

REVISED PARKING ANALYSIS AND
TRIP GENERATION EVALUATION
FOR THE LONG BEACH MEMORIAL MEDICAL
CENTER MASTER PLAN
MILLER CHILDREN'S VILLAGE
Long Beach, California
March 6, 2019

Prepared for:
LONG BEACH MEMORIAL COMMUNITY HOSPITAL
2801 Atlantic Avenue
Long Beach, CA 90806-1737

LLG Ref. 2.18.3947.1

March 6, 2019

Mr. Mark Shuck, Executive Director of Facilities
Operations/Development
Long Beach Memorial Community Hospital
2801 Atlantic Avenue
Long Beach, CA 90806-1737

LLG Reference: 2.18.3947.1

Subject: **Revised Parking Analysis and Trip Generation Evaluation
Long Beach Memorial Medical Center Master Plan
Miller Children's Village (original dated February 27, 2019)
Long Beach, California**

Dear Mr. Shuck:

As requested, Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit this Revised Parking Analysis and Trip Generation Evaluation associated with the proposed Miller Children's Village (herein after referred to as Project) at the Long Beach Memorial Medical Center (LBMMC) Campus located at 2801 Atlantic Avenue in the City of Long Beach. There have been many changes at LBMMC since the preparation of the prior parking study dated June 25, 2009, and the supplemental traffic assessment dated April 1, 2010. The site modifications include the completion of the Miller Children's Hospital and Todd Cancer Pavilion, the addition of Memorial Medical Center and Memorial Cardiology Group to the overall Campus, and the demolition of the Miller House and "Aloha" Office Building.

The proposed Project includes development of an 80,000 square-foot (SF) medical office building and surface parking lot modifications, which is entitled as a part of the LBMMC Master Plan. The Project was originally sited south of the MCH inpatient tower, on the northwest corner of Atlantic Avenue and Memorial Center Drive, but now is proposed to be constructed on the southeast corner within an existing surface parking lot.

This report evaluates the existing parking requirements of the LBMMC Campus using parking codes per the *City of Long Beach Title 21 Zoning Regulations: Chapter 21.41 - Off-street parking and loading requirements* and the parking impacts associated with the potential site modifications to accommodate the construction of Miller Children's Village. In addition, a three-day field study (empirical parking surveys) of actual site parking demands on an hour-by-hour basis was completed on

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two weekdays (Wednesday and Thursday) and a weekend day (Saturday) per the City's requirements

The study achieves the following:

- Calculates the Code-based parking requirements for LBMMC based on the application of City Code parking ratios.
- Collects actual field-study parking demands at LBMMC during the weekday (Wednesday and Thursday) and weekend (Saturday).
- Estimates future parking demand at LBMMC through the use of actual parking demand and application of the City Code to the Project.
- Compares the forecast parking demand against the existing parking supply, in order to identify any potential, operational surplus or deficiency in parking spaces.
- Assesses the interim parking requirements associated with construction of the Project and the availability of the remaining interim parking supply to accommodate the existing parking demand of LBMMC as established via the collection of empirical parking demand of the campus.

Further, in response to the City's traffic concerns, a trip generation evaluation has been prepared for the proposed Project. *The Traffic Impact Analysis for the Long Beach Memorial Medical Center Expansion, dated December 2004*, served as a referenced and database for this assessment.

Our method of analysis, findings, and recommendations are detailed in the following sections of this report.

PROJECT DESCRIPTION

Existing Development

The existing uses at the Long Beach Memorial Medical Center (LBMMC) include inpatient medical facilities, outpatient medical facilities, general office facilities and mixed-use non-residential facilities, including a childcare center, nutrition programs, and outpatient clinics, inclusive of the renovation of the Administration Building to accommodate the Todd Cancer Pavilion (TCP). Based on updated information, the LBMMC Campus consists of 1,498,067 gross square feet (SF) of structures, which is an increase of 59,885 SF from the previously report floor area of 1,438,182 SF. The increase in floor area is due to the addition of the existing Memorial Medical Center MOB (+53,650 SF) and the Memorial Cardiology Group MOB (+6,235 SF), which are located at 2865 Atlantic Avenue and 2898 Linden Avenue, respectively, to the overall

Campus. However, with the demolition of the Miller House MOB (-25,000 SF) and “Aloha” Office Building (-7,000 SF), the building floor area that now exists at the Campus totals 1,466,067 SF.

Table 1, located at the end of this letter report, summarizes the existing development tabulation at the Campus, including site addresses and land uses. As shown, there are two licensed hospitals within the Campus with a total floor area of 874,952 SF: the Long Beach Memorial Medical Center with 453 licensed beds and Miller Children’s Hospital with 357 licensed beds, approximately 327,599 SF of medical office space/outpatient medical facilities (inclusive of the Miller House), 67,131 SF of administrative office space (inclusive of the “Aloha” Office Building), and a 12,000 SF guest residence hotel with 20 rooms (Ranch House/WIC medical center). These facilities are centrally located on the Campus, north of 27th Street, east of Long Beach Boulevard, south of 29th Street, and west of Atlantic Avenue.

Figure 1, located at the end of this letter report following the tables, identifies the location of the buildings on the LBMMC Campus that were referenced in *Table 1*.

Miller Children’s Village Project

The Miller Children’s Village (MCV) Project is proposed to be constructed on the southwest corner of Memorial Medical Drive and Atlantic Avenue, within an existing surface parking lot that includes the Miller House and Ranch House/WIC Medical Center. The Project would construct an 80,000 SF medical office building, entitled under the LBMMC Master Plan, in place of the Miller House, which has already been demolished, and the Ranch House/WIC Medical Center (12,000 SF).

The Project would require reconfiguration of the existing parking lot and provide a total of 269 spaces, which is a net loss of 13 spaces when compared to the existing supply of 282 spaces. **Figure 2** presents the proposed site plan for the Project prepared by C|A Architects.

Upon completion of the Project, the LBMMC Campus would have a total building floor area of 1,534,067 SF. It is noted that the Project was originally sited south of the MCH inpatient tower, on the northwest corner of Atlantic Avenue and Memorial Center Drive and was to be connected to the existing inpatient tower via the MCH “Link Building”, which was proposed as a three-story, 20,000 SF building.

Table 1A provides an updated summary of the LBMMC Master Plan, indicating which phases of the Master Plan have been completed, replaced and/or eliminated.

PARKING SUPPLY

Based upon a comprehensive inventory of on-site spaces conducted in July 2018, a total of 4,087 parking spaces are located throughout the Campus within 23 locations. **Figure 3** identifies the parking locations of the Campus, while **Table 2** presents the current parking supply within each parking location and parking type/designation (i.e., patient/visitor, staff/employee, doctor/physician, reserved, etc.).

Of the total supply of 4,087 spaces, 1,558 structured spaces are located in Lot J (five-level parking structure) and 272 structured spaces are located in Lot R (two-level parking deck, while the remaining 2,257 spaces are located in surface lots and on-street/curb spaces designated to LBMMC. It is noted that Level 1 of both parking structures (Lot J and Lot R) are now allocated for patient/visitor use. Lot K, which will be reconfigured with the development of the Project, has a current parking supply of 282 spaces, of which 238 spaces are allocated for patient/visitor use.

