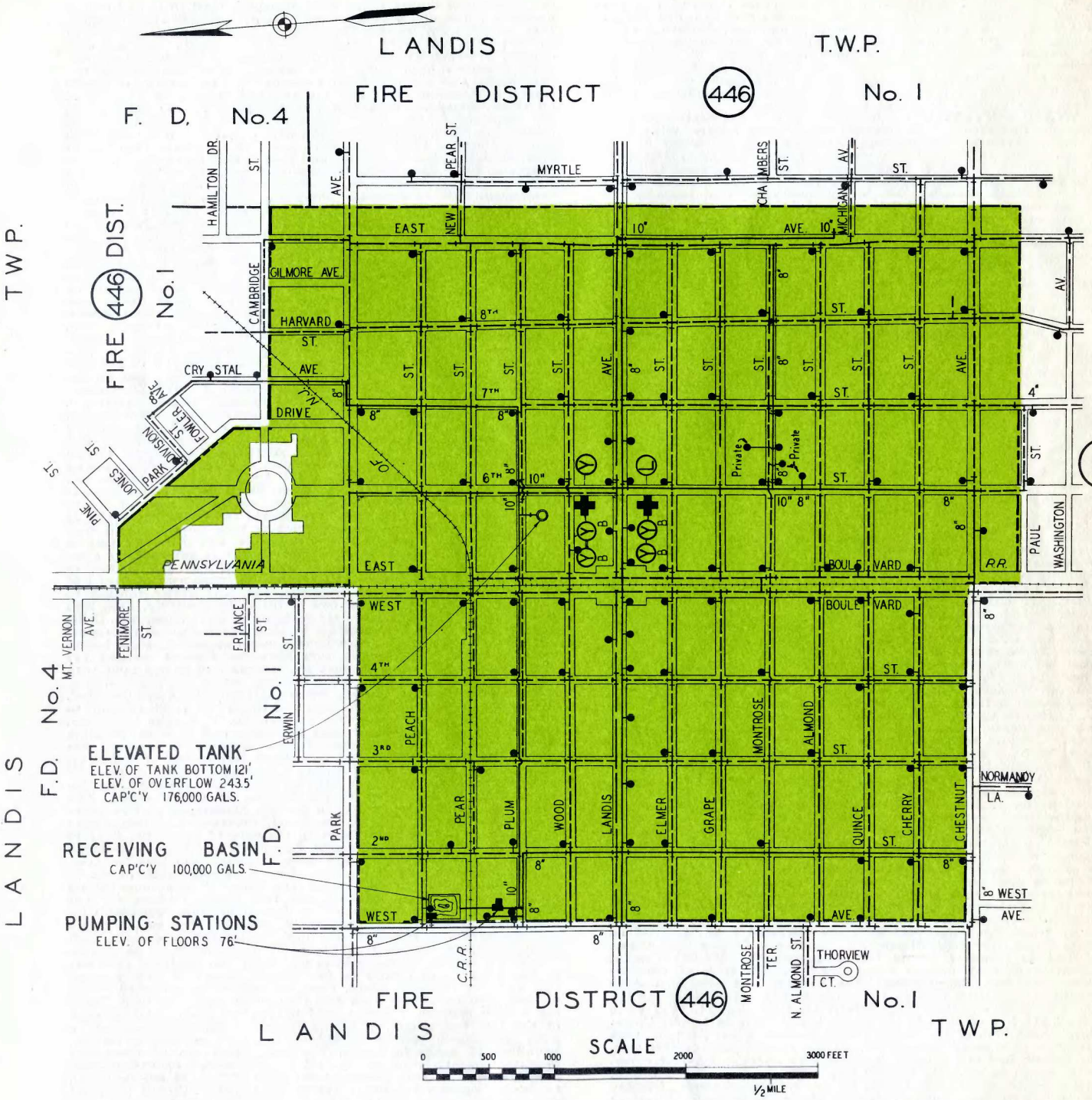
Superseding Map No. 141 of July 31, 1941. Please destroy old issue.



KEY

PROTECTED FIRE ZONE: Shown in Green.

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

Elevations range from 80 to 121 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*

(Y)B *Booster tank or tanks on above*

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

Vineland Borough

Cumberland County, New Jersey

OCTOBER 15, 1949

VINELAND BOROUGH, CUMBERLAND COUNTY, NEW JERSEY.

