

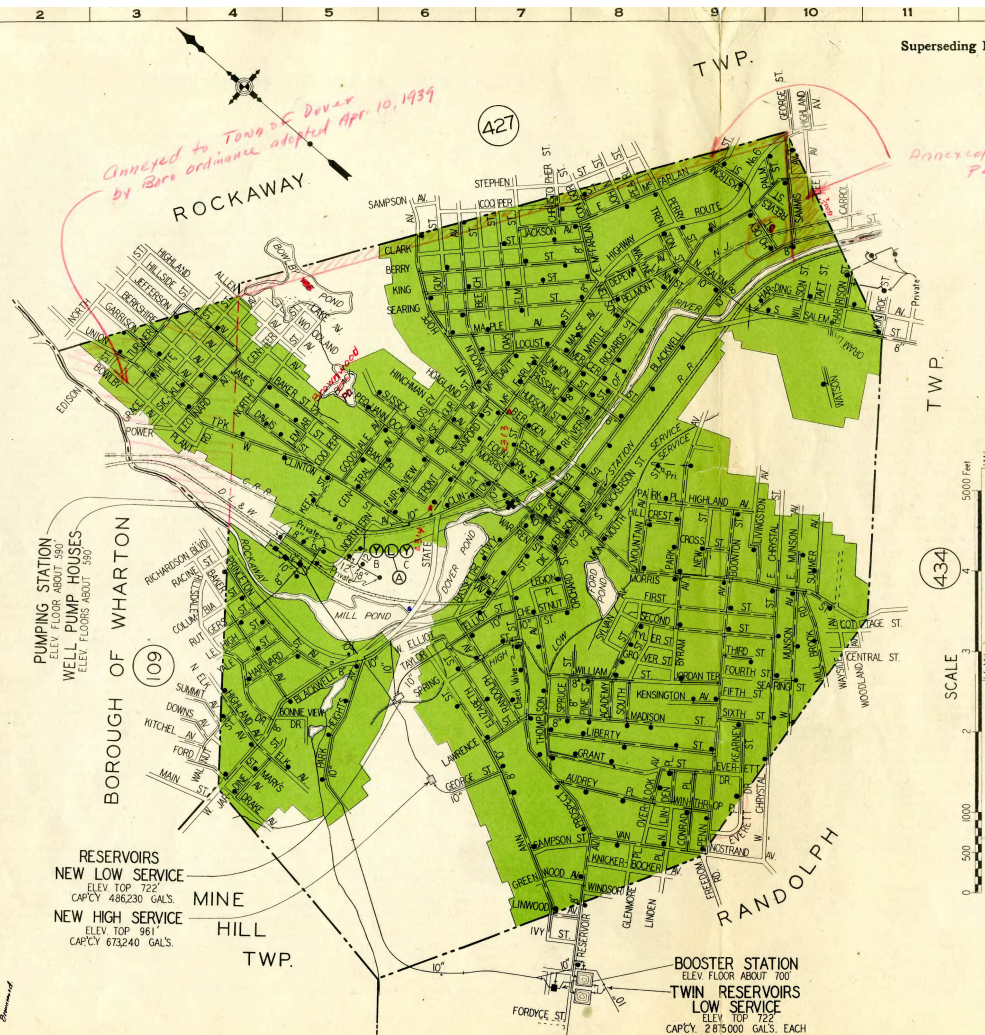
Superseding Map No. 27 of May 31, 1935. Please destroy old issue.

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

TOWN  
OF  
**Dover**  
Morris County, New Jersey

MAY 31, 1945

**KEY**  
PROTECTED FIRE ZONE: Shown in Green.  
Note.—For description of fire protection, etc., see other side.  
Elevations range from 350 to 900 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 houses shown thus  
Fire apparatus designated by symbols thus:  
V Pumping engine and hose car  
L Ladder truck  
A Ambulance, Squad or Auxiliary car  
O Booster tank or tanks on above



May 31, 1945.

## TOWN OF DOVER, MORRIS COUNTY, NEW JERSEY.

Population—1940 Census—10,491.

Local Estimate—15,000.

