



January 27, 2022

Mr. Firat Akcay
City of Miami Beach Transportation Department
1688 Meridian Avenue, Suite 801
Miami Beach, Florida 33139

**Re: 7418 Harding Avenue Redevelopment
Traffic Assessment
Miami Beach, Florida**

Dear Mr. Akcay:

Kimley-Horn and Associates, Inc. has prepared a traffic assessment for the redevelopment located at 7418 Harding Avenue in Miami Beach, Florida. Currently, the site proposed for redevelopment is occupied by 20 multifamily residential units. The proposed redevelopment consists of a 49-room hotel. A location map and conceptual site plan are provided in Attachment A. The following sections summarize our analysis.

TRIP GENERATION

Trip generation calculations for the proposed redevelopment were performed using Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition. The trip generation for the existing land use was determined using ITE Land Use Code (LUC) 220 (Multifamily Housing [Low-Rise]). The trip generation for the proposed land use was determined using ITE Land Use Code (LUC) 310 (Hotel).

A multimodal (public transit, bicycle, and pedestrian) factor based on Replica mode-split data was reviewed for the census tract in the vicinity of the redevelopment. Replica is a publicly available data set that uses US Census, land use regulations, aggregate mobile location, credit transaction data, and real estate transaction data. Additionally, Replica data evaluates all trips that enter and exit the census tract in which the redevelopment is located. It is expected that a portion of residents and guests will choose to walk, bike, or use public transit to and from the proposed redevelopment. A multimodal factor of 13.2 percent (13.2%) was calculated using Replica mode-split data and applied to the trip generation calculations to account for the urban environment in which the project site is located. It is expected that a portion of employees and guests will choose to walk, bike, or use public transit to and from the proposed redevelopment.

The proposed redevelopment is expected to generate 8 net new vehicle trips during the weekday A.M. peak hour and a reduction of 2 net new vehicle trips during the weekday P.M. peak hour. Trip generation calculations and Replica mode-split data are included as Attachment B.

PROJECT ACCESS

Guest/pedestrian access to the project and the primary rideshare/taxi drop-off/pick-up is provided in the alley between Byron Avenue and Harding Avenue. Note that a secondary rideshare/taxi drop-off/pick-up area and pedestrian access is provided along Harding Avenue fronting the project within the on-street parking.

A signage detail for the proposed rideshare/taxi drop-off/pick-up area was prepared to graphically illustrate the proposed signage that will be utilized to facilitate passenger drop-off/pick-up operations. An aerial depicting the rideshare/taxi drop-off/pick-up area and a conceptual sign detail graphic are contained in Attachment C.

TRANSPORTATION DEMAND MANAGEMENT STRATEGIES

The applicant is considering providing eight (8) secure bicycle racks and transit information within the site including route schedules and maps as Transportation Demand Management (TDM) strategies to encourage people to use public transportation, use bicycles, walk, and use car/vanpools to reduce the impacts of the project traffic on the surrounding roadway network.

MANEUVERABILITY

A maneuverability analysis was prepared for the primary drop-off/pick-up and loading areas using Transoft Solutions Inc.'s *AutoTurn 11* software which applies vehicle turning templates consistent with American Association of State Highway and Transportation Officials' (AASHTO), *A Policy on Geometric Design of Highways and Streets*, 7th Edition. The analysis was prepared using a passenger car (P) design vehicle for the drop-off/pick-up area. Delivery vans comparable to P design vehicles will be used for deliveries and loading activities. The following summarizes the results of this analysis.

Guest Access

Access to the drop-off/pick-up area is provided via the alley. A P design vehicle will be able to maneuver into and through the drop-off/pick-up area without blocking the alley as illustrated in Attachment D.

Loading Area Access

Access to the loading area will be provided via the alley. Delivery vans comparable to P design vehicles will be able to maneuver through the loading area without blocking the alley. Please refer to Attachment D.

CONCLUSION

Kimley-Horn and Associates, Inc. has performed a traffic assessment for the proposed redevelopment located at 7418 Harding Avenue in Miami Beach, Florida. The property proposed for redevelopment is currently occupied by 20 multifamily residential units. The proposed redevelopment consists of a 49-room hotel. The proposed redevelopment is expected to generate 8 net new vehicle trips during the weekday A.M. peak hour and a reduction of 2 net new vehicle trips during the weekday P.M. peak hour. Guest/pedestrian access to the project and a designated rideshare/taxi drop-off/pick-up is provided in the alley between Byron Avenue and Harding Avenue. A secondary rideshare/taxi drop-off/pick-up area is provided along Harding Avenue fronting the project within the on-street parking. Vehicles will be able

to access the drop-off/pick-up without blocking the alley. Delivery vans will also be able to maneuver through the loading area without blocking the alley.

