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November 21, 1960

Memorandum Report

EXHIBIT DESIGN PARAMETERS

1964 NEW YORK WORLD'S FAIR

Prepared for

WED Enterprises, Inc.
Walt Disney Productions
Disneyland, Inc.

*Sharon
Hubbard*

November 21, 1960

WED Enterprises, Inc.
Walt Disney Productions
Disneyland, Inc.
2400 West Alameda
Burbank, California

Gentlemen:

In connection with the exhibit design work for institutional advertisers at the New York World's Fair, ERA has been requested to supply information on basic design parameters which would help determine how big a major attraction at the New York World's Fair should be; what capacity per hour is needed to achieve a major institutional penetration in the total fair audience.

The following tables contain projections which can be used to determine these design standards. Included are variations in anticipated attendance during the season and during the day which will serve to assist you in sizing the capacities of the exhibits you are designing. Also included is some preliminary information on the attendance records of major attractions at the last fair in New York. Data in these tables is based on present planning of the 1964 fair which contemplates 40 million attendance in a 184-day, 6-month season. We have assumed that the season will start on the third Saturday in April, which in 1964 is April 18th, running through October 18th. We have also assumed that the hours of the fair will be 9 a.m. to 2 a.m. with an exhibit schedule of 10 a.m. to 10 p.m. (12 hours).

Table I shows world fair attendance over the last 110 years and can be used to test the reasonableness of attendance projection now being used for the 1964 fair. It is pertinent to note that the 1939 New York fair drew total attendance of 33.0 million or 82.5 per cent of its projected paid attendance of 40 million (it drew 25.8 million paid attendance or 64.5 per cent of projected paid attendance) and that the 1939 San Francisco fair drew total attendance of 13.0 million or 93 per cent of its projected paid attendance of 14 million (it drew 9.7 million paid attendance or 69.3 per cent of projected paid attendance).

The daily attendance figures for the exhibition in average daily attendance, which, however, does not fall at the same level as the daily attendance during the year of 1939, is the low fall to a high of 1,000,000. The complete annual average attendance is 31,000,000.

The attendance figures by monthly periods, April through October, are 3,000,000 in August of 3,000,000 and a low of 1,000,000 in October.

The analysis of these figures which different levels of projected attendance is shown during different seasons, and this information is given in Table 7. According to these projections, the attendance of the days of the 1939 fair will attain average of 1,000,000.

The daily attendance data, provides a basis for timing the exhibits during the day. These data show that the peak crowd on a daily basis occurs at 4:00 p.m. when 65 per cent of the daily visitors are in the park.

Local history and source data on individual sites and exhibit attendance is shown and for more detailed results should be checked in New York City. An estimate of such attendance derived from Lyng's book, "Making a World's Fair," and other sources is presented in Table 7, which shows that the daily attendance at several attractions at the fair. These data are compared to daily average attendance at the fair so that the relative popularity and penetration of these various exhibits is shown. The range of daily attendance at the several attractions runs from 3,300 per day to a peak of 45,000 at the World exhibit. The peak penetration is 37.4 per cent of fair attendance. Most of these estimates are derived from data on the first three months of the fair operation in 1939, during which time paid attendance was 11,665,000 (an average of 122,700 per day).

"Making a World's Fair"

1939 data

In the 1939 World's Fair is to achieve its 40,000,000 attendance projection averaging 200,000 per day, the following exhibit audience penetrations and hourly capacities are indicated for a 12-hour operating schedule for three different levels of capacity utilization: 60 per cent, 75 per cent and 85 per cent. As indicated by these figures, an hourly capacity of 5,000 per hour at 60 per cent utilization will provide capacity for some 22.1 per cent of projected paid admissions.

