

# Appendix L-2

## **Parking Study**





BUILDING ENVELOPE  
CONSULTING  
FORENSIC RESTORATION  
PARKING DESIGN  
PLANNING



Parking Demand Study and Operations Plan

## PROVIDENCE SAINT JOHN'S PHASE II

Santa Monica, CA

May 6, 2019

Prepared For:  
Providence Saint John's Health Center



**WALKER**  
CONSULTANTS

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# 01

## Introduction Section

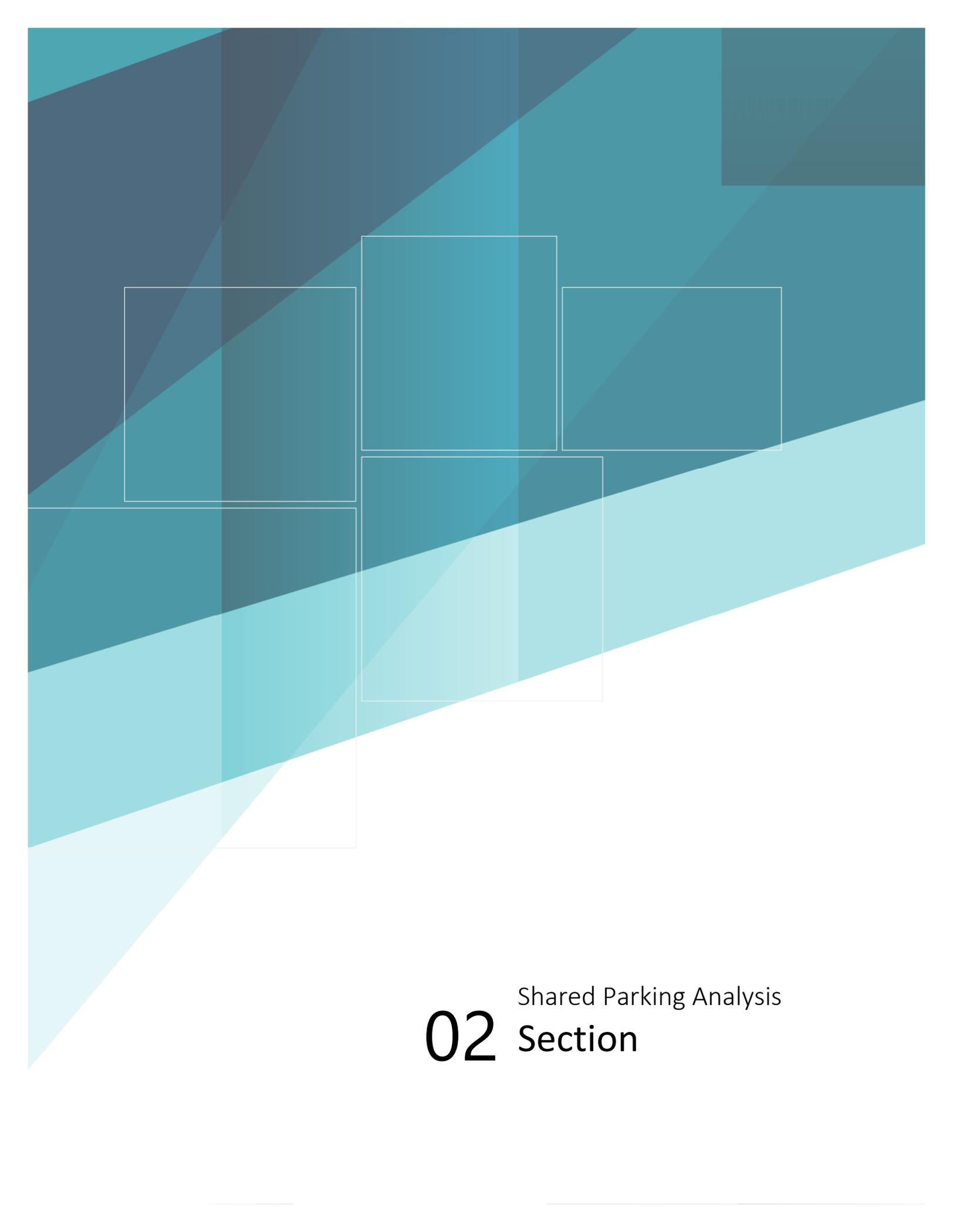
This Parking Study is being submitted in conjunction with Providence Saint John's Phase II Master Plan. This study assesses Providence Saint John's peak parking demand associated with Phase II development and with the existing Phase I uses and recommends a strategy for Providence Saint John's to provide sufficient parking supply to satisfy this demand during Phase II development and upon its completion.

This study relies upon two metrics as starting points for determining parking demand for Providence Saint John's various uses, or the Base Parking Generation Ratios. For uses where there is empirical data available based upon Saint John's Phase I operations, the Base Parking Generation Ratios are based on this empirical data. For all other uses, this study uses the 2015 Zoning Ordinance's parking ratios as the Base Parking Generation Ratios.

After establishing the Base Parking Generation Ratios, this study then projects future parking demand by making certain adjustments based on shared parking and implementation of Transportation Demand Management.

This study concludes and recommends the following:

1. Providence Saint John's will be able to satisfy its peak parking demand and construction parking at each stage of Phase II development under both the potential Phase II implementation scenarios, and the alternative scenario with 200 spaces under 2I and no parking under S2, through a combination of leased and owned parking and without increasing Providence Saint John's reliance on leased parking.
2. Upon full Phase II implementation, Providence Saint John's will be able to satisfy its peak parking demand with owned parking and will no longer need to lease parking.
3. We recommend that Providence Saint John's construct four levels of subterranean parking on the first two Phase II development sites (except for the 10-unit Multifamily Housing (S2) building site) and three to four levels of subterranean parking on the third Phase II development site. This will allow Providence Saint John's to significantly improve its ratio of owned parking supply to peak parking demand by the end of the third stage from the current 76% to 84%-96%.
4. We recommend that the amount of parking to be developed in the last two stages of Phase II implementation be established closer in time to the last two stages being constructed based on an update of this study. Modes of transportation and the need for auto parking will very likely change during Phase II's 20-25-year implementation. More empirical data with respect to Providence Saint John's parking demand will become available as Phase II development is open and occupied. In addition, updated information about how the Phase II parking locations are being used (which user groups) and operated (valet/attendant or self park) will be available. Establishing the parking to be developed in the last two stages of Phase II implementation closer in time to these stages being constructed will allow Providence Saint John's and the City to "right-size" the parking.
5. So long as Providence Saint John's continues to rely upon leased parking to meet its peak parking demand, we recommend that Providence Saint John's continue to prepare annual Parking Management Plan reports documenting its owned and leased parking supply, its parking demand by user group, the user groups parking at each parking location, and the operations (valet, attendant, self-park) at each parking location. This will provide an important annual check-in to revisit the appropriate amount of leased parking during Phase II implementation, the appropriate buffer of spaces that should be provided, and whether changes to the use and/or operations of the parking supply (such as redistribution of user groups) are prudent.



# 02 Shared Parking Analysis Section

**SHARED PARKING ANALYSIS****SHARED PARKING METHODOLOGY**

For the analysis herein, Walker employed a shared parking model to assess projected demand. Shared parking methodology was developed in the 1980s and has been a widely-accepted industry standard for rightsizing parking facilities over the past 30+ years. Adopted by cities throughout the U.S., and codified in zoning ordinances as an acceptable practice, shared parking is endorsed by the ULI, the American Planning Association (APA), the National Parking Association (NPA), and International Council of Shopping Centers (ICSC), as an acceptable method of parking planning and management.

Shared parking allows for the sharing of parking spaces among uses in a mixed-use environment in lieu of providing a minimum number of parking spaces for each individual use. Shared parking commonly results in a reduction of required parking spaces. This reduction, which is sometimes significant, depends on the quantities and mix of uses and local code requirements.

Shared Parking is defined as the ability to use the same parking resource by multiple nearby or adjacent land uses without encroachment. Shared parking takes into account the parking demand for more than 45 different land uses; the availability and use of alternative modes of transportation; captive market effects<sup>1</sup>; and daily, hourly, and seasonal variations.

A shared parking model generates 456 parking computations as follows:

- 19 hours during a day, beginning at 6 a.m. and concluding at 1 a.m.
- 2 days per week, a weekday and a weekend day
- 12 months of the year
- $19 \times 2 \times 12 = 456$  different calculations

The recommended parking capacity is based on the highest figure generated from these 456 computations. Therefore, the intent is to design for the 85<sup>th</sup> percentile level of parking demand relative to similar properties, with the output of the shared parking model reflecting this condition. Planning for the 85<sup>th</sup> percentile demand allows for efficient use of parking assets and allows for users of the parking system to be able to easily locate a parking space on all but the busiest days of the year. On the busiest days, users may have to hunt for a parking space, but would still be able to find a space due to the parking supply buffer provided.

The following graphic provides an illustrative view of the steps involved in the shared parking analysis. This graphic is used within this document to help the reader understand the shared parking process and to also assist in communicating the steps of the analysis that is being described within this report. The Shared Parking Analysis section of this report follows this graphic in consecutive order, moving from left to right, and in subsequent report

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<sup>1</sup> Recognition of a user group already on site for another primary purpose and not generating incremental parking demand for an accessory use. For example, a sandwich shop located in an office tower generates very little, if any, outside parking demand. Since the parking demand for the office tower tenants has already been accounted for, to avoid double counting, a non-captive adjustment factor is applied to the parking demand calculation for the sandwich shop. In this extreme example, the non-captive ratio may be 0 percent.

sections, the gray highlighted section of the graphic (note: all sections are highlighted in Figure 1) designates the step that is being described.

Figure 1: Steps of a Shared Parking Analysis

Land Use Units (Number of rooms, square footage, etc.)	X	Base Parking Generation Ratios	X	Monthly Factor	X	Hourly Factor	X	Non- Captive Ratio	X	Driving Ratio	=	TOTAL
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Source: Walker Consultants

The key goal of a shared parking analysis is to find the balance between providing adequate parking to support a development from a commercial and operational standpoint and protect the interests of neighboring property owners, while minimizing the negative aspects of excessive land area or resources devoted to parking. The ultimate goal of a shared parking analysis is to find reasonably predictable design day condition. The output of the shared parking model represents an 85<sup>th</sup> percentile condition relative to similar properties.

Allowing multiple land uses and entities to share parking spaces has allowed for and led to the creation of many popular real estate developments and districts, resulting in the combination of office, residential, retail, hotel, and entertainment districts that rely heavily on shared parking for economic viability while providing parking accommodations to meet the actual demand generated by the development. Traditional downtowns in large and small cities alike have depended on the practice in order to be compact, walkable, and economically viable. In the same way, mixed-use projects have also benefited from the shared-parking principle, which offers multiple benefits to a community, not the least of which is a lesser environmental impact due to the reduction in required parking needed to serve commercial developments, as well as the ability to create a more desirable mix of uses at one location, all the while ensuring that parking supply is designed for the 85th percentile condition relative to similar properties.

We believe shared parking is an appropriate methodology for the PSJHC campus as there will be users who visit multiple uses during their parking stay (e.g. employees visiting neighborhood-serving retail, employees using the education and conference center, persons staying at the visitor housing using the other PSJHC campus uses) and there are uses with different periods of peak demand.

### SHARED PARKING ANALYSIS

To begin a shared parking analysis, we first start with the type and quantity of land use to be analyzed. The City of Santa Monica generally bases its parking requirements on "Floor Area" as defined in Santa Monica Municipal Code Section 9.04.080.

In accordance with accepted shared-use methodology, this section of the report documents the steps taken to appropriately determine a recommended parking capacity for Providence Saint John's. In this report, base parking

generation ratios, are derived from (i) existing empirical data for the Hospital/Health Care – Inpatient/Clinic, CFDC and Medical Research Uses and (ii) the parking requirements in the City of Santa Monica’s 2015 Zoning Ordinance.

The Base Parking Generation Ratios are multiplied by the Project’s land use quantities, yielding a product which is then adjusted by multiplying by hourly and monthly factors for each of the Project’s respective land uses. These are called “presence factors”. Two final adjustments are made to the Base Parking Generation Ratios. One adjustment discounts the demand to account for local transportation modal split characteristics, recognizing that not everyone drives an automobile for every trip, and a second adjustment is made to avoid double counting people who are on-site for more than one reason and are therefore not creating additive parking demand. These last two calculations are referred to as the “driving ratio” and “non-captive” adjustments. The balance of this section of the report documents the math that underlies this analysis, following the steps listed below.

List of Shared Parking Steps	Page
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Step 2: Application of Base Parking Generation Ratios	5
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## LAND USE UNITS: BUILDING PROGRAM DESCRIPTION

### Step 1: Identification and Quantification of Project Land Use Components

Land Use Units (Number of rooms, square footage, etc.)	X	Base Parking Generation Ratio	X	Monthly Factor	X	Hourly Factor	X	Non-Captive Ratio	X	Driving Ratio	=	TOTAL
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Source: Walker Consultants

The following table details the uses, shown on a cumulative basis by building. Existing uses consist of the PSJHC Phase I Hospital/Health Care – Inpatient/Clinic, totaling 475,000 square feet, the John Wayne Cancer Institute (JWCI) totaling 51,055 square feet (assumed occupancy of 30,000 square feet of space), the Child and Family Development Center with 6,262 square feet of Daycare use and 28,308 square feet of mental/behavioral health programs, 2,675 square feet of MRI buildings, and a 10,800-square foot commercial building occupied by the Saint John’s foundation. There is also an existing, vacant, 10-unit apartment building on the South Campus.

**Table 1: PSJHC Program – Cumulative Uses by Building**

Use	Cumulative Total									Unit of Measure
	Existing <sup>1</sup>	S2	S1	S3	2I	2C	S4 <sup>4</sup>	S5	2D/E <sup>5</sup>	
Health-Related Services/Neighborhood Commercial	0	0	0	0	4,500	10,000	18,200	18,200	21,200	SF/Floor Area
Restaurant/Coffee Shop	0	800	800	5,800	5,800	5,800	8,500	8,500	10,000	SF/Floor Area
Hospital/Health Care										
Phase I <sup>2</sup>	477,675	475,000	475,000	475,000	475,000	475,000	475,000	475,000	475,000	SF/Floor Area
Phase II Inpatient/Clinic	0	0	0	0	0	112,000	112,000	112,000	187,500	SF/Floor Area
Phase II Ambulatory Care/Clinic	0	0	0	59,000	59,000	59,000	159,700	159,700	159,700	SF/Floor Area
Health and Wellness	0	0	0	0	0	0	28,300	28,300	28,300	SF/Floor Area
Medical Research Facilities	51,055	51,055	51,055	59,000	59,000	59,000	59,000	59,000	59,000	SF/Floor Area
Medical Office Building	0	0	0	0	50,000	50,000	50,000	50,000	50,000	SF/Floor Area
Education and Conference Center	0	0	0	0	0	0	51,350	51,350	51,350	SF/Floor Area - Non-Assembly
Day Care	6,362	6,362	9,000	9,000	9,000	9,000	9,000	9,000	9,000	SF/Floor Area
Child and Family Development Center	28,308	28,308	25,500	25,500	25,500	25,500	25,500	25,500	25,500	SF/Floor Area
Visitor Housing	0	0	0	0	0	0	0	34	34	Units
Replacement Multi-Family Housing <sup>3</sup>										
Two-Bedroom (Market Rate)	0	8	8	8	8	8	8	8	8	Units
Two-Bedroom (Affordable)	0	2	2	2	2	2	2	2	2	Units

1 = the existing 10,080 square foot commercial building occupied by the Foundation is not included in existing demand since it has its own parking supply that is not operated as part of the overall Health Center parking supply

2 = includes both 475,000 sf for Keck and CSS and 2,675 sf for existing MRI buildings on the South Campus

3 = the existing 10-unit multi-family building is not included in existing parking demand because it is vacant

4 = S4 includes Saint John's Café

5 = 2D/E includes Mullin Plaza Café

Source: Perkins Eastman; MRY Architects

## BASE PARKING GENERATION RATIOS

Simply put, the base parking demand ratios represent how many spaces should be supplied to each use if the spaces are unshared.

### Step 2: Application of Base Parking Generation Ratios

Land Use Units (Number of rooms, square footage, etc.)	X	Base Parking Generation Ratio	X	Monthly Factor	X	Hourly Factor	X	Non-Captive Ratio	X	Driving Ratio	=	TOTAL
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Source: Walker Consultants

We have detailed assumptions we used in our Base Parking Generation Ratios below and summarized them in Table 2. In general, we used empirical data for the existing Hospital/Health Care – Inpatient/Clinic, CFDC and the research uses because those uses already exist at PSJHC, and we have empirical data for those uses. For Phase II uses where empirical data was not available, we utilized the City's current parking ratios (last updated in 2015). The ratios shown are for weekdays, as demand at PSJHC peaks on weekdays.

