

Van Leer Building

Georgia Institute of Technology
Atlanta, Georgia

Historic Structure Report



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Prepared by
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Chapter 1: The Van Leer Building and Its Place in the History of the Georgia Institute of Technology, 1888 - 1962

1880-1913, The First Twenty-five Years

Toward the end of the nineteenth century, two confederate veterans of the Civil War initiated the drive to open a technical school in Georgia. These two men were Major J.F. Hanson, publisher and manufacturer who later became president of a railroad, and Colonel Nathaniel E. Harris, a Macon attorney who eventually became Governor of Georgia. During the summer session of the Georgia Legislature in 1882, Harris introduced a bill to establish a School of Technology as part of the State's university system. A bill was passed in the summer of 1885 and \$65,000 was appropriated to establish the school. Harris became the first President of the Board of Trustees; and in April 1888 the Board elected Dr. Isaac Hopkins, at that time President of Emory College in Oxford, Georgia, as the first President of the school.

Under the tutelage of Hopkins, the first two buildings of the campus were erected in 1888, paid for with state funds. These were the Main or Academic Building with its now famous tower, designed by Thomas H. Morgan of the architectural firm Bruce & Morgan, and the Shop Building, which had a similar design. With their prominent twin towers these buildings reflected the philosophy of Tech's educational system in the early years – equality between the shop and academic curricula. The Shop Building was badly damaged by fire in 1892, but was rebuilt the same year. However, the building was shortened on the south end, eliminating the tower. This building remained in use at least into the 1960s, when it was demolished.

The second President of Georgia Tech was Dr. Lyman Hall, Professor of Mathematics, who remained in that office until his death in August, 1905. Dr. Hall's Presidency was marked by a rapid growth in enrollment and a remarkable growth in buildings and equipment. During his Presidency, Hall added two temporary dormitory buildings and the first permanent dormitory, Knowles Hall, to the campus. Next came the French Textile Building, which was jointly financed by the State of Georgia, several textile manufacturers from Georgia, and Aaron French, a textile manufacturer from Pennsylvania. By 1901, the Swann Dormitory and the Electrical Building had been added to the campus. The Electrical Building was the last structure built during Hall's tenure. After Dr. Hall's death, Dr. Kenneth G. Matheson became Chairman of the Faculty on August 23, 1905, and was named President less than a year later. The new President's first move was toward construction of a library building. On March 12, 1906, Andrew Carnegie donated \$20,000 for the building, provided that the school appropriate annual funding of \$2,000 for maintenance of the library. This goal was achieved and the library opened in September, 1907. The next building constructed was the Whitehead Memorial Hospital. A YMCA building, designed by Morgan & Dillon, successor firm to Bruce & Morgan, was dedicated in June, 1912.

In August, 1910, the Legislature approved \$35,000 for a Mechanical Engineering Building under the provision that \$15,000 was to be raised by the school. Through the aid of the Atlanta Chamber of Commerce, \$22,000 was raised within two months. The first two units of this building were completed in 1912. Replacing the Old Shop Building, the new structure was called the Mechanical Engineering Building or the New Shop Building. It was officially named the Coon Building, in honor of Dr. Coon, the first head of the Mechanical Engineering Department, after his death in 1938.

The school purchased an additional three acres of land north of the campus in October, 1910. In 1911, Charles W. Leavitt was commissioned to design a campus landscape plan. Leavitt was a nationally known civil and landscape engineer with a business in New York City which was established in 1897. His commissions varied from eclectic private estates for New York millionaires, to public spaces, to campus plans. Leavitt's Georgia Tech campus plan was completed in April, 1912, and included all the land bounded by Techwood Drive, Third Street, Cherry Street and North Avenue. The plan established a system for drives and regular tree plantings on the existing campus. It recommended the demolition of the old shop building and the two temporary dormitories. The sites for unassigned future buildings (the D. M. Smith Building was eventually built on one of these spaces) had a uniform setback from all major streets. Leavitt also attempted to use the topography by creating a series of small terraces in the area between the Hospital and Third Street. However, the improvement of the site and location of buildings for the football/baseball field was considered the strongest point of his plan.

In its first 25 years, the school had grown rapidly in both physical size and enrollment. An inventory published in a booklet entitled "A Quarter Century of Progress" states the initial enrollment of 95 men had grown to 857 by 1913. From its beginning in 1888, with five acres and two buildings, the school had grown to 25 acres and 15 buildings. When Georgia Tech was founded there was only one department, known today as the Mechanical Engineering Department. Academic curriculum and shop classes were given equal importance. The students and faculty worked under a contract system, participating in local competitions with other contractors. This method was one of the main sources of revenue for the school, and gave the students a chance to compete with other manufacturers. The iron columns for the Grant Theater and the gates for Oakland Cemetery were both manufactured under contract in the Georgia Tech foundry. After disputes arose with local Labor Unions, this system was abandoned. A quarter century after it was founded, the school had departments for: Mechanical, Electrical, Civil and Textile Engineering; Engineering Chemistry; Chemistry; and Architecture.

1914-1937, Through WWI and the Great Depression

The next few years saw continuous growth for the university. Phinehas V. Stephens designed a power plant in 1913. His design was greatly enhanced by Francis P. Smith, head of the Department of Architecture, and this second scheme was erected in the years between 1915

and 1918. When the nation became involved in World War I, a new mission was instituted at Georgia Tech, as the Ground Flight Training School became part of the school. In a six-week program, pilots were trained in a number of technical disciplines. The Ground School was replaced in 1918 by a training school for supply officers.

After World War I, an increase in both student and faculty populations was inevitable as Tech added a new mission of rehabilitating wounded soldiers for technical civilian jobs. In 1920, major changes occurred. Faced with an increase in student body numbers, President Matheson pressed for completion of phase three of the Coon Building. A movement also began in 1920 to transform Georgia Tech from a trade school into a research institute, and Matheson believed the fundraising necessary to accomplish that change could not be achieved without at least a tentative master plan. Professors Warren Laird and Paul Cret of the University of Pennsylvania and Francis P. Smith of Tech were commissioned to survey the existing campus and other possible locations in Atlanta for a new campus design. Warren Laird was considered to be *the* leading American educator in the architectural discipline. Under his care and with the help of Paul Cret, an Ecole des Beaux-Arts graduate, the University of Pennsylvania's Architecture program became one of the best in the nation. Smith was a graduate of this program and had studied under both professors before he came to Tech.

The study developed by Laird, Cret and Smith finally recommended keeping the school at its present site and enlarging the campus with purchases of surrounding properties. In 1921, they followed up with a master plan, which identified Collegiate Gothic as the desired campus architecture. The plan recommended that all campus buildings, with the exception of the Mechanical Engineering Building, the Power Plant and the YMCA, be demolished because they did not comply with this style!

In 1921 Lawrence Wood (Chip) Robert, Jr., at that time a member of both the Board of Trustees and the Athletic Association, lobbied for the appointment of Robert and Company as Supervising Engineers and Architects. He was successful in his efforts, and his firm entered into a contract with Georgia Tech as official campus architects. The contract specified their fees (six percent of a building's cost) and gave them responsibility for all campus building and planning. Also, as part of this agreement, Professors Laird and Cret would be employed as consulting architects with their fees paid by Robert and Company. This agreement fell under official scrutiny, and a decision by the Attorney General of the State of Georgia declared "such dealings between a Trustee of the Georgia School of Technology and a corporation in which he is a stockholder and officer" were illegal. The agreement was voided but remained in effect for the duration of construction work on the D. M. Smith Building. Instead of Laird and Cret, Francis P. Smith was hired as associate architect.

The D.M. Smith Building was completed in 1923, and at that time was known as the Carnegie Physics Building. In the history of Georgia Tech, this building plays an important role for two reasons. The building was the first on campus to be constructed in the Collegiate Gothic style, according to the new campus master plan. Second, almost the entire funding for the building came from the Carnegie Foundation. During the financially strained times of the early 1920s,

the Carnegie Foundation offered \$150,000 for a campus building. Two proposals by Smith were rejected, but the third, a Physics Laboratory, was accepted as a fitting use for the Foundation's proposed donation. In order to assure they would have the most up-to-date facility possible, Chip Robert, Jr., and Francis P. Smith went on a tour of modern physics laboratories in the eastern United States to collect information for the design of this building.

In 1923, shortly before Smith left Georgia Tech, he started a nationwide search for his replacement. Smith contacted Professor Laird at the University of Pennsylvania who subsequently suggested four men who had been trained at the University of Pennsylvania, two of whom were his classmates. None of these men were hired; instead, James L. Skinner was appointed to this position in the summer of 1923. Skinner had received a Bachelor of Science degree from the University of Toronto and his Master's in Architecture from Harvard. While at Harvard, he became friends with Harold Busch-Brown. Under Skinner, with Bush-Brown as assistant director, the architectural program maintained the same curriculum approach as developed by Smith. This highly competitive program was consistently recognized in nationwide design competitions, and in 1925 the Tech architectural program was elected to the Association of Collegiate Schools of Architecture. Tech was the only southern member and was admitted because of its "well-balanced curriculum and thorough professional course and high order of student attainment." In 1924, Tech's architectural school was ranked first in the south and fifth in the nation.

Under the direction of the fourth President of the school, Dr. M. L. Brittain, several new buildings were constructed on the Georgia Tech campus. Between 1924 and 1929, a Ceramics Building, an addition to the Lyman Hall Chemistry Laboratory, and concrete stands for Grant Field were built. In 1924, the architectural team of Skinner, Bush-Brown and Stoppel designed the Julius Brown Dormitory. This apartment building housed students and faculty members and was built from funds secured from the estate of Julius L. Brown, Governor of Georgia and a generous supporter of the University. A second dormitory, the N. E. Harris Dormitory, was designed by Professors Bush-Brown and Stoppel, with James Herbert Gailey as associate.

The increase in student population of twenty percent between 1922 and 1925 resulted in the establishment of several fraternities to house a portion of the student body. As his last campus design, Director Skinner designed the Beta Theta Pi Fraternity House. In June of 1925, Skinner resigned his position to go into private practice. Bush-Brown replaced Skinner in the fall of 1925 and served as the Architecture School Director until his retirement in 1956. James Herbert Gailey became Assistant Director. Several new professors with excellent records were hired from all over the country.

Many of the older faculty members remained committed to the Ecole des Beaux-Arts method of design, which had been in use for many years by the major architecture schools in the United States. However, in the 1930s, the Association of Collegiate Schools of Architecture criticized the design of a sophomore year project, which used the classical order, as unrelated to the functional problems of the day. The influence of the Bauhaus and European modernists was being felt, although the Gothic style remained popular for campus architecture. The national

trend towards modernism was not yet felt on the Georgia Tech Campus, as indicated by the Dining Hall extension of 1928 (Brittain Dining Hall).

Following a national trend, the Architecture Department continued to assist in campus designs. Professors were encouraged to practice architecture and keep current on architectural movements, as long as teaching was their first priority. In addition, the student body profited from participation in actual design projects. The architectural firm of Bush-Brown and Gailey designed Brittain Hall, but - most of all - this building was a showcase for many Georgia Tech departments working together. For example, the Ceramic Department designed floor tiles and the Textile Department designed the curtains and tapestry for the President's Dining Room. The cost of Brittain Dining Hall was \$125,000, and the financing came from the Greater Georgia Tech Fund, with a substantial contribution from the Athletic Association.

As the economy slowed and faltered with the onset of the Great Depression, it became more and more difficult for Brittain to raise money from private or State funds to continue his ambitious building program. He then searched for public funding and grants, and Georgia Tech was one of six universities in the nation to receive a Guggenheim Grant. The school received \$300,000 to establish a course in aeronautics and to construct a building. The plans were drawn by professors Bush-Brown and Gailey, with their design in the Collegiate Gothic style echoing the earlier buildings on campus. The contractors for this project were Brazel, Miller and Newbanks at a cost of \$100,000. The building was completed in 1930.

Also in 1930 the school received \$80,000 from the estate of Mr. Joseph Cloudman for construction of a dormitory. The firm Bush-Brown, Gailey and Associates designed an L-shaped building, again featuring the Collegiate Gothic style.

After 1934, several buildings were erected on campus using funds obtained from programs under Roosevelt's "New Deal." The money for construction came from outright grants, with the remainder being loaned at a moderate rate of interest. Tech's eligibility for these funds allowed the building program on campus to escalate. The first building built under the Public Works Administration was the Naval Armory. The building was designed by Bush-Brown and Gailey and was completed in 1935. Historically, it was always considered beneficial for the Architecture Department to design and oversee the construction of new campus buildings. This would keep professors and students involved in realistic projects, and the professors, who sometimes had their own architectural firms in addition to their university work, would charge design fees.

Brittain was concerned with the quality of living accommodations for students and the presence of a slum area (Techwood) adjacent to the campus on the south side. A committee to study the need for housing was formed and described the Techwood area as "a retched district, crowded with run-down, unsanitary frame shanties and an eye sore." The committee successfully convinced the housing division of the Public Works Administration (PWA) to sponsor an extensive urban renewal and low-rent housing program for the Techwood area. The architectural firm of Burge and Stevens (both Tech alumni) was selected to design forty-

three units plus a dormitory. The entire Techwood Project was dedicated on November 19, 1935, by President Franklin D. Roosevelt. Tech rented the dormitory from 1935 until 1956, when the university purchased it from the government.

The federally-funded work on campus continued in 1936 with the construction of the Auditorium/Gym on Third Street under the auspices of the Works Progress Administration (WPA). Jorgenson, also a faculty member, was the primary architect with Bush-Brown and Gailey again overseeing the project. Also in 1936, the WPA sponsored a three-story, L-shaped, addition to the Lyman Hall Chemistry Building.

In 1937 the federal government continued its support of Tech by assisting the Board of Regents with the construction of the Mechanical Engineering Building and the Civil Engineering building. The plans for these buildings were prepared by various members of the Architecture department.

1938-1961, Through WWII

It continued as a point of discussion how architectural services should be handled at Georgia Tech without jeopardizing the quality of teaching, which, after all, was the priority for an educational institution. In 1938, Harold Bush-Brown mentioned in his annual report to Britain the possibility of establishing a new division within the Department of Architecture to assist the Board of Regents with its problems relating to the physical plant of the units of higher education throughout the State.

A major change in architecture at the school began when Paul Heffernan, who was trained in American Modernism, arrived at Georgia Tech in the fall of 1938. Heffernan with Bush-Brown and Gailey over the next few years developed a philosophy of understanding architecture's functional terms, but not as copies of Bauhaus forms, and still using classical proportions to derive the building's form (Drury, p. 188). Heffernan became involved in the firm Bush-Brown & Gailey, who designed the Research Building of 1939, jointly financed by the Board of Regents and the Public Works Administration. This is probably one of the first buildings to break with the Collegiate Gothic form that had dominated the campus. In the early 1940s, the department continued to experiment with new types of architectural design programs and also participated in Beaux Art Institute of Design competitions. With the onset of World War II, the number of students and faculty was shrinking (at one time there were only 22 students and four full-time faculty), and the school tried to predict and develop long-range plans for post-war development. In 1942, they presented a six-year physical development program which defined the main campus boundaries as follows: North Ave to the south, Hemphill Avenue and State Street to the west, Fifth Street to the north, and Williams Street to the east. And the program also included eight principles:

1. The campus would expand toward the north and northwest.
2. Institutional buildings and living areas would be separated.
3. Departments depending on the Power Plant would remain near the Power Plant.

