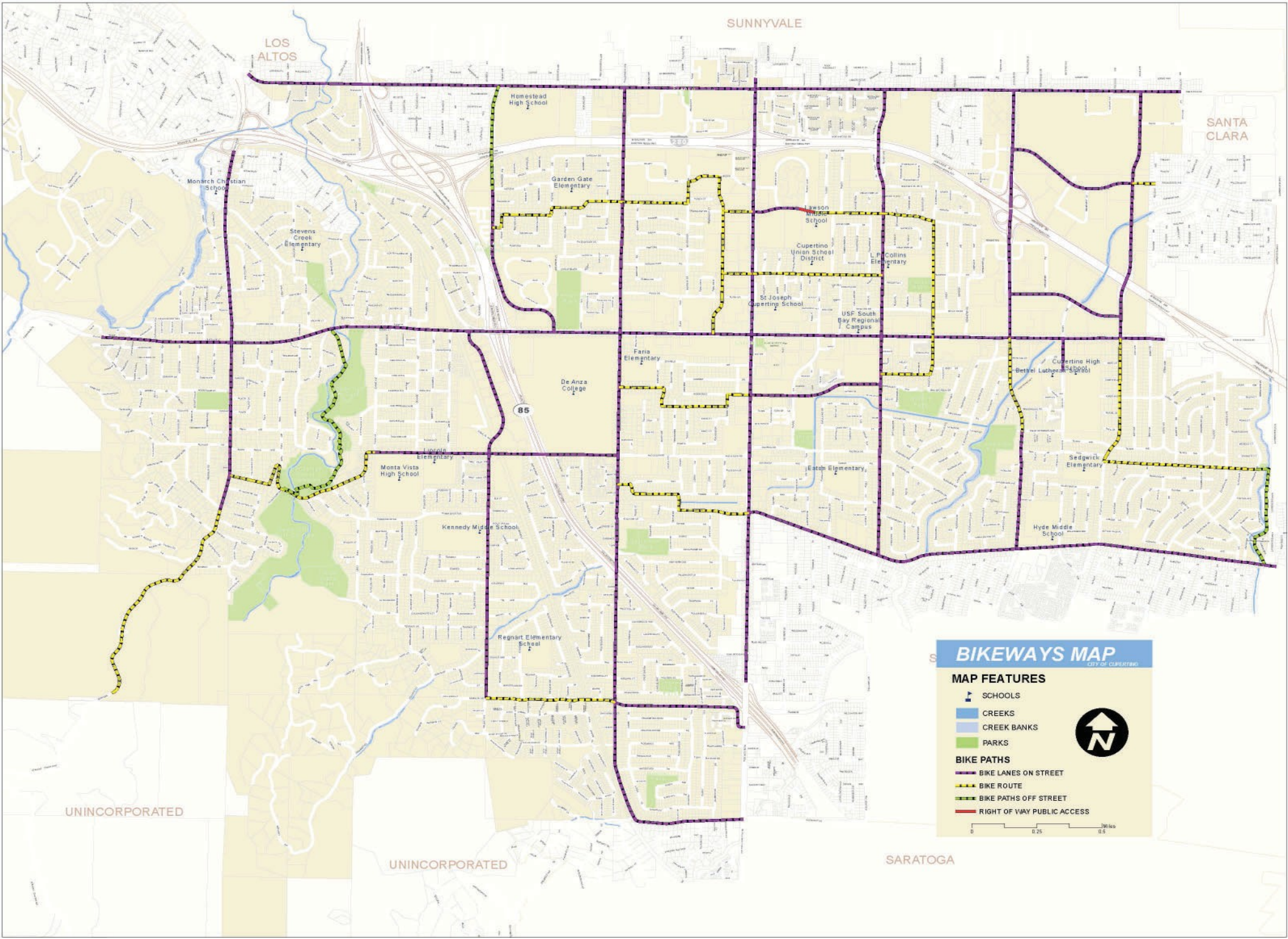


# RESEARCH- BICYCLE



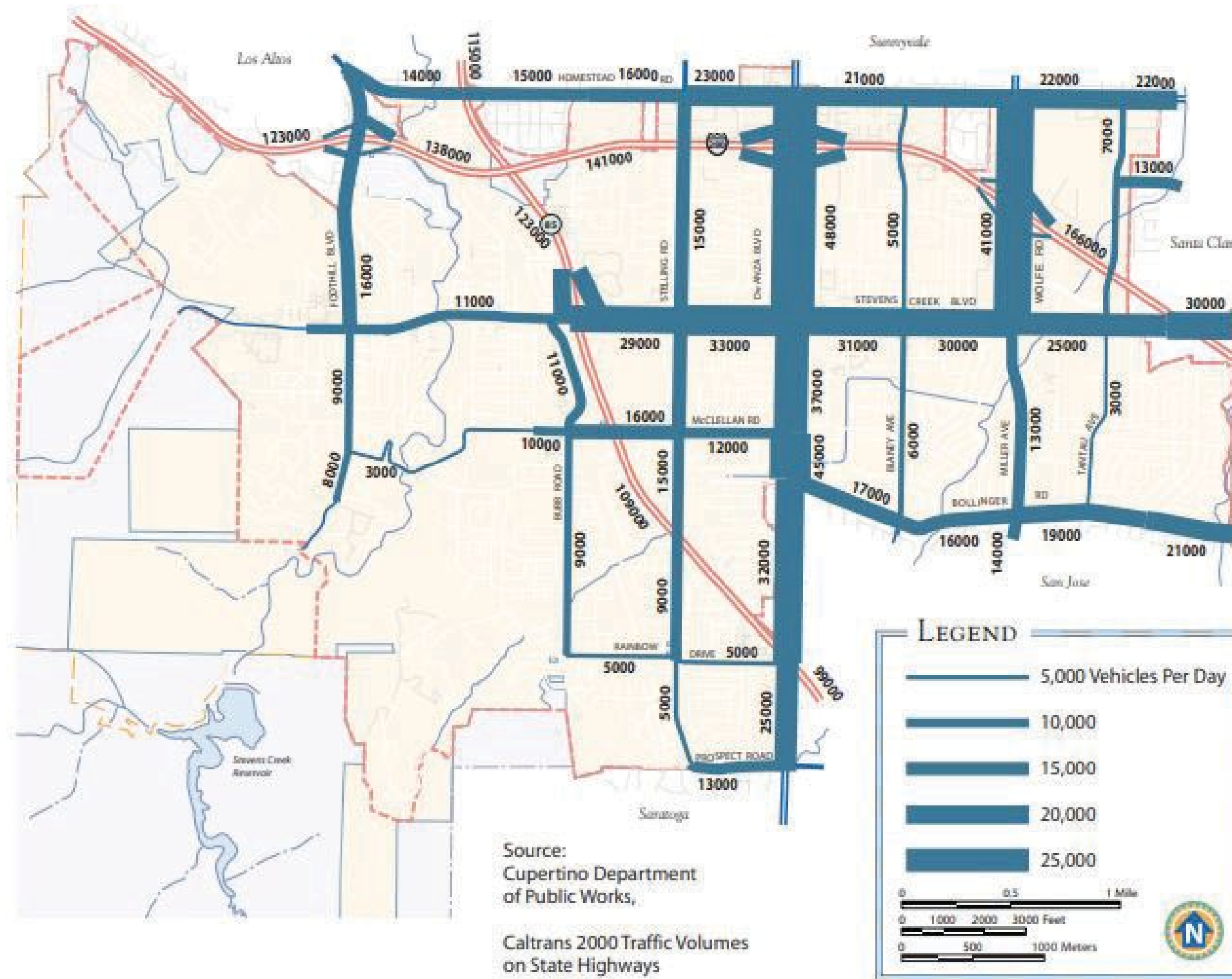


# RESEARCH- BICYCLE





# RESEARCH- TRAFFIC





# BIG PICTURE



The vision for the Stevens Creek Corridor at De Anza College is to transform the Oaks Shopping Center into an extended park corridor with hotel, multi-family housing and Senior living. Bike and pedestrian pathways will extend De Anza College connectivity to its north and west. The PRT network of podcar will bring convenience and ease of travel.

The realignment of Stevens Creek BLVD and Mary Ave creates space for a pedestrian bike tunnel crossing Stevens Creek. This also helps divide up direct access and visibility to our different areas of zoning.

De Anza College North Entrance is moved west to be in align with the new placement of Mary Avenue. This will also allow direct access to the Flint Center by both the tunnel, car and podcar. A new east entrance off Stevens Creek will allow quicker access for emergency vehicles and better flow of traffic on campus.



# RESEARCH- VEHICLE CIRCULATION



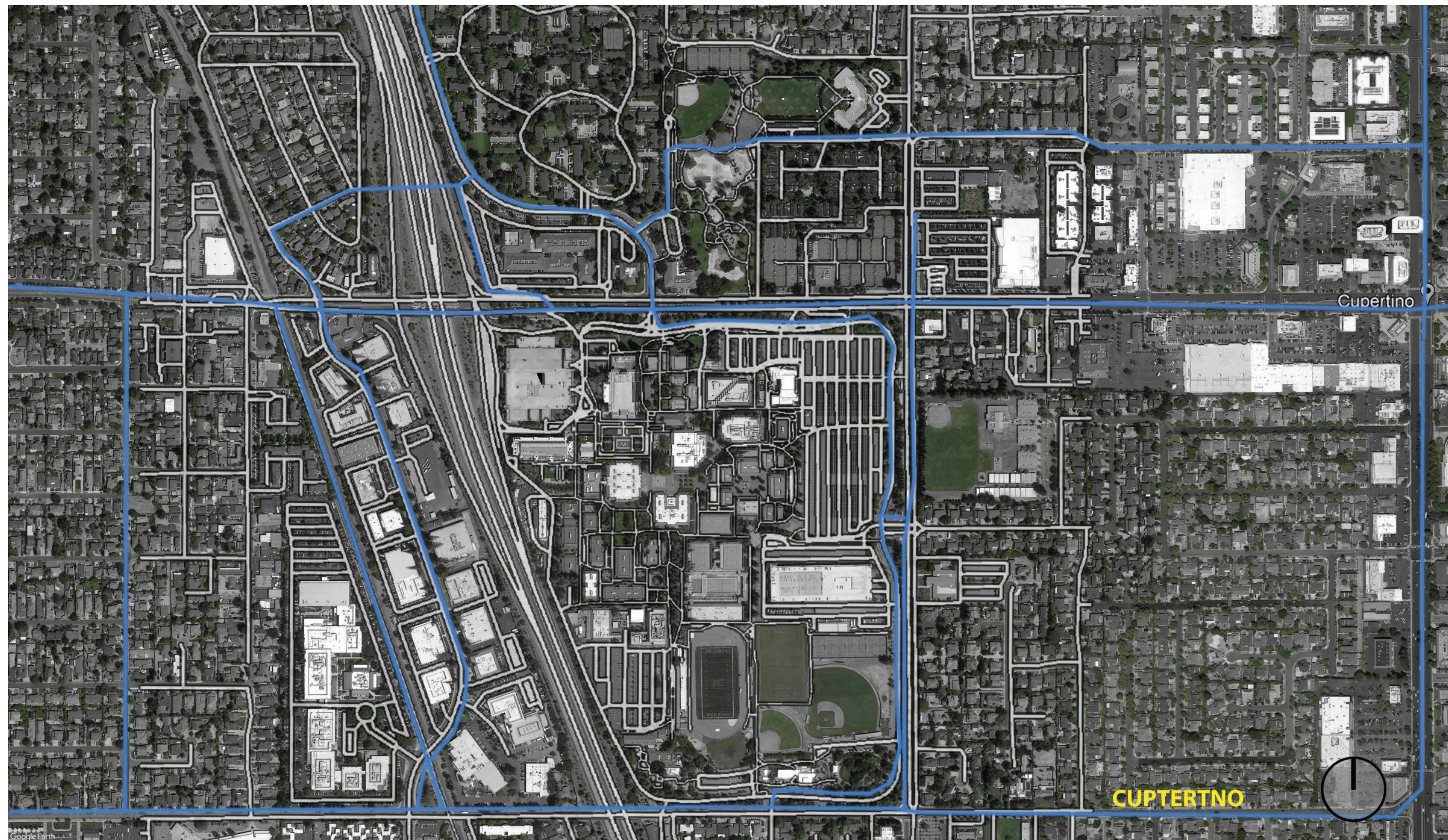
Current De Anza College Vehicle Circulation