CITY CODE PARKING ANALYSIS

As previously presented, the number of parking spaces required to support the existing Long Beach Memorial Medical Center Campus was calculated using parking codes per the *City of Long Beach Title 21 Zoning Regulations: Chapter 21.41 - Off-street parking and loading requirements*.

The City of Long Beach zoning code specifies a parking ratio of 2 spaces per bed for hospitals, 5 spaces per 1,000 square-foot (SF) of gross floor area (GFA) of medical office uses, 4 spaces per 1,000 square-foot (SF) of gross floor area (GFA) of office space up to 20,000 SF plus 2 spaces per 1,000 SF of GFA greater than 20,000 SF, and 2 spaces per bed, plus 2 spaces for the manager's unit for motels. The City parking codes were applied to the existing development tabulation of the LBMMC Campus.

Please note that this parking evaluation applies the "office" parking ratio, instead of the "medical office" parking ratio to the Administration Building.

Existing Code Parking Requirements

Table 3 summarizes the square-footage information and the parking requirements for the existing land uses. As shown in this table, direct application of the City's code to the existing development results in a code-parking requirement of 3,983 spaces. With

an existing parking supply of 4,076 parking spaces¹, the Long Beach Memorial Medical Center Campus would have a surplus of 93 parking spaces when compared to the City of Long Beach parking code requirements.

Projected Code Parking Requirements

Table 4 summarizes the projected parking requirements for the LBMMC upon completion of the MCV Project. Review of the middle portion of **Table 4** indicates that the MCV Project will require a “net” of 215 parking spaces based on City-code requirements (i.e. $400 - 125 - 60 = 215$).

A review of the lower portion of **Table 4** indicates that the existing development, inclusive of the proposed MCV Project will require 4,198 spaces. With a parking supply of 4,063 parking spaces², the Long Beach Memorial Medical Center Campus is forecast to have a parking shortfall of 135 spaces when compared to the City of Long Beach parking code requirements.

PARKING SURVEY DATA ANALYSIS

To establish the existing (baseline) parking demand of the existing development at LBMMC, parking surveys were conducted on two weekdays and one weekend day by National Data and Surveying Services (NDS). The parking surveys were performed at one-hour intervals between 6:00 AM and 8:00 PM on Wednesday, January 30, 2019, Thursday, February 7, 2019 and Saturday, February 9, 2019. *Figure 3* presents the parking zones for the entire campus where counts were collected.

The results of the weekday (Wednesday and Thursday) and weekend day (Saturday) parking surveys are summarized in **Table 5**. As shown in **Table 5**, the peak parking demand observed at the LBMMC campus on Wednesday Thursday, January 30, 2019 and Thursday, February 7, 2019, totaled 2,679 vehicles (66% utilization) and 3,265 vehicles (80% utilization) at 11:00 AM and 1:00 PM, respectively, while the peak parking demand on Saturday, February 9, 2019, was observed to total 1,259 vehicles (31% utilization) at 12:00 PM. When compared to the existing supply of 4,076 spaces, a minimum surplus of 811 spaces (20% availability) is calculated when the site’s observed weekday peak demand of 3,265 vehicles is considered.

¹ Represents proposed parking supply with the exclusion of the six (6) ambulance spaces in Lot D, two (2) ambulance spaces in Lot E and three (3) ambulance spaces in Lot H from the overall parking supply, as directed by City staff ($4,087 - 11 = 4,076$).

² Represents parking supply with the exclusion of the six (6) ambulance spaces in Lot D, two (2) ambulance spaces in Lot E and three (3) ambulance spaces in Lot H from the overall parking supply, as directed by City staff, plus the loss of 13 spaces in Lot K with implementation of the MCV Project ($4,087 - 11 - 13 = 4,063$ spaces).

Appendix A contains the detailed weekday and weekend survey data separated by parking lot, providing further specificity of the existing demand associated with the various user groups (i.e. patients/visitors, staff/employees, etc.) on a lot by lot basis.

It is important to note that based on City code, the existing development at LBMMC would require 3,983 spaces (see *Table 3*), whereas the existing observed peak demand for the existing development totals 3,265 spaces. Therefore, it is concluded that the City code requirements are highly overstated. The following section calculates the parking requirements for LBMMC, which incorporates the existing observed peak parking demand for the existing development and applies city-code requirements for the proposed MCV Project.

Existing Counted Demand Plus Projected Code Parking Requirements

Table 6 summarizes the existing peak demand inclusive of the projected parking requirements for the LBMMC upon completion of the MCV Project. Review of the upper portion of *Table 6* indicates that the observed overall peak demand for the existing development totaled 3,265 spaces. Review of the middle portion of *Table 6* indicates that the MCV Project will require a “net” of 215 parking spaces based on City-code requirements.

A review of the lower portion of *Table 6* indicates that the existing development (observed), inclusive of the proposed MCV Project will require 3,480 spaces. With a parking supply of 4,063 parking spaces³, the Long Beach Memorial Medical Center Campus is forecast to have a minimum parking surplus of 583 spaces.

Our findings above indicate that the proposed parking supply of 4,063 spaces for LBMMC would be adequate in meeting the overall future peak parking demand, inclusive of those associated with the Project, and that it would be reasonable and enforceable for all Project components to share the parking facilities to accommodate the parking demand associated with all user groups.

Construction Parking Management Assessment

The Miller Children’s Village (MCV) Project is proposed to be constructed on the southwest corner of Memorial Medical Drive and Atlantic Avenue, within an existing surface parking lot (denoted as “Zone K”, see *Figure 3* and *Table 2*) that includes the Miller House and Ranch House/WIC Medical Center. The Project would require reconfiguration of the existing parking lot and provide a total of 269 spaces, which is a net loss of 13 spaces when compared to the existing supply of 282 spaces. During

³ Represents parking supply with the exclusion of the six (6) ambulance spaces in Lot D, two (2) ambulance spaces in Lot E and three (3) ambulance spaces in Lot H from the overall parking supply, as directed by City staff, plus the loss of 13 spaces in Lot K with implementation of the MCV Project (4,087 – 11 – 13 = 4,063 spaces).

construction phasing of the Project, it is anticipated that the majority, if not all existing spaces provided in Zone K would be taken offline and the demand would need to be shifted to other nearby zones throughout the site. As noted in *Table 1*, Lot K's parking supply of 282 spaces consist of 244 spaces for patients/visitors (inclusive of 6 handicap accessible space), with the remaining 38 spaces "reserved".

Review of *Table 5* indicates that the overall peak demand of the site totals 3,265 spaces. With the removal of the existing supply of 282 spaces within Zone K during construction of the Project, a total of 3,794 spaces (4,076 existing spaces provided minus 282 spaces provided in Zone K) would be available. Comparing the overall peak demand to the available parking spaces during construction would yield a surplus of 529 spaces.

Therefore, it is concluded that there is more than enough spaces throughout the site to accommodate the shift in demand within Zone K, during the construction of the Project. **Figure 4** graphically illustrates the available spaces throughout the site, based on the overall peak demand observed on a Thursday at 1:00 PM. Review of *Figure 4* shows that the majority of the parking surpluses are available in Zones A, R and J.

