

APPENDIX 13

UPDATED PARKING DEMAND ANALYSIS AND PARKING
MANAGEMENT PROJECT FEATURES MEMORANDUM

MEMORANDUM

TO: David Attaway, City of Los Angeles Department of Recreation and Parks

FROM: John Stutsman and Dick Kaku

DATE: June 24, 2008

SUBJECT: Autry National Center
Updated Parking Requirements

REF: 2015

On a typical weekday and the Memorial Day weekend in May 2006, a parking utilization study was conducted at the Autry National Center (ANC). In May and early June of 2008, this study was replicated over a nine-day period, beginning with the Memorial Day weekend, Saturday, May 24 and ending Sunday, June 1. Figure 1 presents the parking study location.

Table 1 presents the key findings of the recent study, which shows the observed “peak visitor parking” demand and hour of occurrence for the ANC. Detailed parking count sheets are attached to this memorandum.

Based on these latest observations, “peak” visitor-related parking demand is 158 spaces at noon on a weekday and 162 at 1:00 p.m. on a weekend. These peak demands are within the 368 spaces comprised of the North Lot (including the 30-space employee overflow lot) and the South Lot. In addition, the ANC has a key card-controlled employee lot with 41 spaces behind the museum, as shown in Figure 1. Typical usage of this lot is 25 to 30 spaces weekdays and five to eight spaces on weekends.

However, to be consistent with the approach taken in 2006, it is assumed that the employee lot will be full at midday on a weekday and will have 37 cars parked in the early afternoon on a weekend. Thus, the new data indicates a peak weekday and weekend demand of 199 spaces, as shown below.

	Weekday	Weekend
Visitor	158	162
Employee	41	37
TOTAL	199	199

For comparison purposes, the 2006 study resulted in a peak weekend demand of 192 spaces and a peak weekday demand of 182 spaces.

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PROJECT PARKING DEMAND FORECAST

Extrapolating these updated 2008 peak parking demands forward for Phase I and Phase II of the Project using the latest net floor area (NFA) square footage results in the following parking demand estimates:

	NFA (1,000 SF)	PARKING DEMAND	
		WEEKDAY	WEEKEND
Current	141,340	199	199
Phase I	209,272	295	295
Phase II	254,272	358	358

EFFECTIVE PARKING SUPPLY

Effective parking supply is the number of occupied spaces at optimum operating efficiency. A parking facility will be perceived as full at somewhat less than its actual capacity, generally in the range of 85-95 percent occupancy. The range is because regular users learn where spaces are likely to be available at a particular time of day and thus require less of an extra cushion than unfamiliar users. It is appropriate to have a small cushion of spaces over the expected peak hour accumulation of vehicles. The cushion reduces the need to search the entire system for the last few parking spaces, thus reducing patron frustration. It further provides for operating fluctuations, misparked vehicles, vehicle maneuvers, and vacancies created by reserving spaces for specific users, such as disabled parking. The effective supply cushion in a system also provides for unusual peaks in activities.¹

The purpose of the 2006 study was to show peak parking demand as a planning exercise that would illustrate its relationship to the code-required parking supply. To be conservative, an 85 percent occupancy factor was assumed for this forecast. The purpose of the recent study is to determine what specific parking supply would be sufficient to meet estimated demand. We now know more about the parking facility design and are in a position to suggest project features that would serve to enhance the efficiency of the parking for the project. Therefore, it is important to use the most realistic figure that can be expected to be achieved in an efficiently operated parking garage for this venue. Based on this premise, the nature of the characteristics of the arrival and departure pattern of the ANC is such that a greater utilization of the facility can be expected and a 95 percent occupancy is recommended for use in developing the forecast of the parking requirement. As a point of comparison, in June 2007, the two unattended parking structures serving Santa Monica Place had an observed "peak" occupancy of 92 percent on a Saturday afternoon, with the structure at the corner of 4th Street and Broadway reaching 96 percent. According to the Fehr & Peers developed parking plan for Dodger Stadium, occupancies of up to 98 percent have been achieved.

¹ *Shared Parking, Second Edition*, ULI, ICSC, 2005.