Proposed De Anza College Vehicle Circulation

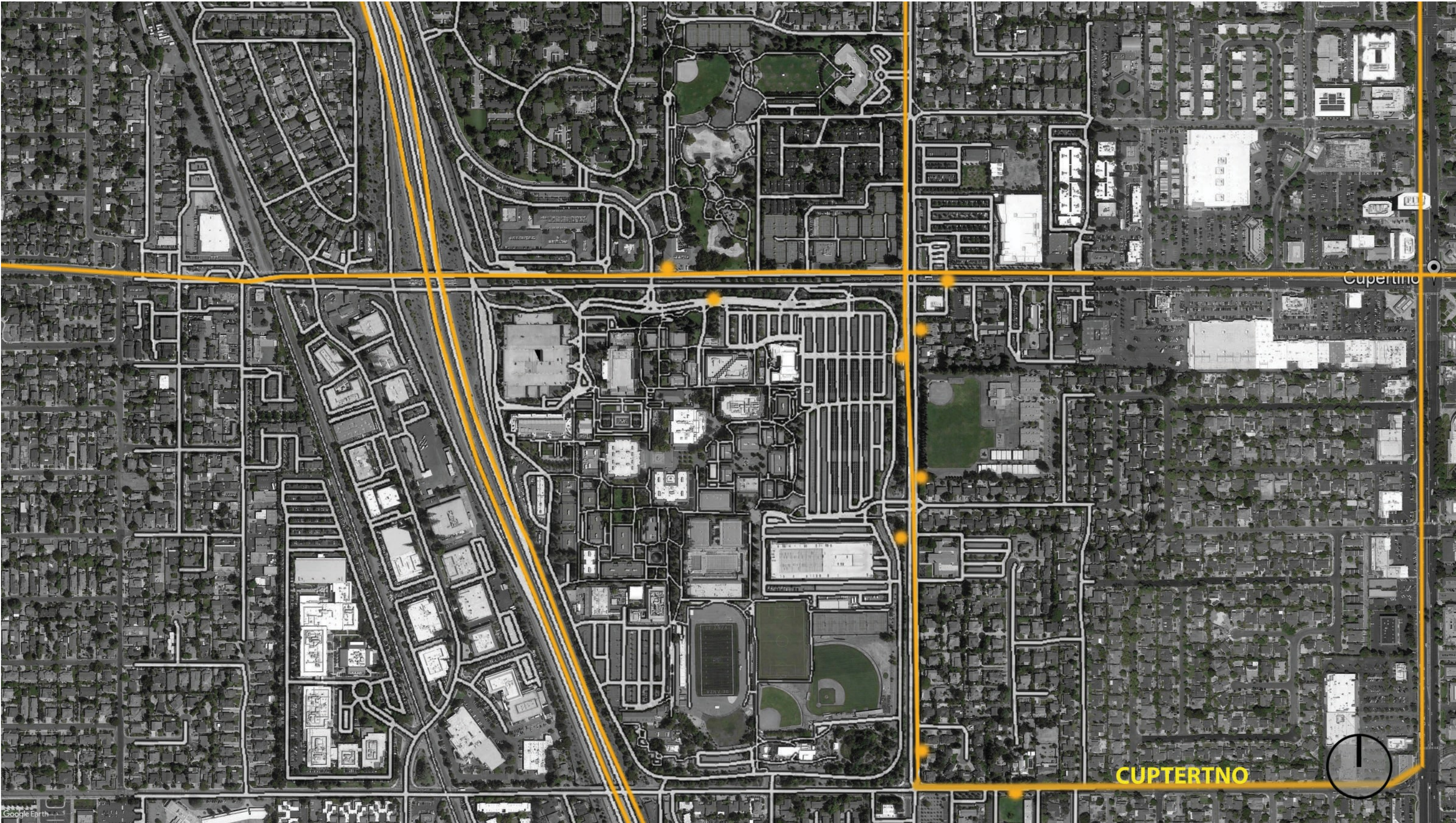


# RESEARCH- BICYCLE



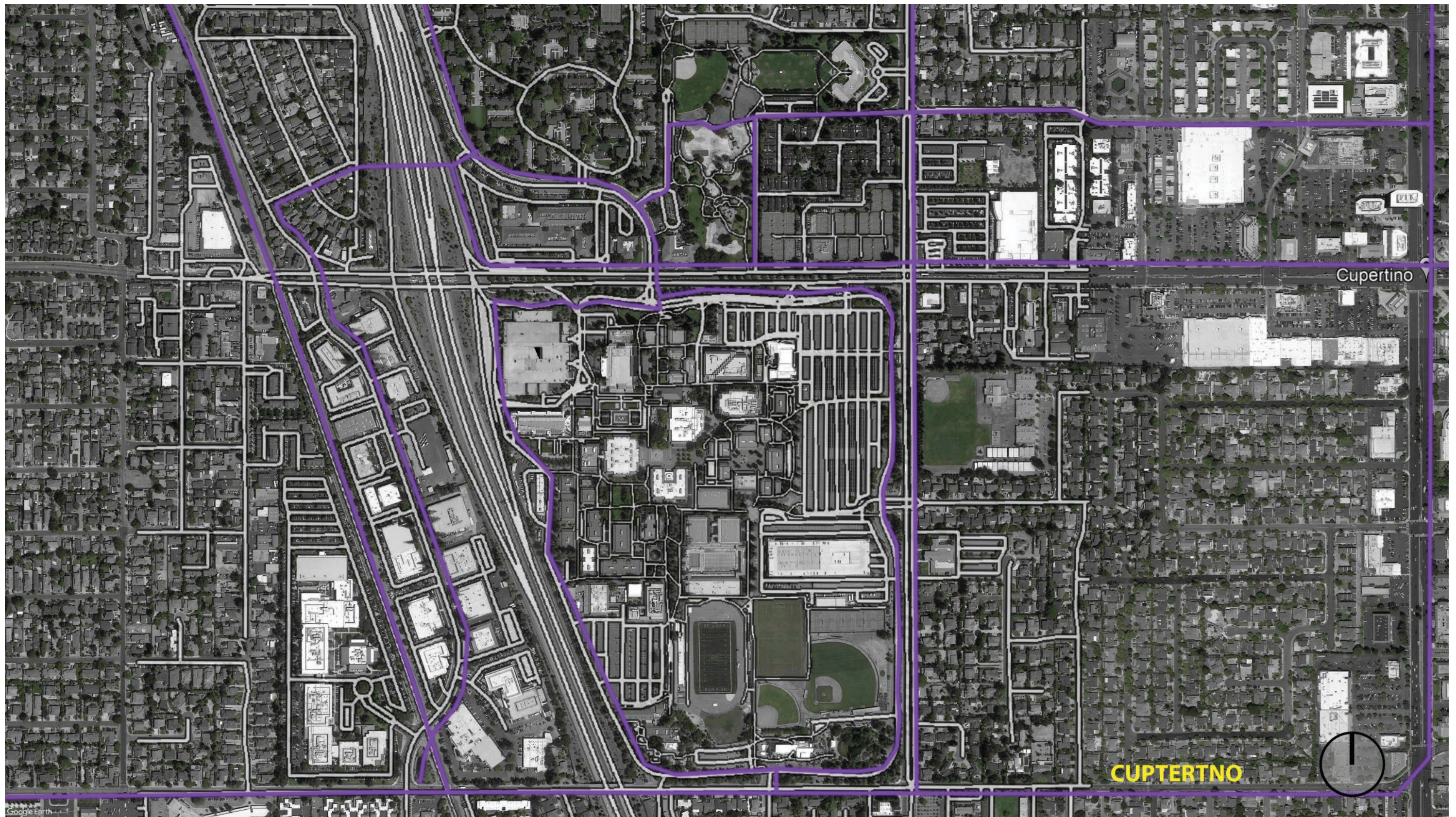


RESEARCH- BUS



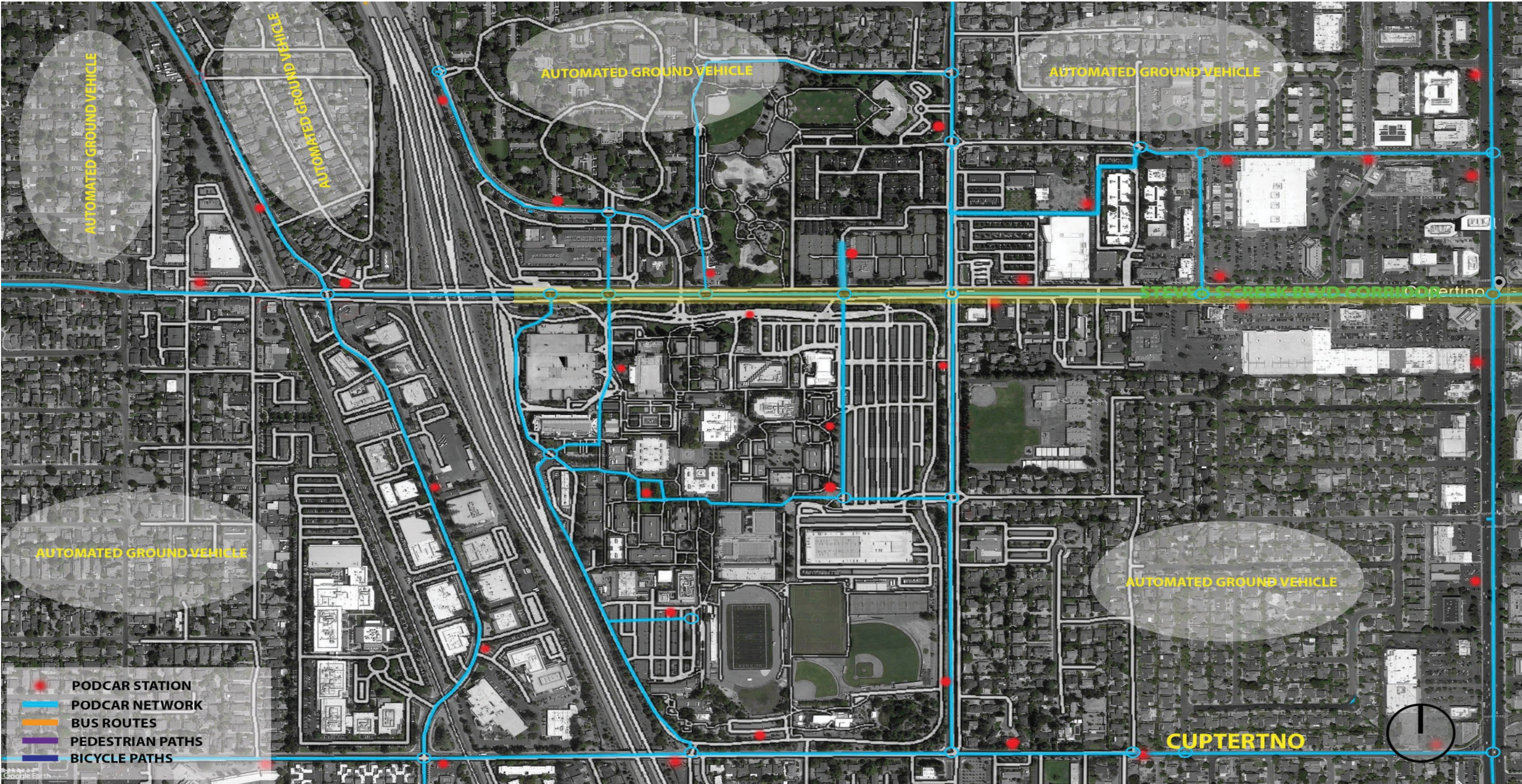


# RESEARCH- PEDESTRIAN PATHS



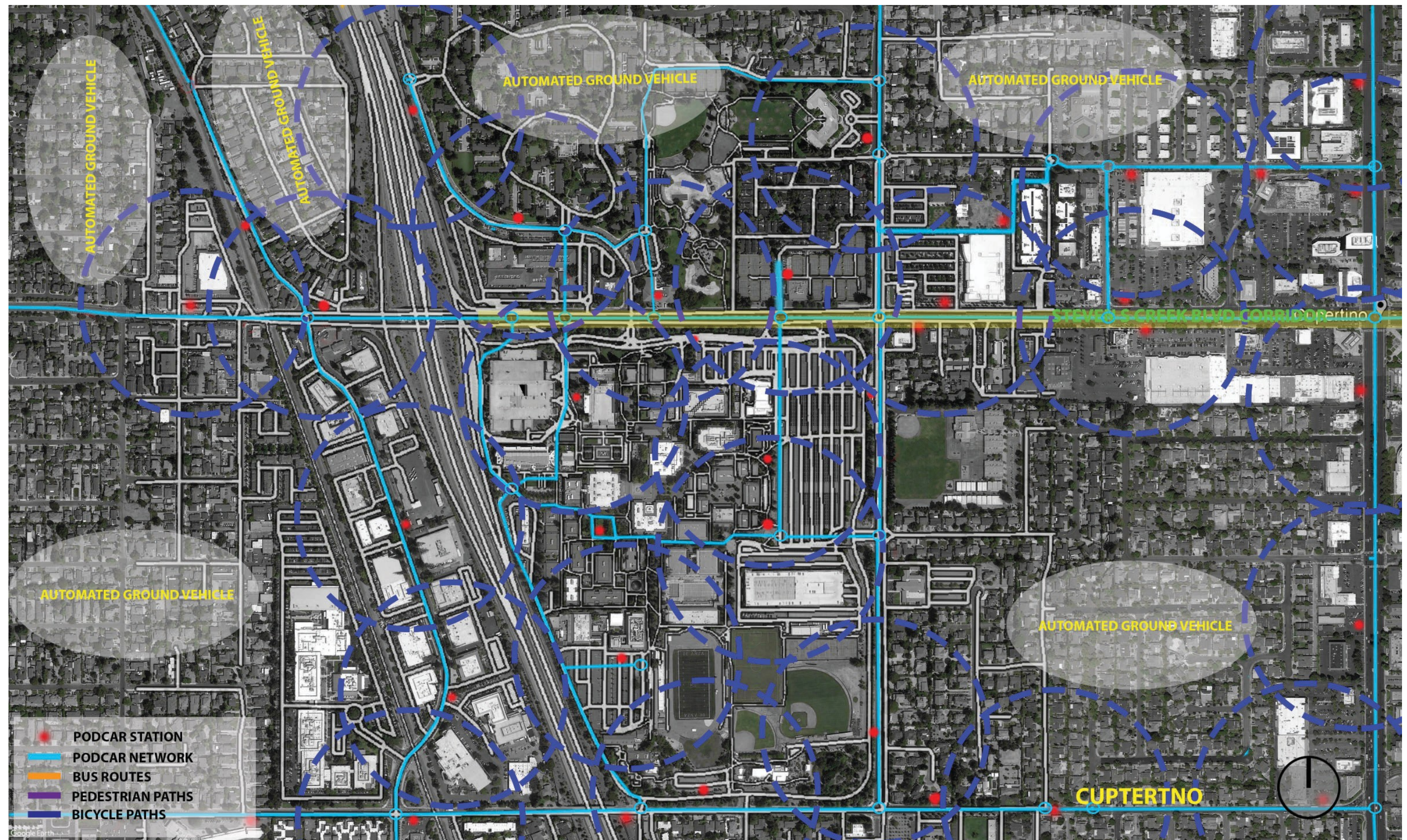


# RESEARCH- PODCAR NETWORK

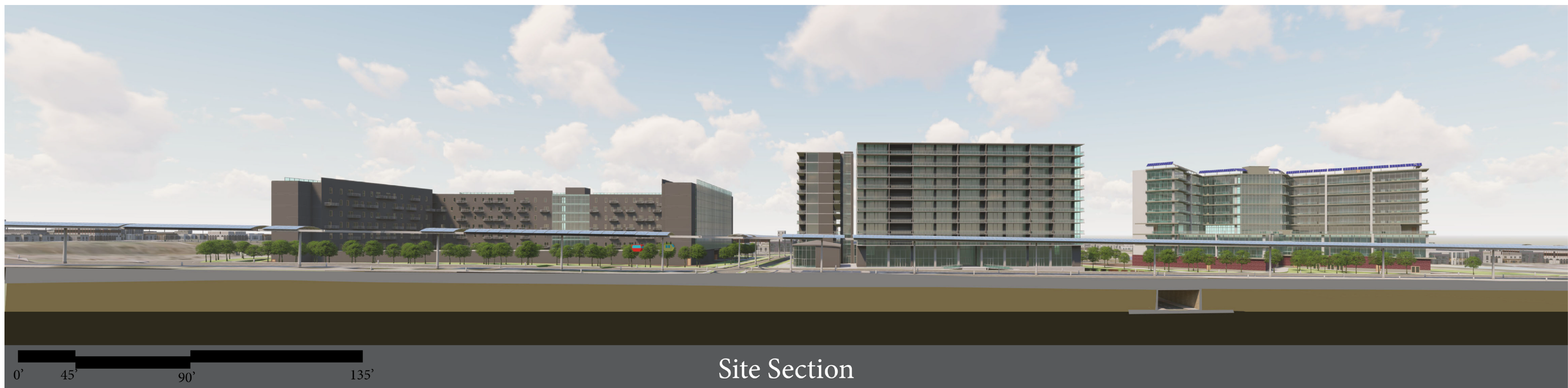




# RESEARCH- PEDESTRIAN PATHS

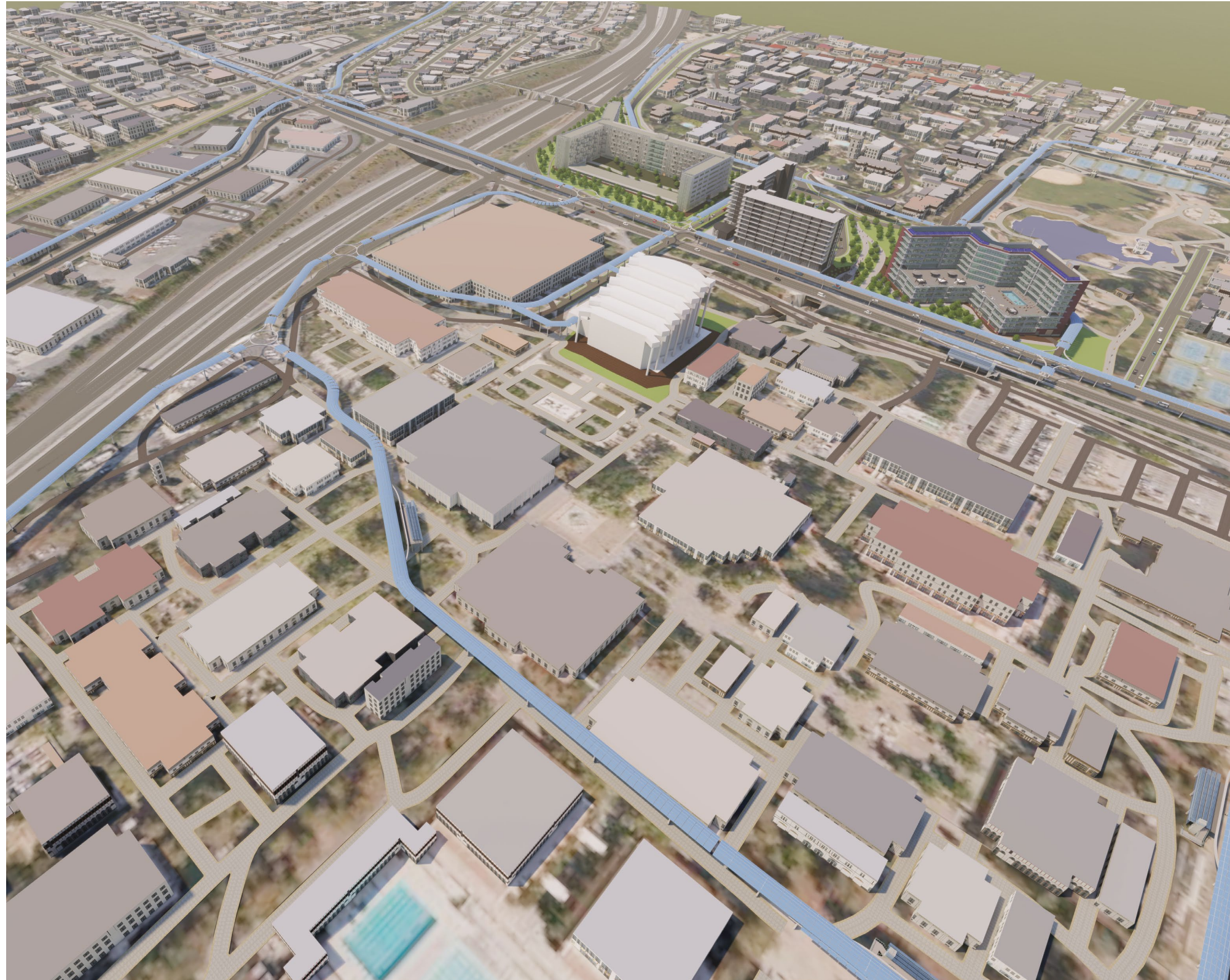








# MASTER-PLAN RENDERINGS





# FOCUS AREA MASTER PLAN



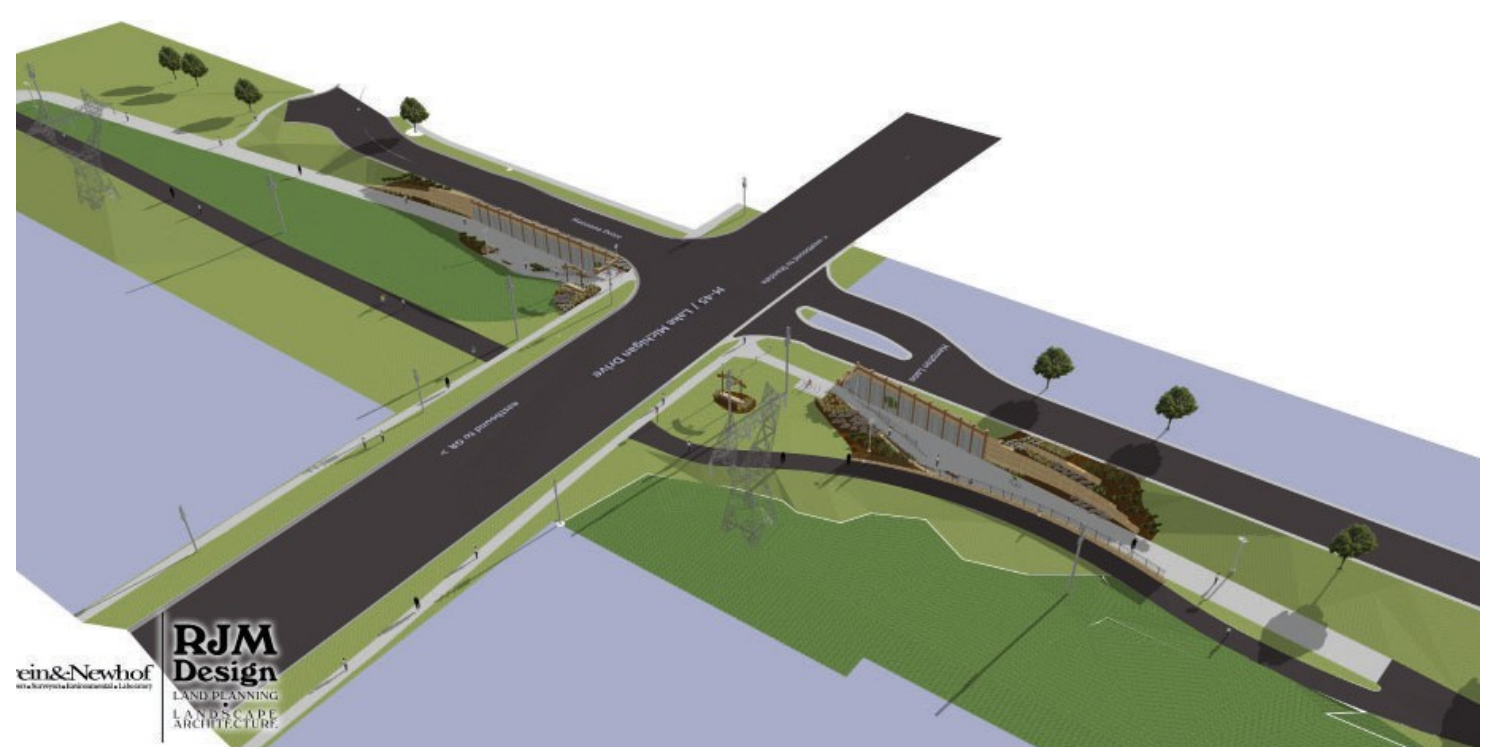


# PODCAR





# INSPIRATION- TUNNEL





# INSPIRATION- TUNNEL



<http://tunnelit.net/pedestrian/>  
<https://trafficpd.com/portfolio/Service/Construction/KnowlesAvenuePedTunnel/Index.html>  
<https://www.designindaba.com/articles/creative-work/pedestrian-and-bicycle-tunnel-opens-underneath-amsterdam-central-station>



# TUNNEL



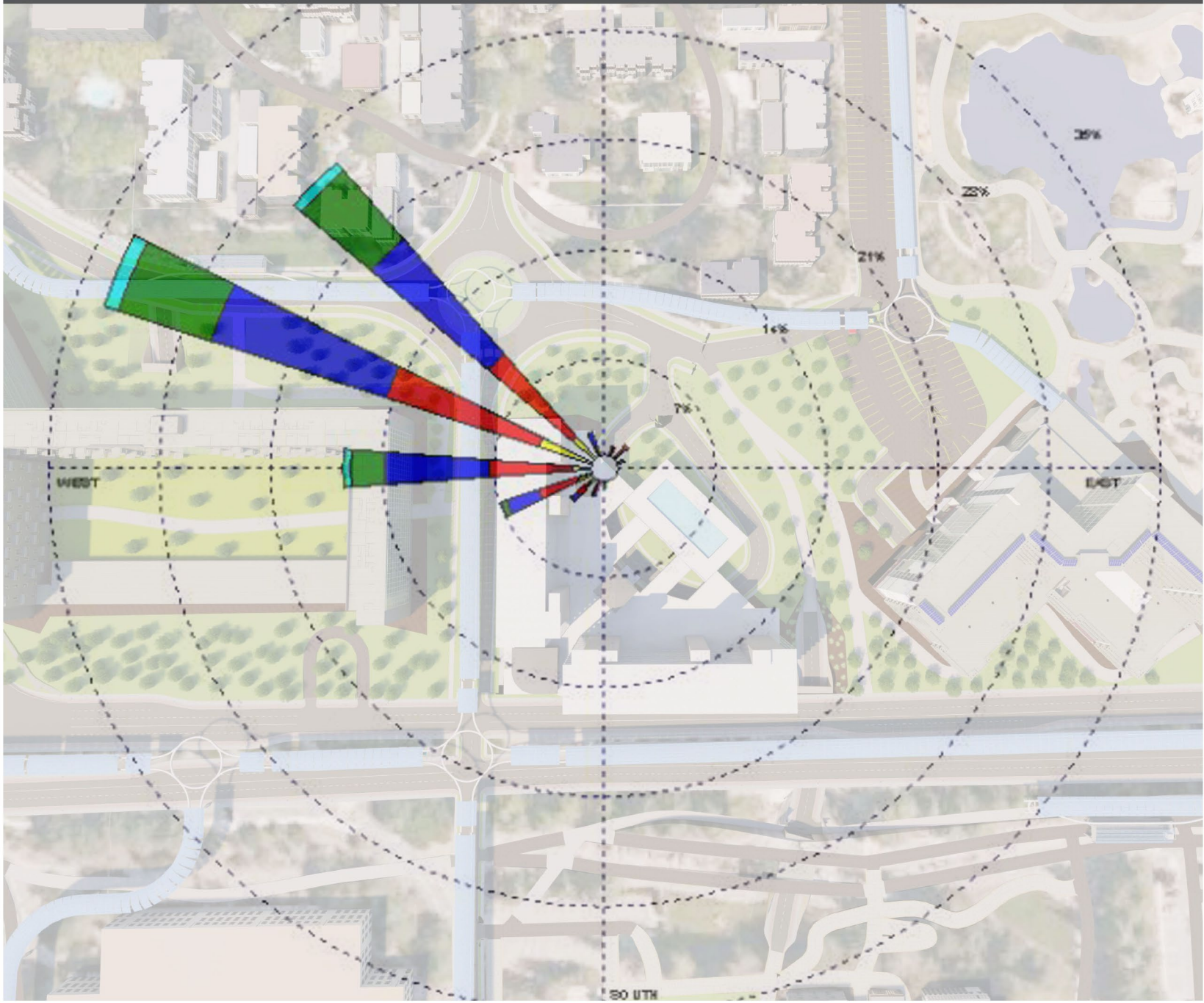


# PEDESTRIAN BRIDGE



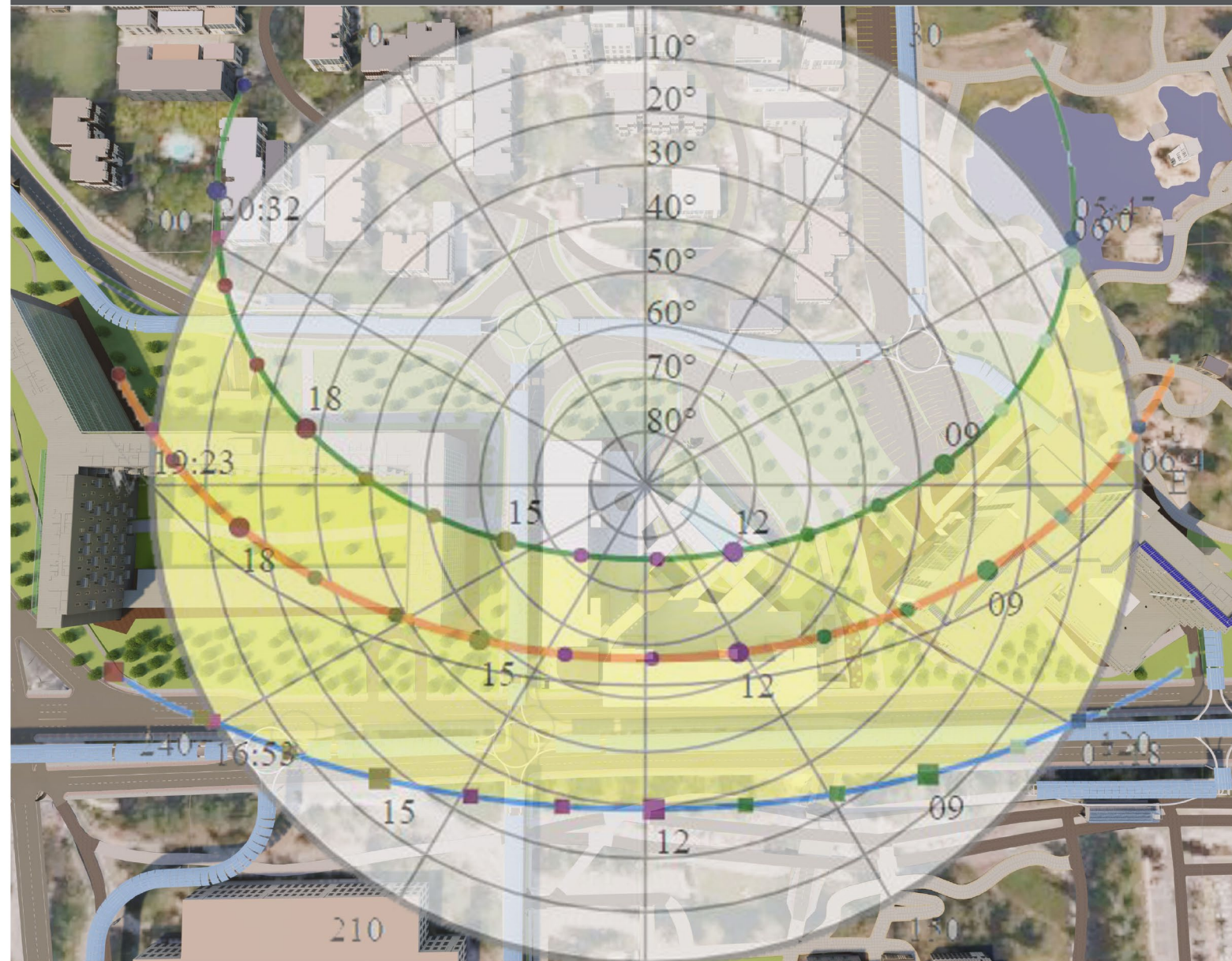


# Cupertino Wind Rose





## Cupertino Sun Study





# Cupertino's Climate Action Plan



**Reduce Energy Use / Improve Facilities:** recommends ways to increase energy efficiency in existing buildings and increase use of renewable energy community-wide.



**Encourage Alternative Transportation / Convert Vehicle Fleet:** encourages transit, carpooling, walking, and bicycling as viable transportation modes to decrease the number of single-occupancy vehicle trips within the community, and facilitates a shift towards cleaner, alternative fuel vehicles.



**Conserve Potable Water:** promotes the efficient use and conservation of water in buildings and landscapes.



**Reduce Solid Waste:** increases waste diversion through recycling and organics collection, and reducing consumption of materials that will otherwise end up in landfills.



**Expand Green Infrastructure:** enhances the City's existing urban forest and landscapes on public and private land.



# BUILDING TYPE

## Building Facility Type

I selected to build an affordable multi-family residential building because I believe that is what is needed most in this area. I also believe that the City of Cupertino also knows it because all the previous and current proposals for our site have been multifamily housing. My target occupant is a middle-class family of three to eight. The average rent in the area for 966 sq. ft is \$3,524, for most middle-class families this is unaffordable. I would like to give them a place to live for a price that is in their range. The building will have two different types of units available. One being a three bedroom two bath unit. The other being a four bedroom three bath unit. These will target families with three to eight members. The buildings will also have plenty of amenities that could be useful to families, such as a daycare, a pool and a game room.





# ADJACENCY DIAGRAM

## SHARED SPACES

Shared spaces is crucial to keeping the residents happy. The pool will tend to the families. Residents will be able to work out in the gym. The locker rooms will connect the pool and the gym and allow the residents to secure their belongings. The theatre will host events like movies nights and sport nights where the residents can co-exist. The business center is a place for residents to get away and focus on their own business. The banquet hall can be rented out for parties and events.

