



KEY

PROTECTED FIRE ZONE: Shown in Green.

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

Elevations range from 520 to 717 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:

⊙ Pumping engine and hose car

⊙ Booster tank or tanks on above



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

Mountain Lakes Borough
Morris County, New Jersey

MAY 15, 1945

MOUNTAIN LAKES BOROUGH, MORRIS COUNTY, NEW JERSEY.

Population: 1940 Census—2,076. 1945 Local Estimate—2,300.

IN GENERAL: Located on the D. L. & W. R. R. about 32 miles northwest of Hoboken. It is a commuters' residential area with a very small mercantile district and one Fusee Manufacturing Plant. Area 3.1 square miles. Elevations range from 320 to 717 feet. About 85% of the streets are paved and in good condition. Other secondary streets are gravel in fair condition. Grades are moderate to severe in the northwesterly section of the borough. Other features are such that there should be no serious delays in fire department response and operation.

WATER SUPPLY: The borough owns and operates the supply works, distribution system and appurtenances supplying water for domestic and fire protection purposes to territory within the municipal limits. **Organization:** The system is in charge of a competent Superintendent of Public Works who is a civil engineer subject to annual appointment by the mayor and council. Six regular employees including a foreman perform all duties with laborers as needed. Office in municipal building. Records are fairly complete and consist of distribution map, operating data, and card index of valves and hydrants. Three trucks and emergency equipment are provided and the foreman responds to alarms of fire. **Supply Works:** Constructed in 1929. Water is obtained from two 24-inch wells 50 feet deep yielding respectively 0.183 and 0.190 m.g.d. Wells are operated by deep well turbines which discharge to a steel settling tank in pump house whence high lift pump takes suction under small head and discharges directly to the standpipe whence the distribution system is supplied under gravity. **Pumping Stations:** Located at wells in Denville Township near Rockaway River as shown on Map No. 350. Stations are one story stucco on concrete structures with slate roofs, concrete floors, and electric lighting and heating. Stations are about 150 feet apart at about elevation 500. Housekeeping excellent. No hand protection. Exposures from woods slight. **Equipment:** Two 250 g.p.m. American Well Works deep well turbines each driven by a 10-hp electric motor, one located in well station and the other in pumping station with high lift pump. Two 235-g.p.m. American Well Works high lift centrifugal pumps each driven by a 35-hp electric motor. Pumping equipment is shut down by automatic mercoid control on float switch, and station is equipped with a Neptune Crest flow meter direct reading and a recording pressure gauge. **Distribution System:** In one service except that territory to the south of the railroad is supplied through a pressure regulator set at 100 pounds. Distribution system consists primarily of an 8-inch loop connecting with the 10-inch line from the pumping station and incomplete 4 inch and 6-inch gridiron and dead ends with some 2-inch mains in outlying sections. **Standpipe:** Located near West Lookout Road west of Van Dyne Road as shown on map. It is steel, 32 feet in diameter, 25 feet high with a capacity of 150,000 gallons. Elevation of base 710. Elevation of overflow 735. **Consumption:** The average daily consumption during 1944 was 0.144 m.g.d. It is estimated that the maximum daily consumption is 0.22 m.g.d. On December 31st, 1944 there were 6,921 services, all of which are metered. **Pipe:** All cast iron, tar coated, bell and spigot joint, A.W.W.A. Class "B," laid with 3 foot to 5-foot cover. No serious trouble reported from frozen mains and no indication of electrolysis. Total length, 85,800 feet; 53% 10-inch, 33.5% 8-inch, 29.4% 6-inch, and 31.8% 4-inch. **Gate Valves:** There are 116 on the system of Smith make, set with iron boxes at grade. Direction of operation is uniform. Inspection is limited to that necessitated by system maintenance. Complete valve records provided. **Hydrants:** There are 104 on the system of Smith and Wood makes of standard type with two 2½-inch outlets; about 58% have one 4½ inch outlet in addition. About 21% of the branches are 4-inch and the balance are 6-inch, 75% of which are gated. Hydrants are inspected twice annually and were found to be in good condition at time of inspection. All outlets have National Standard threads. In addition to these hydrants there are 10 small hydrants on 2 inch mains which are not considered as providing fire protection. **Pressures:** Direct reading pressure gauges are installed in the pumping station and in the basement of the municipal building. A pressure recording gauge installed in the pumping station at about elevation 510 shows pressures to be well maintained between 112 and 118 pounds. Readings taken at seven well distributed hydrants showed pressures ranging from 82 to 144 with an average of 114 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured in August, 1930, by means of Pitot tube. Location of hydrant, discharge in gallons per minute, pressure before flow, and pressure during flow were as follows:

Pocono Rd. at Raynold Rd., 1,881—120—42.
 Morris Ave at Powerville Rd., 1,848—144—82.
 Morris Ave, 1,700 ft. E. of Rockaway Ter., 580—*—*.
 Morris Ave, 900 ft. E. of Rockaway Ter., 660—*—*.
 Intervale Rd at Pickwick Lane, 560—118—*.
 Hillcrest Rd, 850 ft. N E. of Midvale Rd, 740—82—*.
 Hanover Rd at Oakland Rd., 1,090—103—48.
 W Boulevard at Lake Drive, 1,080—94—80.
 Midvale Rd at Romaine Rd, 1,652—129—36.

*No readings taken

FIRE DEPARTMENT: Volunteer organization with two full-paid drivers on opposite shifts. Organization is under the control of the borough which owns quarters, apparatus, and equipment and appropriated \$5,900 for the support of the department during 1945. Total active membership 36 including a chief, 2 assistant chiefs, and 4 captains, of whom a minimum of 12 members are available at all times. Officers are elected annually by the company and confirmed by the mayor and council. **Company:** Located in basement of borough hall on West Boulevard at Briarcliff Road as shown on map. Building is a 1-story and basement stuccoed frame structure with wood shingled roof, concrete apparatus floor, steam heat with oil fired boiler, hose rack, electric lights, and telephone. **Equipment:** One 1930 Mack 1,000 g.p.m. triple combination pumping engine carrying one 100-gallon booster tank, 350 feet of booster hose, 500 feet of 1½ inch hose, 1,100 feet of 2½-inch hose, one 35-foot extension, and one 12-foot roof ladder, and fairly complete minor equipment. One 1921 Waterous 300-g.p.m. triple combination pumping engine carrying one 200 gallon booster tank, 150 feet of booster hose, 1,100 feet of 2½ inch hose, 500 feet of 1½-inch hose, one 35-foot extension, and one 12 foot roof ladder, and some minor equipment. **Hose:** All 2½-inch hose is C.R.L. with National Standard screw couplings. Total supply of 2½-inch and 1½-inch hose is 3,800 feet and 1,000 feet respectively, of which the 2½ inch is more than seven years old. Drying rack installed in fire station. Hose is tested two to four times each year at 350 pounds with shut-off nozzle and is shifted in part after fires and drills. **Operations:** Department is governed by borough ordinance and company by-laws. Motors are started weekly and there are 5 appointed drivers in addition to the 2 paid men. **Drills and Training:** Company drills are held monthly under the direction of the chief officers. They consist of hose laying, pump operation, use of appliances and some ladder work. **Fire Methods:** Booster streams and hand extinguishers are used on incipient fires supported by hydrant and engine streams with shut-off nozzles. Three all service gas masks and seven salvage covers are installed, but no heavy stream appliances are provided. **Response to Alarms:** Company responds with both pieces of apparatus to all borough alarms except that one piece is assigned to definitely known grass fires. Aid may be secured from the surrounding volunteer departments at Boonton, Parsippany-Troy Hills, and Denville. **Building Inspection:** None by the fire department. **Records and Reports:** Fire department records are fairly complete including fire reports showing nature of alarms, attendance, losses, equipment used, and complete hose records. Monthly reports are made to the mayor and council. **Fire Alarms:** Telephoned through the Boonton central office to the fire station whence sirens at either end of the borough are operated.

POLICE DEPARTMENT: Consists of a chief, a patrolman, and 14 special officers. Two cars are provided.

BUILDING LAWS: Code adopted December 30th, 1924, and amended September 6th, 1928, provides for the annual appointment of a building inspector, requires the approval of plans and permits for building operations and embodies numerous good features relating to general construction and heating equipment. The code does not restrict combustible roof coverings, nor does it establish fire limits and in general it is not sufficiently comprehensive from a fire prevention standpoint.

EXPLOSIVES AND FLAMMABLES: No adequate municipal regulations. State laws adequately cover the storage and shipment of explosives and the construction of motion picture booths. They also restrict the discharge of fireworks to responsible, bonded parties.

ZONING ORDINANCE: Adopted July 28th, 1927.