Population—1940 Census—7,914.

IN GENERAL: Located on the Pennsylvania Railroad and the Central Railroad of New Jersey about 36 miles southeast of Camden. The borough is a business, residential, and manufacturing community closely integrated with the adjacent surrounding portion of Landis Township, the combined area having 98 industries employing about 5,750. Area about 1.1 square miles. Elevations range from 80 to 121 feet. Main roads are concrete or macadam in good condition. Railroad grade crossings and traffic on main streets could effect delays of fire apparatus.

WATER SUPPLY: Water for domestic and fire protection purposes is furnished by the borough which owns supply works, distribution system, and appurtenances and supplies water to the borough and to adjoining sections of Landis Township Fire Districts Nos. 1, 2, and 4. **Organization:** Water department is under the direct supervision of the commissioner of public works. There is a water superintendent who is appointed every four years by the commissioners. He, with 4 laborers and 2 meter readers, maintains distribution system. There is a chief engineer who is in charge of the electric generating and pumping station. He, with an assistant superintendent, 5 engineers, 3 firemen and 15 other employees, operates and maintains pumping equipment. A well equipped truck is provided. Superintendent responds to all alarms of fire. No records of the distribution system. **Supply Works:** Built in 1900. Supply is obtained from three 10-inch wells 160 to 168 feet deep with an aggregate capacity of 4.32 m.g.d. Wells ordinarily discharge into an aerator and flow by gravity from aerator into a 100,000 gallon concrete suction reservoir, but may in emergency discharge directly to the suction of high lift pumps or to suction reservoir. High lift pumps discharge directly into distribution system with elevated tank acting as equalizer. Pumps operate automatically. In emergency a high lift pump driven by a gasoline motor may take suction directly from the aerator and discharge into the distribution system. **Pumping Station:** Located as shown on map. Building also houses borough electric generating station. Building is a 5- to 6-story brick structure with a concrete and composition roof, electric lights and steam heat. Five CO_2 extinguishers are provided. Wiring in conduit. Housekeeping good. Elevation of pump room floor about 76 feet. Pumps are located in basement and are exposed by generating equipment. **Equipment:** A 1.15-m.g.d. De Laval centrifugal pump driven by a 40-h.p. G. E. electric motor. A 1.872-m.g.d. De Laval centrifugal pump driven by a 75-h.p. G. E. electric motor. A 2.16-m.g.d. Platt Iron Works centrifugal pump driven by a 100-h.p. G. E. electric motor, and a 0.432-m.g.d. De Laval centrifugal pump driven by a 50-h.p. De Laval steam turbine. **Well Station No. 1:** Located at Peach Street and West Avenue. Building is a 1-story stuccoed brick structure with a concrete roof, electric lights, and steam heat. One CO_2 extinguisher. No exposures. Wiring in conduit. Housekeeping fair. Elevation of pump room floor 85 feet. Well pump is located in a cut-off section of this station. **Equipment:** A 1.44-m.g.d. Layne deep well pump driven by a 30-h.p. U. S. electric motor. **Well Station No. 2:** Located on Peach Street east of West Avenue. Building is a small area 1-story stuccoed brick structure with a concrete roof, electric lights, and steam heat. No hand protection. Exposures moderate. Wiring in conduit. Housekeeping poor. Elevation of pump room floor 85 feet. **Equipment:** A 1.44-m.g.d. Layne deep well pump driven by a 30-h.p. U. S. electric motor. **Well Station No. 3:** Located on West Avenue north of Peach Street. Building is a small area 1-story stuccoed brick structure with a concrete roof, electric lights, and electric heat. No hand protection. Exposures negligible. Wiring in conduit. Housekeeping fair. Elevation of pump room floor 90 feet. **Equipment:** A 1.44-m.g.d. Layne deep well pump driven by a 30-h.p. G. E. electric motor. **Emergency Pumping Station:** Located in Well Station No. 1. See description above. **Equipment:** A 1.728-m.g.d. Dayton-Dowd centrifugal pump driven by a 250-h.p. Buffalo gasoline engine which in turn also drives a 100-k.w. Crocker-Wheeler electric generator. This generator delivers sufficient power to operate electric motors on the three well pumps. Gasoline engine is operated weekly. **Distribution System:** In one service; see map. Water is discharged from pumping station into a single 10-inch main extending east on Plum Street to elevated tank near Sixth Street, and thence along Sixth Street south to Landis Avenue and principal mercantile district. Arterial system is generally poor with many 4-inch lines supplying hydrants. **Elevated Tank:** Located on Plum Street near Sixth Street; it is steel on a 78-foot steel tower, 25 feet in diameter by 44 feet high, capacity 176,000 gallons. Elevation of tank bottom about 199 feet. Elevation of overflow about 243 feet. **Consumption:** The average and maximum daily consumption during 1948 in the entire territory served were 1.575 and 2.20 million gallons respectively. On December 31, 1948 there were 2,237 live services in the borough and 1,258 in Landis Township. About 97% of the services were metered. **Pipe:** All pipe, with exception of a small amount of asbestos cement pipe, is cast iron, tar coated, bell and spigot joint, laid with about a 3½-foot cover. Total length in borough, 128,250 feet; 5.6% 10-inch, 15.6% 8-inch, 11.2% 6-inch, and 67.6% 4-inch. No trouble reported from freezing or electrolysis. **Gate Vales:** There are 347 in the borough of various makes set with iron boxes at grade. Direction of operation is not uniform, and there are no regular inspections. **Hydrants:** There are 108 in the borough of Darling, Corey, Galvin, and Mueller makes of standard type. Ten have one 4½-inch and two 2½-inch outlets and 6-inch gated branches. Balance have two 2½-inch outlets and 4- or 6-inch gated branches. Hose outlets have an outside diameter of 3-3/16 inches with 6 threads per inch. Large outlets are 4-inch outside diameter with 6 threads per inch. Hydrants are inspected at least three times per year. Those operated during resurvey were found to be in fair condition. **Pressures:** Readings taken at 8 hydrants well distributed over the system showed pressures ranging from 53 to 65 pounds with an average of 59 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured on September 29, 1948 by means of Pitot tube. Location of hydrant, discharge in gallons per minute, pressure before flow, and pressure during flow were as follows:

