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DEPARTMENT OF
GENERAL SERVICES

OFFICE OF THE DIRECTOR

CITY OF SACRAMENTO
CALIFORNIA

5730 24TH STREET
BUILDING FOUR
SACRAMENTO, CA
95822-3699

916-449-5548

DIVISIONS:

COMMUNICATIONS
FACILITY MANAGEMENT
FLEET MANAGEMENT
RISK MANAGEMENT
AND INSURANCE
SUPPORT SERVICES

CITY MANAGER'S OFFICE
RECEIVED
MAR 11 1987

March 11, 1987

Budget and Finance Committee
Transportation and Community Development Committee
Sacramento, California

Honorable Members in Session:

SUBJECT: Parking Requirements For The Civic Center Complex,
Space Needs Study, Phase II.

SUMMARY

This report back concerns the requirement for parking associated with the Space Needs Study, Phase II and the parking structure that would replace the existing Lot B.

BACKGROUND

This report was initiated at the request of the Budget and Finance/ Transportation and Community Development Committee on February 17, 1987. The concern was the specific allocation of parking spaces as presented in the Space Needs Study, Phase II.

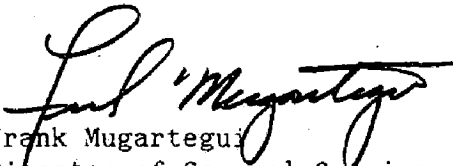
The Space Needs Study, Phase II, provided for 1,729 total parking spaces for the Civic Center complex. Below grade parking would be provided for the Public Safety Facility and the Administrative Facility, 110 and 170 respectively, leaving 1,449 for above grade parking. These numbers were derived from established parking surveys, engineering standards, current zoning ordinances, and the consultants' projections of future parking requirements.

Parking Lot B presently has 621 parking spaces. Of that total, 103 are assigned monthly permits issued to City employees, 100 for City Hall visitor parking and 418 for public parking spaces. The study did not initially include the replacement of the 418 non-city spaces. By reinstating 418 spaces from the existing Lot B and using the 1 space to 600 square foot ratio in tandem with additional city owned vehicles, a combined total of 1,778 spaces would be required. A breakdown of these figures is attached.

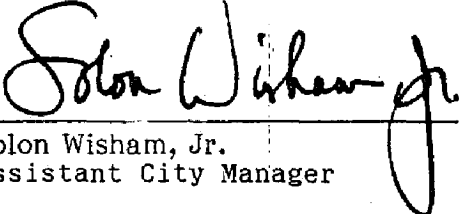
Budget and Finance Committee
March 11, 1987
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Therefore, the parking requirement will be increased by 49 spaces to approximately 1778 parking spaces, with the finalized figures determined during the programming phase of the project, (Phase III).

Respectfully submitted,


Frank Mugartegui
Director of General Services

Approved For Committee Information:


Solon Wisham, Jr.
Assistant City Manager

April 14, 1987
District 1

Parking for the Administrative Facilities
and Public Safety Facilities for the Year 2025

Existing at Parking Lot B	621	
Monthly Parking Permits issued to the city	-103	
Visitor Parking	<u>-100</u>	
REINSTATED PARKING		418

ADMINISTRATIVE FACILITIES

Admin. Fac. Gross Sq. Ftge.	426,920		
Req'd. # Spaces @ 1 per 600 gsf	712		
# Add. req'd. for city owned	250		

ADMIN.: Subtotal	962	962	
Below grade parking		* <u>- 170</u>	
TOTAL ADMIN. PARKING			792

PUBLIC SAFETY FACILITIES

Public Safety Gross Sq. Ftge.	231,479		
Req'd. # Spaces @ 1 per 600 gsf	386		
# Add. req'd. for city owned	182		