Walker prepared a Parking Management Plan (PMP) Update, dated February 26, 2018, for PSJHC which included parking occupancy counts. In the PMP Update, we projected design day parking demand, based on empirical data, applied to the peak day for all existing uses (Howard Keck Diagnostic Center, Chan Soon-Shiong Center for Life Science, John Wayne Cancer Institute, and the Child and Family Development Center) to be 990 spaces. We utilized this figure to establish the base parking ratios for Hospital/Health Care – Inpatient/Clinic, CFDC and Medical Research Facilities uses.

With 535,983± square feet of existing uses (475,000 square feet of Hospital/Health Care – Inpatient/Clinic, 2,675 square feet of MRI buildings, 30,000 occupied square feet in the JWCI building [out of 51,055 gross square feet] and the 28,308-square foot CFDC), the parking demand ratio is 1.85 per 1,000 square feet or one space per 541 square feet. Based on our occupancy count results, we estimate that approximately 26% of parking demand is attributed to visitors/patients while the remaining 74% is employees. We utilized these figures to establish base parking ratios for Hospital/Health Care – Inpatient/Clinic, Medical Research, and Child and Family Development Center uses.

**Child and Family Development Center.** For the Child and Family Development Center use (25,500 sf located within the Child and Family Development Center S1 building), we modeled based on estimated peak demand at existing PSJHC Phase I facilities (Howard Keck Diagnostic Center, Chan Soon-Shiong Center for Life Sciences, the CFDC and MRI buildings). The Child and Family Development Center use is defined to “include mental health, educational and outreach facilities and services to children and families.” (DA Section 3.3.1(d).) The DA further provides that the Child and Family Development Center includes clinical space, ancillary meeting rooms, and administrative offices for health care professionals and employees working at the Child & Family Development Center.

**Health-Related Services/Neighborhood Commercial.** The base ratio for the Health-Related Services/Neighborhood Commercial use was modeled on the retail parking requirement in the 2015 Zoning Ordinance Update. The Health-Related Services use and Neighborhood Commercial use were assumed to have the same parking demand ratio, as they both would include retail/commercial uses that either target patients, employees and visitors of the campus or nearby residents and employees.

- Per DA Section 3.3.1(h), Health-Related Services are defined to “consist exclusively of health-related services and retail uses designed to serve inpatients and outpatients on the Campus Property, persons working on the Campus Property and visitors to other facilities or services on the Campus Property.” DA Exhibit “I” indicates that Health-Related Services include pharmacy, durable medical goods, health information store, alternative medicines, health food store, juice shop, medical records service, as well as other similar uses.
- Per DA Section 3.3.1(n), Neighborhood Commercial uses consist of “commercial uses that provide convenience goods and services for which people generally do not comparison shop, that are bought fairly frequently and that cater to the daily needs of nearby residents, and are permitted uses in the C2 Zoning District” as of the DA’s effective date. These uses include cleaners, general and specialized retail uses, and restaurants of 50 seats or less at which no alcohol is served or consumed.

**Hospital/Health Care – Inpatient/Clinic.** For the Hospital/Health Care – Inpatient/Clinic (Phase I and Phase II), we modeled base parking demand using estimated peak demand at existing PSJHC Phase I facilities (Howard Keck Diagnostic Center, Chan Soon-Shiong Center for Life Sciences, John Wayne Cancer Institute, the CFDC and MRI buildings) as described above.

**Health and Wellness.** For the Health and Wellness use, we modeled base parking demand using the clinic parking requirement in the 2015 Zoning Ordinance Update. The DA defines the Health and Wellness Center use as “a facility that focuses on lifestyle management for individuals through the prevention of illness and promotion of wellness.” (DA Section 3.3.1(g).) The DA indicates that integral elements of the Health and Wellness Center use are “programs and facilities for exercise, nutrition, physical therapy and rehabilitation, cardiac rehabilitation and related prevention-oriented and rehabilitative services.”

**Hospital/Health Care – Ambulatory/Clinic.** For the Hospital/Health Care – Ambulatory/Clinic use, we modeled base parking demand using the clinic parking requirement in the 2015 Zoning Ordinance Update.

**Medical Office Building.** For the medical office building use, we modeled base parking demand using the medical office parking requirement in the 2015 Zoning Ordinance Update.

**Medical Research Facilities.** For the medical research facilities use, we modeled base parking demand using estimated peak demand at the existing John Wayne Cancer Institute.

**Education and Conference Center.** For the Education and Conference Center use, we modeled base parking demand using the 2015 Zoning Ordinance Update’s convention/conference center parking requirement for the assembly area (8,650 square feet) and the general office requirement for the remaining 51,350 square feet which consists of smaller education/conference rooms and administrative space. Although much of these 51,350 square feet are for internal use and may not have independent parking demand, to be conservative it has been studied utilizing general office rates. The Education and Conference Center use includes facilities for “(i) meetings, conferences, seminars, workshops and education and training sessions for health care professionals, (ii) lectures, seminars, meetings and programs for the general community on health care-related issues, (iii) advanced telecommunication technologies to provide communication linkages between the Campus Property and other health care facilities and educational institutions, (iv) broadcast facilities design to disseminate medical and health care information to health care professionals and the general public, (v) meetings of non-profit community-based organizations, and (vi) meetings of ground and organizations related to Saint John’s, such as the Board of Trustees of the Saint John’s Health Center Foundation, the Irene Dunne Guild, and employees of Saint John’s and affiliated entities.” (DA Section 3.3.1(f).) The DA further provides that the Education and Conference Center may include classrooms, auditoriums, meeting rooms, reference libraries, broadcast facilities and administrative offices for health care professionals and employees working at the Education and Conference Center. The DA prohibits the Education and Conference Center from being utilized for trade and consumer shows or exhibitions, or industry or business meetings, that are unrelated to health care.

**Day Care.** For the Day Care use (9,000 sf within the Child and Family Development Center S1 building), we modeled base parking demand using the child care and early education facilities parking requirement in the

2015 Zoning Ordinance Update. Day Care is defined to “consist of day care, child care or pre-school nursery services.” (DA Section 3.3.1(e).) While the planned daycare facility is 9,000 square feet, the parking demand associated with the existing 6,300 square foot facility is already included in the Existing total; therefore, in this analysis, only the incremental increase in daycare square footage was analyzed as a new land use.

**Visitor Housing.** For the Visitor Housing use, we modeled base parking demand using the hotel/motel parking requirement in the 2015 Zoning Ordinance Update. Visitor Housing is defined as “overnight visitor accommodations provided for occupancy exclusively by (i) inpatients and outpatients of other facilities located on the Campus Property and their family members, (ii) visiting health care professionals to the Campus Property and (iii) participants in health care conferences and seminars located on the Campus Property.” (DA Section 3.3.1(s).) The DA specifically prohibits the units from being marketed or available to the general public.

**Replacement Multi-Family Residential.** For the Replacement Multi-Family Residential use, we modeled base parking demand using the 2015 Zoning Ordinance Update’s parking requirements for Multi-Family Residential for the eight market-rate and the 2015 Zoning Ordinance Update’s parking requirements for Multi-Family Housing Deed-Restricted for Occupancy by Low and Moderate-Income Households for the two affordable units.

**Restaurant/Café/Coffee Shops.** For the restaurant/café space, we modeled base parking demand using the 2015 Zoning Ordinance Update’s parking requirements. The 2015 Zoning Ordinance Update’s parking requirements for restaurants of less than 2,500 sf was applied to a total of 5,000 sf of restaurant space (800 sf at S2, 1,800 sf in S4, 900sf in Saint John’s Café, and 1,500 sf in Mullin Plaza café). The 2015 Zoning Ordinance Update’s parking requirements for restaurants of 2,500-5,000 sf was applied to the remaining 5,000 square feet of restaurant/café space (in S3).

The following table documents the base parking generation rates employed in this analysis, which are generally either from empirical data (for existing uses) or from the 2015 Zoning Ordinance Update.

**Table 2: Base Parking Generation Ratios by Use**

Use	Parking Ratio	Parking Ratio Details
Health-Related Services/Neighborhood Comm.	1.0 per 300 SF	Per City Requirements in 2015 ZO Update
Restaurant/Coffee Shop	1.0 per 300 SF (under <2,500 SF) 1.0 per 200 SF (2,500-5,000 SF)	Per City Requirements in 2015 ZO Update
Hospital/Health Care - Phase I	1.0 per 541 SF	Per 2018 PMP data
Hospital/Health Care - Inpatient/Clinic	1.0 per 541 SF	Per 2018 PMP data
Hospital/Health Care - Ambulatory/Clinic	1.0 per 250 SF	Per City Requirements in 2015 ZO Update
Health and Wellness	1.0 per 250 SF	Per City Requirements in 2015 ZO Update
Medical Research Facilities	1.0 per 541 SF	Per 2018 PMP data
Medical Office Building	1.0 per 250 SF	Per City Requirements in 2015 ZO Update
Education and Conference Center	1.0 per 80 SF Assembly Area 1.0 per 300 SF Office Space	Per City Requirements in 2015 ZO Update
Day Care	1.0 per 500 SF	Per City Requirements in 2015 ZO Update
Child and Family Development Center	1.0 per 541 SF	Per 2018 PMP data
Visitor Housing	1.0 per unit	Per City Requirements in 2015 ZO Update
Replacement Multi-Family Residential		
Two-Bedroom (Market Rate)	2.2 per unit	Per City Requirements in 2015 ZO Update
Two-Bedroom (Affordable)	1.0 per unit	

Source: Walker Consultants

### PRESENCE FACTORS

After the Project's land uses have been quantified and Base Parking Generation Ratios have been applied to these land use quantities, adjustments are made to account for parking demand variability by hour of day and month of year. This is referred to as a "presence" adjustment.

#### Step 3: Application of Presence Factors

Land Use Units (Number of rooms, square footage, etc.)	X	Base Parking Generation Ratios	X	Monthly Factor	X	Hourly Factor	X	Non- Captive Ratio	X	Driving Ratio	=	TOTAL
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Source: Walker Consultants

Presence is expressed as a percentage of peak potential demand modified for both time of day and month of the year. The fact that parking demand for each component may peak at different times generally means that fewer parking spaces are needed for the project than would be required if each component were a freestanding development.

## TIME OF DAY

Appendix A contains tables illustrating presence factors for visitors/patients/guests and employees/residents by time of day on a weekday. Many uses peak in the late morning into early afternoon. Details follow below. Time of day factors for several uses, including health related services (retail), restaurant/coffee shop, residential, and research were based on data contained in *Parking Generation (Fourth Edition. Washington DC: Institute of Transportation Engineers, 2010)*. Time of day factors for Medical Office Building are based on data collected by Walker staff, and have been used for the MOB, Health and Wellness, and Hospital/Health Care – Ambulatory/Clinic. Time of Day factors for the Education and Conference Center are based on the Office time of day factors developed by Walker team members over the years.

### Visitor/Patient/Guest

- Child and Family Development Center use: near peak at 8:00 AM, at peak from 10:00 AM until 4:00 PM after which it declines gradually until 7:00 PM at which it declines significantly
- Health-Related Services/Neighborhood Commercial: builds to a peak in the late morning and remains at peak until the 6:00 PM hour when it starts to gradually decline
- Hospital/Health Care – Inpatient/Clinic: builds to a peak at noon and then gradually declines from 3:00 PM until 7:00 PM after which point it declines significantly
- Health and Wellness: near peak at 8:00 AM, at peak from 10:00 AM until 4:00 PM after which it declines gradually until 7:00 PM at which it declines significantly
- Hospital/Health Care – Ambulatory/Clinic: near peak at 8:00 AM, at peak from 10:00 AM until 4:00 PM after which it declines gradually until 7:00 PM after which it declines significantly
- Restaurant/Coffee Shop: peaks at lunchtime
- Medical Research Facilities: peaks at 10:00 AM and 2:00 PM with more limited activity during other times
- Medical Office Building: at peak or near peak from 8:00 AM to 4:00 PM with a dip at lunchtime
- Education and Conference Center: conservatively assumed to peak from 9:00 AM to 10:00 PM
- Day Care: peaks at 8:00 AM and 5:00 PM with near peaks in adjacent hours
- Visitor Housing: peaks in evening and early morning hours with minimal decline from peak during the day as guests may be staying on-site (with their vehicles parked) during the day
- Replacement Multi-Family Residential: peaks from 7:00 PM to 11:00 PM as these are primary hours that guests would be expected

### Employee/Resident

- Child and Family Development Center use: at peak from 9:00 AM until 5:00 PM after which it declines rapidly.
- Health-Related Services/Neighborhood Commercial: builds to a peak by 11:00 AM and remains at peak until the 6:00 PM hour when it starts to gradually decline
- Hospital /Health Care – Inpatient/Clinic: builds to a peak at 10:00 AM and maintains this until about 4:00 PM when it begins to gradually decline through the evening
- Health and Wellness: at peak from 9:00 AM until 5:00 PM after which it declines significantly
- Hospital/Health Care – Ambulatory/Clinic: at peak from 9:00 AM until 5:00 PM after which it declines significantly

- Restaurant/Coffee Shop: peaks at lunchtime
- Medical Research Facilities: at or near peak from 9:00 AM until 5:00 PM and gradually declines during evening
- Medical Office Building: at or near peak from 9:00 AM until 5:00 PM and gradually declines during evening
- Education and Conference Center: conservatively assumed to peak from 9:00 AM to 6:00 PM and gradually declines in the evening
- Day Care: peaks from 9:00 AM until 6:00 PM and then quickly declines in the evening
- Visitor Housing: at or near peak from 8:00 AM to 5:00 PM after which there are declines through the evening
- Replacement Multi-Family Residential: peaks from 7:00 PM to early morning with some decline during daytime, although not significant as residents may leave their vehicles at home during daytime hours.

### TIME OF YEAR

Tables in Appendix A illustrate presence factors for visitors/patients/guests and employees/residents by time of year. Many uses peak in the first half of the year. Monthly factors for the CFDC and Hospital/Health Care uses is based on hospital activity data provided by PSJHC. Monthly factors for Medical Office Building are based on data collected by Walker staff, and have been used for the MOB and Health and uses. Monthly factors for the Education and Conference Center are based on the Office time of day factors developed by Walker team members over the years.

#### Visitor/Patient/Guest

- Child and Family Development Center use: near or at peak throughout the year
- Health-Related Services/Neighborhood Commercial: near or at peak most of the year with only slight declines from peak in August and October
- Hospital/Health Care – Inpatient/Clinic: near or at peak throughout the year
- Health and Wellness: near or at peak most of the year
- Hospital/Health Care – Ambulatory/Clinic: near or at peak throughout the year
- Restaurant/Coffee Shops: peaks during the summer and December
- Medical Research Facilities: at peak throughout year except slight declines in July and August
- Medical Office Building: at peak throughout year except slight declines in July and August
- Education and Conference Center: at peak throughout year except slight declines in July and August
- Day Care: at peak throughout year except slight declines in July and August
- Visitor Housing: at peak throughout year except slight declines in July and August
- Replacement Multi-Family Residential: at peak throughout year except slight declines in July and August

#### Employee/Resident

- Child and Family Development Center use: near or at peak throughout the year
- Health-Related Services/Neighborhood Commercial: near or at peak throughout the year
- Hospital/Health Care – Inpatient/Clinic: at peak throughout year except slight declines in July and August

- Health and Wellness: near or at peak most of the year with only slight declines from peak in July and August
- Hospital/Health Care – Ambulatory/Clinic: near or at peak throughout the year
- Restaurant/Coffee Shops: peaks during the summer and December
- Medical Research Facilities: at peak throughout year except slight declines in July and August
- Medical Office Building: at peak throughout year except slight declines in July and August
- Education and Conference Center: at peak throughout year except slight declines in July and August
- Day Care: at peak throughout year except slight declines in July and August
- Visitor Housing: at peak throughout year
- Replacement Multi-Family Residential: at peak throughout year except slight declines in July and August

### NON-CAPTIVE ADJUSTMENT RATIO

A shared parking analysis recognizes that people often visit two or more land uses housed within the same development site, without increasing their on-site parking use. A non-captive ratio allows for an adjustment to the parking needs analysis by taking into account the portion of on-site visitors who are already accounted for as caregivers and as visitors who will go to other uses, and are therefore not creating additional parking demand.

Non-captive ratios can vary from one property to the next and from one function to the next within the same property. Typically, a reduction ranging from 20 to 80 percent has been used by parking and transportation professionals to fine tune the parking requirements for mixed-use projects with primary attractors and secondary attractors.

