

TECHNICAL MEMORANDUM

To: Brooke Hardin, AICP
City of Fairfax

From: Maria Lashinger, PE, PTOE
Ariel Jarvis, PE
Lauren Snider, EIT

Date: January 26, 2024

Subject: The Ox Fairfax – Block A – Shared Parking Analysis

Introduction

This memorandum presents justification for the proposed parking program for The Ox Fairfax – Block A redevelopment in the City of Fairfax, Virginia. The site location is shown in Figure 1. The existing site is currently occupied by 90,421 SF of office and other non-residential uses split between three (3) buildings. The proposed program is a mixed-use development comprised of up to a 4,127-person capacity (2,796 fixed seat) concert hall with a 117 seat black box theater, a 169-room hotel with 26,127 SF of conference space, 6,049 SF of office, two (2) art galleries totaling 8,399 SF, 13,912 SF of restaurant space, and 13,912 SF of retail. Total site build-out is planned for the year 2026.

A total of 525 parking spaces are planned to be provided on-site in a new below-grade parking garage and an interim surface lot, which equates to a 24.2 percent reduction.

This memorandum includes the following elements:

1. A review of the applicable parking requirements and the proposed parking reduction.
2. A review of the proposed on-site shared parking.
3. A summary of the site's location, including a review of transit service and bicycle and pedestrian facilities surrounding the site.

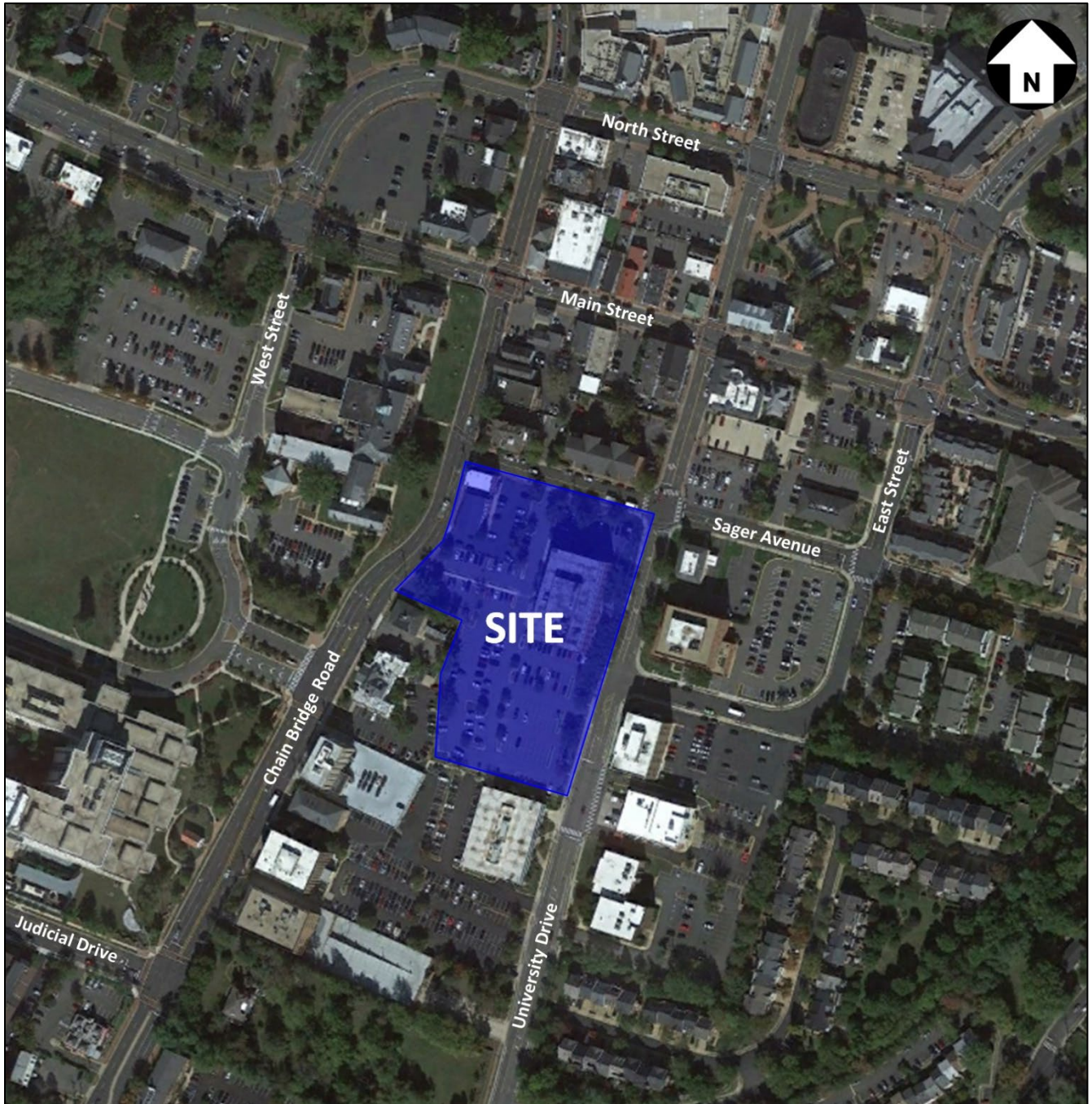


Figure 1: Site Location

Site Context and Transportation Amenities

The Ox Fairfax – Block A site is situated in an area with access to transit service, bicycle and pedestrian facilities, retail options, nearby residential neighborhoods, and educational institutions. The accessibility of these facilities and amenities is beneficial to The Ox Fairfax – Block A project where guests, employees, and visitors can greatly benefit from the site's multimodal location.

Existing Transit Services

The site is served by several bus routes which have bus stops within ½ mile from the site. These bus routes include:

- **City of Fairfax CUE Green Route:** This bus route connects the City of Fairfax and the Vienna/Fairfax-GMU Metro Station with multiple stops including Fairfax Circle and Main Street & Pickett Road. It operates on Chain Bridge Road and University Drive in the vicinity of the site. The Vienna/Fairfax-GMU Metro Station is served by the Orange line and also serves as a transfer point to other bus routes.
- **City of Fairfax CUE Gold Route:** This bus route connects the City of Fairfax and the Vienna/Fairfax-GMU Metro Station with multiple stops including Fairfax High School and Jermantown Road & Fairfax Boulevard. It operates on Chain Bridge Road and University Drive in the vicinity of the site. The Vienna/Fairfax-GMU Metro Station is served by the Orange line and also serves as a transfer point to other bus routes.
- **Metrobus 29K (Alexandria-Fairfax Line):** This bus route connects George Mason University and the King Street-Old Town Metro Station with multiple stops including the City of Fairfax, Annandale, and Landmark Mall. It operates on Chain Bridge Road and University Drive in the vicinity of the site. The King Street-Old Town Metro Station is served by the Blue and Yellow lines and serves as a transfer point to Amtrak and VRE. The metro station also serves as a transfer point to other bus routes.
- **Metrobus 17G (Kings Park Express Line):** This bus route connects George Mason University and the Pentagon Metro Station with multiple stops including Olde Forge, Kings Park West, and Kings Park. It operates on Chain Bridge Road and Armstrong Street in the vicinity of the site. The Pentagon Metro Station is served by the Blue and Yellow lines and also serves as a transfer point to other bus routes.
- **Fairfax Connector Route 306 (GMU – Pentagon Line):** This bus route connects George Mason University and the Pentagon Metro Station with multiple stops along Braddock Road. It operates on Chain Bridge Road and Armstrong Street the vicinity of the site. The Pentagon Metro Station is served by the Blue and Yellow lines and also serves as a transfer point to other bus routes.

A map of the existing transit facilities is shown in Figure 2.