PUBLIC SAFETY: Subtotal	568		
TOTAL PUBLIC SAFETY PARKING			568
TOTAL PARKING REQUIRED			1,778

* Parking below Administrative facility



DEPARTMENT OF
PUBLIC WORKS

PARKING DIVISION

CITY OF SACRAMENTO
CALIFORNIA

1023 J STREET
SUITE 202
SACRAMENTO, CA
95814-2877

916-449-5354

March 12, 1987
REF: 87-03-82

MEMORANDUM

TO: Melvin H. Johnson, Director of Public Works
FROM: J. Mark Morgan, Parking Division Manager
SUBJECT: CITY HALL PARKING STUDY

My recommendation in 1984 (attached) was for 2,200 parking spaces, excluding official vehicle parking. But, as my report showed, there were different ways to approach the estimating of parking demand. On page 4 of my 1984 report, the last paragraph best explains how I came up with 2,200 spaces (actually 2,243). It looks like Mugartegui is using City zoning ordinance requirements. It's another approach which, if acceptable, is made better by the 418 spaces for "reinstated parking". But, due to further expansion of County facilities, the 418 spaces may not be enough in the future. The County, however, is building an additional 800 space parking garage to meet new parking demand.

General Services recommendation is 422 parking spaces less than what I recommended, but my recommendation exceeds City zoning requirements.


J. Mark Morgan

JMM/rh

Attachment

RECEIVED

MAR 12 1987

ADMINISTRATION

RECEIVED

MAR 13 1987

PUBLIC WORKS
ADMINISTRATION



March 11, 1987
REF: 87-03-71

DEPARTMENT OF
PUBLIC WORKS

PARKING DIVISION

CITY OF SACRAMENTO
CALIFORNIA

1023 J STREET
SUITE 202
SACRAMENTO, CA
95814-2877

916-449-5354

M E M O R A N D U M

TO: Duane Wray, Facility Management Supervisor
FROM: J. Mark Morgan, Parking Division Manager
SUBJECT: PARKING USAGE AT LOT B (10TH AND I)

Response to your request for information for Lot B is as follows:

1. There are 621 total parking spaces in Lot B.
2. There are a total of 370 monthly permits issued, which are itemized as follows:
 - A. 305 cash customers.
 - B. 52 are contract (paid upon invoice).
 - C. 13 are City management permits.

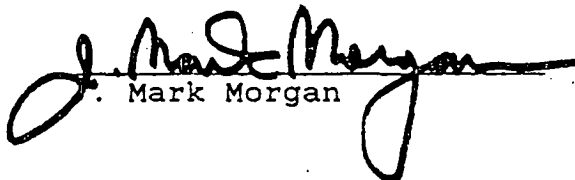
370 Total

 - D. 89 permits are City employees who pay cash (included in A.).
 - E. 3 permits are for the Parks and Community Service Department (paid on contract).
3. ± 100 spaces were estimated for City Hall visitors several years ago, but it is unknown if this is accurate. I believe that 100 spaces to serve existing City Hall facilities on the 9th - 10th - I - J for visitor parking would be more than adequate. This does not include City Hall employee parking.
4. Some of the City employees who park in Lot B work at 13th and I. I could find out how many, if you need to know. If so, please advise.

March 11, 1987

It should be clearly explained to the Committee that Lot B serves very little retail parking demand, that it serves mostly City, County and Federal parking demand in the immediate vicinity to the west of the garage. Also, it should be explained that Lot B is usually full on Tuesdays through Thursdays from about 9:30 AM to 1:30 PM and that Mondays and Fridays do not show as much demand at this facility as the other weekdays. Attached is a survey/report I wrote in 1984 on City Hall parking.

Based on our conversation of March 9, 1987, it is my understanding that you want to handle the report back to the Transportation and Community Development Committee on this item. The report is due on March 17, 1987. If I can be of further assistance, please let me know (5354).