#### Step 4: Application of Non-Captive Adjustment

Land Use Units (Number of rooms, square footage, etc.)	X	Base Parking Generation Ratios	X	Monthly Factor	X	Hourly Factor	X	Non- Captive Ratio	X	Driving Ratio	=	TOTAL
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Source: Walker Consultants

Table 3 details our assumptions regarding non-captive adjustment during weekday daytime. Due to the similar peak hours for many of the uses and for the sake of being conservative, we have assumed limited sharing of parking for the various uses. We have assumed opportunities are available for Health-Related Services (Retail) and the proposed restaurant/coffee shop spaces, where visitors/patients and employees who are already parked may visit a Health-Related business or restaurant/coffee shop, the Education and Conference Center, where the majority of weekday daytime attendees will be employees already on site, the day care facility, where existing use data suggest a majority of the facility's customers are employees at PSJHC, and visitor housing where the purpose of the housing is to stay near to an inpatient at PSJHC, or for someone receiving long-term treatment at PSJHC. While Providence Saint John's anticipates that there will be patients/visitors that visit more than one health care/medical use while parked at PSJHC (e.g. "Hospital/Health Care – Ambulatory/Clinic, Hospital/Health Care – Inpatient/Clinic, Medical Office Building, and Medical Research) and employees/doctors that visit more than one health care/medical use while parked at PSJHC, we have not applied non-captive adjustments to these uses in

order to be conservative, except for Health and Wellness under the assumption that some patients will have both a doctor's appointment and rehab appointment back to back. The specific non-captive adjustments shown in Table 3 are based on Walker's judgement and understanding of each uses' function and operation as well as input provided by PSJHC.

Table 3: Non-Captive Adjustment by Use

Use	Visitor/Resident	Employee
Health-Related Services/Neighborhood Comm.	20%	100%
Restaurant/Coffee Shop	20%	100%
Hospital/Health Care - Inpatient/Clinic	100%	100%
Hospital/Health Care - Ambulatory/Clinic	100%	100%
Health and Wellness	75%	100%
Child and Family Development Center	100%	100%
Medical Research Facilities	100%	100%
Medical Office Building	100%	100%
Education and Conference Center	25%	25%
Day Care	50%	100%
Visitor Housing	50%	100%
Replacement Multi-Family Residential	100%	n/a

Source: Walker Consultants

### DRIVING RATIO ADJUSTMENT

A driving ratio adjustment is the percentage of patrons and employees that are projected to drive to the site in a personal vehicle, expressed as a ratio.

#### Step 5: Application of Driving Ratio

Land Use Units (Number of rooms, square footage, etc.)	X	Base Parking Generation Ratios	X	Monthly Factor	X	Hourly Factor	X	Non- Captive Ratio	X	Driving Ratio	=	TOTAL
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Source: Walker Consultants

Table 4 illustrates the drive ratios selected for weekday daytime periods, the period of expected peak demand at PSJHC. These drive ratios are applied to the Base Parking Generation Ratios. We assume that visitor housing may not be fully occupied and/or not all guests will be driving to PSJHC, which is why that specific use has a drive ratio less than 100%. For all other uses, the 100% drive ratio represents current baseline conditions.

Table 4: Drive Ratios by Use – Current Conditions

Use	Visitor/Resident	Employee
Health-Related Services/Neighborhood Comm.	100%	100%
Restaurant/Coffee Shop	100%	100%
Hospital/Health Care - Inpatient/Clinic	100%	100%
Hospital/Health Care - Ambulatory/Clinic	100%	100%
Health and Wellness	100%	100%
Child and Family Development Center	100%	100%
Medical Research Facilities	100%	100%
Medical Office Building	100%	100%
Education and Conference Center	100%	100%
Day Care	100%	100%
Visitor Housing	80%	100%
Replacement Multi-Family Residential	100%	n/a

Source: Walker Consultants

### REDUCTION TO DRIVE RATIOS OVER TIME

We have assumed that improved alternative modes of transportation, including opening of new Light Rail Stations at Bergamot Station and Memorial Park and opening of bike share in Santa Monica, Transportation Demand Management (TDM) practices, and transportation behavior trends, such as a decline in single occupant vehicle mode share, will lead to a decrease in drive ratios during Phase II build out. At completion of Phase II build-out, we have conservatively estimated that drive ratios would be 5% lower for visitor/patient and 25% lower for employee compared to the current 2017 baseline for all uses except day care, visitor housing and residential, which have not been adjusted. The projected reduction in drive ratios is driven primarily by the assumption that PSJHC will continue to need to meet Average Vehicle Ridership targets and does not take into account changes to drive ratios that could occur with widespread adoption of either autonomous vehicles or ridesharing, which are still uncertain at this time. Note that Hospital/Health Care – Inpatient/Clinic, Child and Family Development Center, and Medical Research Facilities uses already incorporate some parking demand reduction due to PSJHC's existing TDM program. We expect additional reductions as PSJHC strives to achieve the Average Vehicle Ridership targets set forth by the City of Santa Monica.

Table 5 illustrates estimated drive ratios at build-out.

Table 5: Drive Ratios by Use – Buildout Conditions

Use	Visitor/Resident	Employee
Health-Related Services/Neighborhood Comm.	95%	75%
Restaurant/Coffee Shop	95%	75%
Hospital/Health Care - Inpatient/Clinic	95%	75%
Hospital/Health Care - Ambulatory/Clinic	95%	75%
Health and Wellness	95%	75%
Child and Family Development Center	95%	75%
Medical Research Facilities	95%	75%
Medical Office Building	95%	75%
Education and Conference Center	95%	75%
Day Care	100%	75%
Visitor Housing	80%	75%
Replacement Multi-Family Residential	100%	n/a

Source: Walker Consultants

We have assumed that this reduction would be equally distributed over time, as outlined in Table 5. These reductions are shown relative to current conditions, which is why the reductions relative to today are shown as 0% in Table 6.

Table 6: Reduction to Drive Ratios by Stage

Building	Phasing Plan A	
	Visitor/Patient	Employee
Today	0%	0%
S2	1%	5%
S1	1%	5%
S3	1%	5%
2I	2%	10%
2C	3%	15%
S4	4%	20%
S5	4%	20%
2D/E	5%	25%

Building	Phasing Plan B	
	Visitor/Patient	Employee
Today	0%	0%
S2	1%	5%
2C	1%	5%
S1	2%	10%
S3	2%	10%
2I	3%	15%
S4	4%	20%
S5	4%	20%
2D/E	5%	25%

Source: Walker Consultants

**PARKING DEMAND ANALYSIS RESULTS**

Table 7 details peak parking demand for different user groups by stage. The peak parking demand shown is cumulative, through the end of each stage. The peak parking demand is at 2:00 PM on weekdays in January.

Table 7: Cumulative Parking Demand – Existing and Phase II by Building

**Phasing Plan A**

Cumulative Parking Demand by Building									
User Group	Existing	S2	S1	S3	2I	2C	S4	S5	2D/E
Employee	730	691	706	819	841	930	1047	1054	1072
Visitor/Patient	260	256	257	430	558	609	948	948	975
Resident	0	18	18	18	18	18	18	18	18
Visitor Housing Guest	0	0	0	0	0	0	0	16	16
<b>Total</b>	<b>990</b>	<b>965</b>	<b>981</b>	<b>1267</b>	<b>1417</b>	<b>1557</b>	<b>2013</b>	<b>2036</b>	<b>2081</b>

**Phasing Plan B**

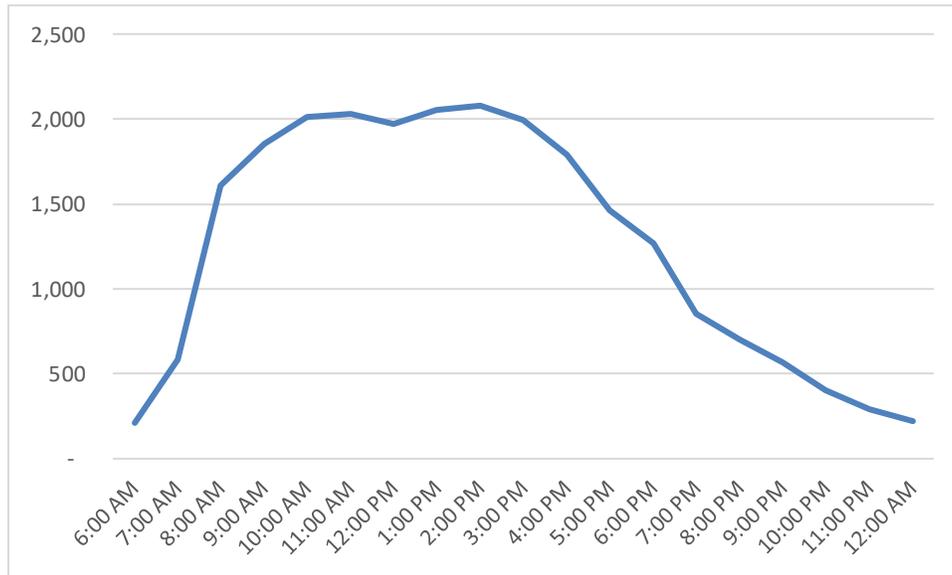
Cumulative Parking Demand by Building									
User Group	Existing	S2	2C	S1	S3	2I	S4	S5	2D/E
Employee	730	691	839	807	919	930	1047	1054	1072
Visitor/Patient	260	256	313	309	482	609	948	948	975
Resident	0	18	18	18	18	18	18	18	18
Visitor Housing Guest	0	0	0	0	0	0	0	16	16
<b>Total</b>	<b>990</b>	<b>965</b>	<b>1170</b>	<b>1134</b>	<b>1419</b>	<b>1557</b>	<b>2013</b>	<b>2036</b>	<b>2081</b>

Source: Walker Consultants

Note there is a decrease in the parking demand from Existing to Phase II Building S2 under Phasing Plan A as new parking demand generating square footage added in Building S2 is offset by a decrease in the drive ratio due to TDM measures. A similar situation exists between Existing and S2 and between Building 2C and S1 in Phasing Plan B.

In the month of peak demand, January, Figure 2 illustrates how demand would change over the course of a weekday.

Figure 2: Weekday Hourly Demand in Peak Month at Buildout

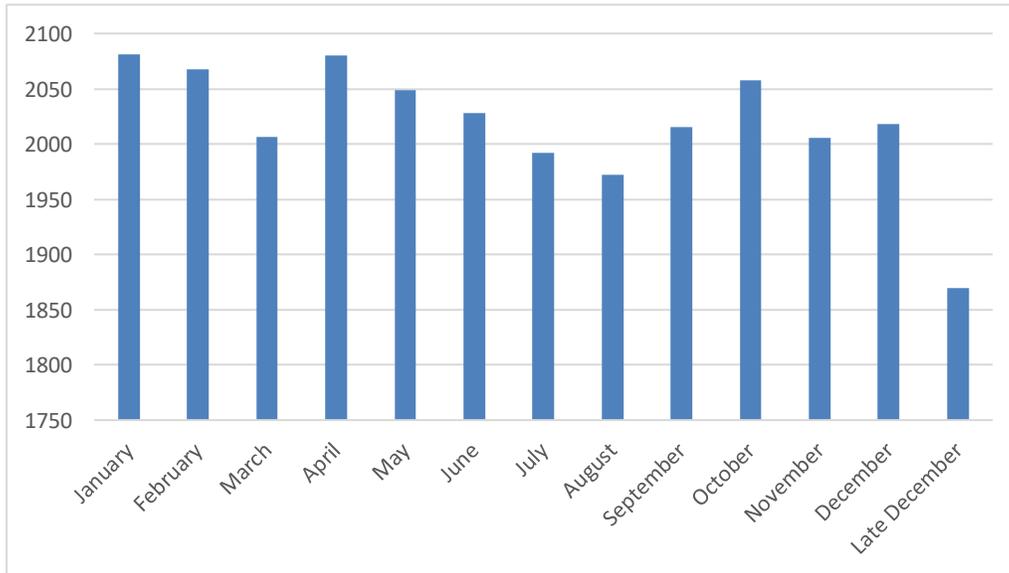


Source: Walker Consultants, 2018

Demand is generally at a peak from 10:00 AM until 2:00 PM and then begins to decline after 3:00 PM.

Figure 3 illustrates how the weekday peak parking demand varies by month throughout the year.

Figure 3: Weekday Peak Demand by Month at Buildout



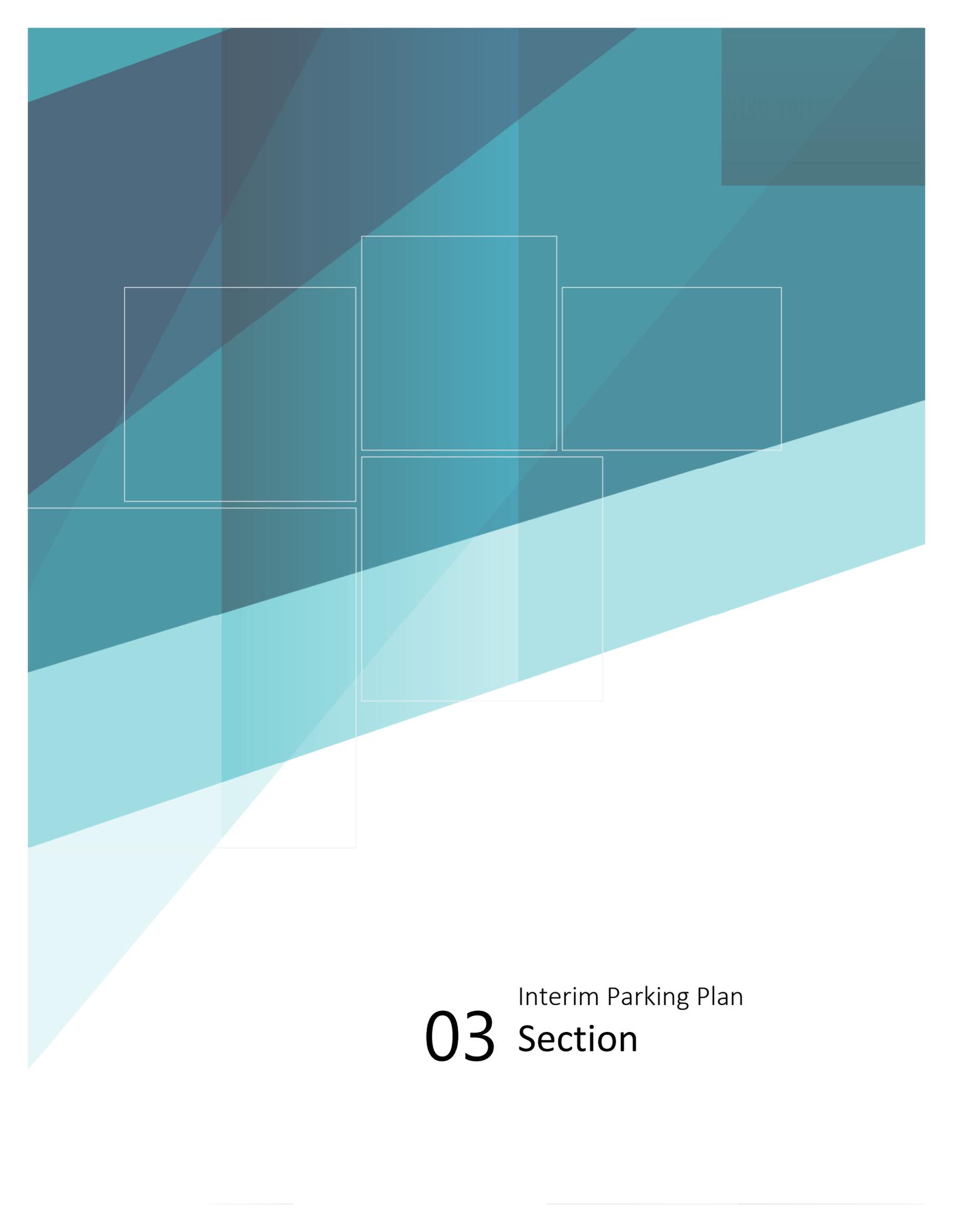
Source: Walker Consultants, 2018

As noted earlier, parking demand tends to be higher in the first half of the year, before summer vacations and holidays in the second half of the year.

At this time, we project a peak parking demand of 2,081 parking spaces at PSJHC on a January weekday upon full Phase II implementation.

