

MEMO

To:	Cheryl Lambrecht, PE
From:	Ryan Aguayo Padilla, PE; Shannon Jeffries, PE
RE:	Olathe Entertainment and Mixed-Use Development Parking Memorandum
Date:	10/22/2024

This memorandum has been updated to address comments from City of Olathe staff dated October 10, 2024. The original parking memorandum was dated September 4, 2024.

Introduction

Olsson has prepared a shared parking analysis for the proposed Olathe Entertainment and Mixed-Use Development located in the southwest quadrant of 119th Street and Renner Boulevard in Olathe, Kansas. The proposed development consists of the following land-uses:

- Hotel – 160 keys
- Retail – 46,000 square feet (sf)
- Fine/Casual Dining – 23,000 sf
- Fast Casual/Fast Food – 14,000 sf
- Adult Active Entertainment – 25,000 sf
- Medical/Dental Office – 25,000 sf
- Theme Park – 4,800 person maximum capacity
- Arena – 5,500 person maximum capacity

The shared peak parking demand (number of vehicle spaces) and the adjusted peak parking demand rate (space per land use) was developed referencing industry standards, parking methodologies, and land use scenarios. The developed shared peak parking demand was compared to the proposed parking supply depicted on the Olathe Entertainment and Mixed-Use Preliminary Plan. **Attachment A** provides an exhibit of the proposed parking as depicted on the Preliminary Plan.

Project Description

The proposed development is anticipated to consist of the following land uses and parking supply (lot number is referenced from the Preliminary Plan):

- Hotel
 - 160 keys with 162 off-street parking spaces shown in Block B4.
 - *Based on ULI data, the estimated employees for a 160 key hotel is 24. This is based on an employee parking rate of 0.15 spaces per key and an assumption of one employee per space.*
 - *Based on information for the developer, no conference centers are planned in the proposed hotel land use.*
- Retail
 - 30,000 sf building with 143 parking spaces shown in Block D1.
 - 16,000 sf arena retail with 45 parking spaces shown in Block F1/F2.



- Fine/Casual Dining
 - 11,000 sf (two buildings) with 113 parking spaces shown in Blocks A1 and A2. Blocks A1 and A2 are adjacent to each other and do not have a physical divider.
 - 6,000 sf building with 70 parking spaces shown in Block B3.
 - 6,000 sf building with 81 parking spaces shown in Block C1.
 - *Final restaurant seating will be determined with final plan submittal.*
- Fast Casual/Fast Food
 - 7,000 sf (two buildings) with 74 parking spaces shown in Blocks B1 and B2. Blocks B1 and B2 are adjacent to each other and do not have a physical divider.
 - 7,000 sf (two buildings) with 72 parking spaces shown in Blocks C2 and C3. Blocks C2 and C3 are adjacent to each other and do not have a physical divider.
 - *Final restaurant seating will be determined with final plan submittal.*
- Adult Active Entertainment
 - 35,000 sf building with 231 parking spaces shown in Block C4.
 - *Adult Active Entertainment the ULI land use that most compares to the anticipated operation of the Destination Entertainment shown on the site plan.*
 - *Final seating will be determined with final plan submittal.*
- Medical/Dental Office
 - 25,000 sf building with 105 parking spaces shown in Block G1.
- Theme Park
 - 65,200 square foot footprint in Block E1.
 - Theme Park visitors will have access to Block H (959 parking spaces) and Lot 1 (890 parking spaces).
- Arena
 - 147,401 square foot footprint in Block F2.
 - Arena visitors will have access to Block H (959 parking spaces) and Lot 1 (890 parking spaces).

Overall, the parking supply provided for the proposed development includes 2,945 parking spaces.

Theme Park and Arena Operations

For the theme park and arena land uses, the following data and assumptions were utilized for the parking analysis.

- Theme Park
 - Maximum theme park capacity of 4,800 people.
 - This theme park is anticipated to be open from mid-March to the end of October. Normal operating hours are 10:30 AM to 5:00 PM. The theme park is open from Friday through Sunday when school is in session and open seven days a week when school is out of session.
 - *Based on information from the development team, no events are anticipated during the months of November through February. The theme park is anticipated to have most attractions outdoors that require favorable weather conditions to optimize employee and guest safety and enjoyment.*
 - Based on Google Maps probe data for similar types of theme parks, guests typically stay two to five hours during their visit.
 - Estimated persons per car is assumed to be 2.75. This is based on data collected for theme park and stadium venues that indicate ranges from 2.5 to 3.0 persons per vehicle for similar use types.



