HISTORIC AMERICAN BUILDINGS SURVEY

Edison's Emark Battery Plant
1025 – 1035 Belleville Turnpike
Town of Kearny,
Hudson County, New Jersey

Prepared for:

Performing Parties Group
On behalf of Beazer East, Inc.,
Tierra Solutions, Inc.,
Cooper Industries, LLC and
Apogent Transition Corporation

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September 2015
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HISTORIC AMERICAN BUILDINGS SURVEY

Kearny

Location: 1025 – 1035 Belleville Turnpike
Kearny Peninsula, Town of Kearny,
Hudson County, New Jersey

Date of Construction: 1929: several alterations

Architect: The Austin & Son Company

Present Owner: Town of Kearny

Present Use: Vacant

Significance:

The Emark Battery Plant site in Kearny, New Jersey is eligible for the New Jersey and National Register of Historic Places under Criterion A for being associated with events that made a significant contribution to history. The Emark Battery Plant site is associated with Thomas Edison's experimentation and development of the storage battery and starter battery that were used in the Henry Ford Model A vehicles.

The Emark site is significant under Criterion C as a good example of early 20th century Art Deco style applied to industrial buildings. The buildings on site are designed in the Spanish Eclectic style, are Art Deco-style structures that reflect the functionality aesthetic attention, and construction technology.

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Project Information:

The Historic American Building Survey (HABS) style recording of the Emark Battery Plant site was undertaken as a part of the Section 106 process for the remediation of the Standard Chlorine Chemical Company (SCCC) Superfund site in Kearny, New Jersey. The U.S. Environmental Protection Agency (USEPA) required the HABS as appropriate mitigation so that the Emark Battery Plant buildings could be demolished, if necessary, as part of the site remediation or redevelopment. The Emark Battery Plant was recorded to HABS III standards, including digital format exterior and interior photography, historic photographs and some of the original architectural drawings.

Introduction:

Thomas A. Edison was one of the most prolific inventors in history. He is best remembered as the inventor of the phonograph, developer of the light bulb, and the creator of the first industrial research laboratory, in Menlo Park, New Jersey. Edison also advanced cement as a building material, particularly in domestic applications, developing new techniques for cement processing and construction. Born in Ohio, Edison moved to New Jersey early in his career and remained closely associated with New Jersey for the remainder of his life.

During the first two decades of the 20th century, Edison founded multiple companies involved in the development and production of batteries in the United States. They include the Edison Manufacturing Company; the Battery Supplies Company (est. 1903); the Edison Storage Battery Company; and the Emark Battery Corporation. Edison National Phonograph Company in 1896, and renamed in 1911, consolidated many of Edison's companies over time, including the Edison Storage Battery Company in 1932, and the Emark Battery Corporation in 1933. Edison established multiple battery factories including a plant in West Orange, New Jersey (ca. 1910) and a chemical plant in Bloomfield, New Jersey.[1] Thomas Edison was focused on his customers' needs and it became part of his organizations culture in Menlo Park, New Jersey and West Orange. The property for the Emark Battery Plant in Kearny, New Jersey was purchased by Edison in 1916, but construction of the plant was not started until 1927, four years before his death.

Edison's development of the battery became another one of his important commodities. Storage batteries were introduced on the commercial market in 1881. For over two decades, the only battery type available was a lead-sulphuric-acid cell, consisting of plates of lead in a dilute sulphuric-acid electrolyte. From the 1890s through the early 20th century, Edison strove to develop a powerful, durable, and light-weight alkaline car battery to become the basis for a successful electric automobile.

Edison's laboratories continually refined the design of such a battery, striving to develop a new alkaline electrolyte that could be used in small quantities and which would be slower to dissolve metals in the battery, creating a long- lasting and light battery in place of the sulphuric acid electrolyte solutions coupled with lead electrodes which were the contemporary standard. Edison's 'type A' battery used a potassium hydrate and lithium hydrate electrolyte and a nickel

[1] Paul Israel *Edison: A Life of Invention* pg. 419

and iron electrode. Edison succeeded in developing a battery that met his expectations in 1910. It did not achieve the success he had hoped in the car market for electric cars, due to Henry Ford's 1909 release of the gasoline-engine Model T. Nevertheless, it was widely used in trucks, commercial and factory vehicles and became one of his most lucrative inventions.[2]

A Brief History of Thomas Edison:

Thomas Edison was born on February 11, 1847, in Milan, Ohio. He was the youngest of seven children of Samuel and Nancy Edison. Thomas's mother, a schoolteacher, was a major influence during his early years. In 1854, the family moved to Port Huron, Michigan and he attended school for only 12 weeks. He was a hyperactive child, prone to distraction, and deemed "difficult" by his teacher. His mother quickly pulled him from school and taught him at home[3]. At age 11, he demonstrated interests in reading books on a wide array of subjects and an appetite for knowledge. His self-education and independent learning would serve him throughout his life.

At age 12, Edison started selling fruit, snacks, and newspapers to passengers along the Grand Trunk Railroad line. Later he began publishing his own small newspaper called the *Grand Trunk Herald.* By age 15 Edison was employed as a telegraph operator and for the next five years, he would travel throughout the Midwest as an itinerant telegrapher, as a sub for those who had enlisted in the Civil War[4]. During this time he read, studied, and experimented with telegraph technology in his spare time becoming proficient with electrical science.

In 1866, Edison moved to Louisville, Kentucky. At age 19, he worked for *The Associated Press* on the night shift. This allowed him to read, experiment, and develop an unrestrictive style of thinking and inquiry through observation and experimentation. Edison excelled at the telegraph; however, as technology advanced his partial deafness, which was caused by an infection at an early age, resulted in fewer employment opportunities[5].

He ventured to Boston and started working for the Western Union Company. Boston was at the center for science and culture and Edison reveled in it. He designed and patented an electronic voting recorder for quickly tallying votes in the legislature. Massachusetts lawmakers were not interested, since they wanted time to change fellow legislators' minds[6].

In 1869, Edison moved to New York City. His first invention in New York was an improved stock ticker called the Universal Stock Printer. This printer synchronized several stock tickers' transactions. At the age of 22, Edison was paid $40,000 for the right by the Gold and Stock Telegraph Company[7]. He quit his job as a telegrapher and started inventing full-time.

In 1870 Edison moved to Newark, New Jersey and set up his first laboratory and manufacturing facility. He employed several machinists for the lab. During this time he developed the

[2] IEEE, 2007
[3] "Thomas Alva Edison." Bio. A&E Television Networks, 2014. Web. 05 Sep. 2014.
[4] Ibid
[5] Ibid
[6] Ibid
[7] Ibid

quadruplex telegraph for Western Union, which transmitted two signals in two different directions on the same wire. However, Jay Gould, the railroad tycoon, snatched the invention from Western Union, paying Edison more than $100,000 in cash, bonds and stock creating years of litigation in the process.[8]

In 1871 Edison married 16-year old Mary Stilwell. She was an employee for one of his businesses. They were married for 13 years and had three children, Marion, Thomas, and William. She passed away in 1884.

By the early 1870s, Edison's reputation was widely known as a first-rate inventor. He moved his operations to Menlo Park, New Jersey in 1876. He built an independent industrial research facility incorporating machine shops and laboratories. During this time, Western Union encouraged Edison to develop a communication device that would compete with Alexander Graham Bell's telephone.[9] He never did. However, he did develop a method to record sound in December of 1877 called the phonograph. The invention brought him worldwide fame.

In January of 1880, Edison was granted a patent for the light bulb. He developed a company that would deliver electricity to power and light the cities of the world. He founded the Edison Illuminating Company, which was the first investor-owned electric utility, and would later become the General Electric Corporation. In 1881, he left Menlo Park to establish facilities in cities where electrical system were being installed.[10]

In 1882, the Pearl Street generating station provided 110 volts of electrical power to customers in lower Manhattan. In 1886, he married Mina Miller who was 19 years his junior. They had three children, Madeline, Charles, and Theodore. In 1887, the industrial research laboratory in West Orange, New Jersey was built to serve as his primary research laboratory for the Edison lighting companies. He would spend most of his time at this facility developing new lighting technology and power systems. He also perfected the phonograph and developed the motion picture camera and the alkaline storage battery.[11]

He developed a lasting rivalry with Nikola Tesla, who worked with Edison. In 1885 they parted ways and would publicly clash about the use of direct current electricity. Tesla would later work with George Westinghouse, which led to a business feud over electrical power.

During the 1890s, Edison built a magnetic iron-ore processing plant in northern New Jersey that became a commercial failure. He was able to salvage the process into a better method for producing cement. In 1896, Edison was the first person to project a motion picture. He held the first motion picture screening at Koster & Bial's Music Hall in New York City.

Edison's role of inventor developed over the next few decades to an industrialist and business manager. In 1911, Thomas A. Edison Incorporated was established with Edison as president and chairman.

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[8] Ibid
[9] "Thomas Alva Edison." Bio. A&E Television Networks, 2014. Web. 05 Sep. 2014.
[10] Ibid
[11] Ibid.

The automobile industry was growing and Edison worked to develop a suitable storage battery that could power an electric car (Historic Photograph 1). Though the gasoline power engine prevailed over the electric car, Edison did design a battery for the self-starter on the Model T for Henry Ford in 1912. The system was used extensively in the auto industry for decades.

Historic Photograph 1 – View of the Edison battery powered electric car, provided by Thomas Edison National Historical Park (date unknown).

During World War I, at the request of the United States government, Edison headed the naval Consulting Board to examine inventions submitted for military use. He worked on several projects, which included submarine detectors and gun location techniques. He only worked on defensive weapons as he deplored violence. In 1927, at the request of Henry Ford and Harvey Firestone, Edison began to find alternatives to rubber for the automobile tires. After experimenting with a variety of substances, he made significant advances in this area.[12]

Edison was 84 when he applied for the last of his 1,093 U.S. patents for an apparatus that would hold objects during the electroplating process. Edison died of complications from diabetes on October 18, 1931, in his Glenmont home in West Orange, New Jersey at the age of 84.

Thomas Edison & Henry Ford:

Henry Ford (1863-1947) began his relationship with Edison as an engineer with the Edison Illuminating company in 1891.[13] In 1893 Ford started experimenting with gasoline engines, and

[12] Gelb, Michael j. and Caldicott, Sarah Miller, *Innovate Like Edison*, (Dutton:New York, 2007)
[13] "Thomas Alva Edison." Bio. A&E Television Networks, 2014. Web. 05 Sep. 2014.

developed a self-propelled vehicle, Ford Quadricycle, in 1896. Ford was introduced to Edison in 1896 at one of Edison's executive meetings.

Ford later resigned, but maintained a friendship and working relationship with Edison. When Ford developed his four cylinder automobile, Edison continued to encourage Ford with his endeavors in the automobile industry.

In 1912, Edison wrote Ford about the future of the storage battery and whether Ford would take a "gamble" with him.[14] Edison indicated that the storage battery had a "barge future."[15] Edison and Ford collaborated to develop an electric car that would operate on the clean energy of the Edison's storage battery. With funding provided by Ford, Edison continued his experiments to improve the storage batteries. In January of 1914, Ford announced plans to develop an electric car with his friend and collaborator Edison.[16] By the end of 1914 the project was discontinued due to technical problems with Edison's battery. However, Edison began designing an electric starter for Ford.[17] In 1927, Edison designed the self-starter for Ford's Model A.

In 1916, Henry Ford purchased 80 acres of "reclaimed meadow land" in Kearny. Ford had an assembly factory constructed for his Ford Tractor. The site also became Ford's headquarters for their exporting business of the Ford tractor and automobile concerns.[18] Two years later Thomas Edison purchased 8.4 acres in 1917 and 8.08 acres in 1918 that would become the Emark property.

Correspondence between Thomas Edison's company and Henry Ford during 1922 indicates that Edison was working on the starter battery for Ford's automobile. The business correspondence includes updated test reports from Thomas A. Edison, Inc. (T.A.E., Inc.) to Ford Motors about the batteries progress, as well as business correspondence that reference manufacturing concerns and legal issues between T.A.E., Inc. and Ford Motors.

Edison and Ford's friendship flourished, however their business relationship may have been stressed. According to the business correspondence, Edison and Ford were not directly involved with their respective company's day to day activities. In a 1920 letter from Charles Edison to Mr. D.J. Jend, Asst. Director of Purchases at the Ford Motor Company, Charles asks Jend what type of relationship is between the companies. Is it "vendor and purchaser?"[19] Charles then remarks, "…you and I know that there <u>is</u> something to the relationship between Emark and Ford Motor more than simply buyers and sellers. Our very entrance into the business proves it."[20] This correspondence is a possible indicator that Emark was starting to supply storage batteries for Ford Motor Company.

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[14] Letter from Thomas Edison to Henry Ford, October 29, 1912. Online at Thomas A. Edison Papers, Rutgers University, (X001C8BR; TAEM 0:0).
[15] Ibid.
[16] Black, Edwin, *Internal Combustion: How Corporations and Governments Addicted the Word to Oil and Derailed the Alternatives*, New York: St Martin's Press), 147
[17] Edison, Thomas Alva, "Thomas Edison Papers", Rutgers
[18] "$5,000,000 Factory for Ford in Newark." *The New York Times*, 24 April 1916, 6.
[19] Letter from Charles Edison to D.J. Jend, December 12, 1930. Courtesy of the Henry Ford Museum and Greenfield Village Research Center. Online at Thomas A. Edison Papers, Rutgers University, (TAED X001C8BR).
[20] Ibid.

Edison's and Ford's relationship spanned many years and was often referenced in newspaper articles and announcements. On December 20, 1927, the New York Times had an article titled, *Edison a Passenger in a New Ford Car*: *Rides out of Kearny Factory in First Model A to be Assembled There*.[21] "Edison was the passenger of the first new Model Fords to be assembled in the Ford Motor companies' eastern plant here in Kearny."

Regardless of their business relationship, Edison and his second wife Mina spent their winter retreat in Fort Myers, Florida. There his friendship with Ford flourished as he continued to work on several projects ranging from electric trains to finding a domestic source for natural rubber.

History of Emark Battery Plant in Kearny, New Jersey:

The first development in the general area was the White Tar Company which purchased two narrow parcels located directly north of the Emark property in 1916 (Block 287, Lots 48 and 49), with a frontage on the Hackensack River. The White Tar Company constructed numerous buildings on their property for the refinement of crude naphthalene for the production of moth repellents, disinfectants, deodorizers and for the manufacture of decorative petroleum candles. This helped to establish the area as a manufacturing/industrial area.

In 1918, Thomas A. Edison and his wife Mina purchased all the parcels of land immediately south of the long narrow parcel owned by White Tar, consisting of Block 287, Lots 50, 51, 52 and 52R). Charles Edison may have selected the site due to the property's location. The Belleville Turnpike and the Hackensack River, respectively, bound the property on the west and east. The site for Edison's Emark Battery Plant was an ideal location because it was located on the main roads that ran east from the Edison plant in West Orange and the Edison factory complex at Silver Lake.[22] Edison's companies made use of the railroads in West Orange, Silver Lake, and western New Jersey. The rail lines were close to the site of the Emark Battery Plant, either directly or through connecting lines.[23]

Thomas Edison would use The Austin Company to build the Emark Battery Plant buildings. The buildings consisted of a Gatehouse, Engineering Building (Building 1), Battery Plant Building (Building 2), Service and Maintenance Building (Building 3) and a Boiler House (Building 4). The buildings were constructed on the site in the late-1920s following a series of conveyances among the Edison's and Edison-owned companies between 1918 and 1925. Ownership of all the parcels (Lots 50, 51, 52 and 52R) was transferred to the Edison Battery Storage Company, a wholly owned subsidiary of Thomas E. Edison, Inc., which in turn conveyed ownership of all the parcels to another Edison company, the Emark Battery Corporation (Emark) in 1929.

In 1927, Charles Edison was appointed the head of the Edison Corporation. Thomas became Chairman of the Board. Thomas disapproved of the lead-acid batteries and they were branded with the "Emark" instead of having his name labeled on the item.[24] In 1927 the construction of

[21] "Edison A Passenger In A New Ford Car" New York Times, December 20, 1927
[22] Hill, George J, MD, *Edison's Environment: Invention and Pollution in the Career of Thomas Edison* (New Jersey: New Jersey Heritage Press, 2007), 270
[23] Ibid., 273
[24] Ibid.

the Emark Battery Plant in Kearny, New Jersey began. The construction of the facility was completed in 1930 and the plant began producing storage batteries for Ford automobiles in 1930. By the 1930s, Emark became one of the ten major divisions for the Thomas A. Edison, Inc.[25]

According to the biographer of Charles Edison, Venable, the Kearny location was designed to manufacture a battery-powered "starter" for Ford's Model A.[26]The Model T was discontinued in 1927 in favor of the Model A. The Model T used a crank whereas the Model A had a battery-power starter.

The Emark Battery Plant was constructed between 1927 and 1929 on the entirety of Block 287, Lot 50 in Kearny, New Jersey. Prior to his death in 1931, Thomas Edison continued to work with batteries to produce electrical running automobiles and trains. In 1933 Emark was merged with Thomas A. Edison, Inc. (Edison, Inc.) which continued operation of the Emark Battery Plant as a division of Edison. The Emark Battery Plant operated continuously on Lot 50 from 1930 until 1953. Even as a successful operation it was never big enough to expand Battery Plant operations onto lots 51, 52 and 52R. In 1946, Koppers Company, Inc. purchased the adjacent vacant Lots 51, 52 and 52R from Edison, Inc. But not the Emark Battery Plant located on Lot 50, which continued to operate for another eight years.

Over time the production of the Emark plant seems to have fluctuated for various reasons. In 1941, the New York Times announced, in an untitled article, that the Emark battery division of Thomas A. Edison, Inc. is "partially shut down as a result of a cancellation of orders by the Ford Company last week."[27] In 1945, the New York Times reported in the article titled *Edison Strike Is Ended* that the "6 week strike at the West Orange, Belleville and Kearny plant of Thomas A. Edison, Inc. ended today when members of local number 407, united electrical workers, voted unanimously to accept proposals agreed upon by company and union representatives. The walkout of the 2000 employees has been crippling productions of the two plants since October 2." "Union leaders said that employees of most shifts would be back at work Monday."[28]

According to the 1948 Thomas A. Edison Inc. Annual Report the automotive division saw a decline in battery and spark plug sales during 1948.[29] The sales and profits of batteries were affected by the fluctuation of lead prices, which caused heavy inventory losses, and a warm winter in the East, where sales were being concentrated. The cold weather wears the battery out faster. There were plans of expanding the automobile battery business to Bremen, Indiana. Because the batteries are heavy and are no longer limited to the eastern area, the plant in Bremen, Indiana could reach 55% of all automobile owners in the United States.[30]

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[25] Ibid.
[26] Ibid
[27] Untitled New York Times, April 9, 1941
[28] "Edison Strike Is Ended" New York Times, November 11, 1945
[29] Thomas A. Edison, Inc. "Annual Report for the year ending December 31, 1948." Collection #EDIS 95121, Box #99. On file at Thomas Edison National Historical Park.
[30] Thomas A. Edison, Inc. "Annual Report for the year ending December 31, 1949." Collection #EDIS 95121, Box #99. On file at Thomas Edison National Historical Park.

In 1950, sales exceeded the previous years for all the Edison and private brand batteries due to an expanded sales program that included additional sales personnel, increased promotional activities and changes in pricing policy.[31] The 1950 Thomas A. Edison Inc. Annual Report noted that the Automotive Division is now producing batteries for the Armed Forces. The report further noted that sales to the Armed Forces were projected to increase. However, there was also anticipation for a shortage of materials in the future, which could cause a problem for manufacturing. A new plant in Bremen, Indiana started battery production in 1950.

By 1951 Edison batteries made in Kearny, NJ were sold under the Edison name through independent auto parts distributors. However, they were also produced for the Ford Motor Company and for the Firestone Tire and Rubber Company, and bore these company's brand names.[32] Also in 1951, the Bremen, Indiana Battery Plant built up production and was now making Ford, Firestone and Edison batteries. Total battery sales for these two plants were down due to Government restriction on lead, which effected production. According to the 1951, Thomas A. Edison Inc. Annual Report "Although the new sales program introduced in 1950 increased battery sales, potential shortages in lead supplies could decrease battery sales as the year progressed."[33] The report did not specify the effect these sales had on the Kearny facility.

In 1952 the sale of batteries remained the same as 1951 in spite of a decrease in sales to the government, which were far less than the preceding year. Sales increased for the general public of the strictly starting, lighting, and ignition types of batteries produced by the Automobile Division. Lead prices changed 17 times due to the unsettled lead market and lead is the major material cost in the lead-acid battery. [34] The prices ranged from a 19 cent maximum to a 13.5 cents minimum.[35] This type of price range made it difficult to maintain a stabilized profit margin.

In 1953 the Thomas A. Edison Incorporated liquidated the lead-acid automotive battery business.[36] It was described in a New York Times January 22, 1954 article titled, *Rubber Fabricator Buys Kearny Plant*: "The Crown Rubber Company, manufacture of molded rubber products, has purchased the battery manufacturing plant of the Thomas A. Edison Company on the Belleville Turnpike in Kearny, NJ." "The buildings were erected by the Edison Company in 1930 (sic) and were used for the manufacture of automobile storage batteries. The Edison Company plans to complete its removal from the plant by the end of this month." "The rubber company plans to occupy about 40,000 sq. ft. in the property and will lease the remainder of

[31] Thomas A. Edison, Inc. "Annual Report for the year ending December 31, 1950." Collection #EDIS 95121, Box #99. On file at Thomas Edison National Historical Park.
[32] Thomas A. Edison, Inc. "Annual Report for the year ending December 31, 1951." Collection #ED95121, Box #99. On file at Thomas Edison National Historical Park.
[33] Annual Report; For the year ended December 31, 1951
[34] Thomas A. Edison, Inc. "Annual Report for the year ending December 31, 1952." Collection #EDIS 95121, Box #99. On file at Thomas Edison National Historical Park.
[35] Thomas A. Edison, Inc. "Annual Report for the year ending December 31, 1953." Collection #EDIS 95121, Box #99. On file at Thomas Edison National Historical Park.
[36] Thomas A. Edison, Inc. "Annual Report for the year ending December 31, 1953." Collection #EDIS 95121, Box #99. On file at Thomas Edison National Historical Park.

the space."[37] Crown Rubber Products, Inc., operated a molded rubber product manufacturing facility in Building No. 2 (Battery Plant Building) of the Emark Battery Plant.

In 1959, Crown Rubber sold Lot 50 to Keaton Rubber Company, which, from 1959 to 1962, also operated a molded rubber product manufacturing facility in Building No. 2. From 1954 to 1964, Tantanex Chemical Corp., producers of dye carriers, leased equipment and portions of Lot 50 from Keaton, who operated a chemical dye-carrier manufacturing facility in Building No. 3 (Service & Maintenance Building) and maintained a research laboratory in Building No. 1 (Engineering Building) of the former Emark Battery Plant.

In 1962, Lot 50 was purchased by the Standard Chlorine Chemical Company (SCCC) from Keaton. The sale was announced in the New York Times November 2, 1962 article titled, *Old Edison Plant is Sold in Kearny: Chemical company acquires former battery factory*.[38] Lots 48, 49, 51, 52 and 52R were purchased by the Standard Naphthalene Products (SNP) Company (a subsidiary of SCCC) from the Koppers Company, Inc. SCCC manufactured moth crystals and flakes from dichlorobenzene at the site until 1987.[39] Between 1963 and 1981 SCCC leased the distillation building on Lot 48 from SNP for use in its separation of dichlorobenzenes to produce moth preventatives and, for a limited time, trichlorobenzenes. Raw materials were brought to the site by rail and tank trucks. The Cloroben Chemical Corporation (Cloroben), a subsidiary of the SCCC, operated a small batch formulation and blending operation for various drain cleaners known as "Cloroben" on Lot 50. SCCC ceased all manufacturing operations at the site in 1987. Cloroben ceased manufacturing operations on Lot 50 in 1993; the Emark buildings still remain standing on the property.

The Austin Company:

As discussed earlier, The Austin Company built the Emark Battery Plant buildings. The Austin Company was created by Samuel Austin (1850 – 1936). Samuel Austin began his career as a carpenter in England. He moved to the United States after hearing about the Chicago fire of 1872, expecting the need of craftsman to help rebuild the city. Austin decided to settle in Ohio after visiting a friend. Known for his quality of work, Austin and his son Wilbert J. Austin incorporated as the Samuel Austin & Son Company in 1904 ("Austin and Son"), an engineering and construction firm focused on industrial plan projects.[40] The company's first major construction project was the National Electric Lamp Association in East Cleveland in 1912. During this time, Wilbert developed "The Austin Method," which streamlined the building process by bundling engineering, construction, and design services.[41]

In 1914, Austin and Son introduced four prefabricated building plans for clients to choose. This provided a new level of efficiency to the construction process. In 1916, the company name changed to The Austin Company, Engineers and Builders. Wilbert also developed the

[37] "Rubber Fabricator Buys Kearny Plant" New York Times, January 22, 1954
[38] "Old Edison Plant is Sold in Kearny: Chemical company acquires former battery factory" New York Times, November 2, 1962
[39] Weston, Roy 1993 Draft Remedial Investigation for the Standard Chlorine Chemical Company Inc. and Standard Naphthalene Products Inc. Properties, Kearny, New Jersey
[40] "History of the Austin Company." The Austin Company, 2014 Web 05 Sep. 2014, www.theaustin.com
[41] Ibid

"Controlled Conditions" plan, which was an improvement from the hot factories during that period.[42] The plant would become cost effective by controlling the light, noise, temperature, and humidity and creating a better working environment.

In 1917, the Austin Company was growing rapidly and many plants built by them produced and supplied the Allied forces in World War I. In 1920, Austin experimented with steel fabricating techniques using electric welding in order to support the heavy weight required for heavy industry plants instead of riveted steel structures.[43] The Austin Company also built support facilities for many of the nation's airports, such as the Cleveland Municipal Airport that opened in 1925.

Description of Emark Battery Plant:

The former Emark Battery Plant Property is located on the eastern side of the Belleville Turnpike in Kearny, New Jersey (see Site Location Map).[44] This area was not developed until after the 1909 GM Hopkins Map of Hudson County). The proposed boundaries of the historic resource site have been drawn to include only that portion of the former Emark Battery Company parcel (now part of the Standard Chlorine Chemical Company property) that includes standing buildings that were historically associated with the Emark Battery Plant. The boundaries encompass the entirety of tax lot 287, block 50.

Five buildings currently stand on the former Emark Battery Plant site; the Gatehouse (Historic Photograph 2), Engineering Building (Historic Photographs 3 & 4), Battery Plant Building (Historic Photograph 5), the Service and Maintenance Building (Historic Photograph 6) and the Boiler House (Historic Photograph 7). Historic maps, historic photographs, and documentary sources, as well as physical evidence suggest that all five of these structures were built as part of a single construction campaign started in 1927 (this construction date is shown on original plans) by the Thomas A. Edison Company. One of the five buildings, the Gatehouse, is designed in the Spanish Eclectic style. The remaining four buildings are Art Deco-style structures that reflect functionality, aesthetic attention, and construction technology. The Art Deco-style structures include the Engineering Building (Building 1); the Battery Plant Building (Building 2); the Service and Maintenance Building (Building 3); and the Boiler House (Building 4).

According to the 1936 Sanborn map, batteries were manufactured, packed, and shipped in the Battery Plant Building, the largest building on the site. The Engineering Building (Building 1), the first building to the east of the Gatehouse, served as an Office & Laboratory. It is the most ornate of the structures and was constructed of fireproof concrete, with incised Art Deco decoration. The existence of a laboratory on an industrial site is relatively unique to Edison's complexes in this period, reflecting his role in combining research and development with manufacturing. The use of concrete throughout the complex also likely reflects Edison's interest in the building material; however, whether Edison's concrete construction methods or concrete companies were involved in the construction of the buildings on the site is not known.

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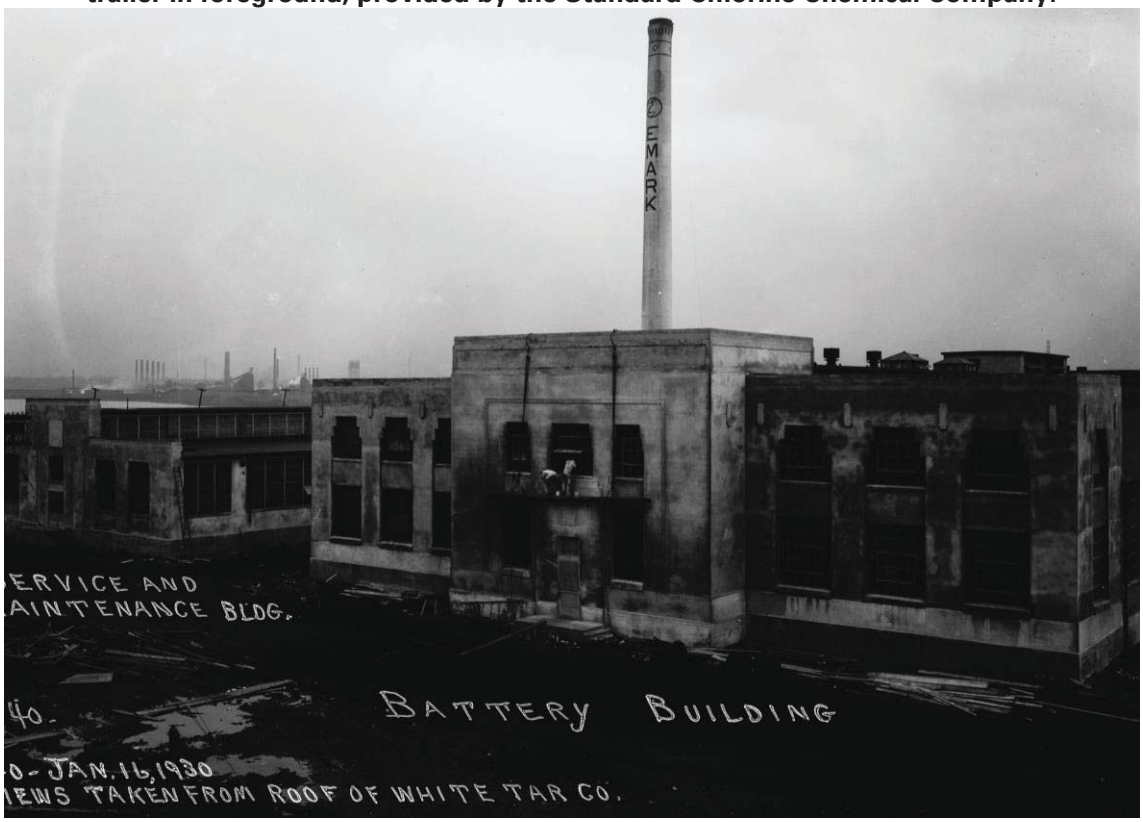
[42] Ibid
[43] Ibid
[44] Audin, Michael, *Phase IA Cultural Resource Survey For The Standard Chlorine Chemical Company Site, Interim Response Action Workplan Town Of Kearny, Hudson County, New Jersey*, Langan Engineering:2009

Historic Photograph 2 – March 1, 1930 view of the Gate House, provided by the Standard Chlorine Chemical Company.

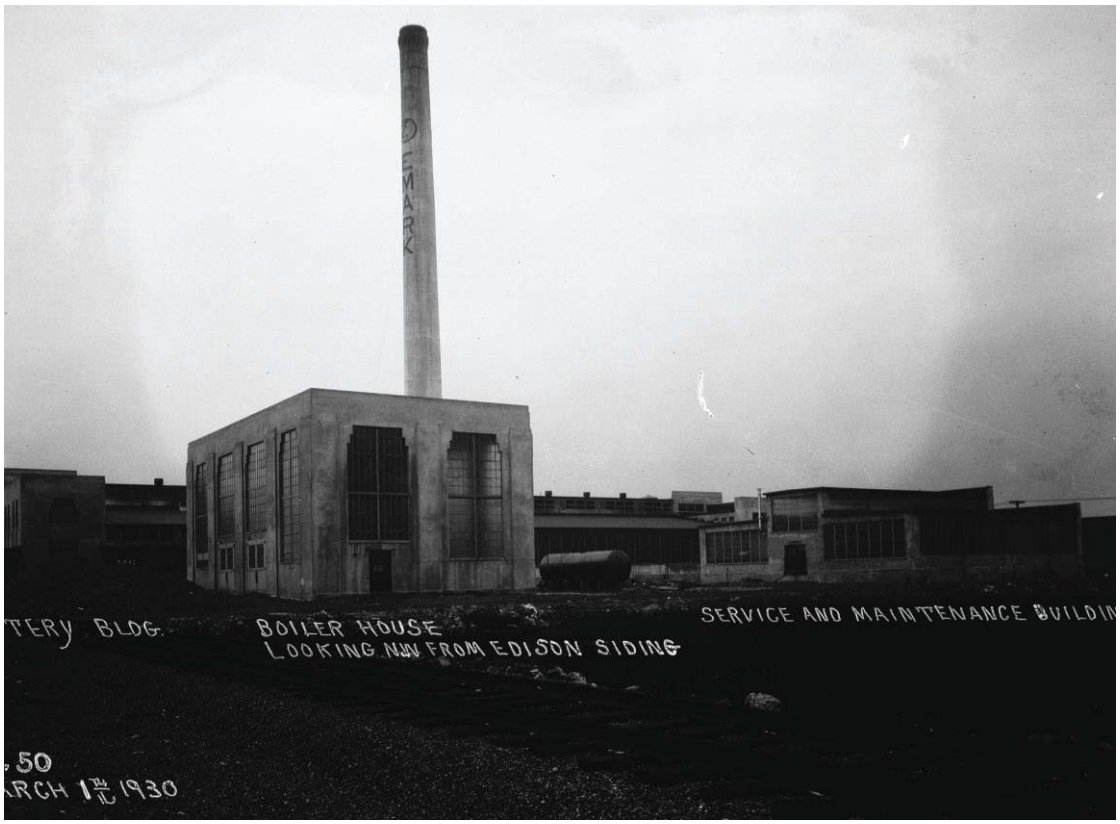
Historic Photograph 3 – March 1, 1930 view of the Engineering Building, provided by the Standard Chlorine Chemical Company.