### RECOMMENDATIONS

This study contains our firm's best estimates of Saint John's peak parking demand during and after implementation of its Phase II development program. Overall, we believe the assumptions used in our analysis are conservative. Phase II will be implemented over a long (20-25 year) time period, and there are a number of factors that may affect Saint John's actual parking demand (and its need for parking supply to satisfy this demand). These factors include changes in mobility (i.e., reliance on other modes of transportation including public transit, rideshare, bicycling and walking), higher vehicle occupancy rates, and the particular uses Saint John's implements within the Development Agreement's broad use categories. As discussed further in the next section of this Study, we recommend that (a) Providence Saint John's generally provide four-levels of parking in the first two stages of development and three to four levels of subterranean parking on the third Phase II development site, (b) Providence Saint John's continue to prepare annual Parking Management Plan reports while it continues to utilize leased parking to meet peak parking demand, (c) this study be updated prior to commencing the fourth and fifth stages of Phase II implementation, and (d) the amount of parking to be provided in the fourth and fifth stages of development be determined based on the updated study(ies) prepared closer in time to these stages being constructed.



# 03 Interim Parking Plan Section

This study describes parking supply (existing and proposed, owned and leased) and demand on a stage-by-stage basis under both Phasing Plans proposed in Providence Saint John's Phase II Master Plan. It first describes existing parking supply and demand followed by each individual stage under both Phasing Plans (Stages A1 through A5 and Stages B1 through B5). Because the Phase II Master Plan is proposed to be implemented over a long period of time and there may be significant changes to parking demand over time, we are recommending that the required parking supply beyond the first three stages be established after preparation of an updated parking demand study(ies). Nonetheless, we have prepared this analysis now based on our conservative assumptions about parking demand and preliminary assumptions for new owned parking supply to ensure that there will be parking capacity to satisfy demand, including construction worker parking, at each stage. For purposes of this study, we have assumed that PSJHC would continue to lease the same amount of parking as it is currently leasing until the end of the fourth stage. However, as discussed further below, we recommend that the appropriate amount of leased parking be re-evaluated each year as part of Providence Saint John's annual Parking Management Plan reports.

Parking user groups and methods of operation at the conclusion of each stage are described for any new parking delivered in the stage, as well as any adjustments to parking in existence at the beginning of each stage.

Construction parking estimates, based on construction worker information for each building provided by McCarthy Building Companies Inc., have been incorporated during the build out of each stage. They are provided to ensure there will be sufficient parking during construction of each stage, in order to accommodate PSJHC parkers as well as construction workers. The construction parking estimates assume 100% of the construction workers estimated by McCarthy will be driving to work and are therefore conservative. Providence Saint John's plans to encourage carpooling and alternative means of transportation for construction workers to the extent feasible. These estimates are provided to illustrate potential additional parking needs during each stage, in order to accommodate PSJHC parkers as well as construction workers, and represent peak values.

Table 8 outlines the use assumptions by stage.

**Table 8: Program Uses by Stage**
**Phasing Plan A**

Use	Cumulative Total						Unit of Measure
	Existing	Stage A1	Stage A2	Stage A3	Stage A4	Stage A5	
Health-Related Services/Neighborhood Commercial	0	0	4,500	10,000	18,200	21,200	SF/Floor Area
Restaurant/Coffee Shop	0	5,800	5,800	5,800	8,500	10,000	SF/Floor Area
Hospital/Health Care							
Phase I	477,675	475,000	475,000	475,000	475,000	475,000	SF/Floor Area
Phase II Inpatient/Clinic	0	0	0	112,000	112,000	187,500	SF/Floor Area
Phase II Ambulatory/Clinic	0	59,000	59,000	59,000	159,700	159,700	SF/Floor Area
Health and Wellness	0	0	0	0	28,300	28,300	SF/Floor Area
Medical Research Facilities	51,055	59,000	59,000	59,000	59,000	59,000	SF/Floor Area
Medical Office Building	0	0	50,000	50,000	50,000	50,000	SF/Floor Area
Education and Conference Center	0	0	0	0	59,000	59,000	SF/Floor Area
Day Care	6,362	9,000	9,000	9,000	9,000	9,000	SF/Floor Area
Child and Family Development Center	28,308	25,500	25,500	25,500	25,500	25,500	SF/Floor Area
Visitor Housing	0	0	0	0	34	34	Units
Replacement Multi-Family Housing							
Two-Bedroom (Market Rate)	0	8	8	8	8	8	Units
Two-Bedroom (Affordable)	0	2	2	2	2	2	Units

**Phasing Plan B**

Use	Cumulative Total						Unit of Measure
	Existing	Stage B1	Stage B2	Stage B3	Stage B4	Stage B5	
Health-Related Services/Neighborhood Commercial	0	5,500	5,500	10,000	18,200	21,200	SF/Floor Area
Restaurant/Coffee Shop	0	0	5,800	5,800	8,500	10,000	SF/Floor Area
Hospital/Health Care							
Phase I	477,675	475,000	475,000	475,000	475,000	475,000	SF/Floor Area
Phase II Inpatient/Clinic	0	112,000	112,000	112,000	112,000	187,500	SF/Floor Area
Phase II Ambulatory/Clinic	0	0	59,000	59,000	159,700	159,700	SF/Floor Area
Health and Wellness	0	0	0	0	28,300	28,300	SF/Floor Area
Medical Research Facilities	51,055	51,055	59,000	59,000	59,000	59,000	SF/Floor Area
Medical Office Building	0	0	0	50,000	50,000	50,000	SF/Floor Area
Education and Conference Center	0	0	0	0	59,000	59,000	SF/Floor Area
Day Care	6,362	6,362	9,000	9,000	9,000	9,000	SF/Floor Area
Child and Family Development Center	28,308	28,308	25,500	25,500	25,500	25,500	SF/Floor Area
Visitor Housing	0	0	0	0	34	34	Units
Replacement Multi-Family Housing							
Two-Bedroom (Market Rate)	0	8	8	8	8	8	Units
Two-Bedroom (Affordable)	0	2	2	2	2	2	Units

Source: PSJHC; Perkins Eastman; MRY Architects

Under both Phasing Plans, the first stage (Stage A1 and B1) consists of two separate parts – the Multifamily Housing (S2) Building and the remainder of the stage (S1 and S3 in Stage A1 and 2C in Stage B1). Since the Multifamily Housing (S2) Building is anticipated to be constructed first in advance of the remainder of the stage, this is shown separately as the beginning of Stages A1 and B1 respectively. In other stages, it is assumed that the buildings are constructed concurrently in order to be conservative.

## EXISTING PARKING

As of March 1, 2018, PSJHC owned 755 spaces and leased 978 parking spaces. The following table details owned and leased parking supply, as well as user groups and methods of operation.

Table 9: PSJHC-Owned and Leased Parking as of December 1, 2017

Designation	Lot	Ownership	Capacity	User Group(s)	Method of Operation
A	Koll Garage	Leased	118	Staff	Self-park
B	Lot B	PSJHC-Owned	139	Visitors/Patients	Self-park with attendant
C	Lot C	PSJHC-Owned	48	Physicians	Self-park with attendant
D	Saint Anne's	Leased	85	Staff/Students	Self-park with attendant
G	Held Structure	Leased	275	Staff/Volunteers/Students	Mostly self-park
H	Lot H	PSJHC-Owned	304	Staff	Self-park with attendant
I	Lot I	PSJHC-Owned	145	Staff	Self-park with attendant
J	Colorado Center	Leased	500	Staff	Self-park
K	ER Lot	PSJHC-Owned	10	ER Patients	Valet
L	Loading Dock	PSJHC-Owned	11	N/A	Self-park
M	West Lot	PSJHC-Owned	90	Visitors/Patients	Valet
N	Entry Plaza	PSJHC-Owned	8	Visitors/Patients	Valet
<b>Total</b>			<b>1733</b>		
		PSJHC-Owned	755		
		Leased	978		

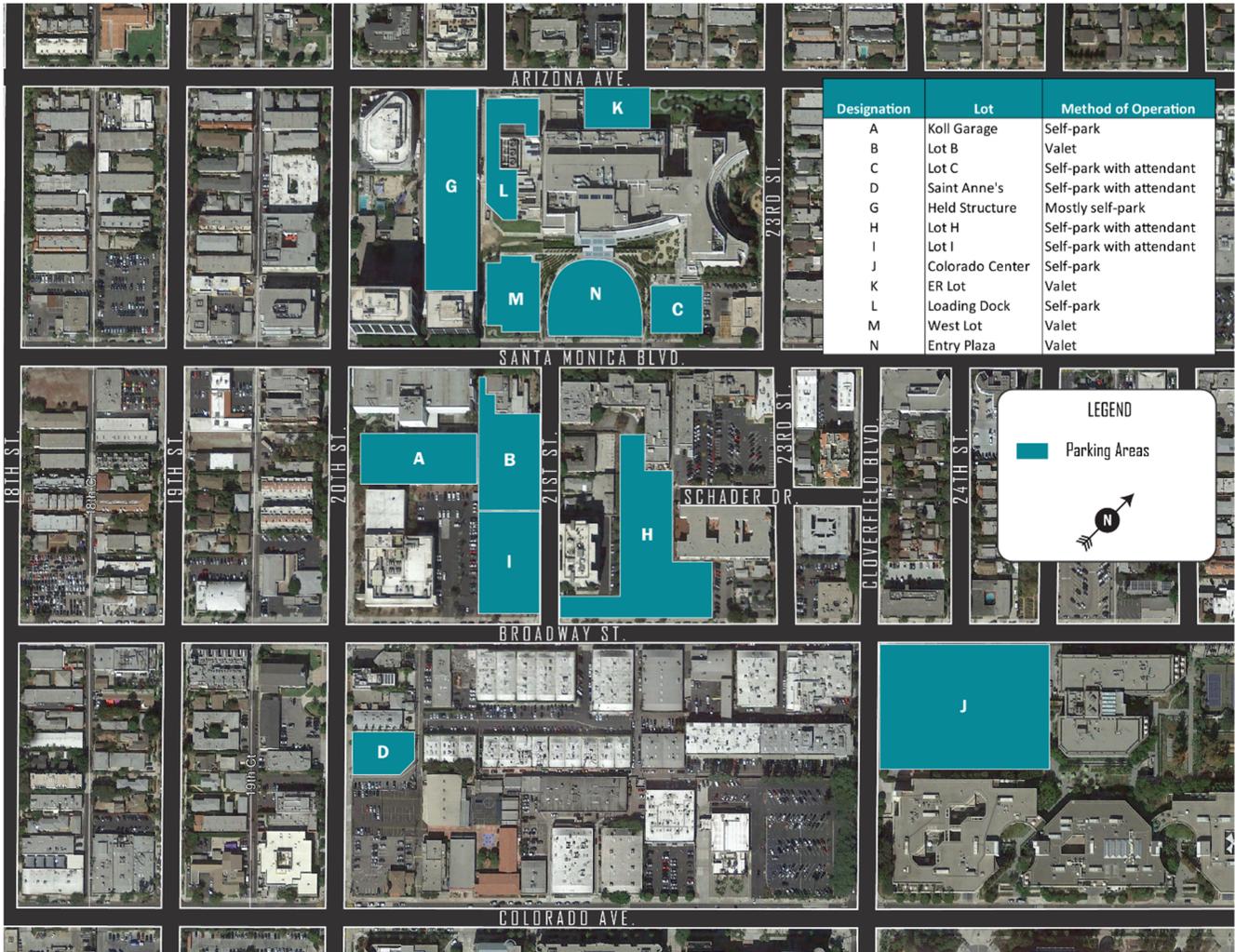
Source: PSJHC

Based on the February 26, 2018 Parking Management Plan, we estimate a peak parking demand of 990 vehicles at PSJHC for existing conditions. Thus, there is a surplus of 743 spaces at peak compared with total supply (43% of total supply). As described in the 2018 Parking Management Plan, we generally recommend applying an "effective supply factor" to provide a cushion or buffer of empty spaces to reduce the time for parking patrons to find the last available spaces, to allow for the dynamics of vehicles moving in and out of spaces, and to account for spaces unavailable due to maintenance, misparked vehicles and debris such as glass, etc. Due to the parking operations at PSJHC's existing parking facilities, most of the facilities operate efficiently even at full capacity because they are operated by valet attendants, used by employees that are very familiar with the facility they park in (often assisted by attendants), and/or because the "capacity" at certain leased facilities is based on actual demand/permits used. At the Held structure, an effective supply factor of 0.95 is applied to the self-park spaces used by employees because these spaces are within a garage used by other users. The effective supply of PSJHC's existing facilities is 1721 spaces. Thus, even taking into consideration an appropriate cushion or buffer, there is a surplus of 731 spaces above peak parking demand.

PSJHC's existing owned parking supply is 76% of existing peak parking demand.

Figure 4 illustrates the PSJHC parking supply, including lots owned by PSJHC, the Koll Garage, the Held Structure, Colorado Center garage and the Saint Anne's surface lot.

Figure 4: Map of Providence Saint John's Health Center Parking Facilities (March 2018)



Source: Google Earth Pro, Walker Consultants, 2018

**PROJECTED PHASE II PARKING SUPPLY**

Table 10 summarizes the parking supply anticipated to be added as part of the Phase II building program, subject to further review and appropriate adjustments in the latter stages of Phase II implementation for the reasons discussed below:

Table 10: Projected Phase II Parking

Building	Projected Phase II Parking Supply
S2 - Subterranean Garage	23 spaces
S1/S3 Subterranean Garage	4-levels subterranean, approx. 498 spaces
2I - Subterranean Garage and limited ground floor parking	4-levels subterranean, approx. 300 spaces
2C - Subterranean Garage	4-levels subterranean, approx. 195 spaces <sup>+</sup>
S4/S5 - Subterranean Garage	4-levels subterranean, approx. 1,029 spaces*
2D/E - Subterranean Garage	4-levels subterranean, approx. 211 spaces*
Existing Parking to Remain	
Entry Plaza	8 spaces
Loading Dock	11 spaces
ER Lot	10 spaces
<b>Total</b>	<b>2,285 spaces</b>

Source: PSJHC

+ - The parking configuration for this garage will consist primarily of tandem spaces.

\* - Walker recommends that the number of parking spaces to be provided in this building be reconsidered based on an updated Parking Demand Study prepared closer in time to construction of this building.

This projected parking supply (2,285 spaces) exceeds projected parking demand (2,081) upon completion of Phase II development. This is a 10% buffer/cushion of supply compared with peak parking demand. The recommend parking supply, including the appropriate buffer/cushion over the projected peak parking demand, (or “effective supply”) for the full Phase II implementation should be assessed closer in time to Phase II implementation based on the final operations plan and user groups for each of the parking locations.

## PHASING PLAN A

This Phasing Plan identifies the total parking supply and demand at the beginning and end of each construction phase. As discussed above, this Study assumes that Providence Saint John's generally maintains its current supply of leased parking until the end of Stage A4; however, the amount of parking to be leased at any particular time should be revisited when Providence Saint John's prepares its annual Parking Management Plan report. This Study also assumes that the conditions stated for the beginning of each stage continue throughout the construction of that stage until construction of that stage ends. Also note that the first stage (Stage A1) consists of two separate parts – the Multifamily Housing (S2) Building and the remainder of the stage (S1 and S3). Since the Multifamily Housing (S2) Building is anticipated to be constructed first in advance of the remainder of the stage, this is shown separately as the beginning of Stage A1. In other stages, it is assumed that the buildings are constructed concurrently in order to be conservative.

Currently 76% of PSJHC's peak parking demand is accommodated at owned parking locations. This Phasing Plan identifies the percentage of PSJHC's peak parking demand that would be accommodated at owned parking locations at the end of each stage.

### STAGE A1 – MULTI-FAMILY HOUSING (S2) BUILDING

#### *BEGINNING OF STAGE A1 – MULTI-FAMILY HOUSING (S2) BUILDING*

##### **SUPPLY**

- A total of 89 parking spaces would be displaced in Lot H, reducing the parking supply from 1,733 spaces to 1,644 spaces.

##### **DEMAND**

- At the beginning of the stage, there would be a parking demand of 990 parking spaces.
- The estimated peak construction parking demand is 60 spaces.

There would be a surplus of 594 spaces during the stage after accounting for peak construction parking demand.

#### *END OF STAGE A1 – MULTI-FAMILY HOUSING (S2) BUILDING*

##### **SUPPLY**

- A new underground parking garage under Building S2 (Replacement Multi-Family Housing) would add 23 spaces and would be a self-park garage mostly for residential tenants and guests, with a few spaces for retail parking.
- The total parking supply would increase from 1,644 to 1,667 parking spaces.

##### **DEMAND**

- Upon completion of Stage A1, Building S2, there would be a total demand of 965 parking spaces.

There would be a surplus of 702 spaces after Building S2 is open.

