The First 30 Years
1915 - 1945

The First in a Three Part Series

Commemorating our 90th Anniversary

Hubbell, Roth & Clark, Inc.
Hubbell, Roth & Clark, Inc. (HRC) has prepared this commemorative piece in celebration of the 90th anniversary of its founding in 1915. The firm has been a pioneer in the development of innovative solutions for engineering problems. Our client base is composed of municipal, industrial and private clients.

This is the first of a three part series which describes our history, projects, and advances. This first article will look at the years 1915 to 1945, including our Early Years, the Great Depression, and World War II.

Clarence W. Hubbell opened his first office in 1915. On May 9, 1916, he delivered a 200 page book “Preliminary Report on Sewage Disposal for the City of Detroit.” It would be 1940 before a primary treatment plant began treating and disinfecting 400 million gallons per day (MGD) of sewage that previously was discharged raw to the Detroit River.

The Great Depression (1929 - 1938)

During the Great Depression of the 1930s one in four Americans could not find a job.

From 1935 to 1936, the services of Homer Clark were loaned to act as Director of the Works Progress Administration (WPA) for Detroit and Wayne County. The WPA was a New Deal program where the federal government stepped in to become the employer of last resort. The WPA put 8,500,000 jobless to work, mostly on projects that required manual labor. With Uncle Sam meeting the payroll, countless bridges, highways and parks were constructed or repaired.

Dearborn-West Side Sewage Treatment Plant (1931)

This municipal wastewater treatment plant was a chemical precipitation primary plant. The primary sludge was collected and dewatered using vacuum filters before being processed in a digester. The dewatered sludge was then incinerated in a multiple hearth furnace - the first time this was ever done.

It was taken out of service in the 1960s and the sewage routed to Detroit for treatment.

Wayne County Sewage Disposal System (1939)

In 1939, the Wyandotte Sewage Treatment Plant began operations by receiving the 35 MGD from the Drainage District No. 5 Pumping Station. The plant was composed of grit tanks, primary settling tanks, disinfection tanks, with vacuum filtration of primary sludge in a multiple hearth incineration. The design of the facade at the entrance of the office/labatory building has been recognized as an example of Art Deco Architecture. The plant continues operation as a secondary plant.

World War II (1941 - 1945)

Many major projects were designed by HRC as part of the development of facilities required to fight the war.

1941 Selfridge Airbase Sanitary Treatment Plant, Mt. Clemens, Michigan
Chrysler Tank Arsenal Sanitary Treatment Plant, Macomb County, Michigan
Fort Wayne Airbase Sanitary Treatment Plant, Indiana
Ford Bomber Plant Sanitary Treatment Plant, Willow Run, Michigan

1942 Ford Bomber Plant Industrial Wastes Erie Ordinance Proving Ground Sanitary Treatment Plant, Ohio
Alpena Airbase Sanitary Treatment Plant, Michigan
Oscoda Airbase Sanitary Treatment Plant, Michigan
To City Airbase Sanitary Treatment Plant, Michigan

1943 Waterloo Army Base Sanitary Treatment Plant, Michigan
Wayne County Airport Sanitary Treatment Plant, Michigan

This was a time when deadlines were met, period. George Hubbell could remember three draftsmen working on the same drawing simultaneously.

The years 1915 to 1945 saw tremendous changes and growth, not only in our country, but in HRC. During these years, HRC established itself as a leader in civil engineering including major road design, water, sewerage systems and the design of small and large scale wastewater treatment facilities. HRC rose to many challenges including the Great Depression and two world wars. In the next issue we will look at the years 1945 to 1975. During this period, HRC continued to have a major influence on the development in southeast Michigan at a time when major social and economic changes were taking place in this country.

The Next 30 Years (1945 - 1975)
In 1917, the Pontiac Sewage Treatment Plant was designed and built for a population of 70,000. It was an early secondary treatment plant consisting of Imhof Tanks, screens, grit chambers, and the first revolving feed stone trickling filters used in Michigan.

In 1921, the Ford Motor Company built the River Rouge Plant in Springwells (later renamed Dearborn). HRC designed the City’s first wastewater treatment plant for a population of 60,000. The plant was built east of the Rouge River and north of Fort Street. The 60’ inside diameter pumping station was built using the circular caisson method of sinking to its final depth of 36 feet.