Historic Photograph 4 – March 3, 1930 view of the Engineering Building with the Austin Company trailer in foreground, provided by the Standard Chlorine Chemical Company.



Historic Photograph 5 – January 30, 1930 view of the Battery Building, provided by the Standard Chlorine Chemical Company.

Historic Photograph 6 – March 1, 1930 view of the Service and Maintenance Building, provided by the Standard Chlorine Chemical Company.



Historic Photograph 7 – March 1, 1930 view of the Boiler House, provided by the Standard Chlorine Chemical Company.

All of the buildings extant on the site today are depicted on a 1936 Sanborn map, and are believed to have been constructed by 1930. Also depicted on the map is a 'sulphuric acid tank,' no longer standing on the site, and a small structure labeled 'storage,' located on the southern edge of the property, south of the Battery Plant Building. The Sanborn map also indicates that a short spur of the Erie Railroad (Newark & Hudson Branch) ran on an east-west orientation along the southern property line. Furthermore, an underground 'Pipe Tunnel' is depicted, connecting the Engineering Building with the Battery Plant Building.

Historic photographs provided by the Standard Chlorine Chemical Company dating to March 1930 show that the appearance of the site and buildings has not changed dramatically since that date. There have been some alterations shown in the photographs, including the cement entry wall designed in the Art Deco style, that no longer stand today, having been replaced with a metal fence. Furthermore, the Boiler House is shown on the photographs with a tall brick smokestack bearing the word `Emark': this feature no longer stands. Most of the buildings on the site currently exhibit cracking or spalling of the concrete or stucco facing, and some of the windows are broken. However, overall, the exteriors of the buildings standing on the property retain a high degree of historic integrity. The interiors of the buildings are in various states of dilapidation and disrepair. In the Battery Plant Building most of the roof has collapsed in.

The present landscape of the property consists of an asphalt driveway, oriented east-west along the northern edge of the historic property line; the remainder of the site is largely asphalt paved. Historic photographs show that the driveway maintained its configuration, and was edged in fieldstones, while the rest of the site was either paved or covered in grass.

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Historic photographs of the Emark Battery Corporation, 1930 (Courtesy of the Standard Chlorine Chemical Company Archives)

Hudson County Mosquito Extermination Commission 1938 Part of Kearny Meadows - Plate IV

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"*Edison A Passenger In A New Ford Car*" December 20, 1927
Untitled April 9, 1941
"*Edison Strike Is Ended*" November 11, 1945
"*Rubber Fabricator Buys Kearny Plant*" January 22, 1954
"*Old Edison Plant is Sold in Kearny: Chemical Company Acquires Former Battery Factory*" November 2, 1962

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HISTORIC AMERICAN BUILDINGS SURVEY
EMARK BATTERY PLANT
Index to Photographs

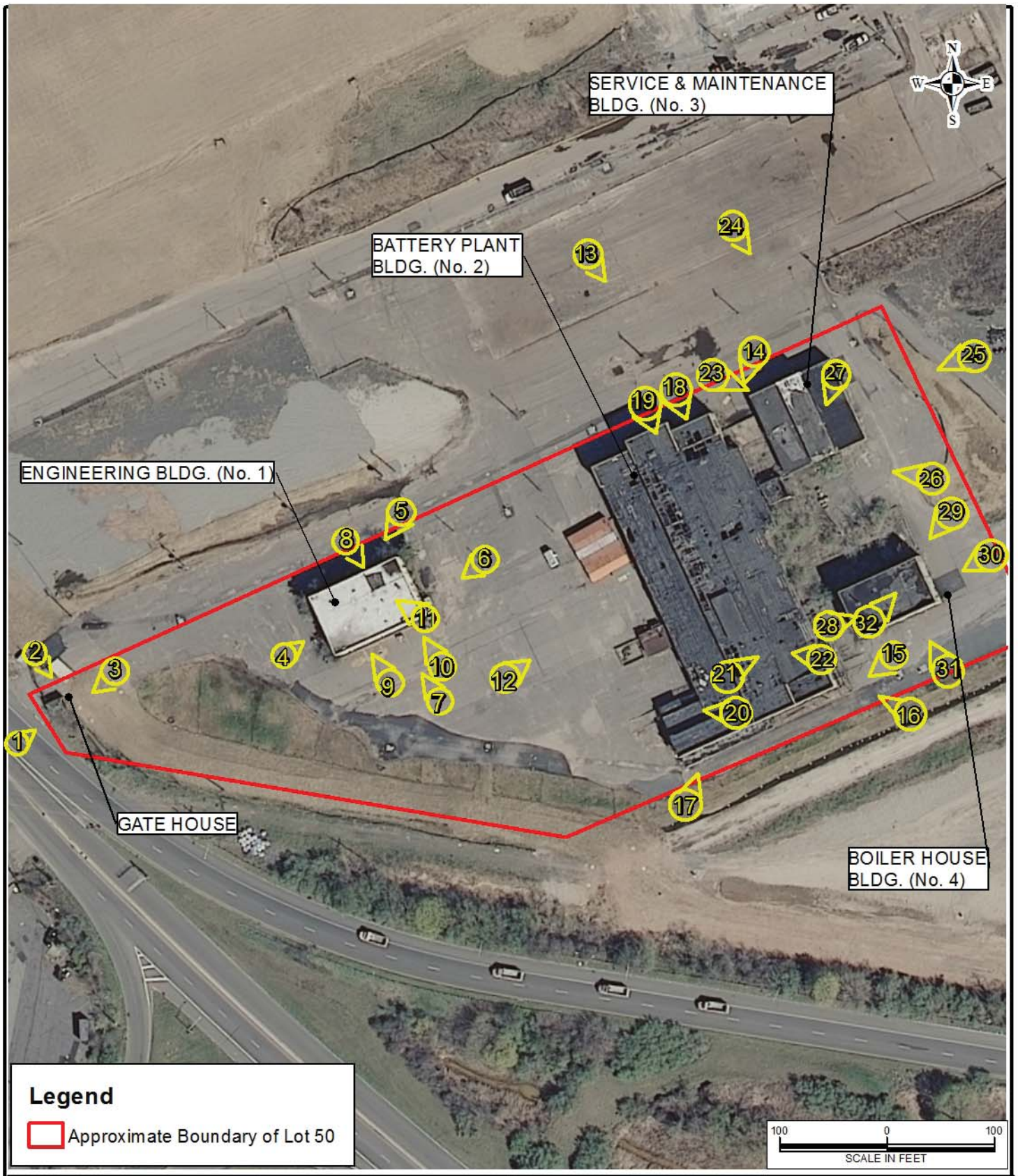
Kearny Peninsula, Town of Kearny,
Hudson County, New Jersey

Michael Audin, Photographer **July 2014**

Photograph 1	View of western elevation of Gatehouse from across highway, looking NE
Photograph 2	View of northern elevation of Gatehouse, looking SE
Photograph 3	View of eastern elevation of Gatehouse, looking SW
Photograph 4	View of western elevation of Engineering Building (Building 1), looking NE
Photograph 5	View of northern elevation of Engineering Building, looking SW
Photograph 6	View of eastern elevation of Engineering Building, looking SW
Photograph 7	View of southern elevation of Engineering Building, looking NW
Photograph 8	Close-up of entry doors on western elevation, looking SE
Photograph 9	Close-up of architectural detail above windows on second floor on southern elevation of Engineering Building, looking NW
Photograph 10	Close-up of architectural detail that mimics a column, looking NW
Photograph 11	Interior view of first floor of Engineering Building, looking NW
Photograph 12	Western elevation of Battery Plant Building (Building 2), looking NE
Photograph 13	Northern elevation of Battery Plant Building (main entrance), looking SE
Photograph 14	Visible northern portion of eastern elevation of Battery Plant Building, looking SW
Photograph 15	Visible southern portion of eastern elevation of Battery Plant Building, looking SW
Photograph 16	Southern elevation of Battery Plant Building, looking NW

Index to Photographs (continued)

Photograph 17	Southern elevation of Battery Plant Building, looking NE
Photograph 18	Close-up of building #2 sign, looking SE
Photograph 19	Close-up of second story windows on northern elevation of Battery Plant Building, looking SE
Photograph 20	Interior view of predominantly intact sliding door in the Battery Plant Building, looking W
Photograph 21	Interior view of southeastern side of Battery Plant Building, looking NE
Photograph 22	Interior view of western side of Battery Plant Building, looking NW
Photograph 23	Western elevation of Service & Maintenance Building (Building 3), looking SE
Photograph 24	Northern elevation of Service & Maintenance Building, looking SE
Photograph 25	Eastern elevation of Service & Maintenance Building, looking SW
Photograph 26	Southern elevation of Service & Maintenance Building, looking NW
Photograph 27	Interior of Service & Maintenance Building from northeast corner, looking SW
Photograph 28	Western elevation of Boiler House (Building 4), looking NE
Photograph 29	Northern elevation of Boiler House, looking SW
Photograph 30	Eastern elevation of Boiler House, looking SW
Photograph 31	Southern elevation of Boiler House, looking NW
Photograph 32	Interior of Boiler House from southwest corner, looking NE



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Elmwood Park, NJ 07407-1338
T: 201.794.6900 F: 201.794.0366 www.langan.com

Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

EDISON'S EMARK BATTERY PLANT HISTORIC AMERICAN BUILDING SURVEY

TOWN OF KEARNY

BLOCK 287
LOT 48, 49, 50, 51, 52, 52R

HUDSON COUNTY NEW JERSEY

Drawing Title

PHOTO LOCATION MAP

Project No. 001872508	Figure 1
Date 9/15/2014	
Scale 1" = 100'	
Drawn By MDA	

Map References: 2012 NJDEP Aerial Photograph.

© 2013 Langan

Path: \\langan.com\data\EP\data5\001872508\ArcGIS\ArcMap_Documents\Photo Location Map.mxd

PHOTOGRAPHIC DOCUMENTATION LOG

E-MARK (EDISON) BATTERY PLANT

1015-1035 BELLEVILLE TURNPIKE

TOWN OF KEARNY, HUDSON COUNTY, NEW JERSEY

Langan Project #: 001872508

Photo #	Date Taken	File Name	Description of View	Direction	Photographer
1	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_01_GateHouse	View of western elevation of Gatehouse from across highway	NE	Michael Audin
2	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_02_GateHouse	View of northern elevation of Gatehouse	SE	Michael Audin
3	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_03_GateHouse	View of eastern elevation of Gatehouse	SW	Michael Audin
4	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_04_EngineeringBldg	View of western elevation of Engineering Building (Building 1)	NE	Michael Audin
5	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_05_EngineeringBldg	View of northern elevation of Engineering Building	SW	Michael Audin
6	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_06_EngineeringBldg	View of eastern elevation of Engineering Building	SW	Michael Audin
7	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_07_EngineeringBldg	View of southern elevation of Engineering Building	NW	Michael Audin
8	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_08_EngineeringBldg	View of close-up of entry doors on northern elevation	SE	Michael Audin
9	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_09_EngineeringBldg	View of close-up of architectural detail above windows on second floor on southern elevation of Engineering Building	NW	Michael Audin
10	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_10_EngineeringBldg	View of close-up of architectural detail that mimics a column on southern elevation of Engineering Building	NW	Michael Audin
11	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_11_EngineeringBldg	View of interior first floor of Engineering Building	NW	Michael Audin
12	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_12_BatteryPlantBldg	View of western elevation of Battery Plant Building (Building 2)	NE	Michael Audin
13	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_13_BatteryPlantBldg	View of northern elevation of Battery Plant Building (main entrance)	SE	Michael Audin
14	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_14_BatteryPlantBldg	View of visible northern portion of eastern elevation of Battery Plant Building	SW	Michael Audin
15	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_15_BatteryPlantBldg	View of visible southern portion of eastern elevation of Battery Plant Building	SW	Michael Audin
16	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_16_BatteryPlantBldg	View of southern elevation of Battery Plant Building	NW	Michael Audin

PHOTOGRAPHIC DOCUMENTATION LOG

E-MARK (EDISON) BATTERY PLANT

1015-1035 BELLEVILLE TURNPIKE

TOWN OF KEARNY, HUDSON COUNTY, NEW JERSEY

Langan Project #: 001872508

Photo #	Date Taken	File Name	Description of View	Direction	Photographer
17	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_17_BatteryPlantBldg	View of southern elevation of Battery Plant Building	NE	Michael Audin
18	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_18_BatteryPlantBldg	View of close-up of building #2 sign	SE	Michael Audin
19	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_19_BatteryPlantBldg	View of close-up of second story windows on northern elevation of Battery Plant Building	SE	Michael Audin
20	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_20_BatteryPlantBldg	View of interior view of predominantly intact sliding door	W	Michael Audin
21	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_21_BatteryPlantBldg	View of interior view of southeastern side of Battery Plant Building	NE	Michael Audin
22	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_22_BatteryPlantBldg	View of interior view of western side of Battery Plant Building	NW	Michael Audin
23	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_23_ServiceMaintenanceBldg	View of western elevation of Service & Maintenance Building (Building 3)	SE	Michael Audin
24	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_24_ServiceMaintenanceBldg	View of northern elevation of Service & Maintenance Building	SE	Michael Audin
25	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_25_ServiceMaintenanceBldg	View of eastern elevation of Service & Maintenance Building	SW	Michael Audin
26	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_26_ServiceMaintenanceBldg	View of southern elevation of Service & Maintenance Building	NW	Michael Audin
27	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_27_ServiceMaintenanceBldg	View of interior of Service & Maintenance Building from northeast corner	SW	Michael Audin
28	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_28_BoilerHouse	View of western elevation of Boiler House	NE	Michael Audin
29	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_29_BoilerHouse	View of northern elevation of Boiler House	SW	Michael Audin
30	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_30_BoilerHouse	View of eastern elevation of Boiler House	SW	Michael Audin
31	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_31_BoilerHouse	View of southern elevation of Boiler House	NW	Michael Audin
32	7/3/2014	NJ_HudsonCo_E-MarkBatteryPlant_32_BoilerHouse	View of interior of Boiler House from southwest corner	NE	Michael Audin

E-Mark Battery Plant
Hudson County, New Jersey

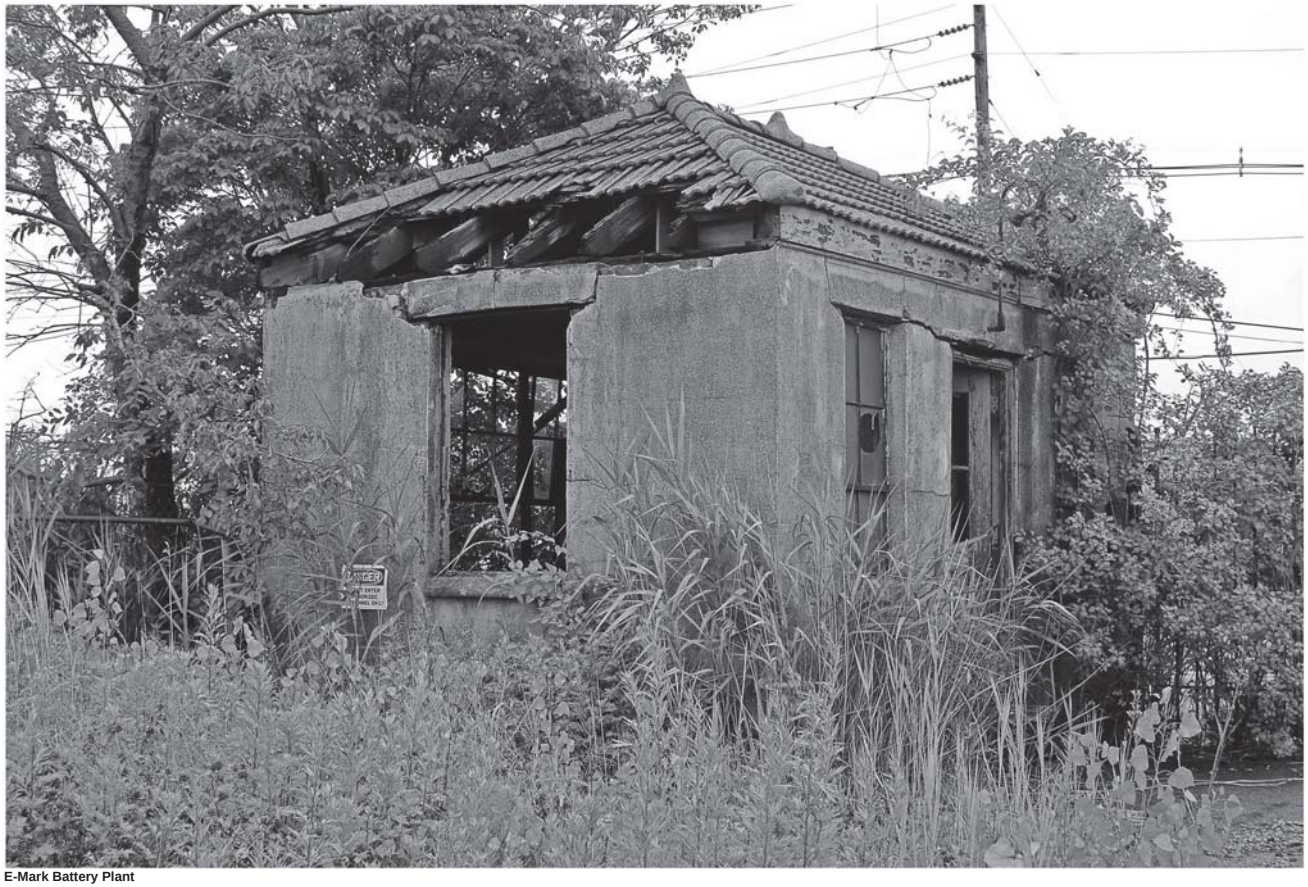
Photograph No. 1. Gate House

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 2. Gate House

July 3, 2014



E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 3. Gate House

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 4. Engineering Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 5. Engineering Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 6. Engineering Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 7. Engineering Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 8. Engineering Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 9. Engineering Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 10. Engineering Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 11. Engineering Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 12. Battery Plant Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 13. Battery Plant Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 14. Battery Plant Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 15. Battery Plant Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 16. Battery Plant Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 17. Battery Plant Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 18. Battery Plant Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 19. Battery Plant Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 20. Battery Plant Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 21. Battery Plant Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 22. Battery Plant Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 23. Service and Maintenance Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 24. Service and Maintenance Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 25. Service and Maintenance Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 26. Service and Maintenance Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 27. Service and Maintenance Building

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 28. Boiler House

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 29. Boiler House

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 30. Boiler House

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 31. Boiler House

July 3, 2014

E-Mark Battery Plant
Hudson County, New Jersey

Photograph No. 32. Boiler House

July 3, 2014

ATTACHMENTS

Attachment A – Historic Advertisements

Attachment B – Original Elevations of Buildings

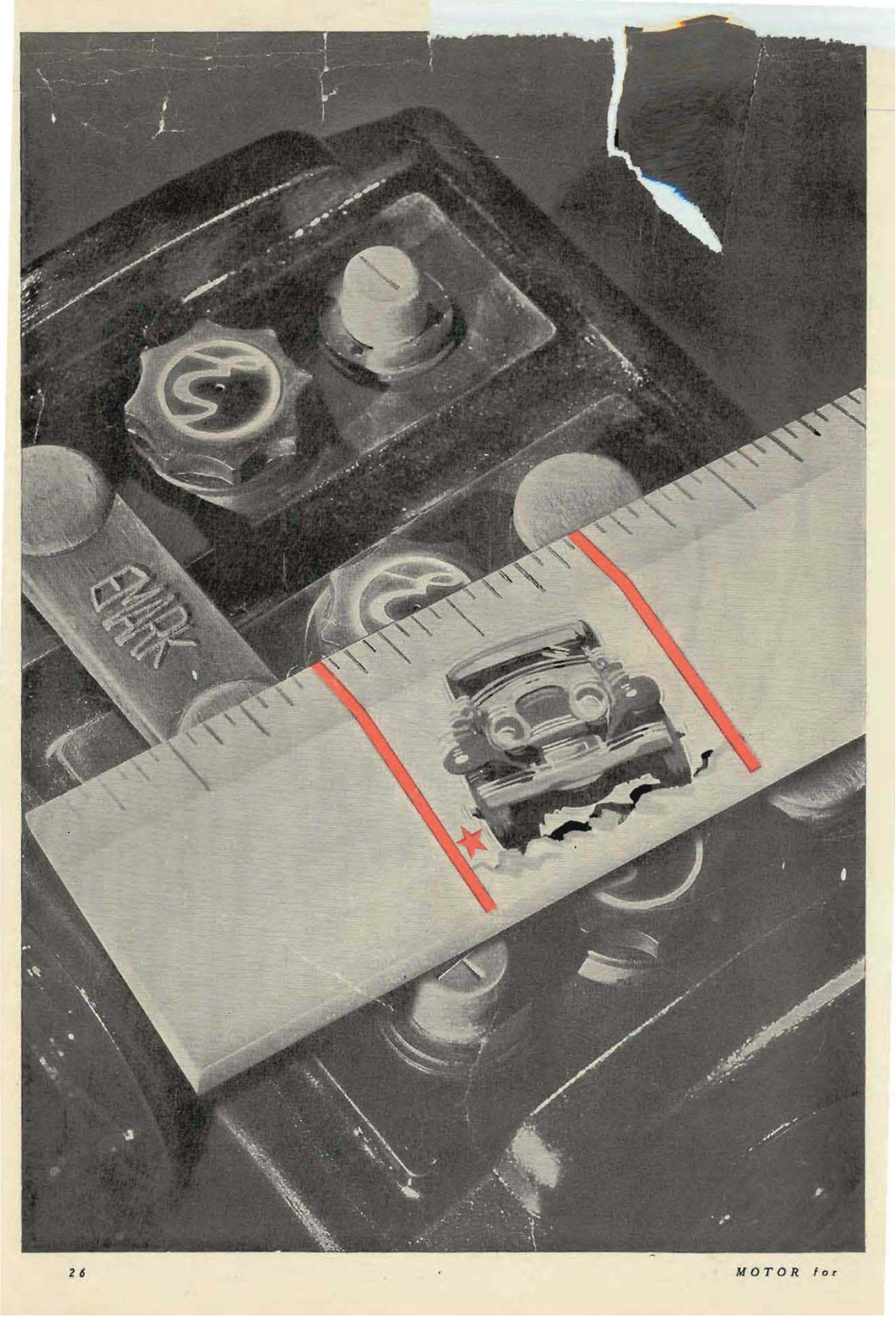
Attachment C – Maps

Attachment D – Original Survey Forms

Attachment E – SCCC File Index and Blueprint Drawings on CD

ATTACHMENT A

HISTORIC ADVERTISEMENTS



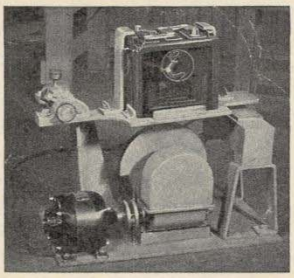
Page 1 – View of 2 page Ad in MOTOR Magazine for Emark car battery, provided by Standard Chlorine Chemical Company Archives.

More actual battery value for your dollar . . . in

EMARK POWER-MEASURED BATTERY *with Positive End Zones*

Dollar for dollar . . . value for value . . . Emark delivers more dependable service than you have ever been able to get from a battery before.

Produced by the Emark Battery Corporation . . . a division of Thomas A. Edison, Incorporated . . . this new battery is the master achievement of a vast organization . . . an outstanding personnel . . . extensive laboratories . . . enormous resources.



★

POWER-MEASURED BY THE BUMP TEST

Conceived by THOMAS A. EDISON

Up and down . . . iron to iron . . . BANG! BANG! BANG! Emark Batteries are Power-Measured against service more severe than they would encounter in a car.

Every condition the battery will meet in actual service is anticipated before the Emark Power-Measured Battery leaves the factory. Laboratory tests magnify the constant joggling of rough roads . . . demands made by freezing winter weather . . . cross-country driving in blazing heat . . . short runs with frequent starts . . . all conditions are measured and provided for in this new battery.

Positive End Zones . . . the aim of engineers ever since the invention of the storage battery . . . is another exclusive Emark feature. Because of this long-hoped-for battery development Emark Power-Measured Batteries have longer life and greater capacity.

Because they are Power-Measured . . . because of Positive End Zone construction . . . because the finest materials are combined with the most modern manufacturing methods . . . Emark leads in battery values.

Emark AAA is an extra quality battery with Positive End Zones. The thirteen plate size retails for only $10.95.

EMARK BATTERY CORPORATION

A Division of THOMAS A. EDISON, Inc.

EMARK BATTERY CORPORATION, KEARNY, N. J. F

Please send me details of Emark Proposition

*Name*_____ *Address*_____

*City*_____ *State*_____

Page 2 – View of 2 page Ad in MOTOR Magazine for Emark car battery, provided by Standard Chlorine Chemical Company Archives.

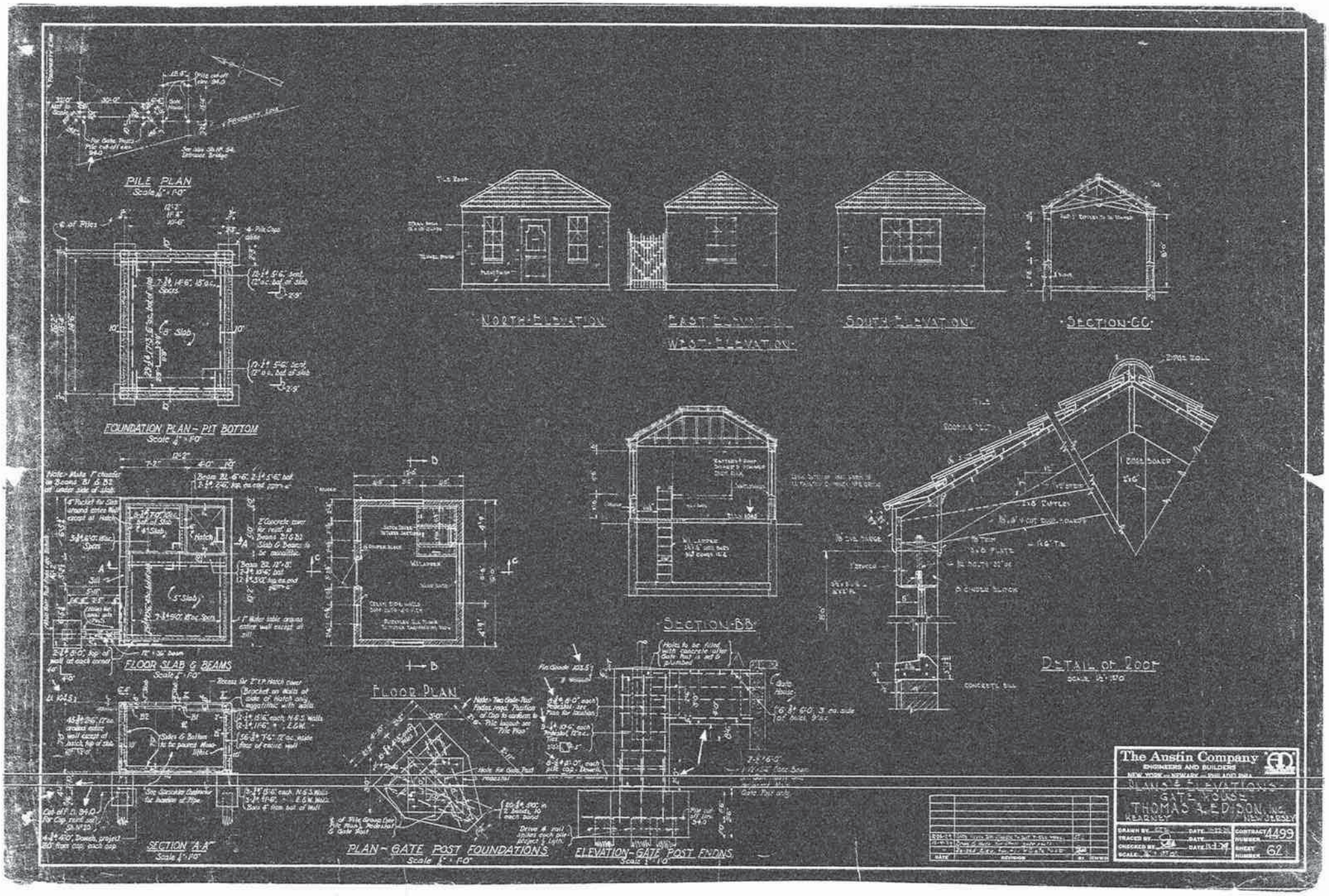
ATTACHMENT B

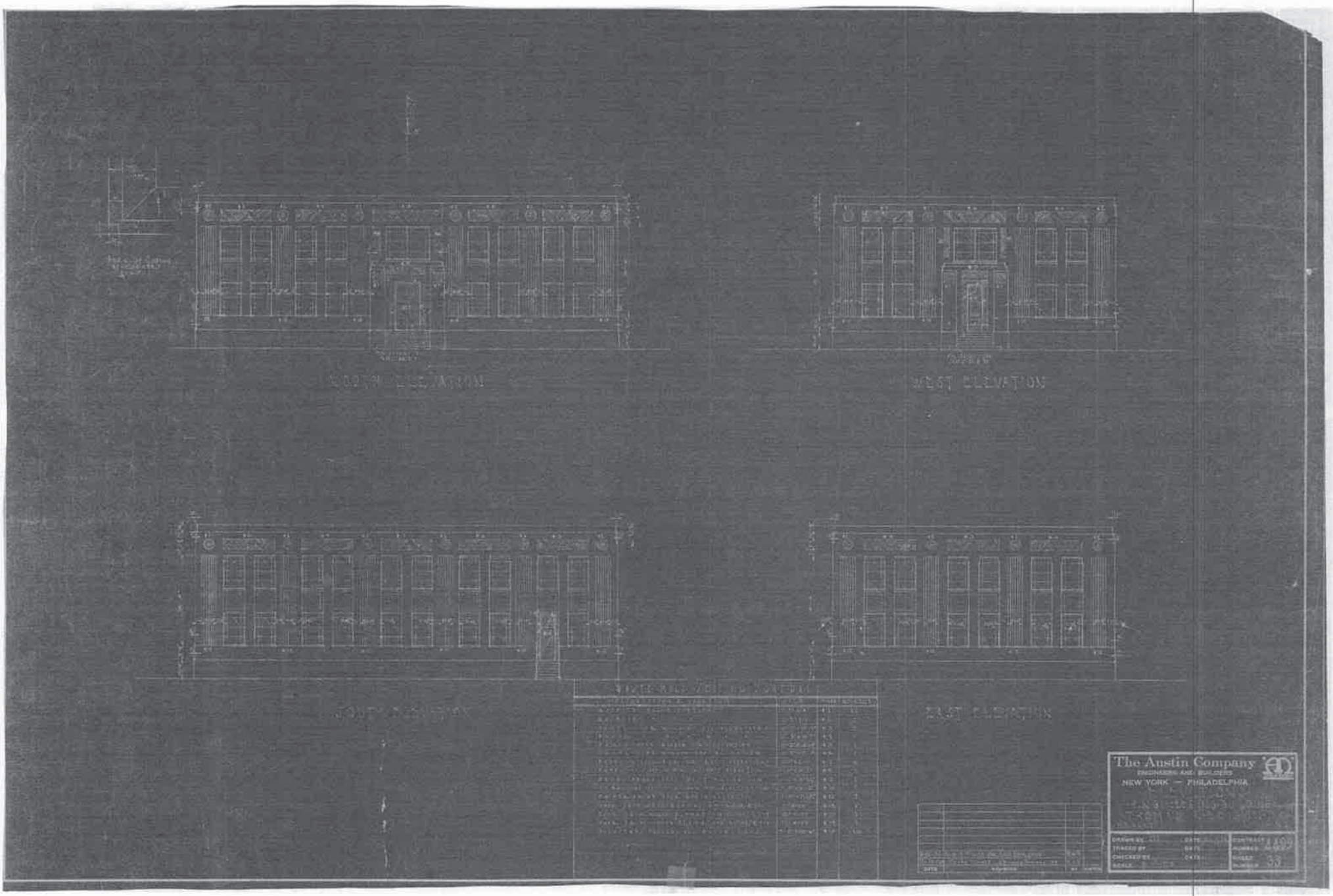
ORIGINAL ELEVATIONS OF BUILDINGS

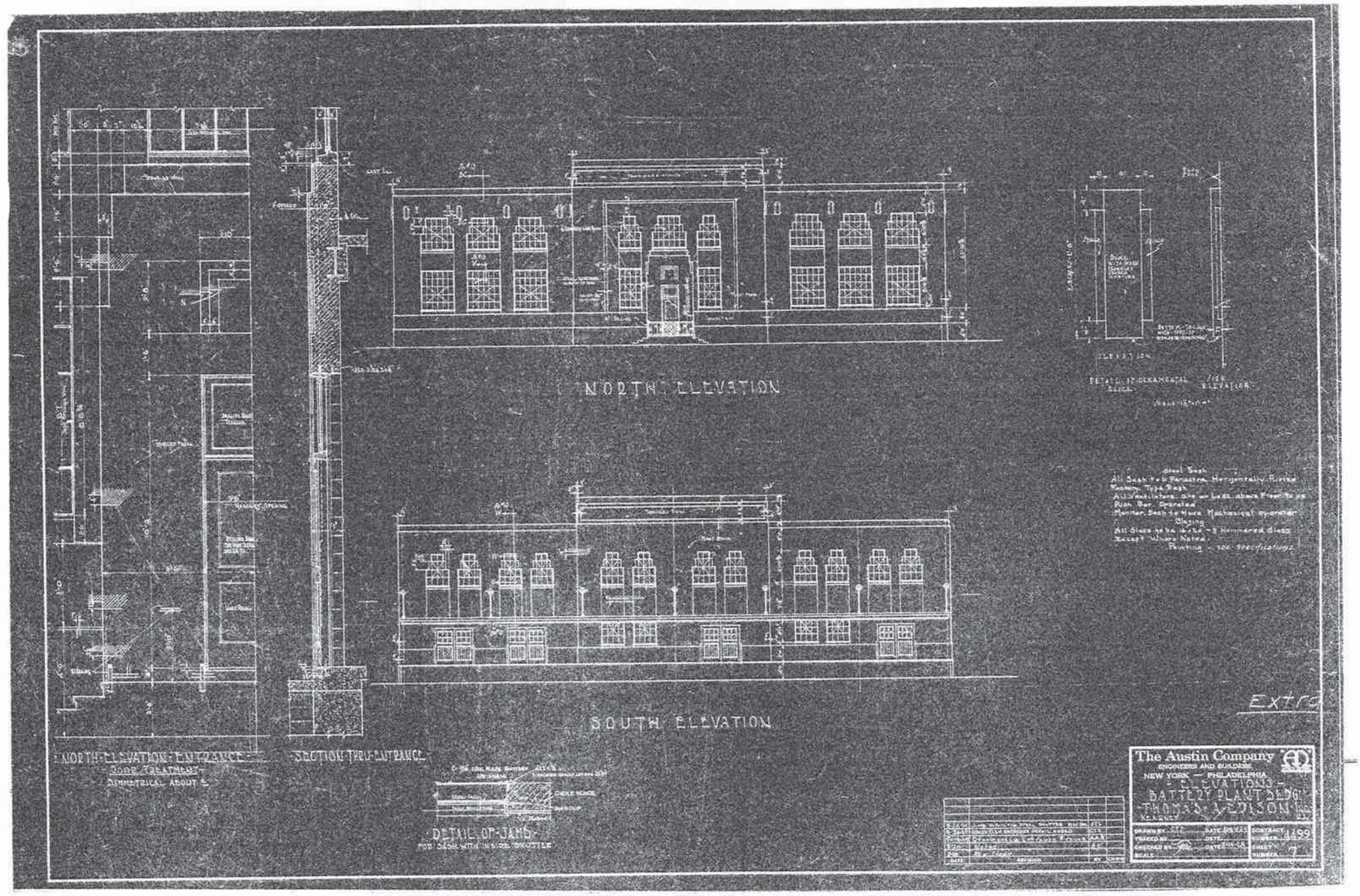
HISTORIC AMERICAN BUILDINGS SURVEY
EMARK BATTERY PLANT
Index to Drawings

