



Ahead of the Curve  
in creative parking solutions

SDD SUBMITTAL – PARKING STUDY

**CENTENE CLAYTON  
CAMPUS**  
CLAYTON, MO

Prepared for:  
CUSHMAN & WAKEFIELD  
on behalf of:  
Centene Corporation

JUNE 27, 2016



**WALKER**  
PARKING CONSULTANTS

PROJECT NO. 31-7956.00

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### EXECUTIVE SUMMARY

The following bullet points outline the key findings of the parking study for the proposed development of four tracts for Centene Corporation in downtown Clayton.

- Based on Walker's understanding of the minimum parking requirements within the municipal code, the on-site parking adequacy is as follows:
  - Phase 1 (Tracts 1 - 2): +418 spaces;
  - Phase 2 (Tracts 1 - 3): -160 spaces; and
  - Phase 3 (Tracts 1 - 4): +438 spaces.
- Using shared parking methodology, the on-site parking adequacy is as follows:
  - Phase 1 (Tracts 1 - 2): +910 spaces;
  - Phase 2 (Tracts 1 - 3): +612 spaces; and
  - Phase 3 (Tracts 1 - 4): +1,141 spaces.
- The adequacy presented within the shared parking methodology considers full use/sharing of the available supply, which may be impaired if spaces are restricted for use by specific user groups or users. It is our understanding that visitors and high level employees would be provided parking on-site for each tract as a priority. These user groups would be at their individual activity peak at the same time as the overall peak, so any impact would be negligible.
- Further parking demand management solutions may aid in reducing parking demand (and traffic generated by the development), but this would be more appropriately discussed within Sub-district Development Plans.
- A study of the existing parking conditions in the immediate area is underway and will contribute additional insight into area surpluses and shortfalls, and how this development will impact the balance of parking supply and demand.

# INTRODUCTION



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### INTRODUCTION

The following section is intended to provide context for the parking study, and include background and purpose of the study, location of project sites, and some characteristics of the study area.

### STUDY BACKGROUND & PURPOSE

Centene Corporation (“Centene”) is headquartered in Clayton, Missouri. Over the past several years Centene has experienced significant growth - #4 in Fortune Magazine’s Fastest Growing Companies (2015). As such they have expanded into nearby buildings within Clayton. Still further growth is anticipated.

Centene is currently in the process of preparing development plans for several blocks of downtown Clayton, which is being managed by Cushman & Wakefield. As part of that process a Special Development District (“SDD”) submittal must be prepared for the City of Clayton (“City”), which will provide concept level plans and studies for the proposed development.

From a parking standpoint, the SDD submittal requires an analysis of the municipal code minimum parking requirements, a shared parking study for the mixed uses in the various tracts, and documentation of the existing parking market conditions nearby to relate possible impact of the project on the public.

Walker Parking Consultants (“Walker”) has been engaged by Cushman & Wakefield to prepare the following report in response to the requirements outlined within the SDD Application.

### PROJECT SITES & STUDY AREA

The project sites include four (4) tracts within downtown Clayton, MO. The location of these tracts is described below, and depicted within Figure 1.

- Tract 1: East side of Hanley Road between Forsyth Boulevard and Carondelet Plaza
- Tract 2: South side of Forsyth Boulevard between Lyle Avenue and Carondelet Plaza
- Tract 3: South side of Forsyth Boulevard between Carondelet Plaza and Forest Park Parkway
- Tract 4: North side of Carondelet Avenue between Bemiston Avenue and Hanley Road

Also shown in Figure 1, the study area is bounded by:

- S. Central Avenue to the west;
- Forest Park Parkway to the south and east; and
- Maryland Avenue to the north.

The study area falls wholly within downtown Clayton, which is comprised of several high-rise office towers, along with amenity land uses such as restaurants and retail. There is limited residential stock overall in the Clayton CBD, but much of this is nearby the project sites. There

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are also a few high-end hotels within the study area. Clayton City Hall is also within the study area.

Figure 1: Project Sites and Study Area Map

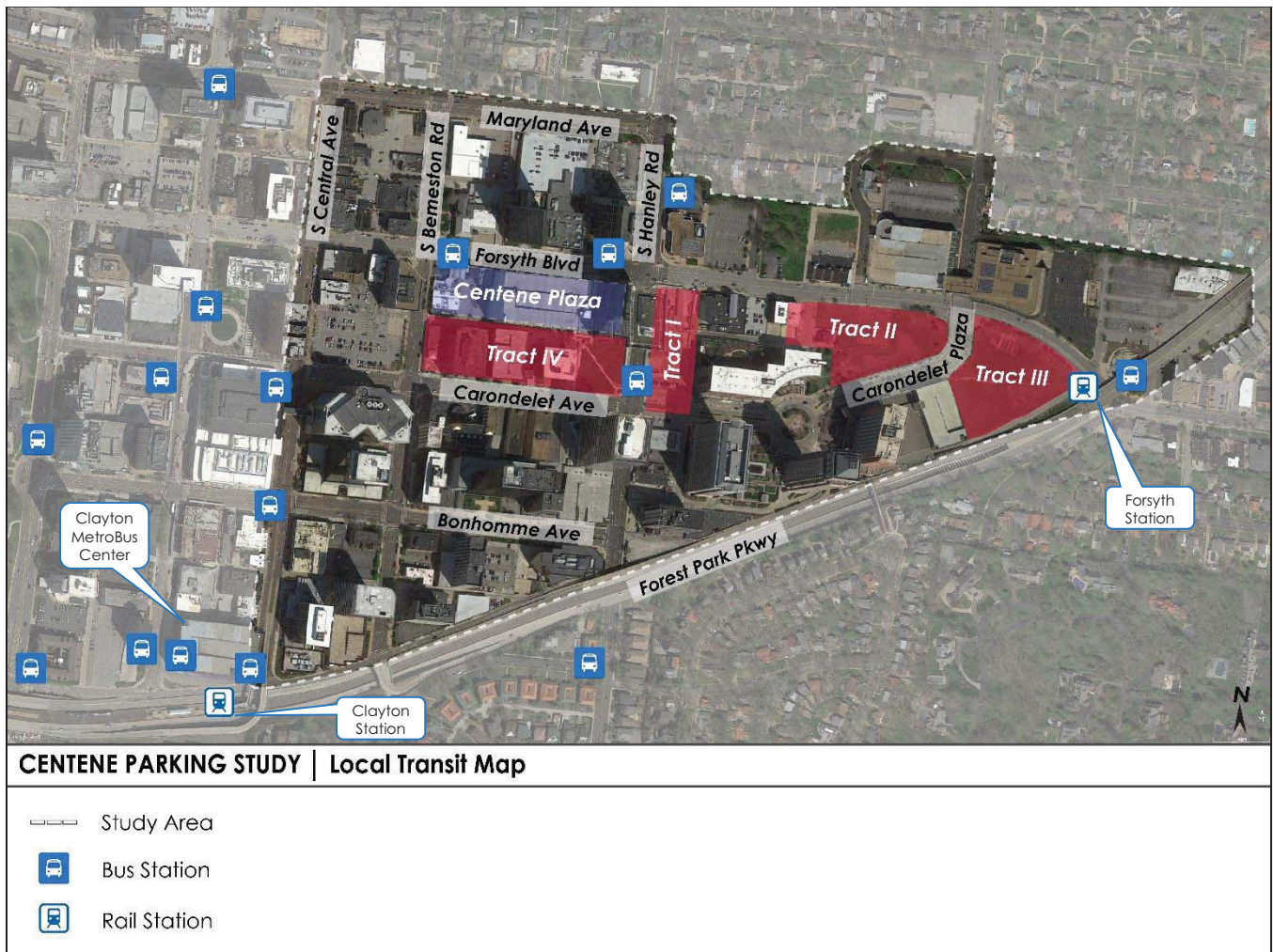


Source: Google Earth, 2016

Downtown Clayton, specifically the study area, is well-served by public transportation through several bus routes, a city bus hub (Clayton MetroBus Center), and two rail stations (Clayton Station & Forsyth Station). The location of various public transportation stops and stations is provided in Figure 2.



Figure 2: Downtown Clayton Public Transportation



Source: Google Earth, 2016

To help gauge use of various means of transportation for employees in downtown Clayton we mined data from the 2006 – 2010 5-Year American Community Survey (“ACS”) data set found on the American Association of State Highway and Transportation Officials (“AASHTO”) Census Transportation Planning Products website. The data set for those working in downtown who live within a 25-mile radius is found in Table 1.

Although downtown Clayton is well served by public transportation, we found a surprisingly low percentage of those who work in downtown Clayton make use of these offerings (roughly 3% of commuters). Over 88% of those who work in downtown Clayton and live within a 25-mile radius drive a single-occupant vehicle to work. An additional 6% arrive via a carpool.