4. The “new” part of the campus would include academic buildings, administrative buildings, and the library.
5. The main approach to the campus would be along Hemphill Avenue.
6. Public streets on campus would be eliminated and entrances would be controlled.
7. Adequate parking would be provided.
8. A free area would be created from Peters Park to Hemphill Avenue and it would be an “arc of green.” (Drury, pp. 194-5)

They also wanted to break down the trade image of the school with their design for the post-war campus. This master plan listed 39 projects at a cost of \$5,650,000. In 1944, Bush-Brown developed preliminary plans and elevations for the Library, Academic, Administration, Textile and Sports Arena buildings and an expansion of the west stands at Grant Field. This master plan was the stepping stone to the M-6 Plan, approved by the Board of Regents on October 21, 1944. The new Academic Center they proposed was a radical departure from the past.

In 1945, the Architecture Department was active in the design of numerous buildings. The firm of Bush-Brown, Gailey and Heffernan was involved in designs for the stands for Grant Field, the Engineering Experimental Station Addition, the WGST Radio Station, the Textile Building, the Architecture Building, the Physical Training Building, and additional dormitories (the proposed location for WGST was where the President’s House is now, the highest point on campus). In 1947, criticism came from the Georgia Legislature for letting the Department of Architecture design campus buildings as well as master plans, and it was determined this was a conflict of interest – especially with the firm of Bush-Brown, Gailey and Heffernan. At a later date, the Board of Regents ruled that this architectural firm, or any other firm related to the Department or to the school, could no longer provide professional services to Georgia Tech. “The linkage of teacher, practitioner and campus designer was broken....” (Drury, p. 186).

“The post-war era marked the beginning of Georgia Tech’s transformation from a regional engineering college to a nationally and internationally recognized technological university” (Campus Historic Preservation Plan Update, p. 15). As enrollment grew, under President Blake Van Leer’s leadership, the campus expanded and doubled in size – from 51 acres to 128 acres. Even the name of the school was changed to better reflect the school’s growth: in 1948, the Georgia School of Technology was changed to the Georgia Institute of Technology.

In 1947, Georgia Tech received an A. C. Network Calculator (predecessor to the modern computer) as a gift from the Georgia Power Company. Subsequently, a research building was constructed to house the calculator. First called the Research Annex Building, the building was later enlarged in 1956 to become the Rich Electronic Computer Center. In 1948, Tech received another gift: an anonymous donor gave \$100,000 to the Alumni Association for the construction of a President’s home to be built on 10th Street. The architects for the new house were Toombs and Creighton, but the design has been attributed to the President’s wife, Mrs. Ella Van Leer, who worked closely with the architects.

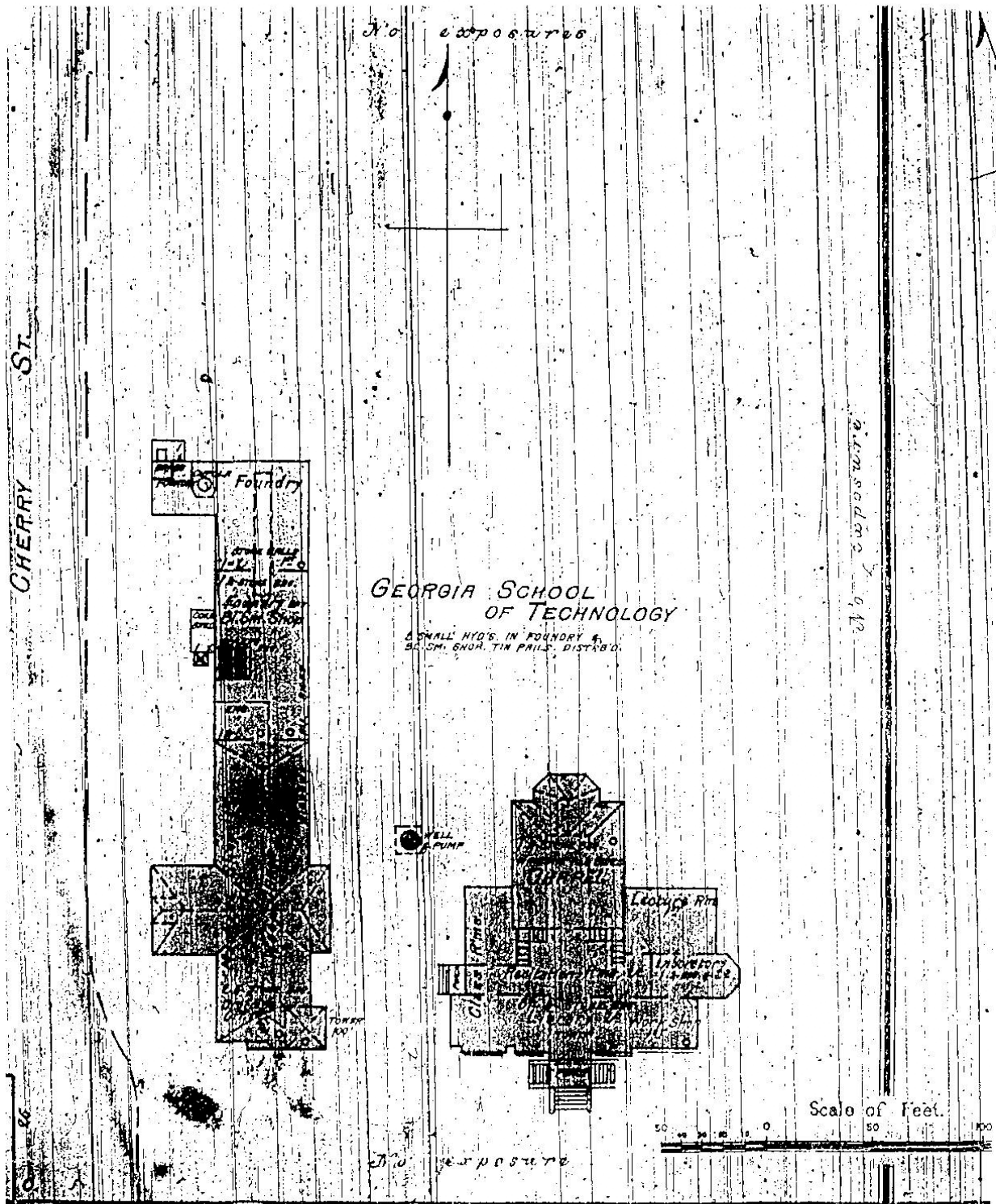
As Georgia Tech grew, the Department of Architecture's enrollment increased and, by 1950, the school had outgrown its spaces in other campus buildings. When the Ford Foundation gave its support in matching funds to the Architectural School, the decision was made to construct a building specifically for the Department. The Architecture Building was completed in 1952 and was "one of the first buildings in the U.S. designed entirely for and by an Architecture Department." (Drury, p. 223)

In 1951, following the death of Georgia Tech's football coach, William Alexander, the Athletic Association began raising funds to build a Physical Training Building in his memory. The Alexander Memorial Coliseum was designed by Richard L. Aeck and the unique, circular, building was completed in 1957. Long overdue, a new library had been planned for years since the Carnegie Library had become inadequate for the growing university. The new Price Gilbert Library was finally completed in 1953 and was designed by Heffernan. Bush-Brown, Gailey and Heffernan continued working on development plans for the Georgia Tech campus. By August, 1952, they had completed their new M-11 Plan which modified the previous M-6 plan to accommodate the new Fifth Street bridge the Highway Department planned to construct.

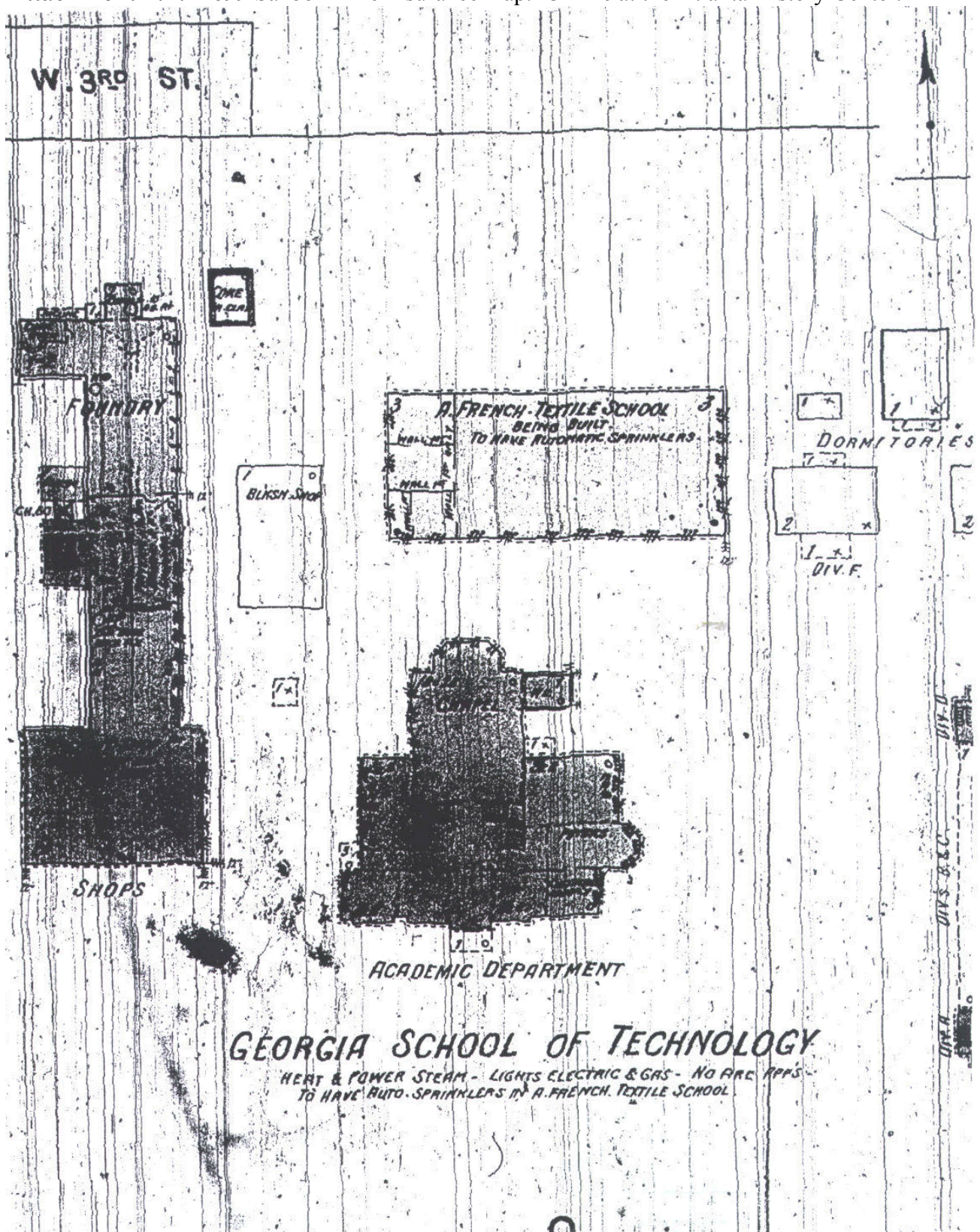
Following the death of President Van Leer in 1956, Edwin Harrison became President of Georgia Tech and initiated "one of the most extensive periods of building development in school history" (Campus Historic Preservation Plan Update, p. 17), which included classroom buildings, residence halls, laboratories and other buildings. This period of enormous construction on campus also included the Van Leer Electrical Engineering Building, which was named for President Van Leer and was completed in 1961.

Text from the 1962 Blueprint reads: "the year 1961-1962 brought the school of electrical engineering to the threshold of a new era of service and accomplishment. In occupying its new three million dollar building, it has been freed from severe space limitations of long standing. The beautiful new physical facility houses a program based on a modern undergraduate curriculum which makes use of new engineering knowledge and procedures growing out of recent physical sciences' developments."

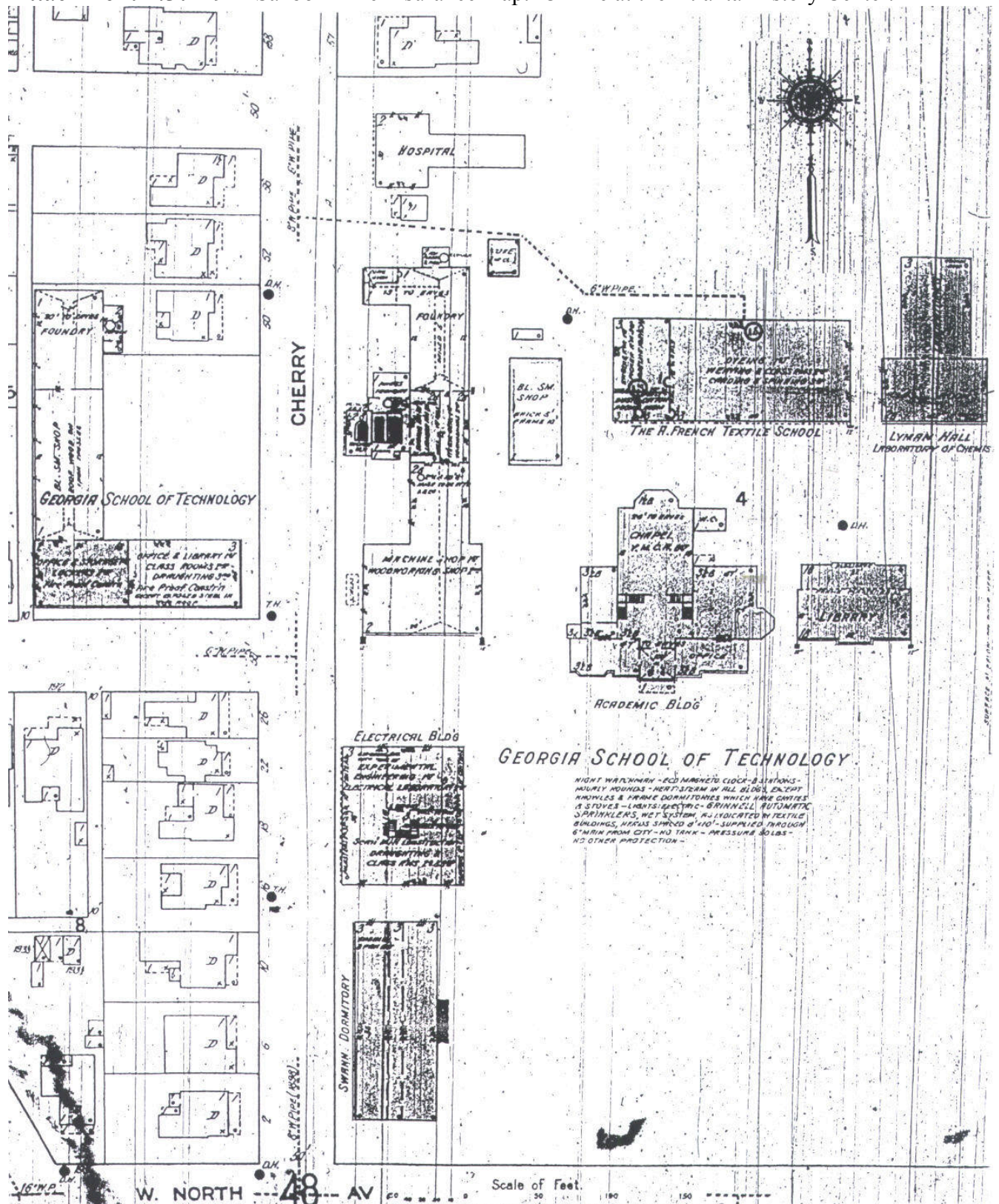
Attachment 1.1: 1892 Sanborn Fire Insurance map. On file at the Atlanta History Center.