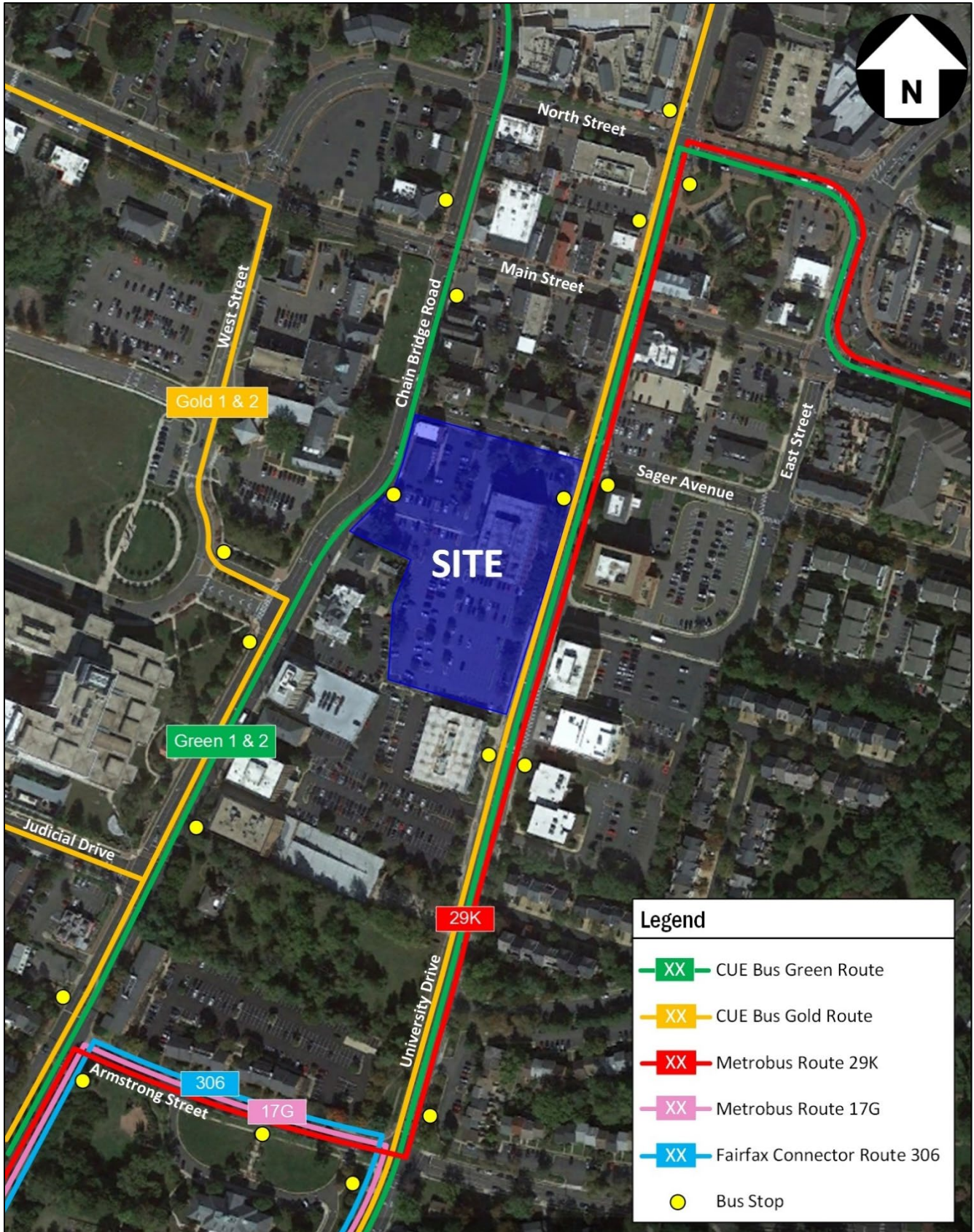


Figure 2: Existing Transit Facilities

Bicycle and Pedestrian Facilities and Connectivity

Dedicated on-street bicycle facilities currently exist on University Drive in the vicinity of the site. According to the City of Fairfax 2035 Comprehensive Plan, on-street bike facilities and concentrated bicycle supportive infrastructure are proposed along and near Main Street and University Drive in the vicinity of the site, as shown in Figure 3. Bicycle parking will be provided on-site.

The roadways in the vicinity of the site provide pedestrian facilities and connectivity throughout the study area. Crosswalks currently exist at the signalized intersections within the study area on almost all approaches.

A review of the pedestrian facilities surrounding the site shows that existing and planned facilities provide a quality walking environment, including access to retail options, nearby residential neighborhoods, and educational institutions. The site has a walk score of 91 which is considered a Walker's Paradise (Source: Walk Score). The accessibility of these facilities is beneficial to The Ox Fairfax – Block A project where guests, employees, and visitors can greatly benefit from the site's multimodal location.

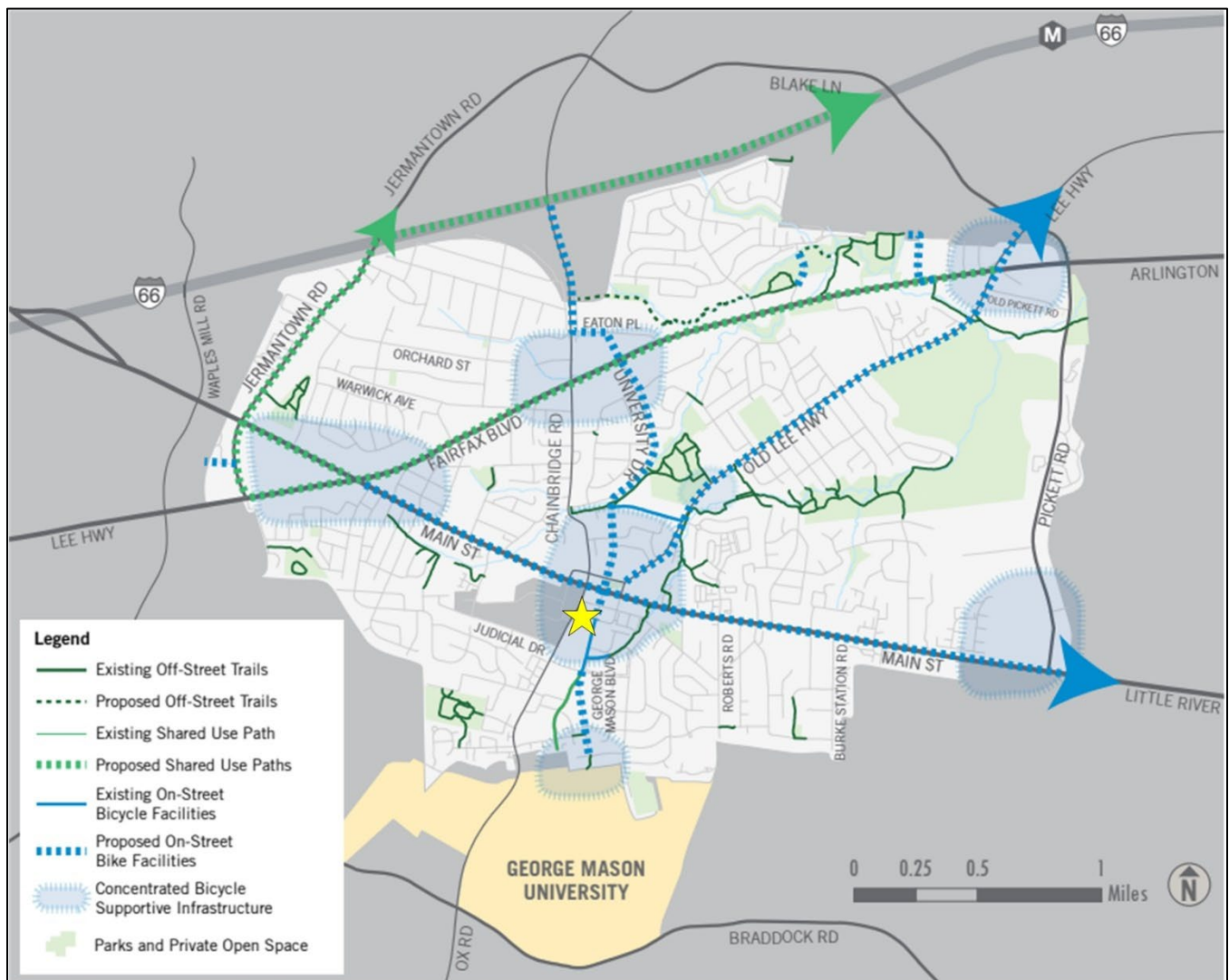


Figure 3: Proposed Network for Bicycle Travel (Source: City of Fairfax 2035 Comprehensive Plan)

Proposed Parking Supply

The City of Fairfax *Zoning Ordinance*, adopted in July 2016, stipulates parking requirements for the proposed uses on-site, taking into consideration the parking reductions permitted for structured parking within the Commercial Urban (CU) District and non-residential uses within the Old Town Fairfax Historic Overlay (HO) District. A summary of the City’s parking requirements relevant to the site and the proposed parking supply are summarized below in Table 1.