## LOBBY

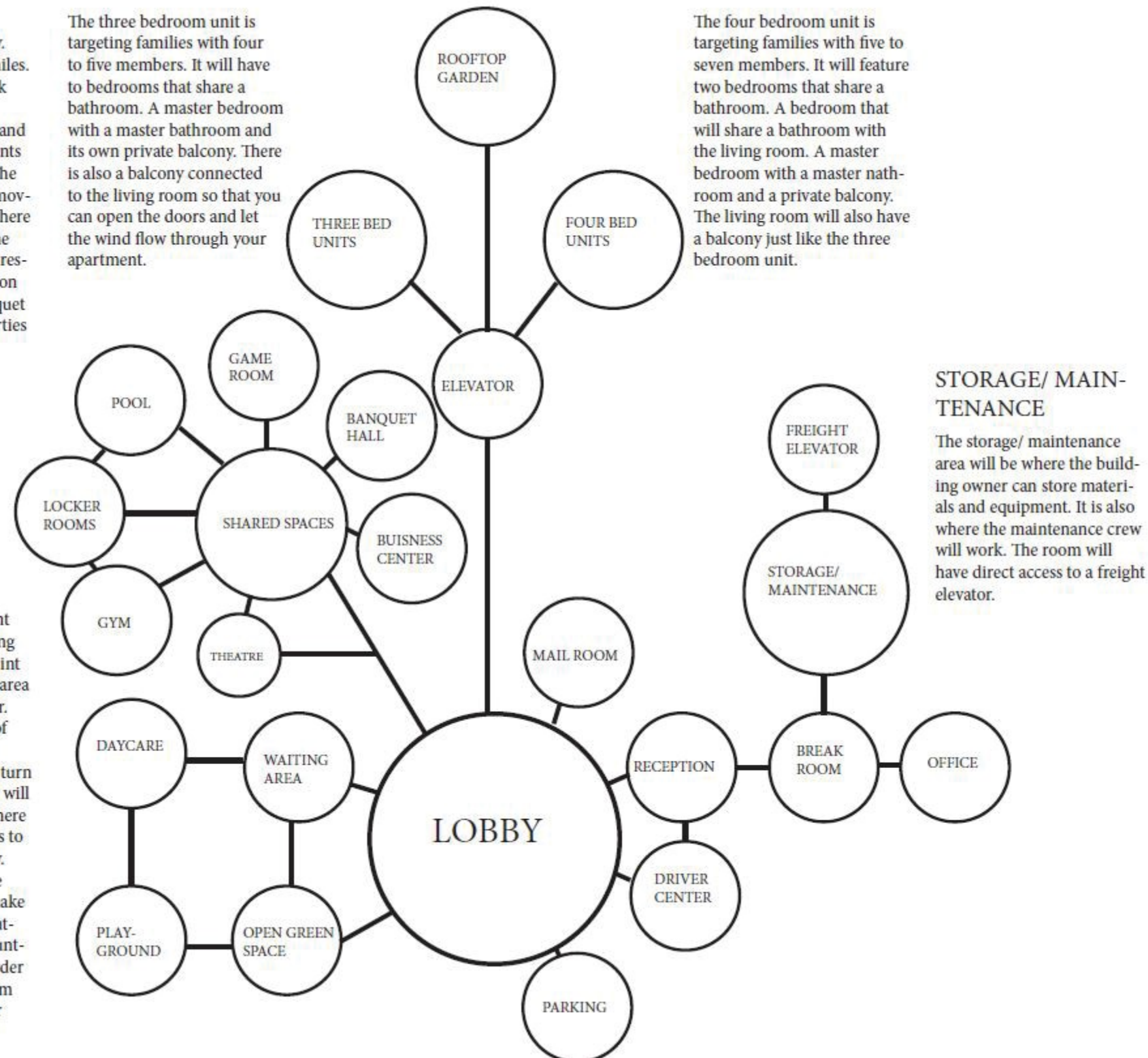
The Lobby is a very important area because it is the first thing everyone sees when walking into the front door. The reception area will be close to the front door. The mail room will hold all of the incoming residents' mail, outgoing mail and a place to turn in your rent check. The lobby will be connected to a daycare where kids waiting for their families to get home from work can stay. The business center is a place where residents can use to make phone calls or use the computers. The driver center is a counter where the residents can order shared cars that will pick them up and drop them off at their destination.

## THREE BED UNIT

The three bedroom unit is targeting families with four to five members. It will have two bedrooms that share a bathroom. A master bedroom with a master bathroom and its own private balcony. There is also a balcony connected to the living room so that you can open the doors and let the wind flow through your apartment.

## FOUR BED UNIT

The four bedroom unit is targeting families with five to seven members. It will feature two bedrooms that share a bathroom. A bedroom that will share a bathroom with the living room. A master bedroom with a master bathroom and a private balcony. The living room will also have a balcony just like the three bedroom unit.



## Synopsis Statement

This building is targeting middle income families that are looking to live near De Anza College. The average rent in the area is too high for an average family. The redeveloped site will connect the City of Cupertino with the City of San Jose via a podcar network. The residents in my building will have direct access to a podcar station along with pedestrian and bike paths. The new developments my group has chosen to build will bring in a variety of different people. The senior citizen center will bring in elderly people and the luxury apartments will bring in people on the more wealthier side. The hotel will cater for people who are visiting Cupertino, especially those visiting De Anza College as the college is known to host large events.



# PROGRAMMED SQ. FT.

ROOM NAME	QUANTITY	SPACE (SQ. FT.)	TOTAL SQ. FT.
<b>LOBBY</b>			
Lobby	1	500	500
Reception	1	300	300
Waiting	1	300	300
Mail Room	1	300	300
Office	1	200	200
Daycare	1	4000	4000
Driver Center	1	500	500
Storage / Maintenance	1	2000	2000
<b>TOTAL SQ. FT.</b>		<b>TOTAL</b>	<b>8100</b>

<b>SHARED SPACES</b>			
Pool	1	2000	2000
Game Room	1	1000	1000
Buisness Center	1	500	500
Theatre	1	1000	1000
Gym	1	1500	1500
Banquet Room	1	1500	1500
Locker Room	2	800	800
<b>TOTAL SQ. FT.</b>		<b>TOTAL</b>	<b>8300</b>

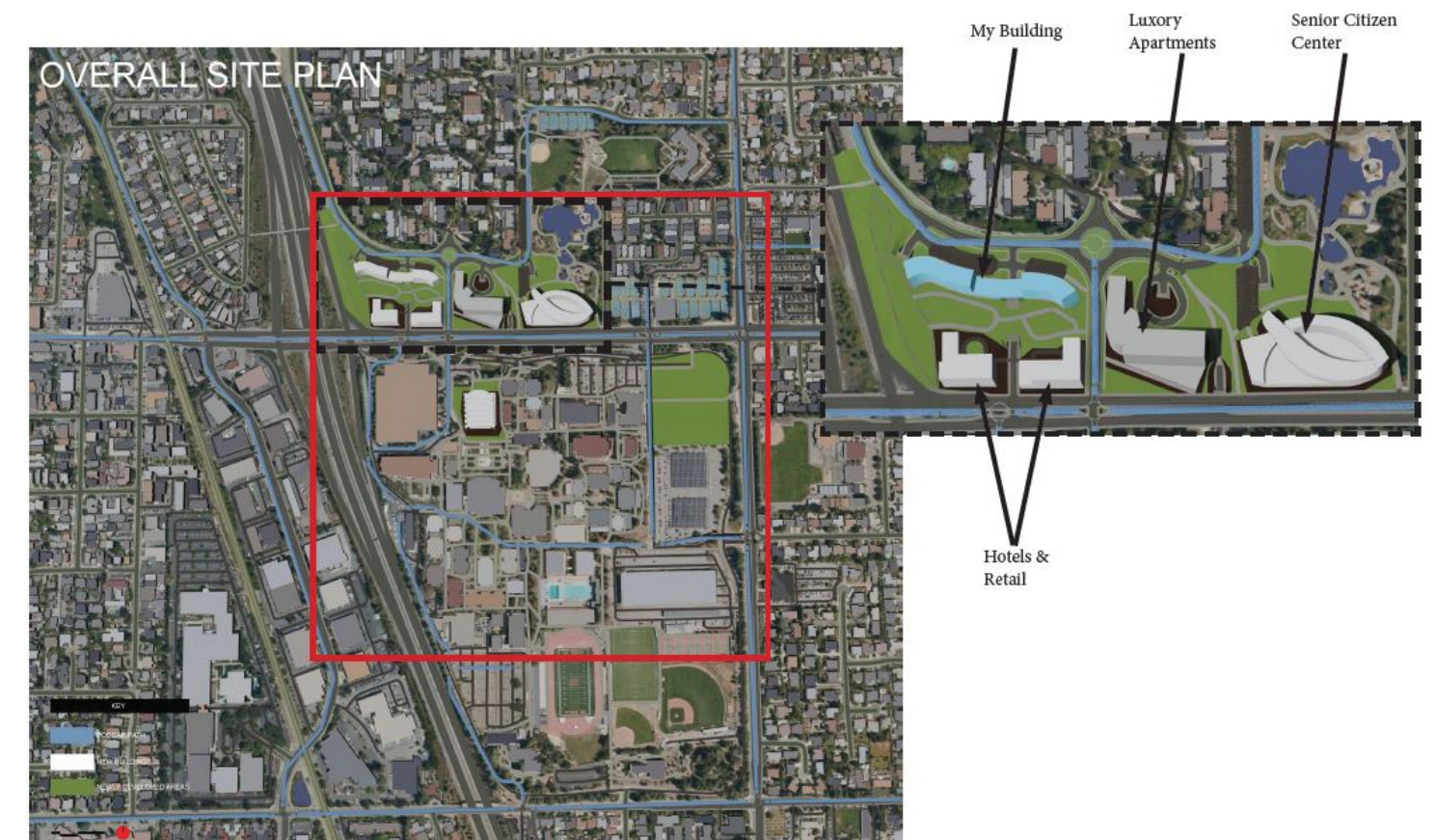
<b>THREE BEDROOM UNIT</b>	48	1300	62,400
<b>FOUR BEDROOM UNIT</b>	40	1500	60,000
		<b>TOTAL</b>	<b>122,400</b>
		<b>TOTAL BUILDING SQ. FT.</b>	16,400+122,400=138,800

<b>EFFICENCY / SUPPORT SPACES</b>		<b>138,000 x 35%</b>
Hallways	TBD	TBD
Mechanical Rooms	1	TBD
Elevators	3	TBD
Stairs	3	TBD
Plumbing	TBD	TBD
Janitorial Closet	TBD	TBD
<b>TOTAL SQ. FT.</b>		<b>48,300</b>

<b>TOTAL SQ. FT. FOR BUILDING</b>	<b>138,800+48,300=187,100</b>
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## Relationship and Contribution to the Master Plan

My building should fit in nicely with its surrounding context. With my partners building a senior living center and high-end apartments, we are targeting a large audience. It will also allow the residents to have access to shopping via the retail on the bottom floor of the hotel. The building will also have access to the podcar station in the middle of the courtyard, from there they can travel anywhere in the city without the use of a car. The building will also have access to the dedicated bike and pedestrian paths. The paths will allow the residents to safely travel through our site and will allow them to get across Stevens Creek Blvd. via an underground tunnel. The residents can also visit De Anza College as it is known to host large events, such as Apple Launches and surprisingly, a fairly large fleamarket.



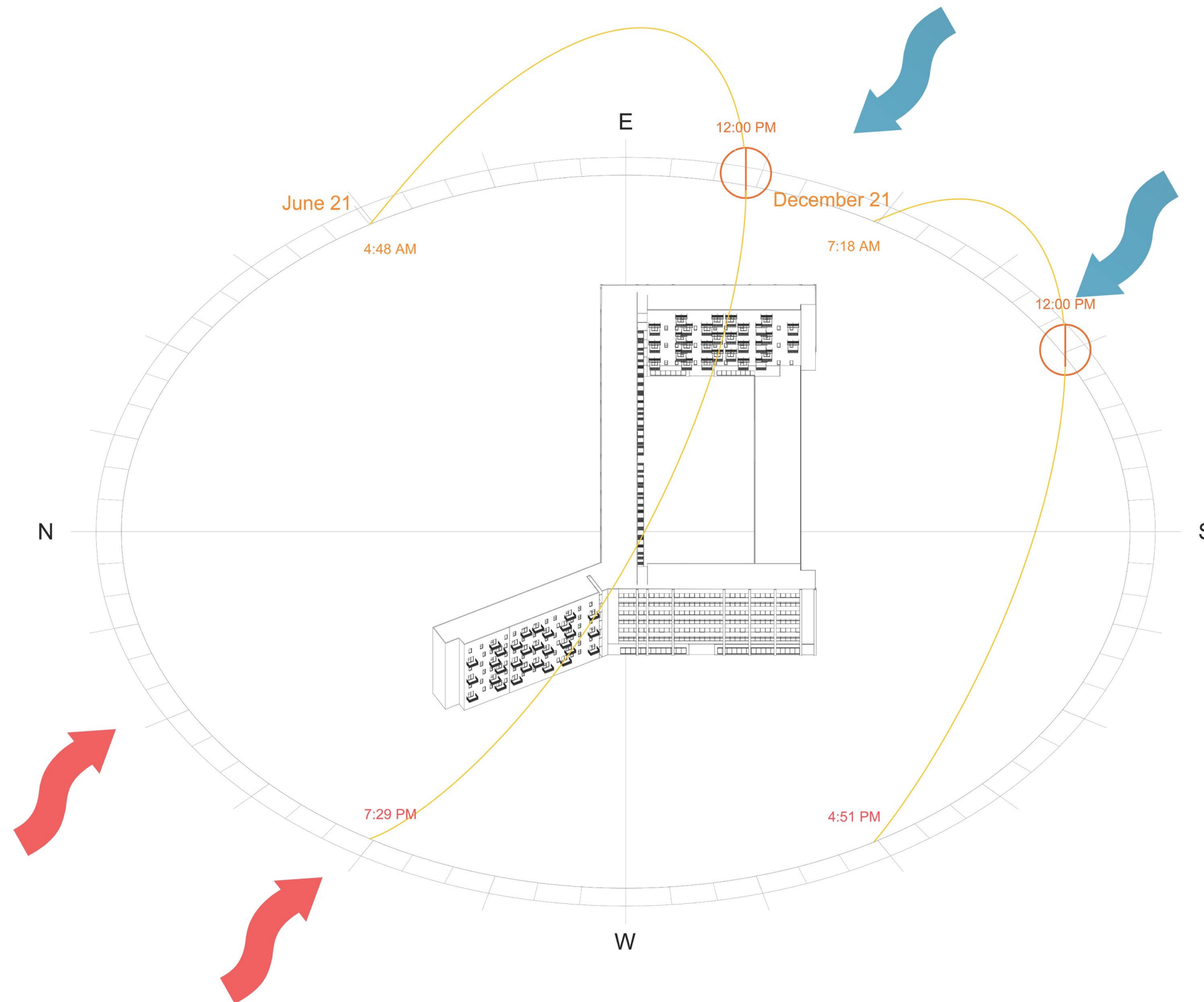


# SITE PLAN



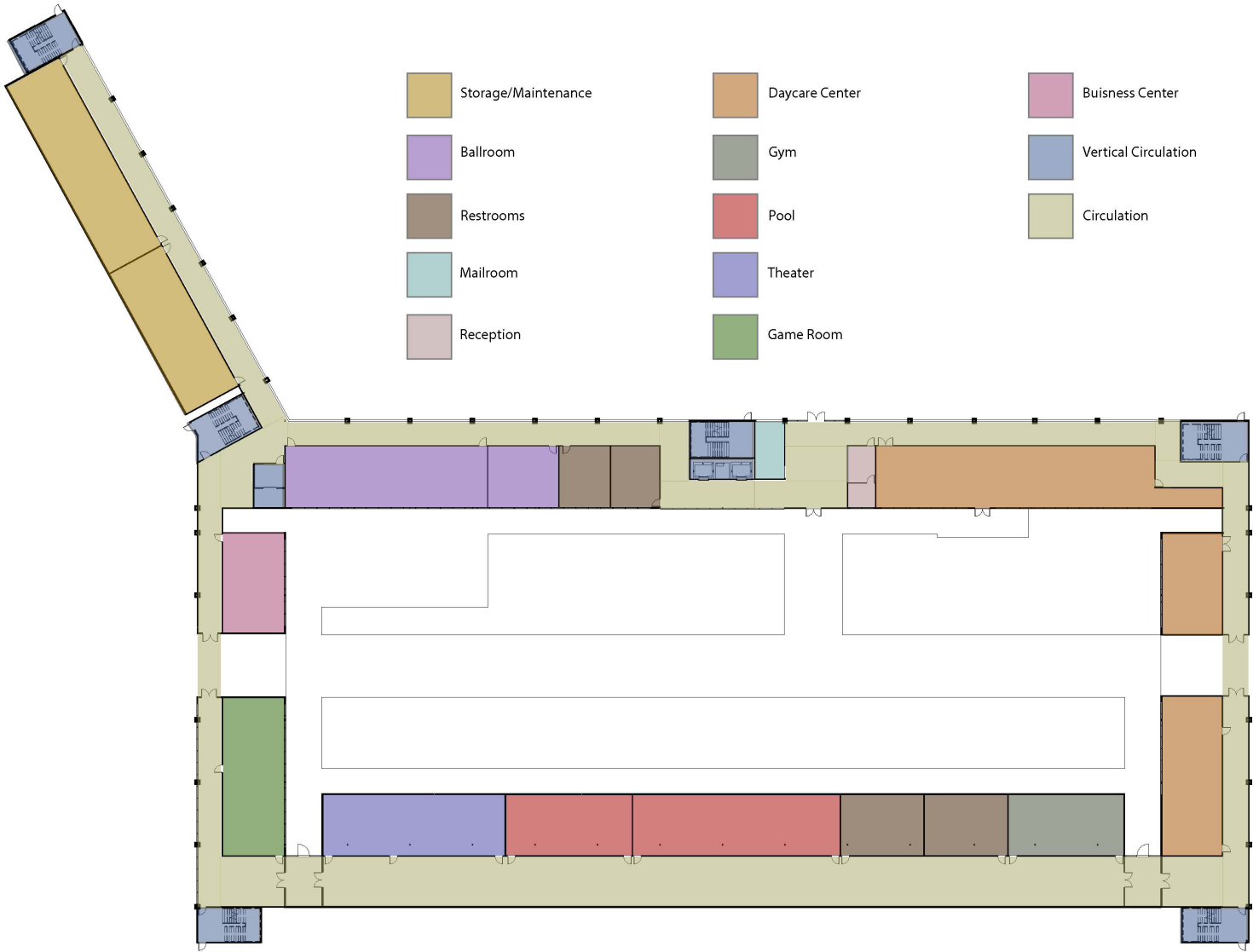


# SOLAR MASSING





# FIRST FLOOR PLAN



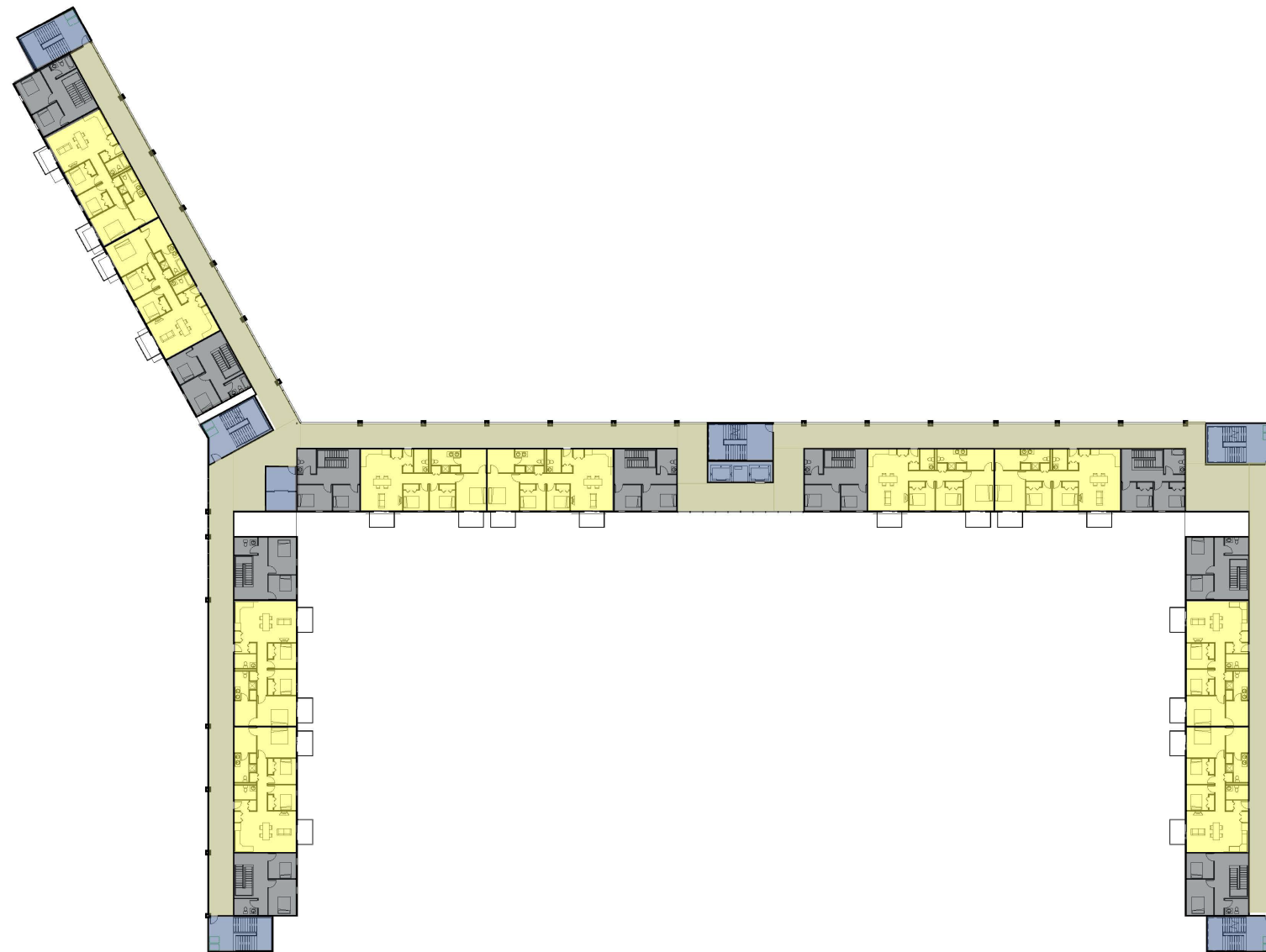


# SECOND FLOOR PLAN



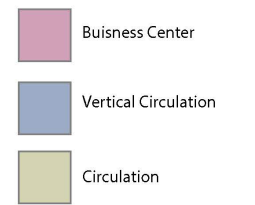
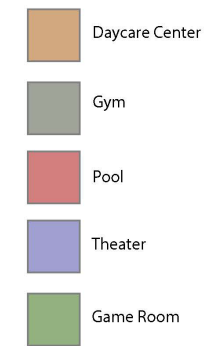
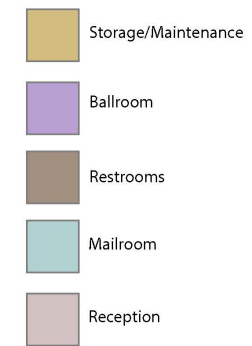
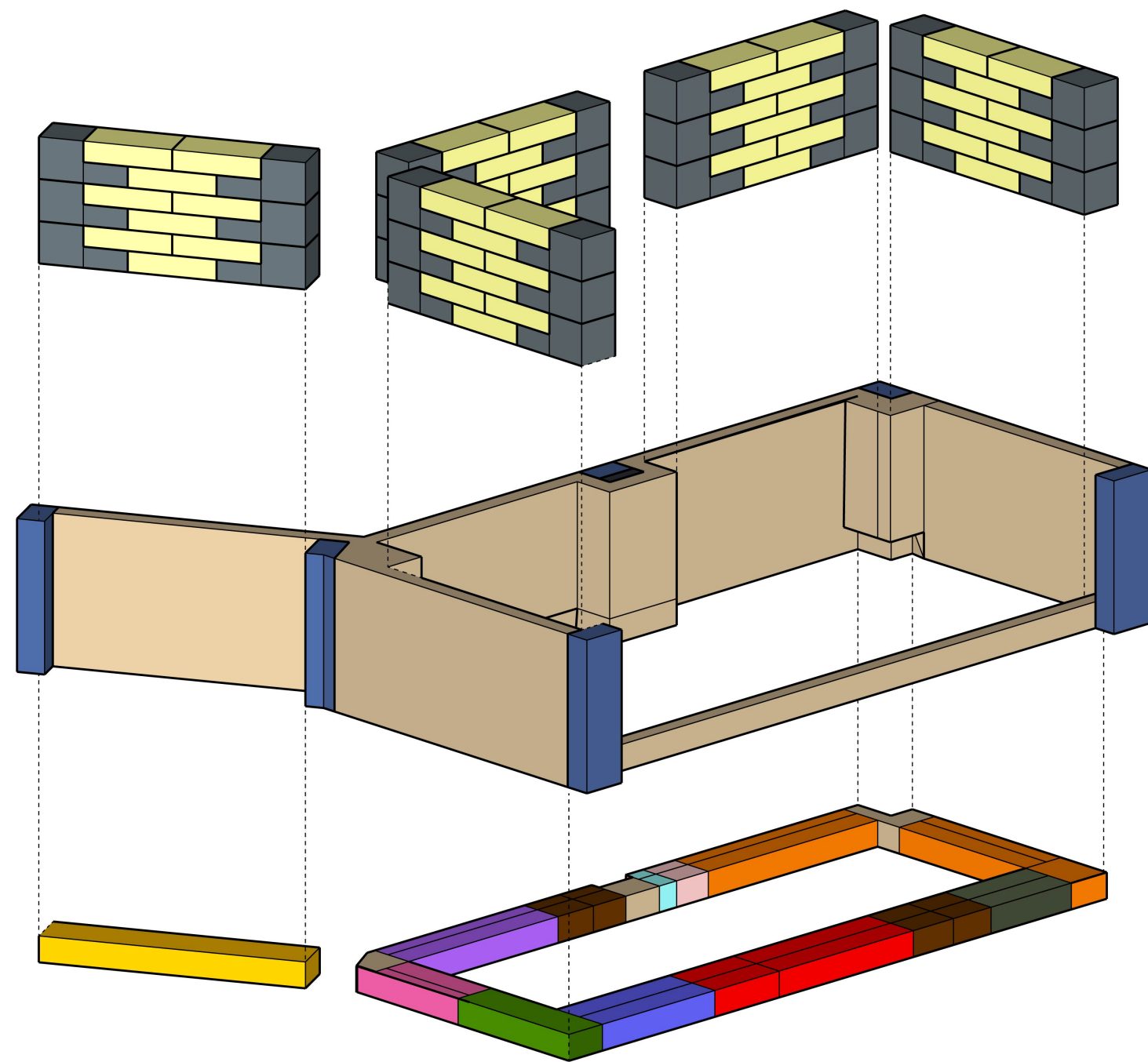