**STAGE A1 – CHILD & FAMILY DEVELOPMENT CENTER (S1) AND WEST AMBULATORY CARE & RESEARCH BUILDING (S3)**

**BEGINNING OF STAGE A1 – CHILD & FAMILY DEVELOPMENT CENTER (S1) AND WEST AMBULATORY CARE & RESEARCH BUILDING (S3)**

**SUPPLY**

- A total of 284 parking spaces would be displaced in Lots B and I.
- There would be some shifting of user groups at various parking locations as a portion of Lot H, which is currently used by staff, would be needed to accommodate Phase I visitor/patient vehicles.
- The total supply would be 1,383 parking spaces.

**DEMAND**

- At the beginning of the stage, there would be a parking demand of 965 parking spaces.
- The estimated construction parking peak demand is 205 spaces.

A surplus of 213 parking spaces would be present after accounting for peak construction parking demand.

**END OF STAGE A1 – CHILD & FAMILY DEVELOPMENT CENTER (S1) AND WEST AMBULATORY CARE & RESEARCH BUILDING (S3)**

**SUPPLY**

- A new four-level underground parking garage under Buildings S1 (Child and Family Development Center) and S3 (West Ambulatory Care and Research Building) would add 498 spaces on the South Campus. It would be a self-park garage, with attendants for tandem spaces, and would serve S1 and S3 staff and visitors/patients as well as Phase I visitors/patients.
- Approximately 184 interim parking spaces could be available on the old JWCI/vacant residential site. If some or all of this area is used for construction staging, then this capacity would be reduced and more of the leased parking would be utilized.
- 22 spaces would be lost in the West Lot due to construction of a new driveway.
- The total supply would be 2,043 parking spaces.

**DEMAND**

- There would be a total demand of 1,267 parking spaces at the end of Stage A1.

There would be a surplus of 776 spaces at the end of Stage A1. At the end of Stage A1, 84% of PSJHC's peak parking demand would be accommodated at owned parking locations.

Table 11: Parking Supply and Demand Summary at the End of Stage A1

	Existing	Stage A1			
		S2		S3/S1	
		Start	Finish	Start	Finish
Demand	990	990	965	965	1,267
Supply - Owned	755	666	689	405	1,065
Supply - Leased	978	978	978	978	978
Peak Const. Parking Demand	0	60	0	205	0
Total Supply	1,733	1,644	1,667	1,383	2,043
Total Demand	990	1,050	965	1,170	1,267
Surplus with Const. Parking	743	594	702	213	776

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

## STAGE A2 – 20<sup>TH</sup> STREET MEDICAL BUILDING (2I)

### BEGINNING OF STAGE – 20<sup>TH</sup> STREET MEDICAL BUILDING (2I)

#### **SUPPLY**

- The former JWCI/vacant residential site may continue to be used for interim parking and/or construction staging. If the site is used for interim parking, it could serve existing visitor/patient parking demand and Lot H would no longer need to serve Phase I visitors/patients and would revert to only serve staff. If some or all of the old JWCI/vacant residential site is utilized for construction staging, then some or all of Lot H may continue to be used for Phase I visitors/patients and Phase I staff would continue to park at off-site leased facilities.
- The total supply would be 2,043 parking spaces.

#### **DEMAND**

- There would be a total demand of 1,267 parking spaces from existing and Stage A1 uses.
- The estimated construction parking peak demand is 70 spaces.

There would be a surplus of 706 spaces during this stage after factoring in peak construction parking demand.

### END OF STAGE – 20<sup>TH</sup> STREET MEDICAL BUILDING (2I)

#### **SUPPLY**

- The 20th Street Medical Building (2I), to be built along 20th Street on the North Campus, would include subterranean parking and limited at-grade parking located behind the street fronting commercial space with approximately 300 spaces. This garage would be a self-park garage and would be used to park the medical office building constructed above the parking, with additional parking to serve Phase I employees.
- The total supply would be 2,343 parking spaces.

**DEMAND**

- There would be new parking demand associated with the proposed medical office building.
- There would be a total demand of 1,417 parking spaces at the end of the stage.

There would be a surplus of 926 spaces at the end of the stage. At the end of Stage A2, 96% of PSJHC's peak parking demand would be accommodated at owned parking locations.

Table 12: Parking Supply and Demand Summary at the End of Stage A2

	Existing	Stage A1				Stage A2	
		S2		S3/S1		2I	
		Start	Finish	Start	Finish	Start	Finish
Demand	990	990	965	965	1,267	1,267	1,417
Supply - Owned	755	666	689	405	1,065	1,065	1,365
Supply - Leased	978	978	978	978	978	978	978
Peak Const. Parking Demand	0	60	0	205	0	70	0
Total Supply	1,733	1,644	1,667	1,383	2,043	2,043	2,343
Total Demand	990	1,050	965	1,170	1,267	1,337	1,417
Surplus with Const. Parking	743	594	702	213	776	706	926

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

**STAGE A3 - WEST AMBULATORY & ACUTE CARE BUILDING (2C)**
**BEGINNING OF STAGE - WEST AMBULATORY & ACUTE CARE BUILDING (2C)**
**SUPPLY**

- The rest of the West lot (68 spaces) would be removed.
- The total supply would be 2,275 spaces.

**DEMAND**

- There would be parking demand for 1,417 parking spaces from existing, Stage A1 and Stage A2 uses.
- Peak construction parking demand is estimated at 110 parking spaces.

There would be a surplus of 748 spaces during this stage after factoring in peak construction parking demand.

**END OF STAGE - WEST AMBULATORY & ACUTE CARE BUILDING (2C)**
**SUPPLY**

- A new garage with 195, primarily tandem, spaces in a four-level below grade configuration would be built under Building 2C (West Ambulatory Care Building - North Campus). Because of the proposed

tandem parking configuration, it would best serve 2C visitors/patients as well as Phase I visitors/patients who drop their vehicles with a valet at the North Campus Entry Plaza.

- The overall parking supply would be 2,470 spaces.

#### **DEMAND**

- There would be new parking demand associated with the Building 2C uses.
- There would be a total demand of 1,557 parking spaces at the end of this stage.

There would be a surplus of 913 spaces at the end of the stage. At the end of Stage A3, 96% of PSJHC's peak parking demand would be accommodated at owned parking locations.

Table 13: Parking Supply and Demand Summary at the End of Stage A3

	Existing	Stage A1				Stage A2		Stage A3	
		S2		S3/S1		2I		2C	
		Start	Finish	Start	Finish	Start	Finish	Start	Finish
Demand	990	990	965	965	1,267	1,267	1,417	1,417	1,557
Supply - Owned	755	666	689	405	1,065	1,065	1,365	1,297	1,492
Supply - Leased	978	978	978	978	978	978	978	978	978
Peak Const. Parking Demand	0	60	0	205	0	70	0	110	0
Total Supply	1,733	1,644	1,667	1,383	2,043	2,043	2,343	2,275	2,470
Total Demand	990	1,050	965	1,170	1,267	1,337	1,417	1,527	1,557
Surplus with Const. Parking	743	594	702	213	776	706	926	748	913

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

#### **STAGE A4 - EDUCATION & CONFERENCE CENTER AND EAST AMBULATORY CARE & RESEARCH BUILDING (S4) AND VISITOR HOUSING (S5)**

##### *BEGINNING OF STAGE – EDUCATION & CONFERENCE CENTER AND EAST AMBULATORY CARE & RESEARCH BUILDING (S4) AND VISITOR HOUSING (S5)*

#### **SUPPLY**

- A total of 416 spaces would be displaced at the beginning of the stage due to removal of the temporary surface lot added in Stage B (184 spaces), the loss of 17 additional spaces in Lot C, and the removal of the balance of Lot H (215 spaces).
- There would be 2,054 spaces available during Stage A4.

#### **DEMAND**

- There would be demand for 1,557 parking spaces from existing, Stage A1, Stage A2 and Stage A3 uses.
- Peak construction parking demand is estimated at 245 parking spaces.

There would be a surplus of 252 spaces during this stage after factoring in peak construction parking demand.

*END OF STAGE – EDUCATION & CONFERENCE CENTER AND EAST AMBULATORY CARE & RESEARCH BUILDING (S4) AND VISITOR HOUSING (S5)*

**SUPPLY**

- It is estimated that the subterranean garage beneath the Education & Conference Center and East Ambulatory Care & Research Building (S4) and Visitor Housing (S5) building will include approximately 1,029 spaces in a four-level below-grade configuration and would serve Phase I visitors/patients, 2C employees, users/staff in Buildings S4 and S5, and staff previously utilizing leased parking. Once fully constructed and operational, there would be sufficient owned parking supply to meet peak parking demand. For purposes of this Study, we have assumed that 700 leased parking spaces would be released at the end of this stage and that 278 leased spaces would be maintained to provide a buffer and with the anticipation that owned spaces would be taken off-line as part of the next/Stage A5 construction period.
- The total supply would be 2,383 spaces.

**DEMAND**

- There would be new parking demand associated with the S4 and S5 uses.
- There would be a total demand of 2,036 parking spaces at the end of the stage.

There would be a surplus of 347 spaces at the end of the stage. At the end of Stage A4, all of PSJHC's peak parking demand would be accommodated at owned parking locations.

Table 14: Parking Supply and Demand Summary at the End of Stage A4

	Existing	Stage A1				Stage A2		Stage A3		Stage A4	
		S2		S3/S1		2I		2C		S4/S5	
		Start	Finish	Start	Finish	Start	Finish	Start	Finish	Start	Finish
Demand	990	990	965	965	1,267	1,267	1,417	1,417	1,557	1,557	2,036
Supply - Owned	755	666	689	405	1,065	1,065	1,365	1,297	1,492	1,076	2,105
Supply - Leased	978	978	978	978	978	978	978	978	978	978	278
Peak Const. Parking Demand	0	60	0	205	0	70	0	110	0	245	0
Total Supply	1,733	1,644	1,667	1,383	2,043	2,043	2,343	2,275	2,470	2,054	2,383
Total Demand	990	1,050	965	1,170	1,267	1,337	1,417	1,527	1,557	1,802	2,036
Surplus with Const. Parking	743	594	702	213	776	706	926	748	913	252	347

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

**STAGE A5 - EAST AMBULATORY & ACUTE CARE BUILDING (2D/E)**

*BEGINNING OF STAGE – EAST AMBULATORY & ACUTE CARE BUILDING (2D/E)*

**SUPPLY**

- The balance of Lot C, totaling 31 spaces, would be removed at the beginning of the stage.
- The total parking supply would be 2,352 parking spaces.

**DEMAND**

- There would be demand of 2,036 parking spaces from existing, Stage A1, Stage A2, Stage A3 and Stage A4 uses.
- Peak construction parking demand is estimated at 110 parking spaces.

There would be a surplus of 206 spaces during this stage after factoring in peak construction parking demand.

**END OF STAGE – EAST AMBULATORY & ACUTE CARE BUILDING (2D/E)**
**SUPPLY**

- It is estimated that the subterranean garage beneath the East Ambulatory & Acute Care Building (2D/E) will include approximately 211 spaces in a four-level below-grade configuration. Given its location, it would best serve 2D/E visitors/patients who utilize a valet, Phase I visitors/patients who drop their vehicles with a valet at the entry plaza, and Phase I physicians who self-park.
- Staff in Buildings 2C and 2D/E would park in S1/S3, S4/S5 or 2I garages.
- The remaining 278 leased parking spaces could be released.
- The total supply would be 2,285 parking spaces, all owned by PSJHC.

**DEMAND**

- Upon completion of Stage A5, which consists of Building 2D/E, there would be a total demand of 2,081 parking spaces.

There would be a surplus of 204 spaces at the end of the stage, or approximately 10% of demand. The recommend parking supply, including the appropriate buffer/cushion over the projected peak parking demand, (or “effective supply”) for the full Phase II implementation should be assessed closer in time to Phase II implementation based on the final operations plan and user groups for each of the parking locations. At the end of Stage A5, all of PSJHC’s peak parking demand would be accommodated at owned parking locations. The following table summarizes the parking supply and demand by stage and at build-out.

Table 15: Parking Supply and Demand Summary at the End of Stage A5

	Existing	Stage A1				Stage A2		Stage A3		Stage A4		Stage A5	
		S2		S3/S1		2I		2C		S4/S5		2D/E	
		Start	Finish	Start	Finish	Start	Finish	Start	Finish	Start	Finish	Start	Finish
Demand	990	990	965	965	1,267	1,267	1,417	1,417	1,557	1,557	2,036	2,036	2,081
Supply - Owned	755	666	689	405	1,065	1,065	1,365	1,297	1,492	1,076	2,105	2,074	2,285
Supply - Leased	978	978	978	978	978	978	978	978	978	978	278	278	0
Peak Const. Parking Demand	0	60	0	205	0	70	0	110	0	245	0	110	0
Total Supply	1,733	1,644	1,667	1,383	2,043	2,043	2,343	2,275	2,470	2,054	2,383	2,352	2,285
Total Demand	990	1,050	965	1,170	1,267	1,337	1,417	1,527	1,557	1,802	2,036	2,146	2,081
Surplus with Const. Parking	743	594	702	213	776	706	926	748	913	252	347	206	204

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

As explained in this Section and summarized in Table 16, below, Providence Saint John's will improve its current ratio of owned parking supply to peak parking demand (76%) during Phase II implementation. At the completion of Stage A3, Providence Saint John's will be able to accommodate 96% of its peak parking demand in owned parking facilities.

Table 16: Parking Demand and Owned Parking Supply Summary Phasing Plan A

	Existing	End of Stage A1	End of Stage A2	End of Stage A3	End of Stage A4*	End of Stage A5*
Total Demand	990	1267	1417	1557	2036	2081
Owned Spaces	755	1065	1365	1492	2105	2285
Owned as a % of Total Demand	76%	84%	96%	96%	103%	110%

Source: Walker Consultants

\* Walker recommends that the number of parking spaces to be provided in this stage be reconsidered based on an updated Parking Demand Study prepared closer in time to construction of this building.

## PHASING PLAN B

This Phasing Plan identifies the total parking supply and demand at the beginning and end of each construction phase. As discussed above, this study assumes that Providence Saint John's generally maintains its current supply of leased parking until the end of Stage B4; however, the amount of parking to be leased at any particular time should be revisited when Providence Saint John's prepares its annual Parking Management Plan report. This study also assumes that the conditions stated for the beginning of each stage continue throughout the construction of that stage and continue until construction of that stage ends. Also note that the first stage (Stage B1) consists of two separate parts – the Multifamily Housing (S2) Building and the remainder of the stage (S1 and S3). Since the Multifamily Housing (S2) Building is anticipated to be constructed first in advance of the remainder of the stage, this is shown separately as the beginning of Stage B1. In other stages, it is assumed that the buildings are constructed concurrently in order to be conservative.

Currently 76% of PSJHC's peak parking demand is accommodated at owned parking locations. This Phasing Plan identifies the percentage of PSJHC's peak parking demand that would be accommodated at owned parking locations at the end of each stage.

### STAGE B1 – MULTI-FAMILY HOUSING (S2) BUILDING

#### *BEGINNING OF STAGE B1 – MULTI-FAMILY HOUSING (S2) BUILDING*

##### **SUPPLY**

- A total of 89 parking spaces would be displaced in Lot H, reducing the parking supply from 1,733 spaces to 1,644 spaces.

##### **DEMAND**

- At the beginning of this stage, there would be a demand for 990 parking spaces.
- The estimated peak construction parking demand is 60 spaces.

There would be a surplus of 594 spaces during the stage after accounting for peak construction parking demand.

#### *END OF STAGE B1 – MULTI-FAMILY HOUSING (S2) BUILDING*

##### **SUPPLY**

- A new underground parking garage under Building S2 (Replacement Multi-Family Housing) would add 23 spaces and would be a self-park garage mostly for residential tenants and guests, with a few spaces for retail parking.
- The total parking supply would increase from 1,644 to 1,667 parking spaces.

**DEMAND**

- Upon completion of Stage B1 (Building S2), there would be demand for an additional 20 parking spaces, offset by a projected 1%/5% patient-visitor/employee reduction in parking demand on the PSJHC campus as a whole due to ongoing TDM efforts.
- There would be a total demand of 965 parking spaces after Building S2 is open.

There would be a surplus of 702 spaces after Building S2 is open.

**STAGE B1 - WEST AMBULATORY & ACUTE CARE BUILDING (2C)**

***BEGINNING OF STAGE B1 - WEST AMBULATORY & ACUTE CARE BUILDING (2C)***

**SUPPLY**

- A total of 68 spaces would be lost in the West Lot.
- The total supply would be 1,599 spaces (621 owned, 978 leased).

**DEMAND**

- There would be demand for 965 parking spaces.
- Peak construction parking demand in Stage B1 is estimated at 110 parking spaces.