To accommodate the parking demand observed in Lot K, which is primarily associated with patient/visitor demand, LBMMC should consider implementing the following reallocation of spaces temporarily to ensure the parking supply is available for these users:

- ❑ Reassign at least 150 spaces of employee designated spaces on Level 2 of Lot J (5-level parking structure) for use by patient/visitors. With this reallocation, Lot J would have an adjusted patient/visitor parking supply of 449 spaces.
- ❑ Inform public that patient/visitor parking is also available within Level 1 of Lot R (2-level parking structure).
- ❑ With reassignment of employee spaces on Level 2 of Lot J, it is recommended that LBMMC encourage employees to park in other employee/staff lots, in particular Lot A and Lot R, which has an observed surplus of at least 116 spaces and 100 spaces, respectively.

TRAFFIC ASSESSMENT

Trip Generation Analysis

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Although the December 2004 traffic study was based on trip generation rates published in the 7th Edition of *Trip Generation*, this study uses the most current trip generation information now available. Therefore, generation factors and/or equations used in this analysis are based on most current information found in the 10th Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington, D.C., 2017]. The upper portion of **Table 7** summarizes the trip generation rates used in forecasting the trip associated with the proposed Project.

Table 7 summarizes a comparison of the trip generation potential of the “Entitled Development” to that of the “Proposed Development”. As previously stated, the MCV Project was originally entitled to be located south of the MCH inpatient tower, on the northwest corner of Atlantic Avenue and Memorial Center Drive. The MCV Project is now proposing to relocate MCV to be constructed on the southwest corner of Atlantic Avenue and Memorial Center Drive within an existing surface lot, which will also include the demolition of the existing Ranch House/WIC Medical Center building (already demolished) and Miller House building.

Review of the middle portion of this table indicates that the “Entitled Development” for the 80,000 SF MCV Project has a forecast trip generation potential of 2,784 daily trips, with 222 trips (173 inbound, 49 outbound) produced in the AM peak hour and 277 trips (78 inbound, 199 outbound) produced in the PM peak hour on a “typical” weekday.

As shown in the lower portion of the *Table 7*, the “Proposed Development” for the 80,000 SF MCV Project, inclusive of the demolition of the Ranch House/WIC Medical Center (12,000 SF) and Miller House buildings (25,000 SF) is projected to generate approximately 1,496 daily trips, with 119 trips (92 inbound, 27 outbound) produced in the AM peak hour and 148 trips (42 inbound, 106 outbound) produced in the PM peak hour on a “typical” weekday.

As indicated in the last row of *Table 7*, the “Proposed Development”, when compared to the “Entitled Development”, is forecast to generate 1,288 fewer daily trips, 103 fewer AM peak hour trips, and 129 fewer PM peak hour trips. Therefore, the proposed Project is not anticipated to generate any additional impacts beyond what has already been assessed as part of the environmental process in 2005.

The difference in daily and peak hour trips is attributed to constructing a “net” of 43,000 SF of additional medical office/outpatient clinic floor area instead of 80,000 SF of new floor area.

We appreciate the opportunity to prepare this analysis. Should you have questions and/or comments regarding the aforementioned, please do not hesitate to contact our office at (949) 825-6175.

Sincerely,

Linscott, Law & Greenspan, Engineers



Richard E. Barretto, P.E.
Principal
California Registration: TR 2006

Cc: Shane S. Green, P.E., LLG
File



TABLE 1
LBMMC DEVELOPMENT SUMMARY⁴
LONG BEACH MEMORIAL MEDICAL CENTER, LONG BEACH

Building Number/Name per Existing Plan		Address	Land Use	Gross Floor Areas In Square Feet (SF)
<u><i>Existing Development</i></u>				
1	Miller Children's Hospital (357 beds)	2801 Atlantic Ave	Hospital	175,162 SF
2	Long Beach Memorial Medical Center (453 beds)	--	Hospital	697,630 SF
--	LBMMC Emergency Room Trailers ⁵	--	Hospital	2,160 SF
3	Administration Building	--	Office	129,531 SF
3A	Administrative Functions (Demo)	--	Office	-62,400 SF
3B	Todd Cancer Pavilion (Renovate)	--	Medical Office	62,400 SF
4	Memorial West Facility	--	Medical Office	76,515 SF
5	Miller House	--	Medical Office	25,000 ⁶ SF
6	Ranch House / WIC Medical Center	2701 Atlantic Ave	Medical Office	12,000 SF
8	LB Ronald McDonald (20 Rooms)	500 E. 27 th Street	Hotel /Residential	12,000 SF
9	Research Center/Nursing Education	2626 Pasadena Ave	Medical Office	20,000 SF
17	Buffum's Medical Pavilion plus Atrium Enclosure ⁷	450 Spring St & 455 Columbia St	Medical Office	36,845 SF
4A	Rehab (within "Parking Structure G")	--	Medical Office	31,107 SF
18	MemorialCare Imaging Center	403 Columbia St.	Medical Office	10,038 SF
--	Columbia Medical Office Temporary Trailers	--	Medical Office	2,000 SF
19	Hartley Medical Office Building	2888 Long Beach Blvd	Medical Office	34,000 SF
20	"Aloha" Office Building	2860 Long Beach Blvd	Office	7,000 ⁸ SF
21	Columbia Medical Office Building	2840 Long Beach Blvd	Medical Office	42,694 SF
24	Miller Children's Hospital Pediatric Inpatient Tower – Phase 1 (72 Beds)	--	Hospital	124,500 SF
25	Memorial Medical Center MOB	2865 Atlantic Avenue	Medical Office	53,650 SF
26	Memorial Cardiology Group MOB	2898 Linden Avenue	Medical Office	6,235 SF
Total Existing Floor Area				1,498,067 SF
<u><i>Recent Demolition</i></u>				
5	Miller House	--	Medical Office	-25,000 SF ⁶
20	"Aloha" Office Building	2860 Long Beach Blvd	Office	-7,000 SF ⁸
<u><i>Current Development To Be Demolished</i></u>				
6	Ranch House / WIC Medical Center	2701 Atlantic Ave	Medical Office	-12,000 SF
<u><i>Proposed Development</i></u>				
25	Miller Children's Village	--	Medical Office	80,000 SF
Total Floor Area				1,534,067 SF

⁴ Information extracted from the *Preliminary Code Parking Evaluation for Long Beach Memorial Medical Center* dated June 25, 2009 prepared by LLG.

⁵ Caruana & Associates, Inc.

⁶ Based on field observations in July of 2018, Building 5 has been demolished.

⁷ Taylor

⁸ Based on field observations in July of 2018, Building 20 has been demolished.