**Table 1: Means of Transportation to Work – Downtown Clayton (from 25-mile radius)**

Total, means of transportation:	Responses	% of Responses
Car, truck, or van -- Drove alone	22,521	88.3%
Car, truck, or van -- In a 2-person carpool	1,043	4.1%
Car, truck, or van -- In a 3-person carpool	221	0.9%
Car, truck, or van -- In a 4-person carpool	174	0.7%
Car, truck, or van -- In a 5-or-6-person carpool	0	0.0%
Car, truck, or van -- In a 7-or-more-person carpool	15	0.1%
Bus or trolley bus	512	2.0%
Streetcar or trolley car	4	0.0%
Subway or elevated	177	0.7%
Railroad	25	0.1%
Ferryboat	0	0.0%
Bicycle	110	0.4%
Walked	279	1.1%
Taxicab	0	0.0%
Motorcycle	15	0.1%
Other method	44	0.2%
Worked at home	330	1.3%
<b>Total Responses</b>	<b>25,498</b>	<b>100.0%</b>

Source: 5-Year American Community Survey, 2006 - 2010

Though there is low usage of public transportation and other alternative means for those arriving to Clayton, the downtown is extremely conducive to trips and errands on-foot. Those who work in downtown and/or who live in the residential units downtown are benefited by the pedestrian-friendly environment and number and type of services offered there. Once parked for the day commuters (and residents) may easily walk to the bank, post office, parks, restaurants, service retail, fitness centers, etc. The current location of the Centene headquarter building has a walk score of 90 (out of 100), which means daily errands do not require a car and the location is considered pedestrian friendly.

EXISTING CONDITIONS



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### **EXISTING CONDITIONS**

The following section is intended to provide background information related to parking within the study area. Based on the timing of this submittal, existing conditions will be presented within an amended parking study.

Walker will perform a parking inventory of all parking supply within the study area. For all publicly available parking supply, parking occupancy counts will be performed on a typical weekday at 9:00 AM, 12:00 PM, 2:00 PM, and 5:00 PM. These data points will feed a utilization assessment of the publicly available supply within the study area. Walker can then provide an opinion regarding the impact of the project on the public parking equation within the study area.

PROPOSED DEVELOPMENT



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**PROPOSED DEVELOPMENT**

The following section provides the proposed development program of land use type and quantity as well as parking counts. These data will be used within the city code requirement and the shared parking analysis sections to calculate city-required parking supply and peak parking demand, respectively.

**PROGRAM DATA**

The programming of the proposed development is largely a corporate campus, spread between a few buildings in a downtown setting. The intent of the proposed development is to help consolidate Centene offices in Clayton and provide for future Centene growth. The program also adds Class A office stock in downtown for other potential tenants. Aside from office, there is planned restaurant and retail to serve office employees and the downtown community. The program also includes a corporate training center, corporate auditorium (both of which may be used as event space during non-business hours), a corporate lodging facility (short-term stay), and corporate housing (long-term stay).

Table 2: Program Data

<b>Land Use - Developer Defined</b>	<b>Quantity</b>
<b>Phase 1: Tract 1</b>	
Multi-tenant Office	262,500 GSF
Single Tenant Office	262,500 GSF
Single Tenant Training Space	420 Seats
Retail ( - LG Carondelet)	6,800 GSF
Restaurant (Grab 'n' Go - L1 Forsyth)	2,880 GSF
Cafeteria	31,155 GSF
<b>Phase 1: Tract 2</b>	
Retail	10,000 GSF
Restaurant	10,000 GSF
Residential	90 Units
<b>Phase 2: Tract 3</b>	
Corporate Lodging Facility	120 Rooms
Restaurant	7,000 GSF
Multi-tenant Office	211,520 GSF
Single Tenant Office	185,080 GSF
Corporate Multipurpose Training Facility	650 Seats
Corporate Auditorium	1,000 Seats
Corporate Amenity Space (Cafeteria/Fitness Ctr)	26,440 GSF
Lobby Bar	4,000 GSF
<b>Phase 3: Tract 4</b>	
Multi-tenant Office	119,600 GSF
Single Tenant Office	310,960 GSF
Retail	11,425 GSF
Restaurant	11,425 GSF

Source: HOK, 2016

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### PARKING SUPPLY

The parking supply intended to serve the proposed development consists structured parking on-site each site. The parking supply for all four tracts will be shared between them as necessary to meet overall demand. For each tract priority for on-site parking will be given to visitors and high level employees. The breakdown by type and phase is found in Table 3 and Figure 3.

Table 3: Proposed Parking Supply Detail

Proposed Parking Supply	Quantity
Phase 1: Tract 1	698 Spaces
Phase 1: Tract 2	1,937 Spaces
Phase 2: Tract 3	917 Spaces
Phase 3: Tract 4	1,750 Spaces

Source: HOK, 2016.

Figure 3: Proposed Parking Supply



Source: Google Earth, HOK, 2016.

For latest proposed parking quantity refer to HOK Special Development District Submittal drawing G004.

# CITY CODE REQUIREMENTS



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**CITY CODE REQUIREMENTS**

The following section presents Walker's understanding of the minimum parking requirements outlined within the City of Clayton municipal code.

The City evaluates whether a development is meeting minimum parking requirements based on Section 405.3620 of the Zoning Regulations (Chapter 405) for the City of Clayton. The section is titled "Off-Street Parking Requirements". The schedule of minimum required number of spaces is found in section A.

In general, parking requirements developed by cities consider each land use as stand-alone entities, without consideration for the possibility of sharing parking between land uses on-site or between surrounding land uses. The City of Clayton does account for nuances within downtown by providing exemptions from the minimum parking requirements under specific scenarios. We applied the minimum parking requirement ratios to the proposed program data based on our understanding of the code sections detailed below. The resulting total parking requirement is shown in Table 4.

**Table 4: City-Based Required Ratios & Spaces**

Land Use - Developer Defined	Land Use - Zoning Ordinance Defined	Metric	Code Section	Minimum Requirement	Required Spaces
<b>Phase 1: Tract 1</b>					
Multi-tenant Office	Office	262,500 GSF	405.3620-A.13.a	1 space per 400 GSF	875
Single Tenant Office	Office	262,500 GSF	405.3620-A.13.a	1 space per 400 GSF	875
Single Tenant Training Space	Auditorium	420 Seats	405.3620-A.8	1 space per 5 seats	84
Retail (Bank - LG Carondelet)	Commercial / business	6,800 GSF	405.3620-A.13.a	1 space per 300 GSF	23
Restaurant (Grab 'n' Go - L1 Forsyth)	Restaurant	2,880 GSF	405.3620-A.14.c.(2)	EXEMPT	0
Cafeteria	Office Building Cafeteria	31,155 GSF	405.3620-A.14.c.(2)	EXEMPT	0
<b>Total</b>					<b>1,857</b>
<b>Phase 1: Tract 2</b>					
Retail	Commercial / business	10,000 GSF	405.3620-A.14.a	1 space per 300 GSF	33
Restaurant	Restaurant	10,000 GSF	405.3620-A.14.c.(3)	SEE FOOTNOTE	147
Residential	Dwellings - Multiple	90 Units	405.3620-A.1	2 spaces per Unit	180
<b>Total</b>					<b>360</b>
<b>Phase 2: Tract 3</b>					
Corporate Lodging Facility	Hotel	120 Rooms	405.3620-A.11	3/4 space per room	90
Restaurant	Restaurant	7,000 GSF	405.3620-14.c.(4)	SEE FOOTNOTE	68
Multi-tenant Office	Office	211,520 GSF	405.3620-A.13.a	1 space per 400 GSF	529
Single Tenant Office	Office	185,080 GSF	405.3620-A.13.a	1 space per 400 GSF	463
Corporate Multipurpose	Auditorium	650 Seats	405.3620-A.8	1 space per 5 seats	130
Corporate Auditorium	Auditorium	1,000 Seats	405.3620-A.8	1 space per 5 seats	200
Corporate Amenity Space (Cafeteria/Fitness Ctr)	Office Bldg Cafeteria / Not Defined	26,440 GSF	405.3620-A.14.c.(2)	EXEMPT	0
Lobby Bar	Restaurant	4,000 GSF	405.3620-A.14.c.(4)	SEE FOOTNOTE	15
<b>Total</b>					<b>1,495</b>
<b>Phase 3: Tract 4</b>					
Multi-tenant Office	Office	119,600 GSF	405.3620-A.13.a	1 space per 400 GSF	299
Single Tenant Office	Office	310,960 GSF	405.3620-A.13.a	1 space per 400 GSF	777
Retail	Commercial / Business	11,425 GSF	405.3620-A.13.a	1 space per 300 GSF	38
Restaurant	Restaurant	11,425 GSF	405.3620-A.14.c.(3)	EXEMPT	38
<b>Total</b>					<b>1,152</b>

The calculation for the restaurant requirement is performed as follows:

$$((\text{Total Space} - \text{Permanent Storage} - 3,000 \text{ GSF Exempted Space}) / (\text{Total Space} - \text{Permanent Storage})) \times (\text{Number of Seats}) \times (0.6 \text{ Spaces per Seat}) = \text{Required Parking}$$

Source: HOK, City of Clayton, Walker Parking Consultants, 2016

- Phase 1 Requirement: Tract 1 & 2 = 2,217 spaces
- Phase 2 Requirement: Tract 1 – 3 = 3,712 spaces
- Phase 3 Requirement: Tract 1 – 4 = 4,864 spaces