There would be a surplus of 524 spaces during this stage after factoring in peak construction parking demand.

***END OF STAGE B1 - WEST AMBULATORY & ACUTE CARE BUILDING (2C)***

**SUPPLY**

- A new garage with 195, primarily tandem, spaces in a four-level below grade configuration would be built under Building 2C (West Ambulatory Care Building - North Campus). Because of the proposed tandem parking configuration, it would best serve 2C visitors/patients as well as Phase I visitors/patients who drop their vehicles with a valet at the North Campus Entry Plaza.
- The overall parking supply would be 1,794 spaces (816 owned, 978 leased)

**DEMAND**

- There would be new parking demand associated with the Building 2C uses.
- There would be a total demand of 1,125 parking spaces at the end of the stage.

There would be a surplus of 669 spaces at the end of the stage. At the end of Stage B1, 73% of PSJHC's peak parking demand would be accommodated at owned parking locations.

Table 17: Parking Supply and Demand Summary at the End of Stage B1

	Existing	Stage B1			
		S2		2C	
		Start	Finish	Start	Finish
Demand	990	990	965	965	1,125
Supply - Owned	755	666	689	621	816
Supply - Leased	978	978	978	978	978
Peak Const. Parking Demand	0	60	0	110	0
Total Supply	1,733	1,644	1,667	1,599	1,794
Total Demand	990	1,050	965	1,075	1,125
Surplus with Const. Parking	743	594	702	524	669

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

### STAGE B2 – CHILD & FAMILY DEVELOPMENT CENTER (S1) AND WEST AMBULATORY CARE & RESEARCH BUILDING (S3)

#### BEGINNING OF STAGE B2 – CHILD & FAMILY DEVELOPMENT CENTER (S1) AND WEST AMBULATORY CARE & RESEARCH BUILDING (S3)

##### **SUPPLY**

- A total of 284 parking spaces would be displaced in Lots B and I.
- There would be some shifting of user groups at various parking locations as a portion of Lot H, which is currently used by employees, would be needed to accommodate Phase I visitor/patient vehicles.
- The total supply would be 1,510 parking spaces.

##### **DEMAND**

- Between the Existing demand, Building 2C, and Building S2, there would be a total demand of 1,125 parking spaces.
- The estimated construction parking peak demand is 205 spaces.

A surplus of 180 parking spaces would be present after accounting for peak construction parking demand.

#### END OF STAGE B2 – CHILD & FAMILY DEVELOPMENT CENTER (S1) AND WEST AMBULATORY CARE & RESEARCH BUILDING (S3)

##### **SUPPLY**

- A new four-level underground parking garage under Buildings S1 (Child and Family Development Center) and S3 (West Ambulatory Care and Research Building) would add 498 spaces on the South Campus. It would be a self-park garage, with attendants for tandem spaces, and would serve Buildings S1 and S3 staff and visitors/patients as well as Phase I visitors/patients.

- Approximately 184 interim parking spaces could be available on the old JWCI/vacant residential site. If some or all of this area is used for construction staging, then this capacity would be reduced and more of the leased parking would be utilized.
- 22 spaces would be lost in the West Lot due to construction of a new driveway.
- The total supply would be 2,170 parking spaces.

### **DEMAND**

- There would be a total demand of 1,419 parking spaces at the end of Stage B2.

There would be a surplus of 751 spaces at the end of Stage B2. At the end of Stage B2, 84% of PSJHC's peak parking demand would be accommodated at owned parking locations.

Table 18: Parking Supply and Demand Summary at the End of Stage B2

	Existing	Stage B1				Stage B2	
		S2		2C		S3/S1	
		Start	Finish	Start	Finish	Start	Finish
Demand	990	990	965	965	1,125	1,125	1,419
Supply - Owned	755	666	689	621	816	532	1,192
Supply - Leased	978	978	978	978	978	978	978
Peak Const. Parking Demand	0	60	0	110	0	205	0
Total Supply	1,733	1,644	1,667	1,599	1,794	1,510	2,170
Total Demand	990	1,050	965	1,075	1,125	1,330	1,419
Surplus with Const. Parking	743	594	702	524	669	180	751

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

### **STAGE B3 - 20TH STREET MEDICAL BUILDING (2I)**

#### **BEGINNING OF STAGE – 20<sup>TH</sup> STREET MEDICAL BUILDING**

### **SUPPLY**

- Approximately 184 interim parking spaces could be available on the old JWCI/vacant residential site. If the site is used for interim parking, it could serve existing visitor/patient parking demand and Lot H would no longer need to serve Phase I visitors/patients and would revert to serve only staff. If some or all of the old JWCI/vacant residential site is utilized for construction staging, then some or all of Lot H may continue to be used for Phase I visitors/patients and Phase I staff would continue to park at off-site leased facilities.
- The total supply would be 2,170 parking spaces.

### **DEMAND**

- There would be demand for 1,489 parking spaces from Existing, Stage B1 and Stage B2 uses.
- There would be an estimated peak construction parking demand of 70 spaces.

There would be a surplus of 681 spaces during the stage after factoring in peak construction parking demand.

### END OF STAGE – 20<sup>TH</sup> STRET MEDICAL BUILDING

#### **SUPPLY**

- The 20th Street Medical Building (2I), to be built along 20th Street on the North Campus, would include subterranean parking and limited at-grade parking located behind the street fronting commercial space with approximately 300 spaces. This garage would be a self-park garage and would be used to park the medical office building constructed above the parking, with additional parking to serve Phase I employees.
- The overall parking supply would be 2,470 spaces.

#### **DEMAND**

- There would be new parking demand associated with the proposed medical office building.
- There would be a total demand of 1,557 parking spaces at the end of the stage.

There would be a surplus of 913 spaces at the end of the stage. At the end of Stage B3, 96% of PSJHC's peak parking demand would be accommodated at owned parking locations.

Table 19: Parking Supply and Demand Summary at the End of Stage B3

	Existing	Stage B1				Stage B2		Stage B3	
		S2		2C		S3/S1		2I	
		Start	Finish	Start	Finish	Start	Finish	Start	Finish
Demand	990	990	965	965	1,125	1,125	1,419	1,419	1,557
Supply - Owned	755	666	689	621	816	532	1,192	1,192	1,492
Supply - Leased	978	978	978	978	978	978	978	978	978
Peak Const. Parking Demand	0	60	0	110	0	205	0	70	0
Total Supply	1,733	1,644	1,667	1,599	1,794	1,510	2,170	2,170	2,470
Total Demand	990	1,050	965	1,075	1,125	1,330	1,419	1,489	1,557
Surplus with Const. Parking	743	594	702	524	669	180	751	681	913

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

**STAGE B4 - EDUCATION & CONFERENCE CENTER AND EAST AMBULATORY CARE & RESEARCH BUILDING (S4) AND VISITOR HOUSING (S5)**

*BEGINNING OF STAGE – EDUCATION & CONFERENCE CENTER AND EAST AMBULATORY CARE & RESEARCH BUILDING (S4) AND VISITOR HOUSING (S5)*

**SUPPLY**

- A total of 416 spaces would be displaced at the beginning of this stage due to removal of the temporary surface lot added in Stage B (184 spaces), the loss of 17 additional spaces in Lot C, and the removal of the balance of Lot H (215 spaces).
- There would be 2,054 spaces available (1,076 owned, 978 leased) during Stage B4.

**DEMAND**

- There would be demand of 1,557 parking spaces from existing, Stage B1, Stage B2 and Stage B3 uses.
- The peak construction parking demand is estimated at 245 parking spaces.

There would be a surplus of 252 spaces during this stage after factoring in peak construction parking demand.

*END OF STAGE – EDUCATION & CONFERENCE CENTER AND EAST AMBULATORY CARE & RESEARCH BUILDING (S4) AND VISITOR HOUSING (S5)*

**SUPPLY**

- It is estimated that the subterranean garage beneath the Education & Conference Center and East Ambulatory Care & Research Building (S4) and Visitor Housing (S5) Building will include approximately 1,029 spaces in a four-level below-grade configuration and would serve Phase I visitors/patients, 2C employees, users/staff in Buildings S4 and S5, and staff previously utilizing leased parking. Once fully constructed and operational, there would be sufficient owned parking supply to meet peak parking demand. For purposes of this report, we have assumed that 700 leased parking spaces would be released at the end of this stage and that 278 leased spaces would be maintained to provide a buffer and with the anticipation that owned spaces would be taken off-line as part of the next/Stage B5 construction period.
- The total supply would be 2,383 spaces (2,105 owned, 278 leased)

**DEMAND**

- There would be new parking demand associated with the S4 and S5 uses, partially offset by increased TDM measures.
- There would be a total demand of 2,036 parking spaces at the end of the stage.

There would be a surplus of 347 spaces at the end of the stage. At the end of Stage B4, all of PSJHC's peak parking demand would be accommodated at owned parking locations.

**Table 20: Parking Supply and Demand Summary at the End of Stage B4**

	Existing	Stage B1				Stage B2		Stage B3		Stage B4	
		S2		2C		S3/S1		2I		S4/S5	
		Start	Finish	Start	Finish	Start	Finish	Start	Finish	Start	Finish
Demand	990	990	965	965	1,125	1,125	1,419	1,419	1,557	1,557	2,036
Supply - Owned	755	666	689	621	816	532	1,192	1,192	1,492	1,076	2,105
Supply - Leased	978	978	978	978	978	978	978	978	978	978	278
Peak Const. Parking Demand	0	60	0	110	0	205	0	70	0	245	0
Total Supply	1,733	1,644	1,667	1,599	1,794	1,510	2,170	2,170	2,470	2,054	2,383
Total Demand	990	1,050	965	1,075	1,125	1,330	1,419	1,489	1,557	1,802	2,036
Surplus with Const. Parking	743	594	702	524	669	180	751	681	913	252	347

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

### STAGE B5 - EAST AMBULATORY & ACUTE CARE BUILDING (2D/E)

#### BEGINNING OF STAGE – EAST AMBULATORY & ACUTE CARE BUILDING (2D/E)

##### SUPPLY

- The balance of Lot C, totaling 31 spaces, would be removed at the beginning of the stage.
- The total parking supply would be 2,352 parking spaces.

##### DEMAND

- There would be demand for 2,036 parking spaces from existing, Stage B1, Stage B2, Stage B3 and Stage B4 uses.
- The peak construction parking demand is estimated at 110 parking spaces.

There would be a surplus of 206 spaces during the stage after factoring in peak construction parking demand.

#### END OF STAGE – EAST AMBULATORY & ACUTE CARE BUILDING (2D/E)

##### SUPPLY

- At this time, it is assumed that the subterranean garage beneath the East Ambulatory & Acute Care Building (Building 2D/E) will include approximately 211 spaces in a four-level below-grade configuration. Given its location, it would best serve Building 2D/E visitors/patients who utilize a valet, Phase I visitors/patients who drop their vehicles with a valet at the entry plaza and Phase I physicians who self-park.
- Staff in Buildings 2C and 2D/E would park in S1/S3, S4/S5 or 2I garages.
- The remaining 278 leased parking spaces could be released.
- The total supply would be 2,285 parking spaces, all owned by PSJHC.

##### DEMAND

- Upon completion of Stage B5, which consists of Building 2D/E, there would be a total demand of 2,081 parking spaces at the end of the stage.

There would be a surplus of 204 spaces at the end of the stage, or approximately 10% of demand. The recommend parking supply, including the appropriate buffer/cushion over the projected peak parking demand, (or "effective supply") for the full Phase II implementation should be assessed closer in time to Phase II implementation based on the final operations plan and user groups for each of the parking locations. At the end of Stage B5, all of PSJHC's peak parking demand would be accommodated at owned parking locations. The following table summarizes the parking supply and demand by stage and at build-out.

**Table 21: Parking Supply and Demand Summary at the End of Stage B5**

	Existing	Stage B1				Stage B2		Stage B3		Stage B4		Stage B5	
		S2		2C		S3/S1		2I		S4/S5		2D/E	
		Start	Finish	Start	Finish	Start	Finish	Start	Finish	Start	Finish	Start	Finish
Demand	990	990	965	965	1,125	1,125	1,419	1,419	1,557	1,557	2,036	2,036	2,081
Supply - Owned	755	666	689	621	816	532	1,192	1,192	1,492	1,076	2,105	2,074	2,285
Supply - Leased	978	978	978	978	978	978	978	978	978	978	278	278	0
Peak Const. Parking Demand	0	60	0	110	0	205	0	70	0	245	0	110	0
Total Supply	1,733	1,644	1,667	1,599	1,794	1,510	2,170	2,170	2,470	2,054	2,383	2,352	2,285
Total Demand	990	1,050	965	1,075	1,125	1,330	1,419	1,489	1,557	1,802	2,036	2,146	2,081
Surplus with Const. Parking	743	594	702	524	669	180	751	681	913	252	347	206	204

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

As explained in this Section and summarized in Table 22, below, Providence Saint John's will improve its current ratio of owned parking supply to peak parking demand (76%) during Phase II implementation. At the completion of Stage B3, Providence Saint John's will be able to accommodate 96% of its peak parking demand in owned parking facilities.

**Table 22: Parking Demand and Owned Parking Supply Summary Phasing Plan B**

	Existing	End of Stage B1	End of Stage B2	End of Stage B3	End of Stage B4*	End of Stage B5*
Total Demand	990	1125	1419	1557	2036	2081
Owned Spaces	755	816	1192	1492	2105	2285
Owned as a % of Total Demand	76%	73%	84%	96%	103%	110%

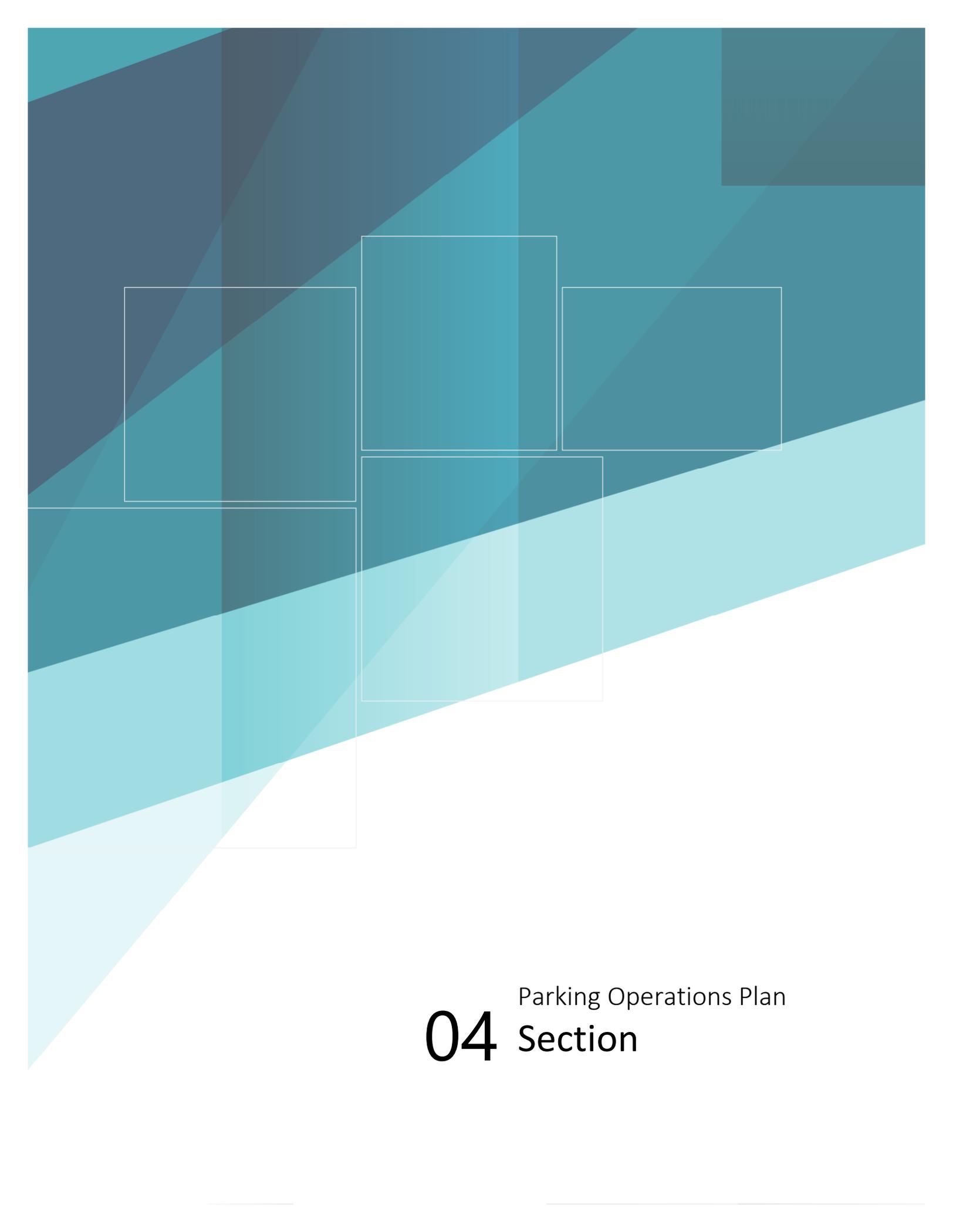
Source: Walker Consultants

\* Walker recommends that the number of parking spaces to be provided in this stage be reconsidered based on an updated Parking Demand Study prepared closer in time to construction of this building.

