Carl Walker

March 12, 2014

Mr. Craig Cunningham
Shadow Rock Church
75580 Ramon Road
Thousand Palms, California 92276

Re: Valley Plaza Shared Parking Study

Dear Mr. Cunningham,

In January 2014, ***Carl Walker, Inc.*** (***Carl Walker***) was commissioned by Shadow Rock Church to conduct a shared parking study for the Valley Plaza development in La Quinta, CA. The shared parking study is intended to determine if sufficient parking is available to support the additional parking demand of the Shadow Rock Church.

The designated scope of services for this project is summarized below:

1. Review existing conditions including the current parking supply, parking demands, and property characteristics.
2. Review current land uses and associated parking characteristics for the property using parking requirements from the City of La Quinta and various industry standards.
3. Develop a parking demand model estimating property demands. Compare city and Urban Land Institute (ULI) parking demand projections to actual utilization data.
4. Review potential demand reduction opportunities including alternative modes of transportation, captive market, code reductions, shared parking opportunities, etc.
5. Determine estimated typical peak parking demands for the property. Compare the current parking supply for the property to estimated parking demands.
6. Provide a brief letter report that summarizes the results of the parking demand analysis.

This report represents the first draft deliverable for this project.

Summary of Development Information and Standard City Requirement

Valley Plaza currently includes approximately 63,267 square feet of commercial space. This includes:

- 8,714 s.f. of salon space
- 9,056 s.f. of retail space
- 8,542 s.f. of restaurant space
- 8,400 s.f. of beauty college space
- 1,795 s.f. of dry cleaner space
- 8,273 s.f. of medical office space
- 18,487 s.f. of vacant space (includes the 6,720 s.f. that will be used by Shadow Rock Church)

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Based on the site plan provided by Duane Valencia (Shadow Rock Church's project architect), the development includes 258 surface parking spaces. The total available parking supply equates to approximately 4.08 spaces per 1,000 square feet of building space.

Applying standard City of La Quinta parking-related zoning codes to the Valley Plaza land uses previously listed would result in the following requirement (sum of all land uses, no shared parking adjustments):

• Salon (37 stations, 3 spaces per station):	111 spaces
• Retail (9,056 s.f., 1 space per 200 s.f.):	46 spaces
• Restaurant (8,542 s.f., 1 space per 200 s.f.)[1]:	43 spaces
• Beauty College (1 class, 20 spaces per room):	20 spaces
• Dry Cleaner (1,795 s.f., 1 space per 200 s.f.):	9 spaces
• Medical Office (8,273 s.f., 1 space per 200 s.f. for first 2,000 s.f., then 1 per 175 s.f.):	46 spaces
• Church (240 seats, 1 space per 3 seats) [2]:	80 spaces
• Vacant Space (11,767 s.f., 1 space per 200 s.f.) [3]:	59 spaces
TOTAL STANDARD CITY REQUIREMENT:	414 spaces

1 – Per city code, restaurants in shopping centers that are not in excess of 20% of the total shopping center GFA do not have to be counted separately using restaurant ratios.

2 – Other church uses such as the children's church, nursery, preschool, etc. will not generate additional parking demand beyond those estimated for Sunday church services.

3 – Parking demands for vacant spaces are estimated using the retail demand ratio.

Estimated Shared Parking Demand for the Proposed Development

A shared parking model is typically used to more accurately estimate parking demands for a mixed-use development. Shared parking is defined as parking that can serve more than one single land use, without conflict. Shared parking is generally applied to mixed-use and downtown developments composed of several different land uses (e.g., retail, restaurant, office, and/or hotels) that are significantly integrated. Using the shared parking model reduces the amount of parking needed for a mixed-use development as the effect of sharing parking requires fewer spaces than the sum of the parking needed for the individual land uses. This analysis calculates the parking needed based on the projected land uses in the development, and estimates a hypothetical parking accumulation throughout a typical weekday and weekend day (6:00 a.m. through 12:00 a.m.).

Captive markets can also significantly reduce parking demand for a mixed-use development. Captive Market, also known as "market synergy," refers to a reduction in parking due to the proximity of land uses that allow individuals to walk between destinations in a single trip. For instance, development employees or college students that are already present on-site will patronize the site's restaurants and other services. For this study, a captive market estimate of 10% is used for retail commercial customer parking and 5% is used for the salon.