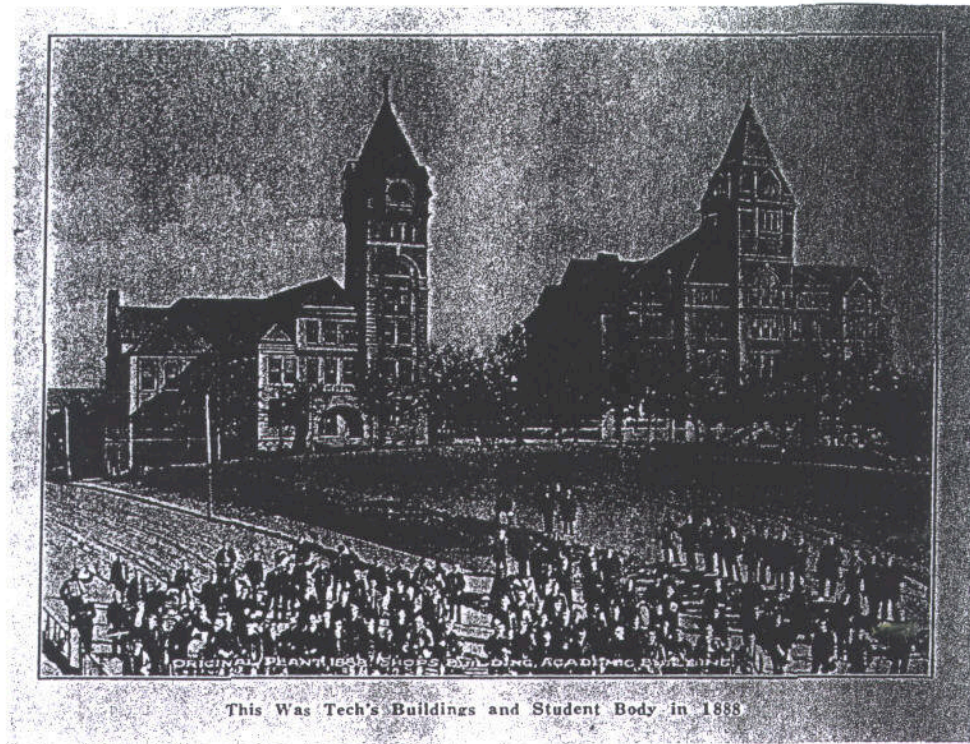
Attachment 1.2: 1899 Sanborn Fire Insurance map. On file at the Atlanta History Center.



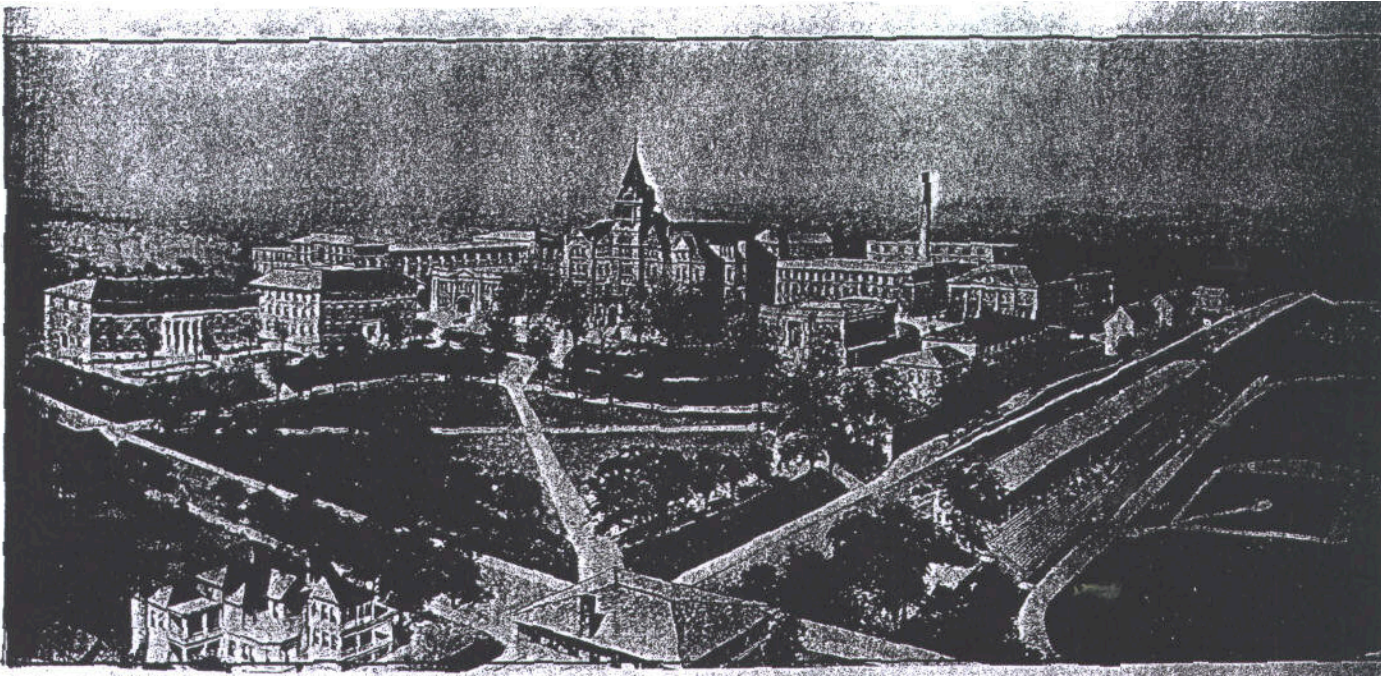
Attachment 1.3: 1911 Sanborn Fire Insurance map. On file at the Atlanta History Center.



Attachment 1.4: Campus picture with students, 1888. 1911 “City Builder.”



Attachment 1.5: Rendering ca. 1920. 1911 “City Builder.”



Attachment 1.6: Photo showing first faculty at Georgia Tech, dating from 1890. From Images and Memories.



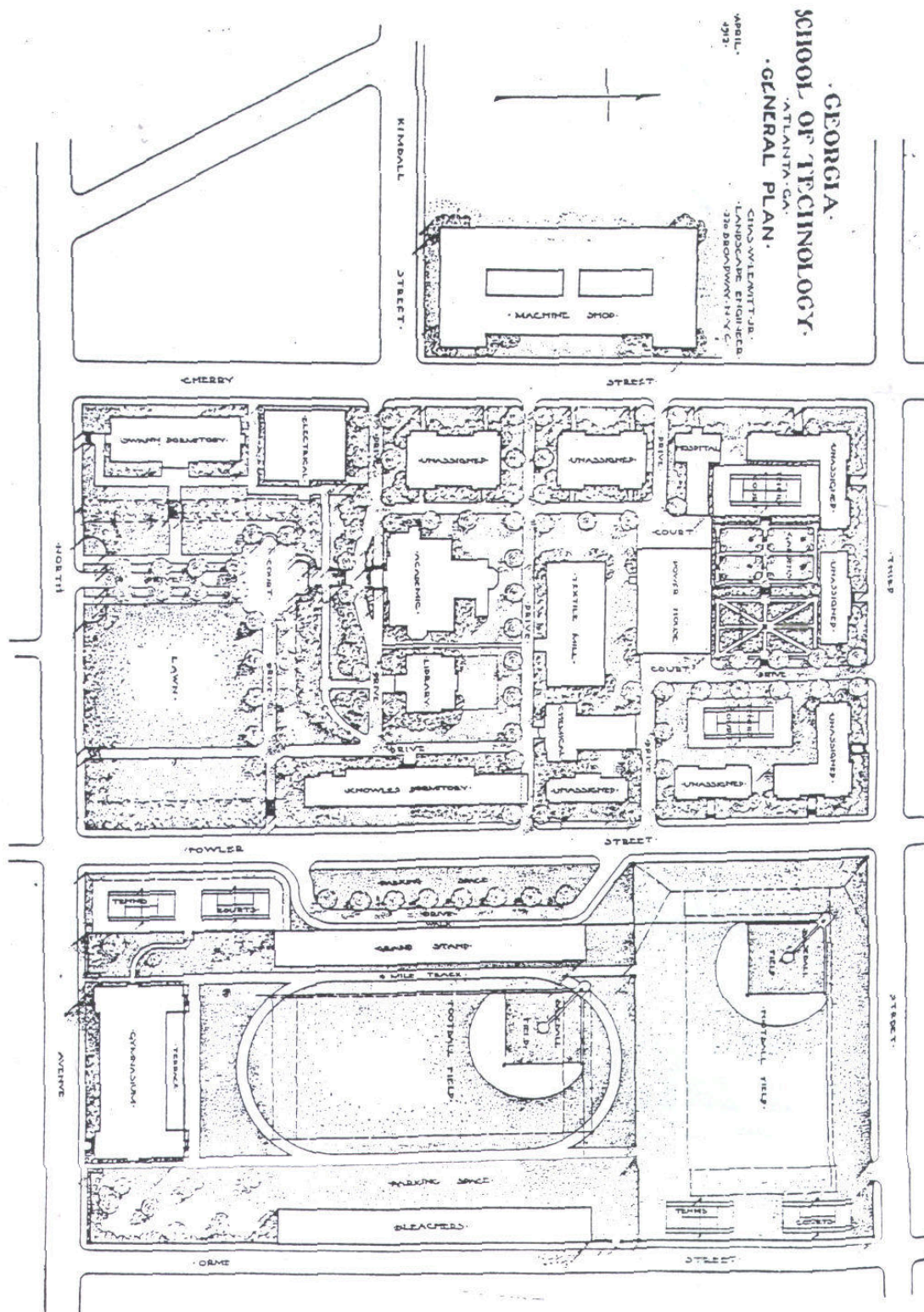
The first faculty at Georgia Tech in 1890. From left to right: (front row) John Saylor Coon, Professor of Mechanics and Mechanical Drawing; Isaac Hopkins, President from 1888 to 1896; A. Jessop, Superintendent of Shops; the Reverend Charles Lane, Professor of English; (second row) D. B. Oviatt, Professor of Drawing; Ernest E. West, Adjunct Professor of Physics and coach of the first football team in its three games in 1892; Lyman Hall, Professor of Mathematics; (third row) F. O. Spain, Professor of Mathematics and center on the 1892 team; William H. Emerson, Professor of Chemistry and Dean.

Attachment 1.7: Photo from the George W. Woodruff School of Mechanical Engineering Photo Archives.

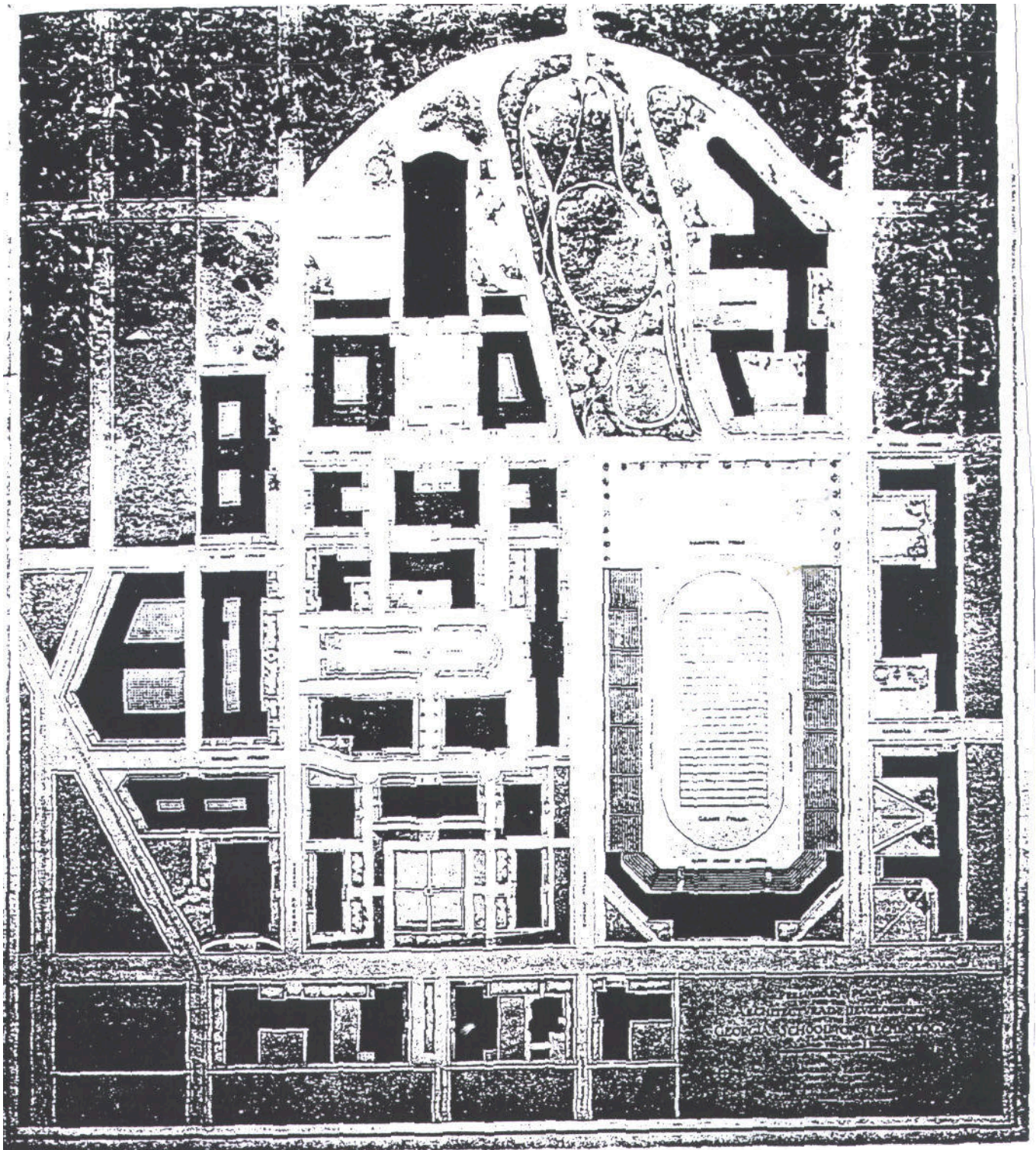


Some of the products made in the Wood Shop in 1906. After the contract system ended in 1896, the products were used to furnish offices and dormitories on campus.

