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For Immediate Release.

One hundred miles of electric wiring, more than 225 electric motors, a lighting display which includes a battery of more than 9,000 concealed floodlights shifting in kaleidoscopic patterns, an amplifying system containing more than 750 loudspeakers---this is only a part of the electrical installation for the Ford Exposition Building at the 1934 World's Fair in Chicago, a project described by engineers as one of the greatest ever attempted in a single building.

The huge Ford project, extending over eleven acres of the Fair grounds along the Lake Michigan shoreline, will require a load of 6,000 kilowatts, or more than a third of the total electric capacity of the entire World's Fair in 1933. Engineering estimates are that 4,000 kilowatts will be required for lighting, and 2,000 kilowatts in power load. The power load will include 75 motors for building operation and more than 150 in the various exhibits of the industrial section of the mammoth Ford Exposition Building.

Lighting plays one of the major parts in the scheme of the Ford Building, which will demonstrate the scope of the Ford world empire. The building itself will be 900 feet long by 213 feet wide, terminating at the south end in a circular court, 204 feet in diameter. Within this court will be a 204-foot inner court, 89 feet in diameter. In the center of this court will be a 20-foot globe, depicting the Ford world, illuminated in striking fashion by concealed lighting.

On the exterior of the outer court will be four panels of lighting, totaling 22,000 feet of lighting units, each lineal foot containing one 200-watt blue lamp, one 150-watt green lamp, and one 100-watt red lamp with dimmer equipment. This use of increasing wattage to compensate for the loss of light intensity due to color, engineers say, is something never before attempted, and will result in tints and shades never previously produced with electric lights.

Pure white light will be produced when blue, green and red lights are all turned on at full intensity.

Within the court will be 428 lineal feet of lighting, with the lamps similarly arranged to provide remarkable tints and shades. The dimming equipment for the entire mobile lighting installation weighs twelve and one-half tons and requires 20 miles of wiring.

The most sensational lighting effect of the entire Fair promises to be a torch of light, 200 feet broad at its base, which will spring from the parapet of the open court, developed through the concentration of 24 thirty-six-inch projector searchlights, with a 30,000,000 candle power. Under proper atmospheric conditions, the torch of light will rise to a height of one mile.

The Ford Building, designed by Albert Kahn, is one of the first of modern buildings to adopt modern methods of lighting. Mr. Kahn designed the huge structure around the lighting effects. This method differs considerably from construction work for the 1933 World's Fair, when lighting had to be applied as well as possible after the buildings were constructed.

One of the interesting features of the exhibition section, which will be divided among various divisions of the Ford Motor Company and 21 exhibitors who are large suppliers for Ford, will be the use for the first time of high-pressure mercury tubes which emanate a light predominating the blues and greens, and with a total absence of the reds and yellows. Intermingled with the high-pressure mercury lamps will be the familiar Mazda lamp, which predominates in reds and yellows. A combination of both these units will give an absolute daylight.

The exhibits will show in actual operation practically all of the steps required in Ford manufacturing, from the raw materials to the finished parts for cars. Among these exhibits will be a 250 kva. foundry, requiring a special transformer, a welding exhibition using two 350 kva. welders and 300 kva. in small welders, a steel rolling mill with a 100 hp. motor, and a miniature tire factory using two 100 hp. motors.

Construction of the building in such a brief space of time allotted provides new problems for the electrical engineer in speed. Two main transformer banks will supply power and lighting current to the building. Bank Number One will contain three 833 kva. transformers and Bank Number Two six 500 kva. units. There also will be a 250 kva. transformer for the foundry and another special transformer of 100 kva. rating.

On the first switchboard will be 31 circuit breakers, ranging from 600 amperes down, on the second switchboard 39 breakers from 30 to 400 amperes, and on the third switchboard 15 breakers, mostly 500 amperes.

An amplifying system, designed to carry word pictures of the numerous exhibits, as well as musical entertainment from various sections of the building and from the shell to be placed in the large landscaped court, will require 250 master loudspeakers, with probably 500 or more auxiliary speakers. A new experiment in amplification will be adopted, as one of the unique features of the electrical work for the building. None of the master speakers will be over three watts in capacity. The aim will be to eliminate completely objectionable blare, so that no listener at one amplifier will be conscious of another amplification nearby, and so that no one will be conscious that the music he hears is being amplified by loudspeakers.

Contrasts between the old and the new will feature the exhibits in the huge building. Faced by one of the greatest displays of modern lighting ever attempted in a single building, the visitor to the Ford Exposition Building will see, on his tour through the vast structure, some of the earliest experimental models from which were developed the electrical devices of today. Objects of historical interest from the Ford museum at Dearborn will be placed on display, and it is stated that among these will be a number of the original electrical appliances and experimental devices used by Thomas Edison---long-time friend of Henry Ford---and of other pioneers in the industry will be included.

Ordinarily an eight-months job, the electrical work on the huge project is being rushed to completion by May 26, the opening date of the 1934 World's Fair. Engineers working on the project stated that about 600 men would be given employment over the course of the installation. Electrical engineers from many parts of the country have visited the project during the installation work, to gain first-hand information on the developments being undertaken.