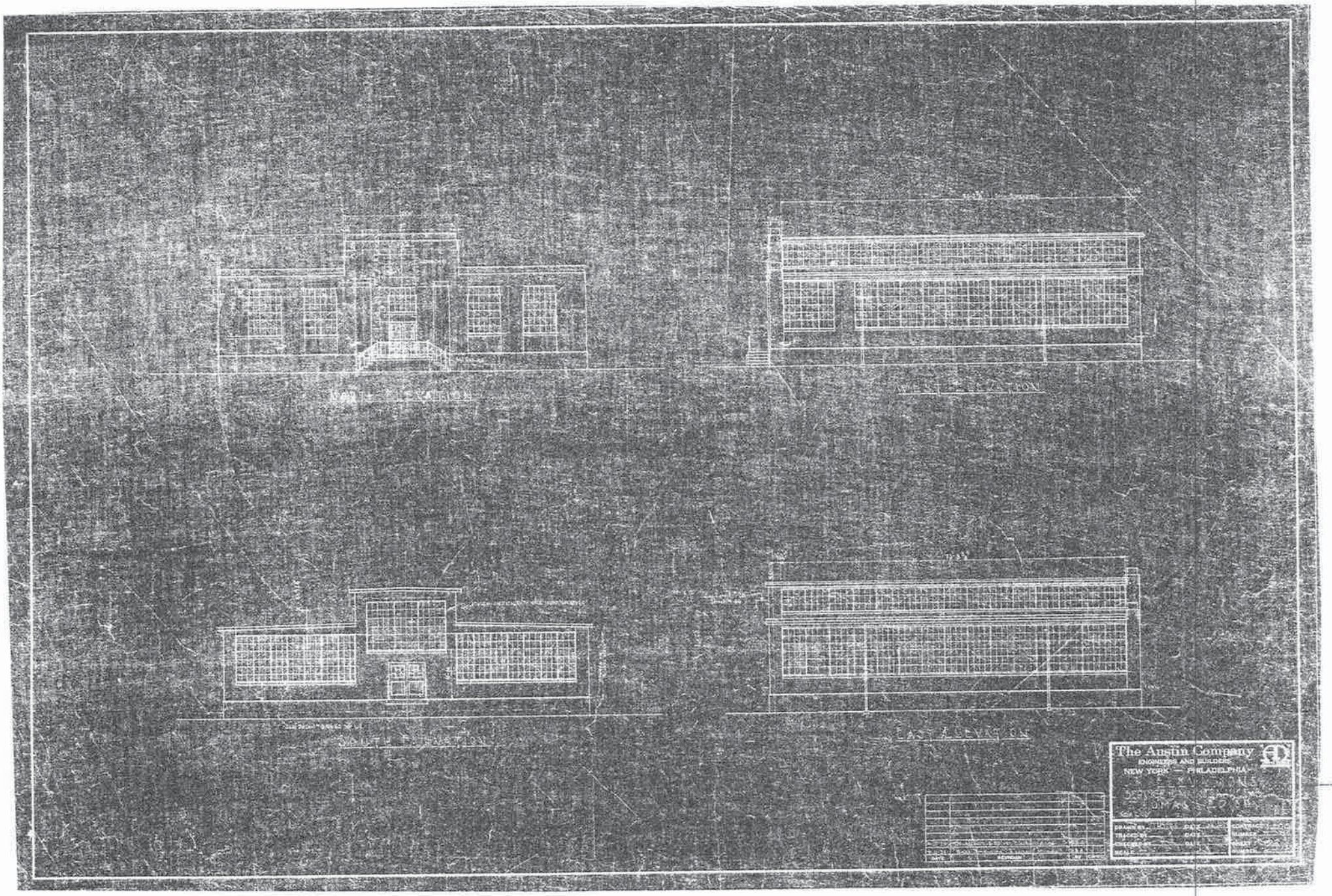
Kearny Peninsula, Town of Kearny,
Hudson County, New Jersey

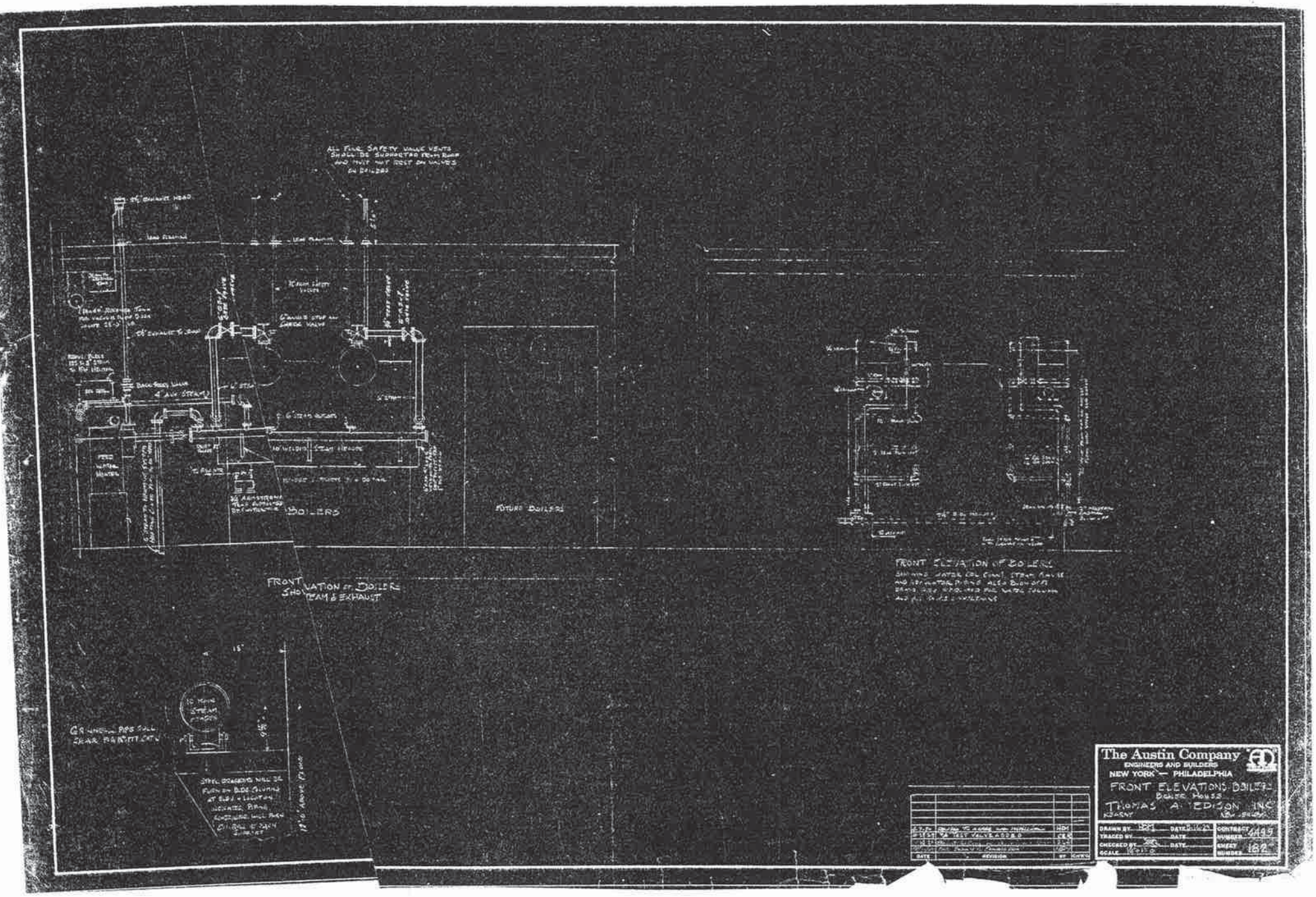
Drawing	Name	Date	Prepared By
Drawing 1	Gatehouse Plans and Elevations	3 December 1929	The Austin Company
Drawing 2	Engineering Building Elevation	31 July 1929	The Austin Company
Drawing 3	Battery Plant Building Elevations	10 August 1929	The Austin Company
Drawing 4	Service and Maintenance Building Elevation	26 June 1929	The Austin Company
Drawing 5	Boilers House Elevations	5 August 1929	The Austin Company


PILE PLAN
Scale 1/8" = 1'-0"
FOUNDATION PLAN - PIT BOTTOM
Scale 1/4" = 1'-0"
FLOOR SLAB & BEAMS
Scale 1/4" = 1'-0"
SECTION "A-A"
Scale 1/4" = 1'-0"
FLOOR PLAN
PLAN - GATE POST FOUNDATIONS
Scale 1/4" = 1'-0"
NORTH ELEVATION
EAST ELEVATION
WEST ELEVATION
SOUTH ELEVATION
SECTION CC
SECTION BB
ELEVATION - GATE POST ENDS
Scale 1/4" = 1'-0"
DETAIL OF ROOF
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA
PLANS & ELEVATIONS
GATE HOUSE
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY
CONTRACT NUMBER 4499
SHEET NUMBER 62


NORTH ELEVATION
WEST ELEVATION
SOUTH ELEVATION
EAST ELEVATION
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

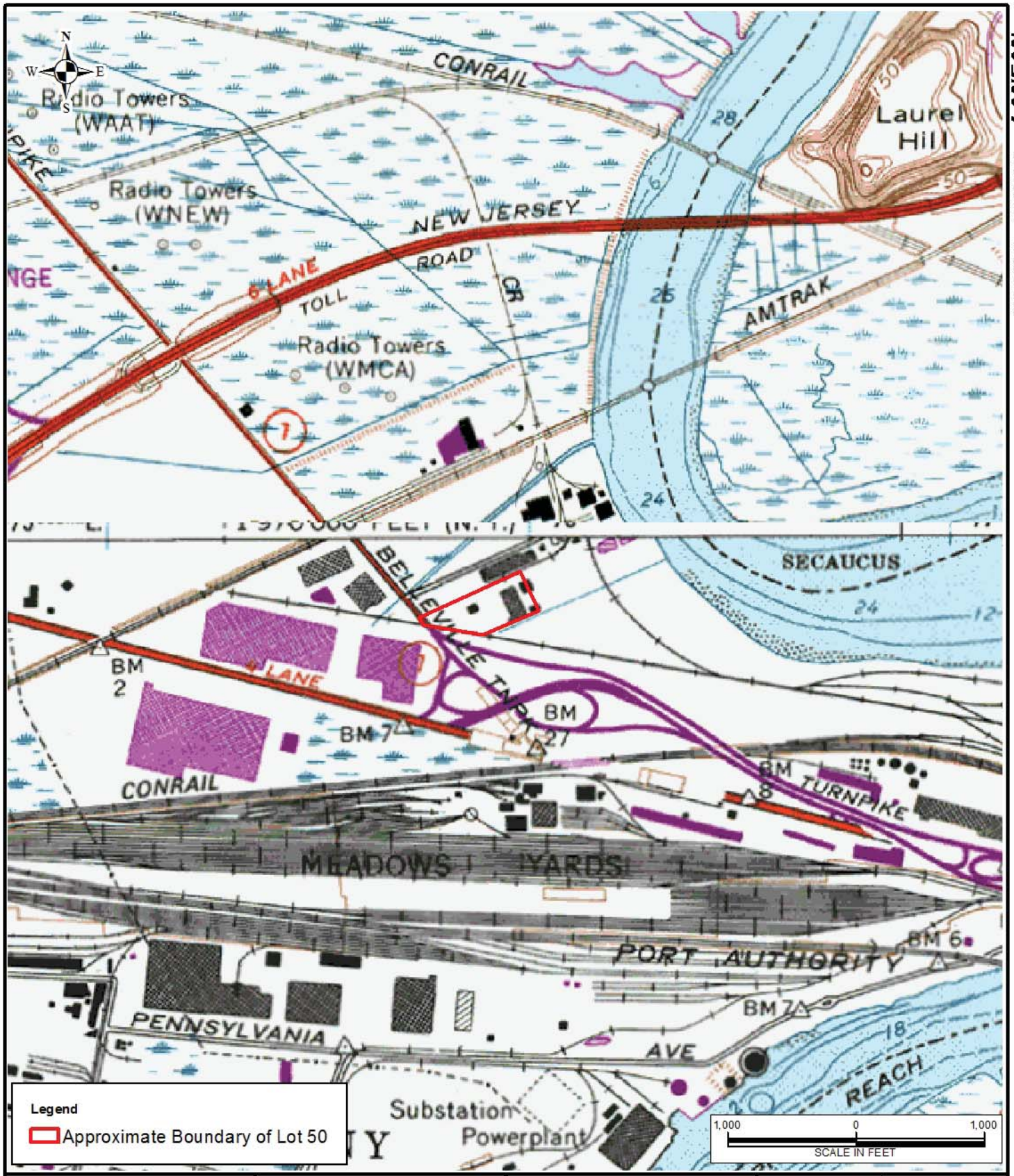

NORTH ELEVATION
SOUTH ELEVATION
NORTH ELEVATION - ENTRANCE
SECTION THRU ENTRANCE
DETAIL OF JAMB
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
ELEVATIONS
BATTERY PLANT BLDG
THOMAS A. EDISON
Extra


NORTH ELEVATION
WEST ELEVATION
SOUTH ELEVATION
EAST ELEVATION
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA


ALL FLUE SAFETY VALVE VENTS SHOULD BE SUPPORTED FROM ROOF AND THEY MUST REST ON VALVES ON BOILERS
BOILERS
FUTURE BOILERS
FRONT ELEVATION OF BOILERS SHOWING STEAM & EXHAUST
FRONT ELEVATION OF BOILERS
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
FRONT ELEVATIONS BOILERS
BOILER HOUSE
THOMAS A. EDISON INC
DRAWN BY
TRACED BY
CHECKED BY
SCALE
DATE
REVISION
BY
CONTRACT NUMBER
SHEET NUMBER
182

ATTACHMENT C

MAPS



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Elmwood Park, NJ 07407-1338
T: 201.794.6900 F: 201.794.0366 www.langan.com

Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
EDISON'S EMARK BATTERY PLANT
HISTORIC AMERICAN BUILDING SURVEY
TOWN OF KEARNY
BLOCK 287
LOT 48, 49, 50, 51, 52, 52R
HUDSON COUNTY NEW JERSEY

Drawing Title
SITE LOCATION MAP

Project No. 001872508	Figure 2
Date 9/25/2014	
Scale 1" = 1,000'	
Drawn By MDA	

Map References: USGS Topographic Quadrangle Jersey City(C: 1967, R: 1981, Vertical Datum NGVD 1929) AND Weehawken (C:1988, Vertical Datum NGVD 1929)

Path: \\langan.com\data\EP\data5\001872508\ArcGIS\ArcMap_Documents\USGS Site Location Map.mxd

LANGAN
PROJECT No. 001872507

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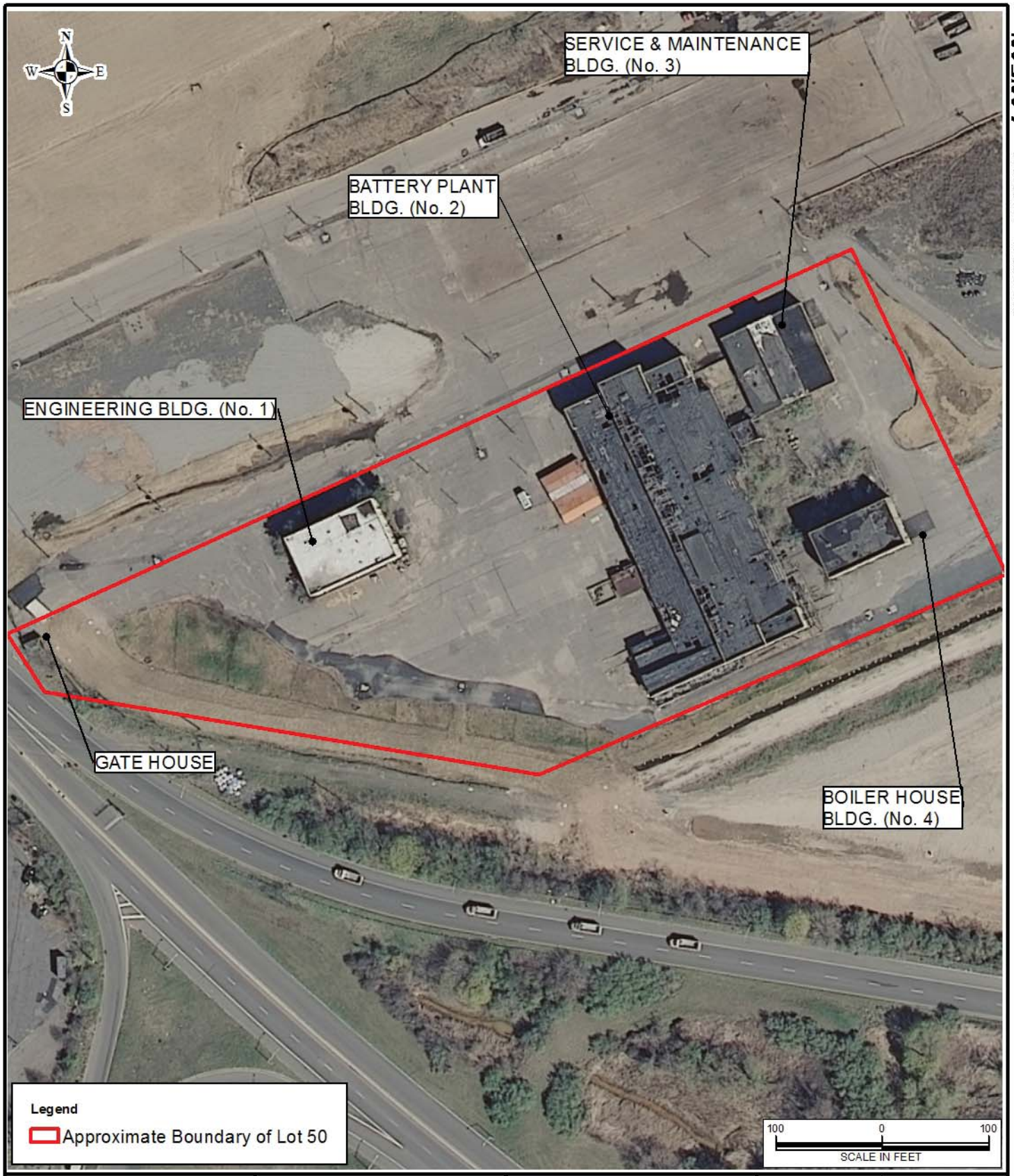

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PROJECT No. 001872508

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Elmwood Park, NJ 07407-1338
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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
EDISON'S EMARK BATTERY PLANT
HISTORIC AMERICAN BUILDING SURVEY
TOWN OF KEARNY
BLOCK 287
LOT 48, 49, 50, 51, 52, 52R
HUDSON COUNTY NEW JERSEY

Drawing Title
2012 NJDEP AERIAL PHOTOGRAPH

Project No. 001872508	Figure 3
Date 9/25/2014	
Scale 1" = 100'	
Drawn By MDA	

Map References: 2012 NJDEP Aerial Photograph, provided by the NJDEP.

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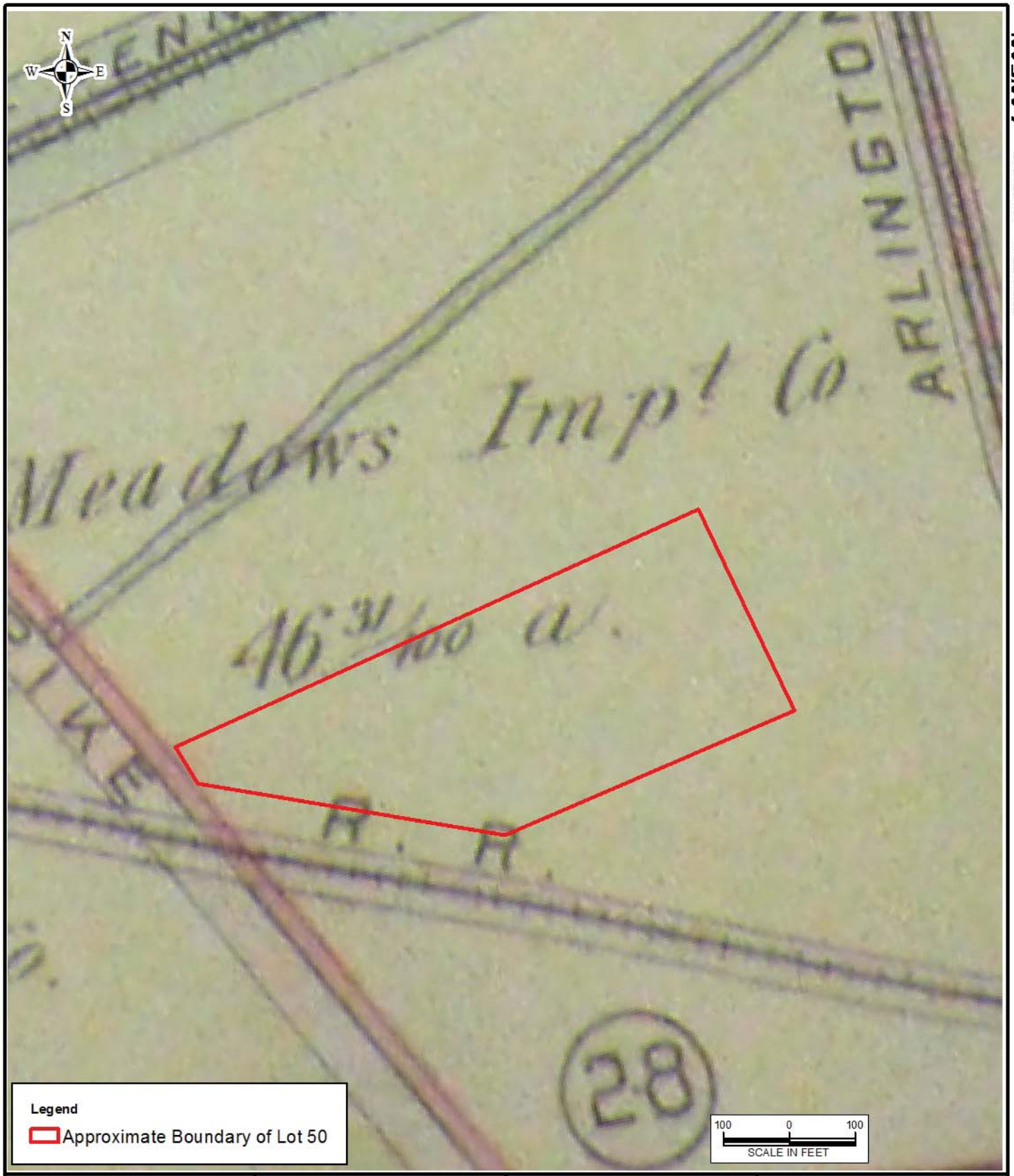
Path: \\langan.com\data\EP\data5\001872508\ArcGIS\ArcMap_Documents\2012 Aerial Photograph.mxd



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HISTORIC AMERICAN BUILDING SURVEY
TOWN OF KEARNY
BLOCK 287
LOT 48, 49, 50, 51, 52, 52R
HUDSON COUNTY NEW JERSEY

Drawing Title

1909 HOPKINS ATLAS OF HUDSON COUNTY

Project No. 001872508	Figure 4
Date 9/25/2014	
Scale 1" = 100'	
Drawn By MDA	

Map References: 1909 GM Hopkins Atlas of Hudson County, Plate 27B.

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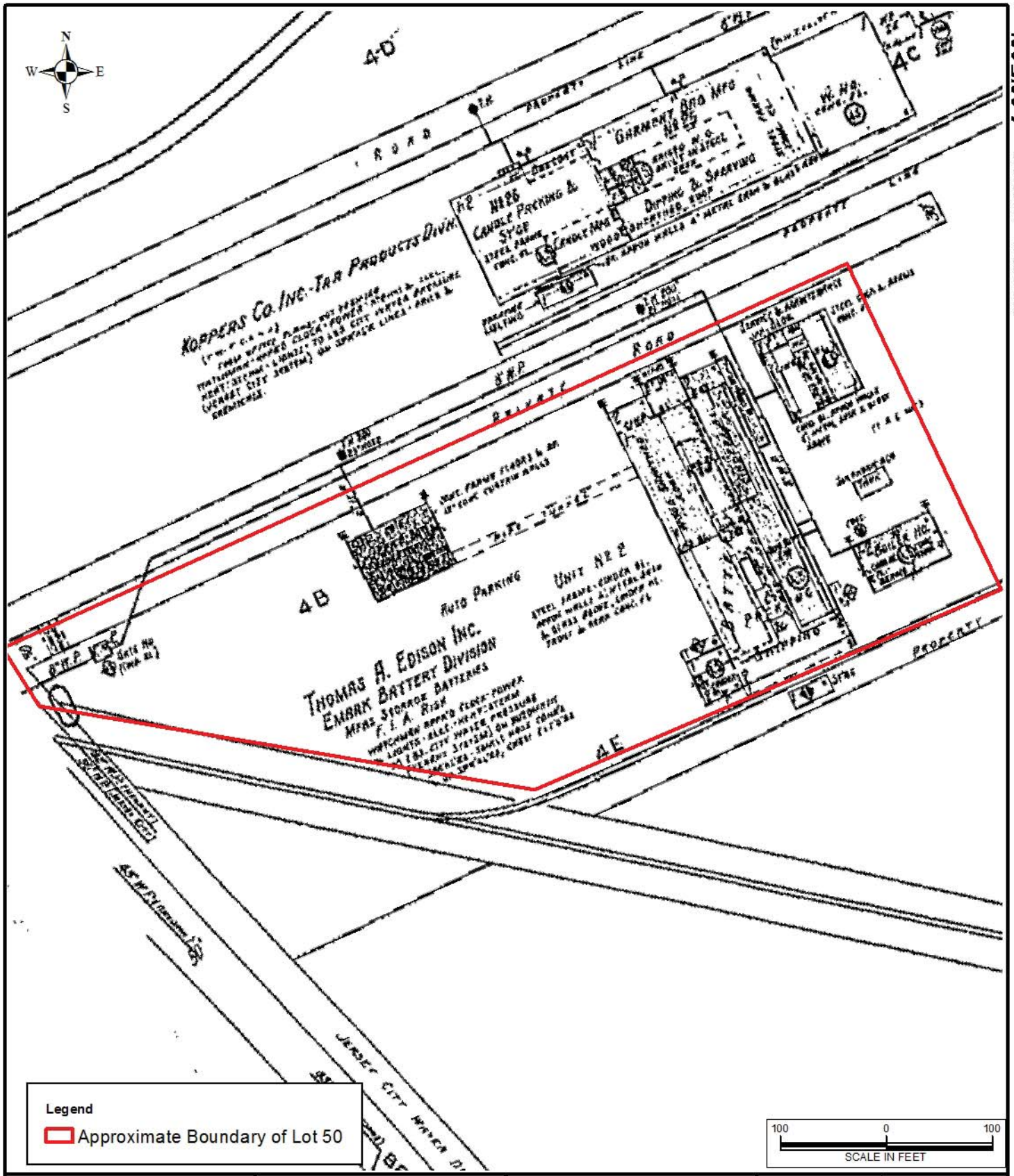

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HISTORIC AMERICAN BUILDING SURVEY
TOWN OF KEARNY
BLOCK 287
LOT 48, 49, 50, 51, 52, 52R
HUDSON COUNTY NEW JERSEY

Drawing Title
1936 SANBORN INSURANCE MAP

Project No. 001872508	Figure 5
Date 9/25/2014	
Scale 1" = 100'	
Drawn By MDA	

Map References: 1936 Sanborn Fire Insurance Map Care of NJ State Museum.