Table I

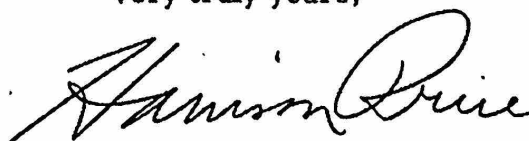
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<u>Exhibit Attendance Penetration</u> (% of Paid Admissions) <u>Per Cent Penetration</u>	<u>Season Attendance</u>	<u>Average Daily Ride Volume</u>	<u>Required Hourly Capacity</u>		
			<u>Utilization Percentage</u>		
			<u>60%</u>	<u>70%</u>	<u>80%</u>
10%	4,000,000	21,740	3,630	3,110	2,720
15%	6,000,000	32,610	4,520	3,880	3,390
20%	8,000,000	43,480	6,040	5,170	4,530
25%	10,000,000	54,350	7,540	6,470	5,660
30%	12,000,000	65,220	9,050	7,760	6,790
<u>Penetration at 5,000 Rides/Hour Capacity</u>					
16.6%	6,640,000	36,000	5,000	--	--
19.3%	7,720,000	42,000	--	5,000	--
22.1%	8,840,000	48,000	--	--	5,000

These data, although preliminary in nature, should give you a guide line to your exhibit design requirements. If you require a more detailed approach and evaluation, please let us know.

Very truly yours,



Harrison A. Price

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Att.

Table I

TOTAL ATTENDANCE AT SELECTED WORLD FAIRS,
1851 - 1959

<u>Date</u>	<u>Name</u>	<u>Location</u>	<u>Acres</u>	<u>Attendance (Millions)</u>
1851	London Crystal Palace Exhibition	London	19	6.0
1853	World's Fair for the Exhibition of the Industry of all Nations	New York	13	1.0
1855	Paris International of 1855	Paris	24	5.0
1862	International World's Fair	London	N.A.	2.0
1876	Philadelphia Centennial	Philadelphia	236	10.0
1878	French International Exposition	Paris	N.A.	16.0
1889	French International Exposition	Paris	173	25.0
1893	World's Columbia Exposition	Chicago	600	28.0
1900	Fifth French International	Paris	336	47.0
1901	Pan American Exposition	Buffalo	350	8.0
1904	Louisiana Purchase Exposition	St. Louis	1,142	20.0
1915	Panama-Pacific Exposition	San Francisco	N.A.	5.0
1926	Philadelphia Sesquicentennial Exposition	Philadelphia	N.A.	6.0
1933	Century of Progress Exposition	Chicago	500	28.0
1934	Century of Progress Exposition	Chicago	500	21.0
1935	California-Pacific Exposition ^{1/}	San Diego	N.A.	5.0
1936	California-Pacific Exposition ^{1/}	San Diego	N.A.	2.0
1936	Texas Centennial ^{1/}	Dallas	N.A.	6.0
1936	Great Lakes Exposition ^{1/}	Cleveland	N.A.	4.0
1937	Great Lakes Exposition ^{1/}	Cleveland	N.A.	3.0
1939	New York World's Fair	New York	1,216	33.0
1940	New York World's Fair	New York	1,216	23.0
1939	Golden Gate International Exposition	San Francisco	135	13.0
1940	Golden Gate International Exposition	San Francisco	135	7.0
1958	Brussels World Fair	Brussels	435	42.0 ^{2/}
1964	New York World's Fair	New York		40.0 ^{3/}

^{1/} Not technically classifiable as world fairs.

^{2/} High attendance at the Brussels World Fair resulted in part from capital expenditures greatly in excess of amounts expended for other fairs, and from enthusiastic support arising from intense competition between eastern and western countries. The American press reported in March, 1958, that the Brussels fair had expended \$200 million for its own fifty buildings, and an additional \$300 million in refurbishing the city. Similar conditions which attract large attendances are not likely to be duplicated in the United States.

^{3/} Planning factor.

Source: Economics Research Associates, from selected library sources.