TABLE 1A
REDUCED PROJECT DEVELOPMENT TABULATION⁹
LONG BEACH MEMORIAL MEDICAL CENTER, LONG BEACH

Project Title	Total Square Feet / Number of Stories / Beds	Project Status
Todd Cancer Institute, Phase I	83,630 SF / 3 stories	<u>Project Eliminated</u> / Replaced with Administration Building Remodel / Todd Cancer Pavilion Project
Todd Cancer Institute, Phase II	42,300 SF / 2 stories	<u>Project Eliminated</u> / Replaced with Administration Building Remodel / Todd Cancer Pavilion Project
Todd Cancer Institute		
■ Administration Building Remodel	-62,400 SF	Completed - Administration functions on 2 nd and 3 rd floors to be relocated
■ Todd Cancer Pavilion	62,400 SF	Completed – consolidation of TCI functions to single location on 2 nd and 3 rd floors of Administration Building
Miller Children's Hospital—Pediatric Inpatient Tower, Phase I	124,500 SF/ 4 stories / 72 beds	Completed
Miller Children's Hospital—Pediatric Inpatient Tower, Phase II	73,500 SF/ 3 stories / 92 beds	<u>Project Eliminated</u> / Vertical expansion of MCH Pediatric Inpatient Tower - Phase 1 no longer possible.
Utility Trench	1,000 linear feet, underground	<u>Project Eliminated</u>
Central Plant Building	5,515 SF / 2 stories	Completed
Miller Children's Hospital—Pediatric Outpatient Building	80,000 SF / 5 stories	<u>Project Eliminated</u> Replaced with Miller Children's Village
Miller Children's Village		
■ Pediatric Outpatient Building	80,000 SF / 5 stories	Design/ Planning Stages
■ Demolish Miller House	-25,000 SF	Remove existing medical office
■ Demolish Ranch House / WIC Medical Center	-12,000 SF	Remove existing medical office
Miller Children's Hospital—Link Building	20,000 SF / 3 stories	<u>Project Eliminated</u>
Roadway Realignment	820 linear-feet	Completed

⁹ Subject to confirmation by LBMMC / Caruana & Associates, Inc.

TABLE 2
CURRENT ON-SITE PARKING SUPPLY
LONG BEACH MEMORIAL MEDICAL CENTER, LONG BEACH

Zone	Patients/ Visitor	Handicapped	Compact	Doctors/ Physicians	Staff/ Employees	Van Pool/ Rideshare/ Volunteers/ Electric Vehicle/ Permit[6]	Reserved[7]	Ambulance	Total
A	0	6	0	0	760	16	34	0	816
B	113	5	0	0	0	12	5	0	135
C	52	3	0	6	0	0	0	0	61
D[2]	5	4	0	5	5	0	0	6	25
E	0	3	0	0	50	0	0	2	55
G	0	1	0	87	0	0	0	0	88
H	0	13	0	0	0	0	7	3	23
H2	0	8	0	0	0	0	0	0	8
I	0	0	44	0	107	0	0	0	151
J-Level 1[3]	118	24	157	0	0	0	0	0	299
J-Level 2[3]	0	25	181	0	123	60	0	0	389
J-Level 3[3]	0	5	155	49	173	17	0	0	399
J-Level 4[3]	0	8	147	0	145	56	0	0	356
J-Level 5[3]	0	8	57	0	50	0	0	0	115
K[4]	238	6	0	0	0	0	38	0	282
N	0	0	0	0	121	0	0	0	121
P	0	0	0	0	56	0	0	0	56
O[9]	0	0	0	0	27	0	0	0	27
Q	0	0	0	0	53	0	0	0	53
R-Level 1	81	8	32	0	0	0	3	0	124
R-Level 2	0	0	0	0	147	0	1	0	148
S[5],[8]	29	4	0	0	0	0	6	0	39
T	0	6	0	35	0	0	0	0	41
U	36	4	0	0	0	0	0	0	40
V	38	1	1	0	0	0	0	0	40
W	119	4	1	0	0	0	0	0	124
X	47	0	0	0	0	0	0	0	47
Y	23	1	1	0	0	0	0	0	25
Total	899	147	776	182	1817	161	94	11	4087
(%)	22.0%	3.6%	19.0%	4.5%	44.5%	3.9%	2.3%	0.2%	100%

Notes:

[1] Parking inventory of supply was conducted in July 2018.

[2] The 25 spaces in Zone D are on-street/curb spaces designated to LBMMC. All 5 spaces of the "patients/visitor" parking within Zone D are restricted to 30-minute parking.

[3] Spaces located on the parking structure ramps are considered to be a part of the lower level parking supply.

[4] All 38 spaces of the "reserved" parking within Zone K are restricted to valet.

[5] All 29 spaces of the "patients/visitor" parking within Zone S are restricted to "Imaging Center Only".

[6] Designated as "Van Pool", "Rideshare", "Reserved Volunteer", "Reserved Quarterly Applause Recipient", "Reserved Electric Vehicle", "Reserved Rideshare Compact", and/or "Permit Only".

[7] All Spaces within the "Reserved" column are designated reserved unless noted otherwise.

[8] The 1 space of the "reserved" parking within Zone S is restricted to valet.

[9] 17 Spaces of the "Staff/Employee" parking within Zone O is obstructed by shipping storage containers.

TABLE 3
EXISTING CITY CODE PARKING REQUIREMENTS¹⁰
LONG BEACH MEMORIAL MEDICAL CENTER, LONG BEACH

Project Description	Size (SF or # of Beds)	City of Long Beach Code Parking Ratio	Spaces Required
<i><u>Existing Development</u></i>			
Miller Children's Hospital	357 Beds	2 spaces per bed	714
LBMMC Hospital	453 Beds	2 spaces per bed	906
Miller Children's Village	72 Beds	2 spaces per bed	144
LB Ronald McDonald	20 Rooms	1 space per room, plus 2 space for manager's unit	22
Administration Building	129,531 SF	4 space per 1,000 SF up to 20,000 SF of GFA, plus 2 spaces per 1000 SF greater than 20,000 SF of GFA	299
LBMMC remaining facilities	248,390 SF	5 spaces per 1,000 SF	1,242
Miller House	25,000 SF ¹¹	5 spaces per 1,000 SF	125
Hartley MOB	34,000 SF	5 spaces per 1,000 SF	170
"Aloha" Office Building	7,000 SF	4 space per 1,000 SF up to 20,000 SF of GFA, plus 2 spaces per 1000 SF greater than 20,000 SF of GFA	28
Columbia MOB	42,694 SF	5 spaces per 1,000 SF	214
<i><u>Prior Removal/Approvals</u></i>			
"Aloha" Office Building to be Removed	-7,000 SF	4 space per 1,000 SF up to 20,000 SF of GFA, plus 2 spaces per 1000 SF greater than 20,000 SF of GFA	-28
Removal of Administrative Functions	-62,400 SF	4 space per 1,000 SF up to 20,000 SF of GFA, plus 2 spaces per 1000 SF greater than 20,000 SF of GFA	-165
Todd Cancer Pavilion	62,400 SF	5 spaces per 1,000 SF	312
Existing Development Code Parking Requirement:			3,983
Existing Parking Supply¹²:			4,076
Parking Surplus/Deficiency (+/-):			+93

¹⁰ Source: City of Long Beach Title 21 Zoning Regulations: Chapter 21.41 - Off-street parking and loading requirements. Note: GLA – Gross Land Area, SF – Square Footage.

¹¹ Miller House (Building 5) has been demolished.

¹² Per the City, the six (6) ambulance spaces in Lot D, two (2) ambulance spaces in Lot E, and three (3) ambulance spaces in Lot H have been excluded from overall proposed parking supply provided at the LBMMC for use by employees, patients/visitors and doctors. Please note that 187 spaces located in Zones N, P and O are non-conforming, however, have been included as legitimate parking spaces (4,087 – 11 = 4,079 spaces).