Attachment 1.8: Charles W. Leavitt landscape plan, April 1912.



Attachment 1.9: Preliminary architectural master plan by professors Laird, Cret and Smith, 1921.



Chapter 2: Colonel Blake Ragsdale Van Leer

The Electrical and Computer Engineering Building was named after Blake Ragsdale Van Leer, the fifth President of the Georgia Institute of Technology (Georgia Tech). He held that position for almost 12 years from 1944 until his death in 1956.

Van Leer was born in Mangum, Oklahoma (formerly Texas), on August 16, 1893. After the death of his father in 1897, he lived in a Masonic orphanage in Galveston, Texas. He received his Electrical Engineering degree from Perdue University in 1915, a Master of Science degree from the University of California in 1920, and a Master of Engineering from Perdue in 1922. On September 6, 1924, he married Ella Lillian Wall in Berkeley, California. They had three children: two sons, Blake Wayne Van Leer and Samuel Wall Van Leer, and a daughter, Maryly Van Leer Peck (born June 29th, 1930, in Washington, D.C.).

Before he became President at Georgia Tech, Van Leer held several other important positions. In 1930 he was director of the predecessor of the National Society of Professional Engineers in Washington, D.C. From 1932 to 1937, he was a Dean at the University of Florida. From there he went to North Carolina State University and became the Dean of the School of Engineering. Around 1940, Van Leer started to split his time between his position as Dean of the School of Engineering and the North Carolina Office for Defense orders. In 1942, he was called to active duty, where he served as Chief of Facility Branch of the Army Specialized Training Division. In 1943, he was promoted to Colonel.

In 1944, Van Leer was selected as President of Georgia Tech, succeeding Dr. M. L. Brittain, and was inaugurated on July 7, 1944. His time at Georgia Tech was fruitful but tumultuous. He oversaw an ambitious building plan and the following buildings were erected during Van Leer's Presidency: the new President's home, 1949; the Hightower Building, 1949; the Architecture Building, 1952; the Price Gilbert Memorial Library, 1953; the Rich Electronic Computer Center, 1955; and the Alexander Memorial Coliseum, 1956.

Aside from this building program, during his tenure Van Leer involved himself with several important issues, such as changing the name of the school (which he initiated) and building a stronger master's program. The name change from the Georgia School of Technology to the Georgia Institute of Technology became final in 1948 and, according to Van Leer, reflected the growing focus of the school on advanced technology and scientific research. Other issues he faced during his tenure were signs of social changes, like equal rights for women and African Americans, where Van Leer proved to be a very progressive leader.

Until 1952, only one woman had ever attended Georgia Tech. She was enrolled in the School of Commerce and after this school was moved to the University of Georgia women were not accepted at Tech any longer. For Van Leer, the quest to admit women was highly personal. His

wife, Ella Wall Van Leer, earned a degree in Architecture from the University of California. However, because of Tech's restrictions on the admission of women, his daughter, Maryly, had to attend Vanderbilt in order to pursue her degree in Chemical Engineering. In 1947, President Van Leer proposed a change in this policy to the Board of Regents. The Regents rejected President Van Leer's co-ed proposal. But Georgia Tech and the women of Atlanta persisted. Van Leer enlisted Tech's librarian, Dorothy Crosland, to help his wife, Ella, mobilize local women's groups. The Atlanta Women's Chamber of Commerce formally petitioned the Regents, a petition that was supported by a Resolution from Tech's undergraduate Student Council. On April 9, 1952, the Regents voted 7-5 to admit women on a full-time basis, but limited admission to programs not offered at other units within the University System of Georgia, such as engineering or architecture. It was not until 1968 that the Board of Regents voted to allow women into all degree programs at Tech.

The equal rights movement for African Americans did not spare the campus or even the Institute's football program. After a successful football season, Tech was invited to the 1956 Sugar Bowl in New Orleans to play against Pittsburgh, who had a black starting player, fullback Bobby Grier. Since Tech had played a 1953 game against a desegregated Notre Dame team, and since the University of Georgia had very recently played out-of-state games against desegregated opponents, President Van Leer and the Georgia Tech Athletic Association saw the Sugar Bowl game's contract as acceptable. However, racial tension in the South was high following the recent Brown vs. Board of Education decision. Georgia Governor Marvin Griffin surprised the Tech campus and the State on Friday, December 2, 1955, by bowing to pressure from segregationists. The Governor sent a wire to the Georgia Board of Regents Chairman, Robert O. Arnold, requesting not only that Tech not play the Sugar Bowl game, but that all University System of Georgia teams play only segregated games. Enraged, Tech students organized an impromptu protest rally on campus. Van Leer's only comment to the media came on Saturday, December 3, 1955: "I am 60 years old and I have never broken a contract. I do not intend to start now." After long negotiations, the Board of Regents decided that Georgia Tech would be allowed to play in the Sugar Bowl. Van Leer died six weeks after this incident.

Colonel Blake Ragsdale Van Leer died of heart failure on January 23, 1956, at the VA Hospital in Atlanta at the age of 62. Under Van Leer's leadership, Tech's 2,911 student enrollment grew to more than 5,000 students and the value of the physical plant increased from \$4,500,000 to \$23,000,000. About 84 acres were added to the campus.

According to her daughter, Ella Van Leer was a true woman pioneer. She received an undergraduate and a master's degree in architecture from the University of California in Berkley in 1914 and 1915. However she was not able to find a job as an architect and ended up teaching art. She worked for Rand McNally drawing elaborate maps. Two of those maps are kept at the Smithsonian Institute.

During her husband's tenure at Georgia Tech, Ella Van Leer knocked down barriers from the State Capitol to the Board of Regents to open the Institute's doors to women. She marshaled the support of the Women's Chamber of Commerce and spearheaded a successful petition

drive to overturn the statute barring female students from Tech. She was also credited with the initial design for the President's house. Since she was not a registered architect, the Atlanta firm Toombs and Creighton provided all the drawings and architectural services for the project.

Ella Van Leer died in 1986. The couple is buried at the National Cemetery in Marietta, Georgia.

Attachment 2.1

Photograph of Colonel Blake Ragsdale Van Leer (from
https://en.wikipedia.org/wiki/File:Blake_Ragsdale_Van_Leer.gif)



Attachment 2.2

Photo of the Van Leers in front of the picture window at the President's House, published in the *Atlanta Journal Magazine*, December 4, 1949.



caption: "Col. And Mrs. Blake R. Van Leer are seated before the south portico window, which looks out over Rose Bowl field, the Tech campus and the skyline of Atlanta."

Attachment 2.3

Photograph of President Van Leer with Governor Herman Talmadge (from “Van Leer, Blake,” *Georgia Tech History Digital Portal*, accessed June 11, 2013, <http://history.library.gatech.edu/items/show/4109>.)



Chapter Three: The Architect - Robert and Company and Ed Moulthrop

Robert and Company and Lawrence Wood “Chip” Robert, Jr. (1887-1976)

Robert and Company is internationally known and is recognized as one of the top engineering and architecture firms in the United States, doing much of its work in Georgia and the Southeast. The company’s projects on the Georgia Tech campus include the Van Leer Electrical Engineering Building (1962) and the Neely Nuclear Reactor (19XX???). Robert and Company was founded by Chip Robert in 1917.

Lawrence Wood “Chip” Robert, Jr., was born in 1887 in Monticello, Georgia. He attended the four-year program at the Georgia Institute of Technology beginning in 1904 and graduated with a degree in civil engineering. He was involved in athletics and was the captain of the football and baseball teams in 1907. After a fifth year at Georgia Tech, he graduated with an additional degree in experimental/textile engineering in 1909. While at Georgia Tech, Robert worked in railroad construction, which he had been doing before going to college. After graduation, he took a job with an industrial engineering firm in Atlanta.

In 1911, Robert formed the Dallis-Robert Company and later in 1917 he organized Robert and Company Architects and Engineers. Robert became a strong force in the industrial growth of Atlanta and the southeast region and lobbied constantly to entice northern businesses to the south. Prior to World War II, Robert and Company had projects in over 250 cities and towns in 37 states, with construction budgets totaling over \$350,000,000. The work included several textile mills that had relocated from New England to the south, power plants, prisons, hospitals, schools, stadiums and hotels.

In 1933, Robert was appointed to the post of Assistant Secretary of the Treasury in charge of public works under President Franklin Roosevelt’s administration. This included overseeing the design and construction of post offices and other public buildings. During World War II, Robert and Company continued to grow and was involved in a wide range of military projects for the U. S. armed forces. Some of their military projects included: the naval training station at Corpus Christi, Texas; the naval training base at Jacksonville, Florida; the Bermuda Naval Station; and the Patrol Station at San Juan, Puerto Rico. In 1943, Robert and Company was one of three firms to receive a citation from the U. S. Navy for outstanding service in the Navy war construction program. Another major wartime project of Robert and Company was the design of an aircraft assembly plant (Lockheed) in Marietta, Georgia, where the company provided engineering services as well as construction management and supervision in coordination with the U. S. Army Engineers.

By the end of World War II, Robert and Company had become nationally known for their design and engineering services. The company served a wide range of clients, including General

Electric, B. F. Goodrich Tire and Rubber Company, The Coca-Cola Company, and Westinghouse. Well-known projects in the Atlanta area included work at the Hartsfield International Airport, the Atlanta Civic Center, Callaway Gardens, Grady Memorial Hospital, and the Georgia Institute of Technology.

Robert was always involved in civic issues and held many local and national public positions. He was elected Director for both the First National Bank of Atlanta and the Seaboard Air Line Railway. For eight years, Robert was Treasurer of the Democratic National Committee. From 1938 to 1948, he served as a member of the President's Cabinet Council, the Public Works Administration, and the Reconstruction Finance Corporation. After World War II, he held a post in the Marshall Plan in Europe and China.

At Georgia Tech, Robert organized and served as second President of the Alumni Association. He also was a long-time member of Tech's Athletic Board. Before the establishment of the University System of Georgia, he was a member of the Georgia Tech Board of Trustees. Later he was a member of the Board of Regents of Georgia from 1937 to 1943. In 1963, Robert gave a large grant to Georgia Tech, which remains the largest undesignated grant given to the Institute to this date. Robert died on June 6, 1976. Later that year, his daughters, Louisa Carroll and Birney Jones, pledged funds from the Robert Foundation for reconstruction and renovation of the old YMCA building on North Avenue, which was dedicated as the L. W. "Chip" Robert, Jr., Alumni/Faculty House on November 17, 1979.

Robert's grandson, Lawrence W. Robert, IV (also called "Chip"), became the head of the company until his retirement in 2005. Today, under the leadership and direction of CEO Mike Kluttz, Robert and Company continues to serve clients locally in Atlanta, as well as nationally and internationally – still providing engineering, architecture and planning, as well as expanding their services to now include aviation, landscape architecture, historic preservation and green design.

Ed Moulthrop (1916-2003)

The design of the Van Leer Building is attributed to Ed Moulthrop, who was chief designer at Robert and Company in the 1950s through the 1960s. Moulthrop, a noted architect and former Georgia Tech professor, is best-known today for the rounded art objects he created as a nationally recognized woodturner after leaving the field of architecture in the 1970s.

Ed Moulthrop was born on May 22, 1916, in Rochester, New York, and was raised in Cleveland, Ohio. He received an undergraduate degree from Western Reserve University (now Case Western Reserve University) in Ohio in 1939 and a graduate degree in architecture from Princeton University in 1941. After graduate school, Moulthrop came to Atlanta to teach architecture at Georgia Tech. In 1948, Moulthrop left Georgia Tech and worked briefly for the architectural firm of Richard Aeck. Soon after, he took a job as chief designer at Robert and Company. According to Moulthrop, Robert and Company "were, perhaps, more engineering, but I supplied the non-engineering things that they needed, like design, and modern look, and

so forth.” In addition to the Van Leer Building at Georgia Tech, Moulthrop’s most notable designs included: an addition to the Library of Congress in Washington, D. C.; the Atlanta Civic Center; the Carillon Tower at Stone Mountain; and the Callaway Memorial Chapel at Callaway Gardens. Company telephone directories indicate that Moulthrop was working at Robert and Company from the late 1950s until 1972, when he left to pursue his own private practice in architecture and to devote more time to his passion for woodworking.

During the years that followed, Moulthrop devoted all of his time to woodworking and achieved critical acclaim and national recognition as an artist. He is considered by many to be the “father of modern woodturning” because he brought the craft of turned and sculpted wood into the sphere of contemporary art. According to the New Georgia Encyclopedia, “his turned wood bowls are characterized by their large sizes, typically spherical or elliptical forms, and highly polished, clear finishes.” Moulthrop’s work is represented in the collections of many major museums, including the Museum of Modern Art in New York City and the Smithsonian’s Renwick Gallery in Washington, D.C. Moulthrop died on September 24, 2003, in Atlanta. Ed Moulthrop’s passion for woodturning was shared with his son, Philip, and grandson, Matt, who have continued his legacy and have made their own successful careers as wood turners. The three generations of wood turners have been documented in a book, *Moulthrop: A Legacy in Wood*.

Attachment 3.1

Photograph of Chip Robert, Jr. (from http://history.library.gatech.edu/files/original/uac375_va-2983_6b48e3514b.jpg.)



Attachment 3.2

Photograph of Ed Moulthrop (from http://www.pbs.org/craftinamerica/artists_family.php.)



Photograph of Moulthrop bowl (from <http://www.liveauctioneers.com/item/7770630>.)



Chapter Four: Architectural Description and Significance of the Van Leer Building

The Van Leer Electrical Engineering Building is located at 777 Atlantic Drive on the campus of the Georgia Institute of Technology. Completed in 1961 as “the new electrical engineering building,” the structure is named for Blake Van Leer, who was the fifth President of Georgia Tech. It was designed by Ed Moulthrop of Robert and Company in Atlanta and built by ABCO Builders. The building currently houses the School of Electrical and Computer Engineering. The Van Leer Building is one of several structures built between 1957 and 1969 in a period of campus expansion during Edwin D. Harrison’s tenure as President.