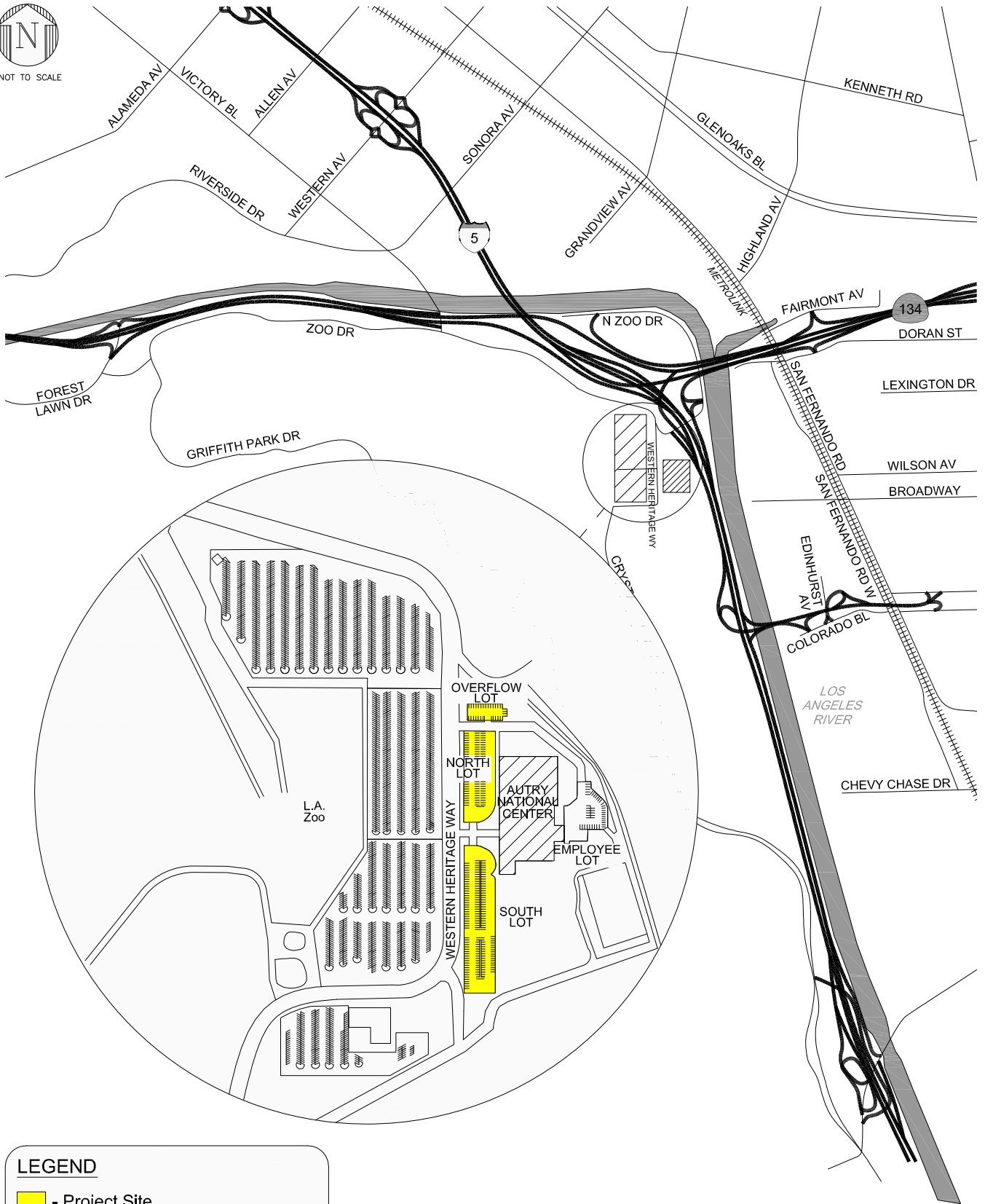
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To achieve this 95 percent occupancy, project features relating to parking will be implemented, including parking attendants on “peak event days,” monitoring of available parking spaces, and a validation program. With this recommended 95 percent occupancy, effective supply required at Phase I would be 311 spaces ($295 \div 0.95$) and at project buildout, Phase II, 377 spaces ($358 \div 0.95$).

As the Project currently envisions 311 spaces for Phase I and 380 spaces for Phase II, this updated analysis indicates that the proposed parking supply would be sufficient to meet estimated demand.