- Arena
 - Maximum arena capacity of 5,500 people.
 - The principal use for the venue is anticipated to be minor league professional sports that typically have evening games during the week and on weekends. The typical minor league season is from October through May.
 - *From June through September, arena usage is anticipated to mainly consist of smaller demand events such as local high school athletics activities and youth sports events. For conservative analysis purposes, arena events from June through September were assumed to be at 30% visitor capacity.*
 - *Second ice sheet shown on site plan in Attachment A is part of arena facility, not the active adult/destination entertainment land use.*
 - Based on research for similar sports arenas, games typically start at 7:00 PM for weekday and weekend games, last approximately two hours, and have a pre-event ingress peak of 6:00 to 7:00 PM and post-event egress peak of 9:00 to 10:00 PM.
 - Early afternoon weekend events may occur at the arena but are not expected to exceed 20% capacity.
 - Estimated persons per car is assumed to be 2.75. This is based on data collected for stadium venues that indicate ranges from 2.5 to 3.0 persons per vehicle for similar events.
 - Research regarding pre-event arrivals indicates that approximately 60% of traffic arrives in the hour before an event in downtown environments and 90% of traffic arrives in the hour before an event for suburban locations with fewer surrounding amenities. Although the proposed development plans a significant number of amenities in addition to the arena, 85% pre-event arrivals was assumed as a conservative measure.

Shared Parking Analysis

A summary of vehicle parking demand utilizing parking rates from the Urban Land Institute (ULI) 3rd Edition Shared Parking data is shown in **Attachment B**. The parking analysis was conducted using the latest March 2020 Shared Parking Model Version 1.1 developed by ULI, International Council of Shopping Centers, and National Parking Association. The parking rates summarized identify the selected parking baseline from empirical data representative of the proposed development.

Default mode share and internal capture parking reductions from the ULI analysis model were used for all land uses except for the arena and theme park. **Attachment B** summarizes the ULI 3rd Edition parking demand results for the proposed development. Overall, the peak parking demand using ULI methodology is 2,710 spaces for weekday and 2,789 spaces for weekend, which does not exceed the available parking supply of 2,945 spaces.

Shared parking analysis showed December as the peak demand month and the daily peak hourly demand occurring between 7:00 PM and 9:00 PM. This period captures the peak demand for the arena, restaurant, adult active entertainment, and retail land uses. The theme park is not expected to be in operation during December. Although the theme park and arena both have peak events occurring during March, April, May, and October, peak arena events occur in the evening (7:00 PM to 9:00 PM) which is outside the peak afternoon demand for the theme park (*approximately 4:00 PM*). *Overall, the peak parking demands for the theme park occur earlier in the day before the peak parking demands for the arena.*

For the arena retail shown in Block F1/F2, 45 are provided which exceeds the ULI required 36 spaces for the 16,000 square foot retail area. Per City of Olathe UDO guidelines, 52 stalls are required for a 16,000 square foot retail area. In the event parking demand exceeds the 45 spaces provided for the arena retail, the adjacent parking areas in Block G1 (105 spaces) are available for use due to the peak parking demand for the arena retail (weekday and weekend evenings) occurring outside the business hours of the medical/dental office (weekdays 8:00 AM to 5:00 PM).



It is noted that the peak parking demand for the theme park is from March to October and the peak time of day is midday on weekends. This peak period differs from the peak demand seasons and time of day periods for the arena and other commercial land uses. The peak parking demand while the theme park is operational occurs on weekends in May at 1:00 PM with a total development demand of 2,788 spaces. This summer peak demand does not exceed the available parking supply of 2,945 spaces.

Conclusion

Based on the parking analysis results, the estimated weekday and weekend peak parking demand does not exceed the proposed parking supply, as shown in the proposed development site plan.