Mark Morgan

JMM/rh

Attachment

cc: Melvin H. Johnson, Director of Public Works
L.M. Frink, Deputy Director of Public Works
Roberta Larsen, Administrative Assistant II



CITY OF SACRAMENTO

DEPARTMENT OF PUBLIC WORKS

Engineering and Transportation Division

Parking Section
1023 - J Street - Suite 202
Sacramento, California 95814

Telephones (916)

Off-Street Parking 449-5354
On-Street Parking 449-5644

REF: 84-5-29

May 17, 1984.

MEMORANDUM

TO: L. M. Frink, Deputy Director of Public Works
Gary Szydelko, Associate Architect

FROM: J. Mark Morgan, Parking Manager

SUBJECT: CITY HALL PARKING SURVEY

EXISTING CONDITIONS

- I. There are 105,000 square feet of existing gross floor area in the 9th-11th, H-J blocks used for City government operations.
- II. These existing City government offices have 402 City employees.
- III. The current parking supply for these facilities and employees is as follows:
 - A. Lot B; City garage located on 10th-11th, H-I block.
 1. 621 total parking spaces.
 2. 444 total monthly permits. (341 non-city employees)
 3. An estimated 385 total peak hour monthly parking spaces needed to accommodate 444 permits (based on actual parking lot usage data).
 4. Estimated daily average of 235 spaces remains for hourly parking.
 5. Per January 1984 survey, 100 short term hourly parking spaces needed to service City Hall visitors.
 6. There are currently 103 monthly parking permits issued to City employees at Lot B.
 - B. 33 short term parking meters on the 10th-11th, H-I block.
35 short term parking meters on the 9th-10th, H-I block.
 - C. Ten hour parking meters in the Alkali Flats area north of H Street.
(for additional all-day employee parking-extent of utilization by City employees unknown)
 - D. The short term parking meters in the two (2) blocks of 9th-10th, H-I are usually full from 8:30 a.m. to 4:00 p.m., daily.
 - E. The ten-hour parking meters in the Alkali Flats area are full from 7:30 a.m. to 3:00 p.m., daily.

MEMORANDUM

May 17, 1984

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- F. Lot B is usually full or nearly full from 9:30 a.m. to 2:30 p.m. during the months of October through May. There is a lower demand with approximately 85% peak occupancy during the June through September period. (Not all of Lot B demand, however is attributed to City Hall visitors and City employees).
- G. There is an estimated peak average of 1,000 cars per day that have non-City trip purposes.
- H. The City Hall parking lot provides parking space as follows:

City Vehicles	92
Council Members	6
Management	48
Non-Management	23
Firehouse	5
Handicap	<u>2</u>
Total	170

SUMMARY OF EXISTING CONDITIONS

- 1. Gross floor area (GFA) 105,000 ft.²
- 2. Number of City Employees 402
- 3. Off-street parking
 - Lot B - City Employees 103 Parking Spaces
 - Lot B - City Hall Visitors (hourly) 100 Parking Spaces
 - City Hall parking lot - City Employees 84 Parking Spaces
 - Total 287
- 4. Ratio of Visitor parking space to each 1,000 feet of GFA. $\frac{100}{105} = .95$
- 5. Ratio of parking space per City employee. $\frac{187}{402} = .47$
- 6. Overall ratio of all existing off street parking space to total ft.² of existing floor area. $\frac{289}{105} = 2.75$

FUTURE PARKING NEEDS

I. Under the currently proposed City Hall Expansion Project for the two (2) blocks between 9th-11th, H-I Streets, there would be:

- A. 552 General City Government employees
- B. 440 City Police Department Administration employees
- C. 283 City Police Officer employees
- D. 992 Total employees (1984 estimated)

II. The total floor area to accomodate this proposed project would be:

A. General City Government	360,000 sq. ft.
B. Police Department	300,000 sq. ft.
Total Area	<u>660,000 sq. ft.</u>

III. Using the same ratio of existing off-street parking space to existing facilities floor area (2.75 parking spaces per 1,000 sq. ft.):

