# **Traffic and Parking Summary**



# **EXECUTIVE SUMMARY**

Agave Ponce, LLC is proposing a mixed-use development (Mediterranean Village) in the City of Coral Gables in an area bounded by Ponce De Leon Boulevard (west), Galiano Street (east), Sevilla Avenue (north) and Malaga Avenue (south). The existing site contains vacant land and buildings that will be demolished. The proposed development will consist of a mix of office, residential, and retail uses including a hotel, restaurants, a gym/fitness club, a day care center, and a movie theater.

Trip generation calculations for the proposed mixed-use development were performed using the Institute of Transportation Engineer's (ITE's) *Trip Generation*, 9<sup>th</sup> Edition. The proposed development is expected to generate 864 new trips during the A.M. peak hour and 1,468 new trips during the P.M. peak hour.

In order to reduce cut-through traffic and speeds along surrounding local streets east of the site, several overall traffic calming measures are being considered. In general, these measures can be grouped into two (2) categories: non-restrictive and restrictive. The non-restrictive measures include reduction of the pavement width, construction of mid-block raised center median with paver treatments within the travel lanes, construction of entry features immediately west of the north-south alley to the west of SW 37<sup>th</sup> Avenue/Douglas Road where land uses shift from commercial uses to single-family residential homes, and reconstruction of existing roundabouts or installation of raised/tabled intersections along Galiano Street/Malaga Avenue to address existing geometric deficiencies. The restrictive measures include the following:

- Construction of north-south median at the intersection of Galiano Street at Sevilla Avenue, prohibiting east-west through movements, the westbound left-turn movement, and the southbound left-turn movement.



 Construction of north-south median at the intersection of Galiano Street at Malaga Avenue, prohibiting the westbound left-turn movement and the southbound left-turn movement.

Different project traffic distributions were considered for both the non-restrictive and restrictive measures.

Intersection capacity analyses indicate that the study intersections are expected to operate at levels of service (LOS) E or better during the A.M. and P.M. peak hours under all analysis conditions with exception of one (1) stop-controlled approach during the P.M. peak hour under future background conditions, one (1) stop-controlled approach during the A.M. peak hour under future total conditions with both traffic calming plans, and two (2) stop-controlled approaches during the P.M. peak hour under future total conditions with both traffic calming plans. These results are common during peak periods where a high traffic volume free-flowing major street intersects with a stop-controlled minor street.

Three (3) of these one-way stop-controlled intersections are candidates for signalization as the expected volumes, with the proposed development, meet the peak hour minimum volume threshold and meet the Miami-Dade County signalized intersection spacing standards. Signalization of an intersection is under jurisdiction of Miami-Dade County Public Works and Waste Management Department Traffic Engineering Division (TED). TED will review the intersection to determine if signalization is appropriate and warranted. If TED determines it appropriate and warranted, traffic signalization plans would be required and reviewed by MDCPWM.