The use of alternative modes of transportation such as carpooling, public transportation, walking, bicycling, etc. should also be considered in a shared parking analysis. The main goal of a shared parking study is to provide sufficient parking to support the development while minimizing the area and resources dedicated to parking.

In order to determine the estimated percentage of development employees that will drive to the site and park, ***Carl Walker*** reviewed available census data concerning mode choice (2008-2012 American Community Survey 5-Year Estimates). According to the latest census estimates, approximately 96% of people traveling to work drove alone or carpooled. Assuming 50% of carpoolers were passengers and did not drive, ***Carl Walker*** has estimated employee drive ratios at 90% for this development. Data isn't available for potential customer mode choices. In previous shared parking analyses for this property, it was assumed that 95% of customers would choose to drive to the development. That assumption is continued in this report.

Base Shared Parking Estimate

The following table (Table 1) illustrates the base parking demand per ULI and City of La Quinta demand ratios. The base estimate is calculated using weekday demand ratios as the anticipated land uses result in higher weekday parking demands. The estimated base parking demand for the development, existing and proposed land uses, is 362 parking spaces (52 spaces less than standard city requirements – see page 2). This result reflects the sum of the individual land uses using the ratios noted in the table. Therefore, adjustments for captive market effects, drive ratios, and shared parking will need to be included to better reflect realistic conditions.

Vacant building spaces are included in the retail land use category.

Table 1.
Base Parking Requirements

Land Use	Quantity	Parking Demand Ratios [1]	Required Parking
Retail Commercial [2]	31,160 sq. ft.	3.60 spaces per 1,000 sq. ft.	113
Salon	8,714 sq. ft.	3.00 spaces per Station	111
Beauty College	8,400 sq. ft.	20.00 spaces per classroom	20
Church	6,720 sq. ft.	1.00 space per 3 seats	80
Medical Office	8,273 sq. ft.	4.50 spaces per 1,000 sq. ft.	38
		Total:	362

(1) Ratios for salon, beauty college, and church land uses are from the City of La Quinta zoning code. Assumes 37 stations in the salon, 1 classroom in the beauty college, and 240 seats in church. Retail commercial and medical office ratios are from Urban Land Institute's Shared Parking (2nd Edition).

(2) Per City of La Quinta zoning code (9.150.060) and Urban Land Institute guidance in Shared Parking (2nd Ed.), retail and restaurant uses are combined into the Retail Commercial category due to the integrated nature of Valley Plaza.

Captive Market and Modal Split Adjustments

Table 2 separates the base parking estimate for the individual land uses into customer/guest and employee components based on parking demand ratios presented in ULI's *Shared Parking*. The table also includes the estimated captive market and drive (modal split) adjustments that can reduce overall parking demands.

Table 2.
Revised Parking with Captive Market and Modal Split Adjustments

Land Use	Customer/ Guest Parking	Modal Split Factor	Non-Captive Market Factor	Revised Customer/ Guest Parking	Employee Parking	Modal Split Factor	Revised Revised Employee Parking	Total Revised Parking
Retail Commercial	91	0.95	0.90	78	22	0.90	20	98
Salon	89	0.95	0.95	81	22	0.90	20	101
Beauty College [1]	NA				20	0.90	18	18
Church [2]	80	0.95	1.00	76	NA			76
Medical Office	25	0.95	1.00	25	13	0.90	12	37
Total:	286			260	76		70	330

(1) The full estimated demand for the beauty college is included in the employee section.
(2) The full estimated demand for the church is included in the customer/guest parking section.

The total revised parking demand estimate is 330 parking spaces, not including any additional adjustments for shared parking (time of day and seasonal parking demand adjustments). As previously described, it is estimated that 5% of the customers/guests and 10% of employees will arrive by an alternative mode of transportation such as bicycling, walking, mass transit, or carpooling (modal split factors of 0.95 and 0.90, respectively). Additionally, it is estimated that 10% of retail commercial customers/guests and 5% of salon customers/guests will come from another land-use within the development and will not generate additional parking demand (depending on the land use).

Hourly and Monthly Variations in Parking Demand – Final Shared Parking Estimate

Table 3 illustrates hourly variations in parking accumulation as a percent of the peak accumulation for the land uses included in the development during the weekdays. Based on the land uses in the development, and the fact that the beauty college, salons, and medical offices are closed on Sundays, it appears that weekdays will have the highest overall parking demand.

