



KEY

PROTECTED FIRE ZONE: Shown in Green

NOTE.—Fire protection report on file in Engineering Department of F. I. R. O. of N. J.

Elevations range from 20 to 74 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
- (L) Ladder truck
- (O) Booster tank or tanks on above

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

**Bound Brook Borough
Somerset County, N. J.**

JUNE 14, 1952

BOUND BROOK BOROUGH, SOMERSET COUNTY, NEW JERSEY.

Population—Census of 1940 was 7,616.

IN GENERAL: Located on the Central Railroad of New Jersey, Lehigh Valley Railroad, Reading Railroad, and Baltimore and Ohio Railroad and the Raritan River 6.5 miles southwest of Plainfield. A residential community and shopping center for surrounding municipalities. There are 25 industries employing about 1,000. Area 1.6 square miles. Elevations range from 20 to 74 feet. Main roads concrete and macadam, others gravel in fair to poor condition. Heavy traffic in principal mercantile district is said never to have interfered with the response of fire apparatus.

WATER SUPPLY: Water for domestic and fire protection purposes is furnished by the Bound Brook Water Company which owns supply works and distribution system and supplies water to Bound Brook, South Bound Brook and parts of Piscataway Township, Middlesex Borough, and Bridgewater Township. **Organization:** Company is under the supervision of a manager who with a cashier, and assistant cashier, 2 foremen, and 2 laborers maintains and operates the distribution system and supply works. Records consisting of cards showing detailed locations of hydrants and valves are not kept up to date. Three well equipped trucks are provided. One foreman, who is a member of fire company, responds to all alarms of fire with company truck. Office in Bound Brook. Yard and shop at Mountam Pumping Station **Supply Works:** Built in 1889 and subsequently improved. Water is obtained from 2 impounding reservoirs located on the East and West Branches of Middle Brook north of Chimney Rock about 2½ miles northeast of Bound Brook, from 14 wells 6 inches in diameter and 125 feet deep, located near southwest boundary of borough, and from six 6-inch wells 125 feet deep, located in the northeastern section of borough. Reservoirs are designated as East and Washington Valley; have spillways at elevation 124 and 188, and have capacities of 5 and 250 million gallons, and water sheds of 10.5 and 6.6 square miles. Larger reservoir is normally used with other reservoir held in reserve. Water flows by gravity from reservoirs through pressure filters into distribution system. Wells near southwest boundary line discharge either into a 30,000 gallon reservoir whence high lift pump takes suction or directly into distribution system. Wells located in the northeastern section of the borough discharge directly into a small stand pipe and supply a high service outside of borough, but in emergency could discharge directly into borough distribution system. **Filter House:** Located at Chimney Rock about 2 miles northeast of the borough. Building is a 1 story brick and concrete structure with electric lights and hot water heat. No hand protection. No exposures. Wiring in conduit. Housekeeping good. Elevation of pump room floor 98 feet. Attendant on duty during day. **Equipment:** Five 0.5 m.g.d. Roberts rapid sand filters. In case of emergency pressure can be raised 25 pounds or filters could be bypassed. **Pumping Stations—Middle Brook Station:** Located at Talmadge and Tea Streets as shown on map. Building is a 1-story stuccoed concrete block structure with a metal roof and electric lights. Coal stove for heat. No extinguishers. No exposures. No hand protection. Wiring in conduit. Housekeeping fair. Elevation of pump room floor about 30 feet. **Equipment:** One 1.0-m.g.d. Dean triplex pump driven by a 50-h.p. Otto gas engine. Two Chicago Pneumatic Drill Company compressors driven by a 47-h.p. Chicago Pneumatic Drill Company semi-Diesel engine. Fuel oil for Diesel engine is stored in two 1,000-gallon underground tanks outside of pumping station. **Equipment** is operated annually. **Mountain Station:** Located east of Wrenonah Avenue and south of Mountain Road. Building is a 2 story brick structure with a wood shingle roof; oil stove for heat. Hand extinguishers provided. Housekeeping good. No exposures. Wiring in conduit. Elevation of pump room floor about 50 feet. **Equipment:** A 0.28 m.g.d. Fairbanks-Morse piston pump driven by a 35-h.p. Fairbanks-Morse electric motor. Pump is operated about 6 times a year. **Distribution System:** In two services; see map and description above. Arterial system is generally poor with numerous long unsupported 4-inch lines supplying hydrants. **Standpipe:** Located in Bridgewater Township north of Mountain Pumping Station; steel, 20 feet x 50 feet, capacity 117,500 gallons. Elevation of base about 400 feet. Elevation of overflow about 450 feet. **Consumption:** The average and maximum daily consumption in the entire territory served (1,933 services) during 1941 was estimated to be 0.513 and 0.548 m.g.d. On December 31, 1941 there were 1,363 live services in Bound Brook of which about 98% were metered. **Pipe:** All pipe is cast iron, tar coated, bell and spigot and universal joint, laid with 3½ to 4 foot cover. Total length, 82,650 feet; 30.8% 4-inch, 34.5% 6-inch, 8.72% 8-inch, 20.82% 10-inch, 2.9% 12-inch and 2.26% 14-inch. Little trouble from frozen mains; none from electrolysis or tuberculation. **Gate Valves:** There are 168 of Kennedy, Rensselaer, and Smith makes set with iron boxes to grade. Direction of operation is uniform. No regular inspection. **Hydrants:** There are 113 of standard type of Kennedy, Thompson, and Darling makes; 15 have two 2½ and one 4½ inch outlets while the remainder have two 2½ inch outlets. Hydrant branches are 4 and 6-inch of which 31 are gated. Hydrant outlet threads are 3 inches outside diameter and have 8 threads per inch. Hydrant steamer outlet threads are National Standard. Hydrants are inspected twice a year. Those operated during resurvey were found to be in good condition. **Pressures:** Recording gauge at water company office on High Street opposite Maiden Lane showed pressures ranging from 40 to 50 pounds. Readings taken at 4 hydrants widely distributed showed pressures ranging from 35 to 42 pounds with an average of 39 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured on June 12, 1942 by means of Pitot tube. Location of hydrant, discharge in gallons per minute pressure before flow, and pressure during flow were as follows