Attachments:

- A. Proposed Development Site Plan
- B. Shared Parking Analysis Worksheets



ATTACHMENT A: PROPOSED DEVELOPMENT SITE PLAN



ATTACHMENT B: SHARED PARKING ANALYSIS WORKSHEETS

Project: Olathe Entertainment
 Description: Mixed-Use Arena Theme Park

Shared Parking Demand Summary																		
Peak Month: DECEMBER -- Peak Period: 7 PM, WEEKEND																		
Land Use	Project Data		Weekday					Weekend					Weekday			Weekend		
			Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Peak Hr Adj	Peak Mo Adj	Estimated Parking Demand	Peak Hr Adj	Peak Mo Adj	Estimated Parking Demand
	Quantity	Unit										7 PM	December		7 PM	March		
Retail																		
Retail (<400 ksf)	46,000	sf GLA	2.90	100%	60%	1.74	ksf GLA	3.20	100%	59%	1.87	ksf GLA	90%	100%	73	60%	70%	42
Employee			0.70	100%	100%	0.70		0.80	100%	100%	0.80		100%	100%	33	80%	79%	23
Food and Beverage																		
Fine/Casual Dining	23,000	sf GLA	13.25	100%	82%	10.89	ksf GLA	15.25	100%	84%	12.77	ksf GLA	100%	100%	251	95%	98%	274
Employee			2.25	100%	100%	2.25		2.50	100%	100%	2.50		100%	100%	52	100%	100%	58
Fast Casual/Fast Food	14,000	sf GLA	12.40	100%	25%	3.08	ksf GLA	12.70	100%	26%	3.31	ksf GLA	80%	96%	33	80%	97%	36
Employee			2.00	100%	100%	2.00		2.00	100%	100%	2.00		90%	100%	25	90%	100%	25
Entertainment and Institutions																		
Adult Active Entertainment	25,000	sf GLA	9.00	100%	89%	8.00	ksf GLA	10.00	100%	93%	9.31	ksf GLA	60%	100%	120	90%	95%	199
Employee			1.00	100%	100%	1.00		1.20	100%	100%	1.20		100%	100%	25	100%	100%	30
Arena	5,500	seats	0.34	100%	100%	0.34	seat	0.34	100%	100%	0.34	seat	100%	100%	1,863	100%	100%	1,863
Employee			0.03	100%	100%	0.03		0.03	100%	100%	0.03		100%	100%	165	100%	100%	165
Hotel and Residential																		
Hotel-Business		keys	1.00	59%	100%	0.59	key	1.00	69%	100%	0.69	key	75%	60%	-	75%	90%	-
Hotel-Leisure	160	keys	1.00	50%	100%	0.50	key	1.00	50%	100%	0.50	key	85%	50%	34	85%	100%	68
Hotel Employees	160	keys	0.15	100%	100%	0.15	key	0.15	100%	100%	0.15	key	20%	50%	2	20%	100%	5
Restaurant/Lounge		sf GLA	6.67	63%	90%	3.78	ksf GLA	7.67	54%	30%	1.24	ksf GLA	60%	100%	-	60%	95%	-
Meeting/Banquet (0 to 20 sq ft/key)		sf GLA	0.00	68%	60%	0.00	ksf GLA	0.00	68%	70%	0.00	ksf GLA	100%	100%	-	100%	100%	-
Meeting/Banquet (20 to 50 sq ft/key)		sf GLA	0.00	68%	60%	0.00	ksf GLA	0.00	68%	70%	0.00	ksf GLA	100%	100%	-	100%	100%	-
Meeting/Banquet (50 to 100 sq ft/key)		sf GLA	0.00	68%	60%	0.00	ksf GLA	0.00	68%	70%	0.00	ksf GLA	100%	100%	-	100%	100%	-
Convention (100 to 200 sq ft/key)		sf GLA	0.00	68%	60%	0.00	ksf GLA	5.50	68%	70%	2.62	ksf GLA	30%	100%	-	30%	90%	-
Convention (> 200 sq ft/key)		sf GLA	5.50	68%	60%	2.24	ksf GLA	5.50	68%	70%	2.62	ksf GLA	30%	100%	-	30%	90%	-
Restaurant/Meeting Employees		sf GLA	0.00	100%	100%	0.00	ksf GLA	0.00	100%	100%	0.00	ksf GLA	40%	100%	-	100%	100%	-
Office																		
Medical/Dental Office	25,000	sf GFA	3.00	100%	99%	2.96	ksf GFA	0.00	100%	100%	0.00	ksf GFA	30%	100%	22	0%	100%	-
Employee			1.60	100%	100%	1.60		0.00	100%	100%	0.00		30%	100%	12	0%	100%	-
Additional Land Uses																		
Theme Park	4,800	Capacity	2.70	100%	100%	2.70	Capacity	2.70	100%	100%	2.70	Capacity	0%	0%	-	0%	80%	-
Employee			0.05	100%	100%	0.05		0.05	100%	100%	0.05		0%	0%	-	0%	80%	-
													Customer/Visitor	2,396	Customer	2,482		
													Employee/Resident	315	Employee/Resident	306		
													Reserved	-	Reserved	-		
													Total	2,710	Total	2,789		