The overall cost of the project (building and equipment) was \$3,300,000 and it was financed by the sale of bonds by the University System Building Authority. The building has 162,230 square feet and when it was first completed it included: one lecture auditorium of 562 seats; 20 lecture rooms; 32 student laboratories; 31 faculty offices; 24 office/laboratories; 22 general research laboratories; as well as instrument rooms, shops, a power laboratory, and equipment storage.

Dr. Benjamin J. Dasher, Director of the School of Electrical Engineering, led a dedication ceremony on April 18, 1962, when the building was completed. According to the Program, “Georgia Tech’s new Electrical Engineering building is one of the most modern in the country. Designed with an eye to the future, it provides all the facilities necessary to meet the needs of education in the rapidly expanding electronics and electrical engineering industry. ... This beautiful air-conditioned building is one of the State’s major assets for education and research.” Two years later, on February 18, 1964, President Harrison was Master of Ceremonies at the event dedicating the new Electrical Engineering Building to the memory of Blake Ragsdale Van Leer.

Physical Description

The design of the building has been described as mid-century Formalism in style. The building’s massing is very geometrical: essentially a large cube connected to a smaller cylinder, both with flat roofs. The main cube – or classroom - portion of the building has four floors and a partial fifth floor at the roof level. The cylinder – or auditorium - portion of the building has two floors. The building sits on a hill at the corner of Atlantic Drive and Fourth Street, so the main entrance on Atlantic Drive is at the second floor – which makes the second floor the primary floor of the building. The entry lobby, administrative offices, and entrance to the auditorium are all on the second floor.

The primary exterior finishes are red brick and precast concrete. The North, East and West facades are all similar and are characterized by red brick walls that are punctuated by a regular rhythm of tall, narrow, vertical, windows. There is a horizontal banding at each floor level. Due to the sloping site, at the east façade there is an additional level at the ground/first floor that is treated as an open arcade – composed of square precast concrete columns. The exterior walls at the ground level on the east façade are a combination of the same vertical windows at the upper floors but infilled with decorative clear and colored glass blocks instead of brick.

The south façade has a unique design that is unlike the other three facades. The south façade is composed of precast concrete panels that form a screen in front of a wall of full-height metal windows at each floor. The precast panels are interrupted by two, full-height, vertical openings with horizontal precast overhangs. The same covered portico design and glass block window patterns at the ground floor of the east façade are repeated across the south façade at ground level (first floor).

The main entrance to the building is on the west façade in the connector between the square-shaped classroom building and the circular auditorium. The connector – or “hyphen” - is composed of large, full-height, metal windows with solid panels above. On the west façade, the connector is one story; on the east façade, the connector is two stories high (due to the sloping site). The main entrance to the building is a pair of glass doors covered by a horizontal overhang. There are secondary entrances to the building at the ground floor on the south and east facades.

The auditorium is circular in form; the exterior is red brick with vertical banding. There is a precast concrete band at the top and bottom and the cylinder sits on top of a recessed precast concrete base at the ground level. The interior of the auditorium is a double-volume space and has typical modern seating arranged in semi-circles on a sloping floor leading down to an elevated stage area. There are large round columns along the perimeter and the walls are covered in acoustical fabric panels in a curved, wave-like, form. The ceiling in the auditorium is composed of large concentric round planes that incorporate recessed lighting. The floor is carpet. Below the auditorium is a lower level at the ground floor that includes a study room for students and a utility room for mechanical equipment.

The floor plan of the main portion of the building – the cube – is a square-shaped. Each floor is comprised of offices, classrooms, and laboratories of varying sizes accessed by common hallways. The second, third and fourth floors are similar and have rooms organized around a continuous square-shaped hallway that is bisected with another hallway through the center of the building. At the ground/first floor, the hallways form an H shape. The smaller, partial, fifth floor at the roof level has a T-shaped hallway. The building has three main stairs and one elevator. The stairs are simple in design and have terrazzo treads and risers and metal railings with wood panels. There is also a single-flight stair in the connector between the two portions of the building.

The interior walls finishes throughout the building are typically painted concrete block. The corridor walls in the south hallways have a glazed tile finish with a decorative color pattern. The floor finishes at the corridors are terrazzo; the floors in the other spaces are typically tile or carpet. The ceilings are square acoustical tiles. Doors are typically wood with decorative metal transom panels above.

Changes to the Building

According to the Campus Historic Preservation Plan Update (2009), there have not been any major renovations or additions to the building since it was completed in 1961. Overall, the building retains essentially all of its original architectural and historic character. The integrity of both the exterior and interior has been preserved. Since the building was originally constructed, the changes to the interior floor plan and finishes have been minimal. Almost all of the original, character-defining, architectural elements remain, such as: the exterior features and finishes, including precast elements, brickwork, decorative glass block, metal windows; and the interior features and finishes, including concrete block walls, terrazzo floors and baseboards, acoustical tile ceilings, wood doors, metal transoms over doors, hardware, stairs and railings, bathroom finishes.

Significance and Recommendations for Future Treatment

The Campus Historic Preservation Plan Update (2009) categorizes the Van Leer Building as “Institutional Value Category 1 – Long-Term Preservation,” the highest category of significance, indicating the building is worthy of long-term preservation and investment. According to the Plan, a Category 1 building “possesses central importance in defining the historic, architectural or cultural character of the Institution” and “can be adaptively used to meet the Institute’s educational mission.” In 2009, the Plan rated the condition of the Van Leer Building as “B – Minor Defect,” which indicated “the building is intact and structurally sound, with few or no cosmetic imperfections, and needs no repair or only minor repair and/or routine maintenance.” In 2013, the current condition of the building remains the same.

The Preservation Plan states: “The Van Leer Building is significant and is representative of mid-twentieth century campus development and the evolution from the modern International Style to the postmodern Formalist style, characterized by the transition from horizontal elements to vertical elements, such as the punched windows, and by the formal expressions of the structure, such as the concrete screening and circular auditorium.”

The auditorium of the Van Leer Building is one of three circular structures that were built at Georgia Tech between 1957 and 1963. The other two structures are: the Alexander Memorial Coliseum, built in 1957 and designed by Richard L. Aeck; and the Frank H. Neely Nuclear Research Center, built in 1963 and, like the Van Leer Building, also designed by Robert and Company. The Coliseum has been completely modified and the Neely Reactor building was demolished in 2006.

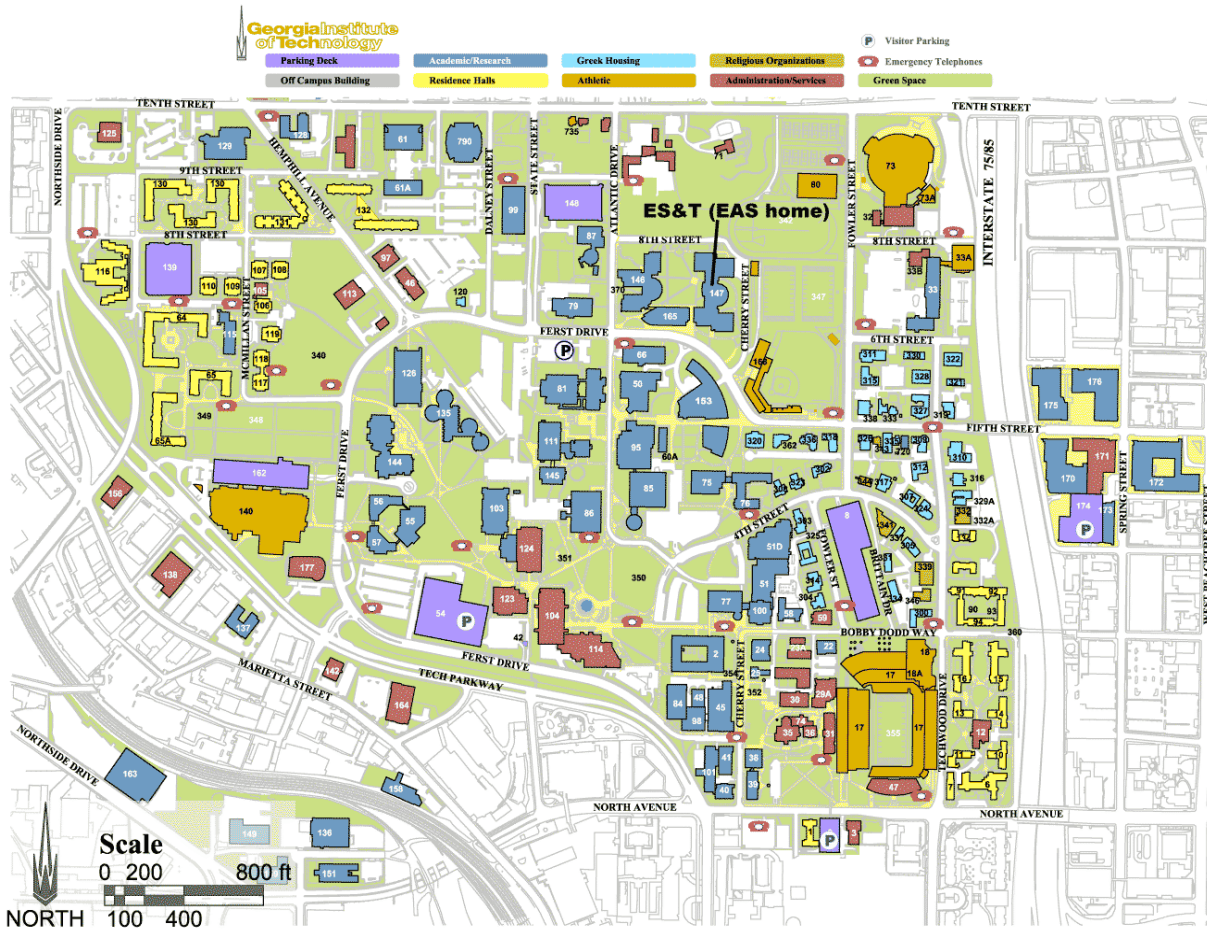
The design of the Van Leer Building is attributed to Ed Moulthrop, who was chief designer at Robert and Company in the 1950s through the 1960s. Moulthrop, a noted architect and former Georgia Tech professor, is best-known today for the round art objects he later created as a nationally recognized artist/woodturner after leaving Robert and Company in 1969. The Van Leer Building at Georgia Tech is one of the most notable of Moulthrop's architectural designs. Previous to his position at Robert Company, Moulthrop had briefly worked for Richard Aeck.

Some other aspects also contribute to the architectural and historical significance of the Van Leer Building. Because Moulthrop worked for Aeck, it is possible there could be an association between Ed Moulthrop and the design of the Coliseum. Also, the Van Leer Building is important in the context of Moulthrop's body of architectural work, given his national reputation as an artist and designer – and given the nature of the circular form of the auditorium which is consistent with his later art pieces. Furthermore, there could be links between the three circular buildings that were built on the campus within such a brief period of time, since these three buildings are unique to the campus plan - and the Van Leer Building auditorium is the only one of the three that remains intact.

Given the significance of the building – both historically and architecturally – it is recommended that any future rehabilitation work should be consistent with the recommendations described in “Part 3: Treatment and Use of Historic Resources” of the Campus Historic Preservation Plan Update. This includes retaining original materials and design elements to the greatest extent possible. Also, regarding future additions and/or modifications, in order to preserve the historic character of the building, the Preservation Plan states: “there should be efforts to preserve the original structure by not imposing on it” and by “attaching a new addition to the least significant or secondary elevation of the building.” One of the primary design elements of the Van Leer Building is the relationship between the two geometrical forms: the square classroom building and the circular auditorium. Another important architectural feature is the south-facing façade of precast panels screens and glass block designs. According to the Preservation Plan, “extra care should be taken not to damage elements and spaces that contribute to the historic significance of a structure.”

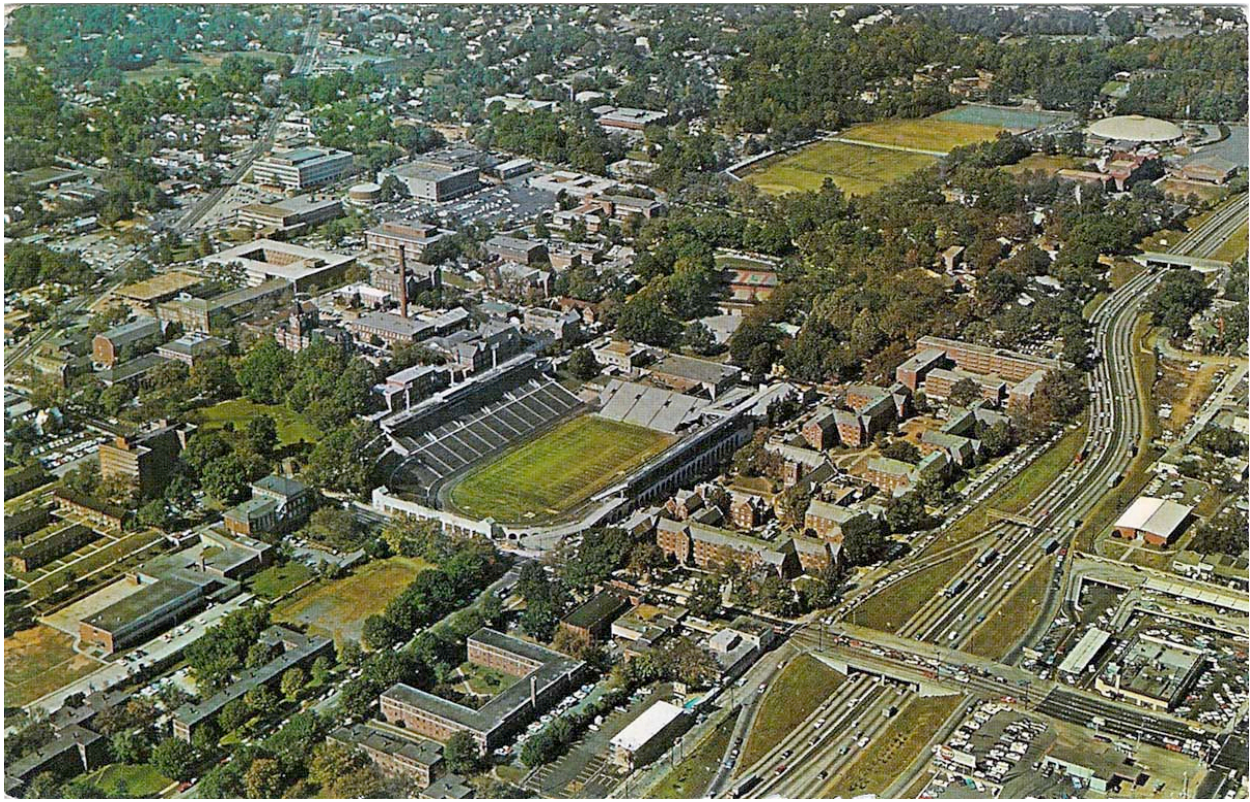
Attachment 4.1

Georgia Tech Campus Map, 2013 – Van Leer Building is #85 near center of map



Attachment 4.2

Postcard of aerial view of Georgia Tech, c. 1966 – Van Leer Building at upper left quadrant of photo (from http://www.atlantatimemachine.com/misc/tech_aerial_pc.htm.)