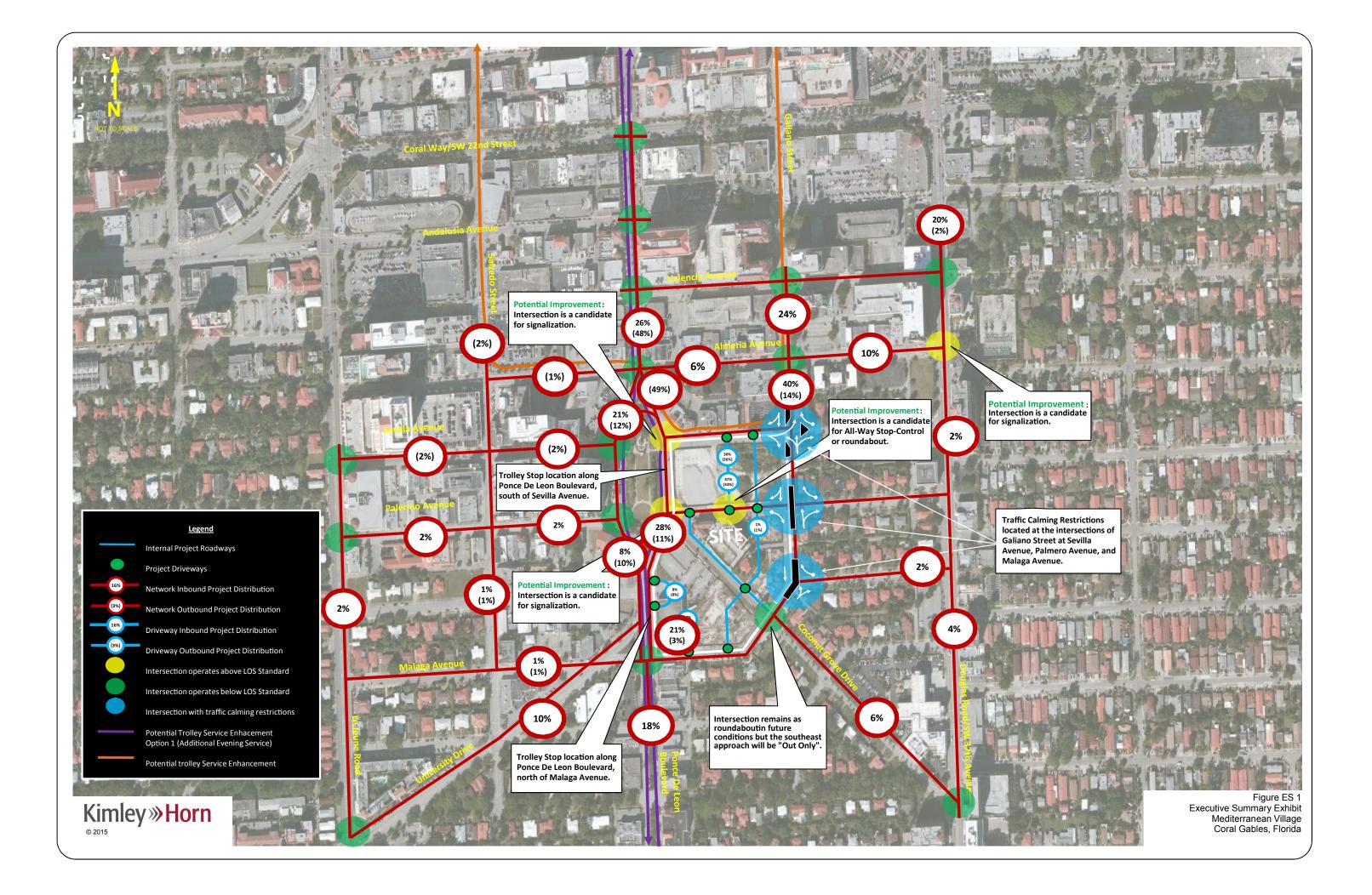
The remaining one-way stop-controlled intersection mentioned above is at a project driveway and it is recommended that all-way traffic control be considered at this location to improve operations including a potential roundabout.



The project plans numerous improvements to improve connectivity and accessibility for alternative modes of travel including the following:

- Enhanced sidewalk and pedestrian areas that include wide sidewalks, public art, robust
   landscaping, covered walkways, and enhanced streetscape features
- Secured bicycle parking areas
- Changing/shower facilities with lockers and bicyclists
- Covered trolley stop shelter along Ponce De Leon Boulevard at Palermo Avenue providing seating and transit information including route schedules and maps
- The project will also consider making a contribution towards trolley service enhancements:
  - Extend the existing weekday trolley service which operates until along
     Ponce De Leon Boulevard to a later hou
  - Operate a new Central Business District (CBD) loop route along Alhambra
     Circle, Merrick Way, Galiano Street, Almeria/Sevilla Avenue, and Salzedo
     Street during weekday morning, mid-day, and afternoon peak periods.
  - Modifications to the current trolley stop locations to improve accessibility to the project site.

Figure ES 1 illustrates the general traffic distribution, future operating conditions, and potential improvements found in the foregoing analysis.