Table 1: City of Fairfax Parking Requirements

Land Use	Development	Parking Requirements	Required Spaces	CU District 10% Parking Reduction	HO District 50% Parking Reduction	Required After Reductions
Proposed Uses						
Art Gallery	8,399 SF	1 space per 400 SF of floor area	21	18	9	9
Concert Hall	4,244 Seats	1 space per 4 seats	1,061	954	477	477
Conference Center	26,127 SF	1 space per 200 SF of floor area	131	117	59	59
Hotel	169 Rooms	1 space per guest room	169	152	76	76
Office	6,049 SF	1 space per 300 SF of floor area	20	18	9	9
Restaurant	13,912 SF	1 space per 200 SF of floor area	69	62	31	31
Retail	13,912 SF	1 space per 200 SF of floor area	70	63	32	32
Site Total			1,541	1,384	693	693

Per the City’s parking requirements, The Ox Fairfax – Block A site would require 693 parking spaces.

On-Site Parking Supply

The Applicant is planning to construct a total of 525 parking spaces on-site in a new below-grade parking garage and interim surface lot. The final breakdown of parking provided for each use is subject to change as the project develops and final mix and density are approved.

The proposed parking supply would reduce the required 693 parking spaces to 525 spaces, which equates to a 24.2 percent reduction.

Shared Parking Analysis

Shared parking is planned on-site to accommodate the proposed parking reduction. Shared parking is the use of a parking space 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 trip.

The key goal of shared parking analysis is to find the balance between providing adequate parking to support a development from a commercial viewpoint and minimizing the negative aspects of excessive land area or resources devoted to parking.

The process below outlines the shared parking methodology:

1. *Determine* the applicable parking ratios – The base parking ratios are the minimum required parking spaces per the City’s *Zoning Ordinance*. The base parking ratios were split between employees and visitors using the parking ratios provided in the Urban Land Institute’s (ULI) *Shared Parking*, 3rd Edition (2020). The weekday retail rates were reduced by 10 percent, the weekday restaurant rates were reduced by 12.7 percent, and the weekend office rates were reduced by 90 percent per ULI guidance. The base parking ratios for weekdays are shown in Table 2 and for weekends in Table 3.

Table 2: Base Parking Ratios – Weekday

Land Use	Development	Base Parking Ratio	Base Parking Supply
Art Gallery - Employees	8,399 SF	0.10 /1,000 SF	1 spaces
Art Gallery - Visitors		1.02 /1,000 SF	8 spaces
Concert Hall - Employees	4,244 seats	0.02 /seat	90 spaces
Concert Hall - Visitors		0.09 /seat	387 spaces
Conference Center - Employees	26,127 SF	0.19 /1,000 SF	5 spaces
Conference Center - Visitors		2.06 /1,000 SF	54 spaces
Hotel - Employees	169 keys	0.06 /key	10 spaces
Hotel - Visitors		0.39 /key	66 spaces
Office - Employees	6,049 SF	1.38 /1,000 SF	8 spaces
Office - Visitors		0.12 /1,000 SF	1 spaces
Restaurant - Employees	13,912 SF	0.29 /1,000 SF	4 spaces
Restaurant - Visitors		1.68 /1,000 SF	23 spaces
Retail - Employees	13,912 SF	0.39 /1,000 SF	5 spaces
Retail - Visitors		1.63 /1,000 SF	23 spaces
			686 spaces

Table 3: Base Parking Ratios – Weekend

Land Use	Development	Base Parking Ratio	Base Parking Supply
Art Gallery - Employees	8,399 SF	0.11 /1,000 SF	1 spaces
Art Gallery - Visitors		1.01 /1,000 SF	9 spaces
Concert Hall - Employees	4,244 seats	0.02 /seat	84 spaces
Concert Hall - Visitors		0.09 /seat	394 spaces
Conference Center - Employees	26,127 SF	0.19 /1,000 SF	5 spaces
Conference Center - Visitors		2.06 /1,000 SF	54 spaces
Hotel - Employees	169 keys	0.06 /key	10 spaces
Hotel - Visitors		0.39 /key	66 spaces
Office - Employees	6,049 SF	0.14 /1,000 SF	1 spaces
Office - Visitors		0.01 /1,000 SF	0 spaces
Restaurant - Employees	13,912 SF	0.32 /1,000 SF	4 spaces
Restaurant - Visitors		1.93 /1,000 SF	27 spaces
Retail - Employees	13,912 SF	0.45 /1,000 SF	6 spaces
Retail - Visitors		1.80 /1,000 SF	25 spaces
			686 spaces

2. *Determine* the number of reserved parking spaces – For the purposes of this analysis, twenty (20) reserved spaces for the hotel valet were assumed.
3. *Determine* the peak parking scenario – This is shown in the following tables. The hourly factors are based on the Urban Land Institute (ULI) *Shared Parking*, 3rd Edition (2020) time-of-day factors. The hourly factors are applied to the base parking ratios shown in Table 2 and Table 3 to determine the peak parking scenario.
4. *Determine* the peak parking demand – This is shown in the following tables.

The shared parking analysis includes all the proposed uses. This analysis looks at the shared characteristics of these uses in the on-site below-grade parking garage and interim surface lot, which in total consists of 525 parking spaces.

Weekday

The weekday parking accumulation calculations are shown in Table 4 and Figure 4. The peak weekday parking demand is anticipated to occur at 8:00 PM. Based on the ULI time-of-day factors, the peak weekday demand is 609 parking spaces, which exceeds the provided 525 spaces.