Landis Ave. and Sixth St., 2,060—53—39.

For additional flow tests on outskirts of the system, see report with map No. 446.

FIRE DEPARTMENT: A volunteer organization of two companies under supervision of the director of public safety. Borough owns houses, apparatus, and equipment and appropriated $29,050 for the fire department during 1949. There is a paid chief, first and second assistant chiefs and 6 paid drivers who are selected from available lists of the Civil Service Commission. Paid drivers alternate on 24-hour duty and 3 are assigned to each company. They are each allowed 2 weeks annual vacation when a relief man is provided. Total volunteer membership is 40 including two captains and two lieutenants who are appointed annually by the director of public safety. A minimum of 12 men are available from each company at all times. **Companies—Pioneer Fire Company No. 1:** Membership 20 volunteers, 2 paid officers, and 3 paid drivers. Located on Wood Street near Sixth Street in borough hall. Building is a 2-story brick structure with a composition roof, concrete apparatus floor, steam heat, electric lights, telephone, and hose tower. **Equipment:** A 1918 Seagrave 750-g.p.m. double combination pumping engine carrying 1,000 feet of 2½-inch hose, 2 short ladders, and meager minor equipment. A 1930 Seagrave 500-g.p.m. triple combination pumping engine carrying two 80-gallon booster tanks, 150 feet of booster hose, 1,200 feet of 1½-inch hose, 350 feet of 2½-inch hose, 1 gas mask, 2 short ladders, and fair minor equipment. A 1936 Seagrave 600-g.p.m. triple combination pumping engine carrying a 90-gallon booster tank, 200 feet of booster hose, 1,000 feet of 2½-inch hose, 350 feet of 1½-inch hose, 1 gas mask, 2 short ladders, and fair minor equipment. **Reliance Fire Company No. 2:** Membership 20 volunteers, 1 paid officer, and 3 paid drivers. Located on Sixth Street near Landis Avenue. Building is a 2-story brick structure with composition roof, concrete apparatus floor, electric lights, hot water heat, telephone, and hose tower. **Equipment:** A 1923 American La France 600-g.p.m. triple combination pumping engine carrying a 300-gallon booster tank, 300 feet of booster hose, 1,000 feet of 2½-inch hose, 150 feet of 1½-inch hose, 1 distributor nozzle, 2 gas masks, 2 short ladders, and fair minor equipment. A 1949 Oren-International 500-g.p.m. triple combination pumping engine carrying a 500-gallon booster tank, 150 feet of booster hose, 1,000 feet of 2½-inch hose, 650 feet of 1½-inch hose, a 1,500-watt portable electric generator and 3 portable lights, 2 short ladders, and meager minor equipment. A 1927 American La France 55-foot aerial ladder truck carrying, in addition, 8 ground ladders ranging from 8 to 35 feet and totalling 181 feet, a portable deluge set, ladder pipe, and fair minor equipment. **Hose:** All 2½-inch hose is C.R.L. with screw couplings having an outside diameter of 3-3/16 inches with 6 threads per inch. It is shifted and tested irregularly at about 100 pounds pressure, and dried in hose towers. About one-third of the total supply is over 5 years old, and there is a reserve supply of 1,600 feet. **Operations:** Department is governed by company by-laws and borough ordinances. Chief has full control of apparatus and paid men at all times and of volunteers at fires and drills. He can not suspend members, but may prefer charges to company. Motors are started two or three times weekly. Paid men and ample volunteer members are assigned to drive apparatus. **Drills and Training:** Drills held monthly in good weather under the supervision of chief consist of