TABLE 4
PROJECTED CITY CODE PARKING REQUIREMENTS¹³
LONG BEACH MEMORIAL MEDICAL CENTER, LONG BEACH

Project Description	Size (SF or # of Beds)	City of Long Beach Code Parking Ratio	Spaces Required
<u>Existing Development</u>			
LBMCC Campus	- -	See Table 3 for detailed calculations	3,983
<u>Proposed Project</u>			
Miller House Demolition	-25,000 SF	5 spaces per 1,000 SF	-125
Ranch House/WIC Medical Center Demolition	-12,000 SF	5 spaces per 1,000 SF	-60
Miller Children's Village	80,000 SF	5 spaces per 1,000 SF	400
Total Campus Code Parking Requirement:			4,198
Proposed Parking Supply¹⁴:			4,063
Parking Surplus/Deficiency (+/-):			-135

¹³ Source: City of Long Beach Title 21 Zoning Regulations: Chapter 21.41 - Off-street parking and loading requirements. Note: GLA – Gross Land Area, SF – Square Footage.

¹⁴ Per the City, the six (6) ambulance spaces in Lot D, two (2) ambulance spaces in Lot E, and three (3) ambulance spaces in Lot H have been excluded from overall proposed parking supply provided at the LBMCC for use by employees, patients/visitors and doctors. ***Proposed parking supply includes the net loss of 13 in Lot K due to the proposed Project (269 spaces proposed minus 282 existing spaces).*** Please note that 187 spaces located in Zones N, P and O are non-conforming, however, have been included as legitimate parking spaces (4,087 – 11 – 13 = 4,063 spaces).

TABLE 5
PARKING COUNTS SUMMARY¹⁵
LONG BEACH MEMORIAL MEDICAL CENTER, LONG BEACH

Time Began	Wednesday 1-30-19		Thursday 2-7-19		Saturday 2-9-19	
	Supply = 4,076		Supply = 4,076		Supply = 4,076	
	Parking Counts	Percent Utilization	Parking Counts	Percent Utilization	Parking Counts	Percent Utilization
6:00 AM	1,166	29%	1,478	36%	899	22%
7:00 AM	1,490	37%	1,804	44%	966	24%
8:00 AM	1,894	46%	2,392	59%	1,014	25%
9:00 AM	2,595	64%	2,857	70%	1,076	26%
10:00 AM	2,664	65%	3,095	76%	1,176	29%
11:00 AM	2,679	66%	3,180	78%	1,236	30%
12:00 PM	2,631	65%	3,148	77%	1,259	31%
1:00 PM	2,664	65%	3,265	80%	1,203	30%
2:00 PM	2,604	64%	3,139	77%	1,180	29%
3:00 PM	2,479	61%	2,899	71%	1,152	28%
4:00 PM	2,125	52%	2,448	60%	1,064	26%
5:00 PM	1,600	39%	1,785	44%	1,017	25%
6:00 PM	1,363	33%	1,357	33%	1,027	25%
7:00 PM	1,404	34%	1,451	36%	1,228	30%
8:00 PM	1,032	25%	1,191	29%	915	22%

Notes:

Source: Parking counts conducted by National Data and Surveying Services (NDS).

¹⁵ Source: Parking counts conducted by National Data and Surveying Services (NDS).

TABLE 6
EXISTING COUNTED DEMAND PLUS PROJECTED CITY CODE PARKING REQUIREMENTS¹⁶
LONG BEACH MEMORIAL MEDICAL CENTER, LONG BEACH

Project Description	Size (SF or # of Beds)	City of Long Beach Code Parking Ratio	Spaces Required
<u>Existing Development</u> ¹⁷ LBMMC Campus	- -	See Table 5 for Existing Counts	3,265
<u>Proposed Project</u> Miller House Demolition	-25,000 SF	5 spaces per 1,000 SF	-125
Ranch House/WIC Medical Center Demolition	-12,000 SF	5 spaces per 1,000 SF	-60
Miller Children's Village	80,000 SF	5 spaces per 1,000 SF	400
Total Campus Code Parking Requirement:			3,480
Proposed Parking Supply ¹⁸ :			4,063
Parking Surplus/Deficiency (+/-):			+583

¹⁶ Source: City of Long Beach Title 21 Zoning Regulations: Chapter 21.41 - Off-street parking and loading requirements. Note: GLA – Gross Land Area, SF – Square Footage.

¹⁷ Parking demand counts were collected by NDS on Wednesday (1/30/19), Thursday (2/7/19) and Saturday (2/9/19). The overall peak demand observed was on Thursday at 1:00PM with 3,265 spaces.

¹⁸ Per the City, the six (6) ambulance spaces in Lot D, two (2) ambulance spaces in Lot E, and three (3) ambulance spaces in Lot H have been excluded from overall proposed parking supply provided at the LBMMC for use by employees, patients/visitors and doctors. ***Proposed parking supply includes the net loss of 13 in Lot K due to the proposed Project (269 spaces proposed minus 282 existing spaces).*** Please note that 187 spaces located in Zones N, P and O are non-conforming, however, have been included as legitimate parking spaces (4,087 – 11 – 13 = 4,063 spaces).

TABLE 7
REVISED PROJECT TRAFFIC GENERATION FORECAST¹⁹
LONG BEACH MEMORIAL MEDICAL CENTER, LONG BEACH

ITE Land Use Code/ Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Factors:							
720: Medical-Dental Office Building (TE/1,000 SF)	34.80	78%	22%	2.78	28%	72%	3.46
Entitled Development							
Miller Children's Village (80,000 SF)	2,784	173	49	222	78	199	277
Entitled Development Total Trip Generation Potential	2,784	173	49	222	78	199	277
Proposed Development							
Miller House Demolition (-25,000 SF)	-870	-55	-15	-70	-24	-63	-87
Ranch House/WIC Medical Center Demolition (-12,000 SF)	-418	-26	-7	-33	-12	-30	-42
Miller Children's Village (80,000 SF)	2,784	173	49	222	78	199	277
Proposed Development Total Trip Generation Potential	1,496	92	27	119	42	106	148
Difference in Trip Generation Potential: [Proposed – Entitled]	-1,288	-81	-22	-103	-36	-93	-129

General Notes:

TE/1,000 SF = Trip ends per 1,000 square-feet (SF) of development.

SF = Square-feet (SF) of development.

¹⁹ Source: *Trip Generation*, 10th Edition, Institute of Transportation Engineers (ITE) [Washington, D.C. (2017)].