**IN GENERAL:** Located on the D. L. & W. and Central Railroads along the Rockaway River about 30 miles northwest of Newark. It is a residential and industrial town with a business district which comprises a shopping center for the surrounding residential community. There are about 20 manufacturing plants, normally employing about 1,600 hands, which have expanded, due to war conditions. Area about 2.5 square miles. Elevations range from 550 feet along the Rockaway River and through the business district to about 900 feet with moderate to severe grades in the residential areas to the north and south. Main thoroughfares are concrete or macadam in good condition, with some exceptions in outlying areas. Numerous grade crossings and traffic congestion in the business district could effect delays in the response and operations of the fire department.

**WATER SUPPLY:** The Town of Dover owns and operates the supply works, distribution system, and appurtenances, supplying water for domestic and fire protection purposes to Dover and portions of Randolph and Rockaway Townships. The water department is under the control of a water commission with three members appointed by the mayor for three-year terms. **Organization:** Consists of a competent superintendent who has been in charge 26 years, one pumping station engineer on duty during the day and one foreman, 2 mechanics, and a meter reader. The town clerk, with office in municipal building, serves as clerk of the water department. All employees are under State Civil Service Law. Water department office, shop, garage, and warehouse is located on East McFarlan Street near West Clinton Avenue. Four trucks with good emergency equipment are provided and the superintendent responds to large fires and upon the receipt of telephone call. Records are excellent, consisting of complete operating data, valve and hydrant charts and a complete sectional distribution map. **Supply Works:** Built in 1887 and subsequently improved. Water is obtained from three deep wells, of which Nos. 1 and 2 are equipped with deep well turbines normally discharging into the low service distribution system with three reservoirs acting as equalizers and providing storage. Well No. 3 is operated by direct suction and normally discharges to the high service with a reservoir acting as an equalizer and providing storage. Booster pumping equipment for discharge from low to high service is installed at the larger reservoirs and at the main pumping station. Piping is such that all wells can discharge to low service. **Deep Well Stations:** Deep well pumps are located near pumping station in small one-story brick stations with concrete floors, concrete roofs with wood scuttles, and wiring well installed in conduit. Elevation of floors about 590 feet. **Layne Deep Well No. 1:** Located north of the pumping station as shown on map. This well is manually controlled and is operated continuously. It is 30 inches in diameter, 72 feet deep, yielding 1.44 m.g.d., and is equipped with a 1,000-g.p.m. Layne deep well turbine driven by a 75-h.p. Westinghouse electric motor. **Sterling Deep Well No. 2:** Located south of Well No. 1. It is automatically operated and is 24 inches in diameter, 74 feet deep, yielding 2.16 m.g.d. and is equipped with a 750-g.p.m. Sterling deep well turbine driven by a 50-h.p. G. E. motor. **Well No. 3:** Located adjacent to the pumping station. It is automatically operated by direct suction high service pumps in pumping station. It is 18 inches in diameter, 72 feet deep, yielding 2.30 m.g.d. and is to be equipped with a De Laval 1,600-g.p.m. centrifugal pump driven by a 75-h.p. G. E. motor which will replace the smaller of the existing high lift units now used. **Pumping Station:** Located between the Rockaway River and the D. L. & W. R. R. as shown on map. Building is a 1-story and basement brick structure with concrete and wood floor, slate covered wood roof, hot water heat, electric lights, and telephone. Automatic sprinklers and standpipe are installed in cut-off office section and basement and well distributed hand extinguishers are provided throughout. Housekeeping and general care are excellent. Complete pressure and reservoir level recording equipment and Venturi meters are installed. Elevation of pump room floor about 590 feet. **Equipment:** One 400-g.p.m. Platt Iron Works triplex pump driven by a 75-h.p. Westinghouse motor. One 375-g.p.m. Gould triplex pump driven by a 50-h.p. Westinghouse motor. These pumps are rated at 200 pounds head and are normally used on high service. One 500-g.p.m. Platt Iron Works triplex pump driven by a 40-h.p. G. E. motor. One 375-g.p.m. Gould triplex pump driven by a 25-h.p. Westinghouse motor. These pumps are rated at 100 pounds pressure and are normally used on low service. One De Laval 250-g.p.m. centrifugal booster