Project: Olathe Entertainment
Description: Mixed-Use Arena Theme Park

Monthly Comparison Summary								
Month	Weekday							
	Overall Pk		AM Peak Hr		PM Peak Hr		Eve Peak Hr	
	Time	Demand	Time	Demand	Time	Demand	Time	Demand
January	7 PM	2,633	11 AM	564	1 PM	703	7 PM	2,633
February	7 PM	2,642	11 AM	573	1 PM	712	7 PM	2,642
March	7 PM	2,702	11 AM	1,188	1 PM	1,627	7 PM	2,702
April	7 PM	2,685	11 AM	1,179	1 PM	1,612	7 PM	2,685
May	7 PM	2,700	11 AM	1,329	1 PM	1,841	7 PM	2,700
June	1 PM	1,822	11 AM	1,314	1 PM	1,822	7 PM	1,384
July	1 PM	1,782	11 AM	1,287	1 PM	1,782	7 PM	1,247
August	1 PM	1,786	11 AM	1,290	1 PM	1,290	7 PM	1,250
September	1 PM	1,770	11 AM	1,274	1 PM	1,770	7 PM	1,305
October	7 PM	2,629	11 AM	939	1 PM	1,263	7 PM	2,629
November	7 PM	2,664	11 AM	592	1 PM	740	7 PM	2,664
December	7 PM	2,710	11 AM	616	1 PM	785	7 PM	2,710
Late December	7 PM	2,591	11 AM	598	1 PM	767	7 PM	2,591