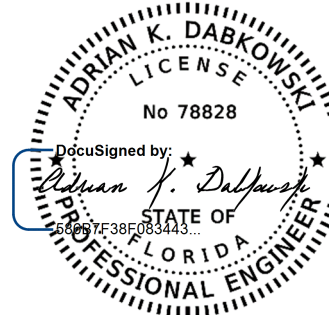
If you have any questions regarding this analysis, please feel free to contact me.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Adrian K. Dabkowski, P.E., PTOE
Vice President



This item has been digitally signed and sealed by Adrian K. Dabkowski, P.E., PTOE, on 1/27/2022.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Adrian K. Dabkowski, P.E., PTOE
Florida Registration Number 78828
Kimley-Horn and Associates, Inc.
8201 Peters Road, Suite 2200
Plantation, Florida 33324

Attachment A

Location Map and Conceptual Site Plan

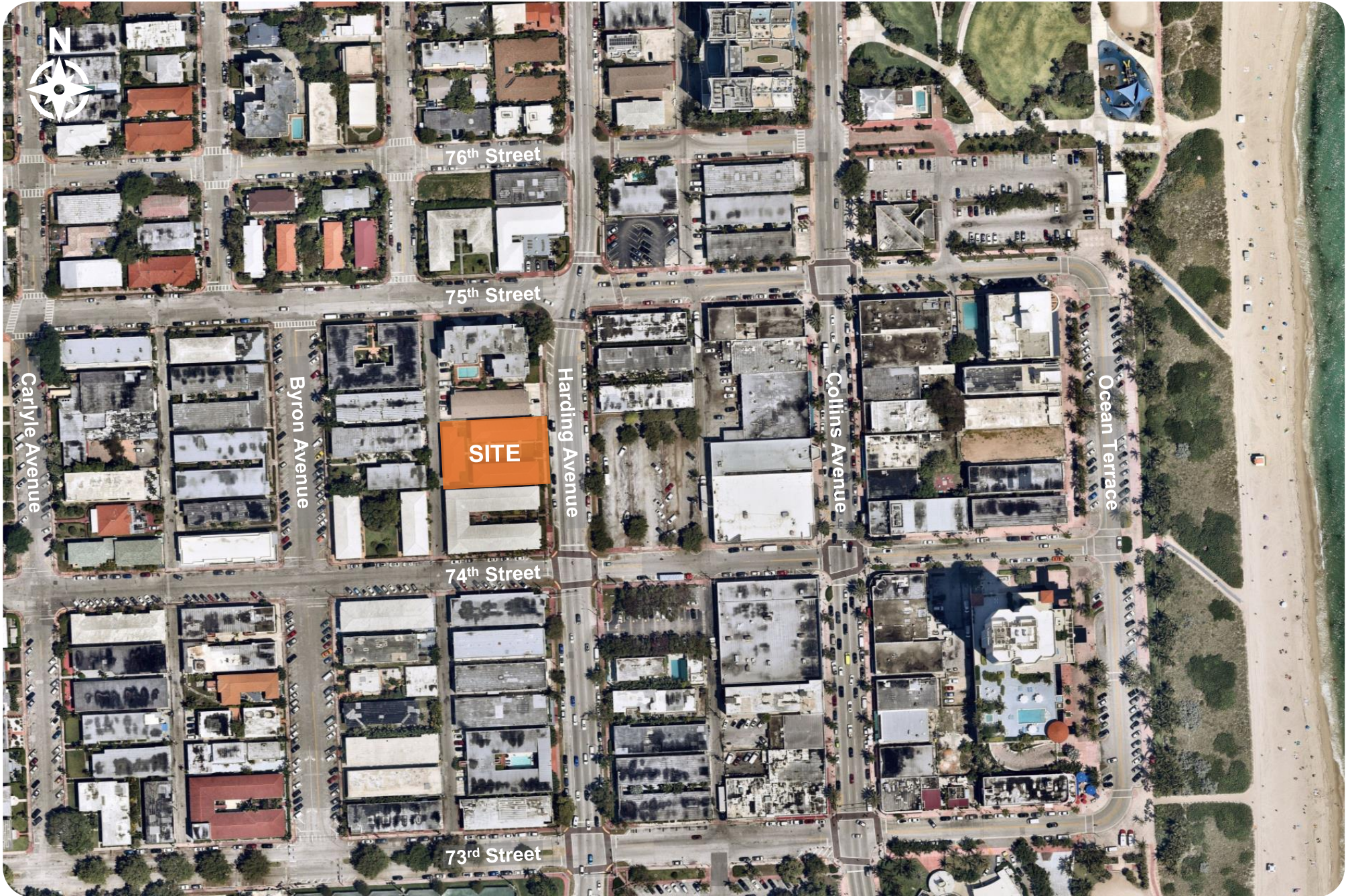
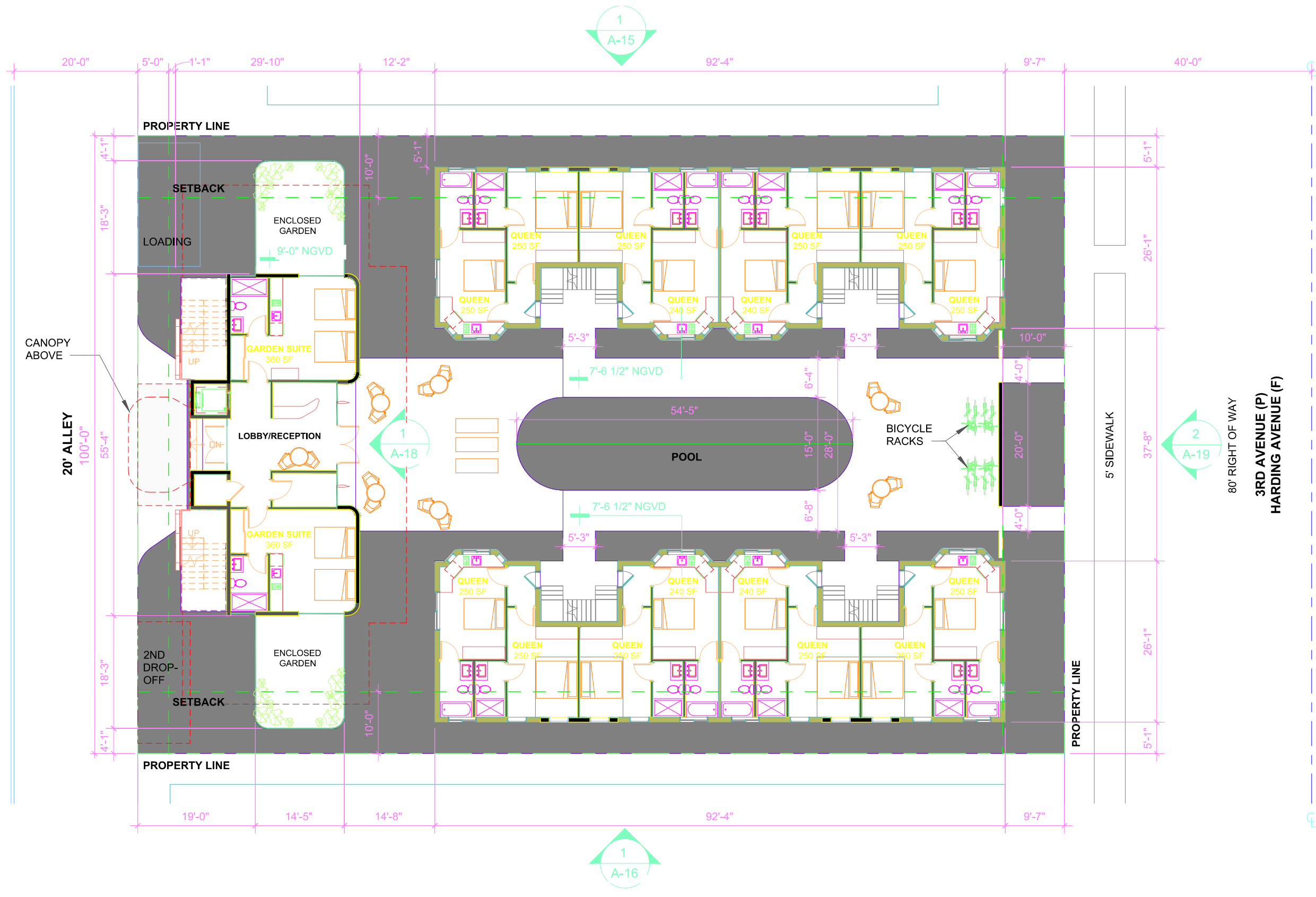