NOT TO SCALE



LEGEND

- Project Site
- Zoo Parking Lot

FEHR & PEERS
KAKU ASSOCIATES

FIGURE 1
PARKING STUDY LOCATION

TABLE 1
ANC PEAK PARKING DEMAND: 2008

Date	ANC Attendance	ANC Peak Parking Count & Time
Saturday, May 24	512	94 @ noon
Sunday, May 25	567	162 @ 1:00 p.m.
Monday, May 26	ANC Closed	279 @ 2:00 p.m.
Tuesday, May 27	541	129 @ noon
Wednesday, May 28	536	158 @ noon
Thursday, May 29	671	130 @ noon
Friday, May 30	476	125 @ 11:00 a.m.
Saturday, May 31	264	76 @ 2:00 p.m.
Sunday, June 1	695	151 @ 1:00 p.m.

ATTACHMENT

ANC PARKING COUNT DATA (5-24-08 THROUGH 6-1-08)

HOURLY PARKING OCCUPANCY SURVEY

CLIENT: FEHR AND PEERS
 PROJECT: GENE AUTRY MUSEUM / L.A. ZOO PARKING COUNTS
 DATE: SATURDAY, MAY 24, 2008
 PERIOD: 8:00 AM TO 7:00 PM
 LOCATION: GENE AUTRY MUSEUM PARKING LOTS

HOURLY COUNTS								
Approx. Available Spaces	NORTH				SOUTH			GRAND
	Employee	HDCP	Regular	Reserved	Regular	BUS	UNMARKED	TOTAL
	30	19	104	25	190			368
8:00	1	0	1	0	11	0	1	14
9:00	2	0	5	0	12	0	1	20
10:00	2	0	20	1	30	0	0	53
11:00	2	0	41	1	34	0	0	78
12:00	2	4	49	2	37	0	0	94
1:00	2	6	37	2	40	0	0	87
2:00	1	7	34	2	43	0	0	87
3:00	1	3	31	1	34	0	1	71
4:00	1	2	24	1	24	0	0	52
5:00	1	0	2	0	6	0	0	9
6:00	0	0	0	0	3	0	0	3
7:00	0	0	1	0	1	0	0	2

HOURLY PARKING OCCUPANCY SURVEY

CLIENT: FEHR AND PEERS
 PROJECT: GENE AUTRY MUSEUM / L.A. ZOO PARKING COUNTS
 DATE: SUNDAY, MAY 25, 2008
 PERIOD: 8:00 AM TO 7:00 PM
 LOCATION: GENE AUTRY MUSEUM PARKING LOTS

HOURLY COUNTS								
Approx. Available Spaces	NORTH				SOUTH			GRAND
	Employee	HDCP	Regular	Reserved	Regular	BUS	UNMARKED	TOTAL
	30	19	104	25	190			368
8:00	0	0	0	0	0	0	0	0
9:00	1	0	3	0	10	0	0	14
10:00	1	0	22	0	19	0	0	42
11:00	1	2	28	2	33	0	0	66
12:00	1	5	46	2	48	0	0	102
1:00	1	10	56	10	85	0	0	162
2:00	1	11	44	11	73	0	0	140
3:00	1	11	43	10	71	0	0	136
4:00	1	5	25	6	46	0	1	84
5:00	1	2	4	0	17	0	0	24
6:00	0	0	3	0	5	0	0	8
7:00	0	0	1	0	4	0	0	5

HOURLY PARKING OCCUPANCY SURVEY

CLIENT: FEHR AND PEERS
 PROJECT: GENE AUTRY MUSEUM / L.A. ZOO PARKING COUNTS
 DATE: MONDAY, MAY 26, 2008
 PERIOD: 8:00 AM TO 7:00 PM
 LOCATION: GENE AUTRY MUSEUM PARKING LOTS

HOURLY COUNTS								
Approx. Available Spaces	NORTH				SOUTH			GRAND
	Employee	HDCP	Regular	Reserved	Regular	BUS	UNMARKED	TOTAL
	30	19	104	25	190			368
8:00	0	0	0	1	5	0	0	6
9:00	0	0	0	1	5	0	0	6
10:00	0	0	0	0	9	0	0	9
11:00	0	0	1	0	10	0	0	11
12:00	0	0	62	26	101	0	0	189
1:00	0	7	66	26	178	0	3	280
2:00	0	11	66	24	176	0	2	279
3:00	1	11	61	18	157	0	1	249
4:00	0	9	38	11	100	0	0	158
5:00	0	4	13	1	31	0	0	49
6:00	0	0	2	0	12	0	0	14
7:00	0	0	0	0	3	0	0	3

Museum was closed. Parking was for the LA Zoo.