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LEGEND

- # = BUILDING NUMBERS AS REFERENCED IN TABLE 1
= MILLER CHILDREN'S VILLAGE

FIGURE 1

EXISTING LBMCC CAMPUS
LONG BEACH MEMORIAL MEDICAL CENTER, LONG BEACH

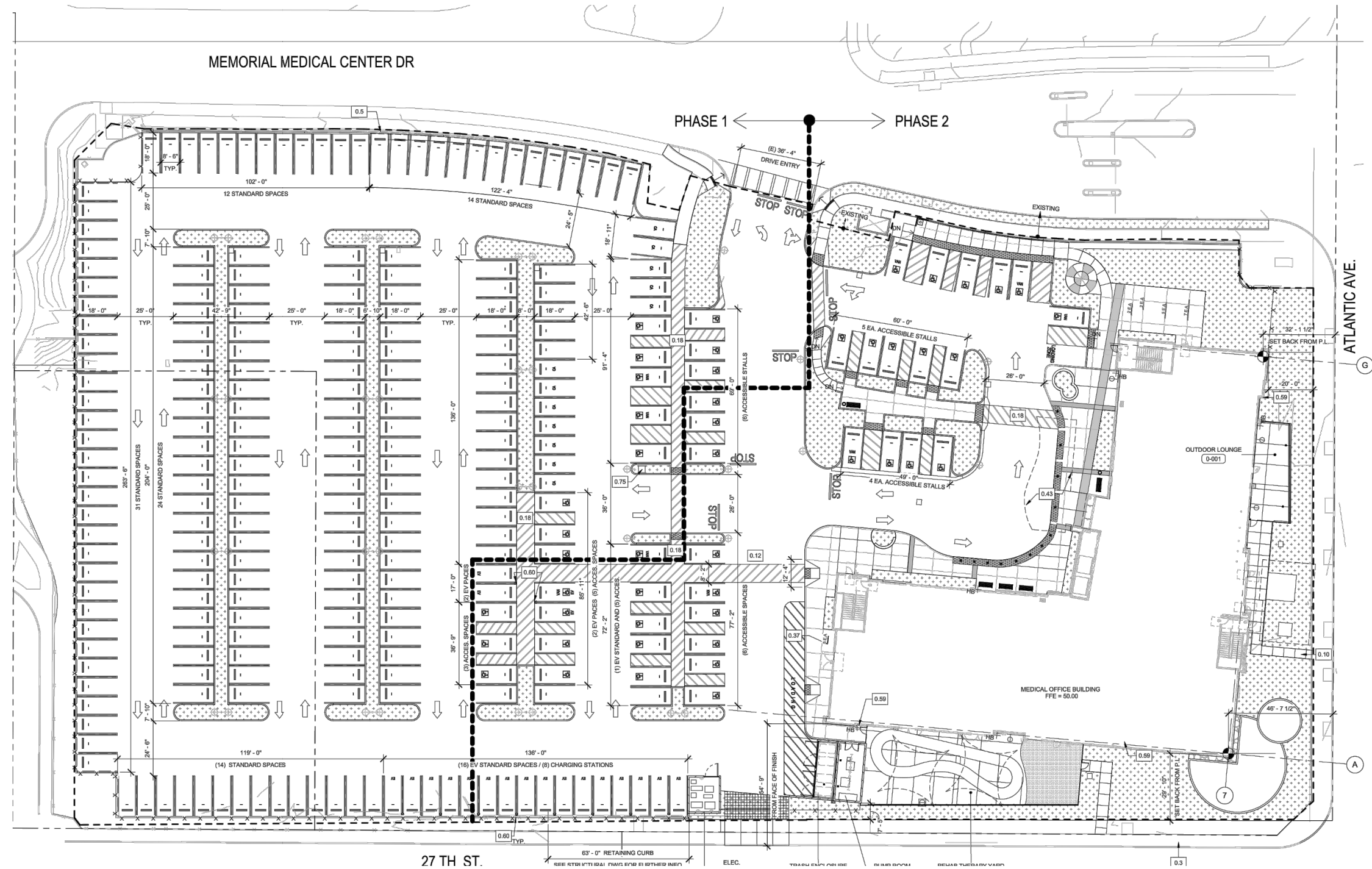
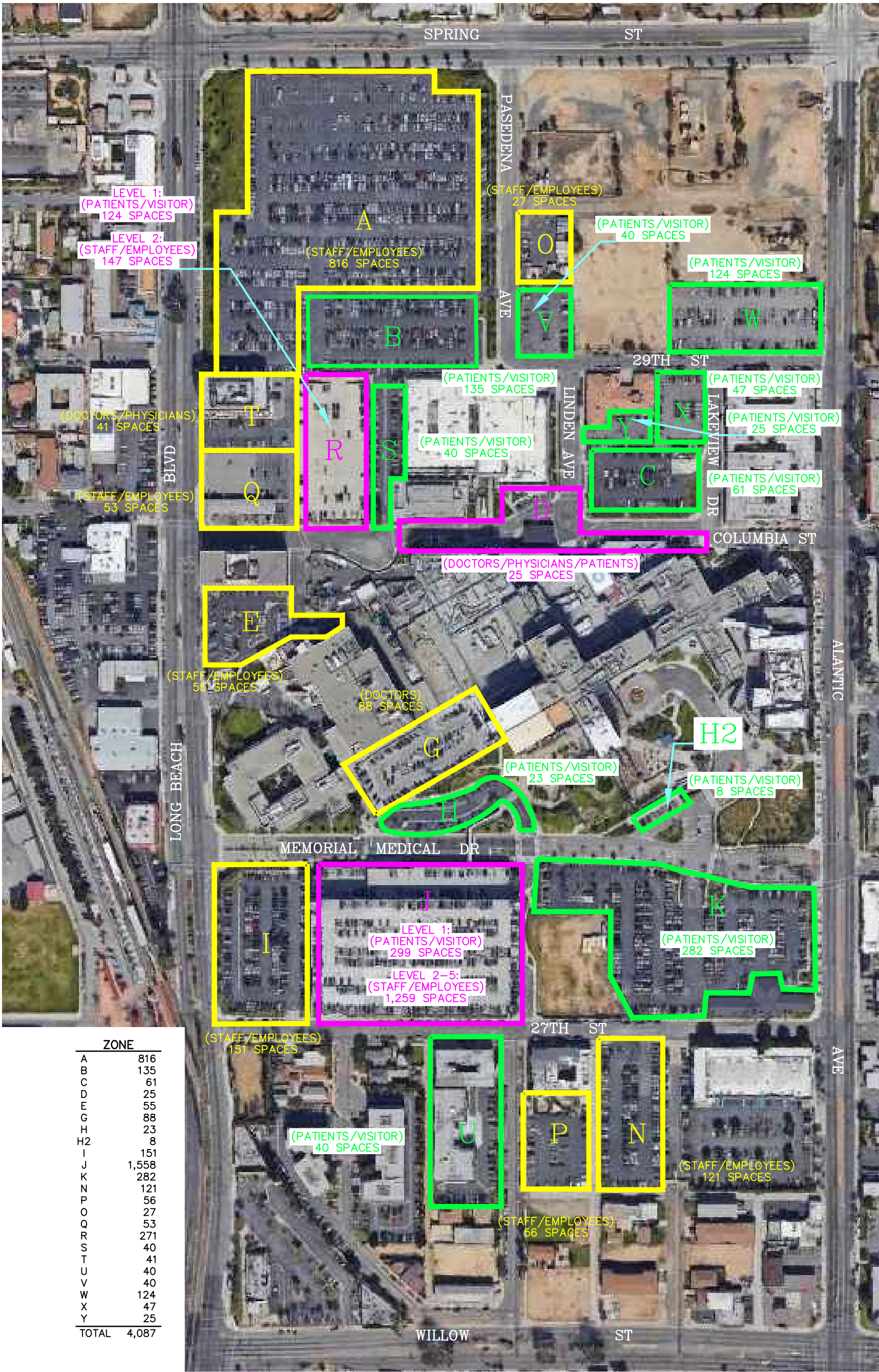