Table 4: Weekday Shared Parking Hourly Characteristics

ULI - 3rd Edition	Proposed																								Total	Surplus						
	Art Gallery - Employees ¹		Art Gallery - Visitors ²		Concert Hall - Employees ³		Concert Hall - Visitors ⁴		Conference Center - Employees ⁵		Conference Center - Visitors ⁶		Hotel - Employees ⁷		Hotel - Visitors ⁸		Office - Employees ⁹		Office - Visitors ¹⁰		Restaurant - Employees ¹¹		Restaurant - Visitors ¹²				Retail - Employees ¹³		Retail - Visitors ¹⁴		Hotel - Reserved	
	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand			Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand
6:00 AM	5%	1	0%	0	0%	0	0%	0	10%	1	0%	0	10%	1	95%	44	3%	1	0%	0	0%	0	0%	0	10%	1	1%	1	100%	20	70	455
7:00 AM	5%	1	0%	0	10%	10	0%	0	10%	1	0%	0	30%	3	90%	42	15%	2	1%	1	20%	1	0%	0	15%	1	5%	2	100%	20	84	441
8:00 AM	5%	1	0%	0	10%	10	0%	0	60%	3	50%	27	100%	10	80%	37	50%	5	20%	1	50%	2	0%	0	25%	2	15%	4	100%	20	122	403
9:00 AM	25%	1	0%	0	20%	19	1%	4	100%	5	100%	54	100%	10	70%	32	90%	8	60%	1	75%	3	0%	0	45%	3	35%	8	100%	20	168	357
10:00 AM	75%	1	45%	4	20%	19	1%	4	100%	5	100%	54	100%	10	60%	28	100%	9	100%	1	90%	4	15%	4	75%	5	60%	14	100%	20	182	343
11:00 AM	100%	1	65%	6	20%	19	1%	4	100%	5	100%	54	100%	10	60%	28	100%	9	45%	1	90%	4	40%	10	95%	6	75%	18	100%	20	195	330
12:00 PM	100%	1	85%	7	30%	28	1%	4	100%	5	100%	54	100%	10	55%	25	85%	8	15%	1	90%	4	75%	18	100%	6	100%	23	100%	20	214	311
1:00 PM	100%	1	95%	8	30%	28	1%	4	100%	5	100%	54	100%	10	55%	25	85%	8	45%	1	90%	4	75%	18	100%	6	100%	23	100%	20	215	310
2:00 PM	100%	1	100%	8	30%	28	1%	4	100%	5	100%	54	100%	10	60%	28	95%	8	95%	1	90%	4	65%	16	100%	6	95%	22	100%	20	215	310
3:00 PM	100%	1	95%	8	30%	28	1%	4	100%	5	100%	54	100%	10	60%	28	95%	8	45%	1	75%	3	40%	10	100%	6	85%	20	100%	20	206	319
4:00 PM	100%	1	90%	8	30%	28	1%	4	100%	5	100%	54	70%	7	65%	30	85%	8	15%	1	75%	3	50%	12	100%	6	85%	20	100%	20	207	318
5:00 PM	80%	1	85%	7	30%	28	1%	4	100%	5	100%	54	70%	7	70%	32	60%	6	10%	1	100%	4	75%	18	100%	6	85%	20	100%	20	213	312
6:00 PM	75%	1	60%	5	100%	91	1%	4	60%	3	50%	27	40%	4	75%	35	25%	3	5%	1	100%	4	95%	23	100%	6	90%	21	100%	20	248	277
7:00 PM	10%	1	30%	3	100%	91	25%	97	40%	2	30%	17	20%	2	75%	35	15%	2	2%	1	100%	4	100%	24	100%	6	80%	19	100%	20	324	201
8:00 PM	5%	1	10%	1	100%	91	100%	388	40%	2	30%	17	20%	2	80%	37	5%	1	1%	1	100%	4	100%	24	90%	5	65%	15	100%	20	609	-84
9:00 PM	0%	0	0%	0	100%	91	100%	388	20%	1	10%	6	20%	2	85%	39	3%	1	0%	0	100%	4	100%	24	60%	4	45%	11	100%	20	591	-66
10:00 PM	0%	0	0%	0	30%	28	0%	0	0%	0	0%	0	20%	2	95%	44	1%	1	0%	0	100%	4	95%	23	40%	3	15%	4	100%	20	129	396
11:00 PM	5%	1	0%	0	10%	10	0%	0	0%	0	0%	0	10%	1	100%	46	0%	0	0%	0	85%	4	75%	18	20%	2	5%	2	100%	20	104	421
12:00 AM	5%	1	0%	0	5%	5	0%	0	0%	0	0%	0	5%	1	100%	46	0%	0	0%	0	35%	2	25%	6	0%	0	0%	0	100%	20	81	444

Time of Day Sources:
 1. Museum/Aquarium Employees - ULI Shared Parking, 3rd Edition
 2. Museum/Aquarium Visitors - ULI Shared Parking, 3rd Edition
 3. Live Theater Employees - ULI Shared Parking, 3rd Edition
 4. Live Theater Visitors - ULI Shared Parking, 3rd Edition
 5. Convention Employees - ULI Shared Parking, 3rd Edition
 6. Convention Visitors - ULI Shared Parking, 3rd Edition
 7. Hotel-Business Employees - ULI Shared Parking, 3rd Edition
 8. Hotel-Business Visitors - ULI Shared Parking, 3rd Edition
 9. Office Employees - ULI Shared Parking, 3rd Edition
 10. Office Visitors - ULI Shared Parking, 3rd Edition
 11. Fine/Casual Dining Employees - ULI Shared Parking, 3rd Edition
 12. Fine/Casual Dining Visitors - ULI Shared Parking, 3rd Edition
 13. Retail Employees - ULI Shared Parking, 3rd Edition
 14. Retail Typical Visitors - ULI Shared Parking, 3rd Edition

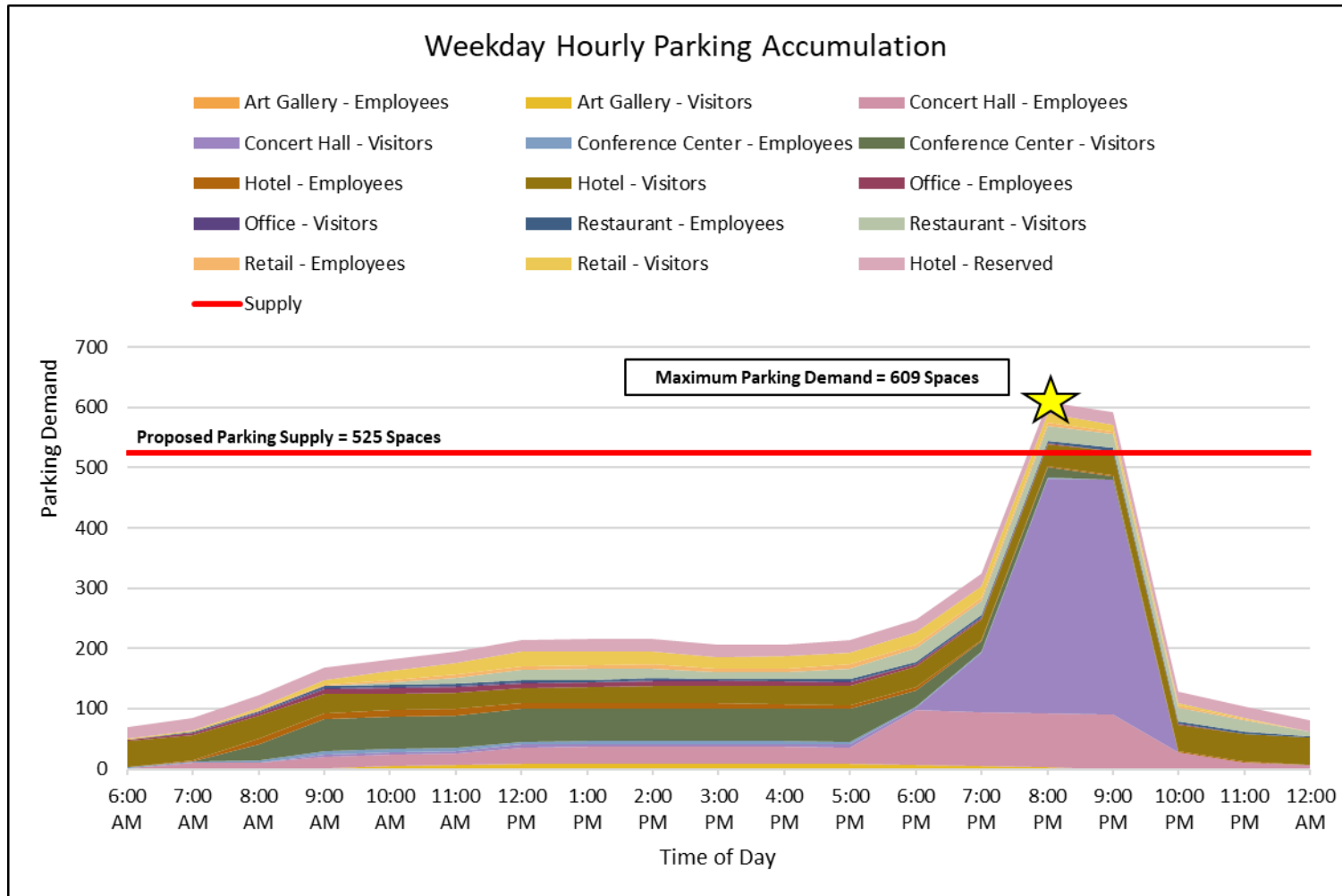


Figure 4: Weekday Shared Parking Hourly Characteristics

The parking demand is anticipated to exceed the supply during the week by 84 spaces. Alternative parking options that can be used to accommodate overflow parking demand are discussed in the *Parking Management* section.