South Metape Trail, 440—35—11
High St and Lamonte Ave., 360—40—26.
Mountain Ave. and Main St., 700—42—24.
East St. and High St., 760—40—20

FIRE DEPARTMENT: A volunteer organization of five companies under control of borough which owns apparatus and equipment and appropriated \$6,000 for the support of the department in 1942. Companies own houses. Total active membership 125 of whom 43 are available during the day and 61 during the night. A chief, a first and second assistant chief, 5 captains, and 5 lieutenants are elected annually by the companies and confirmed by the borough council. **Companies—Hose Company No.**

1: Membership 25 Located on Main Street at East Street. Building is a 2 story frame structure with a wood shingle roof, concrete apparatus floor, electric lights, and oil stove for heat. **Equipment:** A 1932 International hose car carrying a 40-gallon booster tank with CO₂ for expellant, 150 feet of booster hose, 1,000 feet of 2½-inch hose, 1 gas mask, 1 deluge set, 2 short ladders, and fair minor equipment. **American Hose and Engine Company No. 2: Membership 25.** Located on East Second Street east of John Street. Building is a 2½-story brick and frame structure with a composition roof, concrete apparatus floor, electric lights, steam heat. **Equipment:** A 1917 Martin 500-g.p.m. double combination pumping engine carrying 1,000 feet of 2½-inch hose, 1 distributor nozzle, 2 short ladders, and fair minor equipment. **Watching Fire Company No. 3: Membership 25.** Located on Church Street at Franklin Street. Building is a 1 story frame structure with a composition roof, concrete apparatus floor, steam heat, and electric lights. **Equipment:** A 1926 Pirsch-White booster car carrying two 40-gallon booster tanks with CO₂ for expellant, 1,000 feet of 1½-inch hose, 700 feet of booster hose, 1 gas mask, 2 short ladders, and fair minor equipment. **Relief Fire Company No. 4: Membership 25.** Located on Talmadge Street east of Van Keuren Avenue. Building is a 1-story frame structure with a composition roof, concrete apparatus floor, steam heat, and electric lights. **Equipment:** A 1927 American La France 600 g.p.m. triple combination pumping engine carrying an 80-gallon booster tank, 200 feet of booster hose, 1 gas mask, 1,000 feet of 2½-inch hose, 2 short ladders, and fair minor equipment. **Ivy Hook and Ladder Company No. 1: Membership 25** Located on Hamilton Street at Second Street. Building is a 2-story concrete block structure with a composition roof, concrete apparatus floor, electric lights, and steam heat. **Equipment:** A 1938 Mack city service ladder truck carrying 10 ladders ranging from 12 to 50 feet and totaling 239 feet, 1 gas mask, 1 life net, 6 salvage covers, and good minor equipment. **Hose:** All 2½-inch hose is C.R.L. with screw couplings. Couplings have an outside diameter of 3 inches with 8 threads per inch. Hose is tested about 5 times a year at 120 pounds pressure, shifted at fires and drills, and dried on apparatus floor. There is a total supply of 5,000 feet of 2½-inch hose of which 2,000 feet is held in reserve and 1,000 feet is over 5 years old. **Operations:** Department governed by company by-laws and borough ordinances and is under the supervision of the chairman of the fire committee who is a member of the borough council. A board of engineers consisting of the officers of the department run department. Chief may suspend members pending a hearing before mayor and council. Motors are started daily. There are 90 members of the department who are assigned to drive apparatus. **Drills and Training:** Drills held 6 times a year under the supervision