



CAMBRIDGE HISTORICAL COMMISSION

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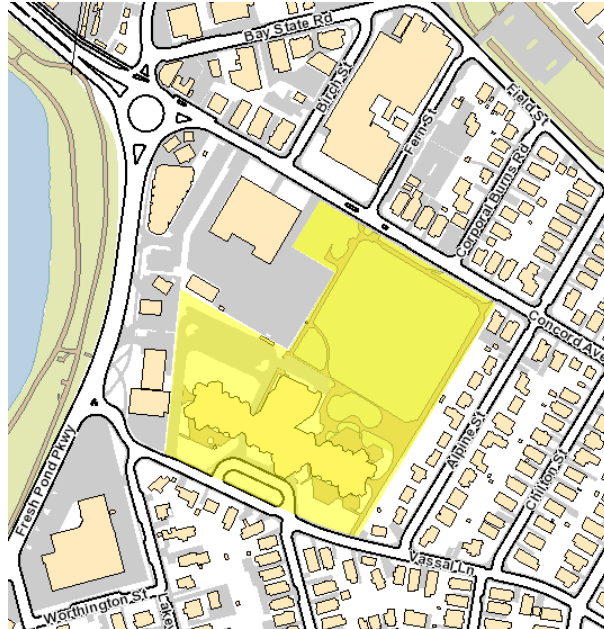
September 22, 2021

To: Members of the Historical Commission
 From: Eric Hill, Survey Director; Charles Sullivan, Executive Director
 Re: D-1594: John M. Tobin Elementary School, 197 Vassal Lane (1970)

An application to demolish the Tobin School at 197 Vassal Lane was submitted on September 14, 2021. The applicant, the City of Cambridge, was notified of an initial determination of significance and a public hearing was scheduled for October 7, 2021.

Site

The John M. Tobin Elementary School is located on the north side of Vassal Lane, between Fresh Pond Parkway and Alpine Street. The parcel upon which the Tobin School is located runs between Vassal Lane and Concord Avenue, and includes Callanan Playground, an open space off Concord Avenue. The school is located adjacent to dense residential neighborhoods and mid-20th century commercial buildings that front Fresh Pond Parkway. The Tobin School faces Vassal Lane behind a circular driveway.



Cambridge Assessors map showing Tobin School parcel and surrounding neighborhood.



Tobin School (center) and surrounding neighborhood. Aerial from 03-2021.

Description

The Tobin School is a large, three-story school building with basement level rooms and a flat roof. Constructed in 1970-72, the building is comprised of four main sections: a central entry core, two side wings, and a rear wing. The school was constructed with a concrete framing system with concrete block walls. The slightly off-center entrance is accessed from a circular drive off Vassal Lane. The five entry doors are recessed under a cantilevered projection that contains the auditorium. The wings house classrooms connected to the core by double-loaded corridors.



Tobin School entry. Photo 09-2021.

The classrooms are generally hexagonal in shape, with the external sides containing windows. The rear wing contains the gym and cafeteria and is only visible from the pedestrian pathway at the eastern edge of the site, the driveway and parking lot at the west edge of the school, and Callanan Field. Two semi-protected outdoor play spaces extend from the wings into the front yard.