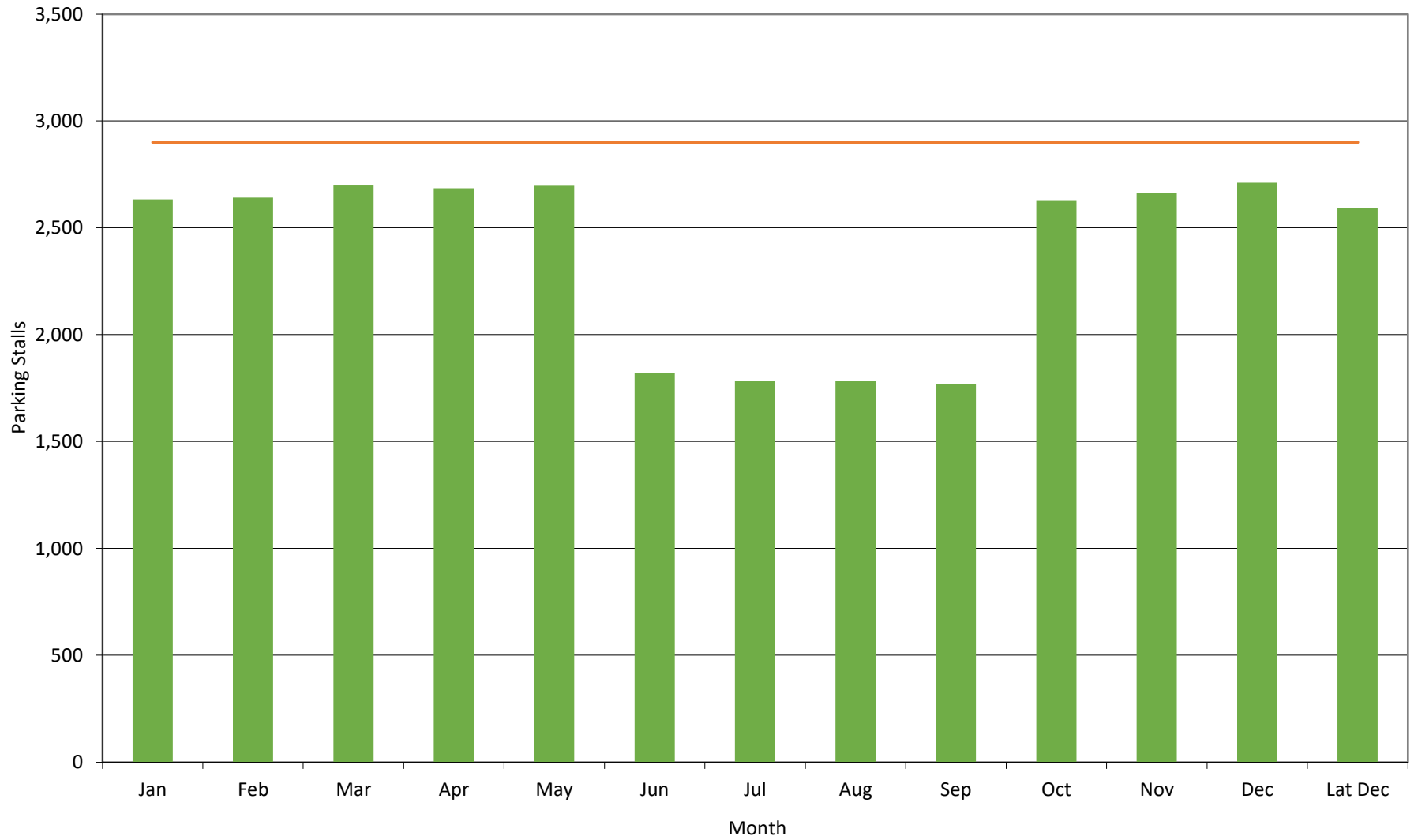
Monthly Comparison Summary								
Month	Weekend							
	Overall Pk		AM Peak Hr		PM Peak Hr		Eve Peak Hr	
	Time	Demand	Time	Demand	Time	Demand	Time	Demand
January	7 PM	2,708	11 AM	405	2 PM	996	7 PM	2,708
February	7 PM	2,717	11 AM	415	2 PM	1,007	7 PM	2,717
March	7 PM	2,789	11 AM	1,309	1 PM	2,302	7 PM	2,789
April	7 PM	2,768	11 AM	1,302	1 PM	2,287	7 PM	2,768
May	7 PM	2,788	11 AM	1,521	1 PM	2,659	7 PM	2,788
June	1 PM	2,521	11 AM	1,505	1 PM	2,521	7 PM	1,470
July	1 PM	2,457	11 AM	1,483	1 PM	2,457	7 PM	1,338
August	1 PM	2,462	11 AM	1,487	1 PM	2,462	7 PM	1,342
September	1 PM	2,461	11 AM	1,468	1 PM	2,461	7 PM	1,386
October	7 PM	2,716	11 AM	956	2 PM	1,731	7 PM	2,716
November	7 PM	2,746	11 AM	437	2 PM	1,041	7 PM	2,746
December	7 PM	2,784	11 AM	453	3 PM	1,091	7 PM	2,784
Late December	7 PM	2,693	11 AM	440	3 PM	1,075	7 PM	2,693