HOURLY PARKING OCCUPANCY SURVEY

CLIENT: FEHR AND PEERS
 PROJECT: GENE AUTRY MUSEUM / L.A. ZOO PARKING COUNTS
 DATE: TUESDAY, MAY 27, 2008
 PERIOD: 8:00 AM TO 7:00 PM
 LOCATION: GENE AUTRY MUSEUM PARKING LOTS

HOURLY COUNTS								
Approx. Available Spaces	NORTH				SOUTH			GRAND
	Employee	HDCP	Regular	Reserved	Regular	BUS	UNMARKED	TOTAL
	30	19	104	25	190			368
8:00	11	0	22	10	21	1	0	65
9:00	14	0	28	13	28	2	0	85
10:00	18	1	22	12	35	6	0	94
11:00	18	2	41	13	41	7	1	123
12:00	17	4	46	14	40	7	1	129
1:00	15	2	34	11	36	5	1	104
2:00	17	1	30	14	28	2	1	93
3:00	16	1	24	11	19	0	1	72
4:00	13	1	26	12	16	0	1	69
5:00	8	0	12	8	10	0	0	38
6:00	2	0	9	2	13	0	0	26
7:00	1	0	17	1	20	0	0	39

HOURLY PARKING OCCUPANCY SURVEY

CLIENT: FEHR AND PEERS
 PROJECT: GENE AUTRY MUSEUM / L.A. ZOO PARKING COUNTS
 DATE: WEDNESDAY, MAY 28, 2008
 PERIOD: 8:00 AM TO 7:00 PM
 LOCATION: GENE AUTRY MUSEUM PARKING LOTS

HOURLY COUNTS								
Approx. Available Spaces	NORTH				SOUTH			GRAND
	Employee	HDCP	Regular	Reserved	Regular	BUS	UNMARKED	TOTAL
	30	19	104	25	190			368
8:00	9	0	5	10	10	0	1	35
9:00	15	0	18	13	21	0	2	69
10:00	19	3	52	11	44	7	2	138
11:00	18	5	53	17	49	4	0	146
12:00	17	7	57	16	52	6	3	158
1:00	17	6	34	10	40	4	3	114
2:00	16	4	33	15	39	1	3	111
3:00	16	3	24	15	37	0	3	98
4:00	15	2	23	12	26	0	2	80
5:00	7	0	8	7	11	0	0	33
6:00	2	0	2	2	8	0	0	14
7:00	2	0	0	2	4	0	0	8

HOURLY PARKING OCCUPANCY SURVEY

CLIENT: FEHR AND PEERS
 PROJECT: GENE AUTRY MUSEUM / L.A. ZOO PARKING COUNTS
 DATE: THURSDAY, MAY 29, 2008
 PERIOD: 8:00 AM TO 7:00 PM
 LOCATION: GENE AUTRY MUSEUM PARKING LOTS

HOURLY COUNTS								
Approx. Available Spaces	NORTH				SOUTH			GRAND
	Employee	HDCP	Regular	Reserved	Regular	BUS	UNMARKED	TOTAL
	30	19	104	25	190			368
8:00	7	0	3	1	9	0	1	21
9:00	15	1	15	14	17	0	2	64
10:00	17	4	34	15	34	6	2	112
11:00	16	6	40	17	40	7	2	128
12:00	16	5	42	17	39	9	2	130
1:00	21	4	31	15	35	1	2	109
2:00	14	3	23	16	33	1	0	90
3:00	14	3	30	14	32	0	2	95
4:00	13	2	21	14	25	0	1	76
5:00	8	0	14	10	32	0	0	64
6:00	6	0	7	2	30	0	0	45
7:00	5	0	8	0	39	0	0	52

HOURLY PARKING OCCUPANCY SURVEY

CLIENT: FEHR AND PEERS
 PROJECT: GENE AUTRY MUSEUM / L.A. ZOO PARKING COUNTS
 DATE: FRIDAY, MAY 30, 2008
 PERIOD: 8:00 AM TO 7:00 PM
 LOCATION: GENE AUTRY MUSEUM PARKING LOTS

