

**KEY**

**PROTECTED FIRE ZONE:** Shown in Green.

NOTE.—For description of fire protection, etc., see other side.

Elevations range from 30 to 91 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:

(Y) Automobile combination pumper and hose car

(L) Ladder truck

(A) Ambulance, Squad or Auxiliary car

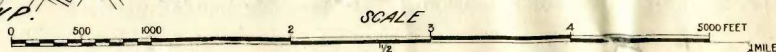
(B) Booster tank or tanks on above



Office of New Jersey  
ENGINEERING DEPARTMENT  
NEWARK, N. J.

**Roselle Borough**  
**Union County, New Jersey**

MARCH 1, 1944





## ROSELLE BOROUGH, UNION COUNTY, NEW JERSEY.

Population—Census of 1940 was 13,597.

**IN GENERAL:** Located on the main line of the C. R. R. of N. J. adjoining the southwesterly limits of the City of Elizabeth. It is a residential community with 13 industries employing about 1,225. Area about 2.7 square miles. Elevations range from 30 to 91 feet. Streets are mainly improved and in good condition. Railroad crossings at grade are of minor consideration and other features are such that there should be no unusual delays in the response and operation of the fire department.

**WATER SUPPLY:** Supply for domestic and fire protection purposes is furnished by the Plainfield-Union Water Company and is delivered primarily through parallel 12- and 16-inch mains receiving their supply from the Netherwood Pumping Station in Plainfield and from the Jerusalem Road reservoir in Scotch Plains, with some additional supply being afforded by well stations and a standpipe in Kenilworth to the northwest. For a detailed description of the organization, supply works, pumping station, distribution system, and appurtenances, see report and map No. 124 on the Plainfield-Union Water Company. **Distribution System:** Distribution system in Roselle consists primarily of fairly complete 6-inch gridiron connecting with the supply mains, and a 12-inch artery near the center of the borough. See map and description above. **Consumption:** The average and maximum daily consumption during 1943 in the entire territory served (36,602 services) was 9.37 and 12.37 million gallons. On December 31, 1943 there were about 3,850 live services in Roselle. **Pipe:** Cast iron, tar coated, bell and spigot joint laid with about a 3-foot cover. No trouble from frozen mains or electrolysis. Total length, 166,448 feet; 4.8% 12-inch, 1.2% 10-inch, 92.1% 6-inch, and 1.9% 4-inch. **Gate Valves:** There are 283 gate valves of various makes on the system in Roselle, set with valve boxes at grade. Inspection and operation is limited to that necessitated by system maintenance. Fire department is notified when valves affecting hydrant supply are operated. **Hydrants:** There are 217 hydrants on the system in Roselle of various makes of standard type, about 55% of which have 4-inch branches and two 2½-inch outlets, while the balance have 6-inch branches and two 2½- and one 4½-inch outlets. The 2½-inch outlets have 8 threads per inch and 3 inches outside diameter. The large outlets are National Standard. Hydrants are inspected annually and after use. Those operated during recent inspection were found to be in good condition. **Pressures:** A recording pressure gauge in Cranford fire headquarters at about elevation 75 shows pressures to be well maintained at about 80 pounds. Readings taken at 5 widely distributed hydrants showed pressures ranging from 78 to 85 pounds with an average of 81 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured by means of Pitot tube. Location of hydrant, discharge in gallons per minute, pressure before flow and pressure during flow were as follows:

April 11, 1933:

Chestnut St. between 7th and 8th Aves., 1,088—81—59.  
Third Ave. E. of Chandler Ave., 920—81—46.

July 11, 1934:

1st Ave. and Chestnut St., 2,630—78—45.5.  
1st Ave. and Aldene Rd., 2,330—80—45.5.  
2nd Ave. and Linden Rd., 940—85—34.

**FIRE DEPARTMENT:** A part paid and volunteer organization consisting of a paid chief and 6 paid firemen and 20 active volunteer members including an assistant chief and 2 captains. Appointments to the paid force are made by the borough council from the volunteer ranks. The Civil Service Law has not been locally enacted. Paid men are protected by Tenure of Office Act and are entitled to pensions on retirement. The chief was appointed to his present office in 1936, having previously served as a volunteer. Paid force works in 2 platoons with 3 men normally on duty. Off-shift members respond to alarms of fire when notified. No relief during vacations or illness. One additional paid man is on leave of absence. A minimum of 5 volunteer members are available at all times. The borough owns quarters, apparatus, and equipment, and makes an annual appropriation for the maintenance of the department. **Companies—Roselle Fire Company:** Located on Chestnut Street at 8th Avenue as shown on map. Building is a 3-story joisted brick structure with slag roof, concrete floor, steam heat, electric lights, 2 telephones, and hose tower. **Equipment—Engine No. 2:** One 1928 Ahrens-Fox 900-g.p.m. triple combination pumping engine carrying one 100-gallon booster tank, 150 feet of booster hose, 950 feet of 2½-inch hose, one 24-foot and one 35-foot extension