Attachment 4.3

Georgia Tech Campus Map, c. 1968 – Van Leer Building is #68 at lower left quadrant of map (<http://www.gtpkt.org/alumni/jcovert/campus68.html>.)



Attachment 4.4

Historic photograph of Van Leer Building (from “Van Leer Electrical Engineering Building,” *Georgia Tech History Digital Portal*, accessed June 11, 2013, <http://history.library.gatech.edu/items/show/2414>.)



Attachment 4.5

Historic photograph of Van Leer Building (from “Van Leer Electrical Engineering Building,” *Georgia Tech History Digital Portal*, accessed June 11, 2013, <http://history.library.gatech.edu/items/show/2418>.)



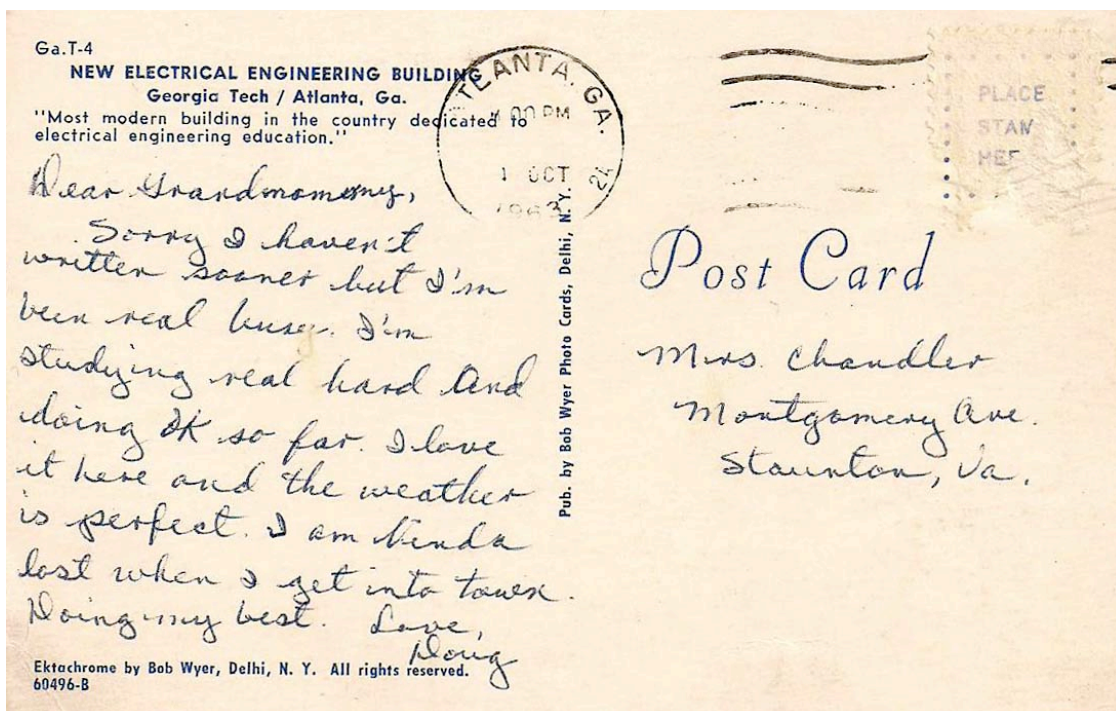
Attachment 4.6

Historic photograph of Van Leer Building (from “Van Leer Electrical Engineering Building,” *Georgia Tech History Digital Portal*, accessed June 11, 2013, <http://history.library.gatech.edu/items/show/2409>.)



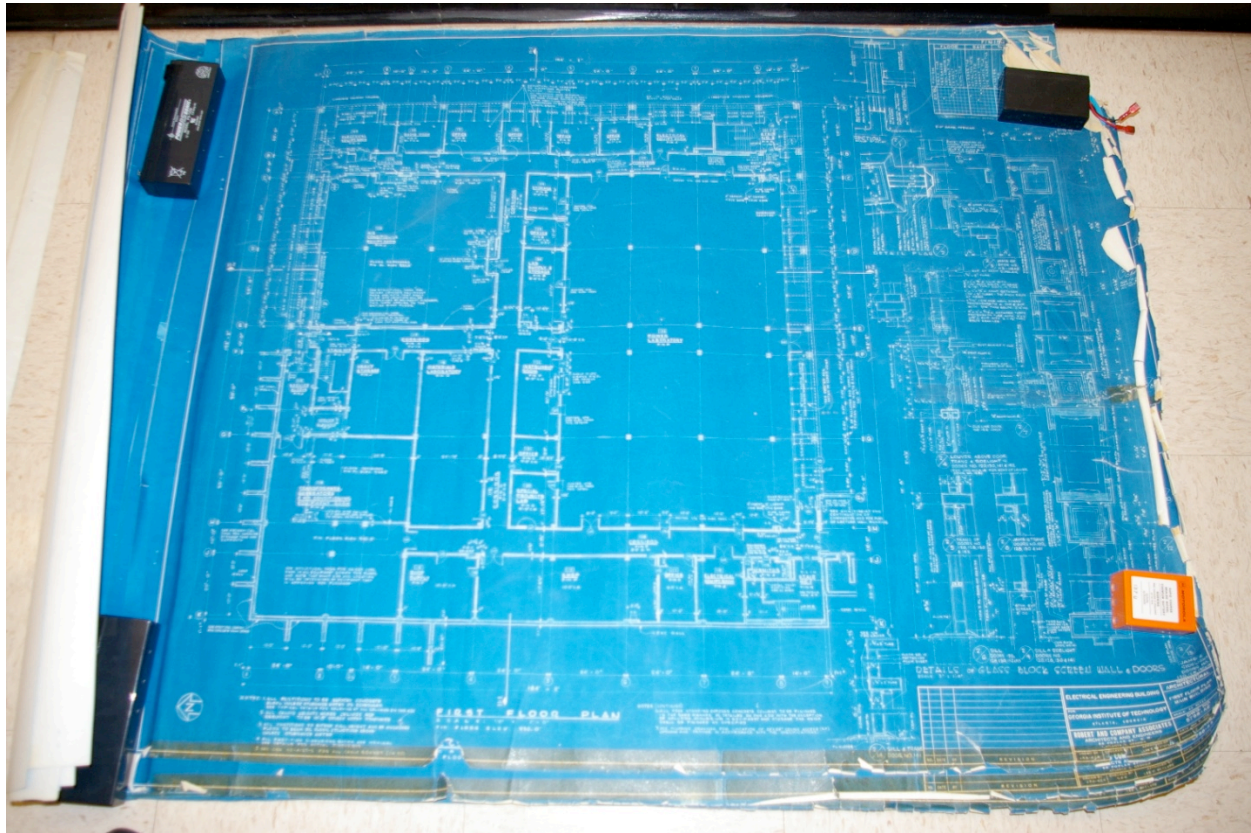
Attachment 4.7

Postcard of Van Leer Building, c. 1963 (from
http://www.atlantatimemachine.com/misc/van_leer.htm)



