

MANUAL OF INFORMATION - NEW YORK WORLD'S FAIR 1939

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(Compiled for employees of
Con. Edison System Companies)

General

86 years ago, in 1853, the last World's Fair was held in New York.

The World's Fair of 1939 commemorates the 150th Anniversary of the inauguration of George Washington as President and the founding of our Federal Government under a constitution.

Hours: 9:00 AM to 10:00 PM in Exhibit Area
10:00 AM to 10:00 PM in Exhibit Buildings
9:00 AM to 2:00 AM in Amusement Area

Opening Date: April 30, 1939

Closing Date: Not later than November 1, 1939

Total Estimated Cost

Over \$150,000,000, of which approximately -
\$ 50,000,000 spent by Fair Corporation;
\$ 35,000,000 by City, State and Federal Governments;
\$ 65,000,000 by Foreign Governments, other State Governments, private exhibitors and concessionaires.

Financing

Through \$27,829,500 issue of 4% debenture bonds, and partially through receipts prior to opening date from rentals, advance sale of tickets, etc.

The Fair is a non-profit corporation. Any surplus up to \$2,000,000 will be contributed to New York State for the development of Flushing Meadow Park. The remainder will be turned over to the City and State for charitable and park development purposes.

Size of Fair

The Fair covers over 1200 acres, including two lakes.

33 States, 60 Foreign Governments and more than 1400 firms or corporations are participating.

Buildings

40 separate buildings will house private exhibitors.

\$1,200,000 has been spent by N Y City for a permanent building.

\$3,000,000 has been spent by New York State for its exhibit building and for a permanent amphitheatre, with an island stage, etc.

Trylon & Perisphere (Theme Exhibit)

The Trylon and Perisphere (the former 700 feet high and tapering to a point, and the latter 250 feet in diameter and about 18 stories high) exemplify the theme of the Fair - "Building the World of Tomorrow". Within the Perisphere will be shown a diorama of "The City of Tomorrow", depicting what Man can do to improve his life, comforts, convenience and leisure.

Layout of Fair

To enable visitors to find their way about easily, the Fair is divided into zones, in each of which is grouped exhibits devoted to an important phase of life, such as amusements, communications, community interests, food, production and distribution, transportation and government.

Constitution Mall

Extending more than half a mile easterly from the Theme Center, the Mall is lined with great shade trees and flower beds. Illumination at night is very unique and beautiful.

First Aid

Six fully equipped first aid stations, with over one hundred nurses, and a staff of physicians, will be available. Five modern air-conditioned ambulances, a truck fitted with portable X-ray apparatus and a unit for treatment of asphyxiation, whether from gas, water or smoke, will take care of emergency cases.

Transportation within the Grounds

100 busses of special design will afford transportation to within two blocks of any point in the Fair. In addition, slow speed tractor trains of three or four cars will be in operation, with small electric taxi chairs or hand-pushed wheel chairs for individual service.

Transportation Facilities to Fair
(also Parking)

Independent (municipal) subway, I.R.T., B.M.T., the 2nd Avenue "L", Long Island Railroad and trolleys.

Also reached by the extensive metropolitan highway system, of which the Triborough Bridge, Bronx-Whitestone Bridge and Queensborough Bridge are examples.

Bus terminals and airports will be utilized, including the new North Beach Airport.

Excursion boats and private craft will transport many visitors to the Fair and dock within easy walking distance of the Fair Grounds. 6 parking fields will be provided, with a capacity of more than 30,000 automobiles.

General Admission Charge

75¢ per adult
25¢ per child (10¢ on a special day
each week)

Season ticket (non-transferable)	\$ 15.00
Children's (age 3-14) Season Ticket (non-transferable)	5.00

PRICES OF ADVANCE SALE UP TO APRIL 30
(NOT ON SALE AFTER)

Souvenir Book - 5 general admissions and admissions to 6 concessions	3.75
20 admissions (non-transferable)	7.50

Amusements

The Amusement Zone will have a great loop 2 miles in length, with sensational spectacles, spectator participating sports, unique restaurants, show-boats, foreign villages, Little Old New York, boat houses, a spectacle stadium and a complete children's play-world.

The Fair is instituting new standards in music, sports, spectacles, drama and other attractions, including an elaborate program of opera, symphony, light opera, folk opera, ballets, choruses, orchestras - European and American.

Housing of Visitors

Hotel organizations, private residences, apartments and boarding houses are listing all available space and fixing rates for rooms.

The Company's Exhibit

(For technical information - see Appendix)

Situated in the Means of Production Zone, occupying 75,000 square feet, the building fronts on an avenue curving eastward from the Theme Center and located on the Plaza of Light.