Figure 1
Location Map
7418 Harding Avenue
Miami Beach, Florida



Attachment B
Trip Generation Calculations

AM PEAK HOUR TRIP GENERATION COMPARISON

EXISTING WEEKDAY AM PEAK HOUR TRIP GENERATION

ITE TRIP GENERATION CHARACTERISTICS						DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS			
						Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
Land Use	ITE Edition	ITE Code	Scale	ITE Units	In	Out															
G R O U P 1	1	Multifamily Housing (Low-Rise)	11	220	20	du	24%	76%	2	6	8	13.2%	1	2	5	7	0.0%	0	2	5	7
	2																				
	3																				
	4																				
	5																				
	6																				
	7																				
	8																				
	9																				
	10																				
		ITE Land Use Code	Rate or Equation			Total:		2	6	8	13.2%	1	2	5	7	0.0%	0	2	5	7	
		220	Y=0.4(X)																		

PROPOSED WEEKDAY AM PEAK HOUR TRIP GENERATION

ITE TRIP GENERATION CHARACTERISTICS						DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS			
						Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
Land Use	ITE Edition	ITE Code	Scale	ITE Units	In	Out															
G R O U P 2	1	Hotel	11	310	49	room	56%	44%	10	7	17	13.2%	2	9	6	15	0.0%	0	9	6	15
	2																				
	3																				
	4																				
	5																				
	6																				
	7																				
	8																				
	9																				
	10																				
		ITE Land Use Code	Rate or Equation			Total:		10	7	17	13.2%	2	9	6	15	0.0%	0	9	6	15	
		310	Y=0.5*(X)+7.45																		

	IN	OUT	TOTAL
NET NEW TRIPS	7	1	8

PM PEAK HOUR TRIP GENERATION COMPARISON

EXISTING WEEKDAY PM PEAK HOUR TRIP GENERATION

ITE TRIP GENERATION CHARACTERISTICS						DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS			
						Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
Land Use	ITE Edition	ITE Code	Scale	ITE Units	In	Out															
G R O U P 1	1	Multifamily Housing (Low-Rise)	11	220	20	du	63%	37%	6	4	10	13.2%	1	5	4	9	0.0%	0	5	4	9
	2																				
	3																				
	4																				
	5																				
	6																				
	7																				
	8																				
	9																				
	10																				
		ITE Land Use Code	Rate or Equation			Total:		6	4	10	13.2%	1	5	4	9	0.0%	0	5	4	9	
		220	Y=0.51(X)																		

PROPOSED WEEKDAY PM PEAK HOUR TRIP GENERATION

ITE TRIP GENERATION CHARACTERISTICS						DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS			
						Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
Land Use	ITE Edition	ITE Code	Scale	ITE Units	In	Out															
G R O U P 2	1	Hotel	11	310	49	room	51%	49%	4	4	8	13.2%	1	4	3	7	0.0%	0	4	3	7
	2																				
	3																				
	4																				
	5																				
	6																				
	7																				
	8																				
	9																				
	10																				
		ITE Land Use Code	Rate or Equation			Total:		4	4	8		1	4	3	7	0.0%	0	4	3	7	
		310	Y=0.74*(X)+27.89																		

	IN	OUT	TOTAL
NET NEW TRIPS	-1	-1	-2

Replica Mode Split Data To and From Tract 39.13

Geo ID	Tract	Week Starting	Population	Total Count	Other Travel	Public Transit	Auto Passenger	
				Average Weekday	Mode Count Average Weekday	Count Average Weekday	Private Auto Count Average Weekday	Count Average Weekday
12086003913	39.13 (Miami-Dade, FL)	1/20/2020	4473	9606	154	1114	6726	1612
12086003913	39.13 (Miami-Dade, FL)	1/27/2020	4473	9782	138	1142	6829	1673
12086003913	39.13 (Miami-Dade, FL)	2/3/2020	4473	9929	166	1186	6900	1677
12086003913	39.13 (Miami-Dade, FL)	2/10/2020	4473	10109	167	1199	7019	1724
12086003913	39.13 (Miami-Dade, FL)	2/17/2020	4473	10369	137	1151	7321	1760
12086003913	39.13 (Miami-Dade, FL)	2/24/2020	4473	10317	157	1207	7208	1745
Total				60,112	919	6,999		
Multimodal Factor				13.2%				