HOURLY COUNTS								
Approx. Available Spaces	NORTH				SOUTH			GRAND
	Employee	HDCP	Regular	Reserved	Regular	BUS	UNMARKED	TOTAL
	30	19	104	25	190			368
8:00	3	0	13	1	43	0	0	60
9:00	14	2	14	14	23	0	0	67
10:00	16	4	33	14	39	0	3	109
11:00	16	6	36	14	43	7	3	125
12:00	15	5	32	12	41	8	4	117
1:00	13	3	17	13	33	7	0	86
2:00	14	3	37	14	37	3	0	108
3:00	14	3	37	15	38	2	0	109
4:00	13	3	18	15	31	0	0	80
5:00	7	0	3	3	12	0	0	25
6:00	2	0	1	1	7	0	0	11
7:00	1	0	0	0	6	0	0	7

HOURLY PARKING OCCUPANCY SURVEY

CLIENT: FEHR AND PEERS
 PROJECT: GENE AUTRY MUSEUM / L.A. ZOO PARKING COUNTS
 DATE: SATURDAY, MAY 31, 2008
 PERIOD: 8:00 AM TO 7:00 PM
 LOCATION: GENE AUTRY MUSEUM PARKING LOTS

HOURLY COUNTS								
Approx. Available Spaces	NORTH				SOUTH			GRAND
	Employee	HDCP	Regular	Reserved	Regular	BUS	UNMARKED	TOTAL
	30	19	104	25	190			368
8:00	0	0	0	0	12	0	0	12
9:00	0	0	1	1	18	0	0	20
10:00	2	0	9	1	18	0	1	31
11:00	2	0	23	1	22	0	1	49
12:00	2	0	29	1	27	0	0	59
1:00	2	0	31	1	37	0	1	72
2:00	1	1	33	2	37	0	2	76
3:00	1	1	33	2	33	0	1	71
4:00	1	1	22	5	26	0	0	55
5:00	1	0	3	1	7	0	0	12
6:00	0	0	0	0	4	0	0	4
7:00	0	0	0	0	5	0	0	5

HOURLY PARKING OCCUPANCY SURVEY

CLIENT: FEHR AND PEERS
 PROJECT: GENE AUTRY MUSEUM / L.A. ZOO PARKING COUNTS
 DATE: SUNDAY, JUNE 1, 2008
 PERIOD: 8:00 AM TO 7:00 PM
 LOCATION: GENE AUTRY MUSEUM PARKING LOTS

HOURLY COUNTS								
Approx. Available Spaces	NORTH				SOUTH			GRAND
	Employee	HDCP	Regular	Reserved	Regular	BUS	UNMARKED	TOTAL
	30	19	104	25	190			368
8:00	0	0	1	1	33	0	0	35
9:00	0	0	4	3	38	0	0	45
10:00	1	1	14	4	24	0	0	44
11:00	1	2	26	5	32	0	0	66
12:00	2	7	55	7	54	0	0	125
1:00	2	13	54	10	72	0	0	151
2:00	1	11	61	5	56	0	0	134
3:00	1	4	39	5	54	0	0	103
4:00	1	2	54	2	32	0	0	91
5:00	1	0	5	0	6	0	0	12
6:00	0	0	0	0	8	0	1	9
7:00	0	0	0	0	5	0	0	5

PARKING MANAGEMENT PROJECT FEATURES

AUTRY NATIONAL CENTER

The Autry National Center (ANC) will provide 311 parking spaces at the completion of Phase I and 380 parking spaces at the completion of Phase II of the project. To assure that this parking supply is utilized effectively, ANC will include as project features several aspects designed to enhance the parking management plan, for example:

- Parking attendants on an as-need basis
- Monitoring of available parking spaces
- Validation program

PARKING ATTENDANTS ON “PEAK EVENT” DAYS

The ANC may provide parking control staff on “peak days” to assure that patrons park in a manner that allows for optimum use of available spaces.

MONITORING OF AVAILABLE PARKING SPACES

The ANC may incorporate electronic monitoring of available parking spaces within the parking structure to be developed as part of Phase II of the project.

VALIDATION PROGRAM

The ANC may institute a parking validation program to discourage Los Angeles Zoo visitors from parking in the ANC lot, which as shown by empirical evidence has been known to occur.