Robert C. Johnston, Engineer, Is Dead at 85

By ROBERT McG. THOMAS Jr.

Robert C. Johnston, who spent almost half a century shaping Manhattan’s skyline from below street level and its snap from below the water line, died on Dec. 4 at his home in Milbrook, N.Y. He was 85 and had been the foundation engineer in charge of building the 92-acre addition to Manhattan known as the Battery Park City landfill.

In a city that sometimes seems defined by the soaring majesty of its lofty spires, it is easy to forget that the towers are not simply plopped down on vacant lots or even constructed from the ground up. Before you can scrape the sky, you must scoop the earth, and in a city where that is no mean engineering feat, Mr. Johnston was a master in managing the designs of excavations and foundation construction for some of the city’s grandest buildings. Among them were United Nations Headquarters and the former Chase bank headquarters at 1 Chase Manhattan Plaza.

In a society that lionizes architects, marine and foundation engineering may not seem like a glamorous calling. But Mr. Johnston, whose father was a builder, grew up in the Bronx apparently dreaming of nothing else. By the time he was 14, his wife, Charlotte, recalled last week, he not only knew exactly what he wanted to do but also picked out the firm he wanted to do it with.

Founded in 1910 by Daniel Morgan and long known as Moran & Parsons, the firm, one of the first to work exclusively in marine and foundation engineering, had the field largely to itself.

Robert C. Johnston

Mr. Johnston was so determined to become a part of the Moran team that he joined the firm as soon as he graduated from Princeton in 1933. With major construction virtually halted in the Depression, he worked for a year without pay just to be part of the action.

With time out for civil engineering service with the Seabees, including the Normandy landings in World War II, he remained with the firm through a succession of name changes for his entire career, becoming a partner in 1951. When he retired in 1983, the firm, now simply Mueser Rutledge, was known as Mueser Rutledge Johnston & DeSimone.

Although he did much of his work in New York, Mr. Johnston had a national reputation. His credits include the Alcoa and United States Steel headquarters buildings in Pittsburgh, and foundations to support heavy aluminum presses needed to forge aircraft components in Massachusetts, Ohio, Missouri and California.

In New York, where he worked on the 800-acre industrial park in College Park, Queens, one of his favorite projects was the Chase Manhattan headquarters. To some, the building may seem impressive simply because it soars 80 stories high. To Mr. Johnston’s mole’s-eye view, what made it special was that it has six levels of basements extending a thrilling 85 feet below street level.

Of all the complex technical problems he solved along the way, by far his most notable achievement did not involve digging a hole, but rather filling in one that did not exist.

By the time he finished, New York had an additional 92 acres, extending for about two miles along the Hudson in lower Manhattan and now the site of two parks, a school and about two dozen apartment and office buildings, including the World Financial Center, all supported by piers driven into the bedrock 70 feet down, beneath the river bed.

The Port Authority gave him a head start by dumping about 1.2 million cubic yards of debris on the World Trade Center excavations into the Hudson, providing about 23.3 acres of what became Battery Park City. But Mr. Johnston, who used sand dredged up from New York Harbor for the rest, had to design around an array of delicate obstacles, including the PATH tubes that cross the site along with the river water intake lines for the Trade Center’s cooling system.

In addition to his wife, Mr. Johnston is survived by a daughter, Barbara Adams of Manhattan, and a granddaughter.

A 1977 photograph of the landfill on the Hudson River in lower Manhattan City. Robert C. Johnston was the foundation engineer in charge of building the site.

Though devoted to his work in a firm that has remained small precisely because its senior partners want to be working engineers rather than administrators, Mr. Johnston rarely worked late and he never took work home to Bronxville, where he lived for many years in a house on
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In New York, where he worked on the 600-acre industrial park in College Park, Queens, one of his favorite projects was the Chase Manhattan headquarters. To some, the building may seem impressive simply because it soars 60 stories high. To Mr. Johnston's mole's-eye view, what made it special was that it has six levels of basements extending a thrilling 85 feet below street level.

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Though devoted to his work in a firm that has remained small precisely because its senior partners want to be working engineers rather than administrators, Mr. Johnston rarely worked late and he never took work home to Bronxville, where he lived for many years in a house on Bronxville Road that became a neighborhood attraction because of its colorful profusion of blossoms. That was because Mr. Johnston, like his wife, was a devoted gardener, one who spent his evenings and weekends planting flowers after his workdays planting skyscrapers.
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In New York, where he worked on the 600-acre industrial park in College Park, Queens, one of his favorite projects was the Chase Manhattan headquarters. To some, the building may seem impressive simply because it soars 68 stories high. To Mr. Johnston's mole's-eye view, what made it special was that it has six levels of basements extending a thrilling 85 feet below street level.

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A 1977 photograph of the landfill on the Hudson River in lower Manhattan that would become Battery Park City. Robert C. Johnston was the foundation engineer in charge of building the 92-acre site.

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