Attachment C

Rideshare/Taxi Drop-Off/Pick-Up Area and
Conceptual Sign Detail



Figure 2
Rideshare/Taxi Drop-Off/Pick-Up Location
7418 Harding Avenue
Miami Beach, Florida

Westbound 74th Street
Signage

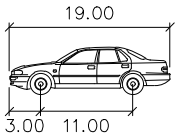


Eastbound 74th Street
Signage

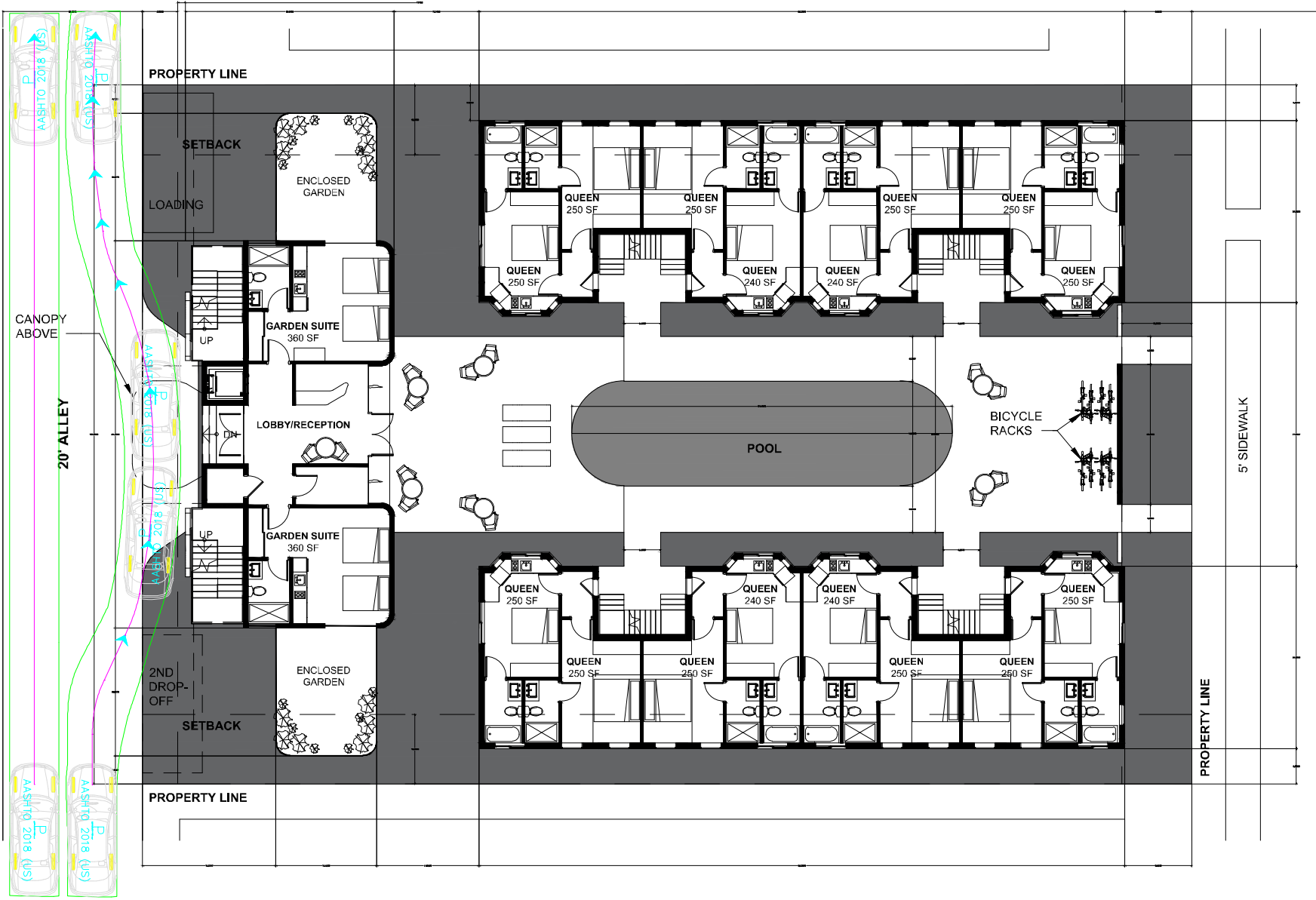


Attachment D
Maneuverability Plots

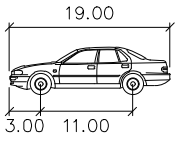
Passenger Vehicle



- P
- Width : 7.00 feet
 - Track : 6.00 feet
 - Lock to Lock Time : 6.0
 - Steering Angle : 31.6