Weekend

The weekend parking accumulation calculations are shown in Table 5 and Figure 5. The peak weekend parking demand is anticipated to occur at 8:00 PM. Based on the ULI time-of-day factors, the peak weekend demand is 615 parking spaces, which exceeds the provided 525 spaces.

Table 5: Weekend Shared Parking Hourly Characteristics

ULI - 3rd Edition	Proposed																												Total	Surplus		
	Art Gallery - Employees ¹		Art Gallery - Visitors ²		Concert Hall - Employees ³		Concert Hall - Visitors ⁴		Conference Center - Employees ⁵		Conference Center - Visitors ⁶		Hotel - Employees ⁷		Hotel - Visitors ⁸		Office - Employees ⁹		Office - Visitors ¹⁰		Restaurant - Employees ¹¹		Restaurant - Visitors ¹²		Retail - Employees ¹³		Retail - Visitors ¹⁴				Hotel - Reserved	
	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand	Time of Day Adjust	Demand			Time of Day Adjust	Demand
6:00 AM	5%	1	0%	0	0%	0	0%	0	10%	1	0%	0	10%	1	95%	44	0%	0	0%	0	0%	0	0%	0	10%	1	1%	1	100%	20	69	456
7:00 AM	5%	1	0%	0	10%	9	0%	0	10%	1	0%	0	30%	3	90%	42	20%	1	20%	1	20%	1	0%	0	15%	1	5%	2	100%	20	82	443
8:00 AM	5%	1	0%	0	10%	9	0%	0	60%	3	50%	27	100%	10	80%	37	60%	1	60%	1	30%	2	0%	0	40%	3	30%	8	100%	20	122	403
9:00 AM	25%	1	0%	0	20%	17	1%	4	100%	5	100%	54	100%	10	70%	32	80%	1	80%	1	60%	3	0%	0	75%	5	50%	13	100%	20	166	359
10:00 AM	75%	1	45%	4	20%	17	1%	4	100%	5	100%	54	100%	10	60%	28	90%	1	90%	1	75%	4	0%	0	85%	6	70%	18	100%	20	173	352
11:00 AM	100%	1	65%	6	20%	17	1%	4	100%	5	100%	54	100%	10	60%	28	100%	1	100%	1	75%	4	15%	5	95%	6	90%	23	100%	20	185	340
12:00 PM	100%	1	85%	8	30%	26	1%	4	100%	5	100%	54	100%	10	55%	25	90%	1	90%	1	75%	4	50%	14	100%	7	95%	24	100%	20	204	321
1:00 PM	100%	1	95%	9	100%	84	17%	67	100%	5	100%	54	100%	10	55%	25	80%	1	80%	1	75%	4	55%	15	100%	7	100%	26	100%	20	329	196
2:00 PM	100%	1	100%	9	100%	84	67%	264	100%	5	100%	54	100%	10	60%	28	60%	1	60%	1	75%	4	45%	13	100%	7	100%	26	100%	20	527	-2
3:00 PM	100%	1	95%	9	100%	84	67%	264	100%	5	100%	54	100%	10	60%	28	40%	1	40%	1	75%	4	45%	13	100%	7	95%	24	100%	20	525	0
4:00 PM	100%	1	90%	8	30%	26	1%	4	100%	5	100%	54	70%	7	65%	30	20%	1	20%	1	75%	4	45%	13	100%	7	90%	23	100%	20	204	321
5:00 PM	80%	1	85%	8	30%	26	1%	4	100%	5	100%	54	70%	7	70%	32	10%	1	10%	1	100%	5	60%	17	95%	6	80%	21	100%	20	208	317
6:00 PM	75%	1	60%	6	100%	84	1%	4	100%	5	50%	27	40%	4	75%	35	5%	1	5%	1	100%	5	90%	25	85%	6	75%	19	100%	20	243	282
7:00 PM	10%	1	30%	3	100%	84	25%	99	100%	5	30%	17	20%	2	75%	35	0%	0	0%	0	100%	5	95%	26	80%	6	70%	18	100%	20	321	204
8:00 PM	5%	1	10%	1	100%	84	100%	394	100%	5	30%	17	20%	2	80%	37	0%	0	0%	0	100%	5	100%	27	75%	5	65%	17	100%	20	615	-90
9:00 PM	0%	0	0%	0	100%	84	100%	394	100%	5	10%	6	20%	2	85%	39	0%	0	0%	0	100%	5	90%	25	65%	5	50%	13	100%	20	598	-73
10:00 PM	0%	0	0%	0	30%	26	0%	0	60%	3	0%	0	20%	2	95%	44	0%	0	0%	0	100%	5	90%	25	45%	3	30%	8	100%	20	136	389
11:00 PM	5%	1	0%	0	10%	9	0%	0	10%	1	0%	0	10%	1	100%	46	0%	0	0%	0	85%	4	90%	25	15%	1	10%	3	100%	20	111	414
12:00 AM	5%	1	0%	0	5%	5	0%	0	10%	1	0%	0	5%	1	100%	46	0%	0	0%	0	50%	3	50%	14	0%	0	0%	0	100%	20	91	434

- Time of Day Sources:
1. Museum/Aquarium Employees - ULI Shared Parking, 3rd Edition
 2. Museum/Aquarium Visitors - ULI Shared Parking, 3rd Edition
 3. Live Theater Employees - ULI Shared Parking, 3rd Edition
 4. Live Theater Visitors - ULI Shared Parking, 3rd Edition
 5. Convention Employees - ULI Shared Parking, 3rd Edition
 6. Convention Visitors - ULI Shared Parking, 3rd Edition
 7. Hotel-Business Employees - ULI Shared Parking, 3rd Edition
 8. Hotel-Business Visitors - ULI Shared Parking, 3rd Edition
 9. Office Employees - ULI Shared Parking, 3rd Edition
 10. Office Visitors - ULI Shared Parking, 3rd Edition
 11. Fine/Casual Dining Employees - ULI Shared Parking, 3rd Edition
 12. Fine/Casual Dining Visitors - ULI Shared Parking, 3rd Edition
 13. Retail Employees - ULI Shared Parking, 3rd Edition
 14. Retail Typical Visitors - ULI Shared Parking, 3rd Edition