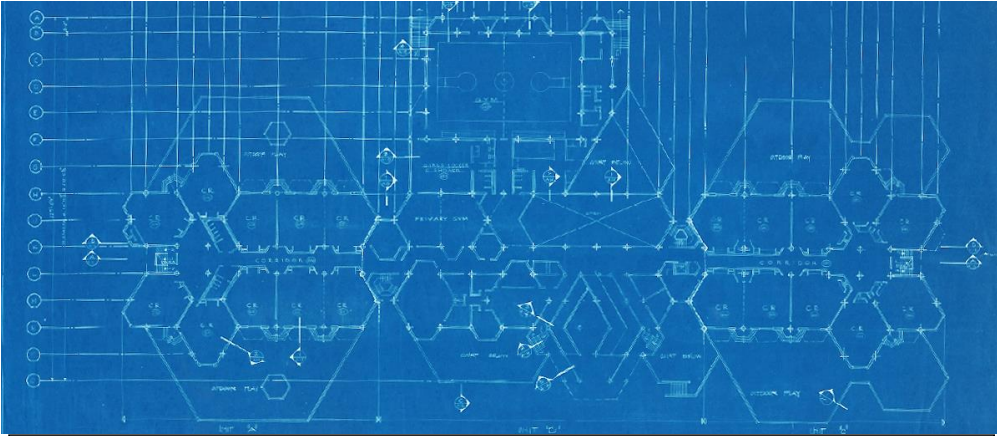
The school can be classified as Brutalist in style with Structuralist elements, both movements popular in the 1960s-70s. The term Brutalism was apparently coined by French architect Le Corbusier during the construction of *Unité d'Habitation* in Marseille, France, where he used the French term *béton brut*, literally “raw concrete” in English. The term spread widely after British architectural critic Reyner Banham used it in the title of his 1966 book, *The New Brutalism: Ethic or Aesthetic?*, to characterize a recent cluster of new designs in Europe.



Tobin School, 1971. CHC photo by Richard Cheek.

Béton brut soon became popular among Modern architects, leading to the creation of the Brutalist style. Brutalism expresses one of the key premises of Modernism, that truth in architecture requires the raw expression of materials. The essence of the approach is seen in the imperfections of *béton brut*, which support an aesthetic based on the exposure of a building's components, including the frame, sheathing, and mechanical systems. The style took off in the United States for these reasons and especially due to the relatively low cost raw materials and rapid construction of either poured-in-place concrete or pre-cast components assembled on site.

Structuralism, a movement in architecture that paid much attention to changing user functions, came about in reaction to the functionalism of post-war Dutch architecture. The movement was characterized by the use of modules as components capable of accommodating changing functions in a larger whole. Other characteristics included the application of space-structuring constructions ('honest' use of materials, a visible skeleton) and special attention to transitions between outside and inside. With the Tobin School, we see this from the repetitive forms of the classroom modules, which collectively produce the shape of the building and the exterior expression of concrete framing elements.



Key Plan, John M. Tobin Elementary School. Pietro Belluschi, Principal Architect, Sasaki, Dawson, Demay Associates, Associated Architects. January 20, 1969



1984 photo of Tobin School from Callanan Field. Rear gymnasium wing at right. Christopher Hail photograph.

History

The vicinity of the Tobin School was, in the early days of settlement, on the most remote periphery of the town. A cart path along Sparks Street and Vassal Lane petered out on the shores of Fresh Pond. The land was low and poorly drained and had little value for grazing (and none for agriculture). The nearest other roads were the Great Road, now Massachusetts Avenue, and the Watertown Road, now Brattle Street.

After the Revolutionary War this part of Cambridge began to see some development as bridges over the Charles River and turnpikes across Cambridge linked outlying towns to the growing metropolis. The turnpikes provided Bostonians easier access to Fresh Pond and outer suburbs, while the construction of the Fitchburg Railroad in 1842 and the Watertown Branch a few years later opened the land to suburban development.

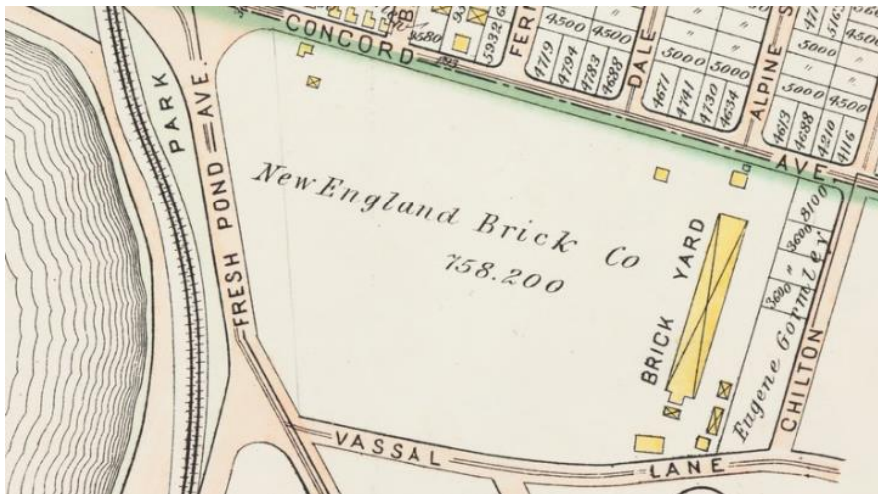
In the mid-19th century urban growth in Boston and Cambridge produced a demand for inexpensive