ladder, and good minor equipment. **Engine No. 3:** One 1942 Peter-Pirsch 750-g.p.m. triple combination pumping engine carrying two 75-gallon booster tanks, 1,250 feet of 2½-inch hose, 300 feet of 1½-inch hose, 200 feet of booster hose, 2 short ladders, and good minor equipment. One 1942 Peter-Pirsch 65-foot power-raised junior type aerial ladder truck carrying ground ladders ranging from 16 to 45 feet, totaling 176 feet, 2 small wall ladders, a ladder pipe, life net, and good minor equipment. One 1935 Ford auxiliary car carrying one 45-gallon booster tank with CO<sub>2</sub> expellant cylinder, one 650-watt portable generator and 2 flood lights, 150 feet of booster hose, 200 feet of 2½-inch hose, and some minor equipment. In addition three fully equipped O.C.D. units are provided as follows: One standard trailer unit, one standard skid unit mounted on a Graham Brothers chassis, and one front end unit mounted on a 1936 Ford chassis. **Hose:** All 2½-inch hose is C.R.L. with National Standard screw couplings. There is a total supply of 5,000 feet, 2,600 feet of which is kept in reserve in tower, or is distributed on units carrying additional O.C.D. equipment. Of the total supply, about 2,000 feet is more than 5 years old and about 1,000 feet is more than 7 years old. Hose is tested annually at 200 pounds with pumping engine. Hose is shifted when wet, and dried in tower at fire station. **Operations:** Department is governed by borough ordinance. Chief has full control of apparatus and paid men at all times and of volunteers at fires and drills. Paid men drive and operate equipment. Off-shift men may leave town when off duty. **Drills and Training:** Drills including use of equipment, hose and ladder work, and general instructions are held monthly under the direction of the chief officer. **Fire Methods:** Booster streams are used on incipient fires supported by engine streams with shut-off nozzles. Gas masks are provided and heavy stream appliances include a ladder pipe and a distributor nozzle. Some special equipment is provided and portable flood lighting equipment is installed. Four salvage covers are provided and salvage work is attempted. Fire fighting operations are hampered by a shortage of manpower. **Response to Alarms:** The entire department responds to alarms except still alarms of known nature and extent, to which one piece is assigned. Substantial outside aid is available from the paid departments at Elizabeth and Linden, the part paid and volunteer department at Cranford, and the adjoining volunteer department at Roselle Park. **Building Inspection:** Principal occupancies in the mercantile district are inspected at least three times each year by the chief officer, and outlying buildings and places of assembly are inspected at least annually. Inspections are not sufficiently comprehensive and records of same are incomplete. **Records and Reports:** Records consist primarily of a fire department journal and fire reports. Detailed records of hose, equipment, and department operations are lacking. Annual reports are made to the council by chief officer. **Fire Alarm System:** No telegraph system installed. The N. J. Telephone Company maintains 28 telephones in red painted boxes on utility company poles, which are used for police and fire alarm purposes. These connect to a 30-circuit switchboard at police headquarters. Alarms received by police are transmitted over an extension to fire house where there is a breakwheel transmitter operating a 6-unit coded horn on roof of fire station. Electric current for the alarm circuit is supplied by a rectifier with 8 battery cells, mounted on wood racks, floating. Inside wire is in steel conduits. In addition fire chief's car is police radio equipped.

**POLICE DEPARTMENT:** Consists of a chief, 1 lieutenant, 2 sergeants, and 8 patrolmen working in 8-hour shifts. Desk watch is maintained at all times. Two radio equipped cars are provided.

**BUILDING LAWS:** Adopted November 4, 1927 and modeled after the Code of Suggested Ordinances for Small Municipalities establishes fire limits and prohibits combustible roofs within the fire limits, and embodies most of the essential regulations with the exception of the limitations of height and area.

**EXPLOSIVES AND FLAMMABLES:** Local regulations include a complete fire prevention ordinance adopted May 24, 1934, modeled on the Code of Suggested Ordinances for Small Municipalities of the National Board of Fire Underwriters. An amendment embodies standard regulations for the installation of oil burning equipment. State laws adequately cover the storage and shipment of explosives and flammables and the construction of motion picture booths. They also restrict the discharge of fireworks to responsible bonded parties.