# SHARED PARKING ANALYSIS



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### SHARED PARKING ANALYSIS

The shared parking theory is based on the concept that a single parking space may be used to serve two or more individual land uses without conflict or encroachment. The ability to share parking spaces is the result of two conditions:

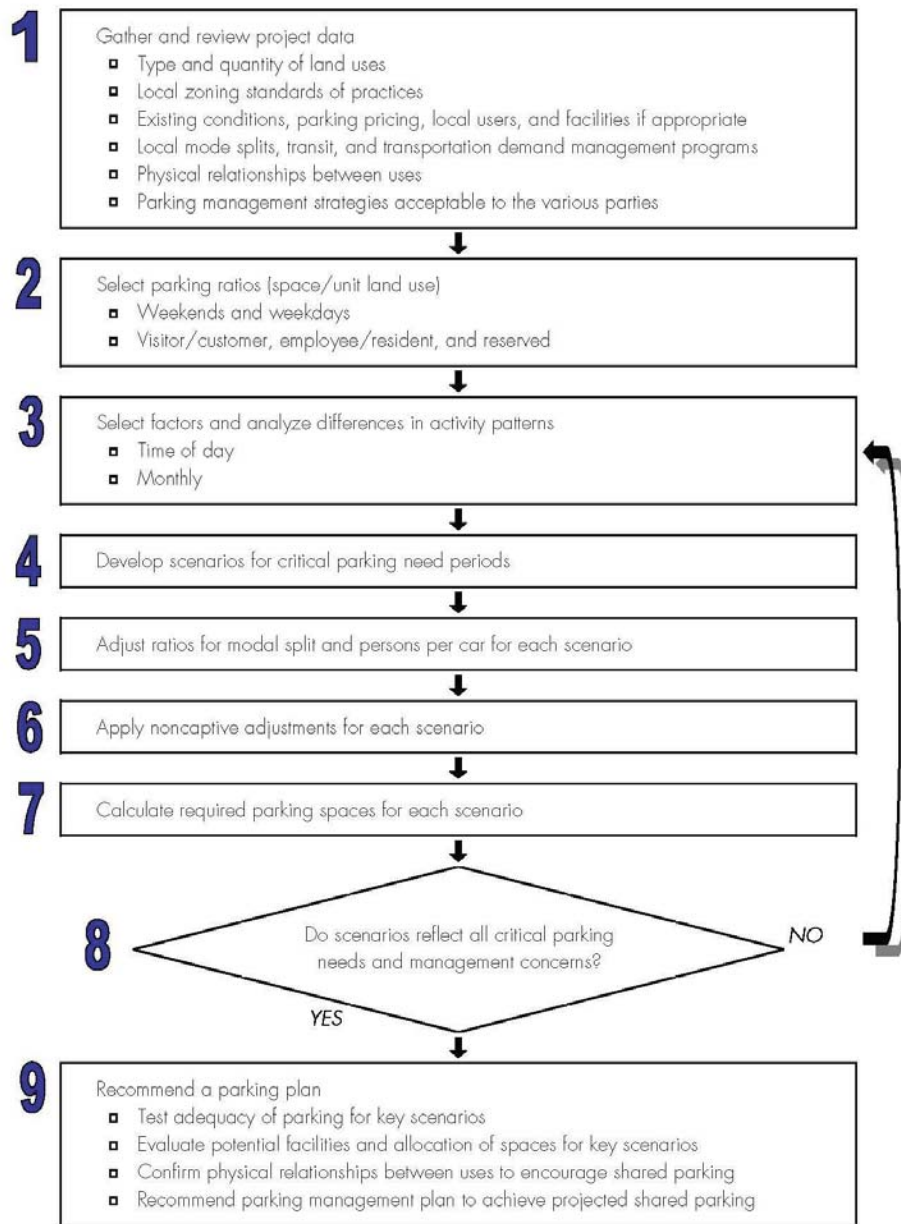
1. Variations in the accumulation of vehicles by hour, by day, or by season at the individual land uses, and
2. Relationships among the land uses that result in visiting multiple land uses on the same auto trip.

The key goal of a shared parking analysis is to quantify the number of parking spaces that is adequate to support a mix of land uses within a development from a commercial standpoint without requiring the wasteful construction of an excessive number of parking spaces, many of which will remain unused.

Shared parking considers the types, quantities and user groups of land uses for a development, as well as site and market specific characteristics. The analysis begins with those quantities being multiplied by parking generation ratios. Adjustments (Modal Split and Non-captive) for each user group are then applied for morning, afternoon, and evening time periods based on a site and market analysis. Further adjustments are applied based on hourly and monthly activity factors for each user group. The shared parking model is structured to identify a peak parking demand period for both weekday and weekend conditions. Figure 4 outlines the ULI Shared Parking Methodology.



Figure 4: Shared Parking Methodology



Source: Shared Parking, 2<sup>nd</sup> Edition, 2005



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### *SHARED PARKING ANALYSIS – PROJECT SITE APPLICATION*

Because we are using a computer model to identify the peak periods, the order of steps is slightly different than that of Figure 4. Modal split and non-captive adjustments are made before any time of day or month of year adjustments are applied. If we were not using a computer model we would need to calculate several peak periods using hourly and monthly adjustments, then test each by applying modal split and non-captive adjustments. The model eliminates the need to calculate and test several periods as this is calculated internally within the model. The model generates the peak weekday and weekend periods and overall parking demand as the output.

Within the parking industry there are a few publications that provide statistical data regarding parking demand generation, but only the Urban Land Institute's Shared Parking provides a recommended methodology along with data sets for projecting shared parking demand. Therefore, we use the ULI-approved base parking ratios and ULI approved monthly/hourly adjustments.

#### *1) DATA COLLECTION*

The first step in the analysis is to understand the development itself, its geographic surroundings, and the demographics of guests, visitors and employees of the land uses on site. The program data for these developments is provided in Table 2 on page 8.

Other information that may be useful when developing our peak shared parking scenario includes:

- The site is located within a short walk from a city bus hub (Clayton MetroBus Center), and two rail stations (Clayton Station & Forsyth Station).
- Employees of the project site may opt to utilize one of the bus routes or rail; this option should be included in the overall modal split (means of transportation to work).
- The Walk Score from walkscore.com for downtown Clayton is a 90, which means the typical number short-term parkers generated by restaurants, retail, etc. would be reduced because more people would be walking to these outlets.
- If "employee only" amenity space (cafeteria or fitness center) within any of the office buildings is below 10% of the total office space, we calculate parking demand for that space at the "Office" parking ratio.
- If non-office space (retail, service retail, restaurant, etc.) is provided on a lobby level, it is assumed to be available to the public and therefore not considered amenity space / accessory use.
- The development will occur in phases with Tracts 1 and 2 being completed in Phase 1; Tract 3 being completed in Phase 2; and Tract 4 being completed in Phase 3.
- The parking supply for all four tracts will be shared as necessary, with priority for on-site parking given to visitors and high level employees of buildings on that tract.

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- It is currently unknown whether parking will be bundled into leases for the multi-tenant office space, or whether those would be for purchase by individual. If unbundled, the parking demand would likely be reduced.
- It is currently unknown whether Centene will provide a transportation demand management ("TDM") program to reduce single-occupant vehicles generated by their employees. Incentives to carpool or arrive via transit, bicycle or on-foot may be considered, and would reduce parking demand.

**2) PARKING BASE RATIOS**

We elected to utilize the ULI Shared Parking base ratios when applying the concept of shared parking. These ratios vary slightly from those found in the Off-Street Parking Requirements. The Urban Land Institute developed base parking demand ratios for each user group of a given land use for both a peak weekday and a peak weekend period. The ULI base ratios were developed through study of several isolated land uses; these isolated developments called "cornfield developments" offer no transit, and also have no proximate land use that could share the attached parking supply and therefore skew the base ratios. The base ratios utilized in this analysis are found in Table 5.

**Table 5: Base (Unshared) Parking Ratios, Weekday & Weekend**

Land Use / User Group	Weekdays	Weekends
	Base Ratio	Base Ratio
Community Shopping Center (<400 ksf)	2.90 /ksf GLA	3.20 /ksf GLA
Employee	0.70 /ksf GLA	0.80 /ksf GLA
Fine/Casual Dining	15.25 /ksf GLA	17.00 /ksf GLA
Employee	2.75 /ksf GLA	3.00 /ksf GLA
Fast Casual/Fast Food	12.75 /ksf GLA	12.00 /ksf GLA
Employee	2.25 /ksf GLA	2.00 /ksf GLA
Nightclub	15.25 /ksf GLA	17.50 /ksf GLA
Employee	1.25 /ksf GLA	1.50 /ksf GLA
Hotel-Business	1.00 /room	0.90 /room
Employee	0.25 /room	0.18 /room
Residential Guest	0.10 /unit	0.15 /unit
Residential Condo		
1 bedroom	1.75 /unit	1.75 /unit
2 bedroom	2.00 /unit	2.00 /unit
>3 bedroom	2.25 /unit	2.25 /unit
Office over 500k sq ft	0.20 /ksf GFA	0.02 /ksf GFA
Employee	2.60 /ksf GFA	0.26 /ksf GFA
Bank (Drive In Branch)	3.00 /ksf GFA	3.00 /ksf GFA
Employee	1.60 /ksf GFA	1.60 /ksf GFA
Other Special Event	0.30 /seat	0.33 /seat
Employee	0.03 /seat	0.03 /seat

Source: Walker Parking Consultants, 2016

When these ratios are applied to the program data for each phase of the project, the results are shown in Table 6, Table 7, and Table 8. Please note that we have taken an 8% reduction in the square footage to account for the difference between GSF and GLA for all retail, restaurant and the lobby bar. The 'Unadj Pkg Sp' (or Unadjusted Parking Spaces) column in the following tables provides the greatest number of vehicles proposed to be generated by each land use

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at the site. This considers a 'cornfield development', as defined earlier and for that matter are simply a starting point from which we make reductions based on real-world conditions for the market and the site.

