



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

South River Borough **Middlesex County, New Jersey**

APRIL 15, 1943

KEY

- PROTECTED FIRE ZONE: Shown in Green.
NOTE.—For description of fire protection, etc., see other side.
Elevations range from 0 to 155 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) Pumping engine and hose car
 - (B) Booster tank or tanks on above
 - (C) Chemical tank or tanks on above
 - (L) Ladders on above

SOUTH RIVER BOROUGH, MIDDLESEX COUNTY, NEW JERSEY.

Population — Census of 1940 was 10,743.

IN GENERAL: Located on the South River and on the Raritan River Railroad approximately midway between New Brunswick and South Amboy. It is a manufacturing community having forty-five industries employing about 3,000 people. Area about three square miles. Elevations range from 0 to 155 feet. Streets are of hard surface and gravel in good condition. 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 borough owned supply works and distribution system serving borough only. **Organization:** Supervision is by superintendent who is appointed annually by borough council and has charge of all borough owned utilities. Records are good, but not up to date. **Supply Works:** System originated in 1911. A tile water collecting system drains into two receiving basins located at pumping station. Large basin has 41,000 gallons capacity and the small basin has 5,000 gallons capacity. Two deep well pumps discharge into the large receiving basin from which it is pumped by three high lift pumps discharging into distribution system with standpipe acting as equalizer. **Pumping Station:** Located about 1½ miles southeast of the borough. The station also houses borough owned electric generating plant with three G. E.—A. C. generators driven by individual Diesel engines. Building is a one-story brick structure with slate roof, concrete floor, steam heat, electric lights, and telephone. Pumps are located in a 12-foot pit. Elevation of pump room floor is 23 feet. **Equipment:** There are two deep well pumps, a 1.0-m.g.d. Byron Jackson centrifugal pump driven by a 30-h.p. G. E. electric motor and a .36-m.g.d. Sterling centrifugal pump driven by a 15-h.p. G. E. electric motor. Low lift pumps are located in front of pumping station, each housed in a small cement block structure with composition roof and cement floor. Three high lift centrifugal pumps in station as follows: A 1.44-m.g.d. De Laval driven by a 125-h.p. G. E. electric motor, a .79-m.g.d. Worthington driven by a 75-h.p. Fort Wayne electric motor, and a .936-m.g.d. Twin Volute driven by a 75-h.p. Fort Wayne electric motor. The high lift pumps have a common header with individual check and gate valves. **Distribution System:** In one service with 10-inch main from pumping station serving principal mercantile district and extending to the standpipe. Arterial system is poor. **Standpipe:** Located on Main and Exton Streets, 20 feet in diameter and 100 feet high with a capacity of 235,000 gallons. Elevation at base of standpipe is 130 feet. **Consumption:** There are 2,282 services all of which are metered. Average daily consumption is 0.39 m.g.d. with a maximum of 0.42 m.g.d. **Pipe:** All pipe is cast iron, tar coated, bell and spigot joint laid with a 4-foot cover. Total length of pipe is 122,000 feet; 47% 4-inch, 34.5% 6-inch, 7% 8-inch and 11.5% 10-inch. No trouble reported from frozen mains or electrolysis. **Gate Valves:** There are 116 gate valves mainly of Wood make set with iron boxes at grade. All valves open in same direction. Records showing valve locations are not complete. No regular inspections made. **Hydrants:** There are 226 hydrants of Wood make of standard type with 4-, 6- and 8-inch branches. Sixteen hydrants have two 2½- and one 4½-inch outlets and gated branches; 84 have three 2½-inch outlets and gated branches. One hundred and sixteen hydrants have three 2½-inch outlets and no gates on branches. Hydrants are inspected and flushed annually. All hydrant outlet threads are National Standard. **Pressures:** Direct reading gauge at pumping station showed 70 pounds. Readings taken in April, 1937 at eight distributed locations showed an average of 76 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured in April, 1937 by means of Pitot tube. Location of hydrant, discharge in gallons per minute, pressure before flow, and pressure during flow were as follows:

April 1, 1937:

Main St. and Stephen St., 640—85—67.
Willet Ave. and Division St., 610—81—35.
Turnpike and Knapp Ave., 140—25—4.
Colfax St. and Virginia, 390—75—8.
Prospect St. and Hollander St., 620—60—17.