Commented [SCM1]: I try to avoid "Northwest Cambridge" because it's not a neighborhood name recognized by anyone but us. Currently this area is considered to be in West Cambridge

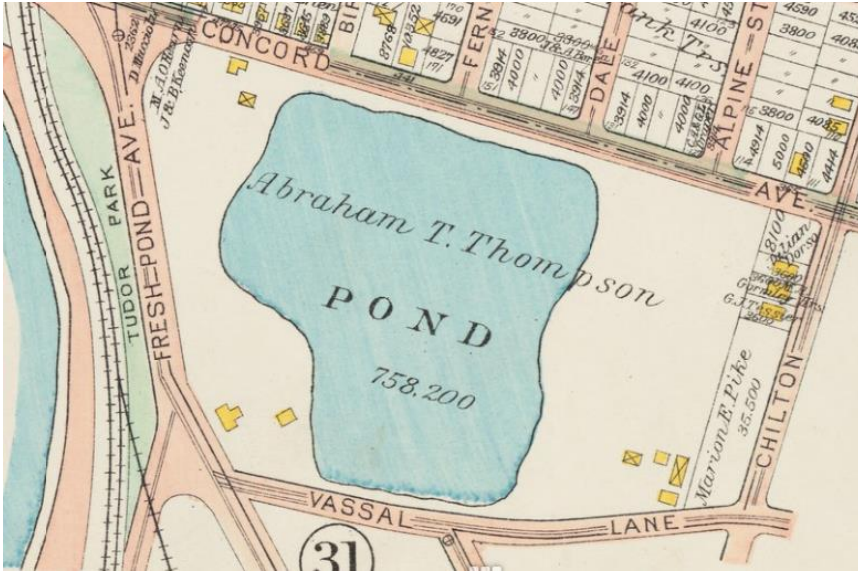
open land at the periphery. Vacant land away from the growing cities was ideal for industries that generated offensive odors, disturbing noises, and polluted water in the form of tanneries, railroad yards, slaughterhouses, and brickyards. Entrepreneurs were attracted to North and West Cambridge by the convergence of its sole natural resource, the deep beds of clay left by retreating glaciers, with nearby railroad transportation.

One of these entrepreneurs was Samuel Cofran, who began working clay lands on the north side of Concord Avenue with a partner in 1863. In 1868 Cofran purchased virgin clay land between Concord Avenue and Vassal Lane (the Tobin School site). At its peak, the Cofran brickyard employed over 60 workers and made about 5,000,000 bricks a year. Samuel died in 1891, leaving ownership of the yards to his brother Noah. In 1900, approaching retirement, Noah opted to sell the nearly played-out clay land, offering it to the City for \$37,500, or just 5 cents a square foot. After numerous discussions, the Committee on Finance agreed with the Board of Alderman that the City should not purchase the site. Less than two months later, the Cofran yard was acquired by the New England Brick Company, which consolidated several existing independent brickyards in the area. The New England Brick Company sold several worked-out clay pits and consolidated their operations along Sherman Street and Rindge Avenue, including and around present-day Danehy Park.