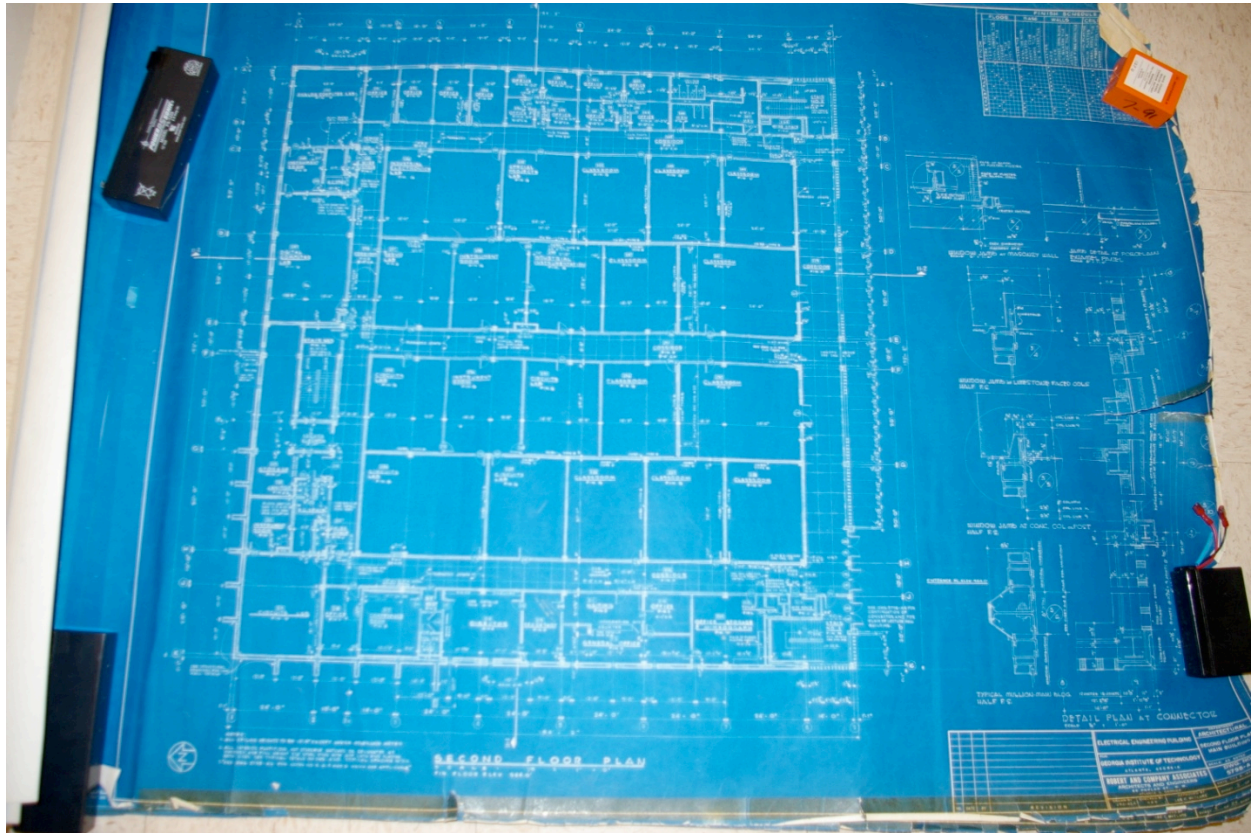
Attachment 4.8

Photograph of original blueprints – First Floor Plan



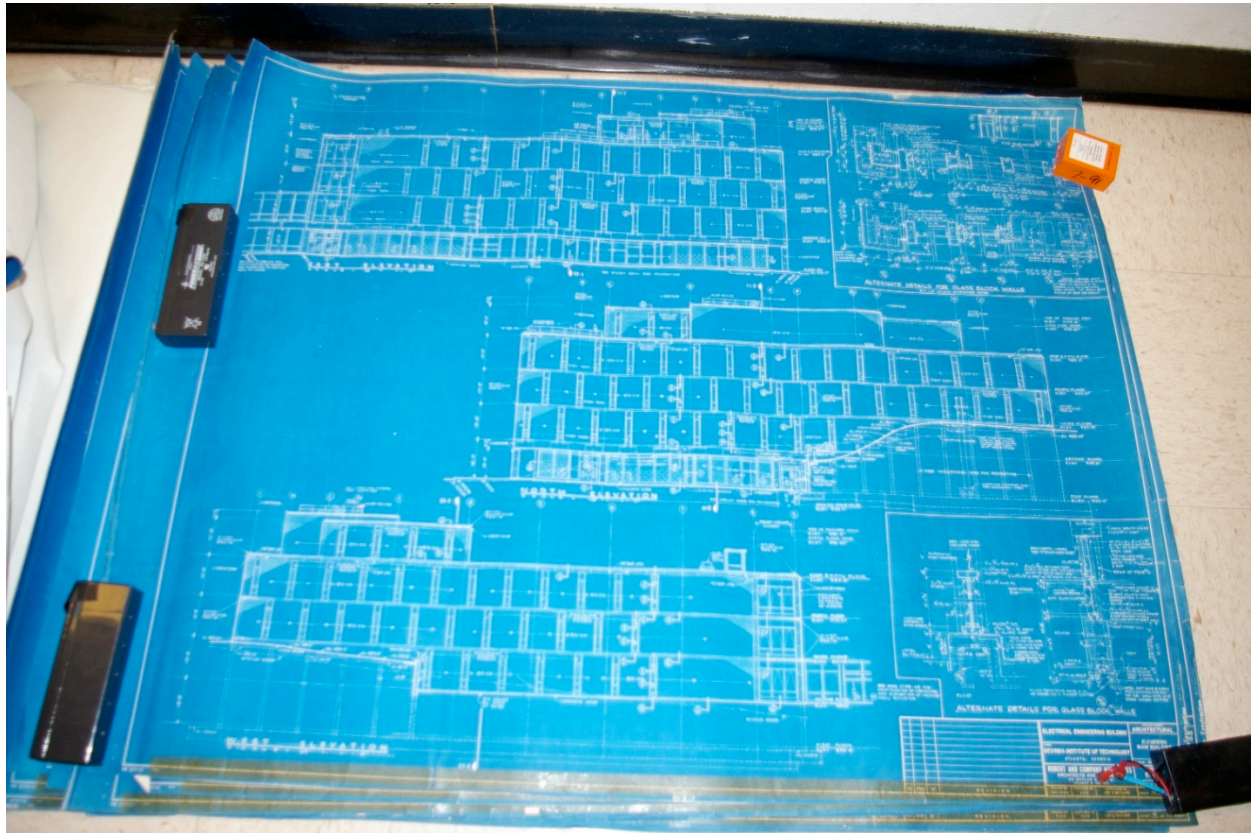
Attachment 4.9

Photograph of original blueprints – Second Floor Plan



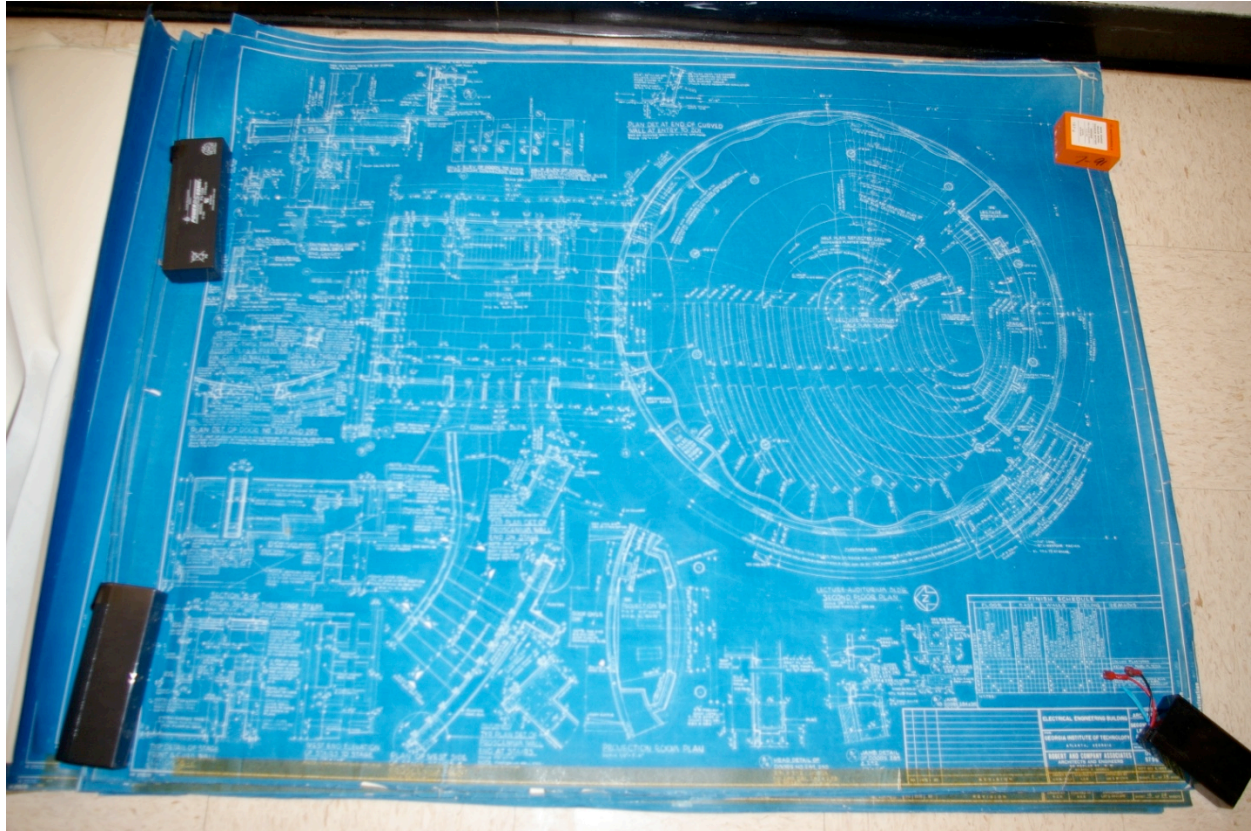
Attachment 4.10

Photograph of original blueprints – Exterior Elevations



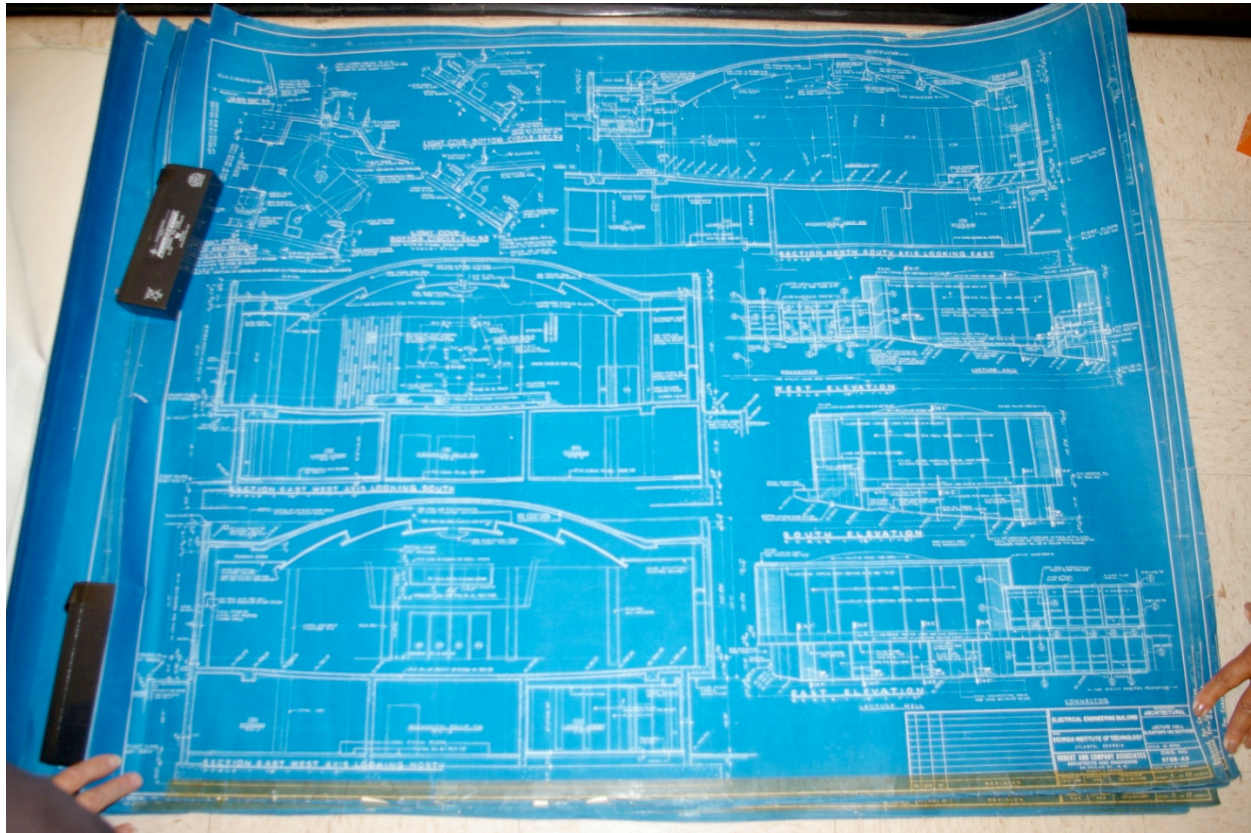
Attachment 4.11

Photograph of original blueprints – Lecture Hall Floor Plan and Details



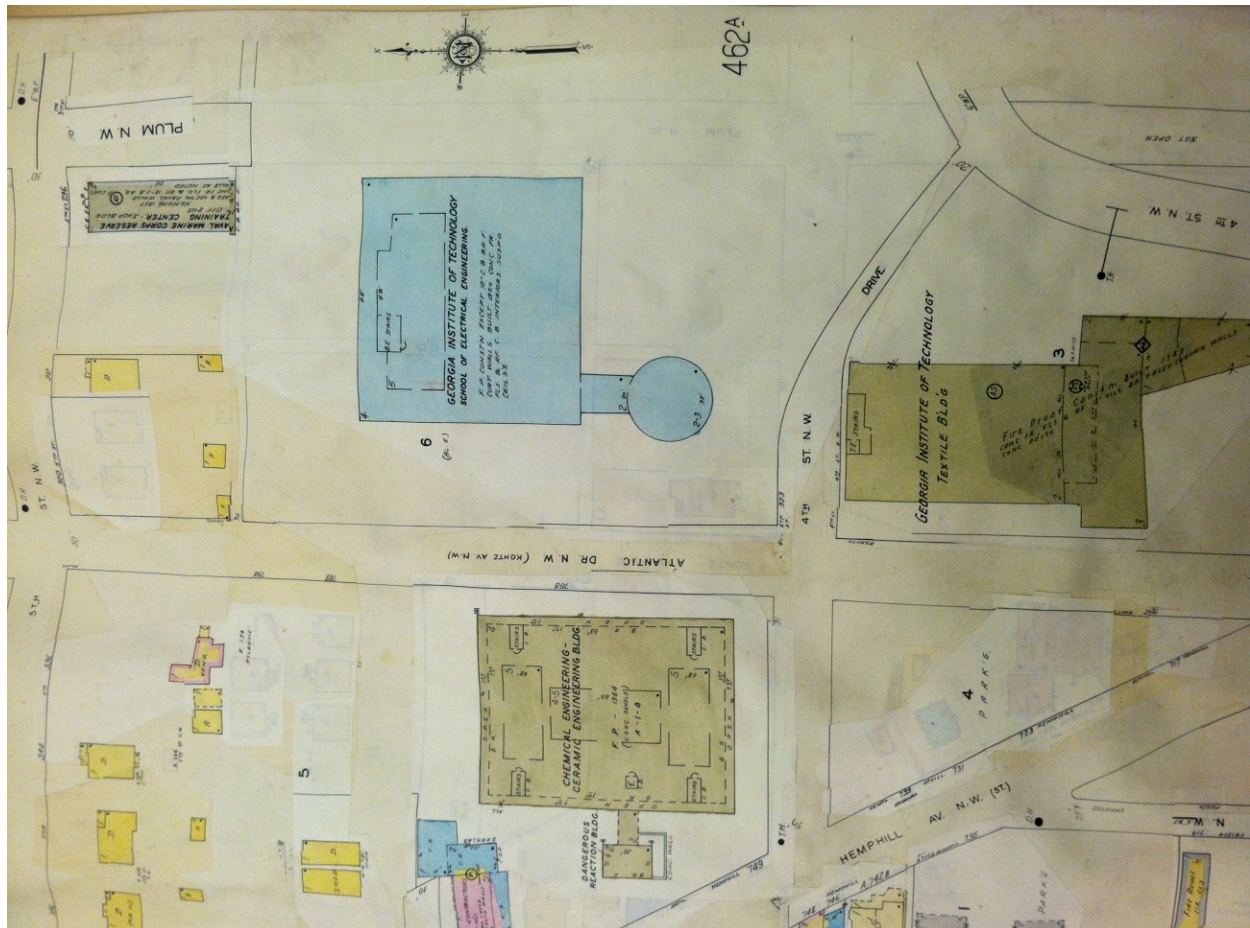
Attachment 4.12

Photograph of original blueprints – Lecture Hall Elevations and Sections

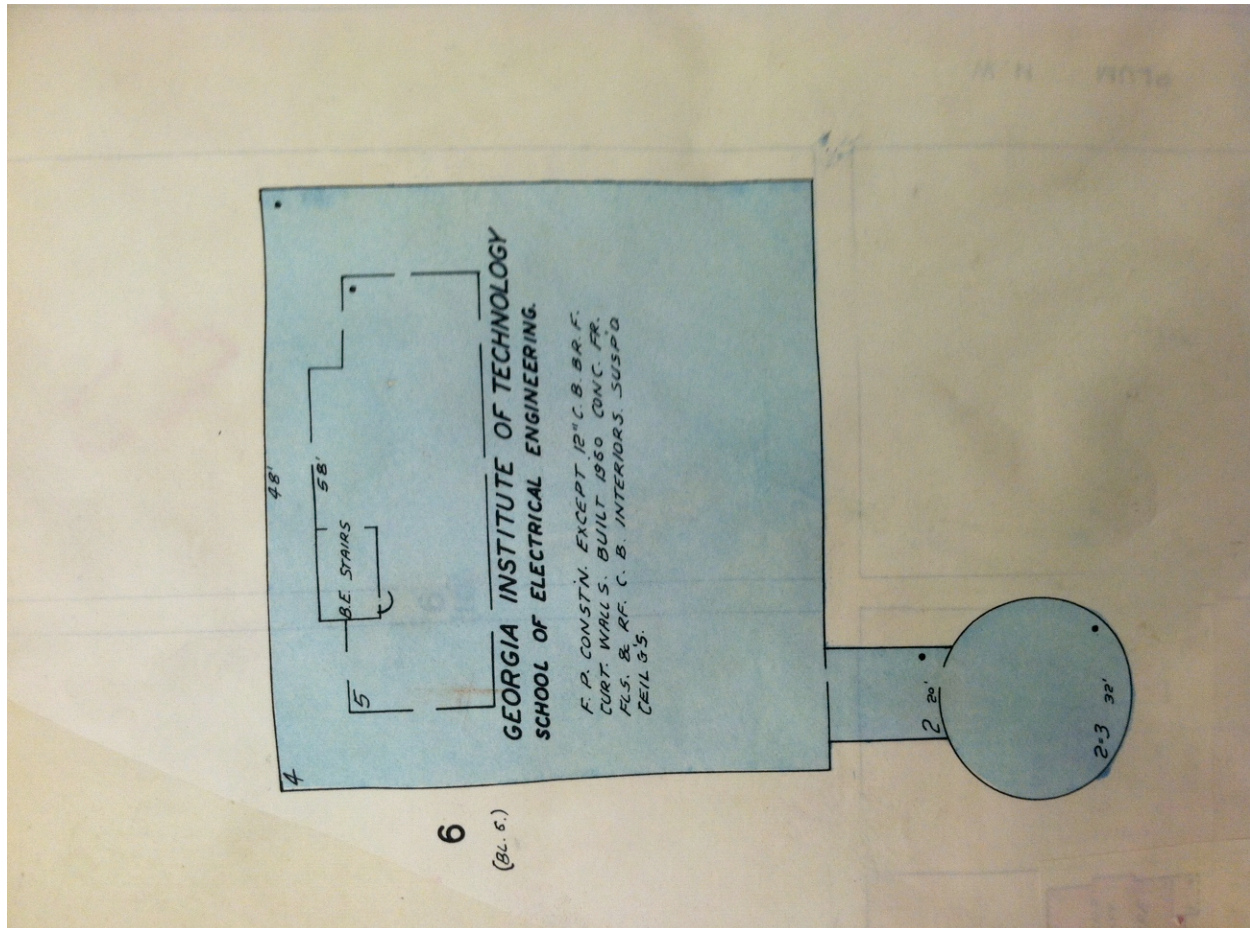


Attachment 4.13

1967 Sanborn Fire Insurance map, book 4A Page449



Attachment 4.13 continued



Chapter 5: Exterior and Interior Photographs, Photo Key

Photographs: May 2013

Photographs 1 – 20 Exterior

Photographs 21 – 104 Interior

Photo key

Photo key – Exterior

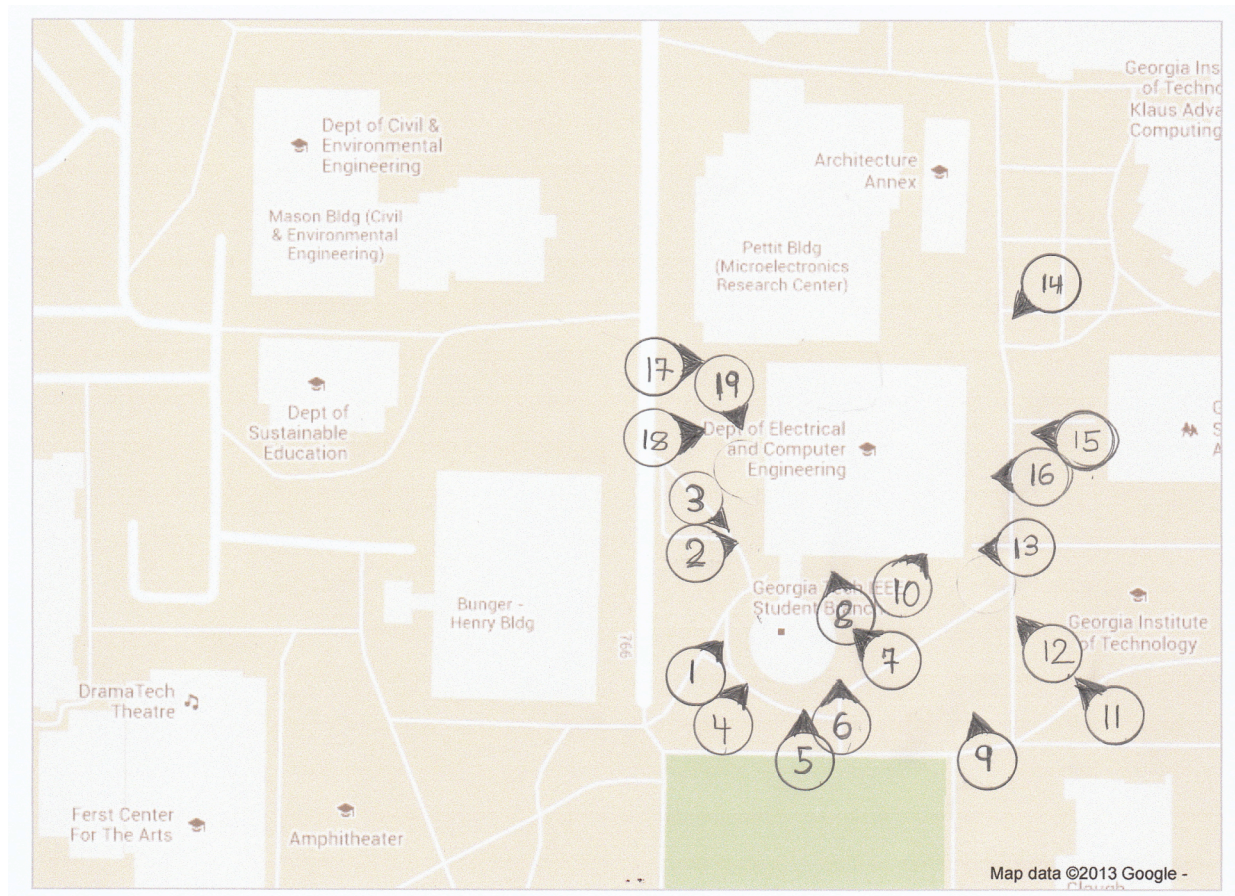




Photo Key- Interior Third Floor

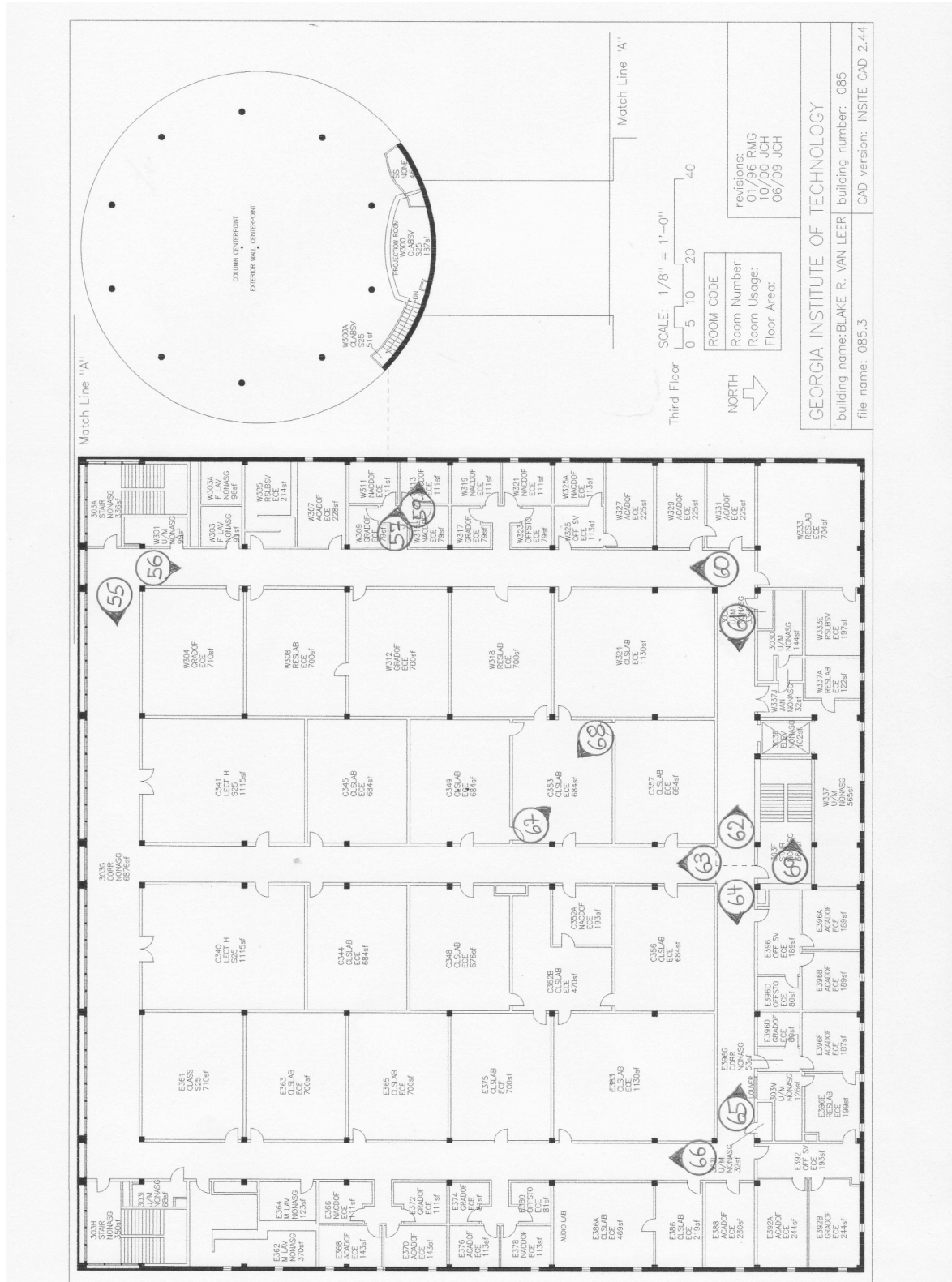
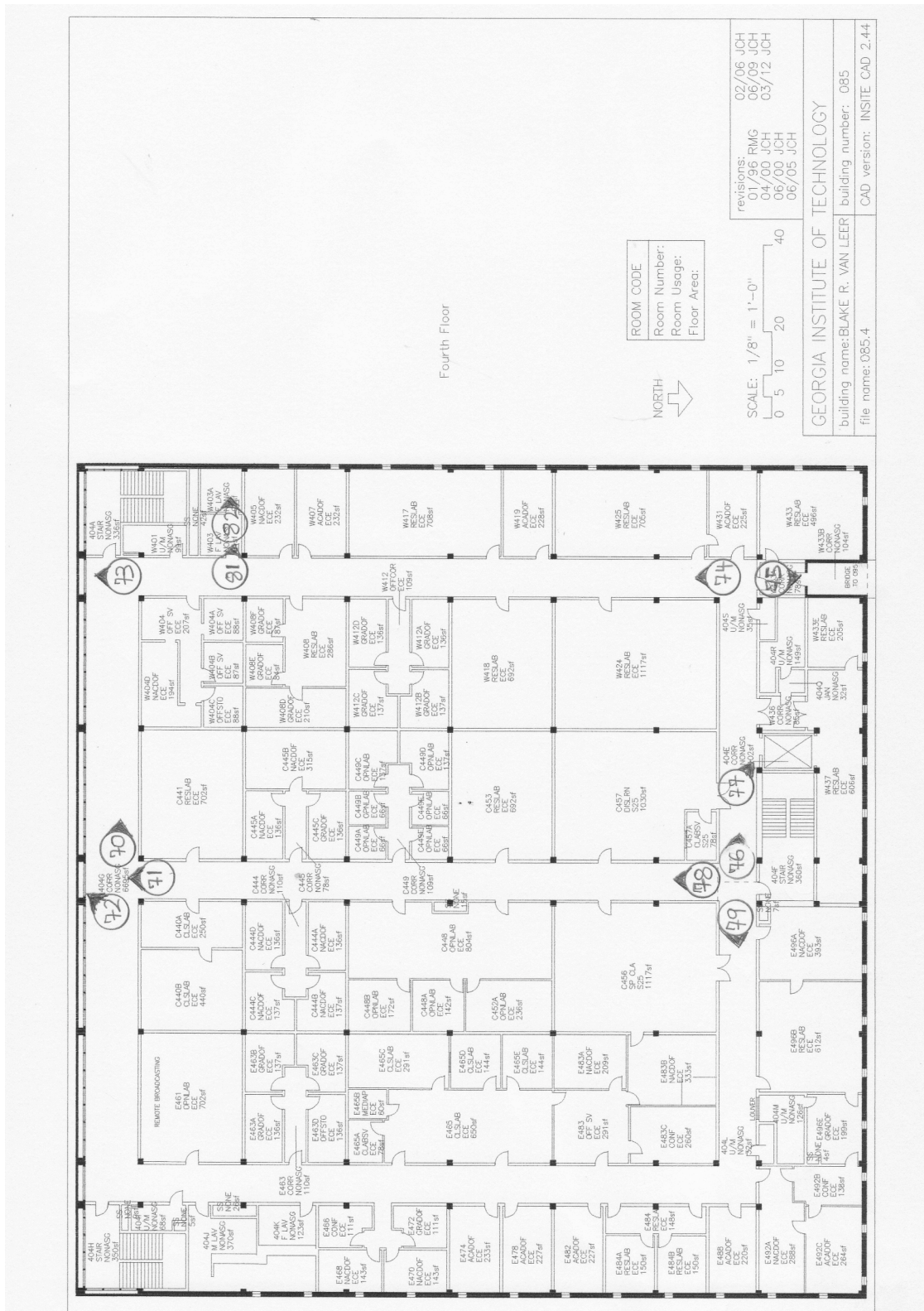


Photo Key- Interior Fourth Floor





Bibliography

Atlanta Journal Constitution, December 4, 1949. (photograph of Ella Van Leer)

“Atlantan Gives Georgia Tech Record Undesignated Grant.” *The Atlanta Journal-Constitution*, October 6, 1963.

“Blake Ragsdale Van Leer Building.” Georgia Tech Office of Development (from <http://www.development.gatech.edu/institute-priorities-and-needs/facilities-equipment/blake-ragsdale-van-leer-building>.)

“Blake Ragsdale Van Leer.” Buzzpedia. (from http://buzzpedia.lmc.gatech.edu/wiki/index.php/Blake_Ragsdale_Van_Leer.)

Blueprint, 1963. (from <https://smartech.gatech.edu/handle/1853/32058>.)

Buildings and Grounds Files – Electrical Engineering Building, Archives, Library Information Center, Georgia Institute of Technology.

Callahan, Ashley. “Ed Moulthrop (1916-2003).” *The New Georgia Encyclopedia*. <http://www.georgiaencyclopedia.org/nge/Article.jsp?id=h-1044>

Douglas, Mary. “Oral history interview with Ed Moulthrop, 2001 Apr. 2-3.” Archives of American Art <http://www.aaa.si.edu/collections/interviews/oral-history-interview-ed-moulthrop-11635>

Drury, Warren E., III. *The Architectural Development of Georgia Tech* (A Thesis Presented to the Faculty of the Division of Graduate Studies, In Partial Fulfillment of the Requirements for the Degree Master of Architecture). Georgia Institute of Technology, June, 1984.

“ECE Building Addition.” Georgia Tech Campus Planning and Space Management. (from <http://www.space.gatech.edu/planning/?id=62&year=>.)

Fox, Catherine. “Ed Moulthrop, 87, Craftsman and Artist.” Published in the *Atlanta Journal-Constitution* from September 25 to September 27, 2003. <http://www.legacy.com/obituaries/atlanta/obituary.aspx?n=Ed-Moulthrop&pid=1426953#fbLoggedOut>