**Table 6: Base (Unshared) Parking Demand, Weekday & Weekend – Phase 1**

Land Use / User Group	Weekdays		Weekends	
	Base Ratio	Unadj Pkg Sp	Base Ratio	Unadj Pkg Sp
Community Shopping Center (<400 ksf)	2.90 /ksf GLA	27	3.20 /ksf GLA	29
Employee	0.70 /ksf GLA	6	0.80 /ksf GLA	7
Fine/Casual Dining	15.25 /ksf GLA	140	17.00 /ksf GLA	156
Employee	2.75 /ksf GLA	25	3.00 /ksf GLA	28
Fast Casual/Fast Food	12.75 /ksf GLA	34	12.00 /ksf GLA	32
Employee	2.25 /ksf GLA	6	2.00 /ksf GLA	5
Residential Guest	0.10 /unit	9	0.15 /unit	14
Residential Condo				
1 bedroom	1.75 /unit	42	1.75 /unit	42
2 bedroom	2.00 /unit	108	2.00 /unit	108
>3 bedroom	2.25 /unit	27	2.25 /unit	27
Office over 500k sq ft	0.20 /ksf GFA	116	0.02 /ksf GFA	12
Employee	2.60 /ksf GFA	1,504	0.26 /ksf GFA	150
Bank (Drive In Branch)	3.00 /ksf GFA	20	3.00 /ksf GFA	20
Employee	1.60 /ksf GFA	11	1.60 /ksf GFA	11
Subtotal Customer/Guest		346		263
Subtotal Employee/Resident		1,729		378
<b>TOTAL</b>		<b>2,075</b>		<b>641</b>

Source: Walker Parking Consultants, 2016

**Table 7: Base (Unshared) Parking Demand, Weekday & Weekend – Phase 2**

Land Use / User Group	Weekdays		Weekends	
	Base Ratio	Unadj Pkg Sp	Base Ratio	Unadj Pkg Sp
Community Shopping Center (<400 ksf)	2.90 /ksf GLA	27	3.20 /ksf GLA	29
Employee	0.70 /ksf GLA	6	0.80 /ksf GLA	7
Fine/Casual Dining	15.25 /ksf GLA	239	17.00 /ksf GLA	266
Employee	2.75 /ksf GLA	43	3.00 /ksf GLA	47
Fast Casual/Fast Food	12.75 /ksf GLA	34	12.00 /ksf GLA	32
Employee	2.25 /ksf GLA	6	2.00 /ksf GLA	5
Nightclub	15.25 /ksf GLA	56	17.50 /ksf GLA	64
Employee	1.25 /ksf GLA	5	1.50 /ksf GLA	6
Hotel-Business	1.00 /room	120	0.90 /room	108
Employee	0.25 /room	30	0.18 /room	22
Residential Guest	0.10 /unit	9	0.15 /unit	14
Residential Condo				
1 bedroom	1.75 /unit	42	1.75 /unit	42
2 bedroom	2.00 /unit	108	2.00 /unit	108
>3 bedroom	2.25 /unit	27	2.25 /unit	27
Office over 500k sq ft	0.20 /ksf GFA	200	0.02 /ksf GFA	20
Employee	2.60 /ksf GFA	2,604	0.26 /ksf GFA	260
Bank (Drive In Branch)	3.00 /ksf GFA	20	3.00 /ksf GFA	20
Employee	1.60 /ksf GFA	11	1.60 /ksf GFA	11
Other Special Event	0.30 /seat	495	0.33 /seat	545
Employee	0.03 /seat	50	0.03 /seat	50
Subtotal Customer/Guest		705		553
Subtotal Employee/Resident		2,882		535
Subtotal Typical Day No Events		3,587		1,088
Subtotal Event Patrons		495		545
Subtotal Event Employees		50		50
<b>TOTAL</b>		<b>4,132</b>		<b>1,683</b>

Source: Walker Parking Consultants, 2016

# CENTENE CLAYTON CAMPUS

## SDD SUBMITTAL – PARKING STUDY



**WALKER**  
PARKING CONSULTANTS

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31-7956.00

Table 8: Base (Unshared) Parking Demand, Weekday & Weekend – Phase 3

Land Use / User Group	Weekdays		Weekends	
	Base Ratio	Unadj Pkg Sp	Base Ratio	Unadj Pkg Sp
Community Shopping Center (<400 ksf)	2.90 /ksf GLA	57	3.20 /ksf GLA	63
Employee	0.70 /ksf GLA	14	0.80 /ksf GLA	16
Fine/Casual Dining	15.25 /ksf GLA	399	17.00 /ksf GLA	445
Employee	2.75 /ksf GLA	72	3.00 /ksf GLA	78
Fast Casual/Fast Food	12.75 /ksf GLA	34	12.00 /ksf GLA	32
Employee	2.25 /ksf GLA	6	2.00 /ksf GLA	5
Nightclub	15.25 /ksf GLA	56	17.50 /ksf GLA	64
Employee	1.25 /ksf GLA	5	1.50 /ksf GLA	6
Hotel-Business	1.00 /room	120	0.90 /room	108
Employee	0.25 /room	30	0.18 /room	22
Residential Guest	0.10 /unit	9	0.15 /unit	14
Residential Condo				
1 bedroom	1.75 /unit	42	1.75 /unit	42
2 bedroom	2.00 /unit	108	2.00 /unit	108
>3 bedroom	2.25 /unit	27	2.25 /unit	27
Office over 500k sq ft	0.20 /ksf GFA	286	0.02 /ksf GFA	29
Employee	2.60 /ksf GFA	3,723	0.26 /ksf GFA	372
Bank (Drive In Branch)	3.00 /ksf GFA	20	3.00 /ksf GFA	20
Employee	1.60 /ksf GFA	11	1.60 /ksf GFA	11
Other Special Event	0.30 /seat	495	0.33 /seat	545
Employee	0.03 /seat	50	0.03 /seat	50
Subtotal Customer/Guest		981		775
Subtotal Employee/Resident		4,038		687
Subtotal Typical Day No Events		5,019		1,462
Subtotal Event Patrons		495		545
Subtotal Event Employees		50		50
<b>TOTAL</b>		<b>5,564</b>		<b>2,057</b>

Source: Walker Parking Consultants, 2016



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**3) MODAL SPLIT ADJUSTMENT**

Modal split considers the mode of transportation that residents, visitors and employees would use to arrive to the development. The modal split adjustment for this site considers pedestrian, bicycle, bus, train/bus, airport shuttle, carpool and drop-off's as alternatives to a single-occupant vehicles being parked on-site. Site considerations, like the availability of transit and availability of parking, as well as economic factors for differing employee types such as the cost of gas, and general vehicle maintenance are also used to gauge this adjustment. The site is located near the Clayton MetroBus Center (bus hub) and Clayton Station (rail) and Forsyth Station (rail) as well as several bus stops.

To generate an estimate for modal split we mined data from the 2006 – 2010 5-Year American Community Survey (“ACS”) data set found on the American Association of State Highway and Transportation Officials (“AASHTO”) Census Transportation Planning Products website. The Means of Transportation to Work data set for those working in downtown who live within a 25-mile radius is found in Table 9. We use the information for those transportation types that generate personal vehicles and compare that to all employees (less those working from home) to estimate a drive ratio for office employees of ±92%.

We believe that an 8% reduction is appropriate for office employees, in accordance with the Census Bureau data. Further reduction may be merited for this site based on its proximity to several transit lines in comparison to Clayton on the whole; regardless, no further reductions were taken in an effort remain conservative.