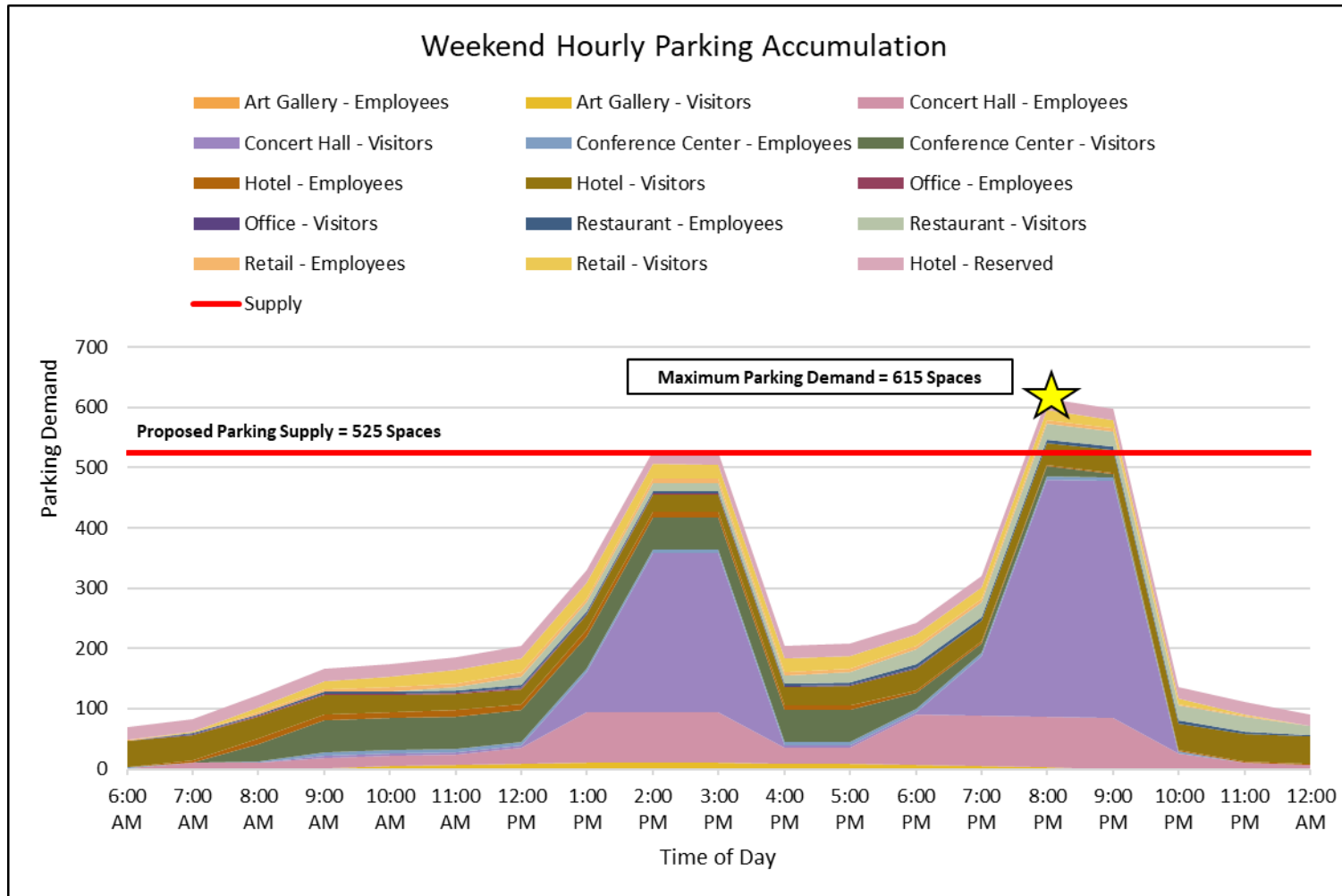


Figure 5: Weekend Shared Parking Hourly Characteristics

The parking demand is anticipated to exceed the supply on the weekend by 90 spaces. Alternative parking options that can be used to accommodate overflow parking demand are discussed in the *Parking Management* section.

Parking Management

In addition to parking provided on-site, the City of Fairfax has nine (9) public parking lots in Old Town Fairfax. Public parking lots would be available to visitors of The Ox Fairfax – Block A site as an alternative to parking on-site. The Fairfax County Judicial Center also has a paid public parking garage that would be available to visitors of The Ox Fairfax – Block A site. This provides an opportunity to spread event-generated traffic across several facilities with different access routes. Additionally, the Applicant is intending to provide a shuttle on event nights to an off-site location where parking spaces will be leased, which will offer roundtrip service to event attendees who park off-site.

There are several garages and surface lots suited to serve the demand of large events, such as the Bank of America Parking Lot and the Fairfax County Courthouse Parking Garage. These garages and lots are anticipated to peak during the day during business hours; therefore, the supply at these locations is anticipated to accommodate the projected demand of any overflow parking from a sellout event, which will peak in the evenings.

The City’s public parking lots and their hours of operation are summarized in Table 6. The public parking lots and associated pedestrian routes and walksheds relative to The Ox Fairfax – Block A site are shown in Figure 6 and Figure 7, respectively.

Table 6: Public Parking Lots

Parking Facility	Type	Hours	Rate	Notes
1. Truro Anglican Church (10480 Main Street)	Surface Lot	24/7	Free	None
2. Bank of America (10440 Main Street)	Surface Lot	M-Sun 6a-6p	Free	No overnight parking allowed
3. Old Town Plaza (3955 Chain Bridge Road)	Garage	24/7	Free	2 hour parking restriction
4. City of Fairfax Regional Library (10360 North Street)	Garage	M-T 1p-9p; W-Sun 10a-6p	Free	None
5. Webb Parking Lot (3990 University Drive)	Surface Lot	M-F after 6p, Sat after 1p, Sunday	Free	None
6. Old Town Hall Parking Lot (3999 University Drive)	Surface Lot	24/7	Free	2 hour parking restriction M-F 9a-5p, all other times no restrictions
7. Upper Old Town Hall Parking Lot (10413 North Street)	Surface Lot	24/7	Free	3 hour parking restriction M-F 9a-5p, all other times no restrictions
8. Main Street Parking Lot (10367 Main Street)	Surface Lot	24/7	Free	None
9. Sager Avenue Parking Lot (10412 Sager Avenue)	Surface Lot	M-Sun 6a-2a	Free	Free parking except for reserved spaces
10. Fairfax County Court Parking Garage (10550 Page Avenue)	Garage	24/7	\$2.50/hr, \$12.50 max	Parking is paid M-F 7a-7p