Georgia Institute of Technology: Architectural Survey (1943-1965).

“Ga. Tech Campus/Van Leer Building.” AtlantaTimeMachine.com. http://www.atlantatimemachine.com/misc/van_leer.htm.

Goldsmith, Marty. Paper found in the vertical files of the campus archives, referenced in Georgia Institute of Technology: Architectural Survey (1943-1965).

"History of the Firm." Robert and Company 75th Anniversary publication. (at the Atlanta History Center)

http://en.wikipedia.org/wiki/History_of_Georgia_Tech#Postwar_changes_and_unrest

<http://www.eancestry.org/getperson.php?personID=I18751&tree=nichols>

<http://www.vanleerplus.org/11maurice.htm>

L. W. "Chip" Robert, Jr. Alumni/Faculty House Dedication Records (MS059), Archives, Library and Information Center, Georgia Institute of Technology. (from <http://www.library.gatech.edu/archives/finding-aids/view?docId=ead/MS059-ead/MS059-ead.xml;query=;brand=default>.)

Lord Aeck Sargent, et al. "Georgia Institute of Technology Campus Historic Preservation Plan and Update, 2009."

McKay, John. "Atlanta's Own Nuclear Reactor." Examiner.com, March 14, 2011. <http://www.examiner.com/article/atlanta-s-own-nuclear-reactor>

"Moulthrop family." Wikipedia. http://en.wikipedia.org/wiki/Moulthrop_family.

Ocala Star-Banner, Jan 24, 1956.

"Passing of President." *Sarasota Journal*, January 24, 1956.

President Edwin Harrison Papers, Archives, Library Information Center, Georgia Institute of Technology.

Robert and Company website, <http://www.robertandcompany.com/index.html>.

"Robert, L.W. "Chip"," *Georgia Tech History Digital Portal*, accessed June 11, 2013, <http://history.library.gatech.edu/items/show/5169>.

"Tech Breaks Ground for New Building," *Atlanta Journal*, July 20, 1959.

"Van Leer, Blake," *Georgia Tech History Digital Portal*, accessed June 11, 2013, <http://history.library.gatech.edu/items/show/4109>.

“Van Leer Electrical Engineering Building,” *Georgia Tech History Digital Portal*, accessed June 11, 2013, <http://history.library.gatech.edu/items/show/2418>.

“Van Leer Electrical Engineering Building,” *Georgia Tech History Digital Portal*, accessed June 11, 2013, <http://history.library.gatech.edu/items/show/2414>.

“Van Leer Electrical Engineering Building,” *Georgia Tech History Digital Portal*, accessed June 11, 2013, <http://history.library.gatech.edu/items/show/2409>.

Wallace, Kevin. *Moulthrop: A Legacy in Wood*. Crescent Hill Books. November 1, 2007.

www.djgcreate.com/swe/joomla/images/PDFs/swe%20women_transcript%20peck.pdf

www.gatech.edu/president/editorials/georgia-tech's-proud-history-women-leaders