**Table 9: Means of Transportation to Work – Arriving to Downtown Clayton from 25-mile Radius**

<b>Form of Transportation</b>	<b>Employees</b>	<b>Parked Vehicle Generation</b>	
		<b>Veh. Occ.</b>	<b>Veh. Gen.</b>
Drove Car Alone	22,521	1	22,521
Carpooled:			
In a 2-person carpool	1,043	2	522
In a 3-person carpool	221	3	74
In a 4-person carpool	174	4	44
In a 5-or-6-person carpool	0	5.5	0
In a 7-or-more-person carpool	15	7	2
Bus or trolley bus	512		
Streetcar or trolley car	4		
Subway or elevated	177		
Railroad	25		
Ferryboat	0		
Bicycle	110		
Walked	279		
Taxicab	0		
Motorcycle	15		
Other method	44		
<b>Total Employees</b>	<b>25,140</b>	<b>Total Vehicles</b>	<b>23,163</b>
		<b>Drive Ratio</b>	<b>92%</b>

Source: 5-Year American Community Survey, 2006 – 2010; Walker Parking Consultants, 2016

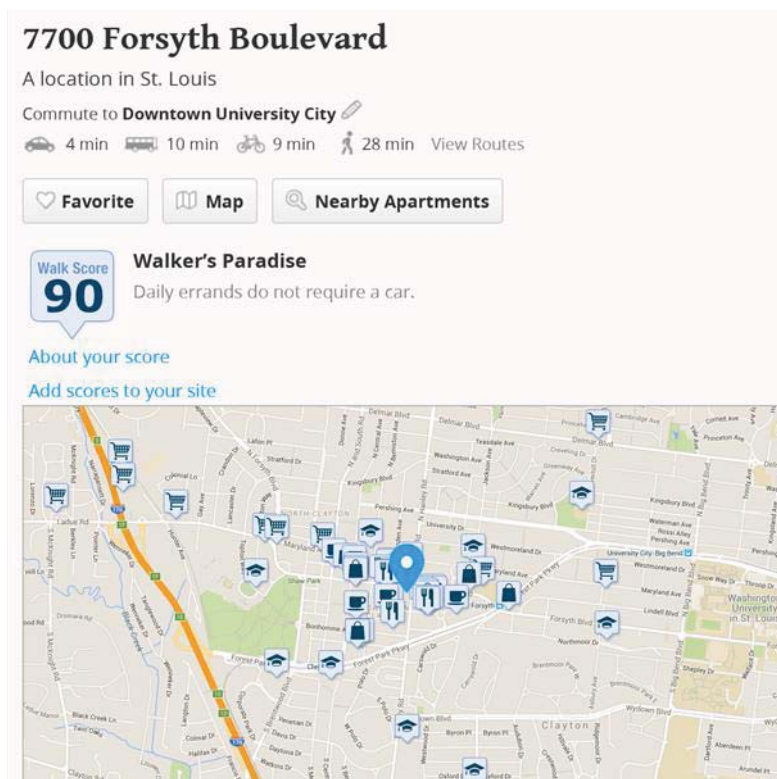


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Developing a modal split adjustment for retail and restaurant visitor user groups is done using information found online regarding walkability (walkscore.com) and moderated by professional judgement. Online research indicates that once Clayton is reached, there is a high level of walkability. In fact, walkability of the current Centene Corporation location in Downtown Clayton was assessed to have a “walk score” of 90. A walk score analyzes the distances between commonly used locations, such as those used for every day errands. A walk score of 90 means that daily errands do not require a car and the location is considered pedestrian friendly.

Figure 5: Walk Score for Centene Headquarters – Downtown Clayton



Source: walkscore.com, 2016

The high walk score of 90 can be attributed to the mixes of uses in the area which are in close proximity to one another. However, it should be noted that the area includes a low residential stock. With few options for residency in the area, people must first drive to downtown Clayton in order to access destinations within the core. Thus, parking in the downtown core is necessary to provide access for employees and visitors who then ultimately have the option to walk from destination to destination.

The weekday daytime modal split adjustment we estimate for retail and restaurant customers is 75% (these user groups generate 25% fewer parked vehicles than typical cornfield developments). Note that an additional reduction takes place for those “captive” within the development (i.e. office employees). The weekday night and weekend day modal split is estimated at 80% and the weekend night is estimated at 85%.

Office visitor modal split is separate from other visitor groups because these trips are related to the specific purpose of a meeting, etc. Timing of arrival is important so the availability of transit options for an unfamiliar user and short length of stay will not easily influence their mode of transportation choice. In some urban setting where public transit is the primary source of transportation it would be expected that an adjustment for this user group would be merited, but that is not the case for the proposed development. Therefore, based on typical transportation trends and the local climate, we do not believe that these user groups will arrive via transit – no mode split adjustment is taken for office visitors.

To gauge a reduction for residents we use a data set similar to that for office employees, but basically reverse the criteria to see how people who live within downtown Clayton arrive to work (for those working within 25 miles). The Census Bureau data indicates that roughly 86% of workers living in downtown Clayton drive a vehicle to their place of work.

To be conservative we take a 10% reduction for One-Bedroom Units and a 5% reduction for Two-Bedroom Units and 3-Bedroom Units. This conservative approach accounts for residents who may not work and for households of two or more people with more than one vehicle. Further reduction may be merited for this site based on its proximity to several transit lines in comparison to Clayton on the whole; regardless, no further reductions were taken in an effort remain conservative.

**Table 10: Means of Transportation to Work – Departing from Downtown Clayton to 25-mile Radius**

Form of Transportation	Employees	Parked Vehicle Generation	
		Veh. Occ.	Veh. Gen.
Drove Car Alone	4,024	1	4,024
Carpooled:			
In a 2-person carpool	295	2	148
In a 3-person carpool	20	3	7
In a 4-person carpool	0	4	0
In a 5-or-6-person carpool	0	5.5	0
In a 7-or-more-person carpool	15	7	2
Bus or trolley bus	50		
Streetcar or trolley car	30		
Subway or elevated	105		
Railroad	20		
Ferryboat	0		
Bicycle	55		
Walked	175		
Taxicab	0		
Motorcycle	55		
Other method	15		
<b>Total Employees</b>	<b>4,859</b>	<b>Total Vehicles</b>	<b>4,181</b>
		<b>Drive Ratio</b>	<b>86%</b>

Source: 5-Year American Community Survey, 2006 – 2010; Walker Parking Consultants, 2016



**4) NON-CAPTIVE ADJUSTMENT**

Some activity is assumed to be generated by other user groups already on-site in a mixed-use development. The non-captive adjustment is the percentage remainder of activity generated by a user group that comes from off-site (therefore potentially generating a parked vehicle).

A non-captive adjustment takes into account any crossover in user groups that does not necessarily adjust that user's length of stay (if not a reserved parking space). Generally, this is when long-term parkers (residents or employees) stop in to another land use within the development. They help the other land use realize a typical activity level, but do not require additional parking for their visit, as they are already parked.

For this site there would be some non-captive adjustment based on the land use mix. Those living at the site may also work there, but this would be a very slim possibility and we have not taken an adjustment for that situation. More likely, those living at the site or working there may frequent the retail or restaurants on-site. Therefore we take an adjustment for lower than typical parking need for retail and restaurant while assuming they would still have typical activity levels.

**Table 11: Non-captive Ratios**

Land Use / User Group	Non Captive Ratio			
	Weekday		Weekend	
	Daytime	Evening	Daytime	Evening
Community Shopping Center (<400 ksf)	63%	85%	92%	83%
Employee	100%	100%	100%	100%
Fine/Casual Dining	74%	95%	91%	97%
Employee	100%	100%	100%	100%
Fast Casual/Fast Food	0%	0%	0%	0%
Employee	100%	100%	100%	100%
Nightclub	74%	95%	91%	97%
Employee	100%	100%	100%	100%
Hotel-Business	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Residential Guest	100%	100%	100%	100%
1 bedroom	100%	100%	100%	100%
2 bedroom	100%	100%	100%	100%
≥3 bedroom	100%	100%	100%	100%
Office over 500k sq ft	100%	100%	100%	100%
Employee	100%	100%	100%	100%
Bank (Drive In Branch)	63%	85%	92%	83%
Employee	100%	100%	100%	100%
Other Special Event	100%	100%	100%	100%
Employee	99%	99%	99%	99%

Source: Walker Parking Consultants, 2016



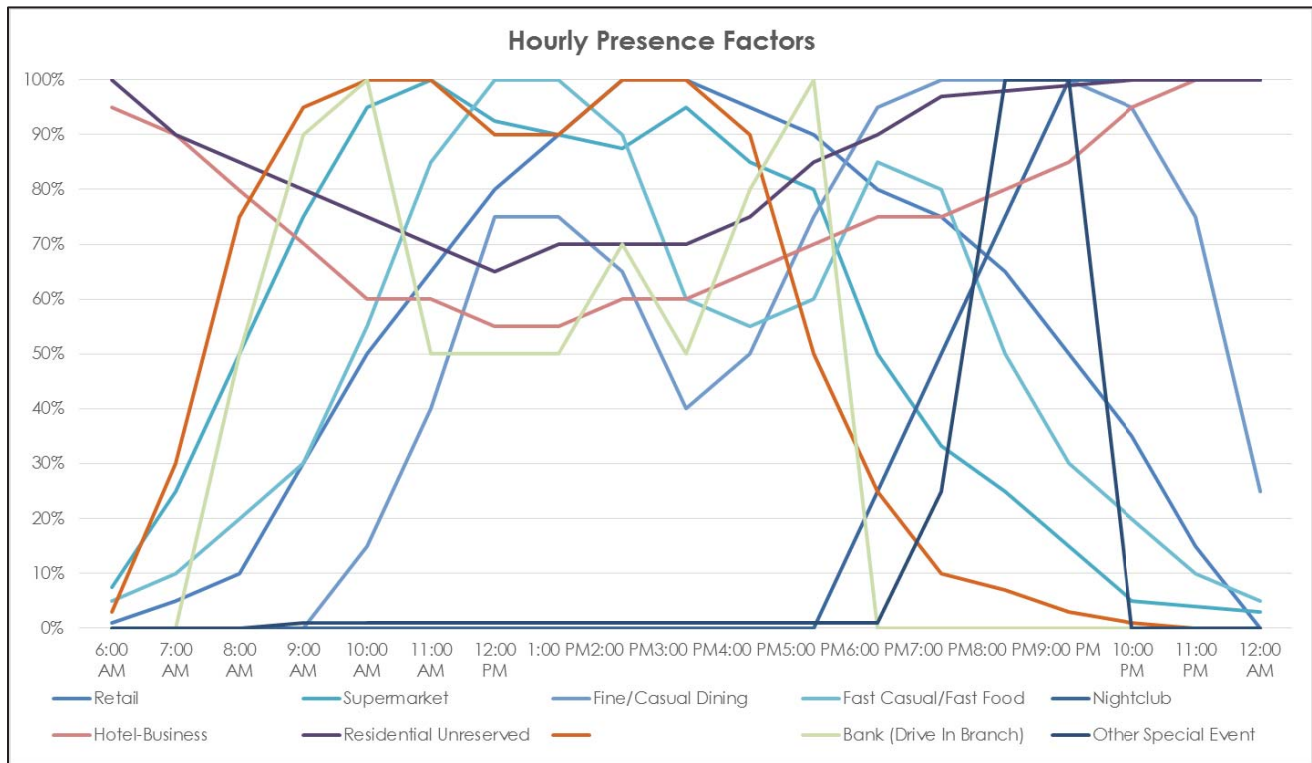
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**5) CHRONOLOGICAL FACTORS**