By the second decade of the 20th century, the disused Cofran brickyard (known throughout this period as Cofran's Pit), had filled with water. The pit became an informal swimming hole for the surrounding neighborhoods, and frequent reports of drownings of local children appeared in the newspapers. The property was acquired by investors for eventual development, but in 1919 the City of Cambridge acquired a lien for unpaid taxes. The city gained possession in 1927 through the foreclosure of a tax title held by Frank McAllister. McAllister agreed to settle with the City of Cambridge outside of Land Court and conveyed the land to the city for use as a dump. As part of the deal, strips of land running along the east and west of the property were sold to Mary Nolan and Marjorie O'Brien, real estate investors operating separately who laid out Alpine Street at the east for residential development and the land fronting Fresh Pond Parkway on the west for with commercial properties.



1903 Bromley Atlas



1916 Bromley Atlas



1930 Bromley Atlas

The city used Cofran's Pit as a dump and landfill until 1931, when the lot was transferred to the Parks Department. In 1932, it was decided that the dump should be filled, graded, and made available for recreational purposes for the new neighborhoods developing in West Cambridge. In 1933, the City Council named the Reverend Patrick H. Callanan Playground after the long-time pastor of St. Peter's Catholic Church on Concord Avenue.



Scavengers at Cofran's Pit, November 1933. Photo taken from roughly Cambridge Armory rear parking lot, pointing northeast toward Concord Avenue. Cambridge Engineering Department photo, CHC.

Cofran's Pit was filled between 1933-1938 in large part with support from the Works Progress Administration, a New Deal agency, which enabled the City of Cambridge to employ over 600 men from the city's welfare rolls on temporary jobs, entirely funded by the Federal program, to fill in the former clay pit and dump. Due to settling of the land, no structures or fields could be constructed on the site at first. In 1941, the Parks Commissioner's Report noted that the "bleacher foundation, wading pool, and playing surface of the tennis courts" had been completed and "the surfacing of the field and other improvements will be deferred until the coming spring." With America's sudden involvement in WWII, the project stalled.

In 1946, eight temporary structures were erected along Concord Avenue to supply housing for returning veterans and their families. By federal law all were removed in 1952. In 1956, the Commonwealth of Massachusetts offered the City of Cambridge \$105,000 for a portion of the Callanan Field land that had been occupied by the veterans housing as the new site of the Cambridge Armory. The previous armory building on Massachusetts Avenue at Vassar Street was built in 1902 in a sparsely developed area of Cambridge, across from the similarly designed Metropolitan Storage Warehouse. In 1957 MIT paid the National Guard \$375,000 for the old armory and renamed it the Dupont Gymnasium. The new armory was constructed on Concord Avenue in 1957.



Temporary Veteran's Housing along Concord Street, Planning Department photo dated 1947.



1947 Aerial showing present Tobin School site.

Less than a decade after the completion of the new armory the Cambridge School Committee hired architects Pietro Belluschi and Sasaki, Dawson, & LeMay Associates, Inc., to furnish plans for a new school to replace the outdated Russell School. Three proposed sites were analyzed, including: the Russell School site on Larch Road, the Buckingham School's playing field on Fresh Pond Parkway, and Callanan Field. The team recommended the Callanan site because of its size, expansion possibilities, and

parking considerations. They also listed disadvantages of the site, which included poor drainage and the possible need to bus students to the site.

The new school was named after East Cambridge resident John M. Tobin. Tobin graduated from Boston College in 1919 and received a master's degree in education from Boston University. He later received a law degree from Suffolk University and a doctorate in education from the Staley School of the Spoken Word. Tobin was a teacher at the Rindge Technical School from 1921-1928 and became headmaster of the Haggerty School in 1929. He served as Assistant Superintendent of Schools from 1936-1944 and became Superintendent in 1945, a role he played until his retirement in 1968. One of his last tasks as superintendent was to oversee the massive building campaign that produced the Tobin School, the Martin Luther King, Jr. School, and the Kennedy School, all state-of-the-art, modern school buildings designed by prominent architectural firms. Tobin passed away in 1986 at the age of 88.