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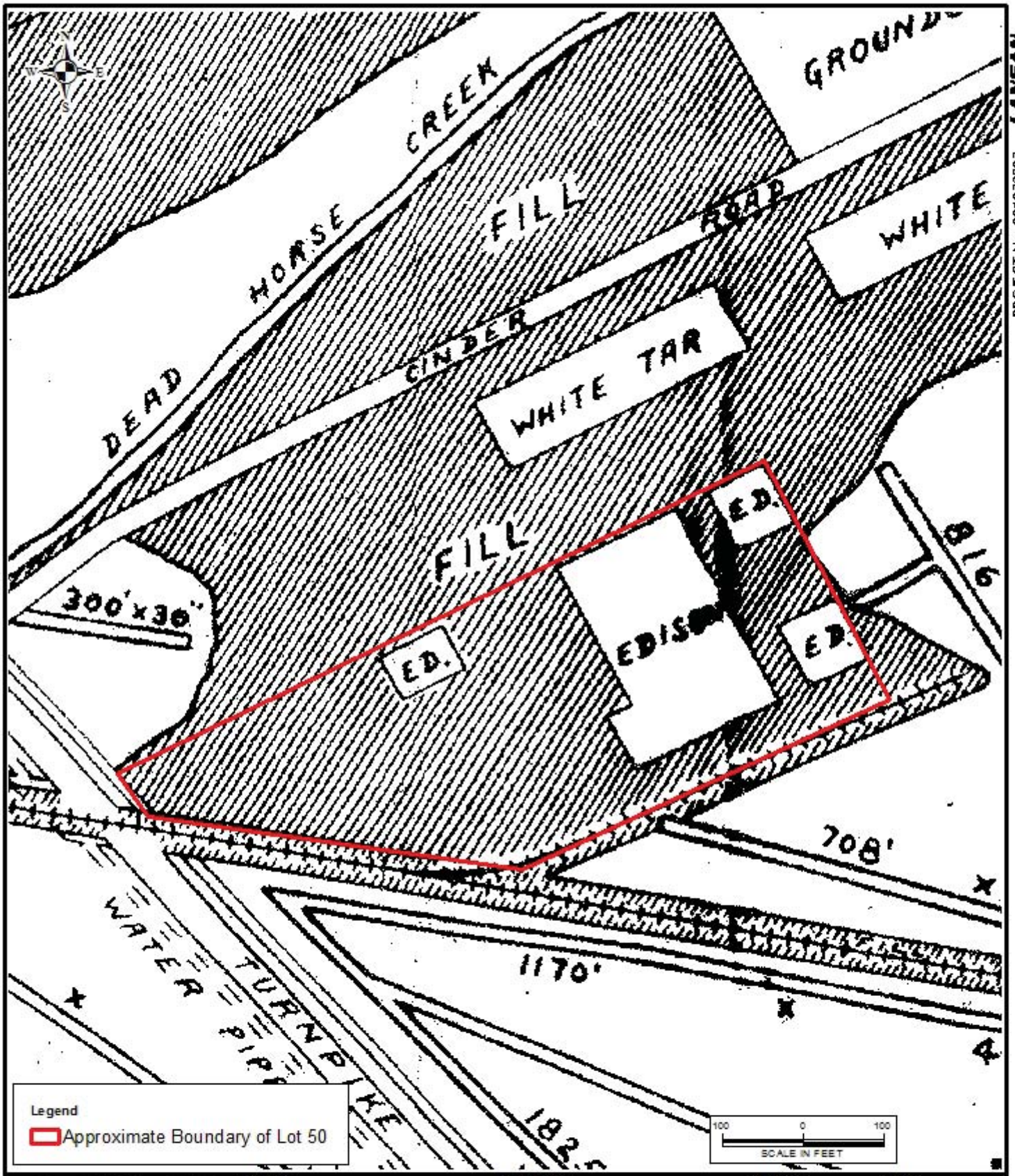

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Project
EDISON'S EMARK BATTERY PLANT
HISTORIC AMERICAN BUILDING SURVEY
TOWN OF KEARNY
BLOCK 267
LOT 46, 49, 50, 51, 52, 52R
HUDSON COUNTY NEW JERSEY

Drawing Title
1938 MOSQUITO CONTROL MAP

Project No.	001872508
Date	9/25/2014
Scale	1" = 100'
Drawn By	MDA
Figure	6

Map References: 1938 Hudson County Mosquito Control Map.

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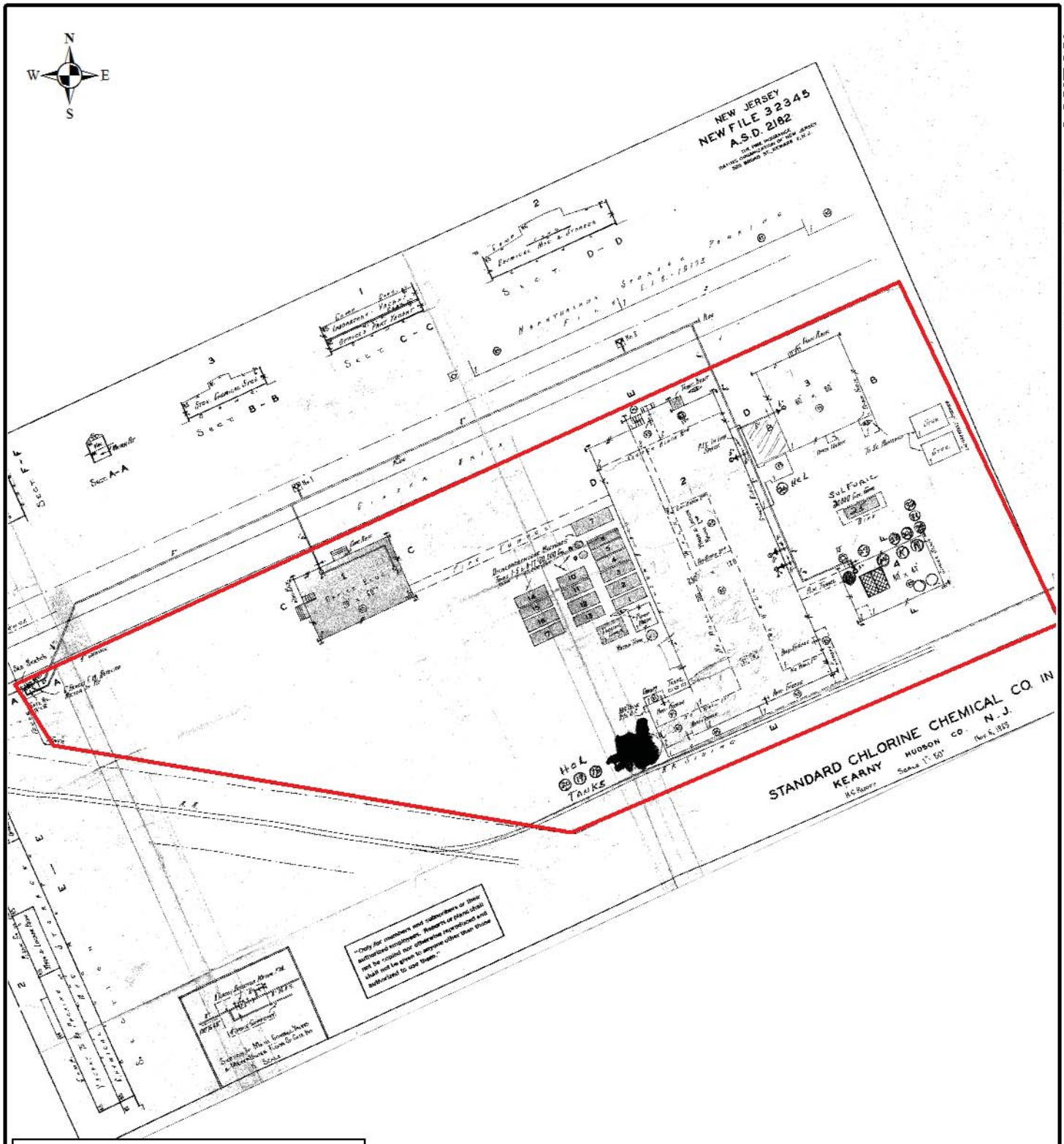
LANGAN PROJECT No. 001872507



Legend

Approximate Boundary of Lot 50

100 0 100
SCALE IN FEET

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EDISON'S EMARK BATTERY PLANT
HISTORIC AMERICAN BUILDING SURVEY
TOWN OF KEARNY
BLOCK 287
LOT 48, 49, 50, 51, 52, 52R
HUDSON COUNTY NEW JERSEY

Drawing Title
1963 FIRE INSURANCE MAP

Project No. 001872508	Figure 7
Date 9/25/2014	
Scale 1" = 100'	
Drawn By MDA	

Map References: 1963 Fire Insurance Map, provided by Standard Chlorine Chemical Company Archives.

PROJECT No. 001872507 LANGAN

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ATTACHMENT D

ORIGINAL SURVEY FORMS

Disclaimer: **The Base Form for the Former Edison Battery Property (Standard Chlorine Chemical Company) was prepared by AKRF in 2007 for New Jersey Transit, and is included in this report as referenced material.**

BASE FORM

Historic Sites #:

Property Name: Former Edison Battery Property (Standard Chlorine Chemical Company)

Street Address: *Street #:* 1025 (*Low*) 1035 (*High*) *Apartment #:* (*Low*) (*High*)

Prefix: *Street Name:* Belleville *Suffix:* *Type:* TPKE

County(s): Hudson **Zip Code:** 07032

Municipality(s): Kearny **Block(s):** 287

Local Place Name(s): Kearny **Lot(s):** 50

Ownership:: Private **USGS Quad(s)** Weehawken

Description:

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph: see continuation sheet

BASE FORM

Historic Sites #:

5” x 3.5” – Please mount photos as indicated.
For portrait oriented photos, mount with the top to the left

Location Map: **Site Map:**

Survey Name: **Portal Bridge Capacity Enhancement Project DEIS** Date: October 24, 2007

Surveyor: **M. McDonald**

Organization: **AKRF for NJ TRANSIT and Amtrak**

BASE FORM

Historic Sites #:

Bibliography/Sources:
See continuation sheet

Additional Information:

More Research Needed? Yes No

INTENSIVE LEVEL USE ONLY

Attachments Included: Building Structure Object Bridge
Landscape Industry

Within Historic District? Yes No

Status: Key-Contributing Contributing Non-Contributing

Associated Archaeological Site/Deposit? Yes
(Known or potential Sites – if yes, please describe briefly)

Survey Name: **Portal Bridge Capacity Enhancement Project DEIS** Date: October 24, 2007
Surveyor: **M. McDonald**
Organization: **AKRF for NJ TRANSIT and Amtrak**

BASE FORM

Historic Sites #:

THIS PAGE TO BE COMPLETED ONLY AT INTENSIVE LEVEL
AND
ONLY IF PROPERTY IS A FARM COMPLEX

Historic Farm Name: _____

Period of Agricultural Use: _____ To _____ **Source** _____

Agriculture Type: _____

Remaining Historic Fabric _____

Acreage: _____

Farm Description:

CONTINUATION SHEET

Historic Sites #:

Edison Battery Property (Standard Chlorine Chemical Company): Base Form

Description:

General Historical Background

Following the development of the first railroads through the area in the 1860s and 1870s, eastern Kearny was transformed from undeveloped marshlands to a center of industry. The Mile End Thread Mills, Marshall Linen Thread Mills, and the Nairn Manufacturing Company, a linoleum factory, were among the large industries established in Kearny between the mid-1870s and the mid-1880s (Stinson 1915: 371).

The portion of eastern Kearny located south of the Pennsylvania Railroad (Northeast Corridor), along the west side of the Hackensack River became the site of multiple industrial facilities. The parcel located immediately south of the Northeast Corridor Line, now known as the Diamond Shamrock property, was first developed in 1916 by the Martin-Dennis Company, which produced sodium bichromate and potassium dichromate, chemicals used in the preparation of Tanolin, a leather tanning agent. A 1936 Sanborn map shows over a dozen buildings on the Martin-Dennis property (Sanborn 1936). In 1916, the White Tar Company purchased a long narrow parcel directly south of the Diamond Shamrock property, and constructed several buildings on the site for the refinement of crude naphthalene for the production of moth repellents, disinfectants, and deodorizers.

The Thomas A. Edison Company purchased the land directly south of the White Tar Company property in 1917 (*NYT* 1917). The property was bounded on the west and east by the Belleville Turnpike and the Hackensack River, respectively. Buildings were not constructed on this site until the mid 1920s, when the company (Thomas A. Edison Company's subsidiary, the Emark Battery Corporation) began production of batteries there.

The Koppers Gas & Coke Company purchased the White Tar Company property (north of the Edison property) in 1942, and continued production of naphthalene products (ATSDR 2005: 3). Later, the Koppers Company purchased the Edison site and merged it with the parcel to the north to create the Tar Products Division-Meadows Plant. From 1959 to 1962, Tantanex Chemical Corp., producers of dye carriers, operated on the site. Following 1962, the property was owned by Standard Chlorine and Standard Naphthalene companies, which remained in operation until 1993 (ATSDR 2005: 1). The site has not been in active industrial use since that time.

This survey form solely addresses the portion of the Standard Chlorine Chemical Company property that was formerly part of the Thomas A. Edison Company/ Emark Battery Company property, including the southwestern portion of the present Standard Chlorine Chemical Company property. The remaining (northern) portion of the Standard Chlorine Chemical Company property, formerly owned by the White Tar Company, is addressed on a separate survey form.

A site visit was conducted on June 26, 2007, however, photography was prohibited. Therefore, the only photographs of the structures attached are aerial photographs (Figure 2), photographs taken from public rights-of-way (Figure 4), and historic photographs (Figures 5-7). Views of the site from surrounding public roads and rights of way are limited.

Thomas A. Edison Company and Emark Battery Corporation

Thomas A. Edison (1847-1931), one of the most prolific inventors in history, is best remembered as the inventor of the phonograph, developer of the light bulb, and the creator of the first industrial research laboratory, in Menlo Park. Edison also advanced cement as a building material, particularly in domestic applications, developing new techniques for cement processing and construction. Born in Ohio, Edison moved to New Jersey early in his career and remained closely associated with New Jersey for the rest of his life.

The battery represents another commodity which Edison was important in developing. Storage batteries were introduced on the commercial market in 1881. For over two decades, the only battery type available was a lead-sulphuric-acid cell, consisting of plates of lead in a dilute sulphuric-acid electrolyte. From the 1890s through the early 20th century, Edison strove to develop a powerful, durable, and light-weight alkaline car battery to become the basis for a successful electric automobile. Edison's laboratories continually refined the design of such a

CONTINUATION SHEET

Historic Sites #:

battery, striving to develop a new alkaline electrolyte that could be used in small quantities and which would be slower to dissolve metals in the battery, creating a long-lasting and light battery. In place of the sulphuric acid electrolyte solutions coupled with lead electrodes which were the contemporary standard, Edison's 'type A' battery used a potassium hydrate and lithium hydrate electrolyte and a nickel and iron electrode. Edison succeeded in developing a battery that met his expectations in 1910. It did not achieve the success he had hoped in the car market, however, due to Henry Ford's 1909 release of the gasoline-engine Model T. Nevertheless, it was widely used in trucks and commercial and factory vehicles and became one of his most lucrative inventions (IEEE 2007).

During the first two decades of the 20th century, Edison founded multiple companies involved in the development and production of batteries in the United States, including the Edison Manufacturing Company; the Battery Supplies Company (est. 1903); the Edison Storage Battery Company; and the Emark Battery Corporation. Edison also operated multiple battery companies in Germany. Thomas A. Edison, Incorporated, organized as the National Phonograph Company in 1896, and renamed in 1911, consolidated many of Edison's companies over time, including the Edison Storage Battery Company in 1932, and the Emark Battery Corporation in 1933. Edison established multiple battery factories, including a plant in West Orange (ca. 1910) and a chemical plant in Bloomfield (Israel 2000: 419). The Kearny battery factory, while purchased by Edison in 1916, was not developed and put into production until 1927, four years before his death.

Site History and Description

The former Edison Battery Company Property is located on the eastern side of the Belleville Turnpike in Kearny. The proposed boundaries of the potential historic resource site have been drawn to include only the portion of the former Edison Battery Company parcel (now part of the Standard Chlorine Chemical Company property) that include standing buildings that were historically associated with the Thomas A. Edison Company. The boundaries encompass the entirety of tax lot 287, block 50 (see Figures 1 and 2).

Five buildings currently stand on the former Edison Battery Company site. Historic maps, historic photographs, and documentary sources, as well as physical evidence suggest that all five of these structures were built as part of a single construction campaign of 1927 (this construction date is shown on a 1936 Sanborn map; see Figure 3) when the property was first developed by the Thomas A. Edison Company. The five buildings, with the exception of the Gate House, a small structure designed in the Spanish Eclectic style, are Art Deco-style structures that reflect functionality, aesthetic attention, and construction technology (see Figures 4-7). The Art Deco-style structures include a Laboratory; a Battery Manufacturing Building; a Service and Maintenance Building; and a Boiler House. According to the 1936 Sanborn map, batteries were manufactured, packed, and shipped in the Battery Manufacturing Building, the largest building on the site. The Office & Laboratory, the first building one encounters after the Gate House, upon entering the site, is the most ornate of the structures; constructed of fireproof concrete, with incised Art Deco decoration. The existence of a laboratory on an industrial site may be relatively unique to Edison's complexes in this period, reflecting of his role in combining research and development with manufacturing. The use of concrete throughout the complex also likely reflects Edison's interest in the building material; however whether Edison's concrete construction methods or concrete companies were involved in the construction of the buildings on the site is not known.

All of the buildings extant on the site today, are depicted on a 1936 Sanborn map, and are believed to have been built in 1927. Also depicted on the map is a 'sulphuric acid tank,' no longer standing on the site, and a small structure labeled 'storage,' located on the southern edge of the property, south of the Battery Manufacturing Building. The Sanborn map also indicates that a short spur of the Erie Railroad (Newark & Hudson Branch) ran on and east-west orientation along the southern property line. Furthermore, an underground 'Pipe Tunnel' is depicted, connecting the Office & Laboratory Building with the Battery Manufacturing Building.

Historic photographs on file at the National Parks Service, dating to March, 1930, show that the appearance of the site and buildings has not changed dramatically since that date. There have been some alterations, including the following: the cement entry wall designed in the Art Deco style, shown in the photographs, no longer stands today, having been replaced with a metal fence. Furthermore, the Boiler House is shown on the photographs with a tall brick smokestack bearing the word 'Emark;' this feature no longer stands. Most of the buildings on the site exhibit cracking or spalling of the concrete or stucco facing, and some of the windows are broken. However,

CONTINUATION SHEET

Historic Sites #:

overall, the exteriors of the buildings standing on the property retain a high degree of historic integrity. The interiors, with the exception of the Office & Laboratory Building, were not accessible. The present landscape of the property consists of a driveway, oriented east-west along the northern edge of the historic property line; the remainder of the site is largely paved. Historic photographs show that the driveway maintained its former configuration, and was edged in fieldstones, while the rest of the site was either paved or covered in grass.

Significance

The former Edison Battery Property complex appears to meet the criteria for State/National Register eligibility. The complex appears eligible under Criterion A, for its association with Thomas A. Edison and his development of the battery. It also appears eligible under Criterion C, as an example of the Art Deco style applied to industrial buildings.

Bibliography/Sources

Agency for Toxic Substances and Disease Registry [ATSDR]. Public Health Assessment: Standard Chlorine Chemical Company, Incorporated: Kearny, Hudson County, New Jersey: EPA Facility ID: NJD002175057. For: New Jersey Department of Health and Senior Services; and Consumer and Environmental Health Services. 2005.

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Stinson, Robert R. *Hudson County To-Day: Its History, People, Trades, Commerce, Institutions, and Industries.* Union, New Jersey: Hudson Dispatch, 1915.

Historic photographs of the Emark Battery Corporation, 1930 (Courtesy of the National Park Service, Edison National Historic Site)

Sanborn Map Company. Insurance maps of the Town of Kearny, 1936

Survey Name: **Portal Bridge Capacity Enhancement Project DEIS** Date: October 24, 2007

Surveyor: **M. McDonald**

Organization: **AKRF for NJ TRANSIT and Amtrak**

BUILDING ATTACHMENT

Historic Sites #:

Common Name: Gatehouse (Standard Chlorine Chemical Company)
Historic Name: Gatehouse (Edison Battery Property)
Present Use: Vacant
Historic Use: Industrial
Construction Date: 1927 **Source:** Historic maps; Historic photographs (NPS Archives)
Alteration Date(s): **Source:**
Designer: Not known **Physical Condition:** Good
Builder: Not known **Remaining Historic Fabric:** High
Style: Spanish Colonial Revival
Form: Other **Stories:** One
Type: Other **Bays:** Three
Roof Finish Materials: Tile, Spanish
Exterior Finish Materials Concrete Block, Modern

Exterior Description:
The Gatehouse is a small single-story square-plan building constructed of concrete, with a hipped roof clad in Spanish tile (see Figure 4, Photo 1; and Figure 5). The front façade faces the driveway of the complex and is characterized by a central doorway with a window on either side. A window is also located in the center of each of the other facades of the building. The windows throughout the structure contain nine-light sash. The exterior of the building exhibits some spalling and cracking, and small modern lights and electrical fixtures have been appended to the side of the building, however, overall, the structure retains a high degree of physical integrity.

Interior Description:
Interior not accessible.

Setting:
The building is located on the east side of the Belleville Turnpike on the western edge of the Standard Chlorine Chemical Company property. The driveway for the facility runs east-west immediately north of the structure, and a metal entry gate abuts the front (north) façade of the Gatehouse.

Survey Name: Portal Bridge Capacity Enhancement Project DEIS Date: October 24, 2007
Surveyor: **M. McDonald**
Organization: **AKRF for NJ TRANSIT and Amtrak**

BUILDING ATTACHMENT

Historic Sites #:

Common Name: Laboratory and Office (Standard Chlorine Chemical Company)
Historic Name: Laboratory and Office, a.k.a. Engineering Building (Edison Battery Property)
Present Use: Vacant
Historic Use: Industrial
Construction Date: 1927 **Source:** Sanborn maps; Historic photographs (NPS Archives)
Alteration Date(s): **Source:**
Designer: Not known **Physical Condition:** Good
Builder: Not known **Remaining Historic Fabric:** High
Style: Art Deco
Form: Other **Stories:** Two
Type: Other **Bays:** Nine
Roof Finish Materials: Not known
Exterior Finish Materials Concrete

Exterior Description:
See continuation sheet.

Interior Description:
Interior appears to have been extensively remodeled in the late 20th century.

Setting:
The structure is immediately surrounded by low trees and moderate vegetative growth, and is situated in a paved parking and driving area roughly 200 feet east of Belleville Turnpike. It is located south of the main driveway of the complex, and is located east of the Gatehouse.

Survey Name: Portal Bridge Capacity Enhancement Project DEIS Date: October 24, 2007
Surveyor: M. McDonald
Organization: AKRF for NJ TRANSIT and Amtrak

CONTINUATION SHEET

Historic Sites #:

Edison Battery Property: Laboratory and Office Building Form

Exterior Description:

The Office & Laboratory building is a boxy two-story rectangular-plan building built ca. 1927 in the Art Deco style (see Figure 4, Photo 1; and Figure 6). It is constructed of concrete and has a high simple plinth and a shallow parapet around its flat roof.

Each of the building's four facades exhibit similar characteristics. They are symmetrically fenestrated, with central entries on the front (north), and west facades. On the latter facades, the entry bays are wider and contain paired windows at second-story level. Windows throughout the building are rectangular, with slightly shouldered lintels. Stylized fluted pilasters are placed between every two bays along the façades. A wide frieze band runs continuously around the building's cornice line. This frieze contains shallowly incised ornamentation consisting of floral and geometric patterns. Similar panels of incised patterning are located above the windows and doorways. Flanking the doorways are bulky pilasters suggesting amortized buttress. The bulk of these features and of the low bulky concrete walls flanking the steps that lead to the doorways, exhibit a vaguely Egyptian quality, suggested also by the pyramidal caps that surmount the pilasters. The latter are also decorated with vertical panels of incised patterning depicting scrolls and geometric shapes. Recessed square panels are located between first and second story windows.

The front (north) façade of the building has nine bays, symmetrically arranged. The central bay contains a doorway on the first story surmounted by a paired window. The doorway contains a modern glass double-door surmounted by a large square transom. The windows along the second story of the front façade have two-light fixed sash; a recessed area beneath the windows shows where longer original window openings (as shown in historic photographs) have been blocked. First-story windows on the front façade contain three-light fixed sash surmounted by a blind panel that was formerly a fourth light.

Similarly, occupying the windows along the side (west) façade contain three-light fixed sash, surmounted by a blind panel that was formerly a fourth light. The east façade of the building appears to contain some of the original awning sash windows, though the former location of the upper light has been blocked throughout the façade.

BUILDING ATTACHMENT

Historic Sites #:

Common Name: Battery Manufacturing Building (Standard Chlorine Chemical Company)
Historic Name: Battery Manufacturing Building (Edison Battery Property)
Present Use: Vacant
Historic Use: Industrial
Construction Date: 1927 **Source:** Historic maps; Historic photographs (NPS Archives)
Alteration Date(s): **Source:**
Designer: Not Known **Physical Condition:** Fair
Builder: Not Known **Remaining Historic Fabric:** High
Style: Art Deco
Form: Other **Stories:** Two
Type: Other **Bays:** Nine
Roof Finish Materials: Built-up Tar
Exterior Finish Materials Concrete Block, Modern

Exterior Description: The large rectangular-plan building is two-stories in height, has a flat roof, and is constructed of concrete parged with stucco (see Figure 4, Photo 2; and Figure 6, Photo 6; and Figure 7). The tripartite front (north) façade has a projecting three-bay central section flanked by recessed three-bay wings. It exhibits elements of the Art Deco and Second Egyptian Revival styles. It has a minimally stepped roof parapet, projecting and stepped wall segments, a recessed square panel above the central doorway, and stepped windows along the upper story. Windows contain multi-light iron casement and sash. Three windows on the structure have been blocked. The rear section of the building is constructed of stucco-parged concrete block, with continuous window panels on the upper portions of the side facades.

Interior Description:
Interior not accessible.

Setting:
The building is located east of the Office & Laboratory Building, in the southwestern portion of the Standard Chlorine Chemical Company property. The driveway for the facility runs east-west immediately north of the structure. The building is surrounded on each side by asphalt pavement.

Survey Name: Portal Bridge Capacity Enhancement Project DEIS
Date: October 24, 2007
Surveyor: M. McDonald
Organization: AKRF for NJ TRANSIT and Amtrak

BUILDING ATTACHMENT

Historic Sites #:

Common Name: Service and Maintenance Building (Standard Chlorine Chemical Company)
Historic Name: Service and Maintenance Building (Edison Battery Property)
Present Use: Vacant
Historic Use: Industrial
Construction Date: 1927 **Source:** Historic maps; Historic photographs (NPS Archives)
Alteration Date(s): **Source:**
Designer: Not known **Physical Condition:** Fair
Builder: Not known **Remaining Historic Fabric:** High
Style: Art Deco
Form: Other **Stories:** One
Type: Other **Bays:** Five
Roof Finish Materials: Built-up Tar
Exterior Finish Materials Concrete Block, Modern

Exterior Description: The Service and Maintenance Building is similar in design to the neighboring Battery Building, though smaller (see Figure 7). The single-story flat-roofed concrete building is parged with stucco. The tripartite front (north) façade is symmetrical and has a single-bay central section flanked by shorter two-bay wings. The central entry, accessed by a double-entry stair with metal railing, is surmounted by a square panel and flanked by simple pilasters. The windows have chamfered upper edges and contain multi-light casement sash. The rear section of the building features large continuous multi-light fixed and awning-sash windows along the side facades. The central section is higher than the the wings, creating a tiered effect. The concrete structure exhibits some cracking, and a few of the window panes are broken, however, overall it appears to retain high integrity.

Interior Description:
Interior not accessible.

Setting:
The building is located east of the Battery Building, in the southwestern portion of the Standard Chlorine Chemical Company property. The driveway for the facility runs east-west immediately north of the structure. The building is surrounded on each side by asphalt pavement.

Survey Name:
Date: October 24, 2007
Surveyor:
Organization:

BUILDING ATTACHMENT

Historic Sites #:

Common Name: Boiler House (Standard Chlorine Chemical Company)
Historic Name: Boiler House (Edison Battery Property)
Present Use: Vacant
Historic Use: Industrial
Construction Date: 1927 **Source:** Historic maps; Historic photographs (NPS Archives)
Alteration Date(s): **Source:**
Designer: Not known **Physical Condition:** Fair
Builder: Not known **Remaining Historic Fabric:** Medium
Style: Art Deco
Form: Other **Stories:** One
Type: Other **Bays:** Four
Roof Finish Materials: Built-up Tar
Exterior Finish Materials Concrete Block, Modern

Exterior Description: The Boiler House is a small rectangular-plan building constructed of concrete parged with stucco (see Figure 7). While the Boiler House is clearly a part of the same design as the other structures on the former Edison Battery property, the single-story flat-roofed structure has little or no ornamentation, with the exception of shallow pilasters or buttresses along each façade, similar in character to those on the front façade of the Service & Maintenance Building. Unlike the other buildings on the property, all of the windows have been sealed with concrete block. Historic photographs dating to 1930 show that the Boiler House originally had large windows with stepped upper corners, as well as a tall brick smokestack with 'Emark' (the name of the company) spelled on it vertically in brick. The smokestack is no longer extant.

Interior Description:
Interior not accessible.

Setting:
The building is located east of the Battery Building, and south of the Service & Maintenance Building, in the rear (southeastern portion of the former Edison Battery property. The building is surrounded on each side by asphalt pavement.