pump driven by a 25-h.p. G. E. motor operates to discharge from the low service to the high service system. **High Service Booster Pumping Station:** Located on Reservoir Avenue opposite the twin low service reservoirs as shown on map. Building is a moderate size 1-story brick structure with corrugated iron covered roof, concrete floor, electric lights, and oil-fired hot water heat. Elevation of floor about 700 feet. Building also serves as chlorination station and laboratory. **Equipment:** One Dayton-Dowd 400-g.p.m. centrifugal pump driven by a 50-h.p. Fairbanks-Morse electric motor. One Dayton-Dowd 250-g.p.m. centrifugal pump driven by a 40-h.p. Fairbanks-Morse electric motor. These pumps are rated at 100 pounds pressure and take suction from the low service reservoir supply main and discharge to the high service when necessary. **Distribution System:** In two services segregated by a system of closed valves, consisting primarily of 10-inch arteries and reservoir supply mains with 8-inch secondary arteries supplying incomplete 4-inch and 6-inch gridiron. See map. **Reservoirs—Low Service Twin Reservoirs:** Located about 1¼ miles southwest of the town center. They are formed by earth embankment in two sections with concrete division wall, with a capacity of 2.875 million gallons each. These reservoirs also receive some supply from a series of 13 springs in the vicinity which yield about 0.12 m.g.d. Elevation of overflow 722 feet. **New Low Service Reservoir:** Located about 2 miles southwest of town center as shown on map. It is a covered concrete structure in one section with a capacity of 486,230 gallons. Elevation of overflow 722 feet. **High Service Reservoirs:** Located about 1 mile southwest of town hall as shown on map. It is a covered concrete structure in one section with a capacity of 673,240 gallons. Elevation of overflow 961 feet. **Consumption:** The average and maximum daily consumption during 1944 was 1.42 and 2.30 m.g.d., of which an average daily rate of 1.27 m.g.d. was supplied by pumpage to low service and 0.11 m.g.d. was furnished by the spring supply, and 0.04 m.g.d. was pumped from wells to high service. An average daily rate of 0.11 m.g.d. was pumped from low service to high service during the year. At time of inspection there were 2,799 live services including one master meter through which water is sold at wholesale to Victory Gardens Development in Randolph Township. Services are 100% metered. **Pipe:** All pipe is cast iron, tar coated, bell and spigot joint, except a small section of Universal pipe under stream beds, railroad crossings, and filled ground. Total length, 159,000 feet; 14.7% 10-inch, 7.3% 8-inch, 51.7% 6-inch, and 26.3% 4-inch. **Gate Valves:** There are 272 distribution valves on the system of Rensselaer, Darling, and various other makes set with iron boxes at grade. Direction of operation is not uniform, but readily available permanent records provide details. Valves are inspected only as necessitated by system operation and important valves are operated and serviced occasionally. **Hydrants:** There are 251 on the system in Dover of Darling, Corey, Union, and Eddy makes of standard type with 4-inch and 6-inch branches, practically all of which are gated. All have two 2½-inch outlets and about 50 have one 4½-inch outlet in addition. Hose outlets and large outlets have National Standard threads. Hydrants are inspected twice annually and were found to be in good condition at time of inspection. **Pressures:** Recording pressure gauges on each service are installed in pumping station. Low service pressures at station average about 75 pounds with two deep wells operating. Readings taken at 11 hydrants on low service showed pressures ranging from 44 to 82 with an average of 69 pounds. Readings taken at two hydrants on the high service showed pressures ranging from 91 to 144 pounds with an average of 117.5 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured on March 28th, 1935 by means of Pitot tube. Location of hydrant, discharge in gallons per minute, pressure before flow, and pressure during flow were as follows:

## Low Service:

Blackwell and Sussex Sts., 2,020—74—55.  
Dickerson St. E. of Morris St., 860—73—13.  
Blackwell and Union Sts., 1,190—80—61.  
Salem and Harrison Sts., 600—80—8.  
Sammis and Richards Aves., 1,030—74—27.  
Union Turnpike at Turner St., 153—43—0.  
Blackwell St. E. of Carrol Ave., 210—80—2. (Rockaway Twp.)  
Ekstrom and McFarlan Sts., 670—58—32.  
Richards Ave. E. of Mercer St., 1,220—82—49.  
Elm and Berry Sts., 640—72—28.