Project: Olathe Entertainment
 Description Mixed-Use Arena Theme Park

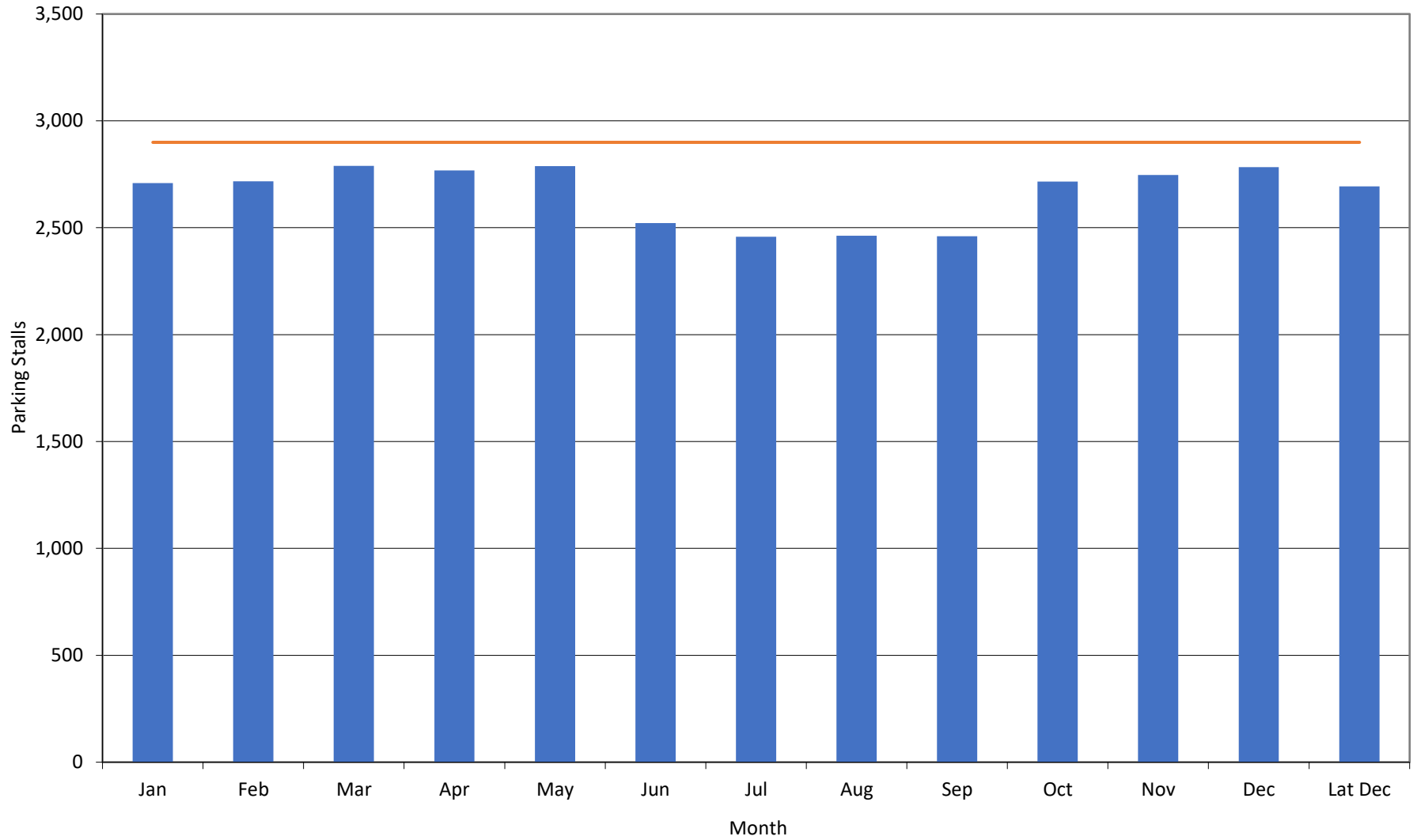
Distribution of Weekday Demand by Zone										
Land Use	Block A	Block B	Block C	Block D	Block E	Block F	Block G	Blocks H & I	Total	
Retail										
Retail (<400 ksf)	1	0	0	47	0	25	0	0	73	
Employee	0	0	0	22	0	11	0	0	33	
Food and Beverage										
Fine/Casual Dining	121	65	65	0	0	0	0	0	251	
Employee	24	14	14	0	0	0	0	0	52	
Fast Casual/Fast Food	0	17	17	0	0	0	0	0	34	
Employee	0	13	13	0	0	0	0	0	26	
Entertainment and Institutions										
Adult Active Entertainment	0	0	120	0	0	0	0	0	120	
Employee	0	0	25	0	0	0	0	0	25	
Arena	0	0	0	0	0	1863	0	0	1863	
Employee	0	0	0	0	0	165	0	0	165	
Hotel and Residential										
Hotel-Business	0	0	0	0	0	0	0	0	0	
Hotel-Leisure	0	34	0	0	0	0	0	0	34	
Hotel Employees	0	2	0	0	0	0	0	0	2	
Restaurant/Lounge	0	0	0	0	0	0	0	0	0	
Meeting/Banquet (0 to 20 sq ft/key)	0	0	0	0	0	0	0	0	0	
Meeting/Banquet (20 to 50 sq ft/key)	0	0	0	0	0	0	0	0	0	
Meeting/Banquet (50 to 100 sq ft/key)	0	0	0	0	0	0	0	0	0	
Convention (100 to 200 sq ft/key)	0	0	0	0	0	0	0	0	0	
Convention (> 200 sq ft/key)	0	0	0	0	0	0	0	0	0	
Restaurant/Meeting Employees	0	0	0	0	0	0	0	0	0	
Office										
Medical/Dental Office	0	0	0	0	0	0	22	0	22	
Employee	0	0	0	0	0	0	12	0	12	
Additional Land Uses										
	Block A	Block B	Block C	Block D	Block E	Block F	Block G	Blocks H & I	Total	
Parking Demand	Customer/Visitor	122	116	202	47	0	1888	22	0	2397
	Employee/Resident	24	29	52	22	0	176	12	0	315
	Reserved	0	0	0	0	0	0	0	0	0
Total	146	145	254	69	0	2064	34	0	2712	
Parking Supply	Customer/Visitor	113	306	384	143	0	45	105	1,849	2945
	Employee/Resident	0	0	0	0	0	0	0	0	0
	Reserved	0	0	0	0	0	0	0	0	0
Total	113	306	384	143	0	45	105	1849	2945	
Surplus (+)/Deficit (-)	Customer/Visitor	-9	190	182	96	0	-1843	83	1849	548
	Employee/Resident	-24	-29	-52	-22	0	-176	-12	0	-315
	Reserved	0	0	0	0	0	0	0	0	0
Total	-33	161	130	74	0	-2019	71	1849	233	