Survey Name:
Date: October 24, 2007
Surveyor:
Organization:

0 1400 2800 FEET

SCALE

Location Map

FORMER EDISON BATTERY PROPERTY

Figure 1

102407

Date of orthoimagery: March/April 2006

Proposed S/NR Boundary

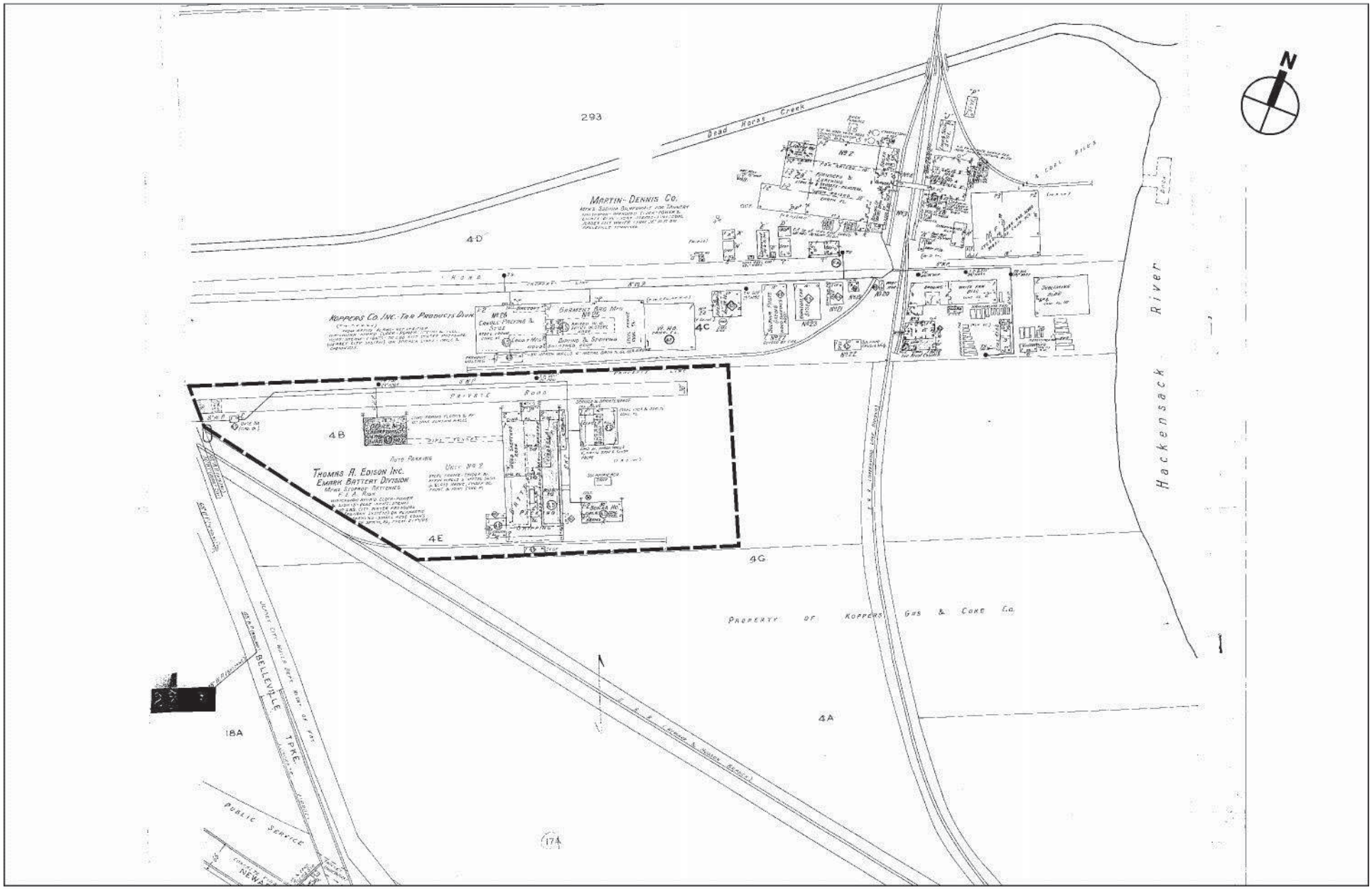
0 500 FEET
SCALE

Site Plan

FORMER EDISON BATTERY PROPERTY

Figure 2

10.19.07



Proposed S/NR Boundary

0 200 400 FEET
SCALE

Sanborn Map, 1936

FORMER EDISON BATTERY PROPERTY

Figure 3

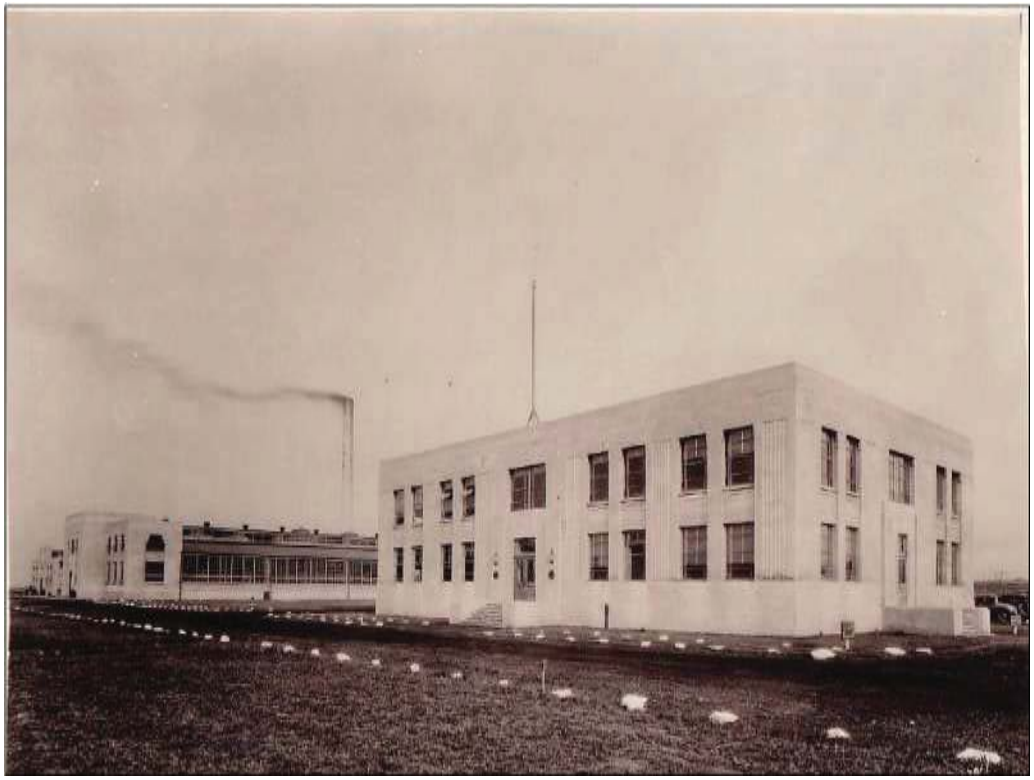
A recent photograph of the former Edison Battery Property, looking east from the property entrance on the Belleville Turnpike. The Gatehouse is pictured on the right, and the former Office & Laboratory Building is pictured in the center **1**

A view of the rear of the former Battery Manufacturing Building, looking northeast from the Belleville Turnpike **2**

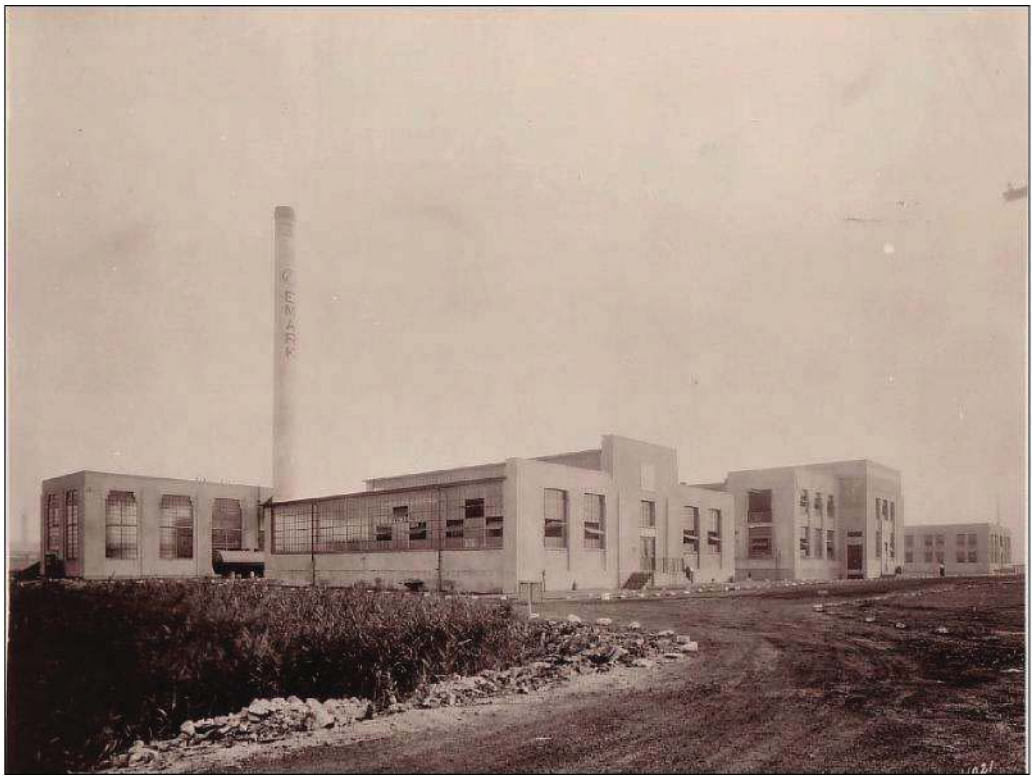
A photograph taken in 1930, from the files of the National Park Service, showing the entrance to the former Edison Battery Property (a.k.a., Emark Battery Corp.), taken from the west side of the Belleville Turnpike 3

A view of the Edison Battery Property, looking east from the entry (NPS: 1930) 4

A view of the front (north) façade of the Office & Laboratory Building (a.k.a. the Engineering Building). Note the pilasters and the incised Art Deco-style ornamentation along the roofline and above the central doorway (NPS: 1930) **5**



A view of the Edison Battery Property from the north edge of the property, looking southeast. The east-west-oriented driveway is pictured in the foreground. Fronting the driveway, from left to right, are the Service & Maintenance Building, the Battery Manufacturing Building, and the Office & Laboratory Building (NPS: 1930) **6**



Looking southwest from the northeastern portion of the Edison Battery Property, a view of (from left to right) the Boiler House with brick smokestack, a metal tank (identified as a sulphuric acid tank on the 1936 Sanborn map), the Service & Maintenance Building, and the Office & Laboratory Building **7**

ATTACHMENT E

SCCC FILE INDEX AND BLUEPRINT DRAWINGS ON CD

SCC File Index (Blueprints/ Drawings) – Updated June 13, 2014

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Mezzanine Toilet Rooms Battery Plant Building Thomas A. Edison Inc.	09/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions		4499, Sheet 114
Mezzanine Toilet Rooms Battery Plant Building Thomas A. Edison Inc.	09/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions		4499, Sheet 114
Heating Plan Service & Maintenance Buildings Thomas A. Edison Inc.	07/10/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions	X	4499, Sheet 145
Heating Plan Service & Maintenance Buildings Thomas A. Edison Inc.	07/10/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions		4499, Sheet 145
Piping Details Manufacturing Plant Thomas A. Edison Inc.	04/10/1924	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions		4499, Sheet 146
Location of Acid Storage Tank & Stack Manufacturing Plant Thomas A. Edison Inc.	08/10/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions	X	4499, Sheet 170
Plan of Lead Lined Acid System Emark Battery Corporation	04/10/1930	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions	X	1211, Sheet 171
Lead Lined Piping Connection Between Tanks Oxide and Forming Departments Emark Battery Corporation	04/15/1930	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions	X	1211, Sheet 172
Location of Acid Storage Tank & Stack Manufacturing Plant Thomas A. Edison Inc.	08/10/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions		4499, Sheet 170
Equipment Section Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions		4499, Sheet 161
Equipment Section Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions		4499, Sheet 161
Equipment Section Battery Plant Building Thomas A. Edison Inc.	08/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions	X	4499, Sheet 163
Equipment Section Battery Plant Building	08/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7		4499, Sheet 163

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Thomas A. Edison Inc.					Dups and interim revisions		
Plan of Steam & Exhaust Boiler House Thomas A. Edison Inc.	08/12/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions		4499, Sheet 180
Details of Piping Boiler House Thomas A. Edison Inc.	08/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions		4499, Sheet 184
Plan of Boiler Feed & Blowoff Boiler House Thomas A. Edison Inc.	08/15/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions		4499, Sheet 181
Side Elevation Boiler House Thomas A. Edison Inc.	08/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions		4499, Sheet 183
Side Elevation Boiler House Thomas A. Edison Inc.	08/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions		4499, Sheet 183
Side Elevation Boiler House Thomas A. Edison Inc.	08/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #6 of 7 Dups and interim revisions		4499, Sheet 183
Miscellaneous Steel Details Battery Plant Building Thomas A. Edison Inc.	10/03/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions	X	4499, Sheet 61
Steel Details for Addition to Mezz. Floor Battery Plant Building Thomas A. Edison Inc.	09/24/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions	X	4499, Sheet 59
Mezzanine Slab Reinforcement Battery Plant Building Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 58
Door Details Manufacturing Plant Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 56
Foundation Plan of Stair Tower Battery Plant Building Thomas A. Edison Inc.	09/06/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 55
Mezzanine Slab Reinforcement Battery Plant Building Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 58
Steel Details for Addition to Mezz. Floor Battery Plant Building	09/24/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 59

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Thomas A. Edison Inc.							
Miscellaneous Steel Details Battery Plant Building Thomas A. Edison Inc.	10/03/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 61
Plans and Elevations Gate House Thomas A. Edison Inc.	11/22/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions	X	4499, Sheet 62
Details Battery Plant Building Thomas A. Edison Inc.	02/04/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 45
Door Details Manufacturing Plant Thomas A. Edison Inc.	07/08/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 50
Special Door Details Manufacturing Plant Thomas A. Edison Inc.	09/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 51
Revisions to Steel Work at Job Battery Plant Building Thomas A. Edison Inc.	10/02/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions	X	4499, Sheet 60
Revisions to Steel Work at Job Battery Plant Building Thomas A. Edison Inc.	10/02/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 60
Revisions to Steel Work at Job Battery Plant Building Thomas A. Edison Inc.	10/02/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 60
Revisions to Steel Work at Job Battery Plant Building Thomas A. Edison Inc.	10/02/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 60
Miscellaneous Steel Details Battery Plant Building Thomas A. Edison Inc.	10/03/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 61
Miscellaneous Steel Details Battery Plant Building Thomas A. Edison Inc.	10/03/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #4 of 5 Dups and interim revisions		4499, Sheet 61
Steel Framing Plan Service and Maintenance Building Thomas A. Edison Inc.	06/25/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 sheets 1-99 #2 of 5 Dups and interim Revisions		4499, Sheet 25

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Foundation Details Battery Plant Building Thomas A. Edison Inc.	07/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions	X	4499, Sheet 20
Door Details Manufacturing Plant Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions		4499, Sheet 56
Door Details Manufacturing Plant Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions		4499, Sheet 57
Entrance Bridge Manufacturing Plant Thomas A. Edison Inc.	11/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions	X	4499, Sheet 54
Entrance Bridge Manufacturing Plant Thomas A. Edison Inc.	11/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions		4499, Sheet 54
Foundation Plan of Stair Tower Battery Plant Building Thomas A. Edison Inc.	09/06/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions	X	4499, Sheet 55
Door Details Manufacturing Plant Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions		4499, Sheet 56
Foundation Plan of Stair Tower Battery Plant Building Thomas A. Edison Inc.	09/06/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions		4499, Sheet 55
Door Details Manufacturing Plant Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions		4499, Sheet 57
Mezzanine Slab Reinforcement Battery Plant Building Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions	X	4499, Sheet 58
Tunnel & Boiler Foundation Boiler House Thomas A. Edison Inc.	08/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions	X	4499, Sheet 47

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Pipe Tunnel Connecting Engineering and Battery Buildings Thomas A. Edison Inc.	08/13/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions	X	4499, Sheet 49
Details of Expansion Joints Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions		4499, Sheet 48
Tunnel & Boiler Foundation Boiler House Thomas A. Edison Inc.	08/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions	X	4499, Sheet 47
Details Battery Plant Building Thomas A. Edison Inc.	08/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions	X	4499, Sheet 46
Details Battery Plant Building Thomas A. Edison Inc.	02/04/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 1-99 #2 of 5 Dups and interim revisions	X	4499, Sheet 45
Plumbing Plan Boiler House Thomas A. Edison Inc.	07/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 110
Plumbing Battery Plant Building Thomas A. Edison Inc.	07/12/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 101
Plumbing Details Manufacturing Plant Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 104
Process Water Supply Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 107
Plumbing Plan Boiler House Thomas A. Edison Inc.	07/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 110
Slots & Openings – Preheater Pit Battery Plant Building Thomas A. Edison Inc.	09/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 113
Mezzanine Toilet Rooms Battery Plant Building Thomas A. Edison Inc.	09/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 114

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Process Water Supply and Waste Separator Department Emark Battery Corporation	04/15/1930	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 117
Plumbing Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 108
Plumbing Details Manufacturing Plant Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 104
Plumbing – Yard Connections Manufacturing Plant Thomas A. Edison Inc.	07/12/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 106
Process Water Supply Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 107
Mezzanine Toilet Rooms Battery Plant Building Thomas A. Edison Inc.	09/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 114
Lighting Plan Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions 7	X	4499, Sheet 130
Transformer Room Battery Plant Building Thomas A. Edison Inc.	09/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 132
Steam Main – Yard Layout Manufacturing Plant Thomas A. Edison Inc.	07/17/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 140
Details – Steam Main Yard Layout Manufacturing Plant Thomas A. Edison Inc.	07/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 142
Detail Plan – Steam Main Yard Layout Manufacturing Plant Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 141
Details – Steam Main Yard Layout Manufacturing Plant Thomas A. Edison Inc.	07/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 142
Piping Details Manufacturing Plant	04/10/1924	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7	X	4499, Sheet 146

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Thomas A. Edison Inc.					Dups and interim revisions		
Heating Plan Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 143
Equipment Section Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 160
Equipment Section Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 161
Sprinkler Plan Battery Plant Building Thomas A. Edison Inc.	07/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 121
Sprinkler Plan Battery Plant Building Thomas A. Edison Inc.	07/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 121
Sprinkler Yard Layout Manufacturing Plant Thomas A. Edison Inc.	07/08/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 120
Sprinkler Plan Battery Plant Building Thomas A. Edison Inc.	07/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 121
Sprinkler Plan Eng'rg & Maintenance Buildings & Boiler House Thomas A. Edison Inc.	07/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions	X	4499, Sheet 122
Lighting Plan Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 130
Plumbing Battery Plant Building Thomas A. Edison Inc.	07/12/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 101
Plumbing Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 102
Plumbing Details Manufacturing Plant Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 104

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Process Water Supply Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 107
Sprinkler Yard Layout Manufacturing Plant Thomas A. Edison Inc.	07/08/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 120
Sprinkler Plan Battery Plant Building Thomas A. Edison Inc.	07/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 121
Mezzanine Toilet Rooms Battery Plant Buildings Thomas A. Edison Inc.	09/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 114
Plumbing Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 102
Plumbing Battery Plant Building Thomas A. Edison Inc.	07/12/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #3 of 7 Dups and interim revisions		4499, Sheet 101
Plan of Steam & Exhaust Boiler House Thomas A. Edison Inc.	08/12/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions	X	4499, Sheet 180
Plan of Boiler Feed & Blowoff Boiler House Thomas A. Edison Inc.	08/15/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions	X	4499, Sheet 181
Plan of Boiler Feed & Blowoff Boiler House Thomas A. Edison Inc.	08/15/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 181
Plan of Steam & Exhaust Boiler House Thomas A. Edison Inc.	08/12/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 180
Front Elevations Boilers Boiler House Thomas A. Edison	08/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions	X	4499, Sheet 182
Plan of Steam & Exhaust Boiler House Thomas A. Edison Inc.	08/12/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 180

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Plan of Boiler Feed & Blowoff Boiler House Thomas A. Edison Inc.	08/15/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 181
Front Elevations Boilers Boiler House Thomas A. Edison Inc.	08/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 182
Side Elevation Boiler House Thomas A. Edison Inc.	08/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 183
Details of Piping Boiler House Thomas A. Edison Inc.	08/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions	X	4499, Sheet 184
Front Elevators Boilers Boiler House Thomas A. Edison Inc.	08/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 182
Details of Piping Boiler House Thomas A. Edison Inc.	08/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 184
Details of Piping Boiler House Thomas A. Edison Inc.	08/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 184
Details of Piping Boiler House Thomas A. Edison Inc.	08/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 184
Boiler Breeching Inside Building Boiler House Thomas A. Edison Inc.	08/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions	X	4499, Sheet 186
Boiler Breeching Inside Building Boiler Room Thomas A. Edison Inc.	08/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 186
Boiler Breeching Inside Building Boiler Room Thomas A. Edison Inc.	08/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 186

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Boiler Breeching Inside Building Boiler House Thomas A. Edison Inc.	08/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 186
Boiler Breeching Inside Building Boiler House Thomas A. Edison Inc.	08/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 186
Soot Blower Piping and Instrument Pipe Sleeve - Boilers Thomas A. Edison Inc.	08/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions	X	4499, Sheet 189
Soot Blower Piping and Instrument Pipe Sleeve - Boilers Thomas A. Edison Inc.	08/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 189
Soot Blower Piping and Instrument Pipe Sleeve - Boilers Thomas A. Edison Inc.	08/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 189
Ventilating & Heating System Separator Room Battery Plant Building Thomas A. Edison Inc.	08/28/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions	X	4499, Sheet 188
Ventilating & Heating System Separator Room Battery Plant Building Thomas A. Edison Inc.	08/28/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 188
Equipment Foundations Boiler House Thomas A. Edison Inc.	09/02/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions	X	4499, Sheet 190
Equipment Foundations Boiler House Thomas A. Edison Inc.	09/02/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 190
Compressor Foundations Boiler House Thomas A. Edison Inc.	09/25/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions	X	4499, Sheet 191
Compressor Room Boiler House Thomas A. Edison Inc.	09/25/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions	X	4499, Sheet 192
Compressor Room Boiler House Thomas A. Edison Inc.	09/25/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 192

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Equipment Foundations Boiler House Thomas A. Edison Inc.	09/02/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 190
Compressor Room Boiler House Thomas A. Edison Inc.	09/25/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520	Edison Blueprints Austin Co. 4499 Sheets 101-199 #5 of 7 Dups and interim revisions		4499, Sheet 192
Entrance Details Engineering Building Thomas A. Edison Inc.	09/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520			4499, Sheet 52
Entrance Details Engineering Building Thomas A. Edison Inc.	09/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520			4499, Sheet 52
Plants & Elevations Switch House Thomas A. Edison Inc.	09/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520			4499, Sheet 53
Plants & Elevations Switch House Thomas A. Edison Inc.	09/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520			4499, Sheet 53
Entrance Bridge Manufacturing Plant Thomas A. Edison Inc.	11/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520			4499, Sheet 54
Foundation Plan of Stair Tower Battery Plant Building Thomas A. Edison Inc.	09/06/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520			4499, Sheet 55
Foundation Plan of Stair Tower Battery Plant Building Thomas A. Edison Inc.	09/06/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520			4499, Sheet 55
Door Details Manufacturing Plant Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520			4499, Sheet 56
Door Details Manufacturing Plant Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520			4499, Sheet 56
Door Details Manufacturing Plant Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520			4499, Sheet 57
Door Details Manufacturing Plant Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520			4499, Sheet 57
Steel Details for Addition to Mezz. Floor Battery Plant Building Thomas A. Edison Inc.	09/24/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-20 ASI Box No. JG7520			4499, Sheet 59
Steel Details for Addition to	09/24/1929	The Austin Company	Blueprint/Drawing	SCC-B-20			4499, Sheet 59

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Mezz. Floor Battery Plant Building Thomas A. Edison Inc.		Engineers and Builders		ASI Box No. JG7520			
Foundation & Floor Plan Boiler House Thomas A. Edison Inc.	08/07/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 41
Foundation & Floor Plan Boiler House Thomas A. Edison Inc.	08/07/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 41
Elevations Boiler House Thomas A. Edison Inc.	08/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions	X	4499, Sheet 42
Elevations Boiler House Thomas A. Edison Inc.	08/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 42
Elevations Boiler House Thomas A. Edison Inc.	08/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 42
Elevations Boiler House Thomas A. Edison Inc.	08/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 42
Cross Section Boiler House Thomas A. Edison Inc.	07/03/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 43
Cross Section Boiler House Thomas A. Edison Inc.	07/03/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 43
Framing Plan Boiler House Thomas A. Edison Inc.	08/13/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 44
Framing Plan Boiler House Thomas A. Edison Inc.	08/13/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 44
Framing Plan Boiler House Thomas A. Edison Inc.	08/13/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 44
Details Battery Plant Building Thomas A. Edison Inc.	02/04/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 45
Details Battery Plant Building Thomas A. Edison Inc.	02/04/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 45
Details Battery Plant Building	02/04/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48		4499, Sheet 45

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Thomas A. Edison Inc.					Dups and interim revisions		
Details Battery Plant Building Thomas A. Edison Inc.	08/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 46
Details Battery Plant Building Thomas A. Edison Inc.	08/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 46
Details Battery Plant Building Thomas A. Edison Inc.	08/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 46
Details Battery Plant Building Thomas A. Edison Inc.	08/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 46
Tunnel & Boiler Foundation Boiler House Thomas A. Edison Inc.	08/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 47
Tunnel & Boiler Foundation Boiler House Thomas A. Edison Inc.	08/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 47
Details of Expansion Joints Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 48
Details of Expansion Joints Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 48
Details of Expansion Joints Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 48
Foundation & Floor Plan Boiler House Thomas A. Edison Inc.	08/07/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 41
Foundation & Floor Plan Boiler House Thomas A. Edison Inc.	08/07/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 41
Elevations Boiler House	08/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48		4499, Sheet 42

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Thomas A. Edison Inc.					Dups and interim revisions		
Elevations Boiler House Thomas A. Edison Inc.	08/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 42
Elevations Boiler House Thomas A. Edison Inc.	08/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 41-48 Dups and interim revisions		4499, Sheet 42
Plumbing Battery Plant Building Thomas A Edison Inc.	07/12/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 101
Plumbing Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 102
Process Water Supply Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 107
Plumbing Plan Boiler House Thomas A. Edison Inc.	07/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 110
Plumbing Plan Boiler House Thomas A. Edison Inc.	07/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 110
Slots & Openings – Preheater Pit Battery Plant Building Thomas A. Edison Inc.	09/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 113
Slots & Openings – Preheater Pit Battery Plant Building Thomas A. Edison Inc.	09/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 113
Plumbing Battery Plant Building Thomas A. Edison Inc.	07/12/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 101
Plumbing Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 102
Plumbing Details Manufacturing Plant Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 104
Process Water Supply Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 107

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Plumbing Plan Boiler House Thomas A. Edison Inc.	07/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 110
Slots & Openings – Preheater Pit Battery Plant Building Thomas A. Edison Inc.	09/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 113
Mezzanine Toilet Rooms Battery Plant Building Thomas A. Edison Inc.	09/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 #7 of 7 Sheets 101-199 Dups and interim revisions		4499, Sheet 114
Piping Details Manufacturing Plant Thomas A. Edison Inc.	04/10/1924	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 146
Steam Main – Yard Layout Manufacturing Plant Thomas A. Edison Inc.	07/17/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 140
Detail Plan – Steam Main Yard Layout Manufacturing Plant Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 141
Details – Steam Main Yard Layout Manufacturing Plant Thomas A. Edison Inc.	07/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 142
Heating Plan Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 143
Heating Plan Service & Maintenance Building Thomas A. Edison Inc.	07/10/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 145
Piping Details Manufacturing Plant Thomas A. Edison Inc.	04/10/1924	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 146
Steamed and Compressed Air Separator Dept. Emark Battery Corporation	04/15/1930	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 147
Equipment Section Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 160
Equipment Section Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 160
Equipment Section Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 161
Equipment Section Battery Plant Building	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7		4499, Sheet 160

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Thomas A. Edison Inc.					Dups and interim revisions		
Equipment Section Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 161
Equipment Section Battery Plant Building Thomas A. Edison Inc.	08/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 163
Equipment Sections Eng'rg & Maintenance Buildings Boiler House Thomas A. Edison Inc.	07/08/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 162
Equipment Section Battery Plant Building Thomas A. Edison Inc.	08/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 163
Equipment Sections Eng'rg & Maintenance Buildings Boiler House Thomas A. Edison	07/08/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 162
Equipment Section Battery Plant Building Thomas A. Edison Inc.	08/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 163
Plan of Steam & Exhaust Boiler House Thomas A. Edison Inc.	08/12/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 180
Soot Blower Piping & Instrument Pipe Sleeve – Boilers Thomas A. Edison Inc.	08/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 189
Plan of Boiler Feed & Blowoff Boiler House Thomas A. Edison Inc.	08/15/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 181
Location of Acid Storage Tank & Stack Manufacturing Plant Thomas A. Edison Inc.	08/10/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 #1 of 7 Dups and interim revisions		4499, Sheet 170
Compressor Foundations Boiler House Thomas A. Edison Inc.	09/25/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 191
Equipment Foundations Boiler House Thomas A. Edison Inc.	09/02/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 190
Compressor Foundations Boiler House Thomas A. Edison Inc.	09/25/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 191
Compressor Room	09/25/1929	The Austin Company	Blueprint/Drawing	SCC-B-21	Edison Blueprints Austin Co.		4499, Sheet 192

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Boiler House Thomas A. Edison Inc.		Engineers and Builders		ASI Box No. JG7521	4499 sheets 101-199 # 4 of 7 Dups and interim revisions		
Compressor Foundation Boiler House Thomas A. Edison Inc.	11/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 193
Equipment Foundations Boiler House Thomas A. Edison Inc.	09/02/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 190
Compressor Foundation Boiler House Thomas A. Edison Inc.	11/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 193
Location of Acid Storage Tank & Stack Manufacturing Plant Thomas A. Edison Inc.	08/10/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 170
Sprinkler Plan Eng'rg & Maintenance Buildings Boiler House Thomas A. Edison Inc.	07/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 122
Sprinkler Plan Battery Plant Building Thomas A. Edison Inc.	07/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 121
Location of Acid Storage Tank & Stack Manufacturing Plant Thomas A. Edison Inc.	08/10/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 170
Location of Acid Storage Tank & Stack Manufacturing Plant Thomas A. Edison Inc.	08/10/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 170
Plumbing Details Manufacturing Plant Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 104
Lighting Plan Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 130
Transformer Room Battery Plant Building Thomas A. Edison Inc.	09/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 132
Steam Main – Yard Layout Manufacturing Plant Thomas A. Edison Inc.	07/17/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 sheets 101-199 # 4 of 7 Dups and interim revisions		4499, Sheet 140
White Tar Co. Naphthalene 8c Disinfectant Plant Subliming Building Foundation	05/04/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			M984

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
White Tar Co. Naphthalene Disinfectant Plant Subliming Building Wood Design – SH #1	05/31/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2499
White Tar Co. Naphthalene Disinfectant Plant Subliming Building Design – SH #2	05/31/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2500
White Tar Co. Proposed Addition to Subliming Building Naphthalene Plant	08/27/1942	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L3096
White Tar Co. Arrangement of Naphthalene Equipment Ricksacker Building Alteration	10/03/1929	The Koppers Construction Company	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2110
White Tar Co. Naphthalene Equipment in Ricksecker Building Gen. Arrgt	03/20/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2425
White Tar Co. Naphthalene Filling Lines to Pans	11/22/1939	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2432
White Tar Co. Naphthalene Equipment in Ricksacker Building – Building Alt's – Steel Design	11/24/1939	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2433
White Tar Co. Naphthalene Equipment in Ricksacker Building Present Outside Stairway & Door – Steel Design	11/24/1939	Koppers Company Tar and Chemical Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2434
White Tar Co. Naphthalene Handling Chutes and Bin Gate – Details and Gen Arrgt	11/29/1939	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2435
White Tar Co. Electrical Wiring Naphthalene Equipment in Ricksacker Building Power & Light Circuits	12/06/1939	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2436
White Tar Co. Piling Diagram	05/06/1940	Koppers Company Tar and Chemical Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2496
White Tar Co.	05/20/1940	Koppers Company	Blueprint/Drawing	SCC-B-21			L2496

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Fractionating Column 7'-0" Diameter		Engineering and Construction Division		ASI Box No. JG7521			
White Tar Co. Refining Still for Naphthalene 15,000 Gal Capacity	05/28/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2497
White Tar Co. Refining Still for Naphthalene – Steam Heating Nest.	05/31/1940	Koppers Compnay Engineering and Construction Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2498
White Tar Co. Naphthalene Condenser Drip Type – 2200 Sq. Ft.	06/27/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2502
White Tar Co. Naphthalene Pre Cooler	09/11/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L2582
White Tar Co. Electric Wiring General Wiring Diagram Power & Light Circuits	No date	American Tar Products Co.	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L779
White Tar Co. Electrical Wiring General Wiring Diagram Lights and Power Circuits Arrangement After Changes	No date	American Tar Products Co.	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521			L780
Floor Plans Engineering Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 Sheets #32-53 Dups		4499, Sheet 132
Pipe Tunnel Connecting Engineering & Battery Buildings Thomas A. Edison Inc.	08/13/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 Sheets #32-53 Dups		4499, Sheet 49
Plans & Elevations Switch House Thomas A. Edison Inc.	09/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 Sheets #32-53 Dups		4499, Sheet 53
Pipe Tunnel Connecting Engineering & Battery Buildings Thomas A. Edison Inc.	07/13/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. 4499 Sheets #32-53 Dups		4499, Sheet 49
Cross-Section Plate Finish Dept. Battery Plant Building Thomas A. Edison Inc.	01/09/1930	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. Contract # 1211 Sheets # 1 & 7 dups		1211, Sheet 7
Operating Platform – Oxide Dep't Battery Plant Building Thomas A. Edison Inc.	10/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-21 ASI Box No. JG7521	Edison Blueprints Austin Co. Contract # 1211 Sheets # 1 & 7 dups	X	1211, Sheet 1

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Soot Blower piping and Instrument Pipe Sleeve – Boilers Thomas A. Edison Inc.	08/30/1929	The Austin Compnay Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 189
Transformer Room Battery Plant Building Thomas A. Edison Inc.	09/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 132
Transformer Room Battery Plant Building Thomas A. Edison Inc.	09/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 132
Lighting Plan Eng'rg and Maintenance Buildings Boiler House Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 131
Steam Main – Yard Layout Manufacturing Plant Thomas A. Edison Inc.	07/17/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 140
Detail Plan – Steam Main Yard Layout Manufacturing Plant Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 141
Details – Steam Main Yard Layout Manufacturing Plant Thomas A. Edison Inc.	07/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 142
Heating Plan Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 143
Piping Details Manufacturing Plant Thomas A. Edison Inc.	04/10/1924	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 146
Steam Main – Yard Layout Manufacturing Plant Thomas A. Edison Inc.	07/17/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 140
Detail Plan – Steam Main Yard Layout Manufacturing Plant Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 141
Details – Steam Main Yard Layout Manufacturing Plant Thomas A. Edison Inc.	07/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 142
Heating Plan Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 143
Heating Plan Service and Maintenance	07/10/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199		4499, Sheet 145

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Building Thomas A. Edison Inc.					#2 of 7		
Heating Plan Service and Maintenance Building Thomas A. Edison Inc.	07/10/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. 4499 Sheets 101-199 #2 of 7		4499, Sheet 145
Levels and Fill Manufacturing Plant Thomas A. Edison Inc.	06/12/1928	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints 4499 Duplicates identified By descriptions (#'s not legible)		4495
Foundation Plan Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints 4499 Duplicates identified By descriptions (#'s not legible)	X	Not legible
Cross Section Boiler House Thomas A. Edison Inc.	07/03/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints 4499 Duplicates identified By descriptions (#'s not legible)		Not legible
Sprinkler Yard Layout Manufacturing Plant Thomas A. Edison Inc.	07/08/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints 4499 Duplicates identified By descriptions (#'s not legible)		Not legible
Foundation and Floor Plan Service and Maintenance Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints 4499 Duplicates identified By descriptions (#'s not legible)		4499, Sheet 21
Gates	12/19/1929	Anchor Post Fence Company	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints 4499 Duplicates identified By descriptions (#'s not legible)		3624
Operating Platform-Oxide Dep't Battery Plant Building Thomas A. Edison Inc.	10/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. Contract # 1211 Sheets 1-6 Duplicates		1211, Sheet 1
Work Bench Detail Service & Maintenance Building Thomas A. Edison Inc.	11/25/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. Contract # 1211 Sheets 1-6 Duplicates	X	1211, Sheet 2
Acid Tank Framing Battery Plant Building Thomas A. Edison Inc.	12/27/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. Contract # 1211 Sheets 1-6 Duplicates	X	1211, Sheet 3
Acid Tank Framing Battery Plant Building Thomas A. Edison Inc.	12/28/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. Contract # 1211 Sheets 1-6 Duplicates	X	1211, Sheet 4
Acid Tank Framing Battery Plant Building Thomas A. Edison Inc.	12/26/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. Contract # 1211 Sheets 1-6 Duplicates	X	1211, Sheet 5
Acid Tank Framing Battery Plant Building Thomas A. Edison Inc.	12/26/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprints Austin Co. Contract # 1211 Sheets 1-6 Duplicates	X	1211, Sheet 6
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/17/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions	X	4499, Sheet 10