Table II

PROJECTED AVERAGE DAILY ATTENDANCE BY SEASON
1964 NEW YORK WORLD'S FAIR

<u>Dates</u>	<u>Number of Days</u>	<u>Season</u>	<u>Attendance</u>	<u>Average Number per Day</u>
4/18 - 5/31	44	Spring	5,738,000	130,400
6/1 - 7/15	45	Early summer	11,477,000	255,000
7/16 - 9/3	50	Late summer	17,045,000	340,900
9/4 - 10/18	<u>45</u>	Fall	<u>5,740,000</u>	<u>127,600</u>
	184		40,000,000	217,400

Table III

PROJECTED AVERAGE DAILY ATTENDANCE BY MONTH
1964 NEW YORK WORLD'S FAIR

<u>Month</u>	<u>Number of Days</u>	<u>Attendance</u>	<u>Average Number per Day</u>
April	13	2,565,000	197,300
May	31	3,035,000	97,900
June	30	6,507,000	216,900
July	31	10,149,000	327,400
August	31	10,555,000	340,500
September	30	5,717,000	190,600
October	<u>18</u>	<u>1,472,000</u>	<u>81,800</u>
	184	40,000,000	217,400

Table IV

PROJECTED NUMBER OF DAYS AT VARIOUS
ATTENDANCE LEVELS, BY SEASON
1964 NEW YORK WORLD'S FAIR

<u>Daily Attendance</u>	<u>Spring</u>	<u>Early Summer</u>	<u>Late Summer</u>	<u>Fall</u>	<u>Total 184 Days</u>
525,000 or more	2	--	--	--	2
475,000 - 524,000	--	1	4	--	5
425,000 - 474,000	--	--	6	--	6
375,000 - 424,000	1	5	5	2	13
320,000 - 374,000	--	1	5	--	6
265,000 - 319,000	3	13	28	3	47
210,000 - 264,000	--	11	--	2	13
160,000 - 209,000	7	12	--	3	22
105,000 - 208,000	3	1	2	15	21
50,000 - 104,000	13	1	--	12	26
Under 50,000	<u>15</u>	<u>--</u>	<u>--</u>	<u>8</u>	<u>23</u>
	44	45	50	48	184

Table V

PROJECTED NUMBER OF DAYS AT VARIOUS
ATTENDANCE LEVELS, TOTAL FAIR
1964 NEW YORK WORLD'S FAIR

<u>Daily Attendance</u>	<u>Number of Days</u>	<u>Per Cent of Total Attendance</u>	
		<u>Per Cent</u>	<u>Cumulative Per Cent</u>
525,000 or more	2	3	3
475,000 - 524,000	5	6	9
425,000 - 474,000	6	6	15
375,000 - 424,000	13	13	28
320,000 - 374,000	6	6	34
265,000 - 319,000	47	34	68
210,000 - 264,000	13	7	75
160,000 - 209,000	22	10	85
105,000 - 159,000	21	7	92
50,000 - 104,000	26	5	97
	<u>23</u>	<u>3</u>	100
Under 50,000	184	100	

Table VI

PROJECTED HOURLY ATTENDANCE FACTORS
1964 NEW YORK WORLD'S FAIR

<u>Time of Day</u>	<u>Per Cent of Total Daily Attendance</u>					
	<u>Spring and Fall</u>			<u>Summer</u>		
	<u>Arriving</u>	<u>Leaving</u>	<u>In-Park</u>	<u>Arriving</u>	<u>Leaving</u>	<u>In-Park</u>
9 - 10	8	--	8	11	--	11
10 - 11	12	--	20	16	--	27
11 - 12	14	1	33	15	--	42
12 - 1	12	1	44	13	2	53
1 - 2	12	2	54	10	3	60
2 - 3	12	3	63	8	4	64
3 - 4	9	6	66	8	6	66
4 - 5	6	11	61	4	7	63
5 - 6	4	12	53	4	8	59
6 - 7	3	11	45	5	9	55
7 - 8	3	8	40	2	5	52
8 - 9	2	8	34	2	7	47
9 - 10	2	11	25	1	13	35
10 - 11	1	15	11	1	16	20
11 - 12	--	8	3	--	12	8
12 - 1	--	2	1	--	6	2
1 - 2	--	1	--	--	2	--
	<u>100</u>	<u>100</u>		<u>100</u>	<u>100</u>	