#### PARKING REDUCTION

### Methodology

Appendix B Parking Reduction Calculations contains the shared parking analysis spreadsheet separated into eight sections and are listed below with supporting narrative of parking reduction methodology and assumptions.

# 1. Land Use Inputs

Proposed land uses are categorized into Commercial/Hotel and Residential. Commercial/Hotel category also includes uses of retail, cinema, restaurant, daycare, office, and gym. Residential category contains townhouses, 2BR units, and 3BR units. Notes are included for square footage sizes (GLA and GFA) along with cinema square footage accounting for 3 screens and 290 seats.

# 2. Parking Ratio

For the proposed land uses, the parking ratios utilized were obtained from the City of Coral Gables Zoning Code Section 5-1409. The corresponding city use is listed for each proposed land use.

The restaurant uses have been separated into "family" and "fine/casual dining" type as defined by *ULI Shared Parking*. Family type restaurants are defined as typically lower priced, do not accept reservations, and lack bars or lounges. Family type is defined by ITE as High Turnover without Bar. Fine dining type restaurants include more leisurely dining, reservations, and lower turnover. Fine dining type is defined by ITE as Quality restaurant (931). Casual dining type restaurants are moderately priced, often chains, and generally do not accept reservations. Casual dining type is defined by ITE as High Turnover with Bar (932).

The type of hotel assumed is "business type" as defined by *ULI Shared Parking* and ITE to have limited restaurant or meeting facilities compared with full service hotels.

Understanding *ULI Shared Parking* contains separate parking demand ratios for employees/residents and visitors, the City of Coral Gables base parking demand ratios have been separated into employee and visitor ratios based on ULI relationships of employees/residents and visitors.

#### 3. Trip Reductions

The mode split utilized in the shared parking analysis has been updated to provide separate mode splits for employees/residents and visitors. ULI Shared Parking Table 3-1 Examples of Journey-to-Work Data lists examples of transportation modes information provided by the 2000 U.S. Census Bureau. The mode split for employees/residents utilized is based upon 2012 American Community Survey Miami-Dade Profile dated September 2013 which provides Commuting to Work values from 2010 – 2012. This study has considered the modes of public transportation, walked, and other means to determine the percentage of employees not utilizing a vehicle and therefore not requiring a parking space. Other means category has been included to account for transportation modes such as bicycling and drop-off/pick-up.

The associated total mode split was 9.3% in 2010, 9.4% in 2011, and 10.1% in 2012 resulting in an average of 9.6%. The updated shared parking analysis has been updated for a 9.6% mode split employees/residents and 4.8% visitor mode split (1/2 of employee/resident). Reference Appendix C 2012 American Community Survey Miami-Dade Profile dated September 2013.



# 4. Parking Calculations

The required parking for each land use, separated into employee/resident and visitor, is calculated based on City of Coral Gables parking demand ratios for employee/resident and visitor to determine the single use parking demand. Daycare is an accessory use to the project, and therefore, only employee generated parking demand is considered. The appropriate mode split is applied to the single use parking demand to determine the trip reduction demand, with the exception of residential townhouses where no trip reduction is applied.

# 5. Internal Capture

Internal capture is not considered in this parking reduction analysis.

#### 6. Time of Day Trends

Weekday time-of-day factors for employees/residents and visitors were obtained from *ULI Shared Parking* Table 2-5 Recommended Time-of-Day Factors for Weekdays between the hours of 6:00 am and 12:00 am, excluding the daycare land use. Daycare time-of-day factors input are assumptions based upon peak times noted in ITE Parking Generation (Land Use: 565 Day Care Center). Note, only employee generated demand for daycare is considered. Retail utilizes the ULI land use of "Shopping Center – Typical", Restaurant utilizes the ULI land use of "Family Restaurant" and "Fine/Casual Restaurant", and Hotel utilizes the ULI land use of "Hotel – Business". Townhouse residents utilize the ULI land use of "Residential Reserved", and 2BR and 3BR residents utilize the ULI land use of "Residential – Resident".