FIGURE 2

PROPOSED MILLER CHILDREN'S VILLAGE
LBMMC PARKING AND TRAFFIC SUPPORT, LONG BEACH



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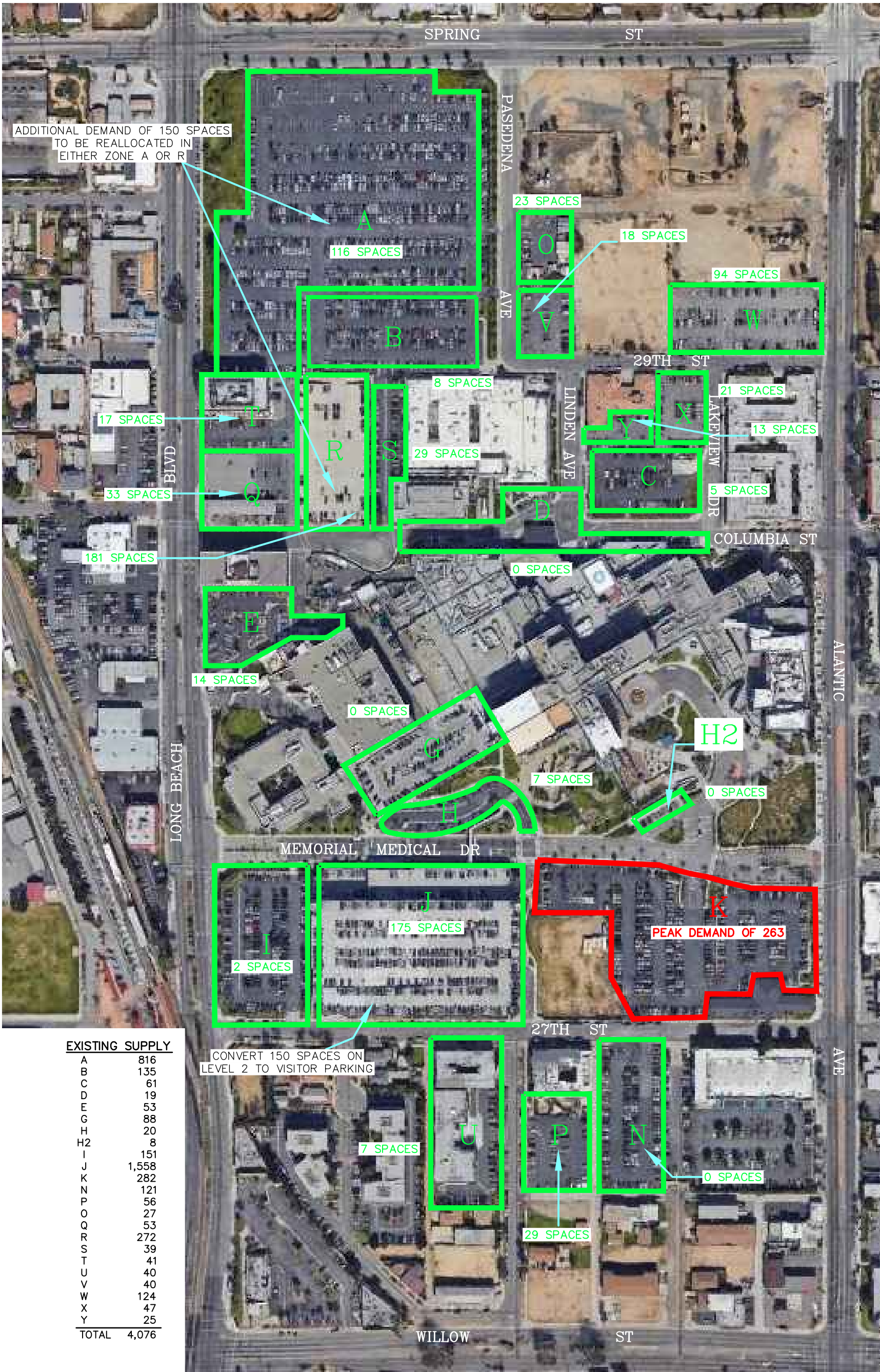


- KEY**
- xxx = DOCTORS/STAFF/EMPLOYEES
 - xxx = PATIENTS/VISITOR
 - xxx = BOTH PATIENTS/VISITORS & DOCTORS/STAFF/EMPLOYEES

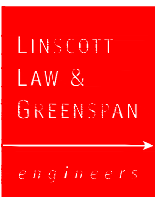
FIGURE 3

PARKING LAYOUT

LBMMC PARKING AND TRAFFIC SUPPORT, LONG BEACH



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- KEY**
- xxx = AVAILABLE SPACES BASED ON THURSDAY/1PM PEAK
 - xxx = MAXIMUM PARKING DEMAND FOR ZONE K
 - [Red Outline] = SPACES OFFLINE DURING CONSTRUCTION

FIGURE 4

AVAILABLE PARKING SPACES DURING CONSTRUCTION

LBMMC PARKING AND TRAFFIC SUPPORT, LONG BEACH

APPENDIX A

EXISTING PARKING DEMAND COUNTS

APPENDIX TABLE A-1

PARKING COUNTS
LBMMC, LONG BEACH

Parking Counts (Wednesday, 01-30-2019)

Time	A (816)	B (135)	C (61)	D (19)	E (53)	G (88)	H1 (20)	H2 (8)	I (151)	J1 (299)	J2-5 (1,259)	Ks (38)	Kv (244)	N (121)	O (56)	P (27)	Q (53)	R1 (124)	R2 (148)	S (39)	T (41)	U (40)	V (40)	W (124)	X (47)	Y (25)	Total Demand (4,076)
6:00 AM	260	37	35	14	3	22	8	6	78	75	430	4	82	21	5	13	0	20	6	0	0	3	3	1	24	16	1,166
7:00 AM	334	63	34	19	8	29	8	6	151	94	485	4	80	50	9	12	2	22	16	2	4	12	5	2	26	13	1,490
8:00 AM	358	79	41	17	28	79	14	7	151	123	595	6	114	65	8	15	22	43	40	11	12	17	10	18	15	6	1,894
9:00 AM	716	135	44	18	47	84	20	7	151	197	607	7	201	76	8	20	24	53	48	20	15	26	16	26	23	6	2,595
10:00 AM	652	135	47	19	46	88	20	7	151	243	618	10	220	81	8	22	23	69	45	20	17	24	29	37	23	10	2,664
11:00 AM	660	135	49	17	52	87	20	7	151	227	598	14	242	79	7	27	24	63	51	21	20	27	28	32	27	14	2,679
12:00 PM	657	135	54	19	33	85	20	7	151	236	614	16	242	77	7	22	21	49	37	25	14	24	16	29	28	13	2,631
1:00 PM	674	135	53	19	40	87	20	7	151	236	610	17	240	80	6	23	21	53	36	29	23	27	19	24	26	8	2,664
2:00 PM	639	135	44	19	41	73	20	7	151	235	609	20	237	76	5	22	19	50	39	31	20	26	20	28	28	10	2,604
3:00 PM	694	135	52	19	30	69	20	7	151	179	546	11	219	59	1	21	19	41	48	29	19	26	19	27	28	10	2,479
4:00 PM	625	131	54	19	6	55	20	4	109	148	468	9	202	48	1	15	15	25	26	24	26	14	18	25	27	11	2,125
5:00 PM	408	86	46	16	5	60	16	8	73	111	380	9	204	32	1	8	9	13	15	14	11	9	11	18	29	8	1,600
6:00 PM	269	41	39	11	3	30	14	6	82	110	440	9	193	35	1	8	7	13	9	9	7	1	6	4	11	5	1,363
7:00 PM	234	29	52	12	2	19	10	8	89	90	542	9	185	38	1	8	0	13	1	13	0	0	8	2	30	9	1,404
8:00 PM	170	24	54	10	1	16	10	7	57	81	327	7	170	19	1	7	0	12	1	11	0	0	7	2	30	8	1,032

