

Superseding Map No. 33 of December 31, 1937. Please destroy old issue.

THE FIRE INSURANCE RATING
ORGANIZATION OF N. J.
ENGINEERING DEPARTMENT
NEWARK 2, N. J.

Lakewood Township
Ocean County, New Jersey

NOVEMBER 29, 1947

- KEY**
PROTECTED FIRE ZONE: Shown in Green.
NOTE.—For description of fire protection, etc., see other side.
Elevations range from 20 to 140 feet above mean sea level.
Water mains 8 inches and larger in diameter
Water mains 6 inches in diameter
Water mains 4 inches in diameter
Fire hydrants shown thus
Gate valves shown thus
Fire house shown thus
Fire apparatus designated by symbols thus:
① Pumping engine and hose car
② Ladder truck
③ Booster tank or tanks on above

SCALE
0 1000 2000 3000 4000 5000 FEET
1/2 1 MILE

LAKEWOOD TOWNSHIP, OCEAN COUNTY, NEW JERSEY.

Population — 1940 Census — 8,502. Estimated Seasonal 15,000.

IN GENERAL: Located on the Central Railroad of New Jersey in the northern part of Ocean County. Mainly a winter resort with many large hotels and boarding houses. Area about 22.5 square miles. Elevations range from 20 to 140 feet. Main roads paved, others gravel in fair to good condition. Transportation to neighboring communities is afforded by railroads and bus lines. Railroad crossings at grade are said never to have interfered with the response of fire apparatus.

WATER SUPPLY: Water for domestic and fire protection purposes is furnished by the Lakewood Water Company, a subsidiary of the Water Utilities Service Corporation, which owns the supply works and distribution system which were installed in 1896. There is a superintendent with a foreman, assistant foreman, and 8 laborers, who handle the maintenance and extensions for the water company. The pumping station is operated by employees of the Jersey Central Power & Light Company which is located in the same building, and consist of 1 chief engineer, 3 watch engineers, 1 pipe fitter and helper, and 1 mechanic and helper, who operate the combined pumping station and electric sub-station. Staff is competent. Superintendent has been with company a number of years. A foreman and two laborers respond to alarms of fire. Three trucks are provided. Records are fair. **Supply Works:** Water is obtained from three shallow wells and from infiltration galleries with an aggregate yield of 1.0 m.g.d. located south of Manetta Lake, and from three wells 615 feet deep with 12-inch casing with an aggregate yield of 0.747 m.g.d. located near pumping station. Water is pumped from shallow wells by low lift pumps into a 500,000-gallon covered concrete reservoir, from one deep well by a deep well pump which discharges either directly into the system or into suction well, and from one deep well which discharges into reservoir by air lift and is seldom used. Water flows by gravity from covered reservoir to an 11,000-gallon suction well whence it is pumped by domestic or fire pumps into system with 2 standpipes acting as equalizers. **Pumping Station:** Located as shown on map. Elevation of pump room floor 43.5 feet. Building is a 2-story joisted brick structure with concrete pump room floor, slate roof, electric lights, and telephone. Pump room is separated by a 16-inch parapeted brick wall with opening protected by single automatic fire doors from balance of building which is used as a sub-station by the Jersey Central Power & Light Company. Shallow well pumps are located as shown on map in a small 1-story brick and concrete structure with a slag roof, concrete floor, and electric lights. Deep well pump located in front of pumping station is in a small 1-story brick structure with composition roof, concrete floor and electric lights. **Equipment—**
Fire Pumps: A 2.88-m.g.d. Midwest pump driven by a 200-h.p. G. E. electric motor. A 2.52-m.g.d. Manistee Iron Works pump driven by a 167-h.p. Scripps Motor Company gasoline motor. **Domestic Pumps:** A 1.58-m.g.d. Allis-Chalmers pump driven by a 50-h.p. Allis-Chalmers electric motor. A 0.86-m.g.d. Allis-Chalmers pump driven by a 30-h.p. Allis-