## CONCLUSIONS AND RECOMMENDATIONS:

1. Providence Saint John's will be able to satisfy its peak parking demand and construction parking at each stage of Phase II development under both of the potential Phase II implementation scenarios through a combination of leased and owned parking and without increasing Providence Saint John's reliance on leased parking.
2. Upon full Phase II implementation, Providence Saint John's will be able to satisfy its peak parking demand with owned parking and will no longer need to lease parking.

3. We recommend that Providence Saint John's construct four levels of subterranean parking on the first two Phase II development sites (except for the 10-unit Multifamily Housing (S2) building site) and three to four levels of subterranean parking on the third Phase II development site. This will allow Providence Saint John's to significantly improve its ratio of owned parking supply to peak parking demand by the end of the third stage from the current 76% to 84%-96%.
4. We recommend that the amount of parking to be developed in the last two stages of Phase II implementation be established closer in time to the last two stages being constructed based on an update of this study. Modes of transportation and the need for auto parking will very likely change during Phase II's 20-25 year implementation. More empirical data with respect to Providence Saint John's parking demand will become available as Phase II development is open and occupied. In addition, updated information about how the Phase II parking locations are being used (which user groups) and operated (valet/attendant or self park) will be available. Establishing the parking to be developed in the last two stages of Phase II implementation closer in time to these stages being constructed will allow Providence Saint John's and the City to "right-size" the parking.
5. So long as Providence Saint John's continues to rely upon leased parking to meet its peak parking demand, we recommend that Providence Saint John's continue to prepare annual Parking Management Plan reports documenting its owned and leased parking supply, its parking demand by user group, the user groups parking at each parking location, and the operations (valet, attendant, self-park) at each parking location. This will provide an important annual check-in to revisit the appropriate amount of leased parking during Phase II implementation, the appropriate buffer of spaces that should be provided, and whether changes to the use and/or operations of the parking supply (such as redistribution of user groups) are prudent.



# 04

Parking Operations Plan  
Section

**PARKING OPERATIONS PLAN**

Current parking operations at Providence Saint John's Health Center ("PSJHC"), as reflected in the February 2018 Parking Management Plan, were previously shown in Table 9.

Several adjustments to parking are expected during build-out of PSJHC Phase II. The Parking Operations Plan at build-out is based upon the owned parking supply assumptions included in the Interim Parking Plan (Section 3 of this study) and on parking demand by user group based on currently available information. Given that modes of transportation and the need for auto parking will very likely change during Phase II's 20-25 year implementation, the Phase II use categories are broad, the parking characteristics of the specific programs that will be located in the Phase II buildings may vary, and that there may be significant changes in parking demand over time, the parking supply for the last two stages (A4-A5 and B4-B5) should be determined closer in time to construction of these stages based on an updated Parking Demand Study(ies). As such, the parking operations plan for Phase II build-out will need to be reconsidered closer to construction of the last stages of Phase II.

**AT COMPLETION OF PHASE II**

The following table details the user groups and method of operation by parking location at the completion of Phase II based on current assumptions. As discussed in Section 3, during Phase II implementation, the user groups and method of operation for each parking location will be established and revisited during PSJHC's annual Parking Management Plan reports. The table takes into account the possible alternative where parking for S2 is provided under S4/S5 instead of underneath S2.

The appropriate parking supply, including the appropriate buffer/cushion over the projected peak parking demand, (or "effective supply") for the full Phase II implementation should be assessed closer in time to Phase II implementation based on the final operations plan and user groups for each of the parking locations.

**Table 23: User Group(s) and Method of Operation of PSJHC Parking at Completion of Phase II**

Lot/Garage Name	Location	User Groups	Method of Operation	Number of Spaces
S1/S3	South Campus	Child & Family Development Center (S1) and West Ambulatory Care & Research Building (S3) parkers (staff and visitors/patients); West Ambulatory & Acute Care Building (2C) staff	Self-park; possible attendant for tandem	4-levels subterranean, approx. 498
S2	South Campus	Multifamily Housing (S2) residents; Multifamily Housing (S2) retail	Self-park	23
2I	North Campus	20th Street Medical Building (2I) (staff, physicians & patients); Phase I (North Campus) staff	Self-park; possible attendant for tandem	4-levels subterranean, approx. 300
S4/S5	South Campus	Education & Conference Center and East Ambulatory Care & Research Building (S4), Saint John's Café, and Visitor Housing (S5) parkers (staff and visitors/patients); Phase I (North Campus) staff; East Ambulatory & Acute Care Building (2D/E) staff (Optional – Multifamily Housing (S2) residents and retail)	Self-park; possible attendant for tandem	4-levels subterranean, approx. 1,029*
2C	North Campus	West Ambulatory & Acute Care Building (2C) visitors/patients; Phase I (North Campus) visitors/patients	Valet	4-levels subterranean, approx. 195
2D/E	North Campus	East Ambulatory & Acute Care Building (2D/E) and Mullin Plaza Café visitors/patients; Phase I (North Campus) visitors/patients and physicians	Valet for visitors/patients; self-park for physicians	4-levels subterranean, approx. 211*
Entry Plaza	North Campus	Phase I (North Campus) visitors/patients	Valet	8
ER Lot	North Campus	Phase I (North Campus) visitors/patients	Valet	10
Loading Dock	North Campus	Phase I (North Campus) staff	Self-park	11

Source: Walker Consultants

\* Walker recommends that the number of parking spaces to be provided in this stage be reconsidered based on an updated Parking Demand Study prepared closer in time to construction of this building.



Phasing Plan B Alternative 1

# 05 Section

**PHASING PLAN B ALTERNATIVE 1**

This section documents the results of the shared parking analysis and demand by phase analysis for the following scenario, here forth dubbed Phasing Plan B Alternative 1:

- Identical Phase/building order as Phasing Plan B
- 2C (part of Stage B1) analyzed as a hybrid ambulatory/clinic/research care facility consisting of 77,300 square feet of medical research and 34,700 square feet of ambulatory care/clinic.
  - “Phasing Plan B” analyzed 2C as 112,000 square feet of inpatient/clinic uses.
- 200 parking spaces constructed under 2I (Stage B3).
  - “Phasing Plan B” analyzed 300 parking spaces under 2I.
- No parking under S2 (part of Stage B1) – S2 parking accommodated in Lot H (interim) and under S4/S5 (final condition).

Table 24 outlines the use assumptions by stage for Phasing Plan B Alternative 1.

Table 24: Phasing Plan B Alternative 1 Program Uses

Use	Cumulative Total						Unit of Measure
	Existing	Stage B1	Stage B2	Stage B3	Stage B4	Stage B5	
Health-Related Services/Neighborhood Commercial	0	5,500	5,500	10,000	18,200	21,200	SF/Floor Area
Restaurant/Coffee Shop	0	0	5,800	5,800	8,500	10,000	SF/Floor Area
Hospital/Health Care							
Phase I	477,675	475,000	475,000	475,000	475,000	475,000	SF/Floor Area
Phase II Inpatient/Clinic	0	0	0	0	0	75,500	SF/Floor Area
Phase II Ambulatory/Clinic	0	34,700	93,700	93,700	194,400	194,400	SF/Floor Area
Health and Wellness	0	0	0	0	28,300	28,300	SF/Floor Area
Medical Research Facilities	51,055	128,355	136,300	136,300	136,300	136,300	SF/Floor Area
Medical Office Building	0	0	0	50,000	50,000	50,000	SF/Floor Area
Education and Conference Center	0	0	0	0	59,000	59,000	SF/Floor Area
Day Care	6,362	6,362	9,000	9,000	9,000	9,000	SF/Floor Area
Child and Family Development Center	28,308	28,308	25,500	25,500	25,500	25,500	SF/Floor Area
Visitor Housing	0	0	0	0	34	34	Units
Replacement Multi-Family Housing							
Two-Bedroom (Market Rate)	0	8	8	8	8	8	Units
Two-Bedroom (Affordable)	0	2	2	2	2	2	Units

Source: PSJHC; Perkins Eastman; MRY Architects

Table 25 details peak parking demand for different user groups by stage. The peak parking demand shown is cumulative, through the end of each stage. The peak parking demand is at 2:00 PM on weekdays in January.

Table 25: Phasing Plan B Alternative 1 Cumulative Parking Demand

## Phasing Plan B Alternative 1

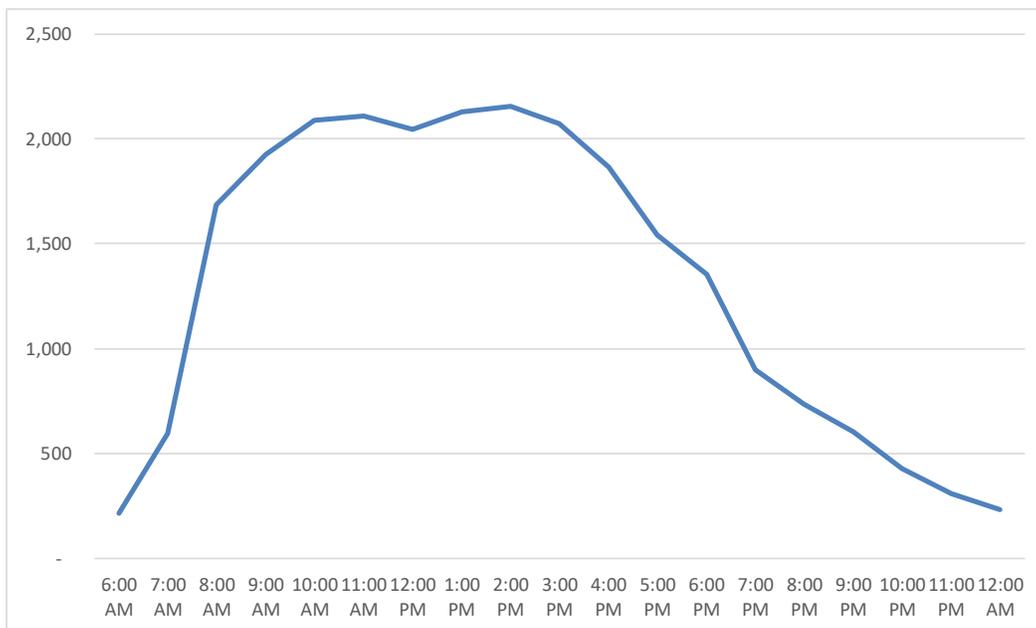
Cumulative Parking Demand by Building									
User Group	Existing	S2	2C	S1	S3	2I	S4	S5	2D/E
Employee	730	691	839	807	919	931	1048	1055	1073
Visitor/Patient	260	256	388	384	556	683	1020	1020	1048
Resident	0	18	18	18	18	18	18	18	18
Visitor Housing Guest	0	0	0	0	0	0	0	16	16
<b>Total</b>	<b>990</b>	<b>965</b>	<b>1245</b>	<b>1209</b>	<b>1493</b>	<b>1632</b>	<b>2086</b>	<b>2109</b>	<b>2155</b>

Source: Walker Consultants

Note there is a decrease in the parking demand from Existing to Phase II Building S2 as new parking demand generating square footage added in Building S2 is offset by a decrease in the drive ratio due to TDM measures. A similar situation exists between Building 2C and Building S1.

In the month of peak demand, January, Figure 5 illustrates how demand would change over the course of a weekday.

Figure 5: Phasing Plan B Alternative 1 - Weekday Hourly Demand in Peak Month at Buildout



Source: Walker Consultants, 2019

Demand is generally at a peak from 10:00 AM until 2:00 PM and then begins to decline after 3:00 PM.

At this time, we project a peak parking demand of 2,155± parking spaces at PSJHC based on Phasing Plan B Alternative 1, on a January weekday upon full Phase II implementation.

### **PHASING PLAN B ALTERNATIVE 1 – INTERIM PARKING PLAN**

#### **STAGE B1A – MULTI-FAMILY HOUSING (S2) BUILDING**

##### *BEGINNING OF STAGE B1A – MULTI-FAMILY HOUSING (S2) BUILDING*

#### **SUPPLY**

- A total of 89 parking spaces would be displaced in Lot H, reducing the parking supply from 1,733 spaces to 1,644 spaces.

#### **DEMAND**

- At the beginning of this stage, there would be a demand for 990 parking spaces.
- The estimated peak construction parking demand is 60 spaces.

There would be a surplus of 594 spaces during the stage after accounting for peak construction parking demand.

##### *END OF STAGE B1A – MULTI-FAMILY HOUSING (S2) BUILDING*

#### **SUPPLY**

- No new parking capacity would be created in Stage B1A.
- The total parking supply would remain at 1,644 parking spaces.

#### **DEMAND**

- Upon completion of Stage B1A (Building S2), there would be demand for an additional 20 parking spaces, offset by a projected 1%/5% patient-visitor/employee reduction in parking demand on the PSJHC campus as a whole due to ongoing TDM efforts.
- There would be a total demand of 965 parking spaces after Building S2 is open.

There would be a surplus of 679 spaces after Building S2 is open.

## STAGE B1A - WEST AMBULATORY & RESEARCH BUILDING (2C)

### *BEGINNING OF STAGE B1A - WEST AMBULATORY & RESEARCH BUILDING (2C)*

#### **SUPPLY**

- A total of 68 spaces would be lost in the West Lot.
- The total supply would be 1,576 spaces (598 owned, 978 leased).

#### **DEMAND**

- There would be demand for 965 parking spaces.
- Peak construction parking demand in Stage B1 is estimated at 110 parking spaces.

There would be a surplus of 501 spaces during this stage after factoring in peak construction parking demand.

### *END OF STAGE B1A - WEST AMBULATORY & RESEARCH BUILDING (2C)*

#### **SUPPLY**

- A new garage with 195, primarily tandem, spaces in a four-level below grade configuration would be built under Building 2C (West Ambulatory Care - Research Building - North Campus). Because of the proposed tandem parking configuration, it would best serve 2C visitors/patients as well as Phase I visitors/patients who drop their vehicles with a valet at the North Campus Entry Plaza.
- The overall parking supply would be 1,771 spaces (793 owned, 978 leased)

#### **DEMAND**

- There would be new parking demand associated with the Building 2C uses.
- There would be a total demand of 1,245 parking spaces at the end of the stage.

There would be a surplus of 526 spaces at the end of the stage. At the end of Stage B1A, 64% of PSJHC's peak parking demand would be accommodated at owned parking locations.

Table 26: Parking Supply and Demand Summary at the End of Stage B1A

	Existing	Stage B1A			
		S2		2C	
		Start	Finish	Start	Finish
Demand	990	990	965	965	1,245
Supply - Owned	755	666	666	598	793
Supply - Leased	978	978	978	978	978
Peak Const. Parking Demand	0	60	0	110	0
Total Supply	1,733	1,644	1,644	1,576	1,771
Total Demand	990	1,050	965	1,075	1,245
Surplus with Const. Parking	743	594	679	501	526

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

### STAGE B2A – CHILD & FAMILY DEVELOPMENT CENTER (S1) AND WEST AMBULATORY CARE & RESEARCH BUILDING (S3)

#### BEGINNING OF STAGE B2A – CHILD & FAMILY DEVELOPMENT CENTER (S1) AND WEST AMBULATORY CARE & RESEARCH BUILDING (S3)

##### **SUPPLY**

- A total of 284 parking spaces would be displaced in Lots B and I.
- There would be some shifting of user groups at various parking locations as a portion of Lot H, which is currently used by employees, would be needed to accommodate Phase I visitor/patient vehicles.
- The total supply would be 1,487 parking spaces.

##### **DEMAND**

- Between the Existing demand, Building 2C, and Building S2, there would be a total demand of 1,245 parking spaces.
- The estimated construction parking peak demand is 205 spaces.

A surplus of 37 parking spaces would be present after accounting for peak construction parking demand.