The building is semi-circular in shape, about 115 feet wide and 300 feet long, with 16,700 square feet of ground floor exhibition space and with administration quarters on the second floor.

The world's largest diorama, "The City of Light" will be housed in this building. "Bill Jones", an average Consolidated Edison employee, is also a featured exhibit, and special displays show in three-dimensional form such factors involved in our electric, gas and steam operations as taxation, investment, cost comparisons, employment, revenue and purchases. Of special interest also is the "Penny Parade" series of decorations, in humorous vein, supplementing the other exhibits.

A most novel facade of our building will be provided by a wall of water gushing 42 feet into the air along its entire front, forming a background of a novel water ballet presented in the adjacent pool. By night, submerged floodlights will play on this ever-changing spectacle.

"The City of Light" will be our focal exhibit, about a city block long and taller than a 3-story building.

Depicts 4,000 buildings with 130,000 windows, with the most extensive wiring for a model ever known.

One-quarter mile of colored lighting will simulate underground electric, gas and steam networks, with translucent generating station models.

Twelve-minute performances with motion, light and sound effects synchronized with music and the recorded voice of a narrator, will portray dramatic features of a 24-hour period in New York, dramatizing the contribution of electricity, gas and steam. Miniature elevators will operate; subway trains will run; motor traffic will be seen; the effect of a mid-day thunderstorm

will show the sudden piling up of peak load. Many other interesting aspects of city life will be depicted.

Another outstanding exhibit is the world's largest water-color painting occupying nearly 1000 square feet of wall space. This mural gives an aeroplane view of the New York metropolitan area.

Other Exhibits

Gas Utilities Exhibit

"Court of Flame" is portrayed by four 90-foot pylons surrounding a giant glass cube resting on one of its corners ablaze with ever-changing colors, representing a continuously burning gas torch. Our Company is cooperating in this and other exhibits in this building.

Electrical Products Building

Manufacturing companies associated with the services which we render, with exhibits featuring electrical appliances.

General Electric Building

Distinguished by a huge stainless steel lightning bolt. In Steinmetz Hall, 10,000 000 volts of electricity will flash over a 30-foot arc to create "artificial lightning". Also featuring a complete television studio, and a metal carpet floating in space, in the House of Magic.

Westinghouse Building

Among the electrical wonders are a riderless bicycle that steers and balances itself; and an 8-foot robot with human attributes. The "Time Capsule" is buried in this building.

New York State Building and Marine Amphitheatre

Besides a permanent Amphitheatre, located on the north side of Fountain Lake, the State has erected directly in front of it a building which houses graphic and arresting displays of New York's vast resources and social progress. The Amphitheatre seats 10,000 people. The stage, 120 feet deep and 245 feet wide, is on an Island 60 feet out in the Lake, opposite the center of the Amphitheatre. A cascade of water across the stage acts as a curtain, concealing the performers at will.

Electrical Utilities Building

Sponsored by the Edison Electric Institute.

Life in the early 90's will be portrayed, when electricity and the industry were in their infancy, contrasted with the vast uses of electricity today. Nearby, a 35,000 square foot

farm with farm buildings completely electrified will be shown.

Town of Tomorrow

15 houses, designed for a population of 3,500, will be displayed, costing, with equipment, from \$3,000 to \$17,000, with from 4 to 10 rooms.

New architectural treatment and employment of all types of modern materials, methods and equipment, will be featured, together with suggestions for home furnishing and decoration.

Federal Building

Situated at the head of the Court of Peace, the building is fronted by 13 pillars symbolical of the thirteen original states. Translucent sculptures symbolize various Government functions. Priceless documents of the country's history and traditions will be on display.

Court of Communications Building

Second largest building. Two 165 feet pylons at the main entrance symbolize the positive and negative poles of electricity. Star pylon at rear suggests electricity permeating the world.

Hall of Nations

Portrays Court of Peace surrounded by Hall of Nations composed of 8 structures erected by the Federal Government which will house exhibits of more than 40 foreign governments. Others are erecting their own pavilions.

National Cash Register Building

A magnified cash register 40 feet high. In figures 6 feet high it will record daily and cumulatively the number of visitors who have passed through the gates.

Petroleum Building

Located opposite our exhibit, this building is mounted on four replicas of oil tanks, in each of which will be shown the various uses of an oil refinery. On the outside a full sized oil drilling derrick will be in action.

U S Steel Building

Contains 350 tons of steel trusswork painted a vivid blue and concealing lighting fixtures for illuminating the dome at night. Exhibits vividly portray an open pit mine, blast furnace, open hearth furnace and rolling mill.