Distribution of Weekend Demand by Zone										
Land Use	Block A	Block B	Block C	Block D	Block E	Block F	Block G	Blocks H & I	Total	
Retail										
Retail (<400 ksf)	0	0	0	27	0	15	0	0	42	
Employee	0	0	0	15	0	8	0	0	23	
Food and Beverage										
Fine/Casual Dining	130	72	72	0	0	0	0	0	274	
Employee	28	15	15	0	0	0	0	0	58	
Fast Casual/Fast Food	0	18	18	0	0	0	0	0	36	
Employee	0	13	13	0	0	0	0	0	26	
Entertainment and Institutions										
Adult Active Entertainment	0	0	199	0	0	0	0	0	199	
Employee	0	0	30	0	0	0	0	0	30	
Arena	0	0	0	0	0	1863	0	0	1863	
Employee	0	0	0	0	0	165	0	0	165	
Hotel and Residential										
Hotel-Business	0	0	0	0	0	0	0	0	0	
Hotel-Leisure	0	68	0	0	0	0	0	0	68	
Hotel Employees	0	5	0	0	0	0	0	0	5	
Restaurant/Lounge	0	0	0	0	0	0	0	0	0	
Meeting/Banquet (0 to 20 sq ft/key)	0	0	0	0	0	0	0	0	0	
Meeting/Banquet (20 to 50 sq ft/key)	0	0	0	0	0	0	0	0	0	
Meeting/Banquet (50 to 100 sq ft/key)	0	0	0	0	0	0	0	0	0	
Convention (100 to 200 sq ft/key)	0	0	0	0	0	0	0	0	0	
Convention (> 200 sq ft/key)	0	0	0	0	0	0	0	0	0	
Restaurant/Meeting Employees	0	0	0	0	0	0	0	0	0	
Office										
Medical/Dental Office	0	0	0	0	0	0	0	0	0	
Employee	0	0	0	0	0	0	0	0	0	
Additional Land Uses										
	Block A	Block B	Block C	Block D	Block E	Block F	Block G	Blocks H & I	Total	
Parking Demand	Customer/Visitor	130	158	289	27	0	1878	0	0	2482
	Employee/Resident	28	33	58	15	0	173	0	0	307
	Reserved	0	0	0	0	0	0	0	0	0
Total	158	191	347	42	0	2051	0	0	2789	
Parking Supply	Customer/Visitor	113	306	384	143	0	45	105	1,849	2945
	Employee/Resident	0	0	0	0	0	0	0	0	0
	Reserved	0	0	0	0	0	0	0	0	0
Total	113	306	384	143	0	45	105	1849	2945	
Surplus (+)/Deficit (-)	Customer/Visitor	-17	148	95	116	0	-1833	105	1849	463
	Employee/Resident	-28	-33	-58	-15	0	-173	0	0	-307
	Reserved	0	0	0	0	0	0	0	0	0
Total	-45	115	37	101	0	-2006	105	1849	156	