1969 Aerial showing present Tobin School site.

In preparation for construction of the new school test borings were taken across Callanan Field in 1966 and 1968 to determine the composition of the ground. Differing types of landfill were noted across the property, down to a level about twenty feet, with clay beneath and ground water at about seven feet below the surface. Aberthaw Construction, the lowest bidder for the project, began work in 1970. The Tobin School was designed to hold seven hundred students and cost was built for \$5,000,000. Originally scheduled to be ready in September 1971, the Tobin opened early in 1972.

One of the innovative features of the design was a focus on energy efficiency. Each hexagonal classroom had only one fixed window. With centralized a central HVAC system, tightly sealed windows, and

solid concrete walls, operating costs would be reduced in the winter months. However, this feature led to concerns for the health and safety of the occupants. Parents thought the building had “sick building syndrome” caused by volatile organic compounds (VOCs) rising from the old landfill and circulating inside the school. The HVAC systems were thought to be incapable of circulating enough clean air, causing health concerns. Teachers and students alike complained of headaches, respiratory problems, and dry skin, all symptoms of what they believe were caused by poor air quality and circulation.

In the 1970s Cambridge put into place a voluntary desegregation program which allowed for school choice. This was first accomplished by drawing large school districts and later by establishing a city-wide school choice program. The open enrollment program led certain schools to create magnet programs. At Tobin, the Follow-Through Program was instituted. This was meant to be a continuation of the “enriched” Head Start Program for pre-school and kindergarten. The program was meant to target low-income children and give them a “head start”. Tobin School would then have these “Head Start” families mix with more affluent families in a separate program within the Tobin School.

In 2007 Dr. Fowler-Finn, the superintendent of schools, created a Montessori School which was housed at the Tobin. As each new class of Montessori children came through, the standard classroom was eliminated. The building until recently also housed the Vassal Lane Upper School campus, which drew students from Tobin Montessori and the Graham and Parks School, as well as the Haggerty School.

Pietro Belluschi (1899-1994)

Born in Ancona, Italy, Pietro Belluschi was inspired by Classical architecture and history. After serving in the Italian army during World War I he earned the equivalent of a bachelor's degree in civil engineering in 1922 at the University of Rome. With a scholarship, he moved to the United States and attended Cornell University, where he received a graduate degree in engineering in 1925. After working briefly as an electrical engineer in Idaho, he relocated to Portland, Oregon in 1925 with a letter of introduction to A.E. Doyle, the most acclaimed architect in the city.

Belluschi rose quickly in Doyle's office, A.E. Doyle & Associates, and by 1927 had become the firm's chief designer. After Doyle's death in 1928, Belluschi ran the office. In 1942, he purchased the firm outright and began practicing under his own name. In 1931, Belluschi started work on his first major commission, the Portland Art Museum, which was one of the first examples of modernist architecture and stands as a landmark project of his career, influencing his later commissions.

During the 1930s and 1940s, Belluschi gained fame for his houses and churches, primarily around the Portland area. Belluschi's most famous project, the Equitable Building (1945-1948) in Portland, represented the high point of his career. The building was the first modernist high-rise office building constructed in the United States after World War II. The design is a lasting landmark in the International style. It was the first tower to be sheathed in aluminum, the first to use double-glazed window panels, and was the first to be completely sealed and fully air-conditioned in the United States. The project gained so much



Walter Gropius and Pietro Belluschi
at work on the Pan Am Building

attention that MIT invited Belluschi to head its school of architecture.

When Belluschi was named dean of the School of Architecture and Planning at M.I.T in 1951 he sold his Portland practice to Skidmore, Owings & Merrill (SOM) but continued to consult and design from Cambridge. During this period, he designed the famous chapel and other buildings on the campus of the Portsmouth Abbey School in Rhode Island. He also worked collaboratively with other architects to design the Juilliard School of Music and Alice Tully Hall at Lincoln Center (1956) and the Pan Am Building over Grand Central Terminal in New York City (1963). In Cambridge, Belluschi collaborated with Eduardo Catalano on buildings at Technology Square (1965) and consulted with SOM on the Macgregor House (1968) dormitory at 450 Memorial Drive.