Figure 6: Public Parking Lots – Pedestrian Routes

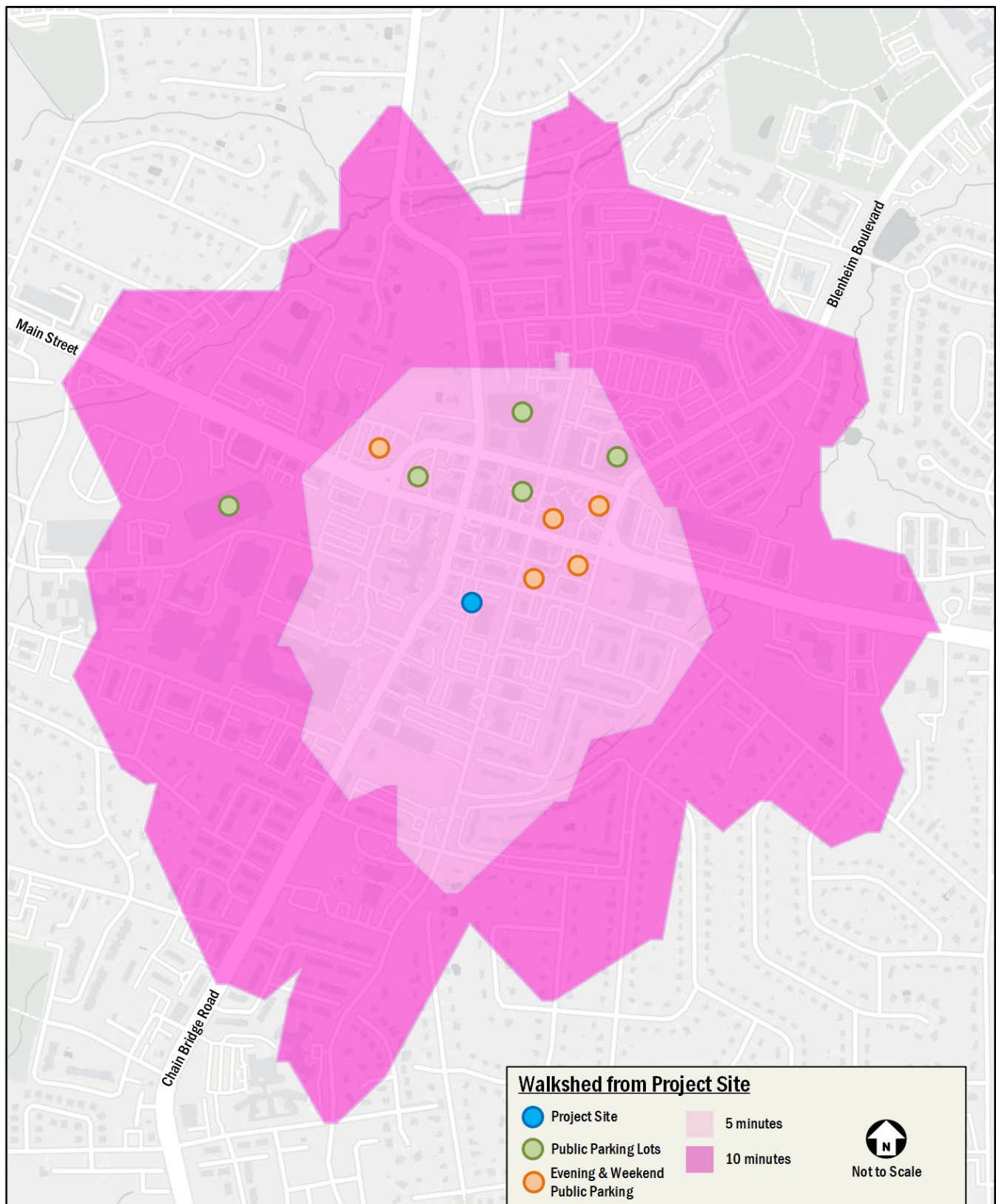


Figure 7: Public Parking Lots – Walksheds

Conclusion

This memorandum presented the findings of a shared parking analysis conducted in conjunction with the redevelopment of The Ox Fairfax – Block A site in the City of Fairfax, Virginia. This memorandum supports the following conclusions:

- Per the City of Fairfax *Zoning Ordinance*, a total of 693 parking spaces would be required for the application, including the parking reductions permitted for structured parking within the Commercial Urban (CU) District and non-residential uses within the Old Town Fairfax Historic Overlay (HO) District.
- The Applicant is proposing to construct a total of 525 parking spaces on-site in a below-grade parking garage and interim surface lot.
 - The proposed parking supply would reduce the required 693 parking spaces to 525 spaces, which equates to a 24.2 percent reduction.
 - This analysis assumes twenty (20) reserved spaces for the hotel valet.
 - The final breakdown of parking provided for each use is subject to change as the project develops and final mix and density are approved.
- Shared parking is planned on-site to help accommodate the proposed parking reduction.
 - The shared parking tables and figures show that the uses peak at different times of day and that the on-site garage can accommodate the uses at most times of the day.
 - The parking demand is expected to exceed the proposed supply when sellout events are taking place.
 - The parking demand only peaks for a short period of time during sellout events; therefore, a parking reduction is justified as there will be a sufficient parking supply the majority of the time.
 - There are nine (9) public parking lots in Old Town Fairfax and a paid garage at the Fairfax County Judicial Center that can be used for overflow parking, all within a ten-minute walk from The Ox Fairfax – Block A site.
- The Ox Fairfax – Block A site is situated in an area with access to transit service, bicycle and pedestrian facilities, retail options, nearby residential neighborhoods, and educational institutions. The accessibility of these facilities and amenities is beneficial to The Ox Fairfax – Block A project where guests, employees, and visitors can greatly benefit from the site’s multimodal location. The Ox Fairfax – Block A site is considered “very walkable” with a walk score of 91 and existing sidewalks along the corridors adjacent to and within the vicinity of the site.

TECHNICAL APPENDIX

E. Parking ratio requirements

Off-street parking spaces shall be provided for all uses listed below in at least the minimum amounts specified.

USE TYPES/ USE GROUPS*	GENERAL REQUIREMENTS
RESIDENTIAL	
Single-family detached	2 spaces per unit
Single-family attached	2 spaces per unit
Duplexes	2 spaces per unit
Multifamily	1.5 spaces per one or less bedroom unit; 2 spaces per 2 or more bedroom unit
Townhouses	2 spaces per unit
Upper story residential/mixed use buildings	1.25 spaces per efficiency unit; 1.5 spaces per 1 bedroom unit; 2 spaces per 2 or more bedroom units; other uses as required herein
PUBLIC, CIVIC AND INSTITUTIONAL USES (SEE §3.4.1.E)	
Adult day care	5 spaces per 1,000 sq. ft. of floor area
Assisted living facility	1 space per 4 beds
Auditorium or arena	1 space per 4 seats
Day care centers	5 spaces per 1,000 sq. ft. of floor area
Day care home, family (less than 5)	No spaces in addition to spaces otherwise required
Day care home, family (5 to 12)	In addition to spaces otherwise required, 1 space for such home providing care for 5 to 7 children, and 2 spaces for such home providing care for 8 to 12 children
Detention facilities	Determined by zoning administrator per §4.2.10
Colleges and universities	10 spaces per classroom
Community services*	1 space per 300 sq. ft. of floor area
Congregate living facility	1.5 spaces per unit
Group homes/statutory	2 space per dwelling
Hospitals	1 space per 2 beds, but not less than 1 space per 200 sq. ft. of floor area
Medical care facilities*	1 space per 2 beds, but not less than 1 space per 200 sq. ft. of floor area
Nursery schools	5 spaces per 1,000 sq. ft. of floor area
Nursing homes	1 space per 5 beds
Parks and open areas*	Determined by zoning administrator per §4.2.10
Religious institutions	1 space per 4 seats in main assembly area
Schools, elementary and middle	2 spaces per classroom
Schools, high	5 spaces per classroom
Social service delivery	Determined by zoning administrator per §4.2.10
Utilities, minor*	None
Utilities, major*	1 space per 1,000 sq. ft. of floor area
Telecommunications towers/facilities	Determined by zoning administrator per §4.2.10
COMMERCIAL USES (SEE §3.4.1.F)	
Adult uses	1 space per 100 sq. ft. of floor area
Amusement centers	1 space per 250 sq. ft. of floor area
Animal care facilities	1 space per 250 sq. ft. of floor area
Art gallery or studio	1 space per 400 sq. ft. of floor area
Auction houses	5 spaces per 100 sq. ft. of floor area
Bed and Breakfasts	1 space per guest room, plus otherwise required parking

USE TYPES/ USE GROUPS*	GENERAL REQUIREMENTS
Brew pubs	1 space per 300 sq. ft. of floor area
Building supplies and lumber sales	1 space per 300 sq. ft. of floor area
Catering or delivery services	1 space per 200 sq. ft. of floor area
Cemeteries	Determined by zoning administrator per §4.2.10
Convenience stores	1 space per 200 sq. ft. of floor area
Fuel stations	1 space per 200 sq. ft. of floor area
Funeral homes	1 space per 50 square feet of floor space in funeral service rooms
Furniture, appliance or carpet/flooring stores	1 space per 400 sq. ft. of floor area
Grocery stores	1 space per 200 sq. ft. of floor area
Hotels; hotels, extended-stay; motels	1 space per guest room, plus 1 space per 200 sq. ft. of conference, banquet, restaurants or food services floor area
Manufacturing, limited*	1 space per 1,000 sq. ft. of floor area
Office, general*	1 space per 300 sq. ft. of floor area
Office, medical*	1 space per 200 sq. ft. of floor area
Parking, commercial or municipal	Determined by zoning administrator per §4.2.10
Plant nurseries and greenhouses	1 space per 200 sq. ft. of floor area
Private clubs	1 space per 200 sq. ft. of floor area
Recreation, indoor*	1 space per 250 sq. ft. of floor area
Recreation, outdoor*	Determined by zoning administrator per §4.2.10
Restaurants or food service	1 space per 200 sq. ft. of floor area; 1 space per 100 sq. ft. of floor area with dancing and entertainment; none for outdoor dining and service areas
Retail, general*	1 space per 200 sq. ft. of floor area
Retail, large format	1 space per 200 sq. ft. of floor area
Schools, technical, trade, business	6 per classroom, plus 1 per 300 sq. ft. of office floor area
Service, general*	1 space per 200 sq. ft. of floor area
Services, personal*	1 space per 200 sq. ft. of floor area
Shopping centers	1 space per 200 sq. ft. of floor area
Theater	1 space per 4 seats
Tobacco and smoke shops	1 space per 200 sq. ft. of floor area
Vehicle repair*	2 spaces per bay
Vehicle sales and leasing*	1 per 500 sq. ft. of floor area
Vehicle service*	2 spaces per bay
INDUSTRIAL USES (SEE §3.4.1.G)	
Crematorium	Determined by zoning administrator per §4.2.10
Fuel sales, residential	1 space per 1,000 sq. ft. of floor area
Manufacturing, general*	1 space per 1,000 sq. ft. of floor area
Manufacturing, heavy*	1 space per 1,000 sq. ft. of floor area
Manufacturing, limited*	1 space per 1,000 sq. ft. of floor area
Petroleum storage and distribution	Determined by zoning administrator per §4.2.10
Research and development*	1 space per 1,000 sq. ft. of floor area
Self-service storage facility	5 spaces, plus 1 space per 100 storage units
Vehicle storage and towing	One space per 300 sq. ft. of floor area
Warehouse/freight movement*	1 space per 1000 sq. ft. of floor area
Waste service*	1 per 300 sq. ft. of floor area + 1 per 1,000 sq. ft. of outside storage area