of chief officers consist of hose testing, hose laying, ladder raising, and use of equipment. **Fire Methods:** Booster and 1½-inch lines are used on incipient fires reinforced by engine and hydrant lines with shut-off nozzles. Gas masks, salvage equipment, and heavy stream appliances are provided. **Response to Alarms:** Entire department responds to all alarms in borough. Outside aid may be secured from Middlesex, South Bound Brook, and Somerville. **Building Inspection:** The chief makes an annual inspection of all stores and factories. Records and Reports: Fire chief keeps complete records in triplicate of all fires and submits an annual report to borough council. **Fire Alarm:** System is under the supervision of a local electrician who is appointed annually by the borough council. **Headquarters:** equipment is located in a room in basement of borough hall, a 2 story frame structure. Apparatus consists of a Gamewell 2-circuit slate operating board with the necessary switches for testing and operation. Current for operation of system is supplied by one oxide film rectifier serviced from the 110 volt lighting circuit with one bank of storage batteries of 22 cells floating. Batteries are mounted on a wood shelf in room with operating board. Charging circuit is protected by 1 ampere fuse on rectifier. Box circuit is protected at entrance to borough hall, home of superintendent, and Sherwin Williams Plant by inert gas lightning arresters and 2-ampere fuses. Wiring between apparatus is well installed. There is a single circuit 7 miles long of No. 10 hard drawn copper triple braided, weatherproof wire mounted on utility company poles below power wires. There are 23 fire alarm boxes of which 19 are Gamewell non-interfering type, 2 are Gamewell succession type, and 2 are Star non-interfering type. Boxes are located on utility company poles with red indicating bands and blue lights at or near street intersections. There are punch registers in two of the fire houses, visual indicators in the other three fire houses a steam whistle at the Sherwin Williams Plant, and a trouble bell in home of fire alarm superintendent. Boxes are inspected and operated twice a year by shunting out. Test taps are sent over circuit daily. Box cases are grounded to driven iron rods. No records of tests are kept. Alarms of fire may be telephoned through the Bound Brook telephone exchange over one of two trunks to police headquarters where they are sounded by means of breakwheel transmitter.

POLICE DEPARTMENT: Consists of a chief, a captain, a lieutenant, and 6 patrolmen working in 8-hour shifts. There are 5 special policemen. A car, equipped with two-way radio and two motorcycles are provided. Patrolmen respond to all alarms of fire and report unauthorized building construction to building inspector.

BUILDING LAWS: Code adopted April 1, 1941 provides for the appointment of a building inspector and requires that plans be submitted and permits issued before building operations may begin. Code has fair regulations in regard to wall thicknesses, chimneys, and firestops but in general does not conform to the Code of Suggested Ordinances recommended by the National Board of Fire Underwriters. No fire limits are established and flammable roof coverings are allowed throughout the borough.

EXPLOSIVES AND FLAMMABLES: The building code requires that a permit be secured before an oil burner be installed and requires that oil burners be installed in accordance with the regulations of the National Board of Fire Underwriters. 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 November 20, 1934 and amended April 16, 1935.