Chalmers electric motor. **Deep Well Pump:** A 0.65-m.g.d. Midwest pump driven by a 50-h.p. G. E. electric motor. **Shallow Well Pumps:** A 0.864-m.g.d. A. D. Cook turbine pump driven by a 10-h.p. U. S. electric motor. A 1.15-m.g.d. A. D. Cook turbine pump driven by a 10-h.p. U. S. electric motor. A 241-c.f.s. Ingersoll-Rand compressor driven by a 60-h.p. G. E. electric motor. **Distribution System:** In one service; see map. **Standpipes:** Located as shown on map. One iron standpipe 20 ft. by 60 ft., 142,000 gallons capacity. Elevation of base 102 feet. Elevation of overflow, 162 feet. One welded steel standpipe 41.5 feet by 105 feet, 1,000,000 gallons capacity. Elevation of base 100 feet. Elevation of overflow 200 feet. **Consumption:** The average and maximum daily consumption during a 12-month period prior to October, 1947 was 0.7 and 0.9 m.g. There were 1,745 metered services on October 1, 1947. **Pipe:** Cast iron, tar coated, bell and spigot joint, laid with a 4-foot cover. No trouble from frozen mains or electrolysis. Total length, 154,518 feet; 2.6% 12-inch, 10% 8-inch, 74.7% 6-inch, and 12.7% 4-inch. **Gate Valves:** 233 of Wood, Ludlow, and Iowa makes set with iron boxes at grade. About 90% open to right. Regular valve inspections. Fire department notified when valves affecting hydrant supply are operated. **Hydrants:** 155 of Ludlow, Mathews, and Eddy makes. About 50% have 4½-inch barrels, 4-inch ungated branches and two 2½-inch outlets; remainder have two 2½-inch and one 4-inch outlet, 4-inch gated branches and 4½-inch barrels. All hydrant outlets are National Standard. They are inspected twice a year. Those operated during inspection were found to be in good condition. **Pressures:** Reading taken at one hydrant when fire pumps were not in operation showed a pressure of 59 pounds. Readings taken at 13 hydrants widely distributed, with fire pumps in operation, showed pressures ranging from 78 to 50 pounds with an average of 62.5 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured on October 29, 1947 by means of Pitot tube. Location of hydrant, discharge in gallons per minute, pressure before flow and pressure during flow were as follows:

Fire Pumps Not Operating—
2nd St. at Clifton Ave., 900—59—44.

Fire Pumps Operating—
2nd St. at Clifton Ave., 940—76—50½.
Madison Ave. at 10th St., 920—58—35.
8th St. at Lakewood Ave., 720—56—17.
Arbutus Dr. at Autumn Rd., 250—58—*.
County Line Rd. at Apple St., 210—67—2.
Ocean Ave. E. of Cherry St., 190—78—*.
Ocean Ave. at Oakland St., 180—78—1.
Ocean Ave. and Linden Ave., 390—78—9.
River Ave. S. of Chestnut St., 170—59—1.
River Ave. and Cross St., 190—51—3.
River Ave. S. of Elmhurst Blvd., 170—54—4.
River Ave. at Finchley Blvd., 190—52—0.
River Ave. opp. Bradhurst Ave., 240—55—0.

*No reading taken.

The above tests were conducted with standpipe floating on system. Quantities available for supply to pumping engines would be increased from approximately 20% to 40% in the mercantile district

LAKEWOOD TOWNSHIP, OCEAN COUNTY, NEW JERSEY.

Continued.

and at the weakest location respectively with stand-pipe shut off and pumps operating directly on the system.