Ford Building

This building, on one of the largest plots, contains the world's largest mobile mural and also a one-half mile "Road of Tomorrow" on which visitors will tour by automobile along circular ramps passing through the nave of the building. Ford's first car will be shown.

Great Britain Building

Containing many interesting exhibits, including a large pedigree showing the direct descent of George Washington from King John of England.

Italy Building

Among other things, will be shown the actual manufacture of Lanital, a fleecy wool made from skimmed milk.

Public Health and Medicine Building

Exhibits will be shown graphically illustrating the functions of the human anatomy and causes of disease.

A T & T Building

"Vodor" the mechanical voice will talk and answer questions of spectators. Another feature will be the selection, by lot, of 150 persons daily to make sample long-distance calls to any place in the United States.

Distilled Spirits Building

Showing various steps in the manufacture of liquors.

General Motors Building

The largest industrial exhibit, spread over 7 acres. Visitors will relax in armchairs mounted on an escalator moving along for about 2,000 feet, viewing a diorama entitled "Highways and Horizons of Tomorrow". The narration will be heard through earphones audible only within the chair.

Railroad Building

The largest steam locomotive in the world will be operated at full speed on a masonry foundation. Many locomotives from various European countries will be exhibited, including a complete train from England with locomotive and seven coaches. From the Amphitheatre 4,000 people will be able to view the history of American transportation for the past 100 years.

Aviation Building

A hugh transport plane is suspended from the ceiling, droning as if in actual flight. Controls of this plane may be manipulated by the visitor.

Maritime Building

Nautical display, including a very comprehensive collection of ship models.

Chrysler Building

Presenting a history of transportation from the primitive wheel to the ultimate conception, a rocket-ship fired from a gun and whizzing through space to, say, London in a few hours.

Foreign Zone

In addition to Britain and Italy, France, Netherlands, Russia and Belgium have large pavillions. All have outstanding displays, among the most exciting of which is the Belgian Congo section wherein more than \$10,000,000 worth of diamonds are exhibited and diamond cutters perform their work under the eyes of uniformed gendarmes.

Pan American Hall

Housing the displays of South and Central American countries, the exhibits emphasizing the close relations between the three Americas.

Court of States

This is one of the most impressive sights at the Fair, housing in fifteen beautiful buildings overlooking a mirror pool the exhibits of nearly every state in the Union.

Borden Building

In one of the most modern dairies ever conceived, pedigreed cows are bathed, dried with towels and milked, three times a day. The milk is then pasteurized, irradiated, bottled and capped all in full view of the audience.

Radio Corporation Building

The use of radio, past, present and in the future, in transportation, science, entertainment, art and education will be graphically illustrated. A demonstration of television will be featured.

Goodrich Building

An exhibition of daredevil automobile driving will be featured six times a day, making cars leap through the air, jump trucks, careen off ramps, skid and spin. Tires will be tested by a heavily weighted blade dropping 90 feet.

Gardens on Parade

Five acres of rock gardens, rose gardens, water gardens, perennial borders and other formal and informal plantings. Many rare and beautiful plants have been loaned for exhibition.

Temple of Religion

In this building, set within a 15 foot wall and surrounded by gardens, giving an atmosphere of isolation from the hustle and bustle of the Fair, services for Protestants, Catholics and Jews will be conducted. Besides offering a haven for repose and meditation, visitors may hear organ and other recitals.

Men's Apparel Building

The evolution for centuries of the clothes and sports of men will be shown. An exhibition of the world's smartest and latest apparel and accessories will be on view, for outdoor and indoor wear. Entertainment features include a golf room, sports forum and miniature motion picture theatre.

Metals Building

The vital part of metals and metal products in influencing civilization will be portrayed. Among the many interesting exhibits is an instrument for measuring the thickness of a human hair, an animated copper atom magnified several million times and a collection of locks starting from the time of Julius Caesar.

Continental Baking Building

The entire process of baking bread, beginning in the mixing room and ending in the glowing ovens, will be shown. The bread, hot from the ovens, will be available at the company's sandwich bar.

Standard Brands Building

Microphotos of various vitamins will be on display. By a system of push-buttons, visitors may select menus and determine whether their diet contains enough of each vitamin. On Thursday nights the Chase & Sanborn radio program will be broadcast.

DuPont Building

The exhibits dramatize the social effects of modern industrial chemistry. Many laboratory and plant processes never before shown to the public are on display. Elaborate puppet shows on five stages will reveal how these products serve in everyday life.

American Tobacco Building

Six dioramas illustrate various steps in the planting, growing, curing and marketing of tobacco. A "mechanical lung" will smoke cigarettes, drawing the vapor into test tubes in which it will be analyzed.