# THIRD FLOOR PLAN





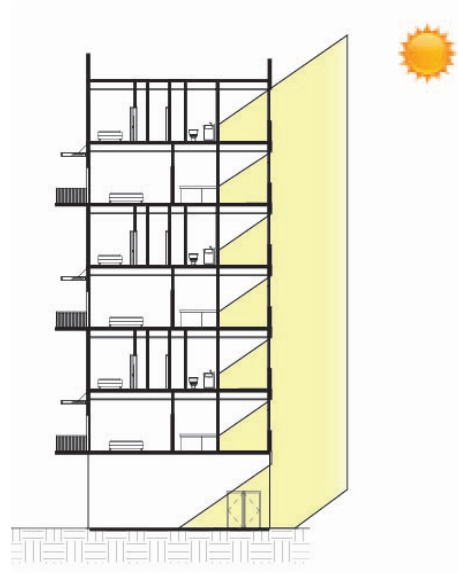
# STUDY MASS



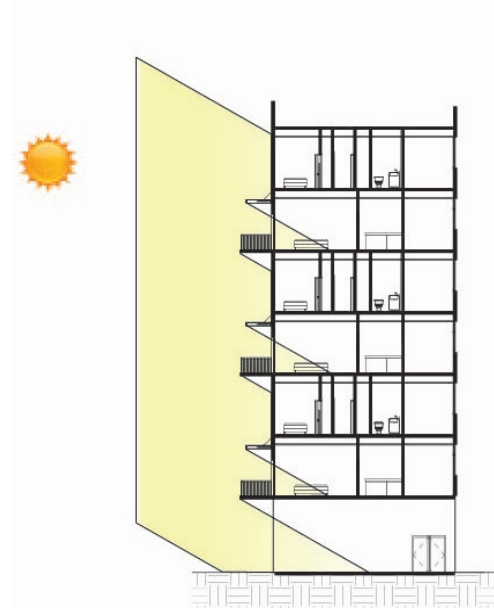


# SUN SECTIONS

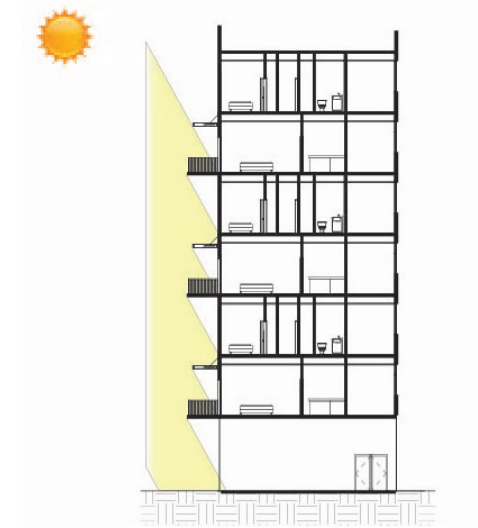
East →



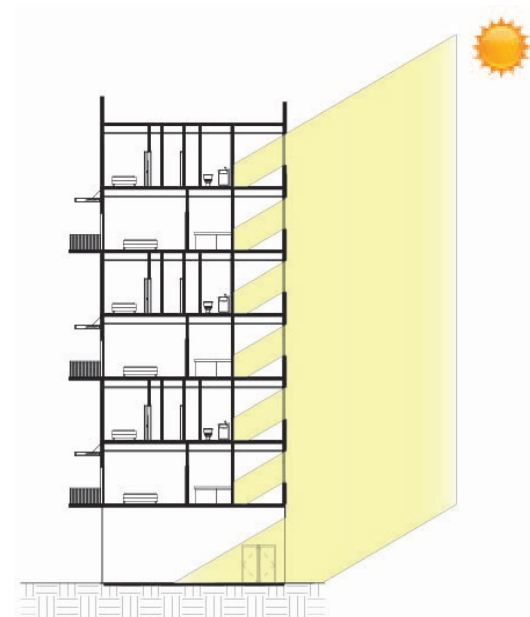
Summer Solstice 9am



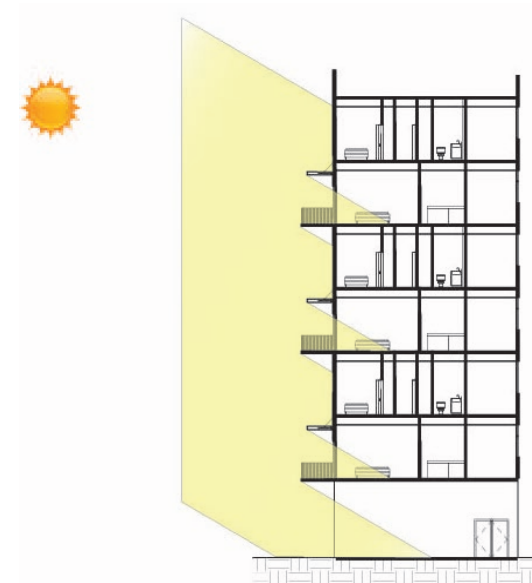
Summer Solstice 3pm



Summer Solstice 6pm



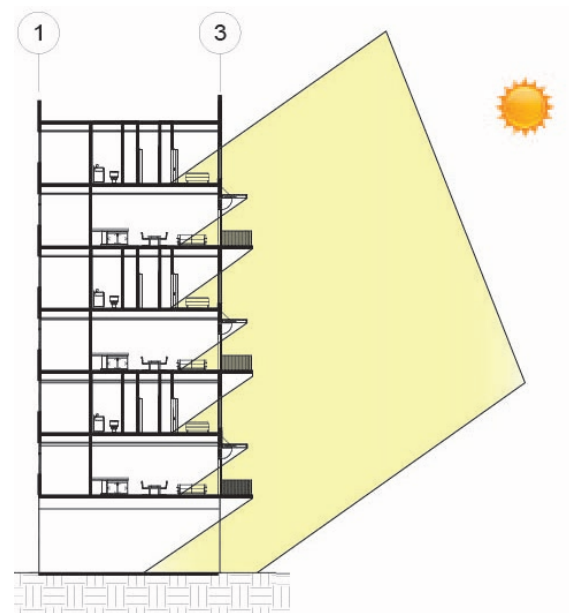
Winter Solstice 9am



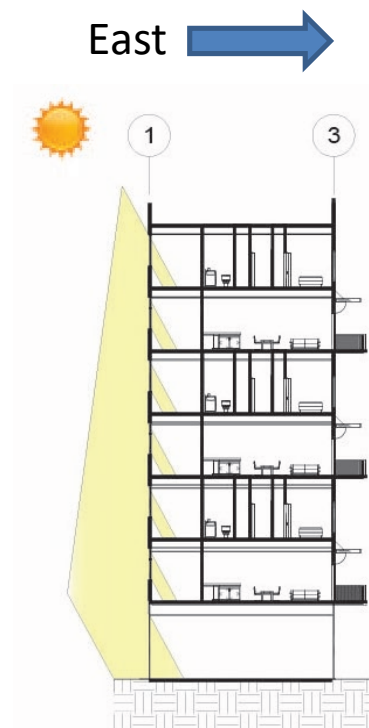
Winter Solstice 6pm



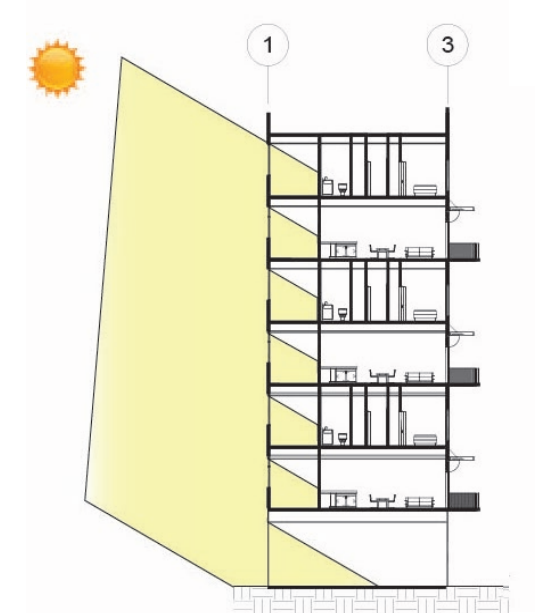
# SUN SECTIONS



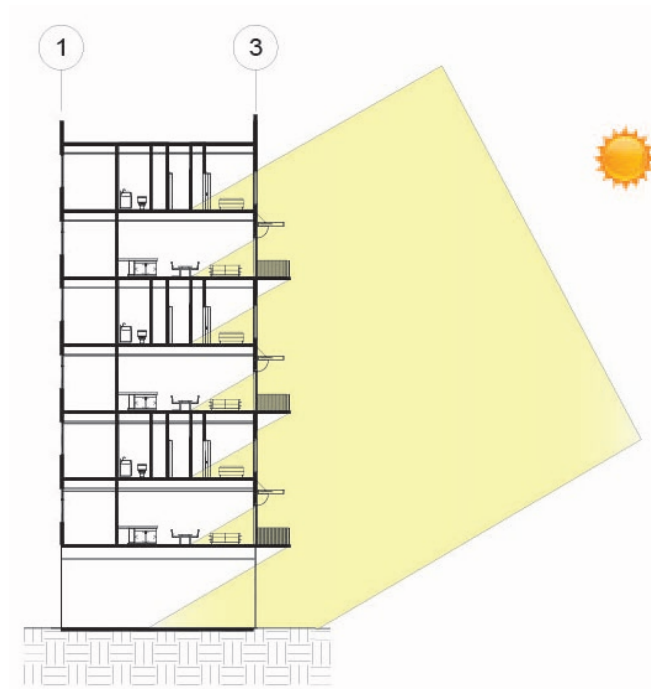
Summer Solstice 9am



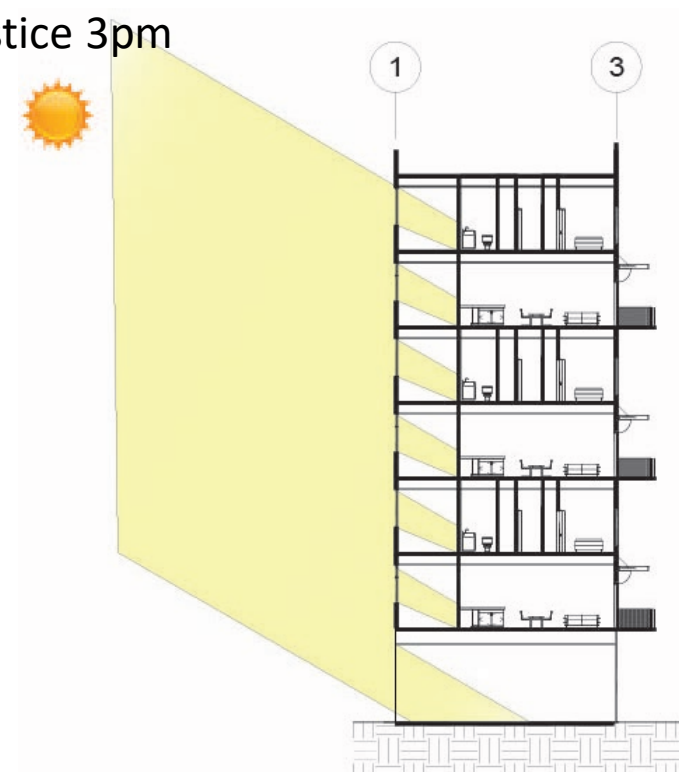
Summer Solstice 3pm



Summer Solstice 6pm



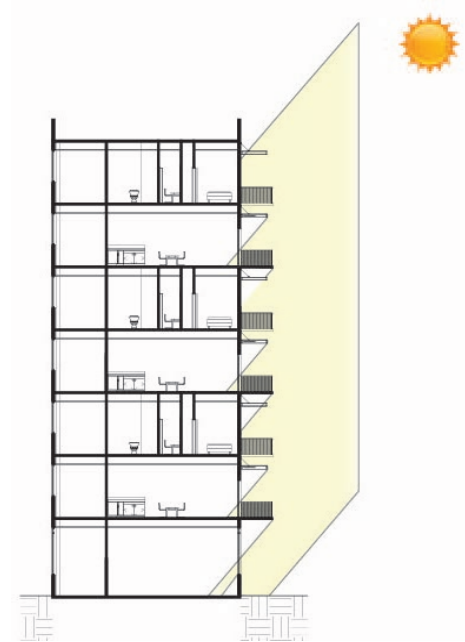
Winter Solstice 9am



Winter Solstice 6pm

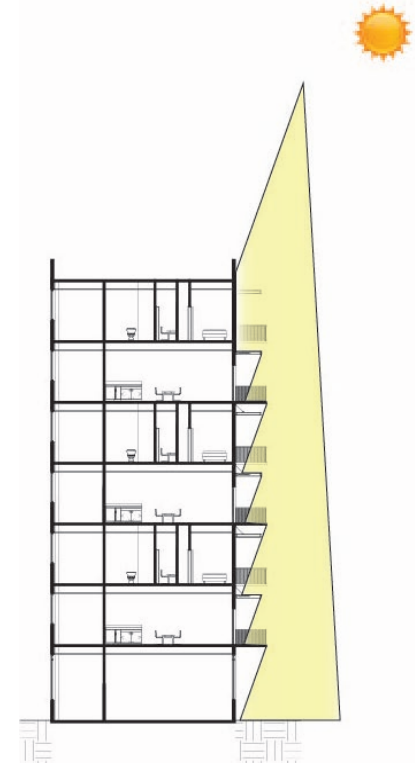


# SUN SECTIONS



Summer Solstice 9am

South →

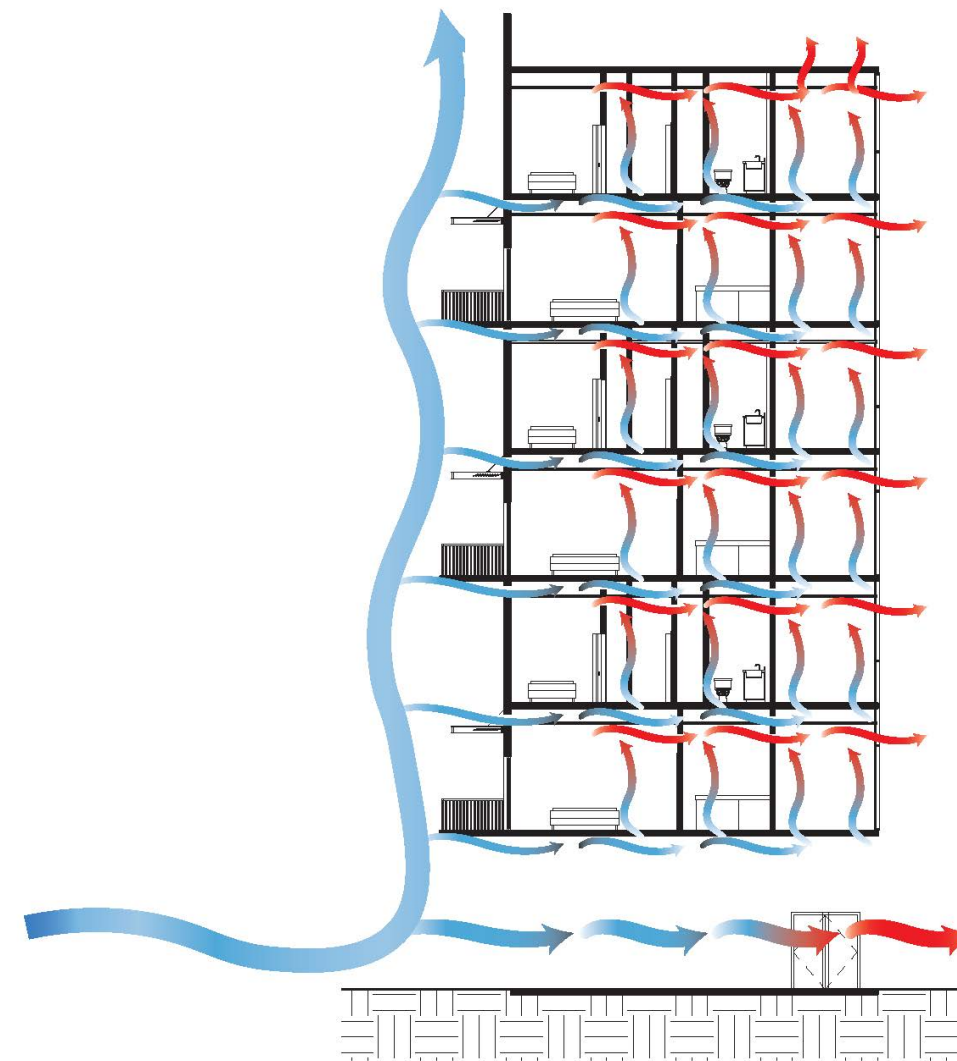
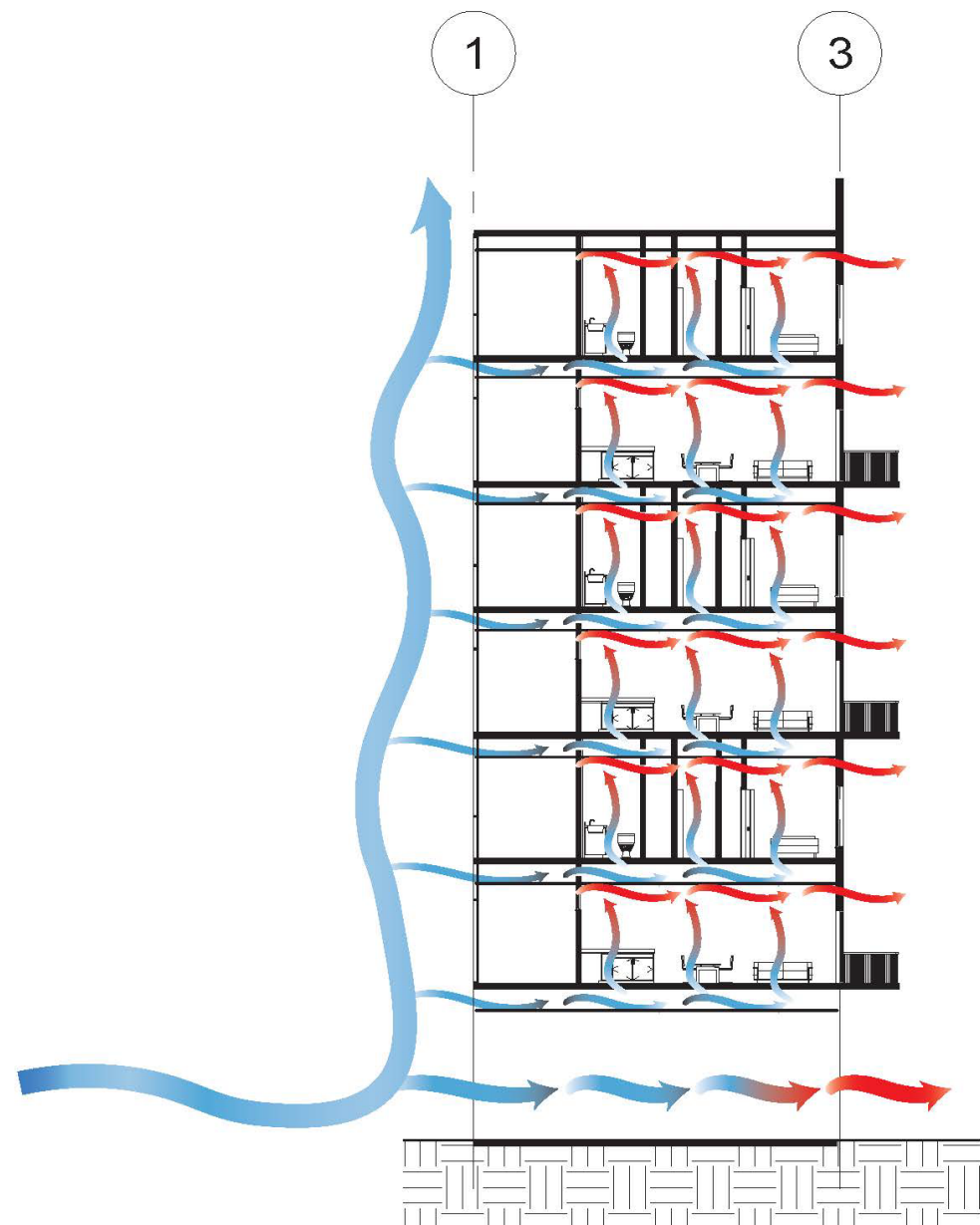


Summer Solstice 3pm



# WIND SECTIONS

East →





# JOSEPH

	<u>Space</u>	<u>Quantity</u>	<u>Floor Area SQFT</u>	<u>Total SQFT</u>
<b>Living</b>				
1	1 Bedroom A	63	650	40,950
2	1 Bedroom B	38	800	30,400
3	2 Bedroom	48	1000	48,000
<b>Amenities</b>				
4	Lobby (mail, reception, sales office etc.)	1	3,000	3,000
5	Lounge	1	1,000	1,000
6	Movie Theater	1	1,000	1,000
7	Game Room	1	1,000	1,000
8	Retail	1	8,000	8,000
9	Sports (fitness gym, racquet ball, tennis, etc.)	1		
10	Outdoor Pool	1	-	
11	Outdoor Kitchen	1	-	
12	Firepit Area	1	-	
13	Pet Rooftop Area	1	-	
14	Undergr. Parking	1	-	
				133,350 sqft
				<u>*35%</u>
15	Support (mechanical, circulation, loading dock etc.)			46,672.50
				<b>180,022.50</b>

After some calculations, the total square footage of living space is 133,350. After the 35% of support spaces (circulation, mechanical, loading dock etc.) is added, the total is 180,022.50 (35% is 46,672.50).