Table VII

PROJECTED SUMMER SCHEDULE HOURLY ATTENDANCE
ON A PEAK LEVEL ATTENDANCE DAY OF 500,000
AND AN AVERAGE ATTENDANCE DAY OF 217,400
1964 NEW YORK WORLD'S FAIR

<u>Time of Day</u>	<u>Peak Level Day of 500,000</u>			<u>Average Day of 217,400</u>		
	<u>Arriving</u>	<u>Leaving</u>	<u>In-Park</u>	<u>Arriving</u>	<u>Leaving</u>	<u>In-Park</u>
9 - 10	55,000	--	55,000	23,900	--	23,900
10 - 11	80,000	--	135,000	34,800	--	58,700
11 - 12	75,000	--	210,000	32,600	--	91,300
12 - 1	65,000	10,000	265,000	28,300	4,300	115,300
1 - 2	50,000	15,000	300,000	21,700	6,500	130,500
2 - 3	40,000	20,000	320,000	17,400	8,700	139,200
3 - 4	40,000	30,000	330,000	17,400	13,000	143,600
4 - 5	20,000	35,000	315,000	8,700	15,200	137,100
5 - 6	20,000	40,000	295,000	8,700	17,400	128,400
6 - 7	25,000	45,000	275,000	10,900	19,600	119,700
7 - 8	10,000	25,000	260,000	4,300	10,900	113,100
8 - 9	10,000	35,000	235,000	4,300	15,200	102,200
9 - 10	5,000	65,000	175,000	2,200	28,300	76,100
10 - 11	5,000	80,000	100,000	2,200	34,800	43,500
11 - 12	--	60,000	40,000	--	26,100	17,300
12 - 1	--	30,000	10,000	--	13,000	4,300
1 - 2	--	10,000	0	--	4,300	0

Table VIII

ESTIMATED DAILY ATTENDANCE AT SELECTED ATTRACTIONS
1939 NEW YORK WORLD'S FAIR

<u>Attraction</u>	<u>Estimated Attendance</u>	<u>No. of Days</u>	<u>Average Daily Exhibit Attendance</u>	<u>Average Daily Paid Fair Attendance</u>	<u>Per cent. Penetration of Exhibit</u>
General Motors Futurama	2,128,000 ^{1/}	76	28,000	128,700	21.7
General Motors Exhibit	2,872,000 ^{1/}	76	37,800	128,700	29.4
Ford	3,668,286 ^{1/}	76	48,300	128,700	37.4
Medicine & Public Health	3,258,147 ^{2/}	92	35,400	128,700	27.5
A. T. & T.	3,210,000 ^{1/}	76	42,200	128,700	32.8
U.S. Steel	1,108,741 ^{1/}	76	15,900	128,700	12.7
Perisphere	2,518,536 ^{2/}	92	27,400	128,700	21.3
Perisphere	1,317,119 ^{3/}	31	42,500	130,000	33.0
Aquacade ^{4/}	2,000,000 ^{2/}	92	21,700	128,700	16.9
G.E. Steinmetz Hall	916,400 ^{1/}	76	12,100	128,700	9.4
G.E. House of Magic	493,869 ^{1/}	76	6,500	128,700	5.0
Aetna Casualty	631,000 ^{2/}	92	6,900	128,700	5.4
Bayer Co.	547,000 ^{2/}	92	5,900	128,700	4.6
Railroads on Parade	252,574 ^{1/}	76	3,300	128,700	2.6
Average all exhibits at fair	630,000 ^{2/}	92	6,800	128,700	5.3

^{1/} Period May to July 15, 1939.

^{2/} Period May to July 31, 1939.

^{3/} Period August 1 to August 31, 1939.

^{4/} Peak capacity was five shows per day of 10,000 each or 50,000 per day.

SPECIAL REPORT