#### 7. Shared Parking Calculations

Shared parking values are calculated for each land use, separated into employee/resident and visitor categories. The shared parking values are calculated by multiplying the appropriate land use input, City of Coral Gables parking ratio (employee/resident or visitor), and the appropriate time-of-day factor. The employee/resident and visitor shared parking values are added together to determine the peak shared parking demand of 2,869 spaces on a weekday at 2:00 pm. Note, the calculations in this section does not account for trip reduction.

#### 8. Peak Parking Demand

Similar to Section 4, the shared required parking for each land use, separated into employee/resident and visitor, is calculated based on City of Coral Gables parking demand ratios for employee/resident and visitor to determine the single use shared parking demand of 2,869 spaces. The appropriate mode split is applied to the single use shared parking demand to determine the trip-reduced, shared parking demand of 2,653 spaces. Note, trip reduction was not applied to the residential townhouses.

Summary tables of employee/resident, visitor, and total parking spaces for shared parking values and shared parking with trip reduction values are compared with the City of Coral Gables single use parking demand of 3,182 spaces.



# **Proposed Parking Demand**

The proposed parking demand for Mediterranean Village utilizes the current uses per the Owner and Architect's latest program and the City of Coral Gables Zoning Code parking demand ratios. Parking adjustments include multi-modal trips (based upon traffic impact analysis), and time of day trends for visitors, employees, and residents for each use (based upon ULI *Shared Parking*).

Below is a summary of the proposed parking demand in comparison to that required by the City of Coral Gables Zoning Code.

PARKING DEMAND								
City of Coral Gables Zoning Code Single Use Base Demand	+ Shared Parking	+ Modal Split						
3,182 spaces								
	2,869 spaces (10% reduction)							
		2,653 spaces (17% total reduction)						

Appendix B Parking Reduction Calculations contain the shared parking analysis values with a peak parking value identified on a weekday at 2 P.M.

## Mediterranean Village - Parking Reduction Calculations

## 1. Land Use Inputs

Commercial and Hotel Uses 242,000 32,000 Restaurant (Family) 7,250 Restaurant (Fine/Casual) 21,750 Daycare Hotel Office 314,000 Gym 9,500 Residential Uses

Notes: GLA Phase 1 (3 screens, 290 seats) GLA GLA GLA

GFA

GFA

Townhouse DU 2 BR DU 3 BR 86 DU

# 2. Parking Ratio

Parking Ratio Coral Gables

Commercial and Hotel Uses		
Retail	4.00	per KSF
Cinema	3.33	per KSF
Restaurant (Family)	12.00	per KSF
Restaurant (Fine/Casual)	12.00	per KSF
Daycare	10.00	per KSF
Hotel	1.13	per room
Office	3.33	per KSF
Gym	3.33	per KSF
Residential Uses		
Townhouse	2.00	per DU
2 BR	1.75	per DU
3 BR	2.25	per DU

Coral Gables Notes: City Use (Section 5-1409)	ULI Notes:	Parking Ra	atio Separatio	n (ULI Based
		Visitor	Employee/	/Resident
Retail sales and services		3.22	0.78	per KSF
Indoor recreation/entertainment		3.17	0.17	per KSF
	Family Type ( ITE - High Turnover			
Restaurants	without Bar).	10.29	1.71	per KSF
	Fine (ITE - Quality 931) / Casual (	ITE -		
Restaurants	High Turnover with Bar 932) Type	10.17	1.83	per KSF
Daycare		8.57	1.43	per KSF
Overnight accommodations	Business Type	0.90	0.23	per room
Offices		0.25	3.09	per KSF
Indoor recreation/entertainment		3.14	0.19	per KSF
Townhouses	Owned	0.16	1.84	per DU
Multi-family dwellings	Owned	0.14	1.61	per DU
Multi-family dwellings	Owned	0.18	2.07	per DU

#### 3. Trip Reductions

Multimodal Trip Reductions

(Miami-Dade County Average from 2010-2012) 9.60% (Employee and Resident)

4.80% (Visitor)