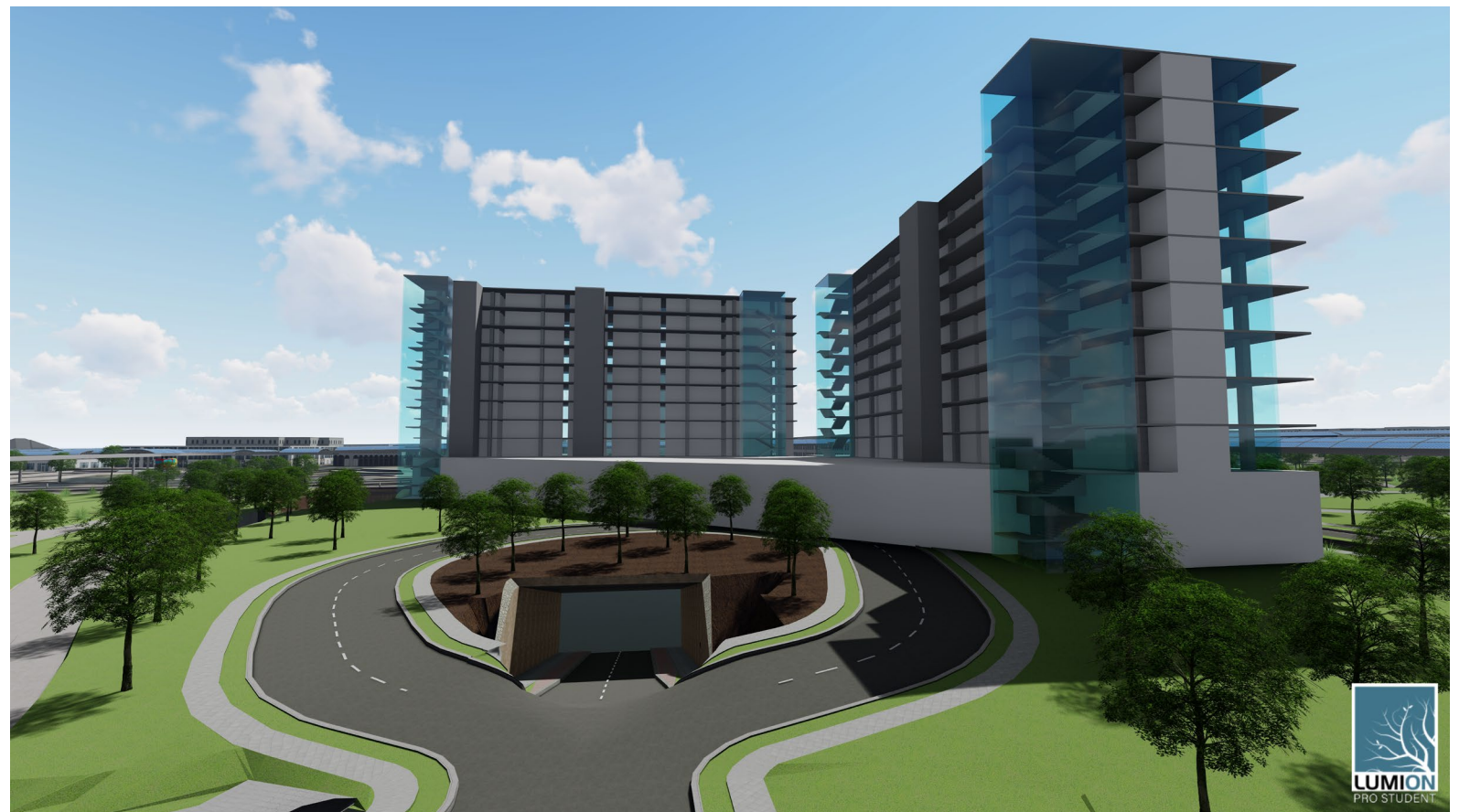
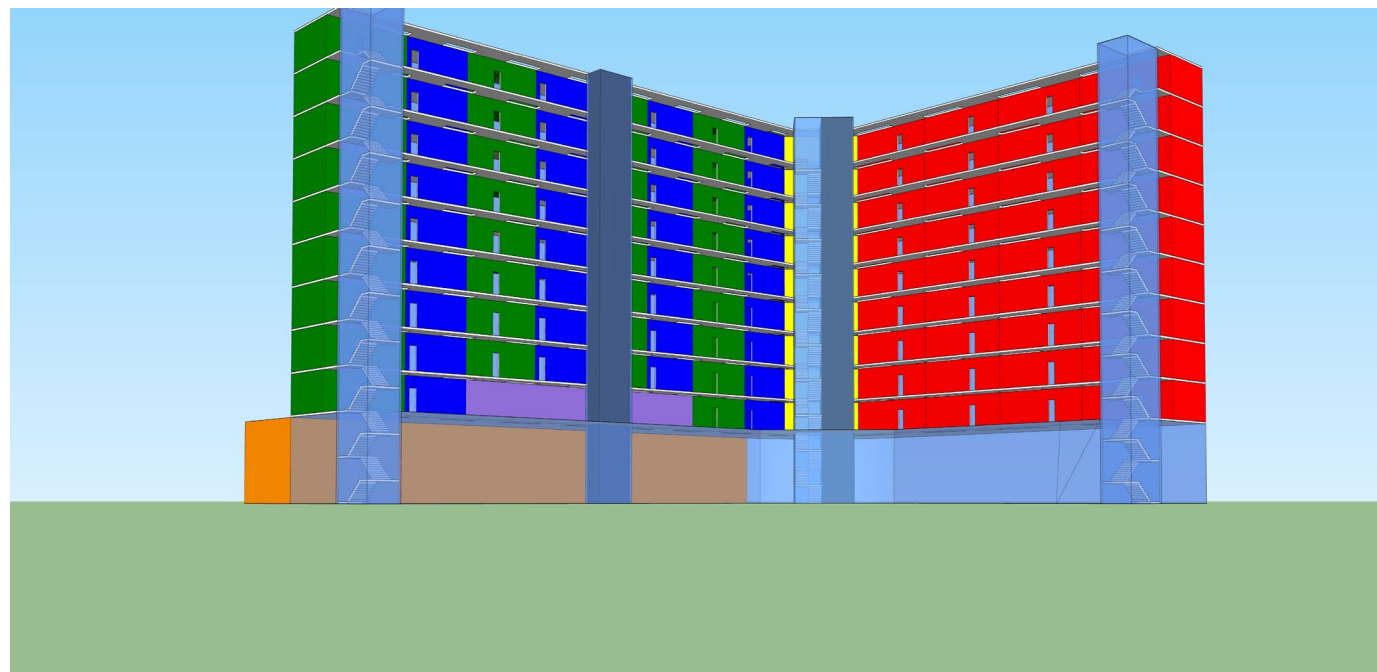
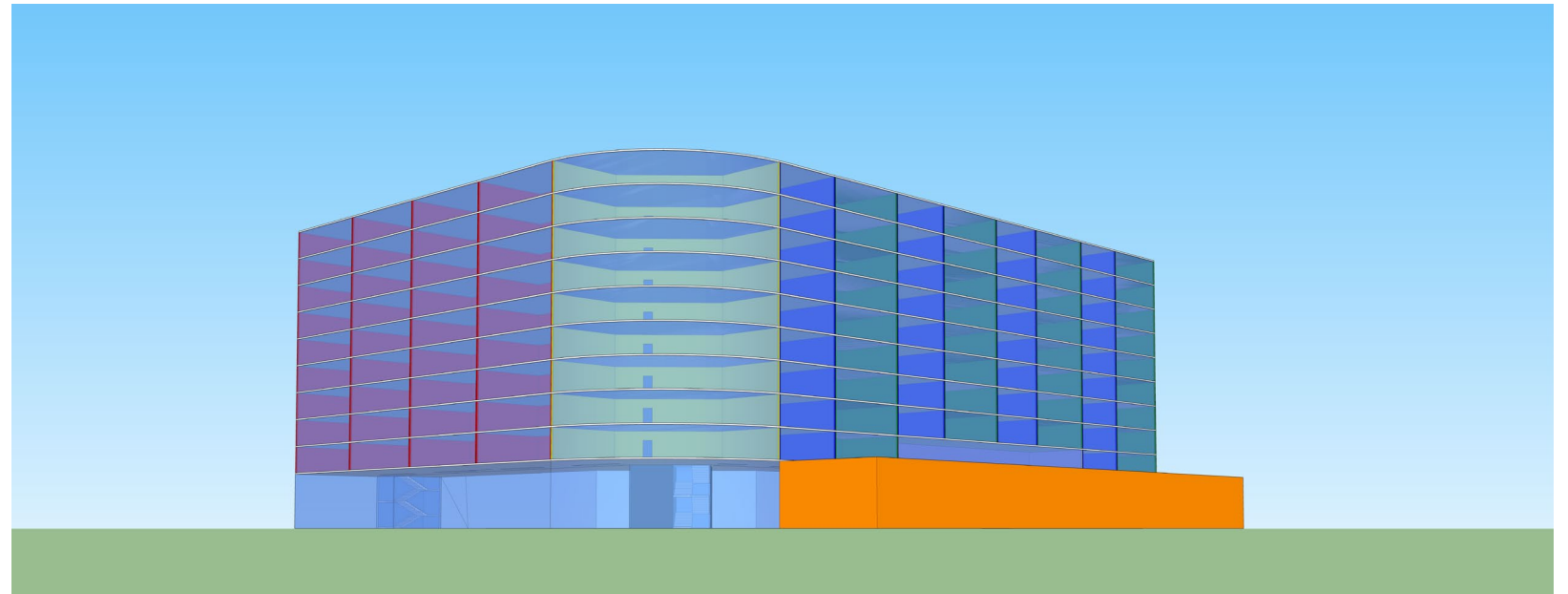
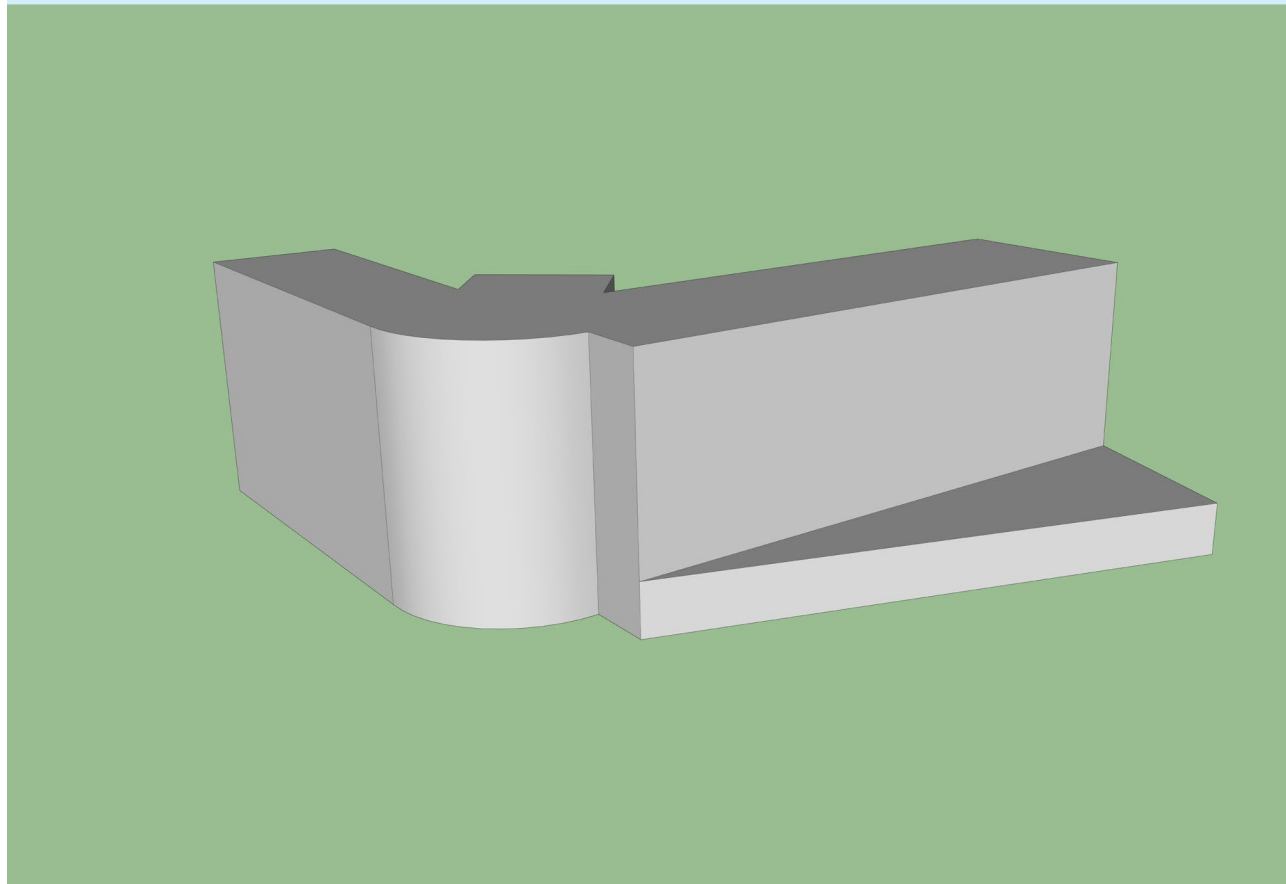
The building has 68 living units total, 63 1 bedroom A, 38 1 bedroom B and 48 2 bedroom units.

All of the indoor amenities will be located on the ground floor. While the outdoor amenities (pool, kitchen, fire pit, pet area etc.), will be located above the single story retail.

All of the buildings parking will be located under the ground directly in front of the building. There will be elevator and stair access to the building as well as to the outside. However, this parking will only be for residents- it is not open to the public.

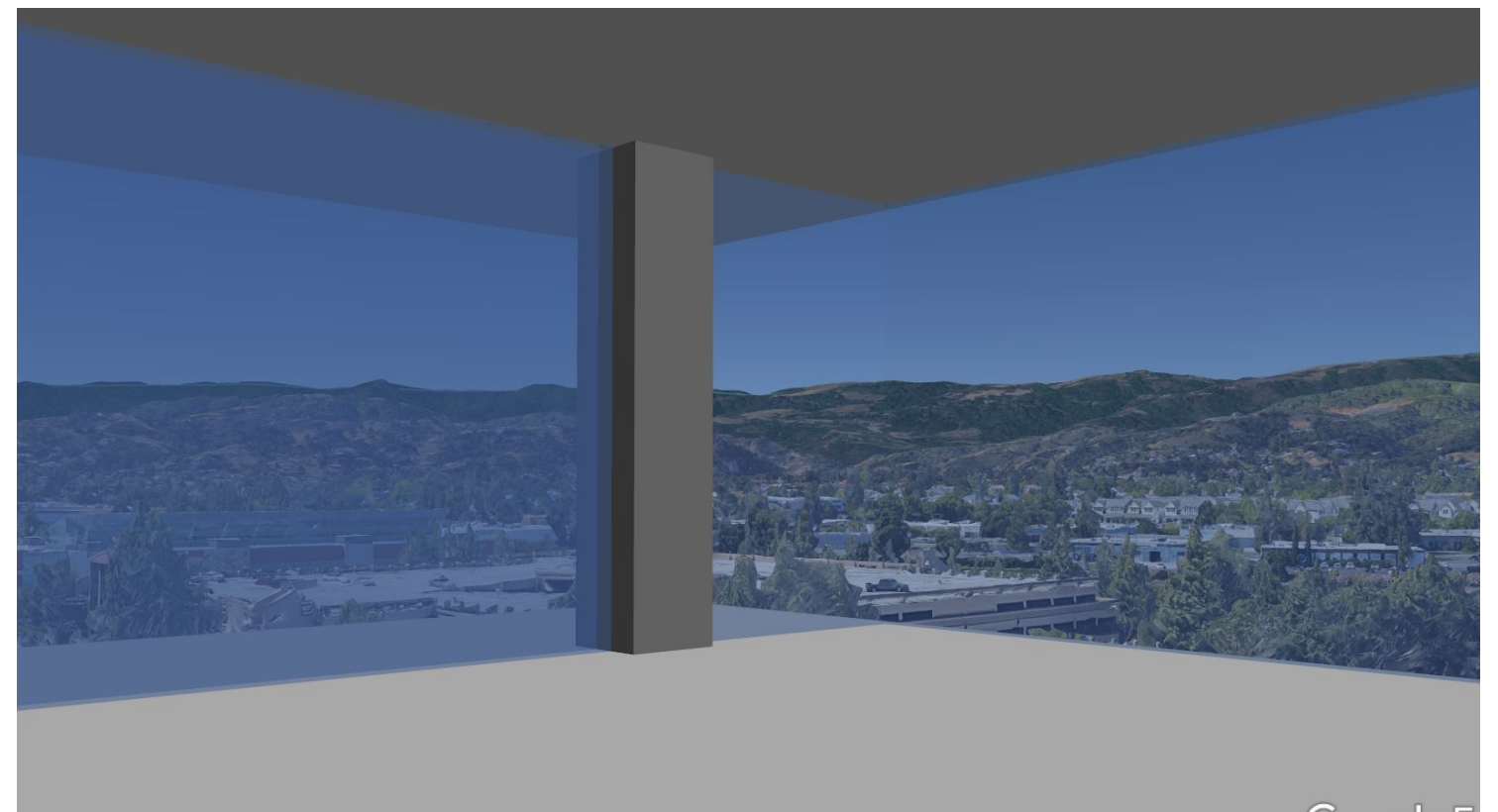
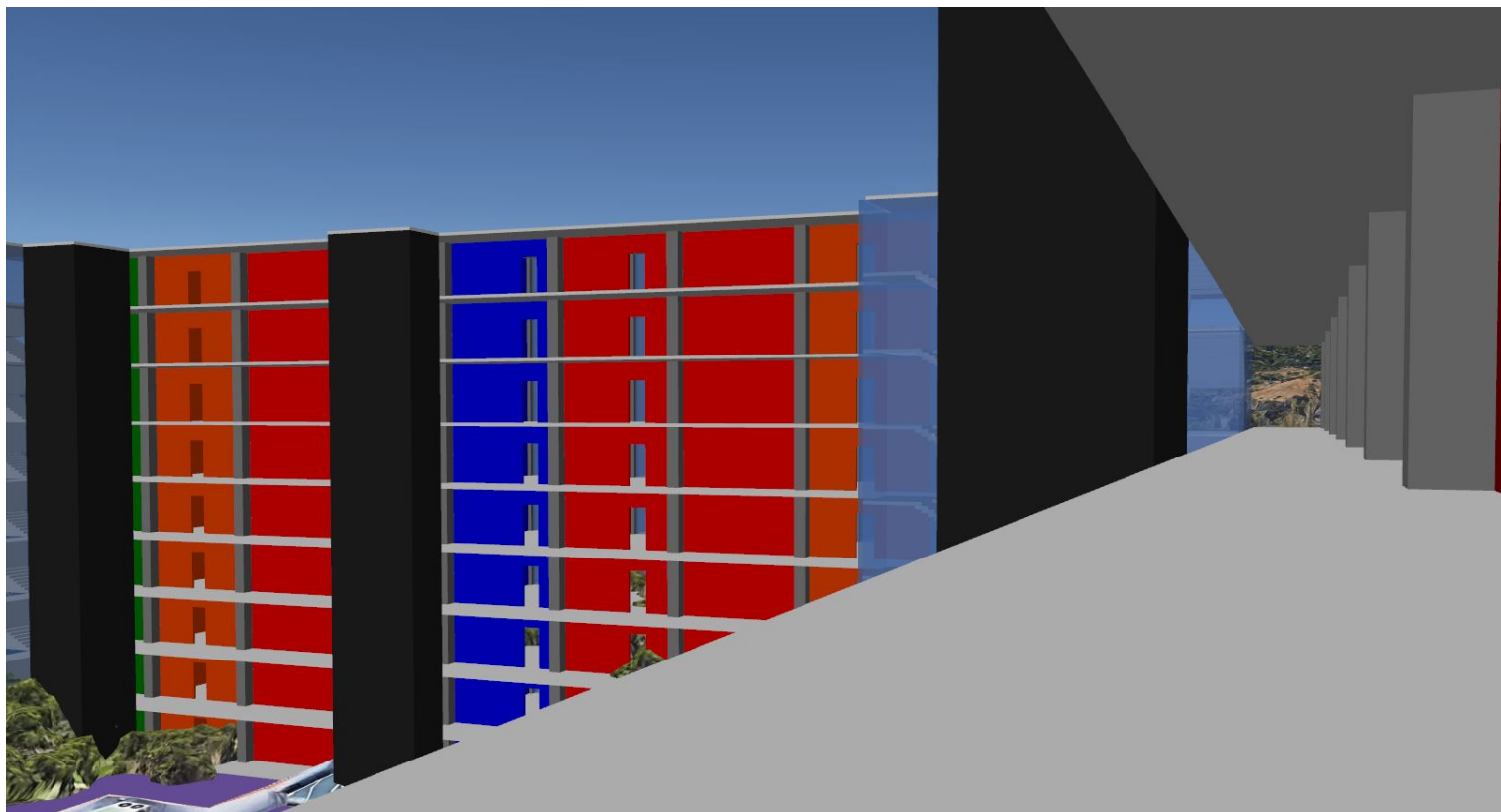


