

FORT TOTTEN BATTERY, U. S. Government Reservation, Willets Point, Bayside, Queens.  
Built 1862-1864; Supervising Engineer: William Petit Trowbridge.

Landmark Site: Borough of Queens Tax Map Block 5917, Lot 1, in part, consisting of the land on which the described improvement is situated.

On September 25, 1973, the Landmarks Preservation Commission held a public hearing on the proposed designation as a Landmark of the Fort Totten Battery and the proposed designation of the related Landmark Site (Item No. 8). The hearing had been duly advertised in accordance with the provisions of law. A representative of the United States Army testified as to the current status of the Battery. There were no speakers in opposition to designation.

#### DESCRIPTION AND ANALYSIS

The Fort Totten Battery is one of the most impressive and monumental sights in Queens. Its superior stone construction, rarely surpassed in this country, contains a number of the important innovations used in the Third or Totten System of United States seacoast fortifications that were built between 1817 and 1864.

The First System of seacoast fortifications was begun in 1794 when it seemed that the United States might be drawn into the European wars that followed the French Revolution. The Second System, which started in 1807 under the threat of war with Britain and ended with the War of 1812, is important because it marks the first time that American-born and trained engineers built fortifications on a large scale.

Unlike the first two systems which had been built in response to external threats, the Third System of seacoast fortifications was begun in 1817 during a period of peace. Late in 1816, the Acting Secretary of War, George Graham, formed a board of military engineers to plan and build a permanent and systematic series of seacoast fortifications. It was headed by a Frenchman, Simon Bernard (1779-1836) who had been the head of the French topographical bureau and aide-de-camp to Napoleon. Another member of the board who was to remain involved in the project until his death in 1864 was General Totten.

Joseph Gilbert Totten, after whom the fort was named, was born on August 23, 1788 in New Haven, Connecticut. He was the son of Peter Totten, vice-consul at Santa Cruz in the West Indies, but was raised by his uncle, Jared Mansfield, a mathematician, engineer and physicist who was a professor of mathematics at the Military Academy at West Point which Totten entered in 1802 and was graduated from in 1805.

He first served as secretary to his uncle who had been appointed Surveyor General of the Northwest Territories. In 1812, he served as Assistant Engineer of the harbor defenses of New York City, with special supervision of Castle Clinton, now a designated New York City Landmark. In December of 1838, he was appointed Chief Engineer of the Army and Inspector of West Point. In the course of his lifetime, Totten became an internationally known expert in the development of 19th-century seacoast fortifications and one of the leading military engineers in American history.

A major problem facing Totten and the other engineers of seacoast fortifications was their deterioration due to natural erosion and the lack of funds necessary to maintain them over the years. This resulted in the decision to use brick and stone for their construction. Although these materials insured durability, of greater significance was their impact on the design of the fortifications. It now became possible to include casemate emplacements as a standard feature of Third System works. A casemate is a vaulted chamber for gun emplacements with splayed openings known as embrasures, and it is built into the thickness of the wall or rampart.

The most basic elements in 19th-century military architecture are the casemate emplacement and the size of the embrasures. A small opening in a fortification wall was desirable in order to reduce, as much as possible, the areas of structural weakness and to protect the gunnery crew from grapeshot and snipers. But a reduction in the size of the embrasure also reduced the mobility of the guns within the casemate and the size of their field of fire -- a problem which was further complicated by the fact that cannons were becoming larger.

Totten discovered the most successful solution to the problem. He was able to reduce the size of the openings and yet allow a 60° lateral movement for the guns. He was also the first to introduce metal armor as a standard element in harbor defenses. The armor took the form of several inches of iron around the edges of the embrasures and iron shutters which opened when a gun was fired and then closed to protect the gun and its crew.

The Fort Totten Battery is a late example of a shore battery of the Third System. Construction began in 1862 under the supervision of William Petit Trowbridge (1828-1892). Trowbridge had been placed in charge of the Army Engineer Agency in New York City soon after the start of the Civil War. He was responsible for supplying materials for fortifications, for constructing engineering equipment for the armies in the field and for superintending repairs to Fort Schuyler and Governor's Island. His son, Samuel Beck Parkman Trowbridge, a noted New York City architect, designed a number of the City's best known buildings including the B. Altman store on Fifth Avenue, the St. Regis Hotel and the Morgan Guaranty Trust Co. building on Wall Street.

The battery stands opposite Fort Schuyler where the East River and the Sound join. It was built in the shape of a shallow V along the shore of Willets Point with a polygonal bastion at the vertex of the two ramparts. The original plan for the battery called for four tiers of casemates on the two seaward sides of the battery and two tiers of casemates extending up the slope of the hill behind the battery. The two-tiered casemates were to be used as quarters, magazines, store-rooms, etc. This plan was abandoned in 1864 because of technological advances made during the Civil War. The appearance of steam-driven ironclad ships, rifle-bore artillery that could quickly reduce verticle stone walls to rubble and other innovations in warfare rendered the plan obsolete before it was completed. The new designs that were drawn up omitted the hillside casemates and reduced the waterside fortification to the two-tiered battery that exists today.

Built of blocks and granite, the thick walls of the battery have that forbidding appearance so typical of all military fortifications. The quality of the carefully cut and fitted granite is remarkable. The seaward side is rough-hewn, while the stonework within the battery is generally smooth-faced although time and weather have given it a variety of textures.

The most striking features of this fortification are its sense of weight and the visual rhythm of the openings in the massive walls. The square exterior face of the embrasures on the seaward side create an abrupt, quick rhythm in contrast to the slow, measured rhythm of the segmental-arched, inner face of the embrasures. The architectural perspectives produced by a series of tall, narrow openings on both tiers and by the low, broad segmental arches of the lower tier, which cause a sharp contrast of light and dark, further enhance the architectural effect of the structure.

The upper tier was partially completed which enhances its beauty. It is a landscape which recalls the "fascination of decay" so prevalent in Europe from the Renaissance on, reaching a climax in the actual building of ruins, during the early Romantic period, in the parks and gardens of the English and European nobility. The size and massing of the stones, the incomplete rows of support piers, the grass growing between the bluestone pavement create a setting and a sense of time that is not found in any other part of the City. The hushed whisper of the river washing the base and the gentle rustling of the ivy-covered trees massed on the hill pressing against the battery are the only sounds that break the stony silence of the vaults.

#### FINDINGS AND DESIGNATIONS

On the basis of a careful consideration of the history, the architecture and other features of this building, the Landmarks Preservation Commission finds that the Fort Totten Battery has a special character, special historical and aesthetic

interest and value as part of the development, heritage and cultural characteristics of New York City.

The Commission further finds that the Fort Totten Battery is a fine example of military architecture, that it is representative of the later phase of the Third System of United States seacoast fortifications, that it incorporates innovations which made General Totten a world-famous figure in the field of military fortifications, that its stone construction is of a quality rarely surpassed in this country, and that it is one of the most impressive sights in the Borough of Queens.

Accordingly, pursuant to the provisions of Chapter 63 of the Charter of the City of New York and Chapter 8-A of the Administrative Code of the City of New York, the Landmarks Preservation Commission designates as a Landmark the Fort Totten Battery, United States Government Reservation, Willets Point, Bayside, Borough of Queens and designates as its related Landmark Site that part of Borough of Queens Tax Map Block 5917, Lot 1 which contains the land on which the described improvement is situated.