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/17/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 11
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/17/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 11
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/17/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 11
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/17/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 11
Cross Section Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions	X	4499, Sheet 12
Cross Section Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 12
Cross Section Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 12
Cross Section Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 12
Cross Section Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 12
Cross Section Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 12
Cross Section Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 12
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/20/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 13
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/20/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 13
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/20/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 13
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/20/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 13
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/20/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 13

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Cross Sections Battery Plant Building Thomas A. Edison Inc.	06/21/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions	X	4499, Sheet 14
Cross Sections Battery Plant Building Thomas A. Edison Inc.	06/21/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 14
Cross Sections Battery Plant Building Thomas A. Edison Inc.	06/21/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 14
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions	X	4499, Sheet 10
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 10
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 10
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 10
Cross Section Battery Plant Building Thomas A. Edison Inc.	06/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 10
Cross Sections Battery Plant Building Thomas A. Edison Inc.	06/21/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 14
Cross Sections Battery Plant Building Thomas A. Edison Inc.	06/21/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 14
Cross Sections Battery Plant Building Thomas A. Edison Inc.	06/21/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 14
Cross Sections Battery Plant Building Thomas A. Edison Inc.	06/21/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 14
Elevations of Interior Partitions Battery Plant Building Thomas A. Edison Inc.	06/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522	Edison Blueprint Austin Co. 4499 sheets 11-17 Dups and interim revisions		4499, Sheet 17
Plumbing Maintenance & Eng'rng Building Thomas A. Edison Inc.	07/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522			4499, Sheet 103
Heating Plan Engineering Building Thomas A. Edison Inc.	08/06/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522		X	4499, Sheet 144
Toilet Rooms	10/18/1929	The Austin Company	Blueprint/Drawing	SCC-B-22			4499, Sheet 116

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Engineering Building Thomas A. Edison Inc.		Engineers and Builders		ASI Box No. JG7522			
Pipe Sleeves Engineering Building Thomas A. Edison Inc.	10/15/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522			4499, Sheet 115
Lighting Plan Eng'rg & Maintenance Buildings Boiler House Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522		X	4499, Sheet 131
Heating Plan Engineering Building Thomas A. Edison Inc.	08/06/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522			4499, Sheet 144
Equipment Sections Eng'rg & Maintenance Buildings Boiler House Thomas A. Edison Inc.	07/08/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522		X	4499, Sheet 162
Toilet Rooms Engineering Building Thomas A. Edison Inc.	10/18/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522			4499, Sheet 116
Pipe Sleeves Engineering Building Thomas A. Edison Inc.	10/15/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522			4499, Sheet 115
Plumbing Maintenance & Eng'rng Building Thomas A. Edison Inc.	07/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522			4499, Sheet 103
Elevations Engineering Building Thomas A. Edison Inc.	07/31/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522		X	4499, Sheet 33
Foundation Plan Office Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522		X	4499, Sheet 31
Floor Plans Office Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522		X	4499, Sheet 32
Cross Section Office Building Thomas A. Edison Inc.	07/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522		X	4499, Sheet 34
Elevations Office Building Thomas A. Edison Inc.	06/25/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522			4495, Sheet 3
Layout Details of New Private Office Eng. Building Thomas A. Edison Inc.	01/08/1935		Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522			0400e
First Floor Plan Engineering	11/29/1935		Blueprint/Drawing	SCC-B-22			0400

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Building Thomas A. Edison Inc.				ASI Box No. JG7522			
Entrance Details Engineering Building Thomas A. Edison Inc.	09/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522			4499, Sheet 52
Plumbing Maintenance & Engr'ng Building Thomas A. Edison Inc.	07/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522			4499, Sheet 103
Toilet Rooms Engineering Building Thomas A. Edison Inc.	10/18/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-22 ASI Box No. JG7522			
Plot Plan Manufacturing Plant Thomas A. Edison Inc.	06/27/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9	X {elec ronic copy has addi onal writi g on it}	4499, Sheet 1
Plot Plan Manufacturing Plant Thomas A. Edison Inc.	06/27/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 1
Foundation Plan Battery Plant Building Thomas A. Edison Inc.	08/00/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9	X	4499, Sheet 2
Foundation Details Battery Plant Building Thomas A. Edison Inc.	08/13/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9	X	4499, Sheet 3
Foundation Details Battery Plant Building Thomas A. Edison Inc.	08/13/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 3
Foundation Details Battery Plant Building Thomas A. Edison Inc.	08/13/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 3
Foundation Details Battery Plant Building Thomas A. Edison Inc.	08/13/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 3
Foundation Details Battery Plant Building	08/13/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions		4499, Sheet 3

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Thomas A. Edison Inc.					Sheets #1-9		
Concrete Framing Plan Battery Plant Building Thomas A. Edison Inc.	07/03/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9	X	4499, Sheet 4
Concrete Framing Plan Battery Plant Building Thomas A. Edison Inc.	07/03/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 4
Concrete Framing Plan Battery Plant Building Thomas A. Edison Inc.	07/03/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 4
Concrete Framing Plan Battery Plant Building Thomas A. Edison Inc.	07/03/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 4
First Floor Plan Battery Plant Building Thomas A. Edison Inc .	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9	X	4499, Sheet 5
First Floor Plan Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 5
First Floor Plan Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 5
First Floor Plan Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 5
First Floor Plan Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 5
Mezzanine Floor Plan Battery Plant Building Thomas A. Edison Inc.	06/20/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9	X	4499, Sheet 6
Mezzanine Floor Plan Battery Plant Building Thomas A. Edison Inc.	06/20/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 6
Mezzanine Floor Plan Battery Plant Building Thomas A. Edison Inc.	06/20/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 6
Mezzanine Floor Plan Battery Plant Building Thomas A. Edison Inc.	06/20/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 6
Elevations Battery Plant Building Thomas A. Edison Inc.	08/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9	X	4499, Sheet 7

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Elevations Battery Plant Building Thomas A. Edison Inc.	08/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 7
Elevation Battery Plant Building Thomas A. Edison Inc.	Illegible	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9	X	4499, Sheet 8
Elevation Battery Plant Building Thomas A. Edison Inc.	Illegible	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 8
Elevation Battery Plant Building Thomas A. Edison Inc.	Illegible	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 8
Elevation Battery Plant Building Thomas A. Edison Inc.	Illegible	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 8
Elevation Battery Plant Building Thomas A. Edison Inc.	Illegible	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 8
Elevations Battery Plant Building Thomas A. Edison Inc.	06/22/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9	X	4499, Sheet 9
Elevations Battery Plant Building Thomas A. Edison Inc.	06/22/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 9
Elevations Battery Plant Building Thomas A. Edison Inc.	06/22/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 9
Elevations Battery Plant Building Thomas A. Edison Inc.	06/22/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 9
Elevations Battery Plant Building Thomas A. Edison Inc.	06/22/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 7
Foundation Plan Battery Plant Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 3
Plot Plan Manufacturing Plant Thomas A. Edison Inc.	06/27/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 1
Plot Plan Manufacturing Plant Thomas A. Edison Inc.	06/27/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 1
Plot Plan Manufacturing Plant Thomas A. Edison Inc.	06/27/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 1
Plot Plan Manufacturing Plant Thomas A. Edison Inc.	06/27/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523	Edison Blueprints Austin Co. 4499 dups & interim revisions Sheets #1-9		4499, Sheet 1

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Chute & Pumping Tank For Molding Machine	11/8/1951		Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			M-8676-4
Molding Machine Assembly	11/00/1950	Henry Vogt Machine Co.	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			M-8478-6
White Tar Co. Vapor Separator	06/10/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			M-987
White Tar Co. Vacuum Sealing Tank	06/11/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			M-986
Four Open Top Steel Pans	03/22/1936	Dover Boiler Works Engineers & Contractors	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			Dr# 42761 "A-A"
Misc. Map with regard to FJ Stokes Machine Co.	08/25/1941		Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			Dr# 114-D-466
Tuscon Standard Building for Sulphur Candle Manufacture	06/14/1922		Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			WTB 3-5A
Proposed Tuscon Standard Building	04/02/1923		Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			WTP 3-5B
White Tar Co. Naphthalene Vapor & Condensate Piping	08/16/1940	Koppers Company Engineers and Construction Division	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			L-2557
Steam Piping at Naphthalene Still and Steam Jet Ejector	09/09/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			L-2583
Water Jackets for Condensate & Reflux Lines – Naphth. Refining Bldg.	08/00/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			603-2L8
White Tar Co. Arrangement of Naphthalene Equipment in Ricksicher Building	01/14/1936	Koppers Products Co.	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			L-2088
White Tar Co. Naphthalene Piping at Ricksicher Building and Adjourning Tanks	01/27/1936	Koppers Products Co.	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			L-2091
White Tar Co. Chute and Trough for 40" Centrifuge	01/02/1936	Koppers Products Co.	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			L-2083
White Tar Co. Support for Crusher and Centrifugal Dryer Steel Design	01/06/1936	Koppers Products Co.	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			L-2085
White Tar Co. Suction, Discharge and Drain Piping Back of Naphthalene Stills	01/15/1936	Koppers Products Co.	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			L-2089
Pipe Line Supports	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			B-2

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Illegible	04/24/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			B-5
Naphthalene Vapor & Condensate Piping Location of Rotaweir	02/18/1942	Koppers Company Tar and Chemical Division	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			L-3020
Misc. Map regarding Irvington Steel & Iron Works	09/20/1956	Kopppers Co.	Blueprint/Drawring	SCC-B-23 ASI Box No. JG7523			56-258MI
Kopper's White Tar Silo Piling and Foundation	No date	A. Wilson & Co. Power Plant Contractors	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			446
500 Gallon Hot Water Tank	11/07/1951	Thomas A. Edison Inc. Automotive Division Eng'rg Department	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	C-537
Foundation Plan 2-250 HP Water Tube Boilers for Thomas Edison Inc.	07/26/1929	E. Keeler Company	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	9045; Dr# 9382-L-25
Front Elevation 2-250 HP Water Tube Boiler	08/14/1929	E Keeler Company	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	9045; Dr# 9401-L-25
Side Elevation 250 HP Water Tube Boiler	07/28/1928	E. Keeler Company	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	Dr#8900-L-21
Side Elevation 250 HP Water Tube Boiler	08/14/1929	E. Keeler Company	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	9045; Dr# 9402-L-25
Layout of Scrap Melting Building	03/26/1937	Thomas A. Edison Inc. Emark Battery Division	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	Dr# A-50
Layout Showing Deposit of Mud and Oxide in Rear of S&M	11/12/1934	Thomas A. Edison Inc. Emark Battery Division	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	Dr# 0600
Receiving Platform Maintenance Building	12/16/1931	Emark Battery Corporation Engineering Division	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	500-C
Roadway & Drain for Shipping	04/13/1936	Thomas A. Edison Inc. Emark Battery Division	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	0604
Reinforced Concrete Chimney	09/03/1929	The Heine Company Engineers and Builders	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	1742
Built in Scale	No date	E. and T. Fairbanks and Company	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	R-3921
Built in Scale	No date	E. and T. Fairbanks and Company	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	R3921
Rearrangements for wash and dress rooms	10/30/1931	Emark Battery Corporation	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	0209-D
Controller Wiring Diagram	03/28/1934	Westingouse Electric & Mfg. Co.	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523			26-C-324
Mezzanine to be Erected in Shipping Room of Production Building at Kearny NJ	06/09/1949	Thomas A. Edison Inc Automotive Division	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	540
Power Layout Wiring Diagram	No date	Westinghouse Electric & Mfg. Co.	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	NY-10881
Thomas A. Edison Inc. Belleville Turnpike	No original date	Globe Automatic Sprinkler Co.	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	6745, Sheet 1 of

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
[Sprinkler System]							
Thomas A. Edison Inc. Belleville Turnpike [Ceiling Sprinkler Plans]	No date	Globe Automatic Sprinkler Co.	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	6745, Sheet 2 of
Thomas A. Edison Inc. Belleville Turnpike [Sprinkler Plan]	No date	Globe Automatic Sprinkler Co.	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	6745, Sheet 3 of
Thomas A. Edison Inc. Belleville Turnpike [Battery Building Roof Plan]	No date	Globe Automatic Sprinkler Co.	Blueprint/Drawing	SCC-B-23 ASI Box No. JG7523		X	6745, Sheet 4 of
New Subliming Plant Standard Naphthalene Products Co.	09/19/1962	Litwack – Shtier Architects Newark	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	[2 copies]		
New Subliming Plant Standard Naphthalene Products Co.	09/19/1962	Litwack – Shtier Architects Newark	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	[2 copies]		
New Subliming Plant Standard Naphthalene Products Co.	09/19/1962	Litwack – Shtier Architects Newark	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	[2 copies]		
New Subliming Plant Standard Naphthalene Products Co.	09/25/1962	Litwack – Shtier Architects Newark	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
White Tar Co. Naphthalene Disinfectant Plant Subliming Building	06/13/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
White Tar Co. Naphthalene Disinfectant Plant Subliming Building	06/13/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
White Tar Co. Naphthalene Disinfectant Plant Subliming Building	06/13/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
White Tar Co. Naphthalene Disinfectant Plant Subliming Building	06/13/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
White Tar Co. Subliming Pans Filling & Drain Piping	10/30/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
White Tar Co. Steam Piping Subliming Building	10/14/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Products							
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Proposed Subliming Plant For Standard Naphthalene Products	12/08/1971	Leo Rutenberg A.I.A. Architect	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Continuous Ridge Vent Details	No date	Litwack-Shteir	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
New Subliming Plant Standard Naphthalene Products Co.							
White Tar Co. Proposed Addition to Subliming Building Naphthalene Plant	08/27/1942	Koppers Company Tar and Chemical Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
White Tar Co. Naphthalene Disinfectant Plant Subliming Building	05/31/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
White Tar Co. Naphthalene Disinfectant Plant Subliming Building	05/31/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Building	12/04/1962	Acoustical Deck Erectors Corp.	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	[5 copies]		
New Subliming Plant Standard Naphthalene Products Co.	09/19/1962	Litwack – Shteir Architects Newark	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
New Subliming Plant Standard Naphthalene Products Co.	09/19/1962	Litwack – Shteir Architects Newark	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
New Subliming Plant Standard Naphthalene Products Co.	09/25/1962	Litwack – Shteir Architects Newark	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Partially Illegible Erection Diagram Boiler House The White Tar Company	04/07/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
“Automatic” Sprinkler	No date	Koppers Compnay	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Koppers Co. Inc. – White Tar Div. Extension to Subliming Building	10/01/1945	Salmond, Scrimshaw Construction Co.	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Koppers Co. Inc. – White Tar Div. Extension to Subliming Building	09/17/1945	Salmond, Scrimshaw Construction Co.	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Koppers Co. Inc. – White Tar Div. Extension to Subliming Building	12/05/1945	Salmond, Scrimshaw Construction Co.	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Koppers Co. Inc. – White Tar Div. Extension to Subliming	10/01/1945	Salmond, Scrimshaw Construction Co.	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Building							
Koppers Co. Inc. – White Tar Div. Extension to Subliming Building	10/01/1945	Salmond, Scrimshaw Construction Co.	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Koppers Co. Inc. – White Tar Div. Extension to Subliming Building	10/01/1945	Salmond, Scrimshaw Construction Co.	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Koppers Co. Inc. – White Tar Div. Extension to Subliming Building	10/01/1945	Salmond, Scrimshaw Construction Co.	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Koppers Co. Inc. – White Tar Div. Extension to Subliming Building	10/25/1945	Salmond, Scrimshaw Construction Co.	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Koppers White Tar Arr'gt of Fuel Oil Equipment	09/22/1947	A. Wilson & Co. Power Plant Contractors	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Koppers White Tar Tank Footing and Trench	09/02/1947	A. Wilson & Co. Power Plant Contractors	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Trusses The White Tar Co. Boiler House	04/21/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Pipe Line Supports The White Tar Co.	Illegible	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Illegible	Illegible	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Plan & Details – Outside Overheated Steam Mains The White Tar Co.	04/21/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Outside Overheated Steam Mains The White Tar Co.	04/06/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Erection Plan Pipe Line Supports The White Tar Co.	06/04/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Lighting Plan – Candle & Moth Bag Building – The White Tar Co.	04/17/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Heating Plan & Details – Candle & Moth Bag Building – The White Tar Co.	04/24/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Sections for Heating, Plumbing & Lighting – Candle & Moth Bad Building The White Tar Co.	04/03/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Pile Footings Pipe Line Supports from Boiler House	04/28/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
over R.R. Tracks The White Tar Co.							
Plan Details Pipe Line Support from Boiler House over R.R. Tracks The White Tar Co.	04/28/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Pipe & Foundation Plan & Details Boiler House – The White Tar Co.	04/09/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Boiler	04/13/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Floor Plan & Sections - Boiler House The White Tar Co.	03/25/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Elevations – Boiler House The White Tar Co.	03/28/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
White Tar Co. Naphthalene & Disinfectant Plant Subliming Building Foundation	05/04/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			14984
Erection Diagram – Boiler House The White Tar Co.	03/25/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Kopper's White Tar Proposed Auxiliary Equipment	09/06/1944	A. Wilson & Co. Power Plant Contractors	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Steel Details - The White Tar Co. Candle & Moth Bag Building	04/21/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Pipe Line Supports White Tar Co.	05/26/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Kopper's White Tar Alterations to Boiler Foundations	05/24/1944	A. Wilson & Co. Power Plant Contractors	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Kopper's White Tar Thermix Stack Platform & Walkways	06/12/1944	A. Wilson & Co. Power Plant Contractors	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Kopper's White Tar Arrangement of Piping-Plan	11/01/1944	A. Wilson & Co. Power Plant Contractors	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Kopper's White Tar Arrangement of Piping-Sections	11/01/1944	A. Wilson & Co. Power Plant Contractors	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Kopper's White Tar Roof Changes	07/13/1944	A. Wilson & Co. Power Plant Contractors	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Kopper's White Tar Installation of New Feed Water Heater	09/12/1944	A. Wilson & Co. Power Plant Contractors	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Kopper's White Tar	09/25/1944	A. Wilson & Co.	Blueprint/Drawing	SCC-B-24			

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Relocated Stairways		Power Plant Contractors		ASI Box No. JG7524			
Kopper's White Tar Instrumental Panel	09/27/1944	A. Wilson & Co. Power Plant Contractors	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Steel Details – The White Tar Co. Candle & Moth Bag Building	04/20/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Steel Details – The White Tar Co. Boiler House	05/04/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Pipe Line Support – The White Tar Co.	04/23/1925	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
White Tar Co. Naphthalene Disinfectant Plant Subliming Building Foundation	05/04/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			M-984
White Tar Co. Acid & Soda Meter Tanks	07/09/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			M-989
White Tar Co. Naphthalene Subliming Tank	05/31/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			M-982
White Tar Co. Naphthalene Subliming Tank	05/31/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			M-982
White Tar Co. Subliming Tank – Heating Coil	05/31/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			M-983
White Tar Co. Subliming Tank – Heating Coil	05/31/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			M-983
White Tar Co. Subliming Tank – Heating Coil	05/31/1940	Koppers Company	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			M-983
Naphthalene Condenser for Koppers Company	07/30/1940	Combustion Engineering Co., Ins.	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		R-3877; MC-7694-1
Property Map Newark Meadows Tract of Edison Storage Battery Co.	03/02/1929	Thomas A. Edison Inc.	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		
Property Map Newark Meadows Tract of Edison Storage Battery Co.	03/02/1929	Thomas A. Edison Inc.	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		0302-B
Naphthalene Refining Plant Still Building Steel Design - SH. #2	07/11/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		603-4A6; L2536
Naphthalene Refining Plant Still Building Steel Details	No date	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		4499, Sheet 39
Naphthalene Refining Building Flow Diagram	12/26/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		L-2530

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Naphthalene Refining Plant Still Building Steel Design – SH. #1	07/11/2940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		603-4A5; L2535
Plant Map General Arrangements	03/10/1958	Koppers Company Tar Products Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		94943
State of New Jersey Department of Transportation Construction Plans	No date	Hardesty & Hanover Consulting Engineers	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		L-4251-O
State of New Jersey Department of Transportation Construction Plans	No date	Hardesty & Hanover Consulting Engineers	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		4499, Sheet 20
Miscellaneous Map Standard Chlorine Chemical Co. Inc.	No date		Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		
Septic Tank Manufacturing Plant Thomas A. Edison Inc.	06/30/1926	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		4499, Sheet 105
Underground Pipe Lines and Mains Thomas A. Edison Inc.	04/15/1930	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		4499, Sheet 150
Plumbing-Yard Connections Manufacturing Plant Thomas A. Edison Inc.	07/12/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		4499, Sheet 106
Septic Tanks Manufacturing Plant Thomas A. Edison Inc.	09/25/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Scanned		4499, Sheet 111
Details of Construction for Timber Foundation with Curb for Truscon Standard Buildings	01/14/1920	Kahn System Building Products	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
White Tar Co. Washer Building Floor Drains	11/07/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			M-1060
Fire Damage Repair Layout	05/11/1955	Koppers Company Tar Products Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Refining Plant Still Building Steel Details	08/15/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Refining Plant Still Building Steel Details	08/15/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Refining Plant Still Building Steel Details	08/05/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Refining Plant Still Building Steel Details	No date	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Refining Plant	08/07/1940	Koppers Company	Blueprint/Drawing	SCC-B-24			

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Still Building Steel Details		Engineering and Construction Division		ASI Box No. JG7524			
Naphthalene Refining Plant Still Building Steel Details	No date	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Refining Plant Still Building Steel Details	No date	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Refining Plant Still Building Steel Details	08/08/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Refining Plant Still Building Steel Details	08/09/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Refining Plant Still Building Steel Details		Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Refining Plant Still Building Steel Details		Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Refining Plant Still Building Steel Details	08/20/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Refining Plant Still Building Steel Details		Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Naphthalene Refining Plant Still Building Steel Details	08/16/1940	Koppers Company Engineering and Construction Division	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524			
Foundation & Floor Plan Service & Maintenance Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions	X	4499, Sheet 21
Foundation & Floor Plan Service & Maintenance Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 21
Foundation & Floor Plan Service & Maintenance Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 21
Concrete Framing Plan Service & Maintenance Building Thomas A. Edison Inc.	08/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions	X	4499, Sheet 22
Elevations Service & Maintenance Building	06/26/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions	X	4499, Sheet 23

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Thomas A. Edison Inc.							
Foundation & Floor Plan Service & Maintenance Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 21
Concrete Framing Plan Service & Maintenance Building Thomas A. Edison Inc.	08/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 22
Concrete Framing Plan Service & Maintenance Building Thomas A. Edison Inc.	08/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 22
Concrete Framing Plan Service & Maintenance Building Thomas A. Edison Inc.	08/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 22
Steel Framing Plan Service & Maintenance Building Thomas A. Edison Inc.	06/25/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions	X	4499, Sheet 25
Steel Framing Plan Service & Maintenance Building Thomas A. Edison Inc.	06/25/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 25
Elevations Service & Maintenance Building Thomas A. Edison Inc.	06/26/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions	X	4499, Sheet 23
Cross – Section Service & Maintenance Building Thomas A. Edison Inc.	06/24/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions	X	4499, Sheet 24
Elevations Service & Maintenance Building Thomas A. Edison Inc.	06/26/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 23
Elevations Service & Maintenance Building Thomas A. Edison Inc.	06/26/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 23
Cross-Section Service & Maintenance Building Thomas A. Edison Inc.	06/24/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 24
Cross-Section Service & Maintenance Building	06/24/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 24

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Thomas A. Edison Inc.							
Cross-Section Service & Maintenance Building Thomas A. Edison Inc.	06/24/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 24
Special Door Details Manufacturing Plant Thomas A. Edison Inc.	09/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 51
Special Door Details Manufacturing Plant Thomas A. Edison Inc.	09/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 51
Plans & Elevations Switch House Thomas A. Edison Inc.	09/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions	X	4499, Sheet 53
Foundation & Floor Plan Service & Maintenance Building Thomas A. Edison Inc.	No date	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 #3 of 5 Dups and interim revisions		4499, Sheet 21
Gates	03/14/1930	Anchor Post Fence Company – Engineering Dept	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		3624-1
Cross-Section Plate Finishing Dept Battery Plant Building Thomas A. Edison Inc.	01/09/1930	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned	X	1211, Sheet 7
Acid Tank Framing Battery Plant Building Thomas A. Edison Inc.	12/28/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		1211, Sheet 4
Elevations Battery Plant Bldg Thomas A. Edison Inc.	08/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 4
Elevations Battery Plant Bldg Thomas A. Edison Inc.	08/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 7
Compressor Foundation Boiler House Thomas A. Edison, Inc.	11/30/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned	X	4499, Sheet 193
Boiler Breeching Locate on roof Boiler House	08/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 185

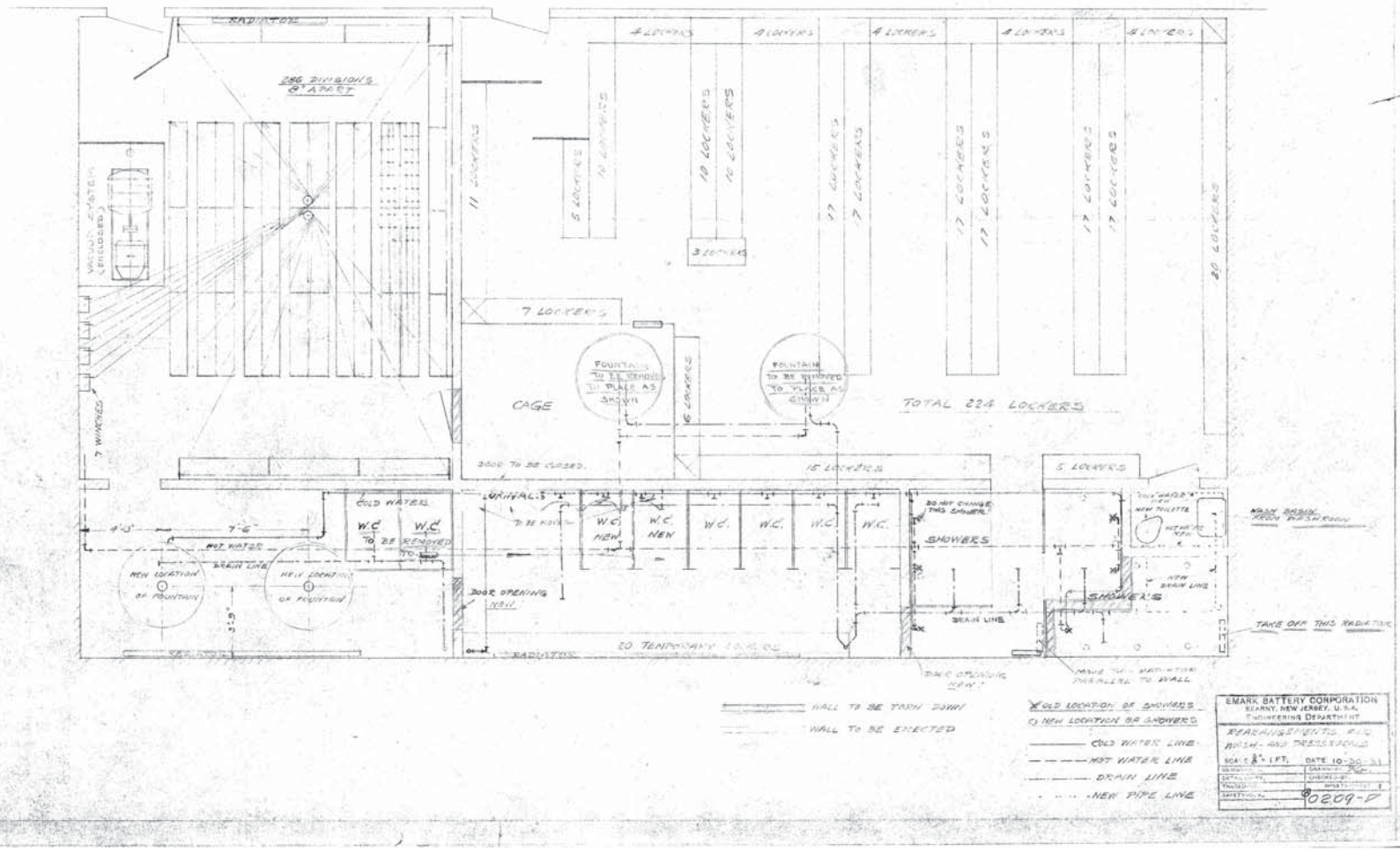
Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Thomas A. Edison Inc.							
Side Elevation Boiler House Thomas A. Edison Inc.	08/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned	X	4499, Sheet 183
Slots & Openings – Preheater Pit Battery Plant Building Thomas A. Edison Inc.	09/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned	X	4499, Sheet 113
Plumbing Yard Connections Manufacturing Plant Thomas A. Edison Inc.	07/12/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned	X	4499, Sheet 106
Mezzanine Slab Reinforcement Battery Plant Building Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 58
Door Details Manufacturing Plant Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 56
Door Details Manufacturing Plant Thomas A. Edison Inc.	09/19/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 57
Entrance Bridge Manufacturing Plant Thomas A. Edison Inc.	11/16/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 54
Special Door Details Manufacturing Plant Thomas A. Edison Inc.	09/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 51
Special Door Details Manufacturing Plant Thomas A. Edison Inc.	09/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 51
Entrance Details Engineering Building Thomas A. Edison Inc.	09/14/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 52
Door Details Manufacturing Plant Thomas A. Edison Inc.	07/08/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 50
Door Details Manufacturing Plant Thomas A. Edison Inc.	07/08/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 50

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Details of Expansion Joints Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 48
Details of Expansion Joints Battery Plant Building Thomas A. Edison Inc.	08/01/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 48
Tunnel & Boiler Foundation Boiler House Thomas A. Edison Inc.	07/11/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 47
Framing Plan Boiler House Thomas A. Edison Inc.	08/13/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned	X	4499, Sheet 44
Cross Section Boiler House Thomas A. Edison Inc.	07/03/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned	X	4499, Sheet 43
Foundation & Floor Plan Boiler House Thomas A. Edison Inc.	07/07/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned	X	4499, Sheet 41
Steel Framing Plan Service & Maintenance Building Thomas A. Edison Inc.	06/25/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 25
Cross Section Service & Maintenance Building Thomas A. Edison Inc.	06/24/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 24
Elevations Service & Maintenance Building Thomas A. Edison Inc.	06/26/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 23
Concrete Framing Plan Service & Maintenance Building Thomas A. Edison Inc.	08/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 22
Preheater Pit Battery Plant Building Thomas A. Edison Inc.	07/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 19
Elevations of Interior Partitions Battery Plant Building	06/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 17