# CUPERTINO TOWERS





# CUPERTINO TOWERS



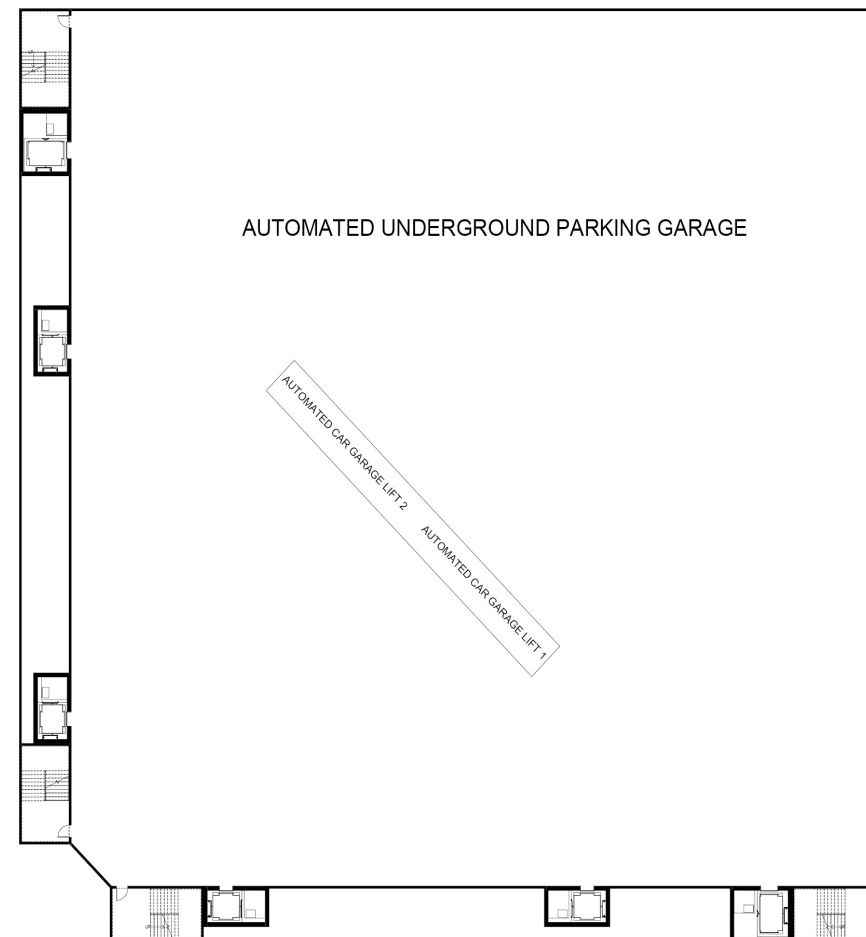


# CUPERTINO TOWERS





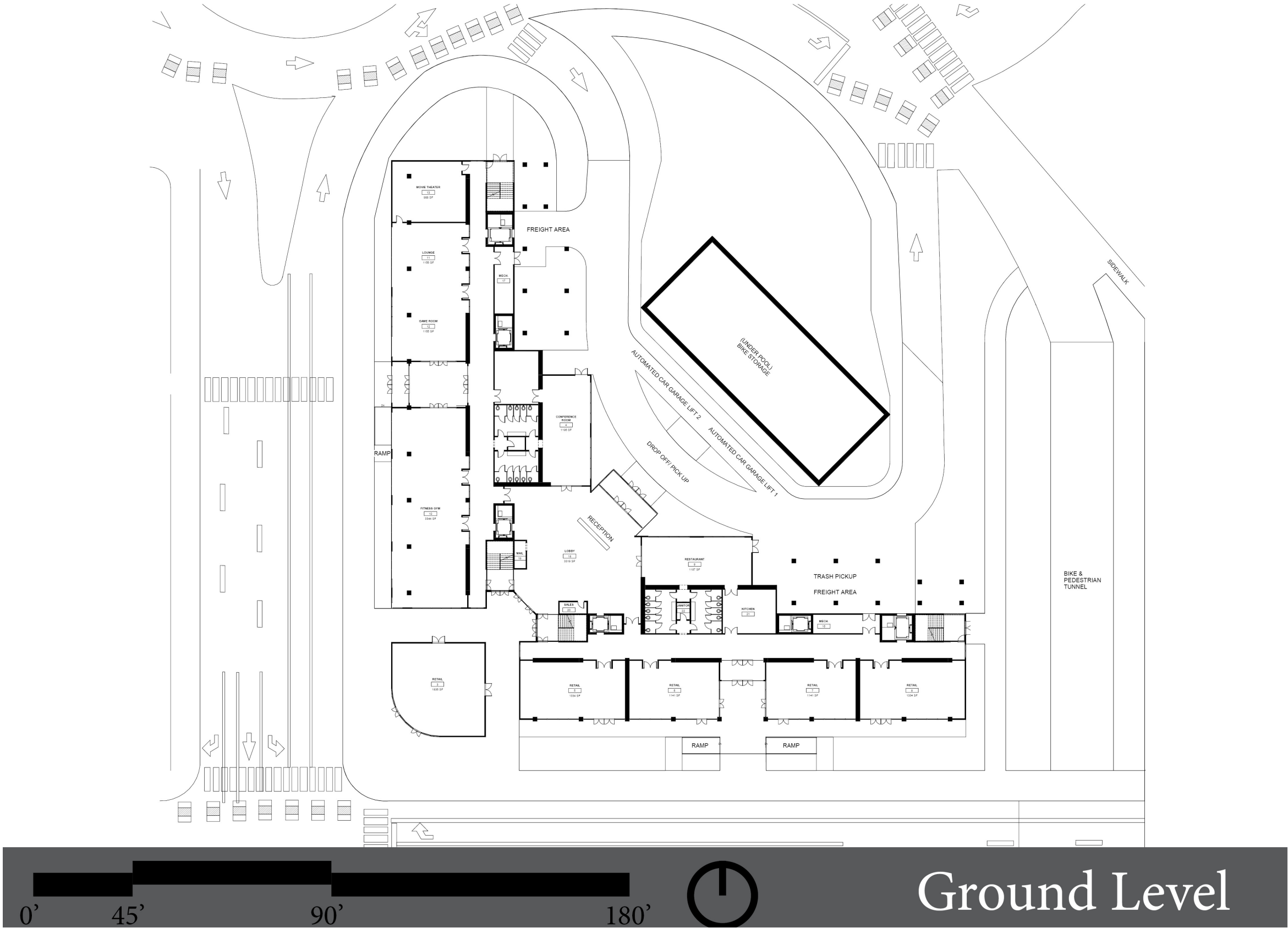
# CUPERTINO TOWERS



Underground Garage

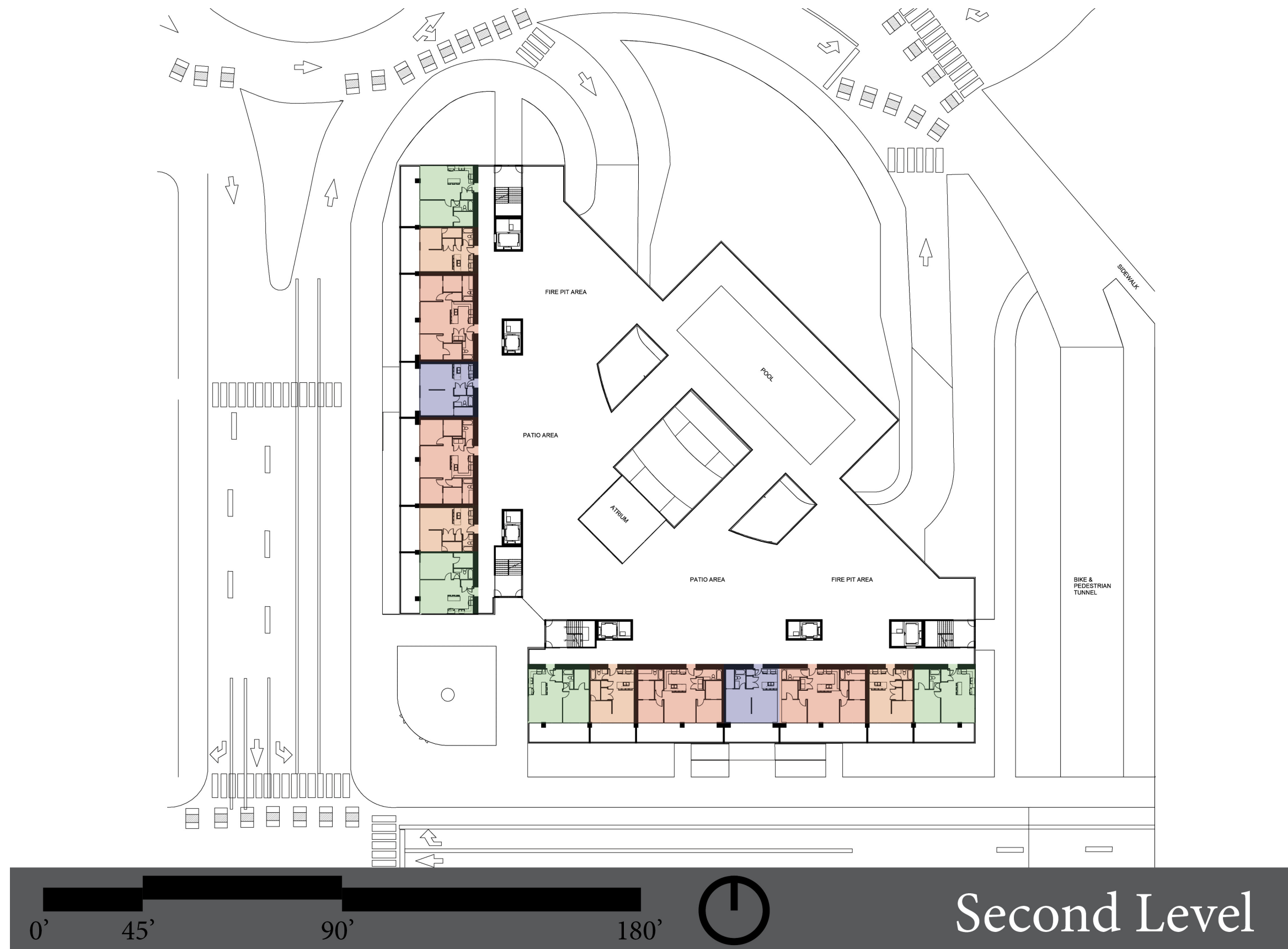


# CUPERTINO TOWERS



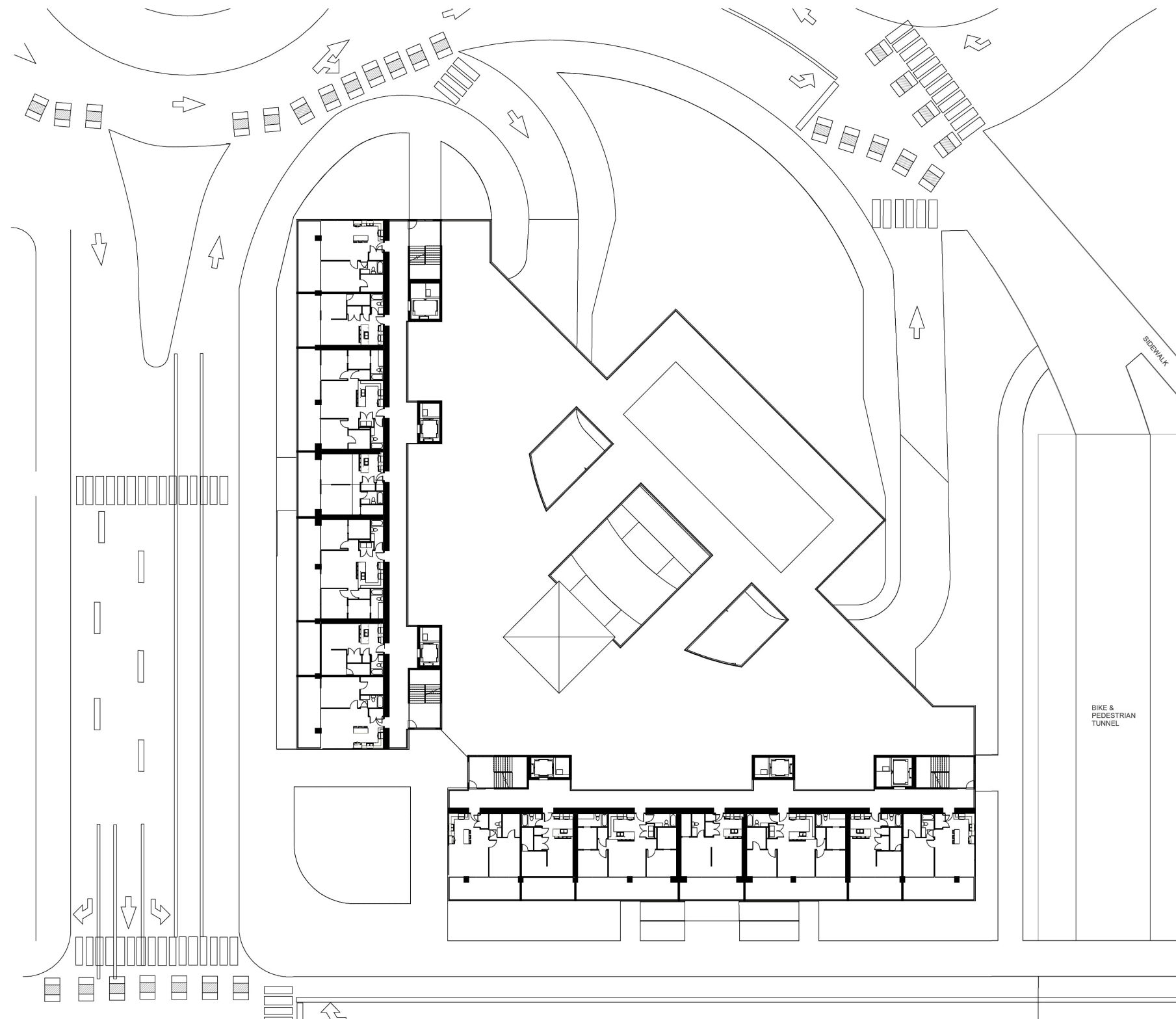


# CUPERTINO TOWERS





# CUPERTINO TOWERS



0' 45' 90' 180'



Levels three- ten



# CUPERTINO TOWERS





# CUPERTINO TOWERS





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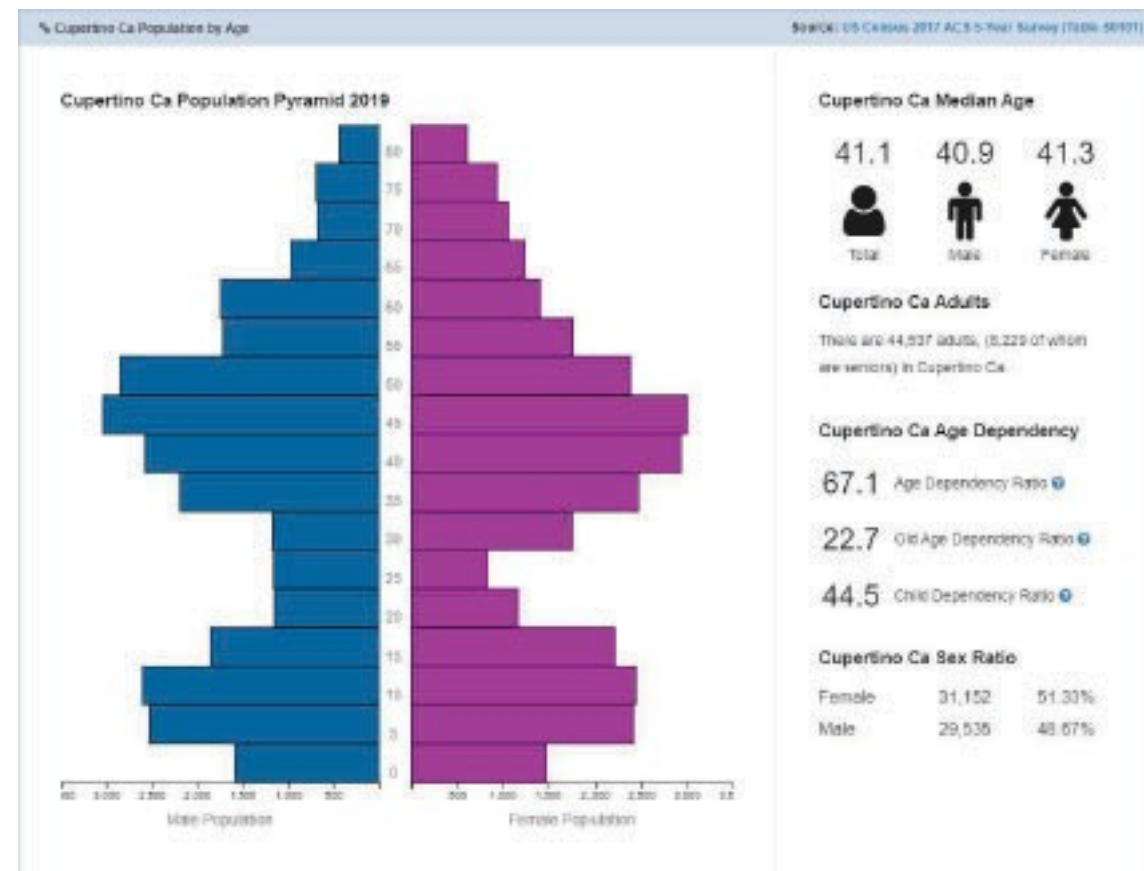


# TIM



Cupertino Senior Center

<https://www.google.com/streetview/>



<https://www.worldpopulationreview.com/us-cities/cupertino-ca.population/>

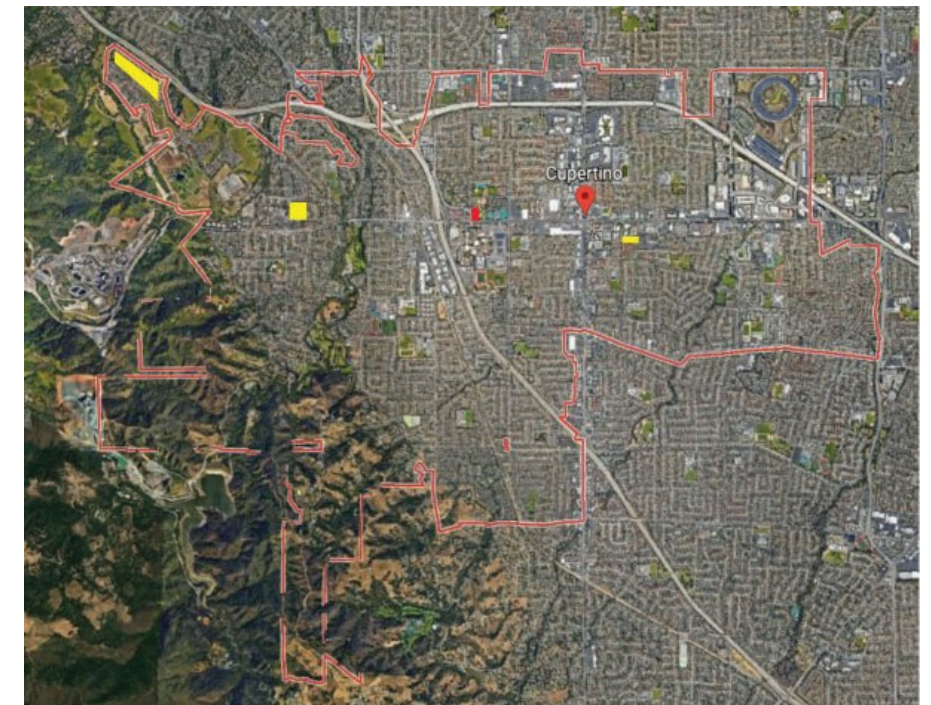
On the site location in Cupertino is the Cupertino Senior Center. The Cupertino Senior Center strives to provide a welcoming and friendly senior center for everyone 50+, enhancing a healthy lifestyle through quality education, recreation, services, travel, socials, and volunteer opportunities.

[https://seniorcenter.us/sc/cupertino\\_senior\\_center\\_cupertino\\_ca](https://seniorcenter.us/sc/cupertino_senior_center_cupertino_ca)

According to the 2017 US Census, Cupertino's Senior Citizen (65+) Population was 8229 which is roughly 18.5% of the adult population. There are roughly 23 Seniors for every 100 working adult.

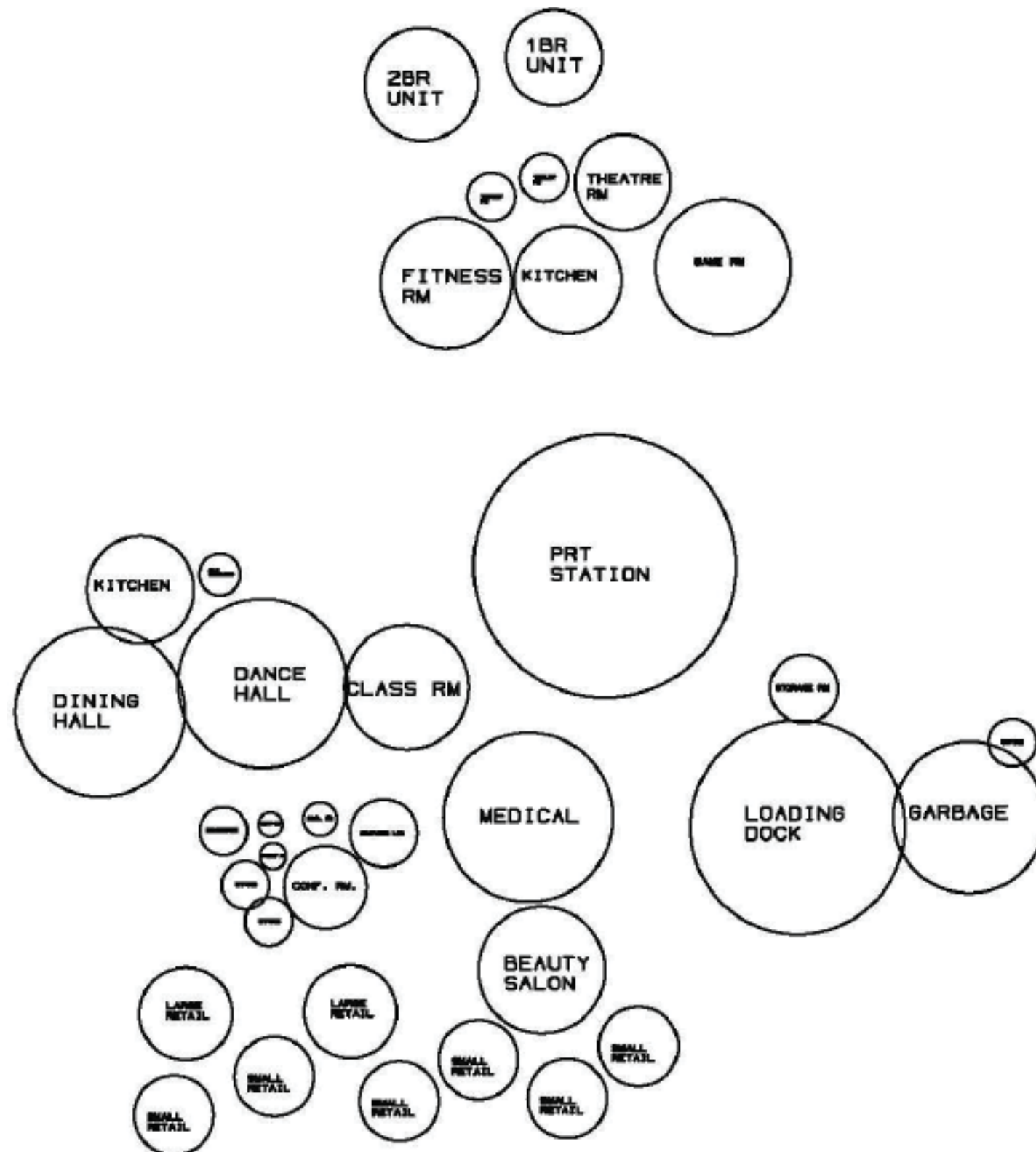
There are three (3) Senior Living Communities in Cupertino: The Chateau Cupertino, The Forum at Rancho San Antonio, and Sunny View Bay Area Retirement Community. [https://www.seniorhousingnet.com/seniorliving-search/cupertino\\_ca](https://www.seniorhousingnet.com/seniorliving-search/cupertino_ca)

- The Chateau:
  - independent living community.
- The Forum at Rancho San Antonio offers world-class comfort and
- Extraordinary living in a resort style setting. The Sunny View Bay Area Retirement Community gives a neighborhood style feel.