FIRE DEPARTMENT: A volunteer organization of 5 companies with one paid driver under control of the Board of Fire Commissioners who appropriated \$23,800 for the support of the department in 1947. There are 90 men including a chief, 2 assistant chiefs, 5 captains, and 10 lieutenants who are elected annually by department and confirmed by fire commissioners. About 44 men are available at all times. Township owns houses, apparatus, and equipment. **Companies—Ladder Company No. 1:** Membership 18, and **Hose Company No. 1:** Membership 18. Located on First Street near Lexington Avenue. Building is a 2-story joisted brick structure with a tin roof, concrete apparatus floor, hot water heat, electric lights, and telephone. Driver resides on second floor. **Equipment:** A 1931 Ahrens-Fox 75-foot aerial with a 1945 Mack Tractor carrying a ladder pipe, 10 ladders ranging from 15 to 50 feet, totaling 320 feet, 1 ladder pipe, 1 cellar pipe, one 1,500-watt generator, three 500-watt lights, and good minor equipment. A 1941 Mack 600-g.p.m. triple combination pumping engine carrying a 350-gallon booster tank, 400 feet of booster hose, 1,400 feet of 2½-inch hose, 2 short ladders, 2 gas masks, and fair minor equipment. **Rescue Hose Company No. 2:** Membership 18. Located on Clover Street near School Street. Building is a 2-story brick and frame structure with composition roof, concrete floor, hot water heat, electric lights, and telephone. **Equipment:** A 1947 Mack 750-g.p.m. triple combination pumping engine carrying a 300-gallon booster tank, 200 feet of booster hose, 1,000 feet of 2½-inch hose, 2 short ladders, 1 distributor, and fair minor equipment. **Junior Hose Company No. 3:** Membership 18. Located on Fourth Street between Clifton and Lexington Avenues. Building is a 2½-story frame structure with a shingle roof, concrete apparatus floor, steam heat, and electric lights. **Equipment:** A 1938 Mack 600-g.p.m. triple combination pumping engine carrying a 100-gallon booster tank, 150 feet of booster hose, 350 feet of 1½-inch hose, 1,000 feet of 2½-inch hose, 2 short ladders, 1 gas mask, and fair minor equipment. **Reliance Hose Company No. 4:** Membership 18. Located on River Avenue near James Street. Building is a 2-story joisted brick structure with a composition roof, concrete floor, hot water heat, and electric lights. **Equipment:** A 1941 Mack 600-g.p.m. triple combination pumping engine carrying a 200-gallon booster tank, 150 feet of booster hose, 1,000 feet of 2½-inch hose, 2 short ladders, 1 gas mask, and fair minor equipment. **Hose:** All 2½-inch hose is C.R.L. with National Standard screw couplings. There is 700 feet in reserve. It is tested at 150 pounds annually and shifted at fires and drills. There are no hose drying facilities. **Operations:** Department governed by company by-laws and municipal regulations. Chief has control of apparatus at all times and of men at fires and drills. Chief may suspend members pending a hearing before Board of Fire Commissioners. Eight men in each company drive. Motors are started daily. **Drills and Training:** Drills held 6

times a year under the supervision of captains consist of hose laying, pump operation, ladder raising, and use of equipment; 2 department drills a year are held under direction of chief officers. **Fire Methods:** Chemical and booster lines are used on incipient fires reinforced by hydrant streams with shut-off nozzles. Pump hooked up only in outlying sections. Pressure is raised to 95 pounds on receipt of alarms of fire. No salvage covers are carried. **Response to Alarms:** The whole department responds to all box alarms. One company responds to all telephone alarms and if more companies are required, nearest fire alarm box is pulled. Outside aid may be secured from Freehold and Farmingdale. **Building Inspection:** Chief makes an inspection of all the hotels. **Records and Reports:** Records are kept of all fires and a monthly report is submitted to fire commissioners. **Fire Alarms:** Part of fire department. Maintained by Jersey Central Power & Light Company. Headquarters is located in a room housing substation equipment. Apparatus consists of a 4-circuit Gamewell operating board with the usual devices for testing and operating. Current is supplied by four batteries of eight cells on wood racks floating on a rectifier. Circuits are protected by 2-ampere fuses on operating board. System consists of one circuit in four loops about 15 miles long of No. 10 hard drawn copper wire, triple braided weatherproof, carried below other wires on utility company poles. There is a visual indicator and gong at each fire house, a gong at chief's home, and a gong, breakwheel transmitter, and whistle at pumping station. There are 36 Gamewell boxes, of which 9 are non-interfering and the remainder interfering, mounted on utility company poles with red indicating bands. All boxes are grounded. Whistle is tested daily and boxes annually. Alarms may be telephoned to either the ladder company or to the pumping station. At time of inspection a new fire alarm headquarters was under construction and headquarters equipment was being replaced.

POLICE DEPARTMENT: There are a chief, 1 captain, 3 sergeants and 9 patrolmen working in eight-hour shifts; also 8 to 10 specials. Two cars with two-way radio are provided. Patrolmen respond to all alarms of fire and investigate unauthorized building construction. An ambulance is located next to ladder company house and operated by a first aid squad.

BUILDING LAWS: Code adopted March 16, 1923 provides for a building inspector and establishes fire limits. It closely follows the Code of Suggested Ordinances for Small Municipalities as recommended by the National Board of Fire Underwriters, but has only fair provisions in regard to height and area.

FIRE PREVENTION LAWS: Ordinance adopted September 21, 1928 requires a permit before fuel oil tanks may be installed. State laws adequately cover the storage and shipment of explosives, the transportation of flammables, and the construction of motion picture booths. They also restrict the discharge of fireworks to responsible bonded parties.