The percentages for retail, restaurant, and medical center land uses are taken directly from *Shared Parking – 2nd Edition* and based on data collected from hundreds of mixed-use development projects throughout the country. The accumulations for salon land uses are the same as retail. Beauty college and church accumulation percentages are based on available data and information provided by Shadow Rock Church.

Table 3.
Hourly Variations in Parking Demand - Weekdays

	Retail Commercial		Salon		Beauty College	Church	Medical Office	
Hour	Cust.	Emp.	Cust.	Emp.	Total	Total	Cust.	Emp.
6:00 AM	1%	10%	1%	10%	0%	0%	0%	0%
7:00 AM	5%	15%	5%	15%	0%	0%	0%	0%
8:00 AM	15%	40%	15%	40%	100%	0%	90%	60%
9:00 AM	35%	75%	35%	75%	100%	6%	90%	100%
10:00 AM	65%	85%	65%	85%	100%	6%	100%	100%
11:00 AM	85%	95%	85%	95%	100%	6%	100%	100%
12:00 PM	95%	100%	95%	100%	100%	6%	30%	100%
1:00 PM	100%	100%	100%	100%	100%	6%	90%	100%
2:00 PM	95%	100%	95%	100%	100%	6%	100%	100%
3:00 PM	90%	100%	90%	100%	100%	6%	100%	100%
4:00 PM	90%	100%	90%	100%	100%	6%	90%	100%
5:00 PM	95%	95%	95%	95%	100%	6%	80%	100%
6:00 PM	95%	95%	95%	95%	50%	26%	67%	67%
7:00 PM	95%	95%	95%	95%	0%	26%	30%	30%
8:00 PM	80%	90%	80%	90%	0%	26%	15%	15%
9:00 PM	50%	75%	50%	75%	0%	12%	0%	0%
10:00 PM	30%	40%	30%	40%	0%	0%	0%	0%
11:00 PM	10%	15%	10%	15%	0%	0%	0%	0%
12:00 AM	0%	0%	0%	0%	0%	0%	0%	0%

Table 4 (next page) applies the hourly accumulation adjustments shown in Table 3 to the revised parking demands calculated in Table 2. The peak parking demand of 257 is projected to occur during weekdays at 1:00 p.m.

Table 4.
Parking Demand by User Group and Hour - Weekdays

Hour	Retail Commercial		Salon		Beauty College	Church	Medical Office		
	Cust.	Emp.	Cust.	Emp.	Total	Total	Cust.	Emp.	Total
6:00 AM	1	2	1	2	0	0	0	0	6
7:00 AM	4	3	5	3	0	0	0	0	15
8:00 AM	12	8	13	8	18	0	23	8	90
9:00 AM	28	15	29	15	18	5	23	12	145
10:00 AM	51	17	53	17	18	5	25	12	198
11:00 AM	67	19	69	19	18	5	25	12	234
12:00 PM	75	20	77	20	18	5	8	12	235
1:00 PM	**78**	**20**	**81**	**20**	**18**	**5**	**23**	**12**	**257**
2:00 PM	75	20	77	20	18	5	25	12	252
3:00 PM	71	20	73	20	18	5	25	12	244
4:00 PM	71	20	73	20	18	5	23	12	242
5:00 PM	75	19	77	19	18	5	20	12	245
6:00 PM	75	19	77	19	9	20	17	9	245
7:00 PM	75	19	77	19	0	20	8	4	222
8:00 PM	63	18	65	18	0	20	4	2	190
9:00 PM	39	15	41	15	0	10	0	0	120
10:00 PM	24	8	25	8	0	0	0	0	65
11:00 PM	8	3	9	3	0	0	0	0	23
12:00 AM	0	0	0	0	0	0	0	0	0

Peak Hour

The final adjustment is for monthly variations in parking demand. Table 5 illustrates monthly variations in parking accumulation as a percent of the peak accumulation for the land uses included in the development. The seasonal adjustments for retail, restaurant, and medical center land uses are from *Shared Parking – 2nd Edition*. The adjustments for salon land uses are the same as retail. Beauty college and church adjustments are estimated by ***Carl Walker***.