# TIM



The Adjacency Diagram shows the PRT Station as the central sharing space of all components. The residence of the Senior Center will benefit from direct access to the PRT. Amenities the residence would share would include a game room, fitness room, theatre, and kitchen. Two public toilets would service the amenities.

Non resident seniors would have access to the Senior Center which includes a dining hall, dance hall, class room and kitchen.

Ground floor commercial spaces will be available which includes a beauty salon and a medical spaces.

Loading dock and garbage pick up would also be at ground floor.

HOA management offices, concierge, mail room, copy room, and conference room will be at ground floor and adjacent to the residence.



# TIM

	Space	Quantity	Floor Area	Total
1	class room	1	1350	1350
2	dance hall	1	2500	2500
3	fitness room	1	1500	1500
4	computer lab	1	400	400
5	nurse practioner office	1	2500	2500
6	conference room	1	600	600
7	podcar station	1	6000	6000
8	common dining hall	1	2500	2500
10	game room	1	1600	1600
11	kitchen	1	1000	1000
12	small retail / restaurant	6	550	3300
13	Large retail	4	750	3000
14	golf simulator	2	150	300
15	two bedroom	50	1100	55000
16	one bedroom	50	800	40000
17	Ammenities deck with pool			0
18	beauty salon	1	1400	1400
19	concierge	1	200	200
20	mail room	1	100	100
21	loading dock	1	4000	4000
22	garbage	1	2000	2000
23	toilet room	1	60	60
24	office	2	200	400
25	copy room	1	50	50
26	Storage rm	1	400	400
	Total			130160

The overall program of the Senior Center will include a PRT station, Cupertino's Senior Center, the Senior Condominium, and ground floor retail. Support spaces will include mechanical, circulation, and egress. These spaces will account up 35% of the total square footages.