A. General City Government	360 x 2.75 =	990
B. Police Department	300 x 2.75 =	825
Total		<u>1,815</u>

IV. By application of categories of existing parking space usage, a lower total parking space need is determined.

A. Employee parking (.47 space per employee)

1. General City Government	.47 x 552 =	259
2. Police Department	.47 x 440 =	207
3. Police Officers	$\left(\frac{283 \text{ officers}}{3} \right)$	= <u>94</u>
4. Total Employee parking space		560 (1984)

B. Visitor parking (.95 space per sq. ft. floor area)

1. General City Government	.95 x 360 =	342
2. Police Department	.95 x 360 =	285
3. Total Visitor		<u>627</u> Parking spaces

C. Total Parking

1. Employee Parking	560
2. Visitor Parking	<u>627</u>
3. Grand Total	1,187
4. $\frac{1,187 \text{ Parking spaces}}{660 (000 \text{ ft.}^2)}$	= 1.8 spaces per 1,000 ft. ²

V. There is an estimated increase in the number of daytime employees over the next 40 years (to 2,765). This is shown with the corresponding employee parking spaces need as follows:

V. (cont'd)

	<u>1984</u>	<u>1990</u>	<u>2000</u>	<u>2025</u>
General City Government Employees	552	663	811	1,208
Police Administration Employees	<u>440</u>	<u>528</u>	<u>646</u>	<u>963</u>
Total Office Employees	992	1,191	1,457	2,171
Office Employee Parking Space	466	559	684	1,020
Police Officer Parking	<u>94</u>	<u>111</u>	<u>136</u>	<u>201</u>
(<u>Total Officers</u>) 3				
Projected Employee space needed (.47 spaces per employee)	560	670	820	1,221

This increase in employees and corresponding increase in employee parking needs, if the existing ratio of .47 parking space per one (1) employee continues, would then require:

Visitor Parking	627	Parking spaces
Employee Parking	<u>1,221</u>	Parking spaces (year 2025)
Total (year 2025)	1,848	Parking spaces

VI. The City zoning ordinance for office expansions requires "one space for every 600 gross sq. ft. in excess of 20,000 gross sq. ft.:

$$\begin{array}{r}
 660,000 \text{ sq. ft. (Total Project)} \\
 - 20,000 \text{ sq. ft.} \\
 \hline
 640,000 \text{ sq. ft.} \div 600 = 1,066 \text{ Parking Spaces}
 \end{array}$$

VII. A 1980-1981 survey of City employee commute patterns show the following Modal Distribution: (Applied to 2,372 City Employees by the year 2025)

<u>Mode</u>	<u>Distribution</u>	<u>Employees</u>
Auto Alone**	60.4%	1,433
Pool Driver	7.7	183
Pool Passenger	5.2	123
Bus*	10.2	242
Motorcycle	4.6	109
Bicycle	5.7	135
Walk	2.6	62

*Adjusted from 7.2% to 10.2% for increase in bus ridership. **Reduced by 3%.

This would indicate that for 2,372 employees the existing modal distribution causes a need for 1,616 employee parking spaces by the year 2025, unless greater alternative modes are projected. Applied to 1086 employees (1984), 510 employee parking spaces would be needed as opposed to 560 (refer to IV A) or a 9% reduction due to alternative modes of transportation. Using the year 2025 requirement of 1,616 employee parking spaces with the existing visitor parking ratio of .95 spaces per 1000 ft.² (refer to IV B- 627 spaces) shows a need of 2,243 spaces or 3.4 spaces per 1,000 ft.².