#### END OF STAGE B2A – CHILD & FAMILY DEVELOPMENT CENTER (S1) AND WEST AMBULATORY CARE & RESEARCH BUILDING (S3)

##### **SUPPLY**

- A new four-level underground parking garage under Buildings S1 (Child and Family Development Center) and S3 (West Ambulatory Care and Research Building – South Campus) would add 498 spaces on the South Campus. It would be a self-park garage, with attendants for tandem spaces, and would serve Buildings S1 and S3 staff and visitors/patients as well as Phase I visitors/patients.

- Approximately 184 interim parking spaces could be available on the old JWCI/vacant residential site. If some or all of this area is used for construction staging, then this capacity would be reduced and more of the leased parking would be utilized.
- 22 spaces would be lost in the West Lot due to construction of a new driveway.
- The total supply would be 2,147 parking spaces.

### **DEMAND**

- There would be a total demand of 1,493 parking spaces at the end of Stage B2A.

There would be a surplus of 654 spaces at the end of Stage B2A. At the end of Stage B2, 78% of PSJHC's peak parking demand would be accommodated at owned parking locations.

Table 27: Parking Supply and Demand Summary at the End of Stage B2

	Existing	Stage B1A				Stage B2A	
		S2		2C		S3/S1	
		Start	Finish	Start	Finish	Start	Finish
Demand	990	990	965	965	1,245	1,245	1,493
Supply - Owned	755	666	666	598	793	509	1,169
Supply - Leased	978	978	978	978	978	978	978
Peak Const. Parking Demand	0	60	0	110	0	205	0
Total Supply	1,733	1,644	1,644	1,576	1,771	1,487	2,147
Total Demand	990	1,050	965	1,075	1,245	1,450	1,493
Surplus with Const. Parking	743	594	679	501	526	37	654

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

### **STAGE B3A - 20TH STREET MEDICAL BUILDING (2I)**

#### **BEGINNING OF STAGE B3A – 20<sup>TH</sup> STREET MEDICAL BUILDING**

### **SUPPLY**

- Approximately 184 interim parking spaces could be available on the old JWCI/vacant residential site. If the site is used for interim parking, it could serve existing visitor/patient parking demand and Lot H would no longer need to serve Phase I visitors/patients and would revert to serve only staff. If some or all of the old JWCI/vacant residential site is utilized for construction staging, then some or all of Lot H may continue to be used for Phase I visitors/patients and Phase I staff would continue to park at off-site leased facilities.
- The total supply would be 2,147 parking spaces.

### **DEMAND**

- There would be demand for 1,493 parking spaces from Existing, Stage B1A and Stage B2A uses.
- There would be an estimated peak construction parking demand of 70 spaces.

There would be a surplus of 584 spaces during the stage after factoring in peak construction parking demand.

### END OF STAGE B3A – 20<sup>TH</sup> STRET MEDICAL BUILDING

#### **SUPPLY**

- The 20th Street Medical Building (2I), to be built along 20th Street on the North Campus, would include subterranean parking and limited at-grade parking located behind the street fronting commercial space with approximately 200 spaces. This garage would be a self-park garage and would be used to park the medical office building constructed above the parking, with additional parking to serve Phase I employees.
- The overall parking supply would be 2,347 spaces.

#### **DEMAND**

- There would be new parking demand associated with the proposed medical office building.
- There would be a total demand of 1,632 parking spaces at the end of the stage.

There would be a surplus of 715 spaces at the end of the stage. At the end of Stage B3, 84% of PSJHC's peak parking demand would be accommodated at owned parking locations.

Table 28: Parking Supply and Demand Summary at the End of Stage B3

	Existing	Stage B1A				Stage B2A		Stage B3A	
		S2		2C		S3/S1		2I	
		Start	Finish	Start	Finish	Start	Finish	Start	Finish
Demand	990	990	965	965	1,245	1,245	1,493	1,493	1,632
Supply - Owned	755	666	666	598	793	509	1,169	1,169	1,369
Supply - Leased	978	978	978	978	978	978	978	978	978
Peak Const. Parking Demand	0	60	0	110	0	205	0	70	0
Total Supply	1,733	1,644	1,644	1,576	1,771	1,487	2,147	2,147	2,347
Total Demand	990	1,050	965	1,075	1,245	1,450	1,493	1,563	1,632
Surplus with Const. Parking	743	594	679	501	526	37	654	584	715

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

**STAGE B4A - EDUCATION & CONFERENCE CENTER AND EAST AMBULATORY CARE & RESEARCH BUILDING (S4) AND VISITOR HOUSING (S5)**

*BEGINNING OF STAGE B4A – EDUCATION & CONFERENCE CENTER AND EAST AMBULATORY CARE & RESEARCH BUILDING (S4) AND VISITOR HOUSING (S5)*

**SUPPLY**

- A total of 416 spaces would be displaced at the beginning of this stage due to removal of the temporary surface lot added in Stage B (184 spaces), the loss of 17 additional spaces in Lot C, and the removal of the balance of Lot H (215 spaces).
- There would be 1,931 spaces available (953 owned, 978 leased) during Stage B4A.

**DEMAND**

- There would be demand of 1,632 parking spaces from existing, Stage B1A, Stage B2A and Stage B3A uses.
- The peak construction parking demand is estimated at 245 parking spaces.

There would be a surplus of 54 spaces during this stage after factoring in peak construction parking demand.

*END OF STAGE B4A – EDUCATION & CONFERENCE CENTER AND EAST AMBULATORY CARE & RESEARCH BUILDING (S4) AND VISITOR HOUSING (S5)*

**SUPPLY**

- It is estimated that the subterranean garage beneath the Education & Conference Center and East Ambulatory Care & Research Building (S4) and Visitor Housing (S5) Building will include approximately 1,029 spaces in a four-level below-grade configuration and would serve Phase I visitors/patients, 2C employees, users/staff in Buildings S4 and S5, and staff previously utilizing leased parking. Once fully constructed and operational, there would be sufficient owned parking supply to meet peak parking demand. For purposes of this report, we have assumed that 700 leased parking spaces would be released at the end of this stage and that 278 leased spaces would be maintained to provide a buffer and with the anticipation that owned spaces would be taken off-line as part of the next/Stage B5A construction period.
- The total supply would be 2,260 spaces (1,982 owned, 278 leased)

**DEMAND**

- There would be new parking demand associated with the S4 and S5 uses, partially offset by increased TDM measures.
- There would be a total demand of 2,109 parking spaces at the end of the stage.

There would be a surplus of 151 spaces at the end of the stage. At the end of Stage B4, 94% of PSJHC's peak parking demand would be accommodated at owned parking locations.

**Table 29: Parking Supply and Demand Summary at the End of Stage B4**

	Existing	Stage B1A				Stage B2A		Stage B3A		Stage B4A	
		S2		2C		S3/S1		2I		S4/S5	
		Start	Finish	Start	Finish	Start	Finish	Start	Finish	Start	Finish
Demand	990	990	965	965	1,245	1,245	1,493	1,493	1,632	1,632	2,109
Supply - Owned	755	666	666	598	793	509	1,169	1,169	1,369	953	1,982
Supply - Leased	978	978	978	978	978	978	978	978	978	978	278
Peak Const. Parking Demand	0	60	0	110	0	205	0	70	0	245	0
Total Supply	1,733	1,644	1,644	1,576	1,771	1,487	2,147	2,147	2,347	1,931	2,260
Total Demand	990	1,050	965	1,075	1,245	1,450	1,493	1,563	1,632	1,877	2,109
Surplus with Const. Parking	743	594	679	501	526	37	654	584	715	54	151

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

### STAGE B5A - EAST AMBULATORY & ACUTE CARE BUILDING (2D/E)

#### BEGINNING OF STAGE B5A – EAST AMBULATORY & ACUTE CARE BUILDING (2D/E)

##### **SUPPLY**

- The balance of Lot C, totaling 31 spaces, would be removed at the beginning of the stage.
- The total parking supply would be 2,229 parking spaces.

##### **DEMAND**

- There would be demand for 2,109 parking spaces from existing, Stage B1A, Stage B2A, Stage B3A and Stage B4A uses.
- The peak construction parking demand is estimated at 110 parking spaces.

There would be a surplus of 10 spaces during the stage after factoring in peak construction parking demand.

#### END OF STAGE B5A – EAST AMBULATORY & ACUTE CARE BUILDING (2D/E)

##### **SUPPLY**

- At this time, it is assumed that the subterranean garage beneath the East Ambulatory & Acute Care Building (Building 2D/E) will include approximately 211 spaces in a four-level below-grade configuration. Given its location, it would best serve Building 2D/E visitors/patients who utilize a valet, Phase I visitors/patients who drop their vehicles with a valet at the entry plaza and Phase I physicians who self-park.
- Staff in Buildings 2C and 2D/E would park in S1/S3, S4/S5 or 2I garages.
- The remaining 278 leased parking spaces could be released.
- The total supply would be 2,162 parking spaces, all owned by PSJHC.

##### **DEMAND**

- Upon completion of Stage B5A, which consists of Building 2D/E, there would be a total demand of 2,155 parking spaces at the end of the stage.

There would be a surplus of 7 spaces at the end of the stage, or approximately 0.3% of demand. The recommend parking supply, including the appropriate buffer/cushion over the projected peak parking demand, (or “effective supply”) for the full Phase II implementation should be assessed closer in time to Phase II implementation based on the final operations plan and user groups for each of the parking locations. At the end of Stage B5A, all of PSJHC’s peak parking demand would be accommodated at owned parking locations. The following table summarizes the parking supply and demand by stage and at build-out.

**Table 30: Parking Supply and Demand Summary at the End of Stage B5A**

	Existing	Stage B1A				Stage B2A		Stage B3A		Stage B4A		Stage B5A	
		S2		2C		S3/S1		2I		S4/S5		2D/E	
		Start	Finish	Start	Finish	Start	Finish	Start	Finish	Start	Finish	Start	Finish
Demand	990	990	965	965	1,245	1,245	1,493	1,493	1,632	1,632	2,109	2,109	2,155
Supply - Owned	755	666	666	598	793	509	1,169	1,169	1,369	953	1,982	1,951	2,162
Supply - Leased	978	978	978	978	978	978	978	978	978	978	278	278	0
Peak Const. Parking Demand	0	60	0	110	0	205	0	70	0	245	0	110	0
Total Supply	1,733	1,644	1,644	1,576	1,771	1,487	2,147	2,147	2,347	1,931	2,260	2,229	2,162
Total Demand	990	1,050	965	1,075	1,245	1,450	1,493	1,563	1,632	1,877	2,109	2,219	2,155
Surplus with Const. Parking	743	594	679	501	526	37	654	584	715	54	151	10	7

Source: PSJHC; Perkins Eastman; MRY Architects; Walker Consultants

As explained in this Section and summarized in Table 31, below, Providence Saint John’s will improve its current ratio of owned parking supply to peak parking demand during Phase II implementation.

**Table 31: Parking Demand and Owned Parking Supply Summary Phasing Plan B Alternative 1**

	Existing	End of Stage B1A	End of Stage B2A	End of Stage B3A	End of Stage B4A*	End of Stage B5A*
Total Demand	990	1245	1493	1632	2109	2155
Owned Spaces	755	793	1169	1369	1982	2162
Owned as a % of Total Demand	76%	64%	78%	84%	94%	100%

Source: Walker Consultants

\* Walker recommends that the number of parking spaces to be provided in this stage be reconsidered based on an updated Parking Demand Study prepared closer in time to construction of this building.



Time of Day/Month of Year Factors

# A Appendix

**Monthly Adjustments for Customer/Visitor Parking**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Late Dec
Convenience Goods and Services	95%	90%	95%	95%	100%	95%	90%	85%	90%	85%	90%	95%	100%
Generic Retail	95%	90%	95%	95%	100%	95%	90%	85%	90%	85%	90%	95%	100%
Child & Family Development Center	100%	99%	93%	100%	96%	93%	97%	95%	91%	98%	90%	91%	91%
Restaurants/Coffee Shops	85%	86%	95%	92%	96%	95%	98%	99%	91%	96%	93%	100%	95%
Hospital	100%	99%	93%	100%	96%	93%	97%	95%	91%	98%	90%	91%	91%
Health and Wellness	95%	90%	95%	95%	100%	95%	90%	85%	90%	85%	90%	95%	100%
Ambulatory Services	100%	99%	93%	100%	96%	93%	97%	95%	91%	98%	90%	91%	91%
Visitor Housing	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
Residential Guest	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
Research	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Medical Office Building	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Day Care	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Education and Conference Center	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%

**Monthly Adjustments for Employee/Resident Parking**

Convenience Goods and Services	100%	100%	100%	100%	100%	95%	90%	90%	95%	95%	100%	100%	100%
Generic Retail	100%	100%	100%	100%	100%	95%	90%	90%	95%	95%	100%	100%	100%
Child & Family Development Center	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	90%
Restaurants/Coffee Shops	100%	100%	100%	100%	100%	95%	90%	90%	95%	95%	100%	100%	100%
Hospital	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	90%
Health and Wellness	100%	100%	100%	100%	100%	95%	90%	90%	95%	95%	100%	100%	100%
Ambulatory Services	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	90%
Hotel	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Residential Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Residential Unreserved	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	100%
Research	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Medical Office Building	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Day Care	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%
Education and Conference Center	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%

Time of Day for Weekday Demand		6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
Generic Retail	Customer	0%	0%	30%	75%	80%	90%	100%	100%	100%	100%	100%	95%	75%	45%	25%	15%	0%	0%	0%
	Employee	5%	15%	40%	80%	90%	100%	100%	100%	100%	100%	100%	95%	80%	50%	35%	20%	5%	0%	0%
Child & Family Development Cer	Customer	0%	10%	90%	90%	100%	100%	100%	100%	100%	100%	90%	80%	67%	30%	20%	20%	15%	15%	10%
	Employee	15%	45%	80%	100%	100%	100%	100%	100%	100%	100%	100%	100%	67%	30%	20%	20%	15%	15%	10%
Restaurants/Coffee Shops	Customer	5%	10%	20%	30%	55%	85%	100%	100%	90%	60%	55%	60%	85%	80%	50%	30%	20%	10%	5%
	Employee	15%	20%	30%	40%	75%	100%	100%	100%	95%	70%	60%	70%	90%	90%	60%	40%	30%	20%	20%
Hospital	Customer	0%	10%	50%	65%	80%	90%	100%	100%	100%	90%	80%	60%	50%	20%	20%	10%	0%	0%	0%
	Employee	15%	45%	80%	95%	100%	100%	100%	100%	100%	95%	80%	50%	35%	30%	20%	15%	15%	10%	10%
Health and Wellness	Customer	0%	10%	90%	90%	100%	100%	100%	100%	100%	90%	80%	67%	30%	20%	20%	15%	15%	10%	10%
	Employee	15%	45%	80%	100%	100%	100%	100%	100%	100%	100%	100%	100%	67%	30%	20%	20%	0%	0%	10%
Ambulatory Services	Customer	0%	10%	90%	90%	100%	100%	100%	100%	100%	100%	90%	80%	67%	30%	20%	20%	15%	15%	10%
	Employee	15%	45%	80%	100%	100%	100%	100%	100%	100%	100%	100%	100%	67%	30%	20%	20%	15%	15%	10%
Visitor Housing	Guest	95%	95%	90%	80%	75%	75%	75%	75%	75%	75%	75%	80%	85%	85%	90%	95%	95%	100%	100%
	Employee	5%	30%	90%	90%	100%	100%	100%	100%	100%	100%	90%	70%	40%	20%	20%	20%	20%	10%	5%
Residential	Guest	0%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	40%	60%	100%	100%	100%	100%	80%	50%
	Resident Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Residential	Resident Unreserved	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Research	Visitor	0%	1%	20%	60%	100%	45%	15%	45%	100%	45%	15%	10%	5%	2%	1%	0%	0%	0%	0%
	Employee	3%	30%	75%	95%	100%	100%	100%	100%	100%	100%	90%	80%	70%	60%	50%	35%	25%	15%	10%
Medical Office Building	Customer	0%	0%	90%	90%	100%	100%	30%	90%	100%	100%	90%	80%	67%	30%	15%	0%	0%	0%	0%
	Employee	0%	0%	60%	100%	100%	100%	100%	100%	100%	100%	100%	100%	67%	30%	15%	0%	0%	0%	0%
Day Care	Customer	0%	50%	100%	80%	0%	0%	30%	0%	0%	30%	80%	100%	80%	30%	0%	0%	0%	0%	0%
	Employee	0%	60%	80%	100%	100%	100%	100%	100%	100%	100%	100%	100%	60%	20%	0%	0%	0%	0%	0%
Education and Conference Cen	Customer	0%	30%	90%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	60%	0%	0%
	Employee	0%	0%	80%	100%	100%	100%	100%	100%	100%	100%	100%	100%	80%	80%	70%	70%	50%	0%	0%