$$130,160 \times 1.35 = 175,716 \text{ total sq ft}$$

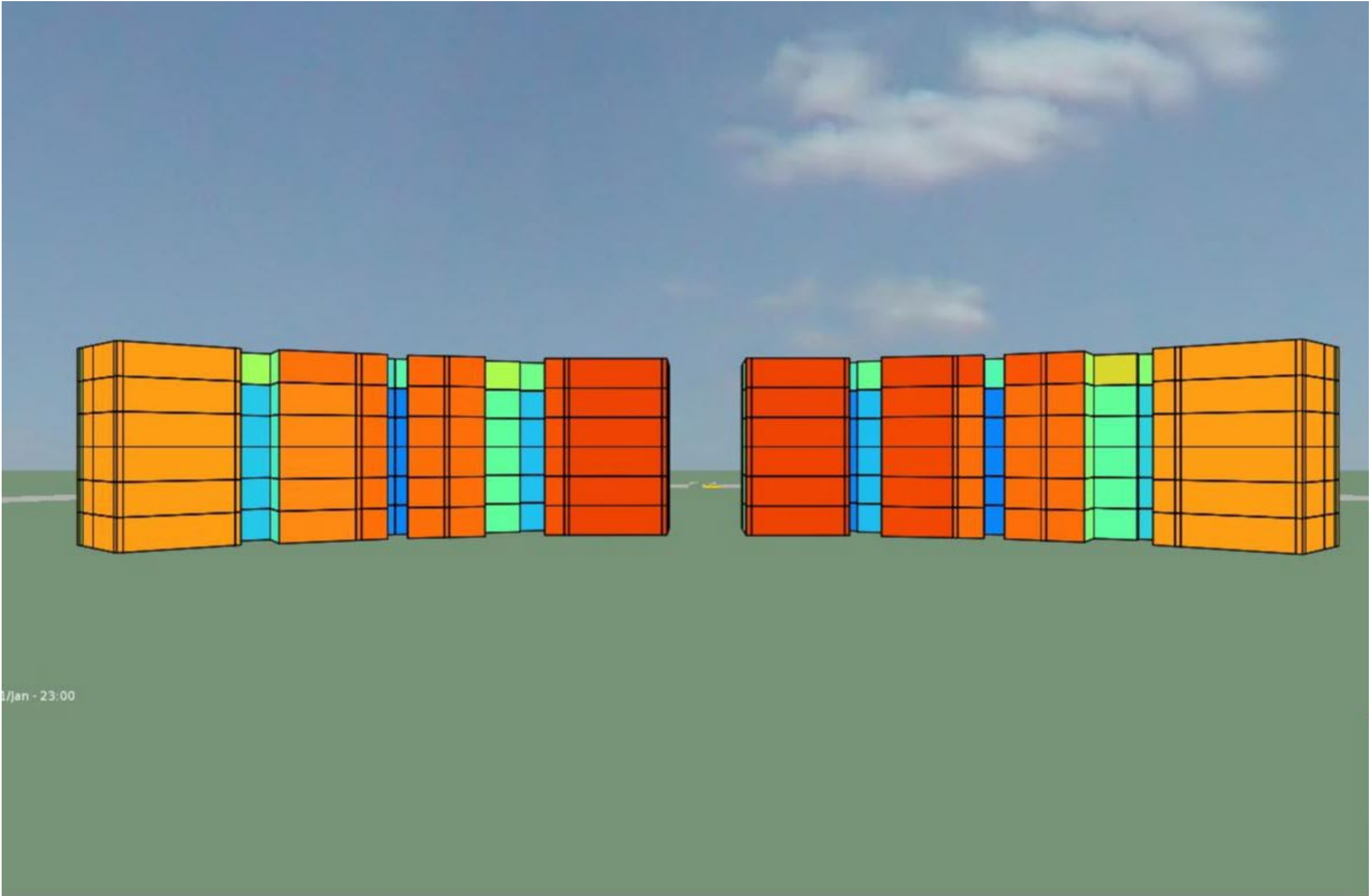


SUN EXPOSURE STUDY (IESVE) : MASS 1



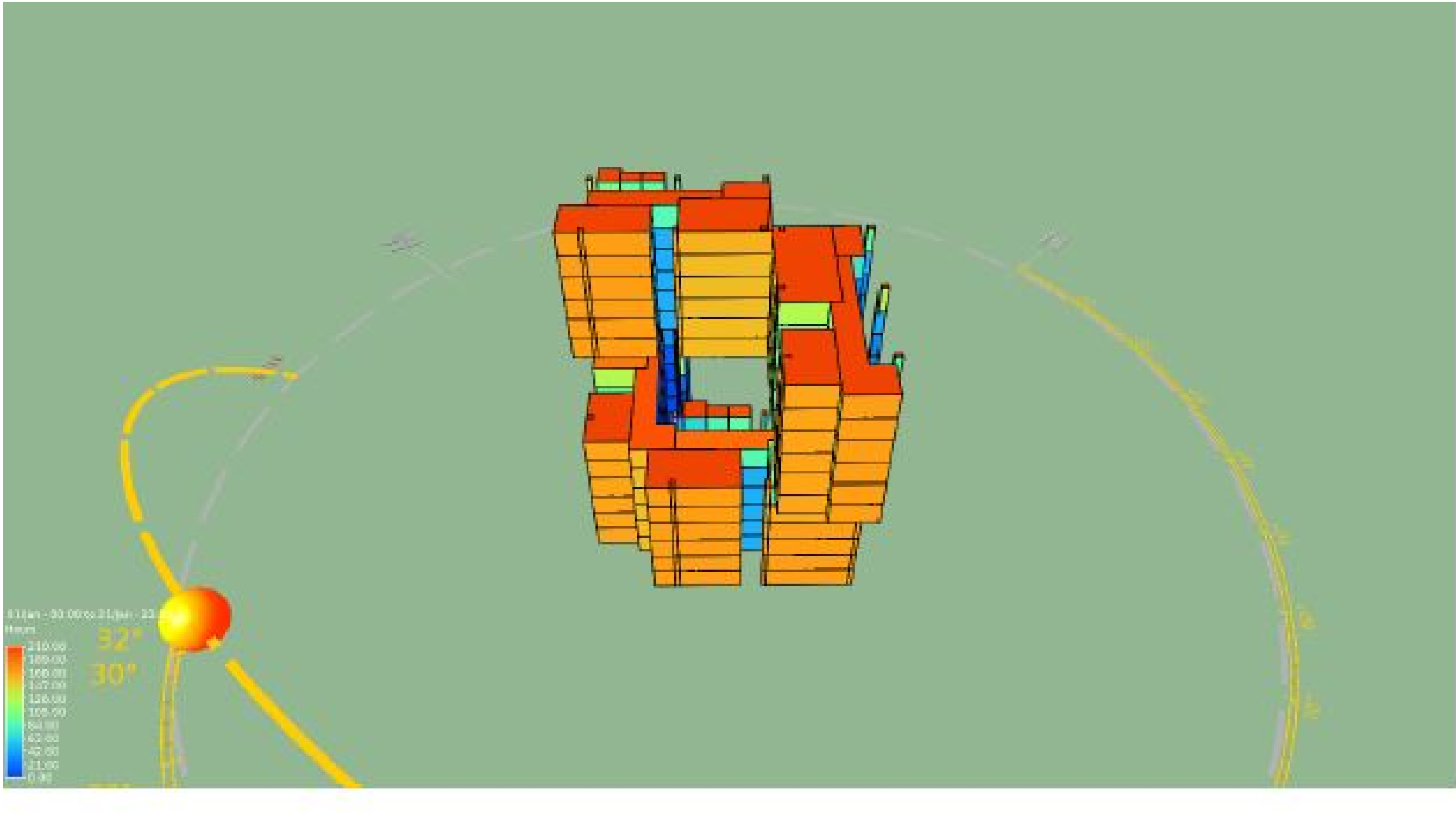


SUN EXPOSURE STUDY (IESVE) : MASS 1



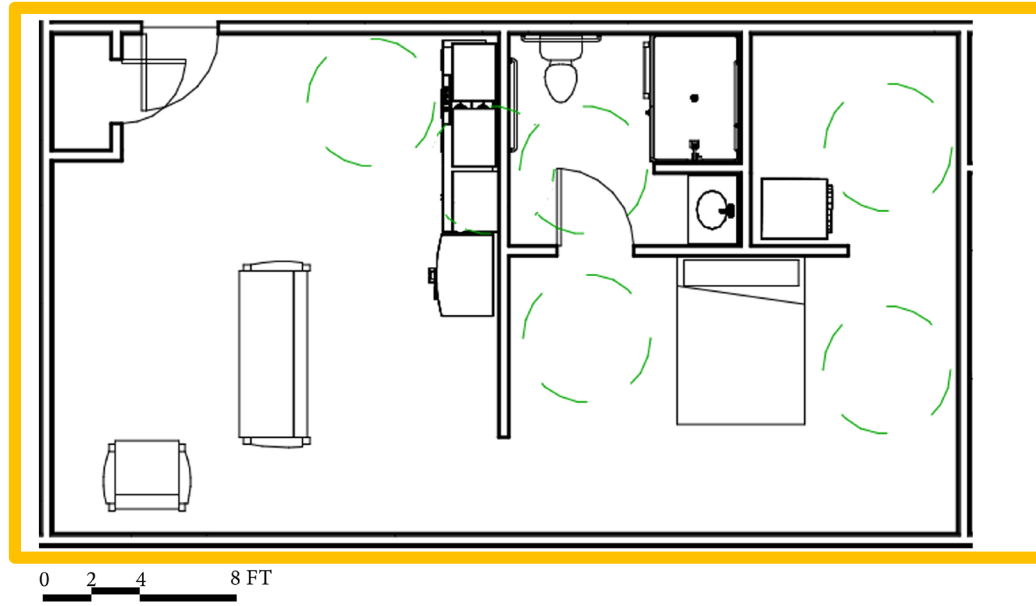


SUN EXPOSURE STUDY (IESVE) : MASS 2

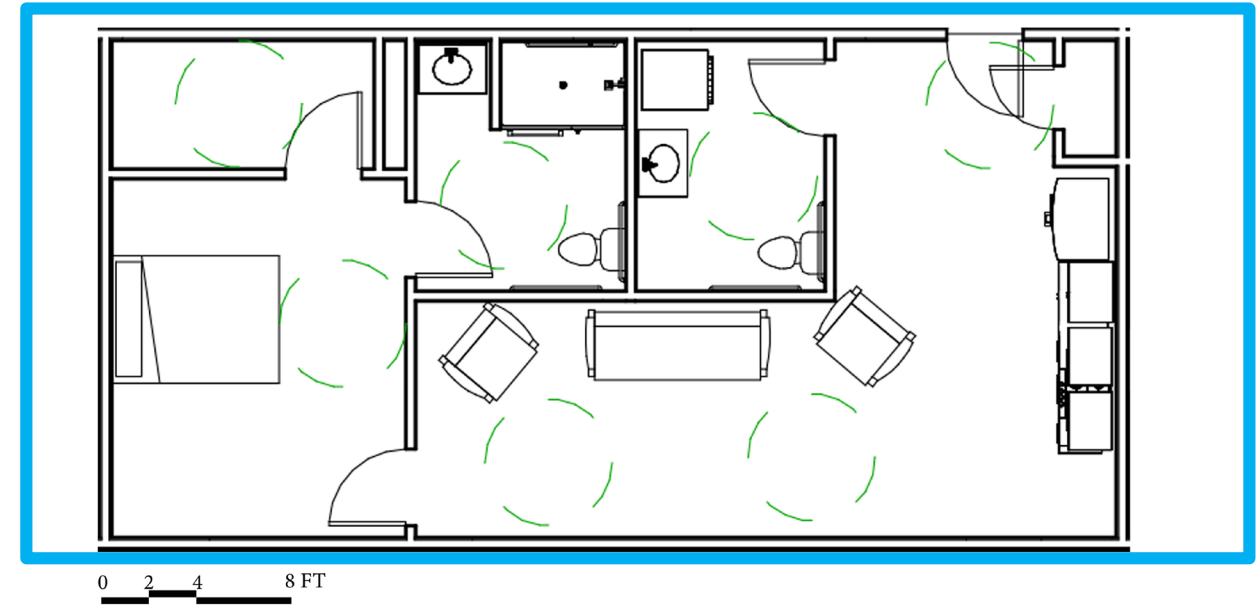




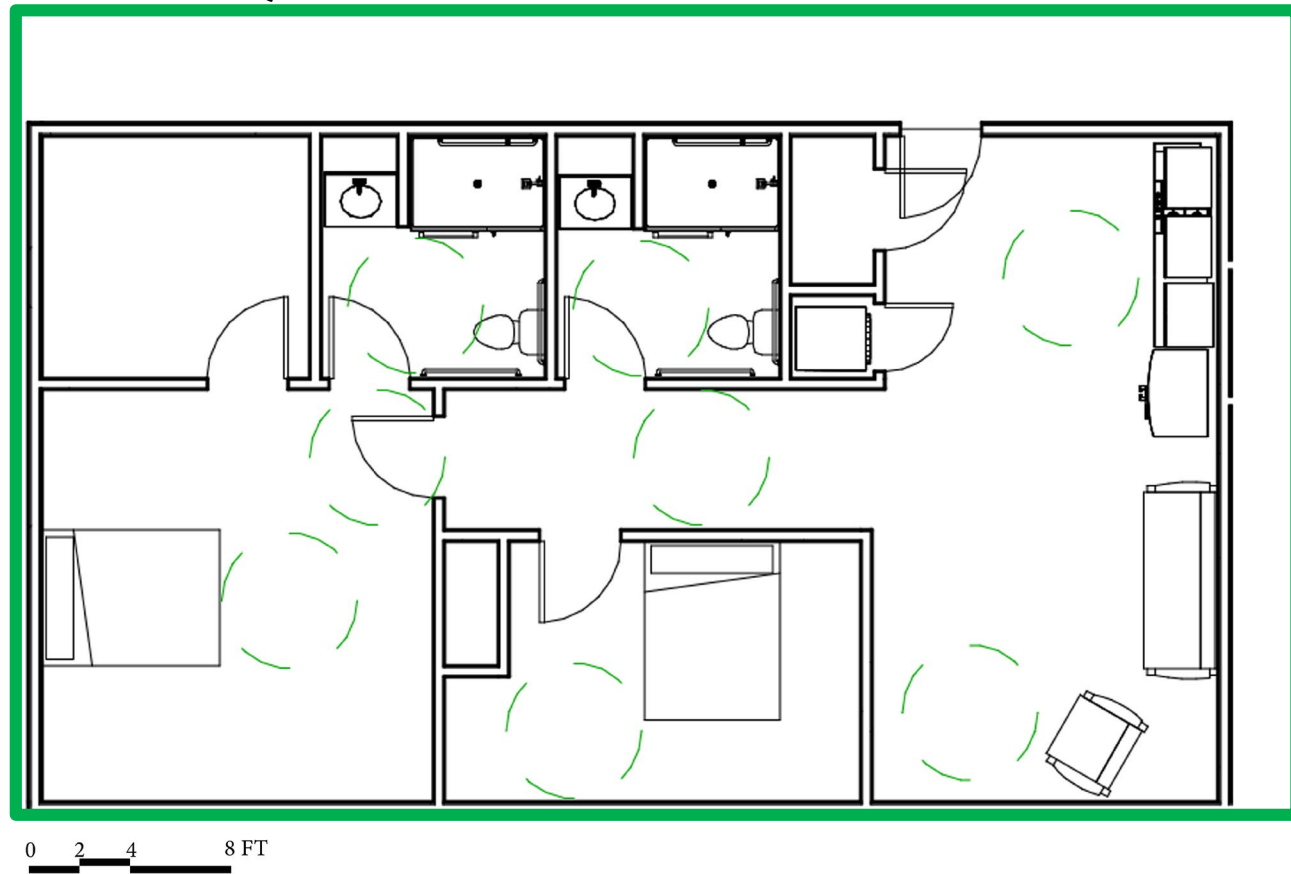
# UNITS



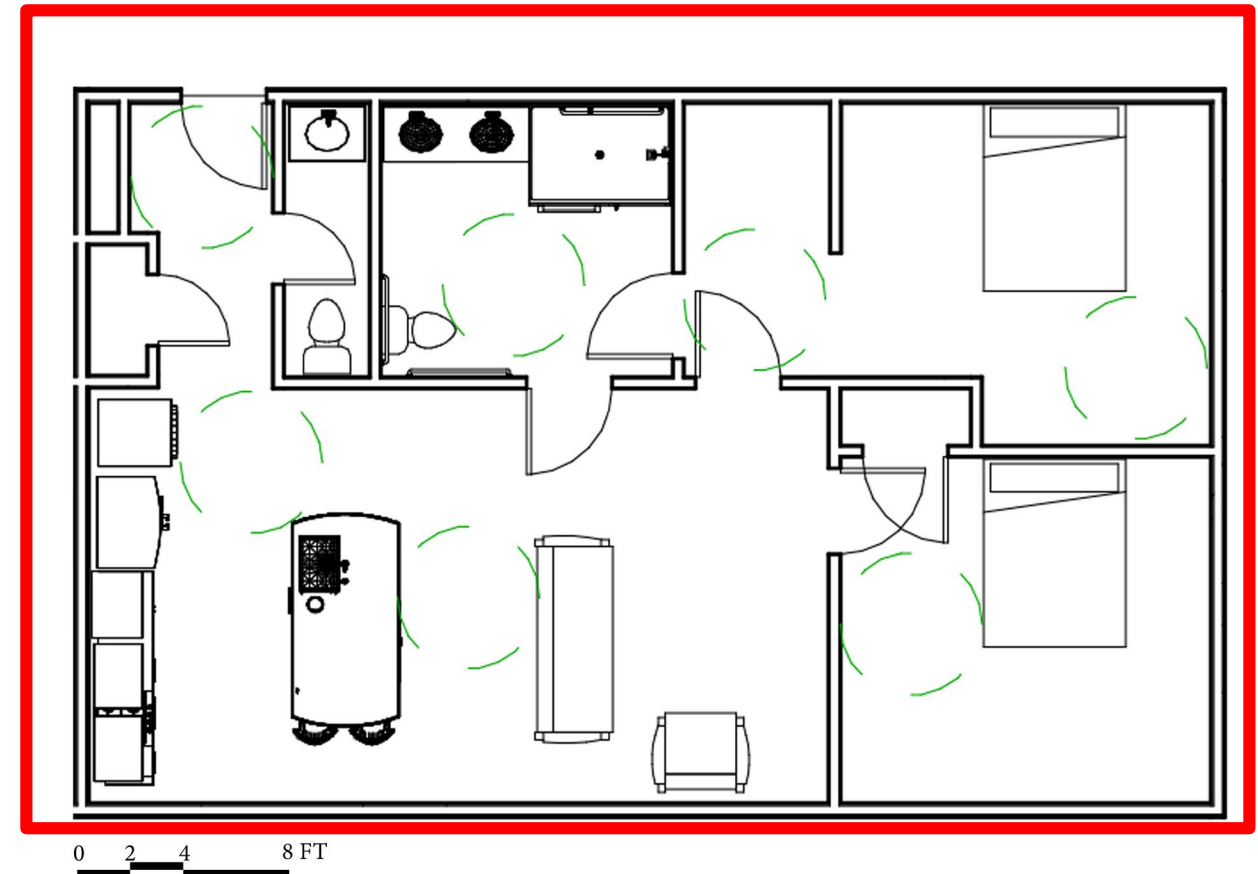
1 BR 1 BA  
725 SQ FT



1 BR 1.5 BA  
800 SQ FT



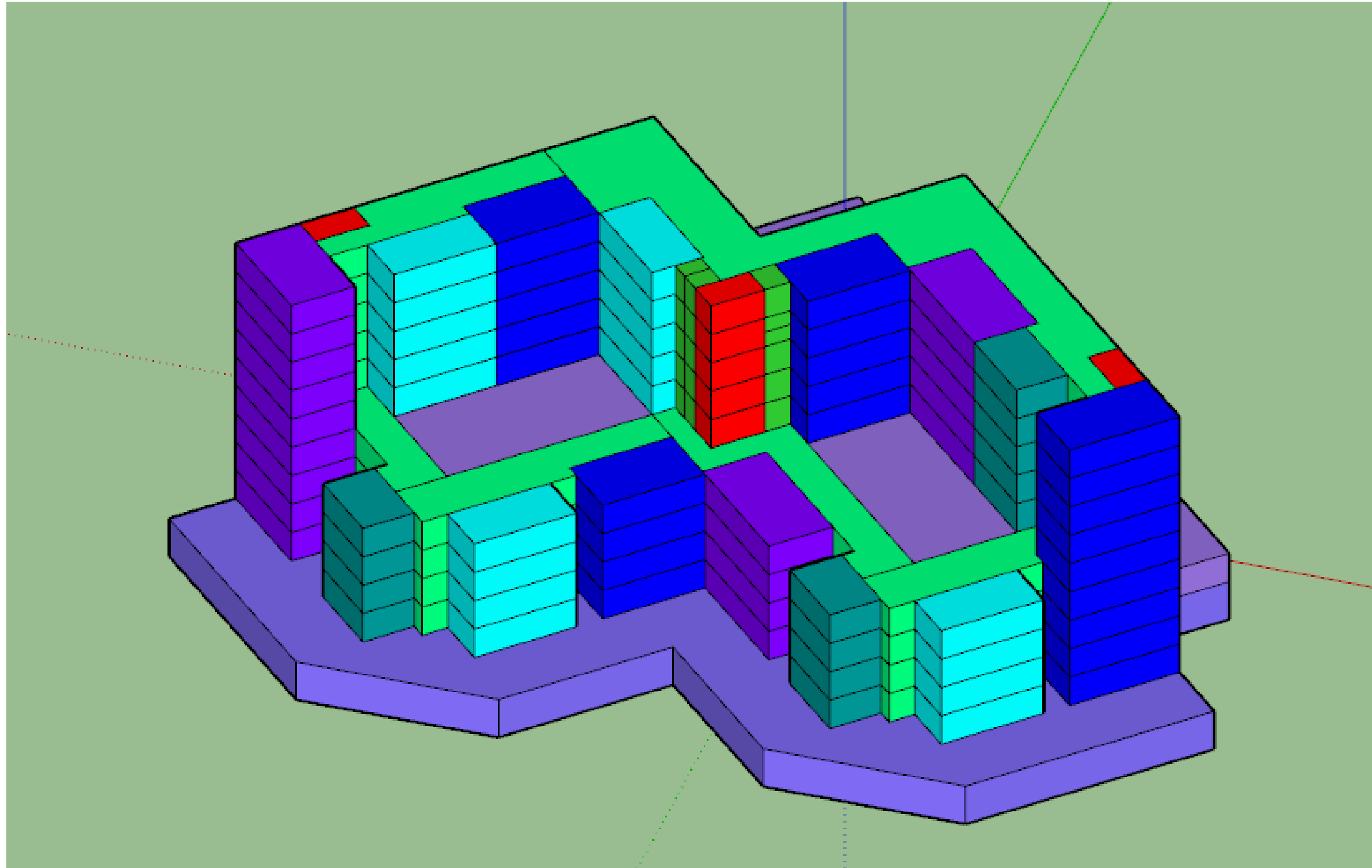
2 BR 1.5 BA  
1000 SQ FT



2 BR 2 BA  
1100 SQ FT

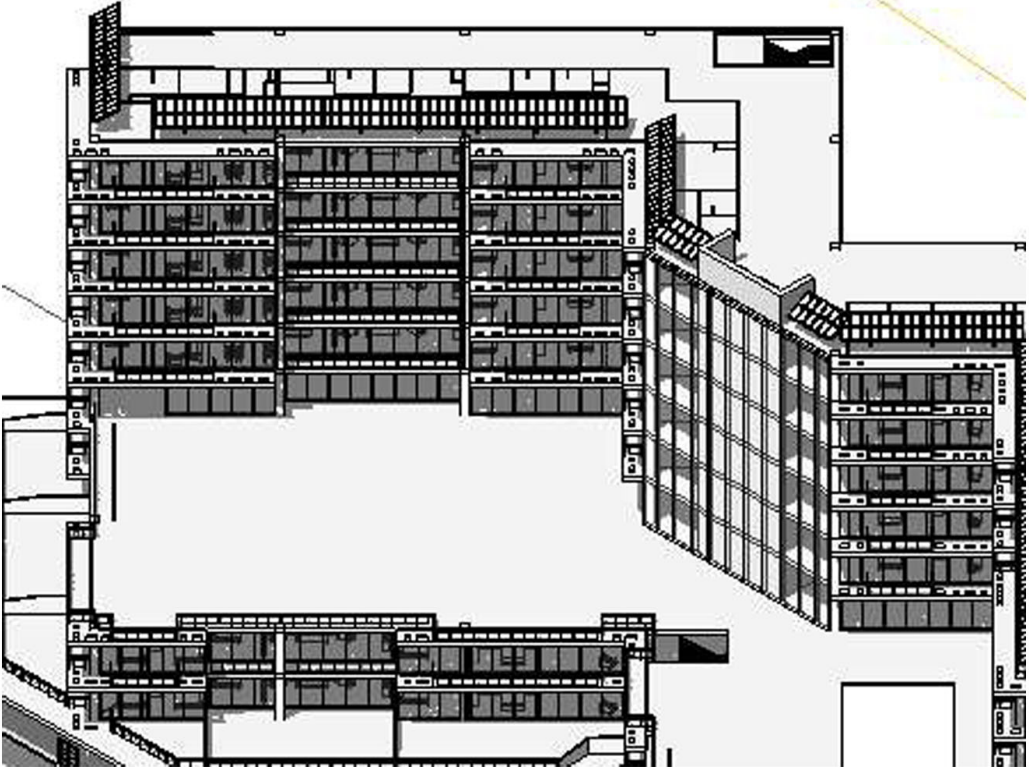
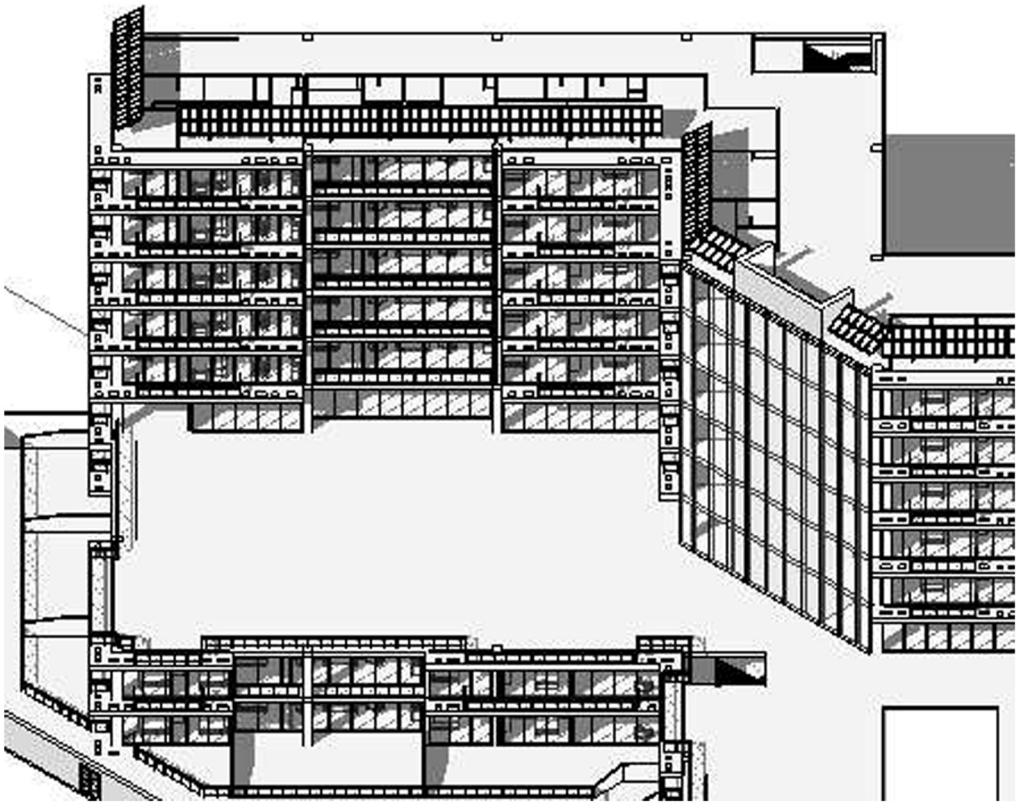
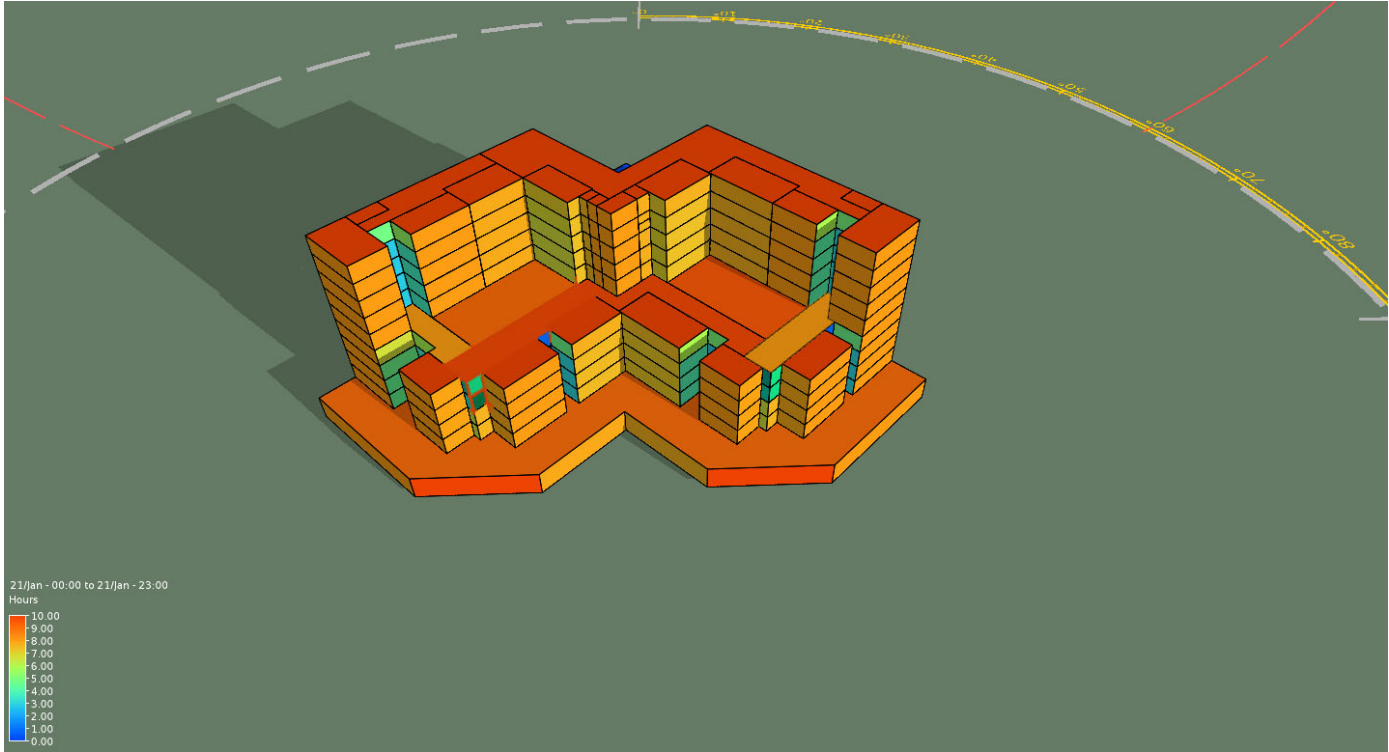


# UNITS LOCATIONS





SUN EXPOSURE / SHADOW STUDY : MASS 2



JANUARY 21

JULY 21



# FIRST FLOOR



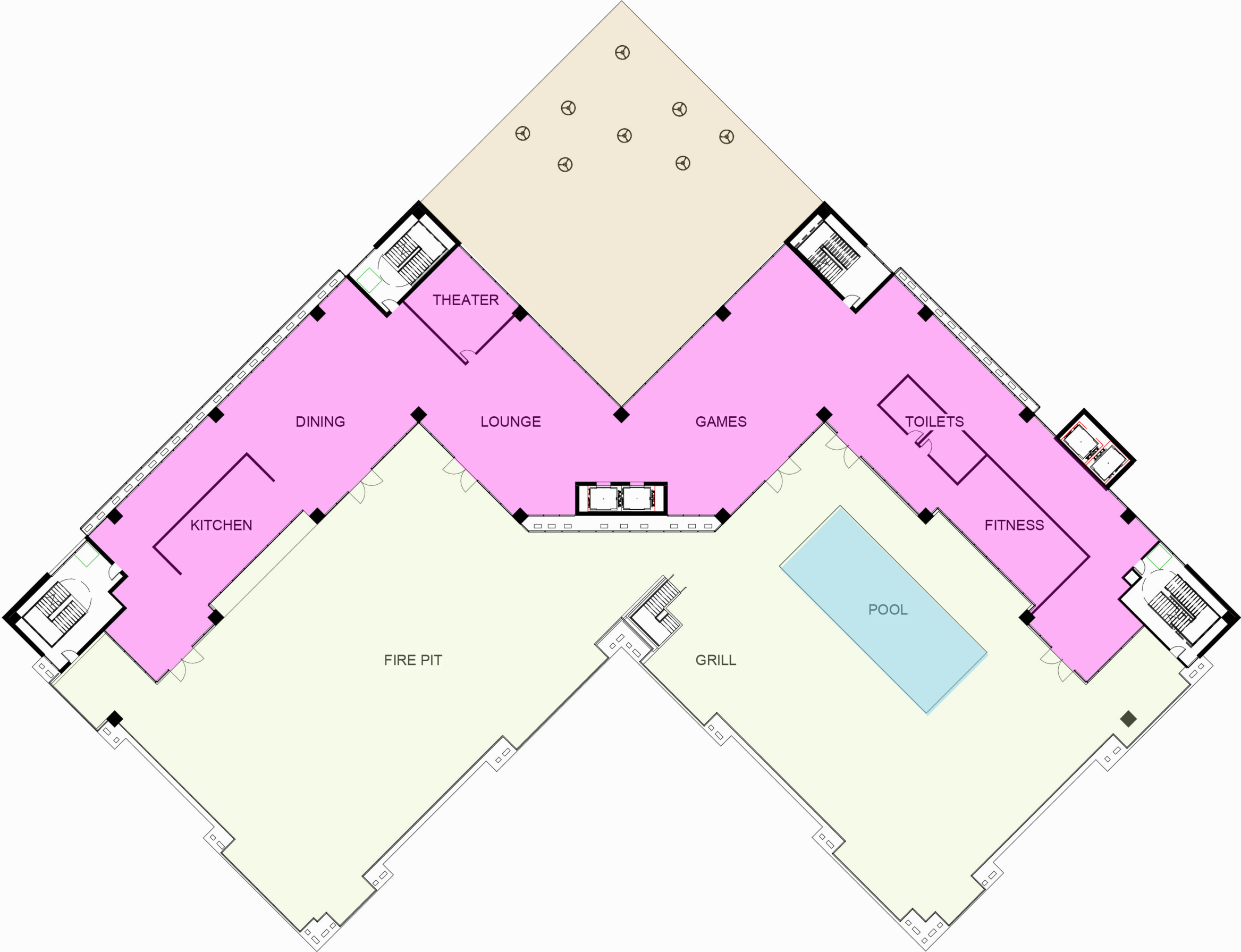


SECOND FLOOR (THIRD FLOOR SIMILAR)





FOURTH FLOOR (COMMON AREA)





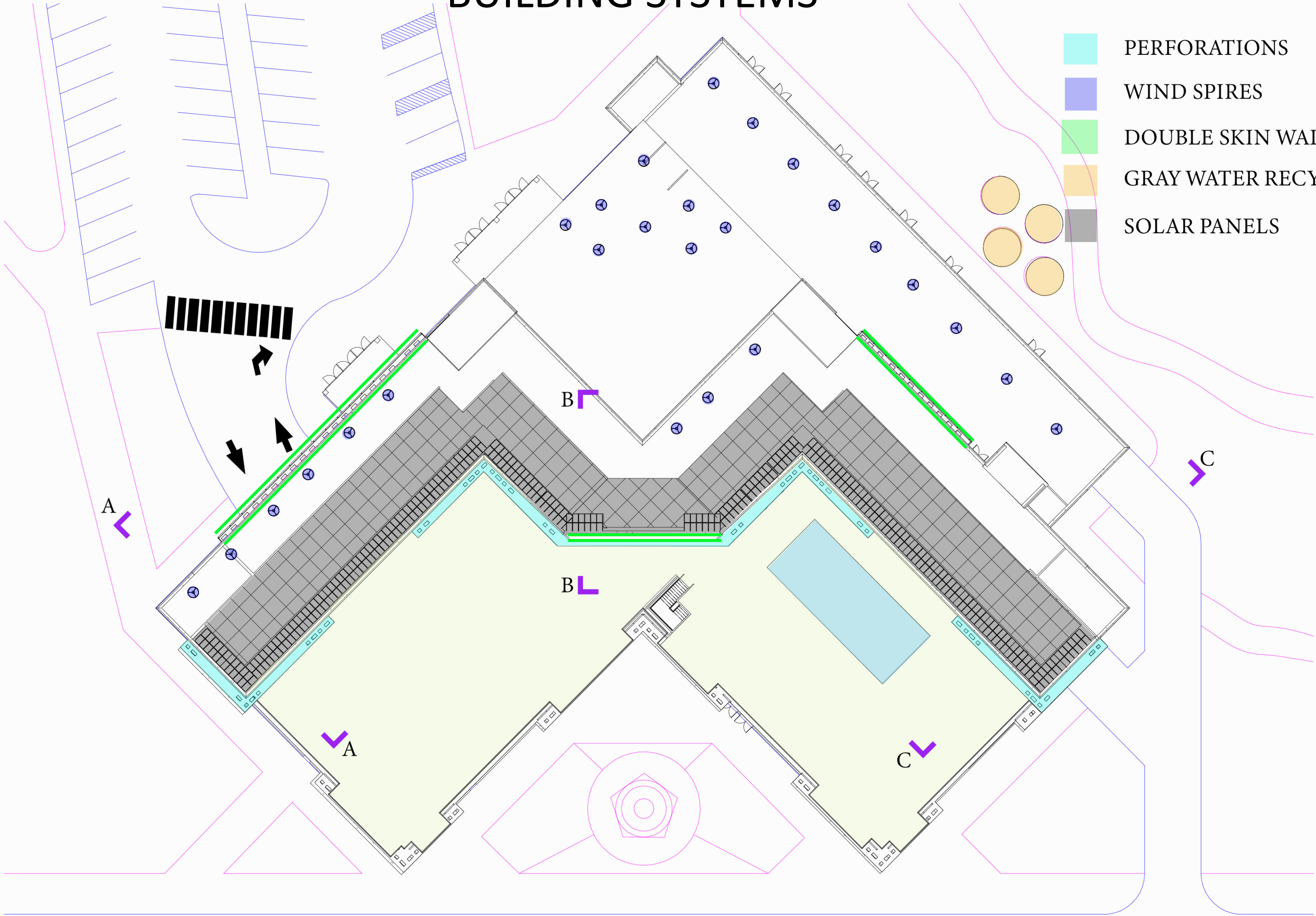
FIFTH FLOOR ( SIXTH – NINTH FLOOR SIMILAR SIMILAR)



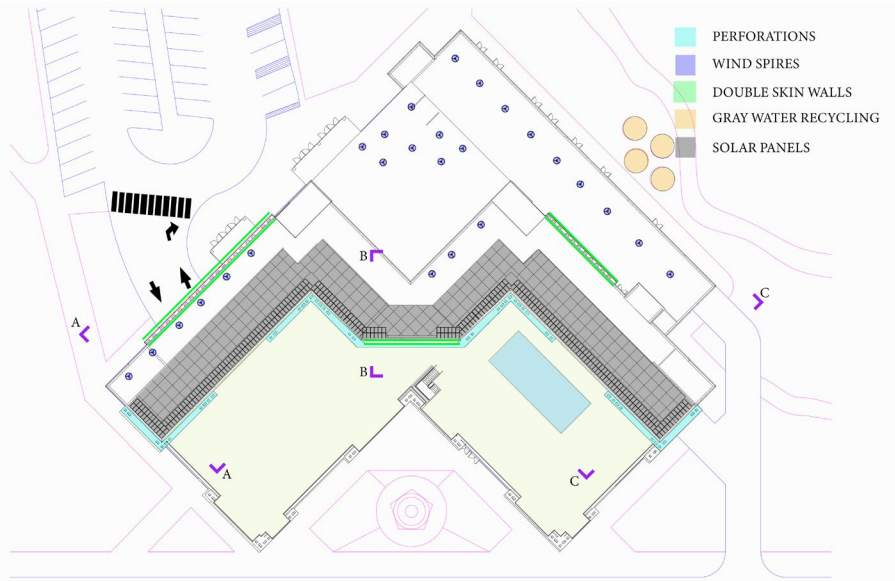


# BUILDING SYSTEMS

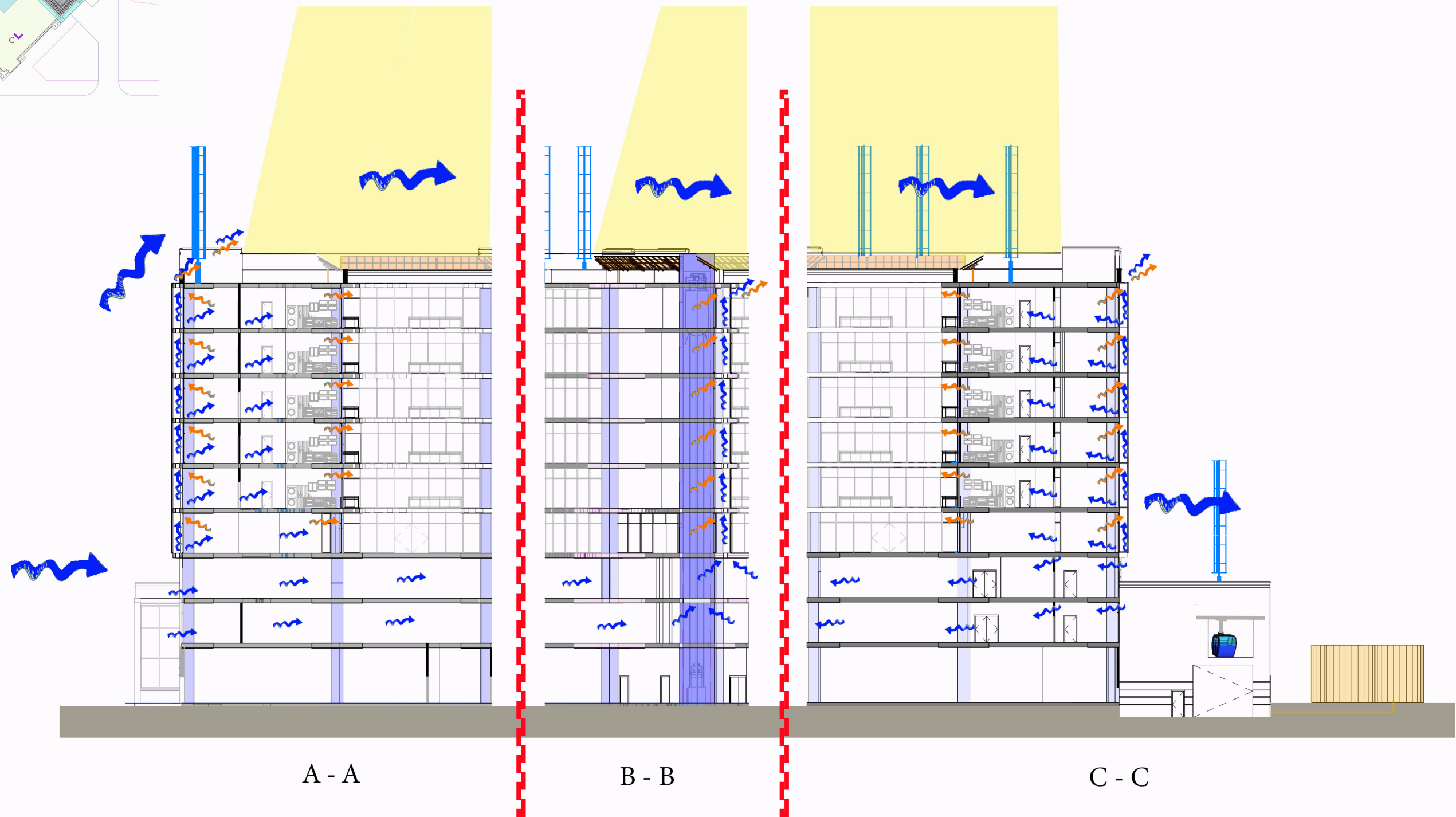
- PERFORATIONS
- WIND SPIRES
- DOUBLE SKIN WALLS
- GRAY WATER RECYCLING
- SOLAR PANELS







# BUILDING SECTIONS





# TIM