April 3, 1937:

Thomas St. and Main St., 940—85—64.
Next to last hydrant on William St., 250—97—9.
Main St. and Stephen St., 620—89—73.

FIRE DEPARTMENT: A volunteer organization consisting of two companies under the supervision of the borough council. The borough owns fire house, apparatus, and all equipment and appropriated \$4,700 for the support of the fire department and firemen's compensation during 1942. Total active membership is 70 men, of whom 44 are available at all times. Fire chief is elected annually subject to confirmation by the borough council. **Company:** Fire house, located on George Street between Thomas and Stephen Streets, houses both companies. Building is a 2-story ordinary joisted brick structure with composition roof, concrete apparatus floor, steam heat, electric lights, telephone, and wall hooks for drying hose. **Equipment:** One 1916 American La France 750-g.p.m. triple combination pumping engine carrying a 40-gallon chemical tank, 200 feet of 1-inch chemical hose, 500 feet of 2½-inch hose, 2 short ladders, and meager minor equipment. A 1927 Mack 500-g.p.m. quadruple combination pumping engine and city service ladder truck carrying a 40-gallon chemical tank, 200 feet of 1-inch chemical hose, 500 feet of 2½-inch hose, 300 feet of 1½-inch hose, 8 ladders ranging from 14 to 45 feet and totaling 194 feet, and fair minor equipment. A 1940 Ward La France 750-g.p.m. triple combination pumping engine carrying a 200-gallon booster tank, 300 feet of 1-inch booster hose, 300 feet of 1½-inch hose, 750 feet of 2½-inch hose, 2 short ladders, and fair minor equipment. **Hose:** All 2½-inch hose is C.R.L. with National Standard screw couplings. Total supply of 2½-inch hose is 2,150 feet of which 400 feet is new. There is 800 feet of 1½-inch hose. All hose is in good condition, average age being four years. Hose dried in fire house on wall hooks. No shifting of hose. It is tested at 200 pounds during drills. Hose held in reserve at fire house includes 400 feet of 2½-inch, 200 feet of 1½-inch and 100 feet of 1-inch new booster hose. **Operations:** Department governed by company by-laws. Chief has control of apparatus at all times and of men at fires and drills. He may suspend members pending a hearing before company. Seven members are appointed as drivers. **Drills and Training:** Drills are held monthly under supervision of chief and consist of hose laying and pump operation. **Fire Methods:** Booster streams used on incipient fires, when in mercantile section, reinforced by engine and hydrant lines with shut-off nozzles. Gas masks are used. No heavy stream appliances are provided. **Response to Alarms:** One piece of apparatus responds in residential districts and two in mercantile district. Extra apparatus in reserve and used for out of town calls. Outside help may be secured from New Brunswick and nearby towns at a distance of from 1 to 6 miles. **Building Inspection:** Occasional inspection of mercantile section made by chief officer. **Records and Reports:** No records. Chief reports monthly to borough council. **Fire Alarms:** System in charge of superintendent of water department. One man employed devotes part time for maintenance and repairs of alarm system. Headquarters at borough hall, an ordinary joisted brick building, with alarm equipment located in closet of police department. Apparatus consists of a two-circuit switchboard with the usual devices for testing and operation. There is no circuit protection. Current is supplied by a battery of 20 cells on wood shelf, floating on a Rectox rectifier. System is in a single circuit with three loops carrying gong and visual indicator in fire house, a gong in chief's home, tower bell and siren on borough hall. There are 31 Gamewell non-interfering boxes of the Gardiner and Peerless type. Wire is No. 10 hard drawn copper, triple braided, weatherproofed mounted below power wire on poles. All inside wiring in steel conduits. Boxes are mounted on poles with red indicating bands. All cases are grounded. Circuits are tested daily, boxes occasionally. Alarms also may be telephoned to police desk, where there is always someone on duty, and are sounded on siren from box in front of borough hall.

POLICE DEPARTMENT: There is a paid police force consisting of a chief, two sergeants, and ten patrolmen on eight-hour shifts. Patrolmen report over four police signaling boxes and respond to fire alarms. Two scout cars and a patrol car are provided.

BUILDING LAWS: None.

EXPLOSIVES AND FLAMMABLES: No municipal regulations. 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.

ZONING ORDINANCE: Adopted February 14, 1939.