Time of Day Factors take into account that most land uses will vary in activity and parking generation throughout the day. For instance, only a fraction of peak parking demand for office employees will be present during evenings and/or weekends, which allows for the alternate use of these parking spaces during non-office hours. The same trend applies to office visitors. For resident parking, the converse time periods generate peak and trough activity; evenings require the most while weekday daytime is roughly 65% of the peak period. The following figure depicts the various activity level fluctuations that occur for the land uses proposed for the proposed development.

**Figure 6: Hourly Presence Factors - Weekday**

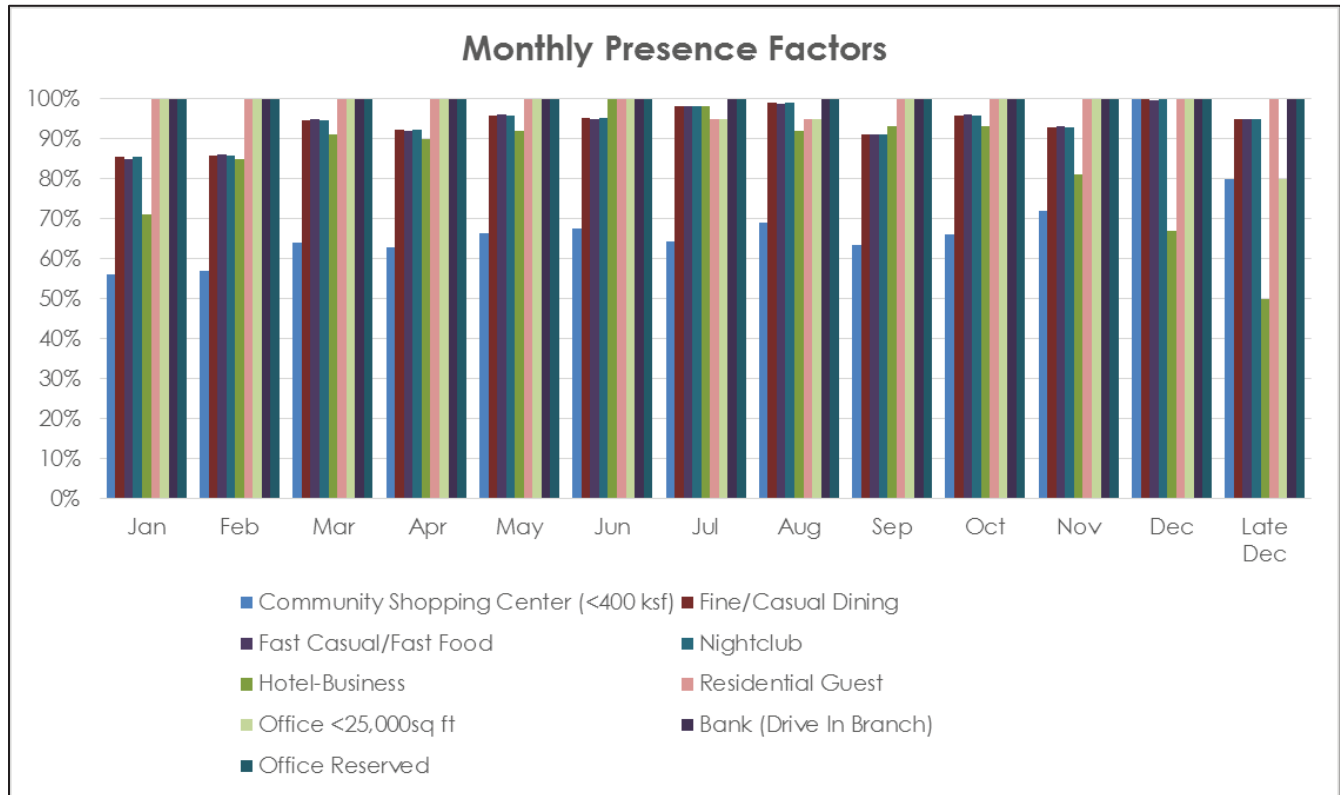


Source: Shared Parking, 2<sup>nd</sup> Edition, 2005

Monthly Factors adjust each user group at the development based on activity and sales trends for that land use. Walker utilized ULI-provided monthly factors for the retail, restaurant and office space as well as the residential units. Office and residential have very little variance in activity from month to month, aside from typical vacation times. The retail peak leading up to Christmas creates a reduction in comparative activity for the remainder of the year. Restaurant has some, but not a significant amount of, activity fluctuation from month to month. Several months maintain the 100% peak monthly adjustment (which means no adjustment).



Figure 7: Monthly Presence Factors



Source: Shared Parking, 2<sup>nd</sup> Edition, 2005

Table 12: Hourly Presence Factors

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Late Dec
Community Shopping Center (<400 ksf)	56%	57%	64%	63%	66%	67%	64%	69%	64%	66%	72%	100%	80%
Employee	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	90%	100%	90%
Fine/Casual Dining	85%	86%	95%	92%	96%	95%	98%	99%	91%	96%	93%	100%	95%
Employee	95%	95%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Fast Casual/Fast Food	85%	86%	95%	92%	96%	95%	98%	99%	91%	96%	93%	100%	95%
Employee	95%	95%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Nightclub	85%	86%	95%	92%	96%	95%	98%	99%	91%	96%	93%	100%	95%
Employee	90%	90%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Hotel-Business	71%	85%	91%	90%	92%	100%	98%	92%	93%	93%	81%	67%	50%
Employee	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Residential Guest	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
Residential Unreserved	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
Office over 500k sq ft	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Employee	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Bank (Drive In Branch)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Employee	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Other Special Event	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	100%	100%
Employee	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Shared Parking, 2<sup>nd</sup> Edition, 2005



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**6) PEAK PARKING CALCULATION**

Peak parking demand for the project site is projected by applying ULI and Walker monthly and hourly occupancy factors to each use. The model calculates parking demand for each land use from 6:00 AM until midnight for both weekdays and weekend days. The month of December is split in two to account for changes in activity related to the Holidays. In all, this results in approximately 500 discrete time periods being examined.

The program data supplied, ULI-provided ratios and adjustment factors, and Walker’s professional opinion for modal split and non-captive adjustments result in the parking demand projections found in Table 13 for Phase 1 on page 25. The findings for Phase 2 are found in Table 14 on page 26. The findings for Phase 3 are found in Table 15 on page 27.