# 4. Parking Calculations

Commercial and Hotel Uses				Commercial and Hotel Uses				Trip Reduction
	Visitor	Empl./Res.	Total		Visitor	Empl./Res.	Total	
Retail	780	189	969	Retail	743	171	914	Υ
Cinema	102	6	108	Cinema	98	6	104	Υ
Restaurant (Family)	75	13	88	Restaurant (Family)	72	12	84	Υ
Restaurant (Fine/Casual)	222	40	262	Restaurant (Fine/Casual)	212	37	249	Υ
Daycare	0	18	18	Daycare	0	17	17	Υ
Hotel	166	42	208	Hotel	159	38	197	Υ
Office	77	970	1047	Office	74	877	951	Υ
Gym	30	2	32	Gym	29	2	31	Υ
Residential Uses				Residential Uses				
Townhouse	3	28	31	Townhouse	3	28	31	N
2 BR	19	206	225	2 BR	19	187	206	Υ
3 BR	16	178	194	3 BR	16	161	177	Υ
SINGLE USE DEMAND				TRIP REDUCTION DEMAND				
	1,490	1,692	3,182		1,425	1,536	2,961	

	Retail	Cinema	Restaurant (Family)	Restaurant (Fine/Casual)	Daycare	Hotel	Office	Gym	Townhouse	2 BR	3 BR
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.005
Time of Day Trends											
ULI Weekday Visitor											
	Retail	Cinema	Restaurant (Family)	Restaurant (Fine/Casual)	Daycare	Hotel	Office	Gym	Townhouse	2 BR	3 BR
6am	1%	0%	25%	(Fine/Casual)	0%	95%	0%	70%	0%	0%	0%
7am	5%	0%	50%	0%	0%	90%	1%	40%	10%	10%	10%
8am	15%	0%	60%	0%	0%	80%	20%	40%	20%	20%	20%
9am	35%	0%	75%	0%	0%	70%	60%	70%	20%	20%	20%
10am	65%	0%	85%	15%	0%	60%	100%	70%	20%	20%	20%
11am	85%	0%	90%	40%	0%	60%	45%	80%	20%	20%	20%
12pm	95%	20%	100%	75%	0%	55%	15%	60%	20%	20%	20%
1pm	100%	45%	90%	75%	0%	55%	45%	70%	20%	20%	20%
2pm	95%	55%	50%	65%	0%	60%	100%	70%	20%	20%	20%
3pm	90%	55%	45%	40%	0%	60%	45%	70%	20%	20%	20%
4pm	90%	55%	45%	50%	0%	65%	15%	80%	20%	20%	20%
5pm	95%	60%	75%	75%	0%	70%	10%	90%	40%	40%	40%
6pm	95%	60%	80%	95%	0%	75%	5%	100%	60%	60%	60%
7pm	95%	80%	80%	100%	0%	75%	2%	90%	100%	100%	100%
8pm	80%	100%	80%	100%	0%	80%	1%	80%	100%	100%	100%
9pm	50%	100%			0%	85%	0%	70%	100%		100%
10pm	30%	80%	60% 55%	100% 95%	0%	95%	0%	35%	100%	100%	100%
11pm				75%	0%			10%	+		
12am	10% 0%	65% 40%	50% 25%	25%	0%	100%	0% 0%	0%	80% 50%	80% 50%	80% 50%
120111	U%	40%	25%	25%	0%	100%	U%	0%	50%	50%	50%
				Restaurant							
ULI Weekday Employee/Resident	Retail	Cinema	Restaurant (Family)	(Fine/Casual)	Daycare	Hotel	Office	Gym	Townhouse	2 BR	3 BR
6am	10%	0%	50%	0%	100%	5%	3%	75%	100%	100%	100%
7am	15%	0%	75%	20%	100%	30%	30%	75%	100%	100%	100%
8am	40%	0%	90%	50%	100%	90%	75%	75%	100%	100%	100%
9am	75%	0%	90%	75%	100%	90%	95%	75%	100%	100%	100%
	85%	0%	100%	90%	100%	100%	100%	75%	100%	100%	100%
10am	95%	0%	100%	90%	100%	100%	100%	75%	100%	100%	100%
10am 11am						100%	90%	75%	100%	100%	100%