Belluschi retired from teaching at MIT in 1965 and moved back to Portland. It is likely that Belluschi's role in designing the Tobin School in Cambridge was more support and conceptual as he was living in Portland at the time, delegating much of the design and execution to Sasaki, Dawson, & LeMay Associates, Inc. of Watertown.

Hideo Sasaki (1919-2020)

The successive firms founded by landscape architect Hideo Sasaki (1919-2000) are well documented on the web:

"Hideo Sasaki and Associates was founded by landscape architect Hideo Sasaki in 1953, with offices in Cambridge and Watertown, Massachusetts. In 1957 the firm became Sasaki, Walker and Associates, after Sasaki partnered with Peter Walker. Two years later Walker relocated to San Francisco, opening a branch office. In 1964 the Watertown location became Sasaki, Dawson & DeMay, while the San Francisco office continued to operate under the name of Sasaki, Walker and Associates.

"During its years of operation Sasaki, Dawson & DeMay, led by Hideo Sasaki, Stuart Dawson, and Kenneth DeMay, developed into an interdisciplinary landscape architecture and planning practice, receiving commissions for college and university campuses, urban and waterfront developments, and corporate headquarters in the United States and abroad. Many talented practitioners contributed to the success of the firm, including Don Olson, Masao Kinoshita, Tom Wirth, and Dick Rogers. The firm's work in New England includes the design for Constitution Plaza (1964) in Hartford, Connecticut, with architect Charles DuBose, and in Boston, the Christian Science Center (1971), Christopher Columbus Waterfront Park (1976), and the redesign of Copley Square (1970). The firm also created a master plan for the University of Massachusetts with architect Pietro Belluschi (1967-1970). At the same time as the master plan for the University of Massachusetts, Sasaki and Belluschi were also collaborating on the Tobin School site" (<https://tclf.org/pioneer/sasaki-dawson-demay>)



*Early leaders of the firm, Stuart Dawson (center)
with Kenneth DeMay (left) and founder,
Hideo Sasaki (right)*

While the exact relationship between Belluschi and Sasaki are unclear, it is probable that his role was that of a consultant who analyzed the city's program for the site and sketched out the solution, including the T-shaped plan, central corridor, and hexagonal classrooms. He almost certainly promoted the concept of a sealed, energy-efficient building, one of his career hallmarks. The lead architect for Sasaki is not known.

Current Proposal

The Tobin Montessori & Vassal Lane Upper Schools Project will provide new facilities for the Tobin Montessori School, Vassal Lane Upper School, Special Start and Department of Human Services Programs preschool and after school programs. The project is being designed as a Net Zero Emissions Facility and includes renovation of the open space area around the school.

The proposed building is a four-story complex with an H-shaped plan that maintains a similar relationship with Vassal Lane as the present building. The Vassal Lane and Tobin schools will occupy opposing wings in the leg of the H that parallels Vassal Lane, with a community school and preschool on the first floor. The auditorium, dining facilities, and gyms will occupy the truncated northern leg. Parking and pick-up and drop-off facilities are below grade, while playgrounds and sports fields extend toward Concord Avenue. The exterior of the building will consist of cementitious panels with punched, operable windows and a minimum of detailing.

Geotechnical research for the project began in August 2018 and planning and design for the new school were completed by the designer, Perkins Eastman & Associates, in the spring of 2021. Mitigation and construction staging began in June 2021.

Significance and Recommendation

We recommend that the Tobin School at 197 Vassal Lane be found significant for its architecture as an example of the Brutalist style in Cambridge and for its associations with the collaboration of Pietro Belluschi, a prominent Modernist architect, and Hideo Sasaki, a significant landscape architect, who modernized many concepts in his profession. We further recommend that it be found not preferably preserved in the context of the replacement building, which addresses changing educational and health considerations in school buildings.

cc:

Louis A. DePasquale, City Manager, City of Cambridge
Marge Banker, Superintendent, Cambridge Public Schools
Ranjit Singanayagam, Inspectional Services, City of Cambridge

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