In 1925, a Special Committee composed of Clarence W. Hubbell, Harrison P. Eddy and John H. Gregory was hired by Detroit to “Report Upon the Collection and Disposal of the Sewage of Detroit.”

In 1916, Clarence W. Hubbell was offered the position of City Engineer with the City of Detroit. He accepted the position on the condition he would continue his private practice. From 1917 to 1922, Mr. Hubbell, as City Engineer, oversaw the design, bidding and construction of 66 major sewer projects, totaling over $40 million, including:
- Bates Street (12’-9” diameter)
- Seven Mile Road (11’-6” diameter)
- Joseph Campau (11’-6” diameter)

Those were the days when Mr. Hubbell’s expense account for 5 days in 1916, at Bay City to inspect the Third Street Bridge totaled $24.23, including railroad fare, tips, all meals, cigars, and lodging at the best hotel - The Wenonah.

Mr. Hubbell was an early advocate of using monolithic concrete rather than brick for large diameter tunnels. This radical departure from the norm caused concerns among the brick manufacturers. They used their clout to have Mr. Hubbell arrested on trumped-up charges and he spent a short time in jail before being released. Most of the tunnels built from 1917 to 1922, and since that time, have been monolithic concrete.

The founding of HRC was the result of the accomplishments of Clarence W. Hubbell, a graduate of the University of Michigan in 1893. Mr. Hubbell had a distinguished career from 1893 to 1907 with the Detroit Water Department where he was Engineer on Charge from 1898 to 1907. In 1902, he was awarded the Norman Medal by the American Society of Civil Engineers as joint author for original investigation on the laws governing the flow of water in pipes and bends.

From 1910 to 1914, Mr. Hubbell was Chief Engineer of Public Works in the Philippine Islands. He developed the infrastructure: sewers, water roads, bridges, harbors, public buildings and schools totaling $2 billion in today’s dollars.

After his return from the Philippine Islands, Mr. Hubbell established his first engineering office in 1915. It operated as Clarence W. Hubbell, Consulting Engineer from 1916 to 1922. J. McRae Hartereng, Allan C. Thayer and Albert Roth were Associates in the firm located in the Penobscot Building. In 1922, the firm moved to the Buhl Building which had opened in 1921. The firm became the partnership of Hubbell, Hartereng and Roth. Homer W. Clark was employed by the firm in 1922. George E. Hubbell, son of Clarence W., came to the firm in the early 1930s and also was a Special Instructor and Lecturer on Civil Engineering at Wayne University (now Wayne State University). In the early 1930s, Hartereng retired due to physical ailments.

On January 28, 1932, the firm incorporated as Hubbell, Roth & Clark, Inc., Consulting Engineers, with the principals being Clarence W. Hubbell, Albert Roth, Homer W. Clark and George E. Hubbell.

The first three decades of the firm’s existence were a monumental period in our country’s history: 1917-1918 World War I; 1929-1938 the Great Depression; 1934-1939 Recovery; 1941-1945 World War II. In 1916, Clarence W. Hubbell delivered the first report on sewage treatment for the City of Detroit. He and the Associates had made trips to the states of New York, Massachusetts, and Pennsylvania to study the use of Imhof Tanks. It began a long-time friendship with Professor Karl Imhof of early wastewater treatment fame. The first Imhoff Tank design done by Clarence W. Hubbell was for the Ford Republic in 1916. These two original drawings are on exhibit in the front lobby of HRC’s Bloomfield office, today.
**Detroit (1921)**

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**Special Committee on Sewage Disposal (1925)**

In 1925, a Special Committee composed of Clarence W. Hubbell, Harrison P. Eddy and John H. Gregory was hired by the Board of Water Commissioners to do a “Survey to Report Upon the Collection and Disposal of the Sewage of Detroit.”

**Development of the Firm**

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INTRODUCTION

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At the same time, five “neighborhood” small treatment plants were built that opened up Western Wayne County for development. These plants were Trenton, Rockwood, Flat Rock, Merriman Road and Lola Valley. These plants were taken out of service in the early 1960s when the Wayne County Rouge Valley Interceptors were built to transport the sewage to the Detroit Sewage Treatment Plant.

Wayne County Airport Sanitary Treatment Plant, Michigan

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1942 Ford Bomber Plant Industrial Wastes

Erie Ordinance Proving Ground Sanitary Treatment Plant, Ohio

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