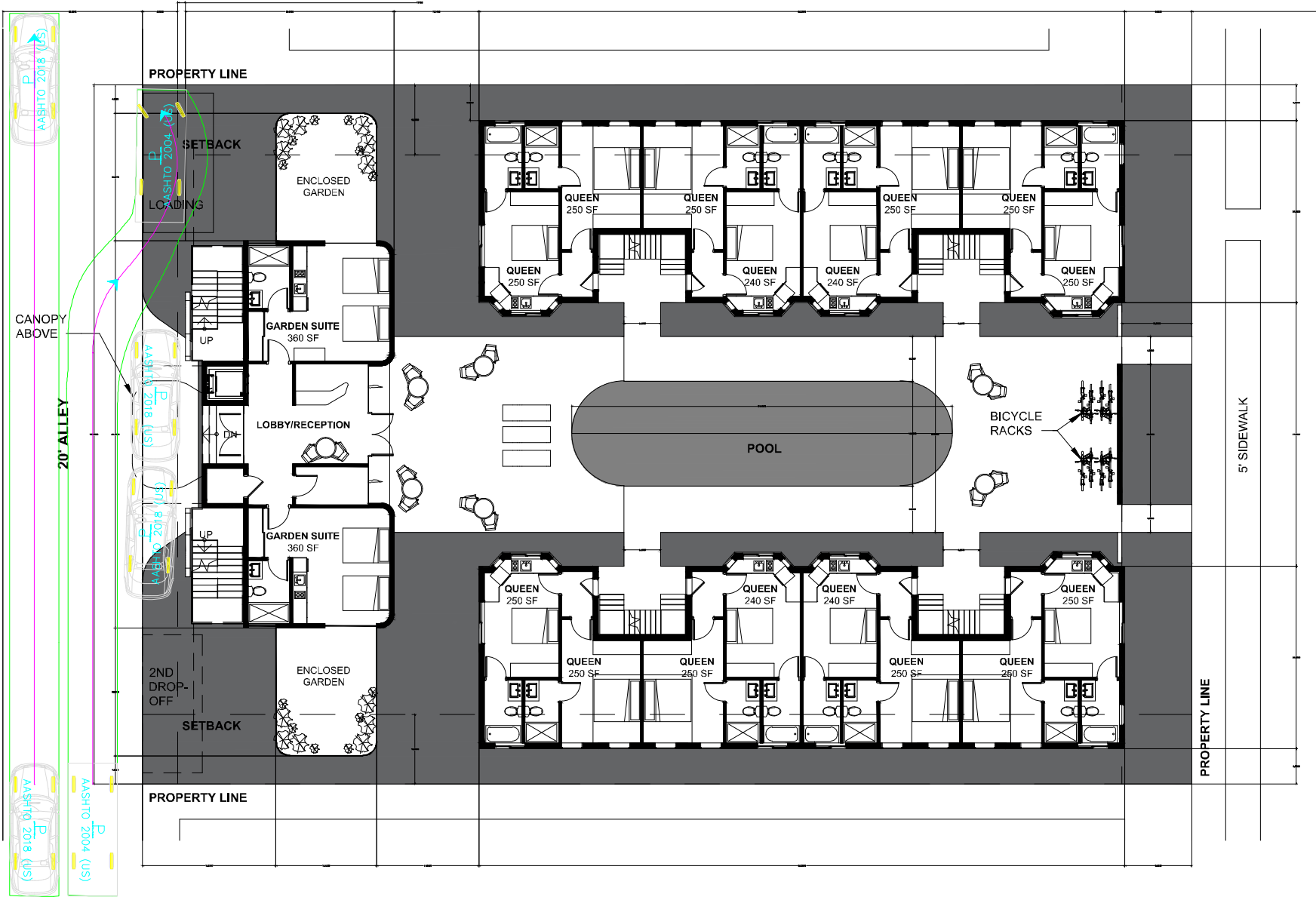


P Loading Vehicle Entering



P

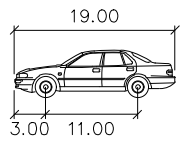
- Width : 7.00 feet
- Track : 6.00 feet
- Lock to Lock Time : 6.0
- Steering Angle : 31.6



5' SIDEWALK

PROPERTY LINE

P Loading Vehicle Exiting



- P
- Width : 7.00 feet
 - Track : 6.00 feet
 - Lock to Lock Time : 6.00
 - Steering Angle : 31.6