VIII. The foregoing approaches to determining the total parking demand show the following:

<u>APPROACH</u>	<u>TOTAL SPACE</u>	<u>PER 1,000 ft.²</u>
A. Existing overall ratio of 2.75 @ 1,000 ft. ²	1,815	2.75
B. Existing ratio by category of usage (i.e., .47 spaces per employee & .95 spaces per 1,000ft ²)	1,187	1.8
C. Existing ratio of .47 spaces per employee projected to year 2025 with existing visitor ratio of .95 per 1,000 ft. ² .	1,848	2.8
D. City Zone ordinance requiring 1 space per 600 ft. ² in excess of 20,000 ft. ² .	1,066	1.6
E. Alternative modes approach and existing visitors ratio of .95 per 1,000 ft. ²	2,243	3.4

IX. Various publications recommend parking space ratios for City-County, general office, and public utility buildings in a range from a minimum of 1.2 parking spaces to 3.6 parking spaces per 1,000 sq. ft. of gross floor area.

A. The Eno Foundation for Transportation (1972) surveyed parking for public utility buildings with the following results:

	<u>Per 1,000 Sq. Ft.</u>	<u>Per Employee</u>
Minimum	1	0.25
Maximum	10	0.50
Modal	3.3	0.40
Mean	2.9	0.40

B. The recommended minimum by the Institute of Traffic Engineer publication (1976) is 3.3 parking spaces per 1,000 sq. ft..

C. Preliminary baseline parking demand rates, by John M. Sanger Associates, Inc. in the City's Redevelopment Plan Update (1983), shows state office requirements as:

<u>Parking Demand</u>	<u>Spaces per 1,000 ft.²</u>
Employee	2.75
Visitor	.35
Total	<u>3.1</u>

D. Washington, D.C. uses a technique of estimating parking demand according to the following equation 1:

$$1. \text{ Parking Demand Ratio} = (A_1/A_2) E_1 + E_2 + V$$

where

- A₁ = Auto Mode Share,
- A₂ = Auto Occupancy
- E₁ = Persons/1,000 ft.² of office space,
- E₂ = Adjustment factor for absenteeism and
- V = Visitor parking

D. (cont'd)

2. Applied to the City Hall Project for Sacramento as follows:

$$\text{PDR} = \frac{.60}{1.7} \times (3.8)(1.5) + \left[\frac{.60}{1.7} \times (3.8)(1.5) \right] (1.10)$$

$$\text{PDR} = 2.0117642 + (2.0117642)(1.10)$$

$$\text{PDR} = 2.2 \text{ spaces per } 1,000 \text{ ft.}^2$$

X. CONCLUSION

In reviewing the above approaches, techniques and professional recommendations it appears that the most pertinent of them all is the Alternative Modes Distribution approach combined with existing visitor parking demand ratio. (Item VIII E) This conclusion is based on the facts that:

1. The Alternative Modes Distribution itself is derived from a relatively current (1981) City survey and;
2. The existing visitor parking demand ratio is taken from a January 1984 survey of City Hall visitors at Lot B.
3. These factors appear to be a more reasonable application to the specific project because:
 - a. Using the existing overall parking demand ratio (2:75) to the existing City facilities (9th-11th, H-J blocks) does not apply adequately to the different ratio of demand for visitors and that of employees.
 - b. The existing parking demand ratios based on floor area to visitors space, and employees to employee space does not utilize potential for alternative modes of transportation.
 - c. The City zoning ordinance's parking demand ratio for office expansions is too far afield from the reality of parking demand based on experience.
 - d. The recommendation by the Engineering Foundation is based on a comprehensive survey and shows close proximation to the Alternative Modes Distribution approach.
 - e. The same as above (X3d) applies to the Sanger report baseline ratio.
 - f. The equation for Washington, D.C. is more applicable to a major urban center with much more extensively developed mass transit facilities serving a high density population area.
4. It is therefore recommended that a parking demand ratio of 3.4 spaces per 1,000 ft.² be used for parking facility to serve the proposed 660,000 ft.² City Hall Project, which indicates that 2,200 parking spaces are needed to serve visitors and employees.

XI. Official City vehicle parking is not included in this report.