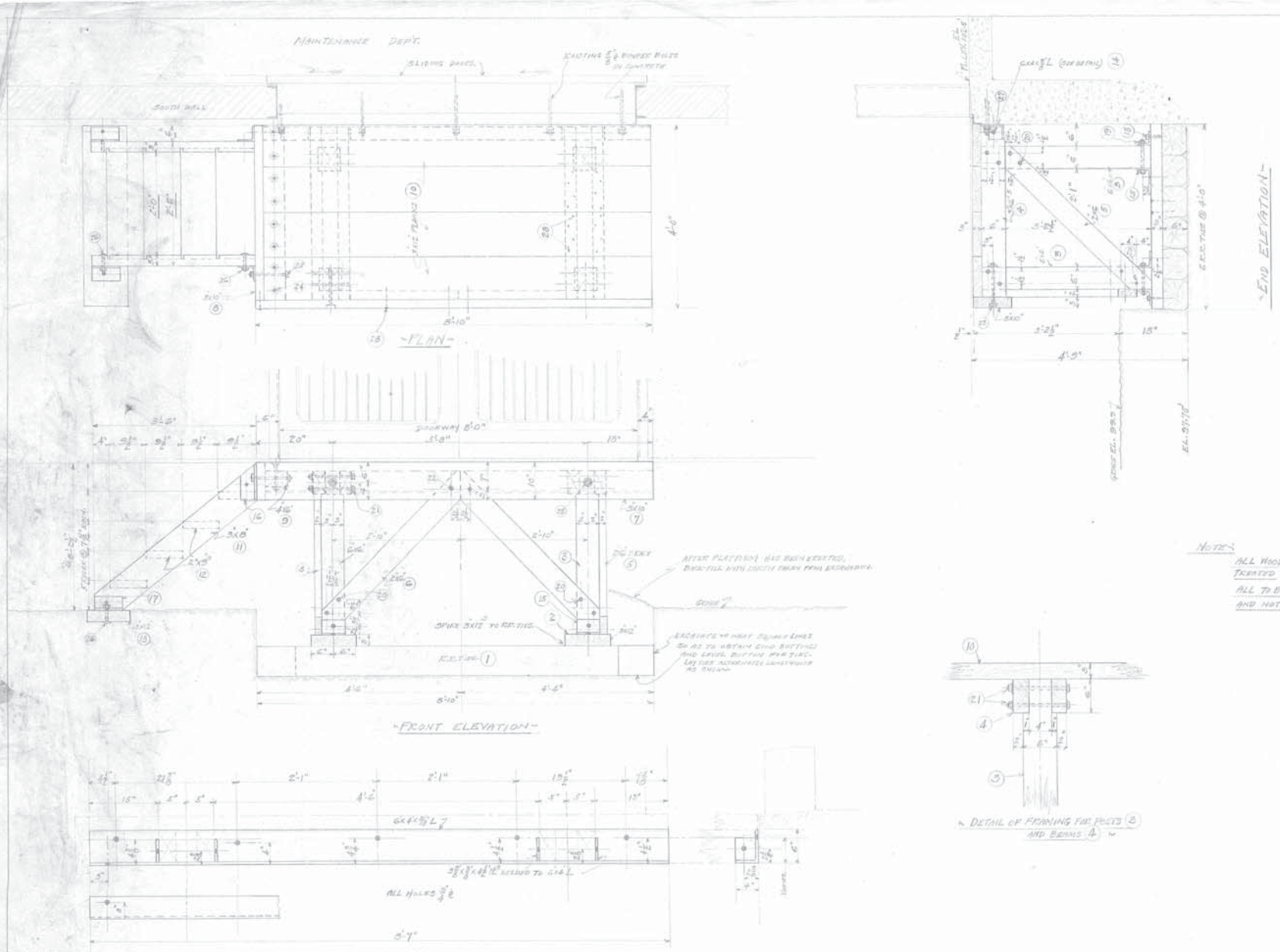
Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Thomas A. Edison Inc.							
Steel Framing Plan Battery Plant Building Thomas A. Edison Inc.	06/22/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 15
Elevation Battery Plant Building Thomas A. Edison Inc.	06/22/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 8
Elevations Battery Plant Building Thomas A. Edison Inc.	08/05/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 7
Elevations Battery Plant Building Thomas A. Edison Inc.	06/22/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 7
Mezzanine Floor Plan Battery Plant Building Thomas A. Edison Inc.	06/20/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	06/25/08 Edison Facility Part of master set. Group B: Not yet scanned		4499, Sheet 6
Cross-Section Battery Plant Building Thomas A. Edison Inc.	06/20/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions	X	4499, Sheet 13
Steel Framing Plan Battery Plant Building Thomas A. Edison Inc.	06/22/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions	X	4499, Sheet 15
Steel Framing Sections Battery Plant Building Thomas A. Edison Inc.	06/21/1929	The Austin Company Engineer and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions	X	4499, Sheet 16
Steel Framing Sections Battery Plant Building Thomas A. Edison Inc.	06/21/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 16
Steel Framing Sections Battery Plant Building Thomas A. Edison Inc.	06/21/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 16
Steel Framing Sections Battery Plant Building Thomas A. Edison Inc.	06/21/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 16

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Steel Framing Plan Battery Plant Building Thomas A. Edison Inc.	06/22/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 15
Steel Framing Sections Battery Plant Building Thomas A. Edison Inc.	06/21/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 16
Steel Framing Plan Battery Plant Building Thomas A. Edison Inc.	06/22/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 15
Steel Framing Plan Battery Plant Building Thomas A. Edison Inc.	06/22/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 15
Steel Framing Sections Battery Plant Building Thomas A. Edison Inc.	06/21/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 16
Elevations of Interior Partitions Battery Plant Building Thomas A. Edison Inc.	06/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions	X	4499, Sheet 17
Casting Room Foundations Battery Plant Building Thomas A. Edison Inc.	08/06/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions	X	4499, Sheet 18
Preheater Pit Battery Plant Building Thomas A. Edison Inc.	07/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions	X	4499, Sheet 19
Elevations of Interior Partitions Battery Plant Building Thomas A. Edison Inc.	06/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 17
Preheater Pit Battery Plant Building Thomas A. Edison Inc.	07/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 19
Casting Room Foundations Battery Plant Building Thomas A. Edison Inc.	08/06/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 18
Preheater Pit Battery Plant Building Thomas A. Edison Inc.	07/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 19
Casting Room Foundations Battery Plant Building	08/06/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of		4499, Sheet 18

Title	Date	Company Name	Document Type	SCC-B Box No. ASI Box No.	SCC Notes	On CD	Drawing Information
Thomas A. Edison Inc.					Dups & Interim Revisions		
Casting Room Foundations Battery Plant Building Thomas A. Edison Inc.	08/06/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 18
Preheater Pit Battery Plant Building Thomas A. Edison Inc.	07/29/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 19
Foundation Details Battery Plant Building Thomas A. Edison Inc.	07/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 20
Foundation Details Battery Plant Building Thomas A. Edison Inc.	07/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 20
Foundation Details Battery Plant Building Thomas A. Edison Inc.	07/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 20
Foundation Details Battery Plant Building Thomas A. Edison Inc.	07/09/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 20
Elevations Service & Maintenance Building Thomas A. Edison Inc.	06/26/1929	The Austin Company Engineers and Builders	Blueprint/Drawing	SCC-B-24 ASI Box No. JG7524	Edison Blueprints Austin Co. 4499 sheets 1-99 # 1 of Dups & Interim Revisions		4499, Sheet 23



RADIATOR
286 DIVISIONS 8" APART
VACUUM SYSTEM (ENCLOSED)
11 LOCKERS
5 LOCKERS
10 LOCKERS
10 LOCKERS
10 LOCKERS
3 LOCKERS
17 LOCKERS
17 LOCKERS
17 LOCKERS
17 LOCKERS
17 LOCKERS
17 LOCKERS
20 LOCKERS
4 LOCKERS
4 LOCKERS
4 LOCKERS
4 LOCKERS
4 LOCKERS
7 LOCKERS
CAGE
FOUNTAIN TO BE REMOVED TO PLACE AS SHOWN
6 LOCKERS
FOUNTAIN TO BE REMOVED TO PLACE AS SHOWN
TOTAL 224 LOCKERS
7 WINCHES
DOOR TO BE CLOSED
15 LOCKERS
5 LOCKERS
COLD WATER
W.C.
W.C.
TO BE REMOVED
HOT WATER
DRAIN LINE
NEW LOCATION OF FOUNTAIN
NEW LOCATION OF FOUNTAIN
4'-3"
7'-6"
3'-9"
DOOR OPENING NEW
W.C. NEW
W.C. NEW
W.C.
W.C.
W.C.
W.C.
DO NOT CHANGE THIS SHOWER
SHOWERS
DRAIN LINE
SHOWERS
NEW DRAIN LINE
WASH BASIN FROM WASHROOM
TAKE OFF THIS RADIATOR
20 TEMPORARY LOCKERS
RADIATOR
DOOR OPENING NEW
MOVE THIS RADIATOR PARALLEL TO WALL
WALL TO BE TORN DOWN
WALL TO BE ERECTED
OLD LOCATION OF SHOWERS
NEW LOCATION OF SHOWERS
COLD WATER LINE
HOT WATER LINE
DRAIN LINE
NEW PIPE LINE
EMARK BATTERY CORPORATION
KEARNY, NEW JERSEY, U.S.A.
ENGINEERING DEPARTMENT
REARRANGEMENTS FOR WASH- AND DRESSROOMS
SCALE 1/8" = 1 FT.
DATE 10-30-31
0209-D

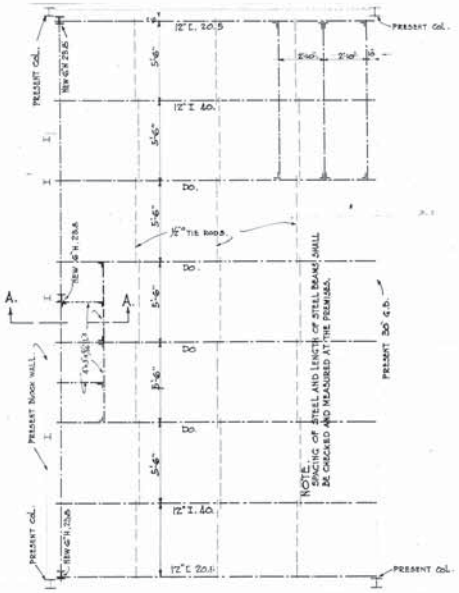


NOTE:
ALL WOOD-WORK TO BE CREOSOTE TREATED
ALL TO BE LONG LEAF YELLOW PINE AND NOT DRESSED.

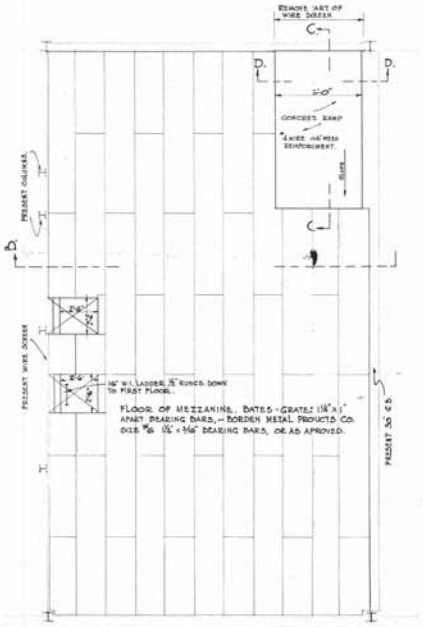
28	15#	60 POINT SPIKE BOLTS	STEEL
27	2	3/4 ⌀ BOLTS - 12" L'G	"
26	6	3/4 CARRIAGE BOLTS 4" L'G	"
25	2	3/4 ⌀ BOLTS - 11" L'G	"
24	8	1/2 ⌀ CARRIAGE BOLTS 7" L'G	"
23	2	3/4 ⌀ BOLTS - 11" L'G	"
22	2	3/4 ⌀ BOLTS - 6" L'G	"
21	8	3/4 ⌀ BOLTS - 11" L'G	"
20	12	5/8 ⌀ BOLTS - 9" L'G	"
19	4	3/4 ⌀ BOLTS - 8" L'G	"
18	8	3/4 ⌀ LAG SCREWS 4" L'G	"
17	2	4X4X3/8 L - 8" L'G	"
16	2	4X4X3/8 L - 10" L'G	"
15	8	4X4X3/8 L - 6" L'G	"
14	1	6X4X3/8 L - 8" L'G	"
13	1	3X12" PLANK, 4'-6" L'G	[illegible]
12	4	2X8" PLANKS, 2'-2" L'G	"
11	2	3X8" PLANKS, 5'-6" L'G	"
10	4	3X12" PLANKS, 8'-7" L'G	"
9	1	4X6" SPOWER, 3'-9" L'G	"
8	1	3X10" PLANK, 3'-9" L'G	"
7	1	3X10" PLANK, 8'-10" L'G	"
6	2	2X6" PLANKS, 3'-0" L'G	"
5	2	2X6" PLANKS, 3'-0" L'G	"
4	4	3X6" PLANKS, 3'-9" L'G	"
3	4	6X6" POSTS, 3'-9" L'G	"
2	2	3X12" PLANKS, 4'-6" L'G	"
1	6	6X8X8'-0" R.R. TIES	[illegible]
PART NO.		DESC.	MAT.

EMAIL: HATTERY CORPORATION
[illegible]
ENGINEERING DEPARTMENT

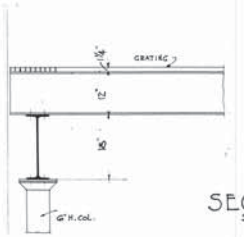
RECEIVING PLATFORM.
MAINTENANCE BLDG
SCALE 1" = 1 1/2" - 1FT. DATE DEC-16-1931
[illegible] SHEET [illegible]
DRAWN BY [illegible]
CHECKED BY [illegible]
ORIGINAL 1 SHEET SHEET 1
SUPERSEDES 0500-C

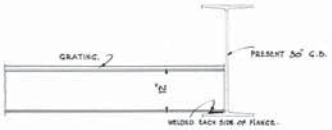


MEZZANINE FRAMING
SCALE 1/4" = 1'-0"

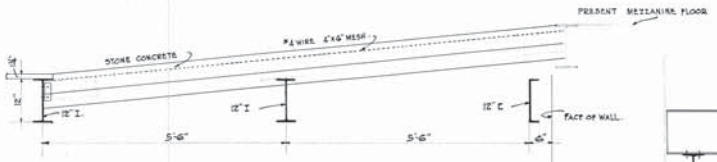


MEZZANINE PLAN
SCALE 1/4" = 1'-0"

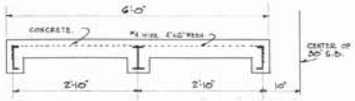




SECTION B-B
SCALE 3/4" = 1'-0"

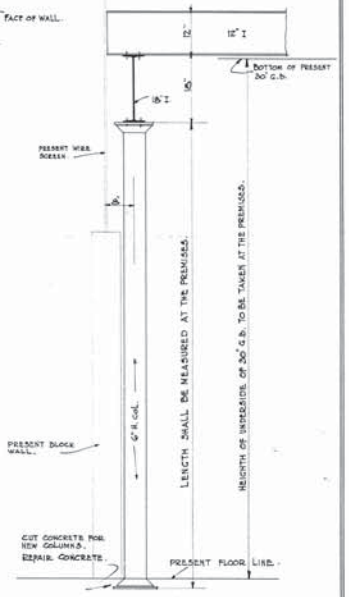


SECTION C-C
SCALE 3/4" = 1'-0"



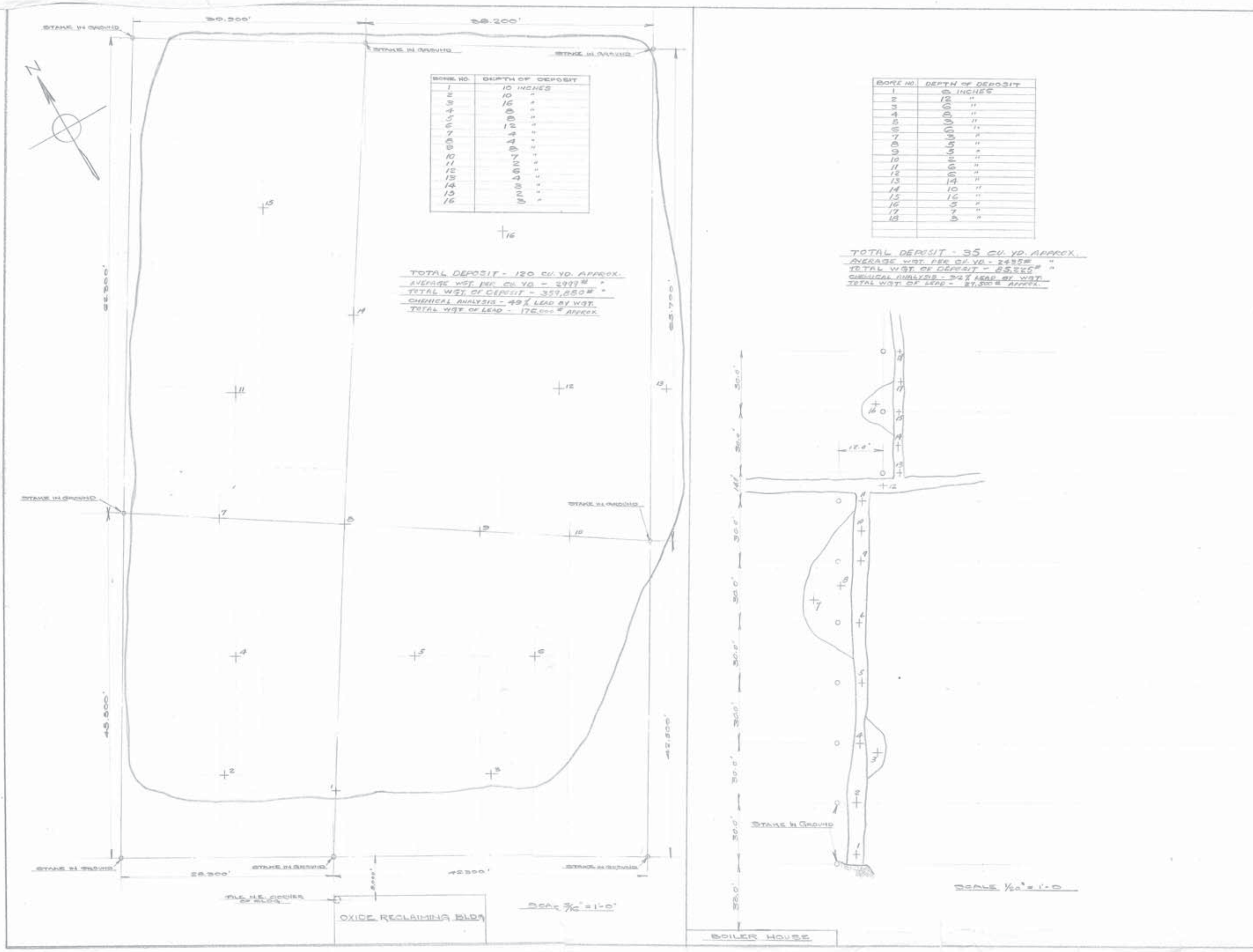
SECTION D-D
SCALE 3/4" = 1'-0"

NOTE.
ALL NEW STEEL SHALL HAVE ONE GOOD COAT OF SHOP PAINT BEFORE ERECTION.
AFTER ERECTION ALL NEW STEEL SHALL BE PAINTED TWO COATS OF PAINT, COLOR AS SELECTED.



SECTION A-A
SCALE 3/4" = 1'-0"

THOMAS A. EDISON, INC. WEST ORANGE, N. J.	
AUTOMOTIVE DIVISION	
MEZZANINE TO BE ERECTED IN SHIPPING ROOM OF PRODUCTION BUILDING AT KEARNEY NEW JERSEY	
JOSEPH A. PINEGAN THOMAS A. EDISON, INC	COMPANY ARCHITECT PLANT SERVICE DIVISION
DATE 6-9-49	APPROVED: 540



BORE NO.	DEPTH OF DEPOSIT
1	10 INCHES
2	10 "
3	16 "
4	8 "
5	8 "
6	12 "
7	4 "
8	4 "
9	8 "
10	7 "
11	2 "
12	6 "
13	4 "
14	3 "
15	2 "
16	3 "

TOTAL DEPOSIT - 120 CU. YD. APPROX.
AVERAGE WGT. PER CU. YD. - 2999# "
TOTAL WGT. OF DEPOSIT - 359,880# "
CHEMICAL ANALYSIS - 49% LEAD BY WGT.
TOTAL WGT. OF LEAD - 176,000# APPROX.

BORE NO.	DEPTH OF DEPOSIT
1	6 INCHES
2	12 "
3	6 "
4	8 "
5	3 "
6	6 "
7	3 "
8	5 "
9	5 "
10	2 "
11	6 "
12	6 "
13	14 "
14	10 "
15	16 "
16	5 "
17	7 "
18	3 "

TOTAL DEPOSIT - 35 CU. YD. APPROX.
AVERAGE WGT. PER CU. YD. - 2435# "
TOTAL WGT. OF DEPOSIT - 85,225# "
CHEMICAL ANALYSIS - 32% LEAD BY WGT.
TOTAL WGT. OF LEAD - 27,500# APPROX.

11-2-37

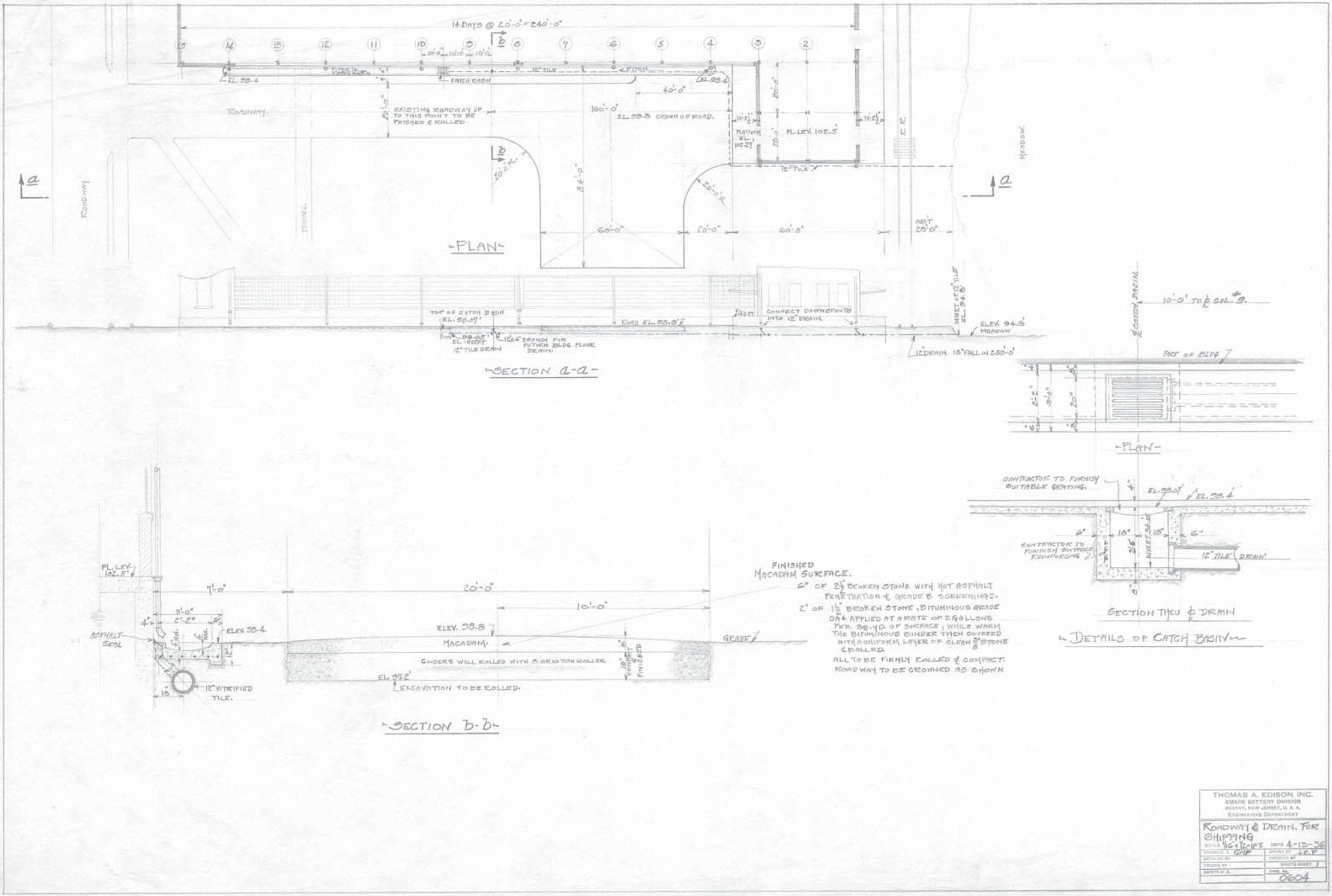
THOMAS A. EDISON, INC.
EMARK BATTERY DIVISION
KEARNY, NEW JERSEY, U.S.A.
ENGINEERING DEPARTMENT

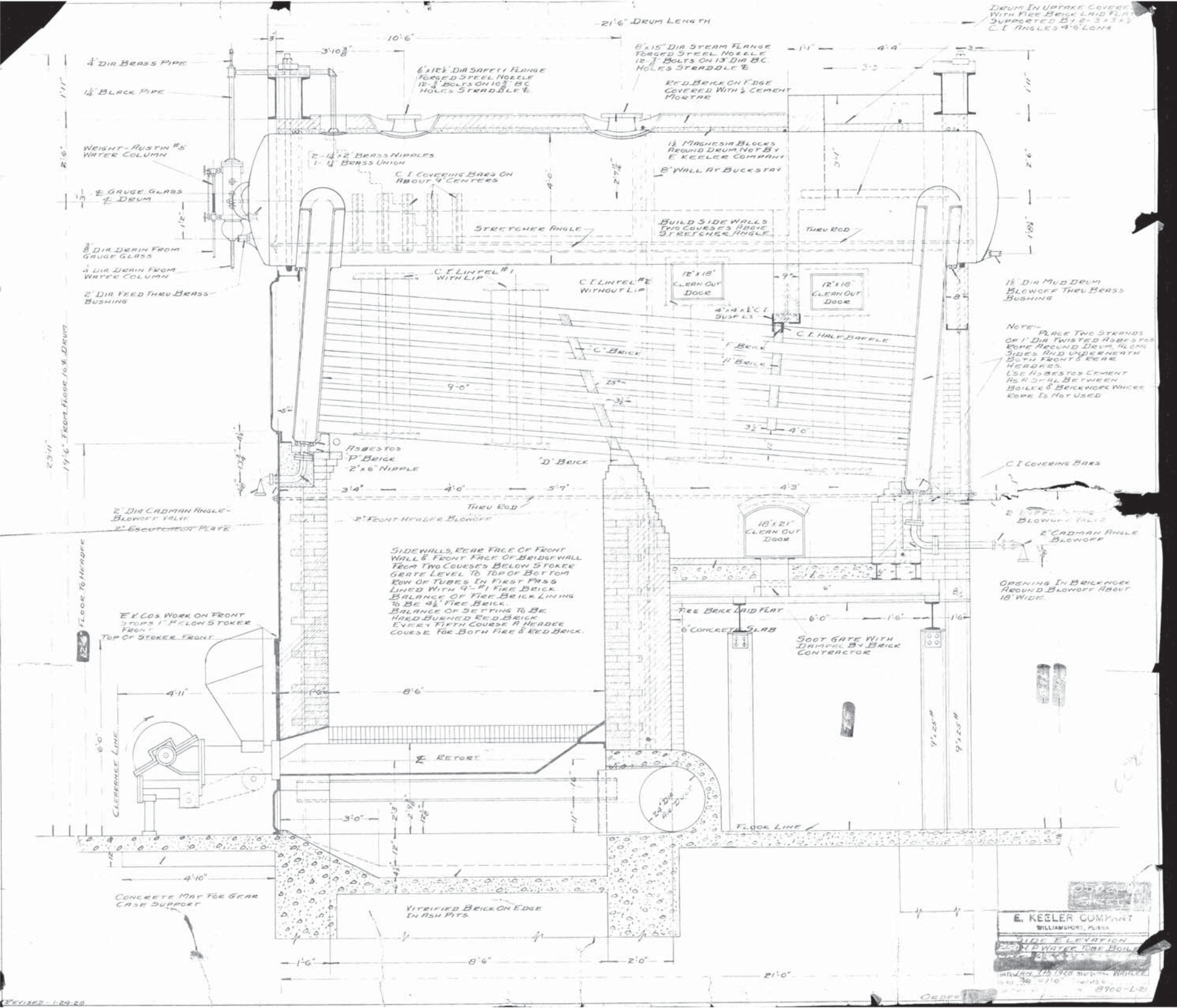
LAYOUT SHOWING DEPOSIT OF MUD AND OXIDE IN REAR OF B+H.

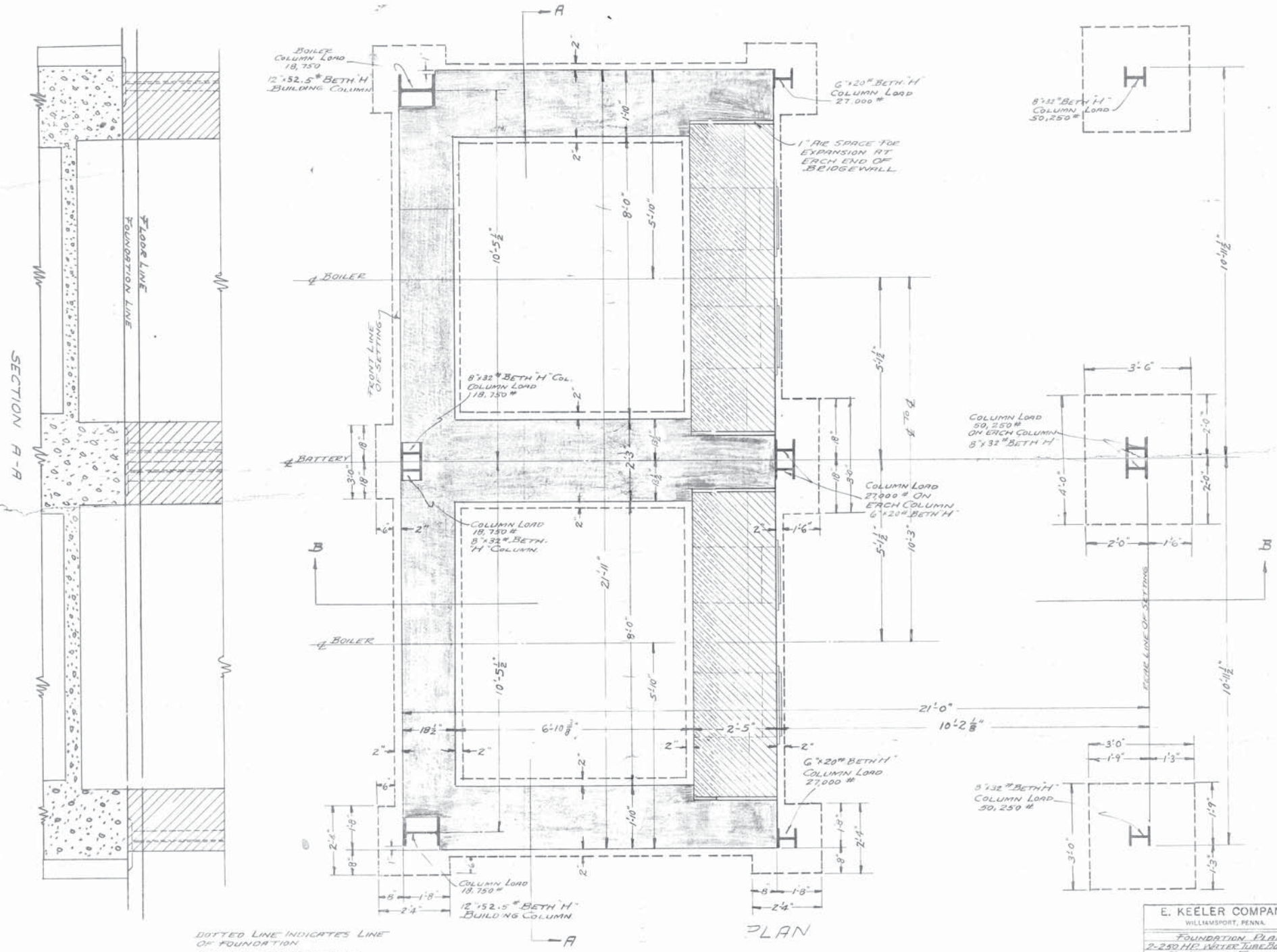
SCALE ~ 11-12-34 R.M.B.