**Table 13: Peak Shared Parking Demand – Phase 1**

Weekday Shared Parking Demand Land Use / User Group	Weekday					Demand
	Unadj Demand	Month Adj December	Pk Hr Adj 2:00 PM	Non Captive Daytime	Drive Ratio Daytime	December 2:00 PM
Community Shopping Center (<400 ksf)	27	100%	100%	68%	75%	14
Employee	6	100%	100%	100%	87%	5
Fine/Casual Dining	140	100%	65%	72%	75%	49
Employee	25	100%	90%	100%	87%	20
Fast Casual/Fast Food	34	100%	90%	0%	75%	0
Employee	6	100%	95%	100%	87%	5
Residential Guest	9	100%	20%	100%	75%	1
Residential Unreserved - Condo	177	100%	70%	100%	94%	116
Office over 500k sq ft	116	100%	100%	100%	100%	116
Employee	1,504	100%	100%	100%	92%	1,382
Bank (Drive In Branch)	20	100%	70%	68%	75%	7
Employee	11	100%	100%	100%	92%	10
Subtotal Customer/Guest	346					187
Subtotal Employee/Resident	1,729					1,538
<b>Total Parking Spaces Required</b>	<b>2,075</b>					<b>1,725</b>

Weekend Shared Parking Demand Land Use / User Group	Weekend					Demand
	Unadj Demand	Month Adj December	Pk Hr Adj 12:00 PM	Non Captive Daytime	Drive Ratio Daytime	December 12:00 PM
Community Shopping Center (<400 ksf)	29	100%	85%	92%	80%	18
Employee	7	100%	100%	99%	95%	7
Fine/Casual Dining	156	100%	50%	93%	80%	58
Employee	28	100%	75%	99%	95%	20
Fast Casual/Fast Food	32	100%	100%	30%	80%	8
Employee	5	100%	100%	99%	95%	5
Residential Guest	14	100%	20%	100%	80%	2
Residential Unreserved - Condo	177	100%	65%	100%	94%	108
Office over 500k sq ft	12	100%	90%	100%	80%	9
Employee	150	100%	90%	100%	100%	135
Bank (Drive In Branch)	20	100%	90%	92%	80%	13
Employee	11	100%	100%	100%	100%	11
Subtotal Customer/Guest	263					108
Subtotal Employee/Resident	378					286
<b>Total Parking Spaces Required</b>	<b>641</b>					<b>394</b>

Source: Walker Parking Consultants, 2016



Table 14: Peak Shared Parking Demand – Phase 2

Weekday Shared Parking Demand Land Use / User Group	Weekday					Demand
	Unadj Demand	Month Adj Jun	Pk Hr Adj 2:00 PM	Non Captive Daytime	Drive Ratio Daytime	Jun 2:00 PM
Community Shopping Center (<400 ksf)	27	67%	95%	45%	75%	6
Employee	6	80%	100%	100%	87%	4
Fine/Casual Dining	239	95%	65%	68%	75%	76
Employee	43	100%	90%	100%	87%	34
Fast Casual/Fast Food	34	95%	90%	0%	75%	0
Employee	6	100%	95%	100%	87%	5
Nightclub	56	95%	0%	68%	75%	0
Employee	5	100%	10%	100%	87%	0
Hotel-Business	120	100%	60%	100%	66%	48
Hotel-Leisure	0	90%	70%	100%	100%	0
Employee	30	100%	100%	100%	87%	26
Residential Guest	9	100%	20%	100%	75%	1
Residential Unreserved - Condo	177	100%	70%	100%	94%	116
Office over 500k sq ft	200	100%	100%	100%	100%	200
Employee	2,604	100%	100%	100%	92%	2,394
Bank (Drive In Branch)	20	100%	70%	45%	75%	5
Employee	11	100%	100%	100%	92%	10
Other Special Event	495	90%	1%	100%	75%	3
Employee	50	100%	30%	99%	82%	12
Subtotal Customer/Guest	705					336
Subtotal Employee/Resident	2,882					2,589
Total Typical Day No Event	3,587					2,925
Subtotal Event Patrons	495					3
Subtotal Event Employees	50					12
<b>Total Parking Spaces Required</b>	<b>4,132</b>					<b>2,940</b>

Weekend Shared Parking Demand Land Use / User Group	Weekend					Demand
	Unadj Demand	Month Adj Jun	Pk Hr Adj 12:00 PM	Non Captive Daytime	Drive Ratio Daytime	Jun 12:00 PM
Community Shopping Center (<400 ksf)	29	67%	50%	87%	80%	7
Employee	7	80%	75%	100%	95%	4
Fine/Casual Dining	266	95%	100%	88%	80%	178
Employee	47	100%	100%	100%	95%	44
Fast Casual/Fast Food	32	95%	50%	0%	80%	0
Employee	5	100%	60%	100%	95%	3
Nightclub	64	95%	75%	88%	80%	32
Employee	6	100%	100%	100%	95%	6
Hotel-Business	108	100%	80%	100%	77%	67
Employee	22	100%	55%	100%	95%	11
Residential Guest	14	100%	100%	100%	80%	11
Residential Unreserved - Condo	177	100%	98%	100%	94%	163
Office over 500k sq ft	20	100%	0%	100%	80%	0
Employee	260	100%	0%	100%	100%	0
Bank (Drive In Branch)	20	100%	0%	87%	80%	0
Employee	11	100%	0%	100%	100%	0
Other Special Event	545	90%	100%	100%	80%	391
Employee	50	100%	100%	99%	90%	45
Subtotal Customer/Guest	553					295
Subtotal Employee/Resident	535					231
Total Typical Day No Event	1,088					526
Subtotal Event Patrons	545					391
Subtotal Event Employees	50					45
<b>Total Parking Spaces Required</b>	<b>1,683</b>					<b>962</b>

Source: Walker Parking Consultants, 2016





Table 15: Peak Shared Parking Demand – Phase 3

Weekday Shared Parking Demand Land Use / User Group	Weekday					Demand
	Unadj Demand	Month Adj December	Pk Hr Adj 2:00 PM	Non Captive Daytime	Drive Ratio Daytime	December 2:00 PM
Community Shopping Center (<400 ksf)	57	100%	100%	63%	75%	27
Employee	14	100%	100%	100%	87%	12
Fine/Casual Dining	399	100%	65%	74%	75%	144
Employee	72	100%	90%	100%	87%	56
Fast Casual/Fast Food	34	100%	90%	0%	75%	0
Employee	6	100%	95%	100%	87%	5
Nightclub	56	100%	0%	74%	75%	0
Employee	5	100%	10%	100%	87%	0
Hotel-Business	120	67%	60%	100%	66%	32
Hotel-Leisure	0	50%	70%	100%	100%	0
Employee	30	100%	100%	100%	87%	26
Residential Guest	9	100%	20%	100%	75%	1
Residential Unreserved - Condo	177	100%	70%	100%	94%	116
Office over 500k sq ft	286	100%	100%	100%	100%	286
Employee	3,723	100%	100%	100%	92%	3,423
Bank (Drive In Branch)	20	100%	70%	63%	75%	7
Employee	11	100%	100%	100%	92%	10
Other Special Event	495	100%	1%	100%	75%	4
Employee	50	100%	30%	99%	82%	12
Subtotal Customer/Guest	981					497
Subtotal Employee/Resident	4,038					3,648
Total Typical Day No Event	5,019					4,145
Subtotal Event Patrons	495					4
Subtotal Event Employees	50					12
<b>Total Parking Spaces Required</b>	<b>5,564</b>					<b>4,161</b>

Weekend Shared Parking Demand Land Use / User Group	Weekend					Demand
	Unadj Demand	Month Adj December	Pk Hr Adj 12:00 PM	Non Captive Daytime	Drive Ratio Daytime	December 12:00 PM
Community Shopping Center (<400 ksf)	63	100%	80%	92%	80%	37
Employee	16	100%	100%	100%	95%	15
Fine/Casual Dining	445	100%	50%	91%	80%	163
Employee	78	100%	75%	100%	95%	55
Fast Casual/Fast Food	32	100%	100%	0%	80%	0
Employee	5	100%	100%	100%	95%	5
Nightclub	64	100%	0%	91%	80%	0
Employee	6	100%	5%	100%	95%	0
Hotel-Business	108	67%	55%	100%	77%	31
Employee	22	100%	100%	100%	95%	21
Residential Guest	14	100%	20%	100%	80%	2
Residential Unreserved - Condo	177	100%	65%	100%	94%	108
Office over 500k sq ft	29	100%	90%	100%	80%	21
Employee	372	100%	90%	100%	100%	335
Bank (Drive In Branch)	20	100%	90%	92%	80%	13
Employee	11	100%	100%	100%	100%	11
Other Special Event	545	100%	1%	100%	80%	4
Employee	50	100%	30%	99%	90%	13
Subtotal Customer/Guest	775					267
Subtotal Employee/Resident	687					550
Total Typical Day No Event	1,462					817
Subtotal Event Patrons	545					4
Subtotal Event Employees	50					13
<b>Total Parking Spaces Required</b>	<b>2,057</b>					<b>834</b>

Source: Walker Parking Consultants, 2016

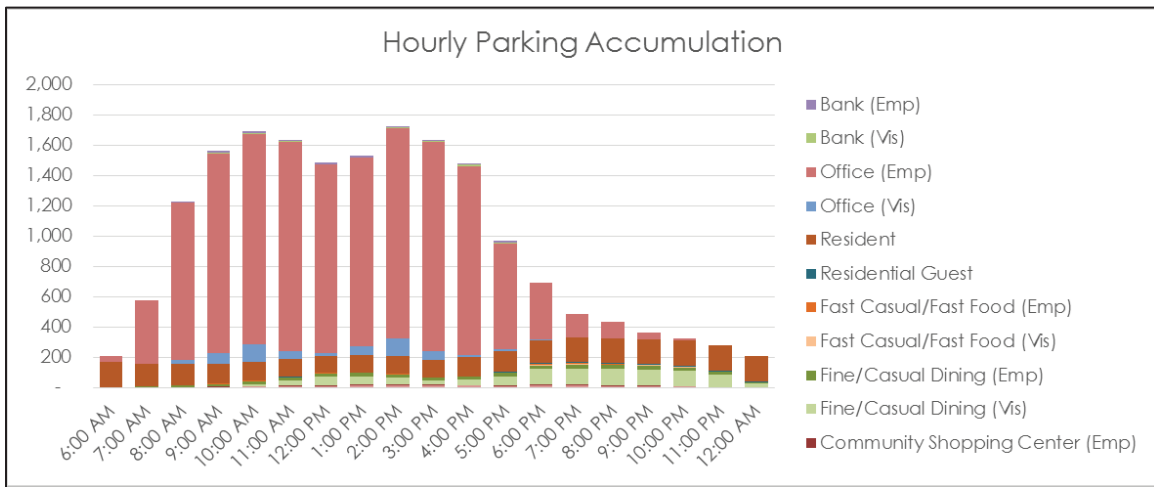
JUNE 27, 2016

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**7) PEAK PARKING SCENARIO**

The shared parking analysis produces a Phase 1 peak period for weekday parking generation of 1,725 total spaces (which includes an effective supply cushion of between 5% and 10%) at 2:00 PM in December. Figure 8 illustrates the patterns of hourly parking accumulation for the peak month of December.