		50%	100%	_	100%						
11am	100%	50% 60%	100%	90%	100%		90%	75%	100%	100%	100%
11am 12pm	100% 100%	60%	100%	90% 90%	100%	100%	90% 100%	75% 75%	100%	100%	100%
11am 12pm 1pm	100% 100% 100%	60% 60%	100% 100%	90% 90% 90%	100% 100%	100% 100%	100%	75%	100%	100%	100%
11am 12pm 1pm 2pm	100% 100%	60%	100%	90% 90%	100%	100%					
11am 12pm 1pm 2pm 3pm	100% 100% 100% 100%	60% 60% 75% 75%	100% 100% 75% 75%	90% 90% 90% 75% 75%	100% 100% 100%	100% 100% 100%	100% 100% 90%	75% 75% 75%	100% 100% 100%	100% 100% 100%	100% 100% 100%
11am 12pm 1pm 2pm 3pm 4pm	100% 100% 100% 100% 100%	60% 60% 75%	100% 100% 75%	90% 90% 90% 75%	100% 100% 100% 100%	100% 100% 100% 90%	100% 100%	75% 75%	100% 100%	100% 100%	100% 100% 100% 100%
11am 12pm 1pm 2pm 3pm 4pm 5pm	100% 100% 100% 100% 100% 95%	60% 60% 75% 75% 100%	100% 100% 75% 75% 95%	90% 90% 90% 75% 75% 100%	100% 100% 100% 100% 100% 100%	100% 100% 100% 90% 70%	100% 100% 90% 50% 25%	75% 75% 75% 100%	100% 100% 100% 100% 100%	100% 100% 100% 100% 100%	100%
11am 12pm 1pm 2pm 3pm 4pm 5pm 6pm	100% 100% 100% 100% 100% 100% 95%	60% 60% 75% 75% 100%	100% 100% 75% 75% 95%	90% 90% 90% 75% 75% 100%	100% 100% 100% 100% 100%	100% 100% 100% 90% 70% 40%	100% 100% 90% 50%	75% 75% 75% 100% 100%	100% 100% 100% 100%	100% 100% 100% 100%	100% 100% 100% 100% 100%
11am 12pm 1pm 2pm 3pm 4pm 5pm 6pm 7pm	100% 100% 100% 100% 100% 95% 95% 95% 95%	60% 60% 75% 75% 100% 100% 100%	100% 100% 75% 75% 95% 95% 95% 95%	90% 90% 90% 75% 75% 100% 100%	100% 100% 100% 100% 100% 100% 50% 0%	100% 100% 100% 90% 70% 40% 20%	100% 100% 90% 50% 25% 10% 7%	75% 75% 75% 100% 100% 75% 50%	100% 100% 100% 100% 100% 100% 100%	100% 100% 100% 100% 100% 100% 100%	100% 100% 100% 100% 100% 100%
11am 12pm 1pm 2pm 3pm 4pm 5pm 6pm 7pm 8pm	100% 100% 100% 100% 100% 95% 95% 95% 90% 75%	60% 60% 75% 75% 100% 100% 100% 100%	100% 100% 75% 75% 95% 95% 95% 95% 95%	90% 90% 90% 75% 75% 100% 100% 100%	100% 100% 100% 100% 100% 100% 50% 0%	100% 100% 100% 90% 70% 40% 20% 20%	100% 100% 90% 50% 25% 10% 7% 3%	75% 75% 75% 100% 100% 50% 20%	100% 100% 100% 100% 100% 100% 100% 100%	100% 100% 100% 100% 100% 100% 100%	100% 100% 100% 100% 100% 100% 100%
11am 12pm 1pm 2pm 3pm 4pm 5pm 6pm 7pm 8pm 9pm	100% 100% 100% 100% 100% 95% 95% 95% 95%	60% 60% 75% 75% 100% 100% 100%	100% 100% 75% 75% 95% 95% 95% 95%	90% 90% 90% 75% 75% 100% 100%	100% 100% 100% 100% 100% 100% 50% 0%	100% 100% 100% 90% 70% 40% 20%	100% 100% 90% 50% 25% 10% 7%	75% 75% 75% 100% 100% 75% 50%	100% 100% 100% 100% 100% 100% 100%	100% 100% 100% 100% 100% 100% 100%	100% 100% 100% 100% 100% 100%