Notes:
Source: Parking counts conducted by National Data & Surveying Services (NDS).
= Doctors/Staff/Employees
= Patients/Visitor
= Both Patients/Visitors & Doctors/Staff/Employees

APPENDIX TABLE A-2

PARKING COUNTS
LBMMC, LONG BEACH

Parking Counts (Thursday 02-07-2019)

Time	A (816)	B (135)	C (61)	D (19)	E (53)	G (88)	H1 (20)	H2 (8)	I (151)	J1 (299)	J2-5 (1,259)	Ks (38)	Kv (244)	N (121)	O (56)	P (27)	Q (53)	R1 (124)	R2 (148)	S (39)	T (41)	U (40)	V (40)	W (124)	X (47)	Y (25)	Total Demand (4,076)
6:00 AM	366	38	27	5	0	17	3	5	121	57	624	3	54	58	3	17	0	21	6	0	4	7	2	1	28	11	1,478
7:00 AM	375	47	38	10	5	47	2	8	151	82	743	5	81	88	4	14	2	20	21	0	9	10	2	1	28	11	1,804
8:00 AM	532	101	34	17	13	77	4	8	151	106	963	7	109	97	4	19	10	29	31	0	16	17	8	12	19	8	2,392
9:00 AM	545	134	42	19	33	87	11	8	151	171	1,116	10	150	102	8	23	22	49	40	8	21	23	14	27	29	14	2,857
10:00 AM	558	135	53	19	53	86	15	8	151	179	1,174	11	198	105	6	26	25	55	48	17	20	32	25	45	32	19	3,095
11:00 AM	608	135	54	18	51	85	19	8	149	177	1,176	18	235	114	7	27	21	54	39	13	22	35	21	41	33	20	3,180
12:00 PM	613	126	55	19	34	86	17	8	151	210	1,165	20	240	117	6	27	20	50	37	3	21	35	20	30	24	14	3,148
1:00 PM	700	127	56	19	39	88	13	8	149	212	1,171	23	240	121	4	27	20	51	40	10	24	33	22	30	26	12	3,265
2:00 PM	577	132	56	19	40	88	20	8	144	217	1,171	17	232	121	3	27	21	49	44	4	24	33	18	34	26	14	3,139
3:00 PM	522	127	54	19	29	70	15	8	132	188	1,124	10	213	99	2	27	21	45	34	11	19	28	19	33	33	17	2,899
4:00 PM	460	124	54	15	14	57	17	8	110	125	917	7	201	75	2	27	19	39	29	9	17	25	18	33	31	15	2,448
5:00 PM	280	72	59	17	10	39	14	8	78	111	715	6	156	56	1	21	13	25	21	5	18	11	14	4	16	15	1,785
6:00 PM	191	59	47	15	8	21	14	7	67	111	515	6	155	46	1	16	2	14	7	1	9	11	9	1	11	13	1,357
7:00 PM	230	44	52	17	7	21	12	6	82	108	560	6	150	52	1	15	1	14	4	0	9	0	9	0	33	18	1,451
8:00 PM	160	45	54	18	0	17	12	8	63	110	426	8	141	25	1	14	1	13	1	0	7	0	9	0	36	22	1,191

Notes:
Source: Parking counts conducted by National Data & Surveying Services (NDS).
= Doctors/Staff/Employees
= Patients/Visitor
= Both Patients/Visistors & Doctors/Staff/Employees

APPENDIX TABLE A-3

PARKING COUNTS
LBMMC, LONG BEACH

Parking Counts (Saturday, 02-09-2019)

Time	A (816)	B (135)	C (61)	D (19)	E (53)	G (88)	H1 (20)	H2 (8)	I (151)	J1 (299)	J2-5 (1,259)	Ks (38)	Kv (244)	N (121)	O (56)	P (27)	Q (53)	R1 (124)	R2 (148)	S (39)	T (41)	U (40)	V (40)	W (124)	X (47)	Y (25)	Total Demand (4,076)
6:00 AM	94	16	37	14	0	12	1	6	56	54	432	3	56	23	1	15	0	15	3	2	0	0	3	0	41	15	899
7:00 AM	127	19	35	14	0	18	2	8	97	64	398	3	59	32	1	13	0	21	3	7	0	0	3	0	38	4	966
8:00 AM	128	22	36	11	3	26	3	4	74	67	457	3	64	31	1	13	1	17	3	7	0	0	3	0	29	11	1,014
9:00 AM	137	27	40	11	10	36	5	7	78	75	467	4	80	16	1	13	1	20	3	6	0	2	5	0	22	10	1,076
10:00 AM	138	31	41	14	11	45	6	8	84	92	483	3	110	17	1	13	1	24	3	7	0	2	8	0	21	13	1,176
11:00 AM	146	31	42	17	10	53	7	8	75	100	481	3	149	18	1	13	1	22	2	7	0	2	7	0	23	18	1,236
12:00 PM	152	25	45	13	7	56	7	8	81	107	482	3	164	18	1	12	1	21	2	8	0	2	3	2	22	17	1,259
1:00 PM	147	22	50	11	6	40	7	8	75	103	472	3	155	19	1	11	0	20	2	5	0	2	5	3	20	16	1,203
2:00 PM	146	21	51	13	6	37	14	8	79	92	471	3	143	17	1	9	0	20	1	5	0	2	5	2	20	14	1,180
3:00 PM	141	20	52	12	4	38	13	8	75	102	433	3	148	16	1	9	0	26	1	5	0	0	6	3	21	15	1,152
4:00 PM	119	21	53	11	0	28	9	7	65	98	392	3	163	16	1	8	0	15	0	6	0	0	8	4	22	15	1,064
5:00 PM	106	19	54	7	0	24	9	7	61	86	387	3	161	18	1	8	0	15	0	5	0	0	4	2	24	16	1,017
6:00 PM	99	17	51	8	0	17	9	6	57	80	435	3	143	20	1	11	0	16	0	5	0	0	3	0	29	17	1,027
7:00 PM	157	18	49	10	0	13	12	8	80	83	524	3	135	37	1	11	0	15	0	5	0	0	7	0	43	17	1,228
8:00 PM	123	17	44	9	0	11	6	7	51	79	330	3	122	22	1	13	0	15	0	3	0	1	7	0	34	17	915

Notes:
Source: Parking counts conducted by National Data & Surveying Services (NDS).
= Doctors/Staff/Employees
= Patients/Visitor
= Both Patients/Visitors & Doctors/Staff/Employees