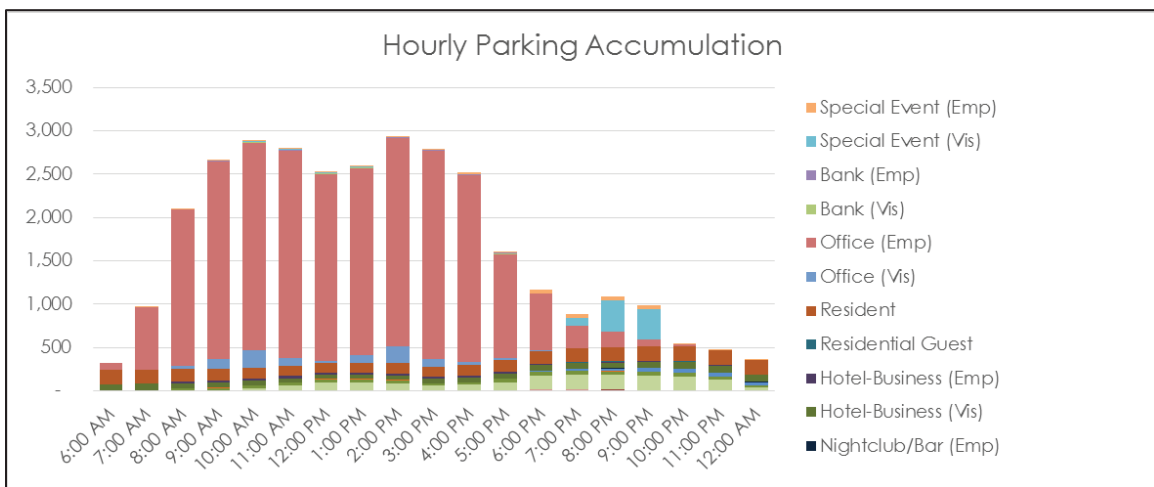
**Figure 8: Hourly Parking Accumulation – Phase 1 Weekday**



Source: Walker Parking Consultants, 2016

The shared parking analysis produces a Phase 2 peak period for weekday parking generation of 2,940 total spaces (which includes an effective supply cushion of between 5% and 10%) at 2:00 PM in June. Figure 9 illustrates the patterns of hourly parking accumulation for the peak month of June

**Figure 9: Hourly Parking Accumulation – Phase 2 Weekday**



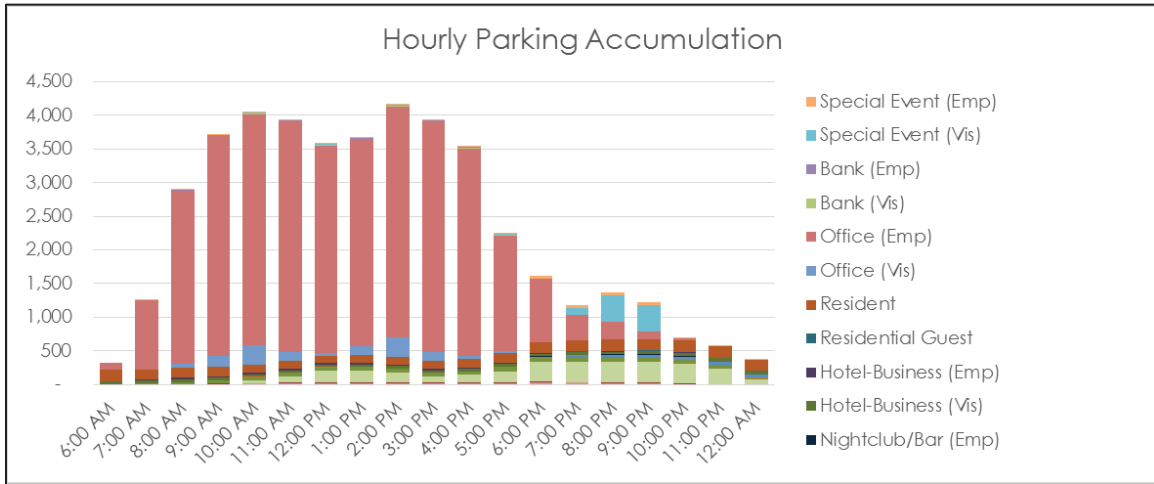
Source: Walker Parking Consultants, 2016

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The shared parking analysis produces a Phase 3 peak period for weekday parking generation of 4,161 total spaces (which includes an effective supply cushion of between 5% and 10%) at 2:00 PM in December. Figure 10 illustrates the patterns of hourly parking accumulation for the peak month of December.

Figure 10: Hourly Parking Accumulation – Phase 3 Weekday



Source: Walker Parking Consultants, 2016

**8) CRITICAL PARKING NEEDS & MANAGEMENT CONCERNS**

The development is predominantly office space, which leads to a significant weekday daytime peak period. The intent to share parking supply across the tracts will help to balance parking demand with available supply for all tracts.

We have identified no critical parking needs or management concerns under this conceptual design – but as the program and intended operation is developed, these may be identified with possible impacts on how/whether parking supply is shared.

# FINDINGS – PARKING ADEQUACY



**WALKER**  
PARKING CONSULTANTS

**FINDINGS – PARKING ADEQUACY**

The following section provides the findings of this parking study, which is aimed at quantifying parking surplus or shortfall (parking adequacy) for the overall development using current concept design program data. Parking adequacy is to be tested for the site as well as the study area to forecast potential impacts on the publicly available parking supply.

**PROPOSED DEVELOPMENT**

Parking adequacy for the proposed development compares the City code requirements to the proposed parking supply as well as the shared parking demand peak period to the proposed parking supply.

**CITY CODE REQUIREMENTS**

Walker evaluated the minimum parking requirements for the proposed program for each tract. Tract 1 and 2 are planned to be completed during the first phase of construction, which will have a parking surplus of 418 spaces. Tract 3 will be added in Phase 2, which will result in a 160 space shortfall when compared to City code requirements. Tract 4 is planned for Phase 3, which will result in a 438 space surplus. Table 16 provides the totals for spaces required, spaces provided, and adequacy.

**Table 16: Adequacy – City Code Requirements**

Phase 1		Phase 2		Phase 3	
Total Spaces Req'd per Code	2,217 Spaces	Total Spaces Req'd per Code	3,712 Spaces	Total Spaces Req'd per Code	4,864 Spaces
Total Spaces Provided On-site	2,635 Spaces	Total Spaces Provided On-site	3,552 Spaces	Total Spaces Provided On-site	5,302 Spaces
Surplus/Shortfall	418 Spaces	Surplus/Shortfall	-160 Spaces	Surplus/Shortfall	438 Spaces

Source: Walker Parking Consultants, 2016

**SHARED PARKING ANALYSIS**

Walker evaluated the minimum parking requirements for the proposed program for each tract. Tract 1 and 2 are planned to be completed during the first phase of construction, which will have a parking surplus of 910 spaces. Tract 3 will be added in Phase 2, which will result in a 612 space surplus. Tract 4 is planned for Phase 3, which will result in a 1,141 space surplus. Table 17 provides the totals for peak shared parking demand, spaces provided, and adequacy.

**Table 17: Adequacy – Shared Parking Analysis**

Phase 1		Phase 2		Phase 3	
Total Demand per Shared Parking	1,725 Spaces	Total Demand per Shared Parking	2,940 Spaces	Total Demand per Shared Parking	4,161 Spaces
Total Spaces Provided On-site	2,635 Spaces	Total Spaces Provided On-site	3,552 Spaces	Total Spaces Provided On-site	5,302 Spaces
Surplus/Shortfall	910 Spaces	Surplus/Shortfall	612 Spaces	Surplus/Shortfall	1,141 Spaces

Source: Walker Parking Consultants, 2016



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### STUDY AREA

This section will be prepared for amendment and resubmittal. A parking adequacy analysis for the study area will be developed once existing conditions have been studied.

The parking adequacy for the study area will consider the existing conditions plus any impact to parking supply based on changes anticipated based on construction of the proposed development. From a parking demand perspective, the demand from removed land uses will be estimated and removed, and the demand generated for the proposed development (using the shared parking analysis) will be added.