Carrier Corporation Building

In a "snow" encrusted igloo large enough to encompass a five-story building will be demonstrated air-conditioning as operated in homes, offices, stores and factories.

Home Furnishings Building

In a series of sets, beginning with communal life in 1789, there are shown progressively the striking changes in man's communal life in the past 150 years, including a scene wherein a modern house of today, completely furnished, is ordered from a department store.

Business Systems and Insurance Building

The history of business from the days of barter to the present, as well as various activities of life insurance companies, will be shown in this building.

Industrial Science Building

An interesting exhibit reveals the multiplex uses of sulphur in modern society and the stages of its development are shown, from the time the sulphur is pumped from the earth like water to the time when it is refined and distributed to the various parts of the world. Another exhibit shows the uses of plastics and their part in modern living.

Hall of Pharmacy

The feature exhibit is the largest medicine chest ever built, with shelves spacious enough to hold products the size of human beings, and with a mirror 15 feet wide and 20 feet high. This mirror can be made transparent, revealing a puppet show dramatizing drug products usually found in a medicine chest.

Glass Building

In this building, constructed almost entirely of glass and topped by a tower of glass block and blue plate glass, will be shown the most comprehensive exhibit of glass in history, consisting of spun glass fabrics with strands many times finer than a human hair; furniture made of glass, fire screens of glass; glass panes that will absorb infrared heat waves and glass that will admit nothing but diffused glareless sunlight; glass dishes for eating and cooking, and glass knives, forks and spoons. Molten glass will be blown by experts in view of the visitors.

Art

In the Contemporary Arts Building, 800 works of living American painters, sculptors and print-makers (selected from more than 15,000 submitted) will be exhibited.

In the "Masterpieces of Art" Museum, 500 paintings by old masters, valued at \$30,000,000, will be exhibited. Sculptures are also on exhibition.

Throughout the Fair grounds will be found at random over 100 sculptures for the decoration of the grounds, all done in plaster except three.

Many other paintings, murals and sculptures will be found in the buildings and pavilions of various exhibitors.

Amusements

The Amusement Zone covers 280 acres, located on Fountain Lake. At the present writing 57 amusements are available, among which may be mentioned:

Children's World

5-1/2 acres of diversions and sights that will appeal to children; playgrounds, motion pictures, games, children's bookshop, doll's house, miniature trains accommodating 32 passengers; carousels, etc. Also a restaurant with specially designed tables and chairs and a floor show appealing to children.

Fireworks

Displays nightly over the Lagoon of Nations. Music is synchronized with bursting fireworks and illuminated fountains of everchanging color.

Billy Rose's Aquacade

Starring Eleanor Holm, the former Olympic swimmer, with a water ballet of 100 girls and a dancing ballet of 200 girls. To be held in the Marine Amphitheatre, seating 10,000 people. General admission 40¢; reserved section \$1.

World's Fair Music Hall

Seating 2500 people, the Hall will be equipped with the latest stage mechanisms and appliances. The structure is completely fireproof. The orchestra pit accommodates 100 musicians. The stage is 60 feet wide. A distinguished program of music, the drama and dance will be presented.

Old New York

Under the supervision of George Jessel, the entertainment is styled in the manner of the Gay Nineties. All in the atmosphere of 1890, barber shop quartettes and singing waiters will entertain. Old time favorites like Lillian Russel will be portrayed and Steve Brodie's "death-defying" 100 foot leap from the Brooklyn Bridge will be reproduced.

Strange as It Seems

Based on the newspaper column of John Hix, 32 strange and interesting acts are featured, including Duckbill Ubangis, pygmies, giraffe-necked women, head-hunters, etc.

Cuban Village

In colorful fiestas and pageants, native life will be reproduced, featuring rhumba dancing and the exotic Yanego rites which date back to the era of the aborigines.

Infant Incubator

This building is the most modern ever built for the care of premature babies, who will be visible through large glass windows. In the exhibit room everything pertaining to baby care and hygiene is displayed.

Jungleland

A reproduction by Frank Buck of his camp in Malaya, consisting of a collection of bamboo sheds in which live 30 Malays in their original primitive way. The exhibition includes between 30,000 and 40,000 specimens of birds and animals, many of them rare and unusual.

Little Miracle Town

This miniature community, complete in every detail, and inhabited by 125 midgets with their own restaurant, city hall, theatre, art gallery and railroad station, was brought over from Europe by Morris Gest. A midget circus and other features are also included.