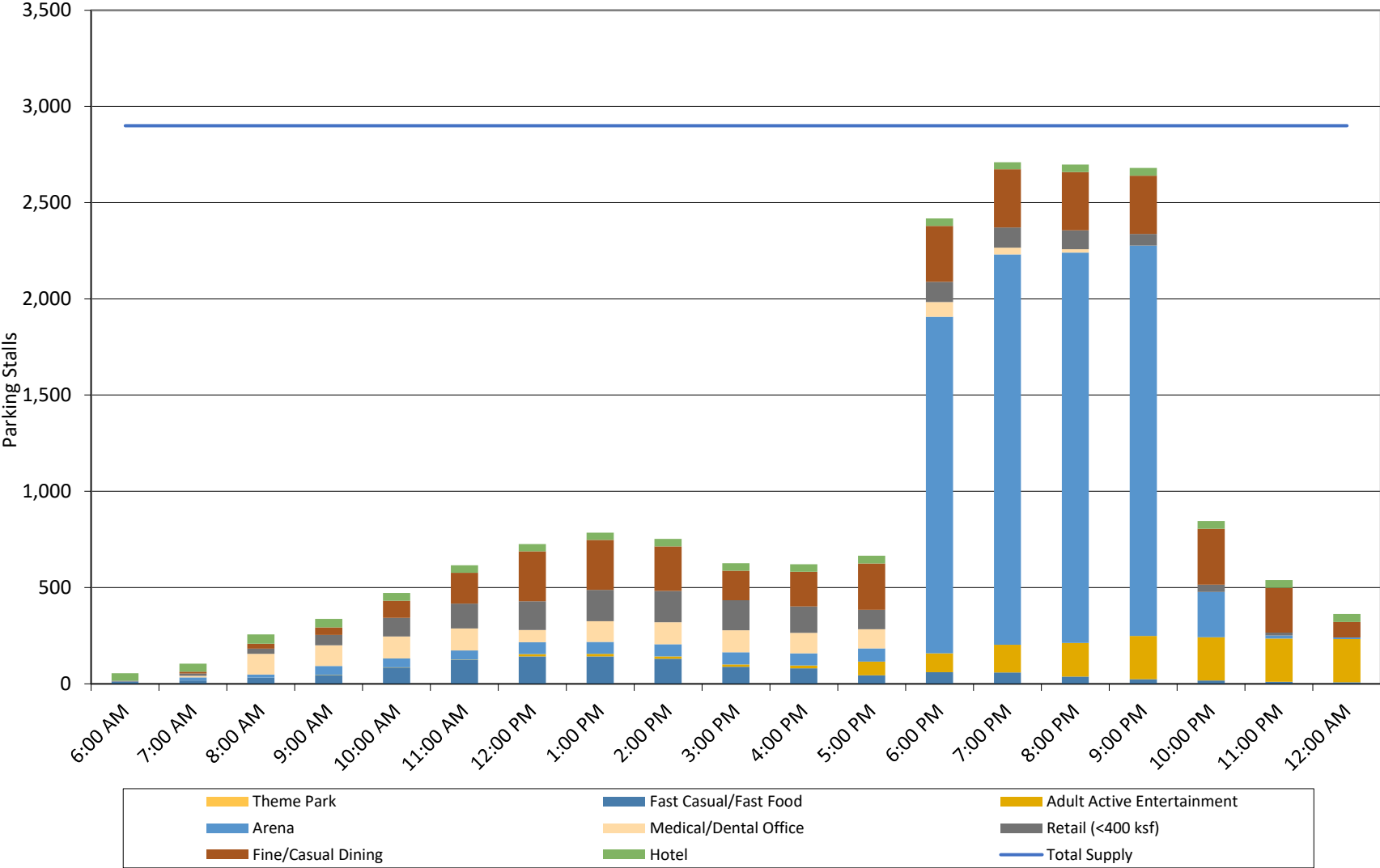
Weekday Month-by-Month Estimated Parking Demand



Weekend Month-by-Month Estimated Parking Demand



Peak Month Daily Parking Demand by Hour (Weekday)



Peak Month Daily Parking Demand by Hour (Weekend)