#### 7. Shared Parking Calculations

#### Weekday Visitor

Restaurant Retail Cinema Restaurant (Family) Daycare Hotel Office Gym Townhouse 2 BR 3 BR TOTAL 7am 8am 9am 10am 11am 12pm 1pm 2pm 3pm 4pm 5pm 6pm 7pm 8pm 9pm 10pm 11pm 12am 

#### Weekday Employee/Resident

6am

7am

8am

9am

10am

11am

12pm

1pm

2pm

3pm

4pm

6pm

7pm

8pm

9pm

10pm

11pm

12am

7am 8am 9am 11am 12pm 1pm 2pm 3pm 4pm 5pm 6pm 7pm 8pm 9pm 10pm 11pm 12am

Restaurant Retail Cinema Restaurant (Family) Daycare Office Gym Townhouse 2 BR 3 BR TOTAL (Fine/Casual) 

Weekday Combined

1	1		Restaurant				1			1	
Retail	Cinema	Restaurant (Family)	(Fine/Casual)	Daycare	Hotel	Office	Gym	Townhouse	2 BR	3 BR	TOTAL
27	0	25	0	18	160	29	23	28	206	178	693
67	0	47	8	18	162	292	14	28	208	180	1024
193	0	57	20	18	171	743	14	29	210	181	1634
415	0	68	30	18	154	968	23	29	210	181	2095
668	0	77	69	18	142	1047	23	29	210	181	2462
843	0	81	125	18	142	1005	26	29	210	181	2657
930	23	88	203	18	133	885	20	29	210	181	2719
969	50	81	203	18	133	908	23	29	210	181	2803
930	60	51	180	18	142	1047	23	29	210	181	2869
891	61	44	119	18	142	1005	23	29	210	181	2720
891	61	44	141	18	146	885	26	29	210	181	2629
921	67	69	207	18	146	493	29	29	214	184	2375
921	67	72	251	18	141	246	32	30	217	188	2183
921	88	72	262	9	133	99	29	31	225	194	2061
794	108	72	262	0	141	69	25	31	225	194	1921
532	108	55	262	0	150	29	21	31	225	194	1607
310	88	50	251	0	166	10	11	31	225	194	1335
106	71	46	201	0	170	0	3	30	221	191	1039
0	44	23	70	0	168	0	0	30	216	186	736

# 8. Peak Parking Demand

Commercial and Hotel Uses				Commercial and Hotel Uses				Trip Reduction
	Visitor	Empl./Res.	Total		Visitor	Empl./Res.	Total	
Retail	741	189	930	Retail	705	171	876	Y
Cinema	56	4	60	Cinema	53	3	57	Υ
Restaurant (Family)	38	13	51	Restaurant (Family)	36	12	47	Υ
Restaurant (Fine/Casual)	144	36	180	Restaurant (Fine/Casual)	137	33	170	Υ
Daycare	0	18	18	Daycare	0	16	16	Υ
Hotel	100	42	142	Hotel	95	38	133	Υ
Office	77	970	1047	Office	73	877	950	Υ
Gym	21	2	23	Gym	20	1	21	Υ
Residential Uses				Residential Uses				
Townhouse	1	28	29	Townhouse	1	28	29	N
2 BR	4	206	210		2 BR 4	186	190	Υ
3 BR	3	178	181		3 BR 3	161	164	Υ

SHARED PEAK PARKING DEMAND				SHARED PEAK PARKING DEMAND			
				W/ TRIP REDUCTIONS			
	Visitor	Empl./Res.	Total		Visitor	Empl./Res.	Total
-	1,184	1,685	2,869	-	1,127	1,526	2,653
			10%				17%
			reduction				reduction

City of Coral Gables	Visitor	Empl./Res.	Total
Single Use Demand	1,490	1,692	3,182