Merrie England

A reproduction of an old English village is shown, with its crooked streets, village green, quaint inns, grim castles and picturesque people. Among other entertainment, condensed versions of Shakespearian plays will be produced.

New York Zoological Society

The giant panda and the electric eel will be on exhibition, together with other extremely rare specimens of animals, birds, fish, and insects. The bathysphere in which Dr William Beebe made his half-mile descent into the ocean will be exhibited.

Sun Valley

Reproduction of a "winter wonderland" in an Alpine village, with ice skating, ski jumping and tobogganing. Wandering musicians, singers and yodelers perform in the village streets. There is a 15 piece orchestra, supplemented by a \$25,000 pipe organ.

Theatre of Time and Space

This make-believe trip in a rocket ship gives the illusion of hurling through space at fantastic speed to the very borders of space. Various heavenly bodies appear and vanish and on the return journey the earth is seen as it would appear from the moon. When about to land, a multicolored glow resolves itself into a large scale model of the Fair.

Victoria Falls

The Falls are reached through a jungle of strange plants and trees, with parakeets and other tropical birds flying overhead. Lighting and sound effects heighten the illusion of the approach to the cascade, which has a drop of 387 feet in reality. The replica is 186 feet in length, 22 feet high, and hurtles 60,000 gallons of water per minute into the ravine below.

Restaurants

There is such a variety of restaurants, large and small, from the most pretentious to the hot dog and hamburger stands, that no attempt will be made to give their locations as they are easy for the Fair visitors to find. In addition, many of the buildings and pavilions have their own restaurants. It is estimated that the foods consumed would feed the world's largest standing army. The frankfurters would stretch across the Atlantic Ocean and the dough used for doughnuts would reach San Francisco.

APPENDIX

Special Information As To Electrical Supply, Load Data, Etc.

Contract has been made by the New York & Queens Electric Light & Power Company to supply electricity to the World's Fair, which both in terms of maximum demand and quantity of consumption, will be the largest ever required by any Fair in history. The estimate of the Fair's energy requirements is equal to that of a city of 300,000 population. After more than a year's planning by our engineers, a method of supplying this demand was arrived at. Safety and reliability are the primary considerations in this design of the special system required to serve the 65,000 kva of demand at 90 percent power factor. This means a total estimated demand of more than 55,000 kilowatts. Delivery will be made from the giant Hudson Avenue Generating Station in Brooklyn by means of two groups of feeders of four each (eight feeders in all) to separate substations at the Fair grounds. Each of these substations, built by the Fair Corporation at its own expense, is equipped with 3 - 10,000 kva transformers and 1 - 15,000 kva transformer. There will be 4 - 27,000 volt, 60 cycle feeders installed by the Consolidated Edison Company to each substation at the Fair. They will follow entirely different routes, thus again insuring by segregation against service interruption. The energy delivered to the substations will be stepped down to 2400 - 4,156 volt dual primary radial distribution system for transmission through the mains of the Fair, and in turn, stepped down to 120/208 volts secondary supply, at which various exhibitors and concessionaires will use this electricity.

The Fair will distribute the electricity on its own account, submetering, billing and collecting from the hundred of Governmental and private exhibitors and numerous concessionaires.

We estimate that a grand total of 115,000,000 kilowatt hours will be consumed during the period preliminary to its opening and the six months of the first year's operation. This amount will be approximately doubled if the Fair continues operating a second year.

Special Information As To Gas Supply, Load Data, Etc

Gas will be made at the Astoria Works and compressed at the Flushing Works, for distribution at 60 pounds pressure. An independent twelve inch main for this large supply had to be laid from the Flushing Works to the Fair grounds, there being insufficient existing main facilities large enough to carry the load. It is estimated that the total consumption in the first year of the Fair will amount to approximately one-and-a-quarter billion cubic feet. The Flushing River, running north and south through the Fair grounds, is the boundary line between the second and third wards of Queens,

Special Information As To Gas Supply, Load
Data, Etc. (Cont.)

and divides the territory served by us and the Brooklyn Company. Therefore, the Brooklyn Union and the Consolidated Edison Companies are jointly furnishing the enormous supply of gas required in the colossal spectacle of color, flame, light and sound which will be staged at the center of the Lagoon of Nations. The gas load at this point alone calls for 800,000 cubic feet an hour, to be divided equally between Brooklyn Union and Consolidated Edison Company.

The gas supply differs from the electric supply in that the gas companies have had to construct their own distribution system within the grounds to serve the Fair buildings and all the exhibitors and concessionaires direct, as these will all be separate customers of the Gas Companies; while, as stated before, the electric supply will be at wholesale to the Fair Corporation, which has built its own electric distribution system for submetering.