§4.2.4. Location of parking

Except as specified herein, required parking spaces must be located off-street, on the same lot as the building or use they are required to serve, and not be within any minimum required front or side yard area as specified in §1.5.12, unless otherwise specified below.

FIGURE 2-2 Base Parking Ratios

Land use	Weekday (parking spaces/unit land use)		Weekend (parking spaces/unit land use)		Peak ratio	Units	Source
	Visitors	Employees	Visitors	Employees			
Retail <400,000 sq ft	2.90	0.70	3.20	0.80	4.00	ksf GLA	1
Retail 400,000-600,000 sq ft	sliding scale between <400,000 and 600,000				scaled 4.00 to 4.50	ksf GLA	1
Retail 600,000-1 million sq ft	3.20	0.80	3.60	0.90	4.50	ksf GLA	1
Retail 1 million-2 million sq ft	sliding scale between 1 million and 2 million sq ft				scaled 4.00 to 4.50	ksf GLA	2
Retail >2 million sq ft	2.90	0.70	3.20	0.80	4.00	ksf GLA	2
Supermarket/grocery	4.00	0.75	4.00	0.75	4.75	ksf GLA	2,3
Pharmacy	3.00	0.40	3.00	0.40	3.40	ksf GLA	3
Discount stores/superstores	3.40	0.85	3.80	0.95	4.75	ksf GLA	3
Home improvement stores/garden	3.10	0.80	3.45	0.90	4.35	ksf GLA	2
Fine/casual dining	13.25	2.25	15.25	2.50	17.75	ksf GLA	2,3
Family restaurant	15.25	2.15	15.00	2.10	17.10	ksf GLA	2,3
Fast casual/fast food	12.40	2.00	12.70	2.00	14.70	ksf GLA	3
Bar/lounge/nightclub	15.25	1.25	17.50	1.50	19.00	ksf GLA	2
Family entertainment	1.80	0.20	2.50	0.25	2.75	ksf GLA	2
Active entertainment	1.50	0.15	1.80	0.20	2.00	ksf GLA	2
Amusement park/water park	3.00	0.30	3.70	0.37	4.07	ksf GLA	2
Adult active entertainment	9.00	1.00	10.00	1.20	11.20	ksf GLA	2
Cineplex	0.15	0.01	0.24	0.01	0.25	seat	2,3
Specialty movie theater	0.18	0.02	0.29	0.01	0.30	seat	2,3
Live theater	0.30	0.07	0.33	0.07	0.40	seat	2,3
Outdoor amphitheater	0.30	0.07	0.33	0.07	0.40	seat	2
Public park/destination open space	4.00	0.40	5.00	0.50	5.50	acre	2
Museum/aquarium	4.00	0.40	4.50	0.50	5.00	ksf GLA	2
Public library	2.00	0.25	1.90	2.00	3.90	ksf GLA	2
Health club	6.60	0.40	5.50	0.25	7.00	ksf GLA	2,3
Daycare center	1.50	2.00			3.50	ksf GFA	2,3
Convention center	5.50	0.50	5.50	0.50	6.00	ksf GFA	2

(continued on next page)

FIGURE 2-2 (continued)

Land use	Weekday (parking spaces/unit land use)		Weekend (parking spaces/unit land use)		Peak ratio	Units	Source
	Visitors	Employees	Visitors	Employees			
Hotel-business	1.00	0.15	1.00	0.15	1.15	key	2,3
Hotel-leisure	1.00	0.15	1.00	0.15	1.15	key	2,3
Restaurant/lounge	6.67	1.20	7.67	1.33	9.00	ksf GLA	2,3
Meeting/banquet (0-20 sq ft/key)	scaled from 0 to 30	scaled from 0 to 2.0	scaled from 0 to 20	scaled from 0 to 2.0	scaled from 0 to 32	ksf GLA	2,3
Meeting/banquet (20-50 sq ft/key)	scaled from 30 to 20	scaled from 2 to 1.5	scaled from 20 to 10	scaled from 2 to 1.5	scaled from 32 to 21.5	ksf GLA	2,3
Meeting/banquet (50-100 sq ft/key)	scaled from 20 to 10	scaled from 1.5 to 1.0	scaled from 10 to 5.5	scaled from 1.5 to 1.0	scaled from 21.5 to 11.1	ksf GLA	2,3
Convention (100-200 sq ft/key)	scaled from 10 to 5.5	scaled from 1 to 0.5	5.50	scaled from 1 to 0.5	scaled from 11.1 to 6	ksf GLA	2,3
Convention (>200 sq ft/key)	use convention center but adjust for captive on site						2,3
Residential							
Studio efficiency	0.10	0.85	0.15	0.85	1.00	unit	2,3
1 bedroom	0.10	0.90	0.15	0.90	1.05	unit	2,3
2 bedrooms	0.10	1.65	0.15	1.65	1.80	unit	2,3
3+ bedrooms	0.10	2.50	0.15	2.50	2.65	unit	2,3
Senior housing	0.55	0.30	0.42	0.30	0.85	unit	2,3
Office <25,000 sq ft	0.30	3.50	0.03	0.35	3.80	ksf GFA	3
Office 25,000-100,000 sq ft	sliding scale between <25,000 and 100,000				scaled from 3.8 to 3.4	ksf GFA	3
Office = 100,000 sq ft	0.25	3.15	0.03	0.32	3.40	ksf GFA	3
Office 100,000-500,000 sq ft	sliding scale between 100,000 and 200,000				scaled from 3.4 to 2.8	ksf GFA	3
Office >500,000 sq ft	0.20	2.60	0.02	0.26	2.80	ksf GFA	3
Open plan/high-density office	0.25	5.75	0.03	0.58	6.00	ksf GFA	2
Medical/dental office	3.00	1.60	0.00	0.00	4.60	ksf GFA	2,3
Bank (drive-in branch)	3.50	2.50	3.00	1.75	6.00	ksft GFA	2,3
Arena	0.27	0.03	0.30	0.03	0.33	seat	2
Pro football stadium	0.30	0.01	0.30	0.01	0.31	seat	2
Pro baseball stadium	0.31	0.01	0.34	0.01	0.35	seat	2

Sources:

1. *Parking Requirements for Shopping Centers*, 2nd ed. (Washington, DC: ULI, 1999).
2. Developed by Team Members from a combination of sources.
3. *Parking Generation*, 5th ed. (Washington, DC: Institute of Transportation Engineers, 2019).

Note: New land uses and changes to second edition titles shown in **bold**. Changes or new ratios are highlighted in blue.