Table 5.
Monthly Variations in Parking Demand - Weekdays

Month	Retail Commercial		Salon		Beauty College	Church	Medical Office	
	Cust.	Emp.	Cust.	Emp.	Total	Total	Cust.	Emp.
January	56%	80%	56%	80%	100%	100%	100%	100%
February	57%	80%	57%	80%	100%	100%	100%	100%
March	64%	80%	64%	80%	100%	100%	100%	100%
April	63%	80%	63%	80%	100%	100%	100%	100%
May	66%	80%	66%	80%	100%	100%	100%	100%
June	67%	80%	67%	80%	100%	100%	100%	100%
July	64%	80%	64%	80%	100%	100%	95%	95%
August	69%	80%	69%	80%	100%	100%	95%	95%
September	64%	80%	64%	80%	100%	100%	100%	100%
October	66%	80%	66%	80%	100%	100%	100%	100%
November	72%	90%	72%	90%	100%	100%	100%	100%
December	100%	100%	100%	100%	100%	100%	100%	100%

Using the hourly peak accumulation of vehicles per land use as highlighted in Table 4 (6:00 p.m.), Table 6 (next page) applies the monthly variation percentages shown in Table 5.

Table 6.
Parking Demand by User Group and Month - Weekdays at 1:00 PM

Month	Retail Commercial		Salon		Beauty College	Church	Medical Office		
	Cust.	Emp.	Cust.	Emp.	Total	Total	Cust.	Emp.	Total
January	44	16	46	16	18	5	23	12	180
February	45	16	47	16	18	5	23	12	182
March	50	16	52	16	18	5	23	12	192
April	50	16	52	16	18	5	23	12	192
May	52	16	54	16	18	5	23	12	196
June	53	16	55	16	18	5	23	12	198
July	50	16	52	16	18	5	22	12	191
August	54	16	56	16	18	5	22	12	199
September	50	16	52	16	18	5	23	12	192
October	52	16	54	16	18	5	23	12	196
November	57	18	59	18	18	5	23	12	210
December	**78**	**20**	**81**	**20**	**18**	**5**	**23**	**12**	**257**

Peak Month

Summary	
Base Parking Requirement	**362**
Shared Parking Calculation	**257**
Reduction in Parking	**105**
Percent Reduction	**-29%**

The development has an estimated peak parking demand of 257 parking spaces at 1:00 p.m. in December. The final estimated shared parking demand represents a reduction of 29% from the base demand estimate of 362 spaces. During other months of the year, projected demands range from 180 to 210 spaces. The projected demands for the development are likely to be significantly below the current development parking supply during the majority of the year.

The calculated shared parking demand for the development may be a conservative projection of future demands. As part of this project, parking occupancy data was collected by Shadow Rock Church on one Sunday, Tuesday, and Thursday. The following table illustrates the parking occupancies observed by Shadow Rock Church.

Table 7.
Parking Occupancy Survey Results (# of spaces occupied)

	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM
Sunday (1/19/14)	14	18	27	30	25	23	23
Tuesday (1/21/14)	NA	91	90	81	88	95	85
Thursday (1/23/14)	NA	98	111	96	85	79	83

The observed peak occupancy was 111 spaces at 11:00 a.m. on Thursday, January 23. Approximately 43% of the total supply was occupied (147 spaces were unused and available). Applying city parking requirements to currently occupied land uses would result in a requirement of approximately 193 spaces – far more spaces than are currently used. Even adjusting for shared parking, the projection would be higher than actual conditions. Adding potential weekday church parking demands would only increase observed demand by 5 to 20 spaces.

Summary of Findings

Based on our review of development land uses and observed parking occupancies, ***Carl Walker*** believes sufficient parking is available to support existing land uses, vacant land uses (assuming they are used for retail), and Shadow Rock Church. The development has a current supply of 258 spaces (not including nearby on-street parking – which could provide 25 to 27 additional spaces if needed). With an estimated shared demand of 257 spaces during the peak month (assuming 100% occupancy of building spaces), a sufficient parking supply appears to exist. In addition, existing demands appear to be significantly lower than city requirements and ULI estimates. Any future changes in the land uses associated with the proposed development could positively or negatively impact the parking demand estimates contained in this report.

In addition to the vehicle parking needs detailed in this report, Shadow Rock Church is also required to provide a minimum of five bicycle parking spaces per city code. The bicycle racks should be placed in locations that provide shade and are outside of pedestrian flows. The racks should provide a means of allowing bicyclist to securely lock their bicycles.