hose laying, pump operation, some ladder work, and use of equipment. **Fire Methods:** Booster streams are used on incipient fires reinforced by hydrant and engine lines with shut-off nozzles. Four gas masks, a deluge set, a distributor nozzle, and a ladder pipe are carried, but no salvage covers are provided. **Response to Alarms:** Two pumpers and the ladder truck respond to all alarms in borough and fire district No. 1, Landis Township. Outside aid may be secured from Bridgeton and Millville. **Building Inspection:** Director of Public Safety appoints a borough fire marshall annually who makes occasional inspections of buildings. **Records and Reports:** Chief makes a complete record of all fires including location, damage, equipment used, and estimated loss. He submits an annual report to the director of public safety. **Fire Alarm System:** System is part of the fire department and is under the supervision of borough electrical department. Headquarters equipment is located in a closet in the rear of apparatus floor in Pioneer Fire Company No. 1 house. Equipment consists of a 4-circuit Gamewell slate operating board with necessary switches for testing and operation. System consists of one overhead circuit of No. 10 hard drawn copper triple braided weatherproof wire mounted on utility company poles, divided into four loops. Current for the operation of system is supplied by four oxide film rectifiers with four banks of storage batteries of 14 cells each floating. Batteries are mounted on a standard rack and are located in a closet with operating board. Circuit is protected by 1-ampere fuses on operating board and by 5-ampere fuses and inert gas lightning arresters at the entrance of circuit to fire houses, homes of paid firemen, and borough electrical plant. Charging circuit is protected by 3-ampere fuses on battery rack and 1-ampere fuses on rectifier. There are a tape register, 2 gongs, and breakwheel transmitter in each of the two fire houses, gongs in homes of the paid men and a gong and steam whistle in borough electric generating station. Including 12 boxes in Landis Township, there are 45 Gamewell-Peerless non-interfering sector pull boxes mounted on utility company poles at or near street intersections. All boxes are grounded to driven copper rods. Boxes are tested annually. Circuit is tested daily by time signal. There are no records of operating tests, but a map showing location of circuit is available. Alarms of fire may be telephoned through the exchange in Vineland to either of the two fire houses and are sounded from there by means of a breakwheel transmitter.

POLICE DEPARTMENT: Consists of a chief, 2 lieutenants, 1 sergeant, and 7 patrolmen working in 8-hour shifts. One police car with 2-way radio is provided. Patrolmen respond to all alarms of fire but do not report unauthorized building construction to building inspector.

BUILDING LAWS: Code adopted June 30, 1914 provides for the annual appointment by the commissioners of a building inspector and requires that plans be filed before building operations may begin. No fire limits are established and flammable roof coverings are allowed throughout the borough. Code has some regulations in regard to chimneys and wall thicknesses, but is of little value from a fire protection standpoint.

FIRE PREVENTION LAWS: There are no municipal regulations. State laws adequately cover the storage and shipment of explosives, the transportation of flammable liquids, and the construction of motion picture booths. They also restrict the discharge of fireworks to responsible bonded parties.

ZONING ORDINANCE: None.