SHEET 1

0600-F


14 DAYS @ 20'-0" = 240'-0"
EL. 98.4
CATCH BASIN
12" TILE
EXISTING ROADWAY UP TO THIS POINT TO BE PATCHED & ROLLED
ROADWAY
100'-0"
EL. 98.8 CROWN OF ROAD.
40'-0"
FL. LEV. 102.5'
PLATFORM EL. 102.29'
12" TILE
MEADOW
TUNNEL
84'-0"
60'-0"
20'-0"
60'-3"
AB'T 28'-0"
-PLAN-
TOP OF CATCH BASIN EL. 98.07'
ROAD EL. 98.8'
CONNECT DOWNSPOUTS INTO 12" DRAIN.
ELEV. 94.8' MEADOW
12" DRAIN 15" FALL IN 250'-0"
-SECTION a-a-
10'-0" TO ℄ COL. #9.
℄ CATCH BASIN
FACE OF BLDG
-PLAN-
CONTRACTOR TO FURNISH SUITABLE GRATING.
EL. 98.07'
EL. 98.4'
CONTRACTOR TO FURNISH SUITABLE REINFORCING
12" TILE DRAIN
SECTION THRU ℄ DRAIN
-DETAILS OF CATCH BASIN-
FL. LEV. 102.5'
7'-0"
20'-0"
10'-0"
ASPHALT SEAL
ELEV. 98.4
ELEV. 98.8
MACADAM.
GRADE
CINDERS WELL ROLLED WITH 8 OR 10 TON ROLLER
EL. 97.2'
EXCAVATION TO BE ROLLED.
12" VITRIFIED TILE.
FINISHED MACADAM SURFACE.
6" OF 2½" BROKEN STONE WITH HOT ASPHALT PENETRATION & GRADE B SCREENINGS.
2" OF 1½" BROKEN STONE, BITUMINOUS GRADE DA4 APPLIED AT A RATE OF 2 GALLONS PER SQ. YD. OF SURFACE, WHILE WARM THE BITUMINOUS BINDER THEN COVERED WITH A UNIFORM LAYER OF CLEAN ⅝" STONE & ROLLED.
ALL TO BE FIRMLY ROLLED & COMPACT.
ROADWAY TO BE CROWNED AS SHOWN
-SECTION b-b-
THOMAS A. EDISON, INC.
EMARK BATTERY DIVISION
BEARNY, NEW JERSEY, U. S. A.
ENGINEERING DEPARTMENT
ROADWAY & DRAIN. FOR SHIPPING
SCALE 1/16" & 1/2-1 FT.
DATE 4-13-36
DESIGN'D BY GNP
DRAWN BY J.E.P.
DETAILED BY
CHECKED BY
TRACED BY
SHEETS-SHEET 1
SAFETY-D. E.
DWG. NO. 0604


21'-6" DRUM LENGTH
DRUM IN UPTAKE COVERED WITH FIRE BRICK LAID FLAT SUPPORTED BY 2-3"x3"x½" C.I. ANGLES 4'-6" LONG
¼" DIA BRASS PIPE
¼" BLACK PIPE
WEIGHT-AUSTIN #5 WATER COLUMN
℄ GAUGE GLASS ⊥ DRUM
⅜" DIA DRAIN FROM GAUGE GLASS
4" DIA DRAIN FROM WATER COLUMN
2" DIA FEED THRU BRASS BUSHING
6"x12½" DIA SAFETY FLANGE FORGED STEEL NOZZLE 12-¾" BOLTS ON 10¾" BC HOLES STRADDLE ℄
8"x15" DIA STEAM FLANGE FORGED STEEL NOZZLE 12-¾" BOLTS ON 13" DIA BC HOLES STRADDLE ℄
RED. BRICK ON EDGE COVERED WITH ½" CEMENT MORTAR
1½" MAGNESIA BLOCKS AROUND DRUM NOT BY E. KEELER COMPANY
8" WALL AT BUCKSTAY
2-¼"x2" BRASS NIPPLES
1-¼" BRASS UNION
C.I. COVERING BARS ON ABOUT 9" CENTERS
STRETCHER ANGLE
BUILD SIDE WALLS TWO COURSES ABOVE STRETCHER ANGLE
THRU ROD
C.I. LINTEL #1 WITH LIP
C.I. LINTEL #2 WITHOUT LIP
12"x18" CLEAN OUT DOOR
12"x18" CLEAN OUT DOOR
4"x4"x½" C.I. SUSP LS
C.I. HALF BAFFLE
"C" BRICK
"F" BRICK
"I" BRICK
1½" DIA MUD DRUM BLOWOFF THRU BRASS BUSHING
NOTE:- PLACE TWO STRANDS OF 1" DIA TWISTED ASBESTOS ROPE AROUND DRUM ALONG SIDES AND UNDERNEATH BOTH FRONT & REAR HEADERS. USE ASBESTOS CEMENT AS A SEAL BETWEEN BOILER & BRICKWORK WHERE ROPE IS NOT USED
ASBESTOS
"P" BRICK
2"x6" NIPPLE
"D" BRICK
C.I. COVERING BARS
THRU ROD
2" FRONT HEADER BLOWOFF
2" DIA CADMAN ANGLE-BLOWOFF VALVE
2" ESCUTCHEON PLATE
18"x21" CLEAN OUT DOOR
2" CADMAN ANGLE BLOWOFF
SIDEWALLS, REAR FACE OF FRONT WALL & FRONT FACE OF BRIDGEWALL FROM TWO COURSES BELOW STOKER GRATE LEVEL TO TOP OF BOTTOM ROW OF TUBES IN FIRST PASS LINED WITH 9"-#1 FIRE BRICK. BALANCE OF FIRE BRICK LINING TO BE 4½" FIRE BRICK. BALANCE OF SETTING TO BE HARD BURNED RED BRICK EVERY FIFTH COURSE A HEADER COURSE FOR BOTH FIRE & RED BRICK.
OPENING IN BRICKWORK AROUND BLOWOFF ABOUT 18" WIDE
FIRE BRICK LAID FLAT
6" CONCRETE SLAB
SOOT GATE WITH DAMPER BY BRICK CONTRACTOR
E.K. CO'S WORK ON FRONT STOPS 1" BELOW STOKER FRONT
TOP OF STOKER FRONT
FLOOR TO HEADER
CLEARANCE LINE
℄ RETORT
24" DIA AIR DUCT
FLOOR LINE
CONCRETE MAT FOR GEAR CASE SUPPORT
VITRIFIED BRICK ON EDGE IN ASH PITS
E. KEELER COMPANY
WILLIAMSPORT, PENNA.
SIDE ELEVATION
12" WATER TUBE BOILER
DATE JAN. 7TH 1928
8900-L-21
REVISED - 1-24-28



DOTTED LINE INDICATES LINE OF FOUNDATION
SHADED AREA INDICATES BRICKWORK ABOVE FOUNDATION.

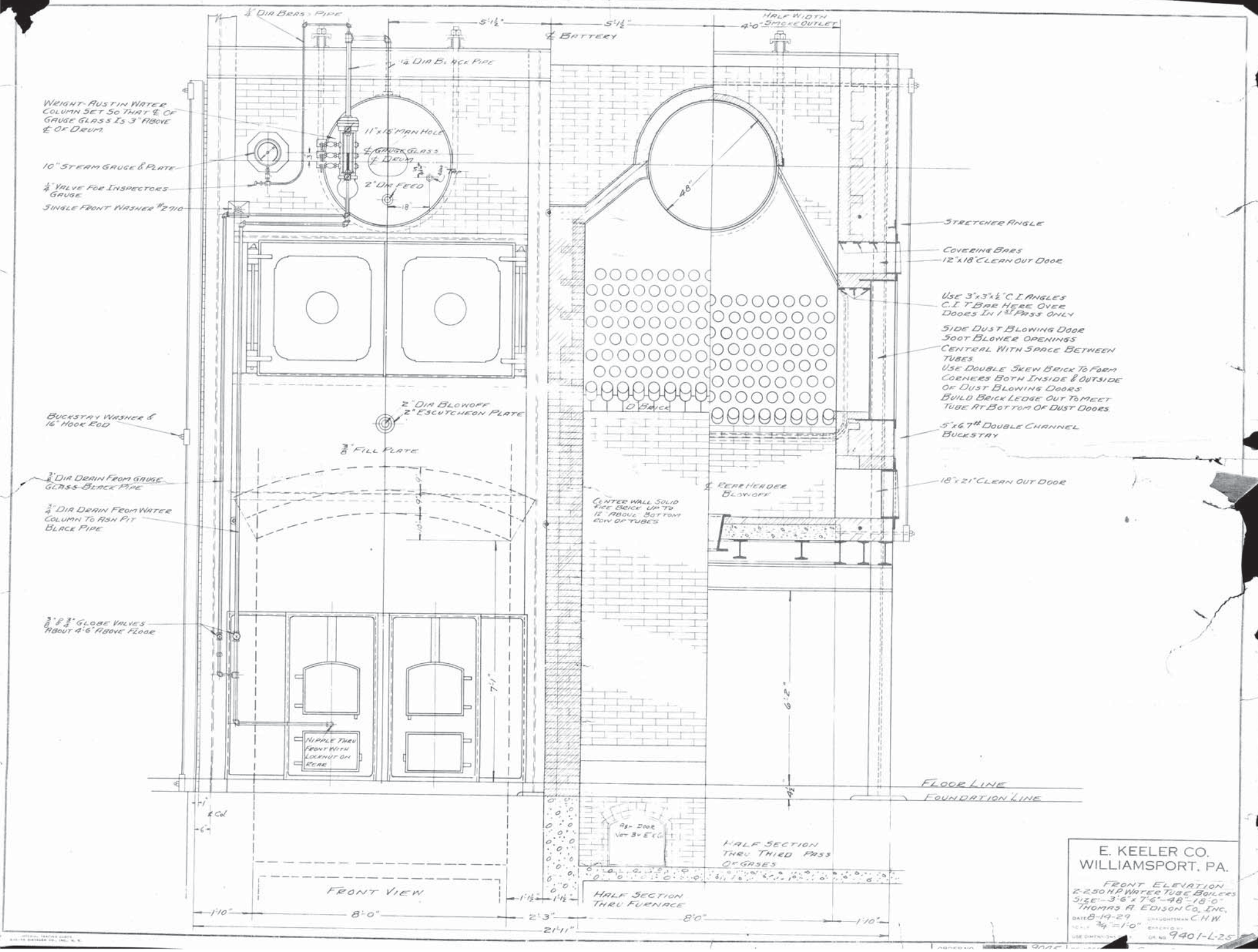
REVISION:- CHANGED CORNER COLUMNS FROM 65.5# TO 52.5#
9/7/29

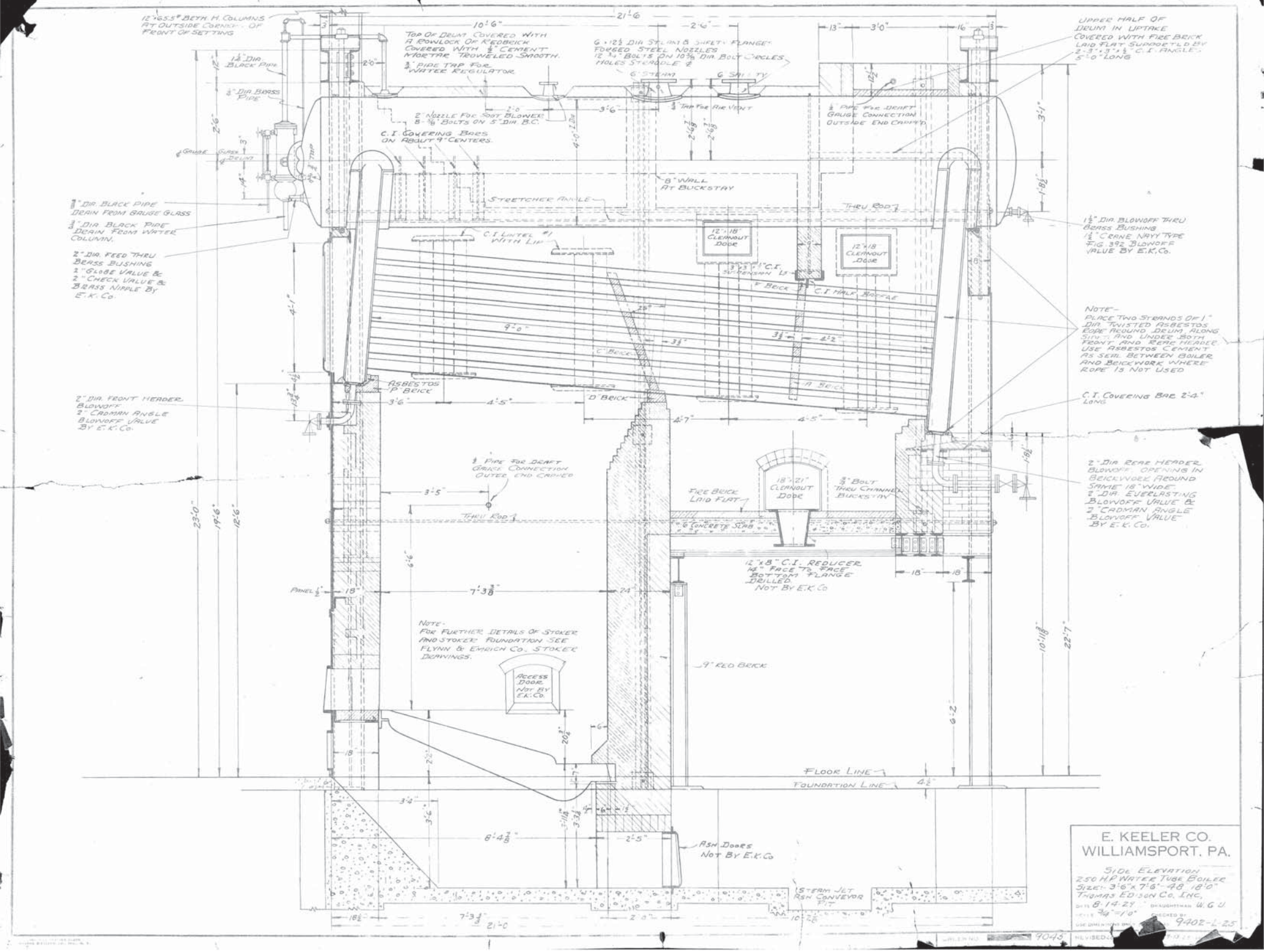
E. KEELER COMPANY
WILLIAMSPORT, PENNA.

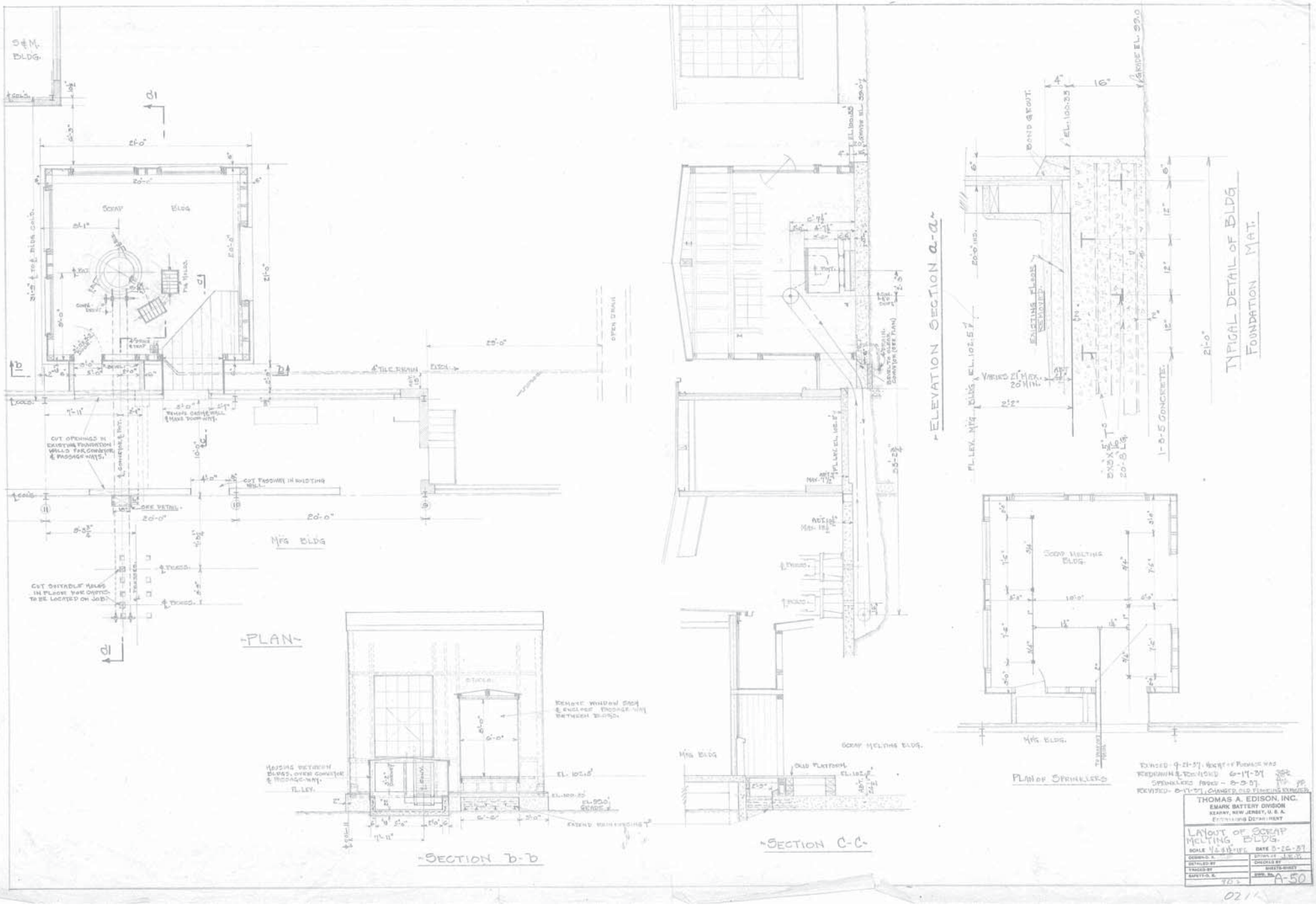
FOUNDATION PLAN
2-250 HP. WATER TUBE BOILERS
FOR THOMAS EDISON INC.

DATE 7-26-29
SCALE 3/8"=1'-0"
USE DIMENSIONS ONLY
DRAUGHTSMAN W.C.U.
CHECKED BY
DR. No. 9392-L-2K

CONTRACT 19045

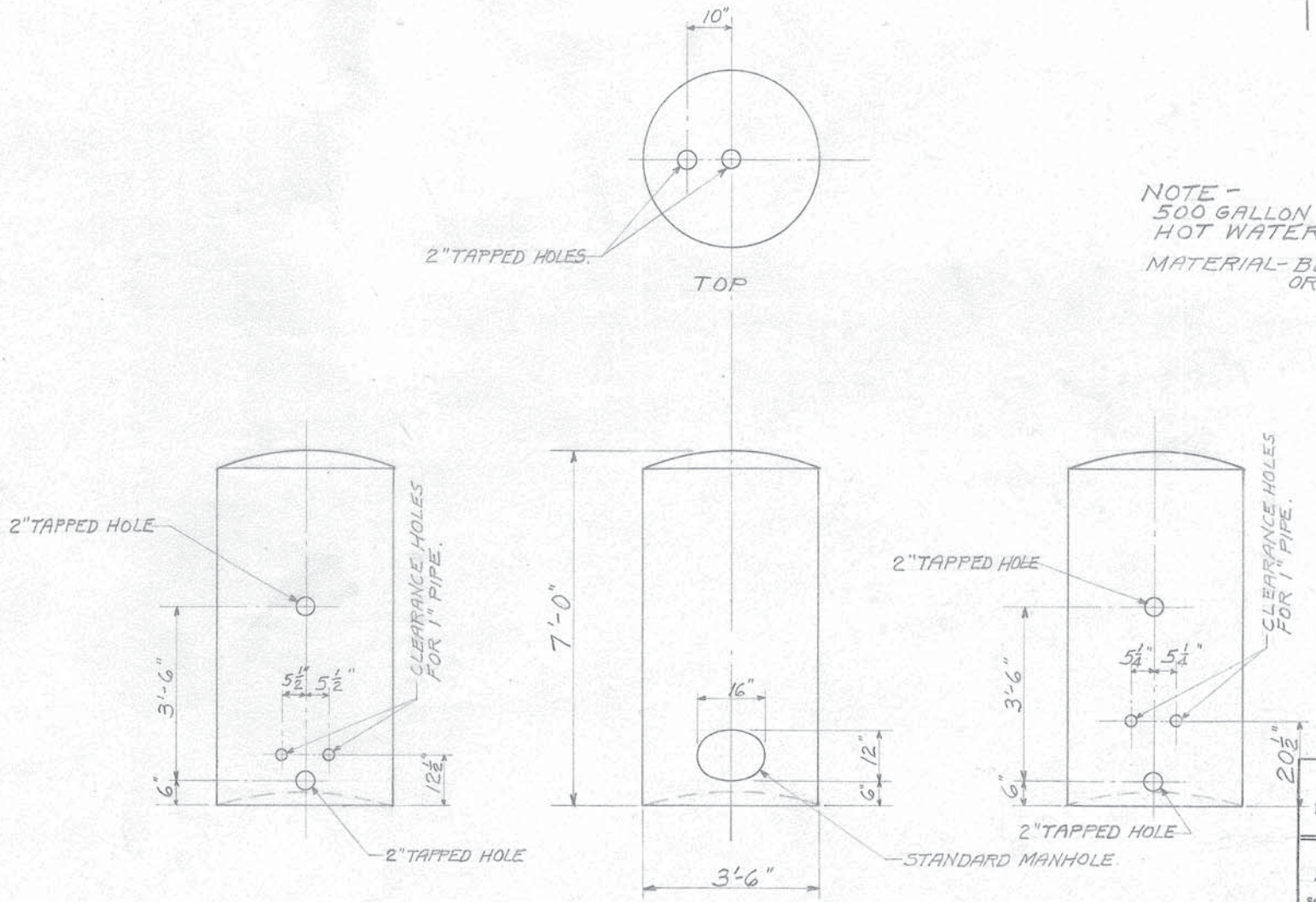

4" DIA BRASS PIPE
5'-1½"
5'-1½"
℄ BATTERY
HALF WIDTH
4'-0" SMOKE OUTLET
¼" DIA BLOWOFF PIPE
WEIGHT-AUSTIN WATER COLUMN SET SO THAT ℄ OF GAUGE GLASS IS 3" ABOVE ℄ OF DRUM
11"x15" MAN HOLE
℄ GAUGE GLASS & DRUM
10" STEAM GAUGE & PLATE
¾" VALVE FOR INSPECTORS GAUGE
SINGLE FRONT WASHER #2710
2" DIA FEED
48"
STRETCHER ANGLE
COVERING BARS
12"x18" CLEAN OUT DOOR
USE 3"x3"x½" C I ANGLES
C.I. T BAR HERE OVER DOORS IN 1ST PASS ONLY
SIDE DUST BLOWING DOOR
SOOT BLOWER OPENINGS
CENTERAL WITH SPACE BETWEEN TUBES
USE DOUBLE SKEW BRICK TO FORM CORNERS BOTH INSIDE & OUTSIDE OF DUST BLOWING DOORS
BUILD BRICK LEDGE OUT TO MEET TUBE AT BOTTOM OF DUST DOORS
2" DIA BLOWOFF
2" ESCUTCHEON PLATE
BUCKSTAY WASHER & 16" HOOK ROD
⅜" FILL PLATE
5"x6.7# DOUBLE CHANNEL BUCKSTAY
⅜" DIA DRAIN FROM GAUGE GLASS BLACK PIPE
¾" DIA DRAIN FROM WATER COLUMN TO ASH PIT BLACK PIPE
℄ REAR HEADER BLOWOFF
18"x21" CLEAN OUT DOOR
CENTER WALL SOLID FACE BRICK UP TO 12" ABOVE BOTTOM ROW OF TUBES
⅜" & ¾" GLOBE VALVES ABOUT 4'-6" ABOVE FLOOR
NIPPLE THRU FRONT WITH LOCKNUT ON REAR
7'-1"
6'-2"
4½"
FLOOR LINE
FOUNDATION LINE
℄ Col
ASH DOOR
HALF SECTION THRU THIRD PASS OF GASES
FRONT VIEW
HALF SECTION THRU FURNACE
1'-10"
8'-0"
2'-3"
8'-0"
1'-10"
21'-11"
E. KEELER CO.
WILLIAMSPORT, PA.
FRONT ELEVATION
2-250 H.P. WATER TUBE BOILERS
SIZE 3'-6" x 7'-6" - 48" - 18'-0"
THOMAS A. EDISON CO., INC.
DATE 8-19-29
DRAUGHTSMAN C.H.W.
SCALE ¾" = 1'-0"
DR. NO. 9401-L-25


12"x65.5# BETH. H. COLUMNS AT OUTSIDE CORNERS OF FRONT OF SETTING
TOP OF DRUM COVERED WITH A ROWLOCK OF REDBRICK COVERED WITH ½" CEMENT MORTAR TROWELED SMOOTH.
¾" PIPE TAP FOR WATER REGULATOR
6"x12½ DIA STEAM & SAFETY FLANGES FORGED STEEL NOZZLES 12 ¾" BOLTS ON 10⅝ DIA. BOLT CIRCLES HOLES STRADDLE ℄
6" STEAM
6" SAFETY
UPPER HALF OF DRUM IN UPTAKE COVERED WITH FIRE BRICK LAID FLAT SUPPORTED BY 2-3"x3"x½" C.I. ANGLES 5'-0" LONG
1¼" DIA. BLACK PIPE
¾" DIA. BRASS PIPE
2" NOZZLE FOR SOOT BLOWER 8-⅝" BOLTS ON 5" DIA. B.C.
¾" TAP FOR AIR VENT
½" PIPE FOR DRAFT GAUGE CONNECTION OUTSIDE END CAPPED
C.I. COVERING BARS ON ABOUT 9" CENTERS.
8" WALL AT BUCKSTAY
STRETCHER ANGLE
THRU ROD
¾" DIA. BLACK PIPE DRAIN FROM GAUGE GLASS
¾" DIA. BLACK PIPE DRAIN FROM WATER COLUMN.
2" DIA. FEED THRU BRASS BUSHING 2" GLOBE VALVE & 2" CHECK VALVE & BRASS NIPPLE BY E.K. Co.
C.I. LINTEL #1 WITH LIP
12"x18" CLEANOUT DOOR
12"x18" CLEANOUT DOOR
3"x3"x½" C.I. SUSPENSION LS
F BRICK
C.I. HALF BAFFLE
1½" DIA. BLOWOFF THRU BRASS BUSHING 1½" CRANE NAVY TYPE FIG. 392 BLOWOFF VALVE BY E.K. Co.
NOTE- PLACE TWO STRANDS OF 1" DIA. TWISTED ASBESTOS ROPE AROUND DRUM ALONG SIDES AND UNDER BOTH FRONT AND REAR HEADER. USE ASBESTOS CEMENT AS SEAL BETWEEN BOILER AND BRICKWORK WHERE ROPE IS NOT USED
C" BRICK
A BRICK
ASBESTOS "P" BRICK
"D" BRICK
2" DIA. FRONT HEADER BLOWOFF 2" CADMAN ANGLE BLOWOFF VALVE BY E.K. Co.
C.I. COVERING BAR 2'-4" LONG
½" PIPE FOR DRAFT GAUGE CONNECTION OUTER END CAPPED
18"x21" CLEANOUT DOOR
¾" BOLT THRU CHANNEL BUCKSTAY
FIRE BRICK LAID FLAT
6" CONCRETE SLAB
THRU ROD
2" DIA. REAR HEADER BLOWOFF OPENING IN BRICKWORK AROUND SAME 18" WIDE 2" DIA. EVERLASTING BLOWOFF VALVE & 2" CADMAN ANGLE BLOWOFF VALVE BY E.K. Co.
12"x8" C.I. REDUCER 14" FACE TO FACE BOTTOM FLANGE DRILLED NOT BY E.K. Co
PANEL ½"
NOTE- FOR FURTHER DETAILS OF STOKER AND STOKER FOUNDATION SEE FLYNN & EMRICH Co. STOKER DRAWINGS.
ACCESS DOOR NOT BY E.K. Co.
9" RED BRICK
FLOOR LINE
FOUNDATION LINE
ASH DOORS NOT BY E.K. Co
STEAM JET ASH CONVEYOR PIT
E. KEELER CO.
WILLIAMSPORT, PA.
SIDE ELEVATION
250 H.P. WATER TUBE BOILER
SIZE:- 3'-6"x7'-6"-48 18'-0"
THOMAS EDISON Co. INC.
DATE 8-14-29
DRAUGHTSMAN W.G.U.
SCALE ¾"=1'0"
CHECKED BY
9402-L-25
9045



S&M. BLDG.
SCRAP BLDG
MFG BLDG
CUT OPENINGS IN EXISTING FOUNDATION WALLS FOR CONVEYOR & PASSAGE WAYS.
CUT PASSWAY IN EXISTING WALL.
CUT SUITABLE HOLES IN FLOOR FOR CHUTES TO BE LOCATED ON JOB.
OPEN DRAIN
-PLAN-
REMOVE WINDOW SASH & ENCLOSE PASSAGE WAY BETWEEN BLDGS.
HOUSING BETWEEN BLDGS. OVER CONVEYOR & PASSAGE-WAY.
EL. 102.5'
EL. 100.25'
EL. 99.0' GRADE
EXTEND REINFORCING
-SECTION b-b
SCRAP MELTING BLDG.
SKID PLATFORM
-SECTION C-C-
-ELEVATION SECTION a-a-
BOND GROUT
EXISTING FLOOR REMOVED
VARIES 21" MAX. 20" MIN.
1-3-5 CONCRETE
TYPICAL DETAIL OF BLDG FOUNDATION MAT.
SCRAP MELTING BLDG.
MFG BLDG.
PLAN OF SPRINKLERS
REVISED - 9-21-37. HEIGHT OF FURNACE WAS REDRAWN & REVISED 6-17-37
SPRINKLERS ADDED - 8-9-37.
REVISED - 8-17-37, CHANGED OLD FLOORING REMOVED.
THOMAS A. EDISON, INC.
EMARK BATTERY DIVISION
KEARNY, NEW JERSEY, U. S. A.
ENGINEERING DEPARTMENT
LAYOUT OF SCRAP MELTING BLDG.
SCALE 1/4 & 1/2" = 1 FT.
DATE 3-26-37
DESIGN-O. K.
DRAWN BY J.E.B.
DETAILED BY
CHECKED BY
TRACED BY
SHEETS-SHEET
SAFETY-O. K.
DWG. No. A-50

SYMBOL	CHANGES	CHANGED BY	DATE



NOTE -
500 GALLON 100 LB. PRESSURE
HOT WATER TANK.

MATERIAL - BLACK IRON
OR EQUIVALENT.

THOMAS A. EDISON, INC.
AUTOMOTIVE DIVISION
PLANT No. 1 KEARNY, NEW JERSEY
ENGINEERING DEPARTMENT

500 GALLON
HOT WATER TANK.

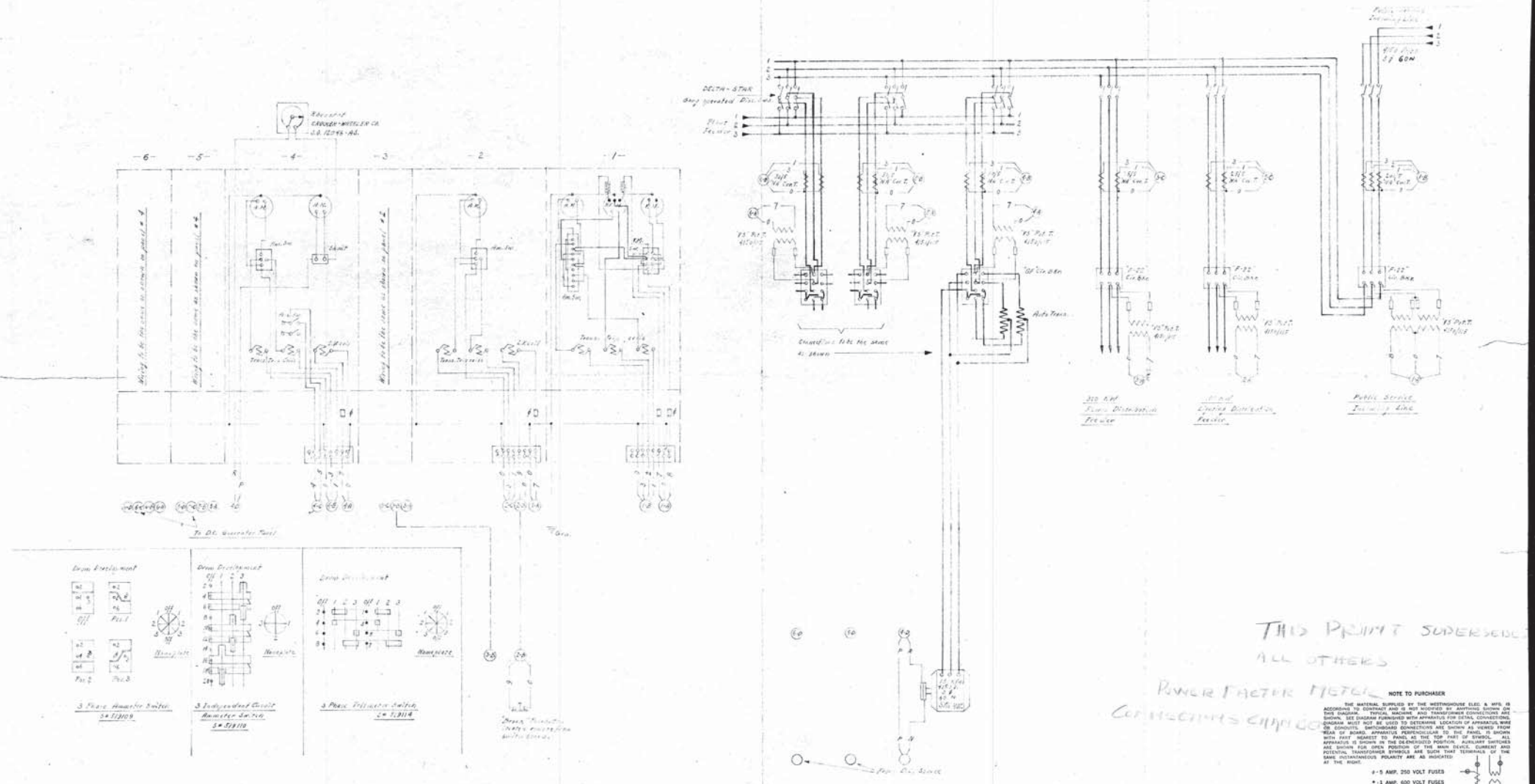
SCALE ½" = 1 FOOT DATE NOV 7 1951

DESIGN O. K.	DRAWN BY C. J. B.
DETAILED BY	CHECKED BY
TRACED BY	FILE -

DWG. NO. C-537.

WESTINGHOUSE ELECTRIC & MFG. CO.
NEW YORK SERVICE DEPT.

Dwg. No. N. Y. [illegible] Sub. No. 12. Scale [illegible]



THIS PRINT SUPERSEDES ALL OTHERS

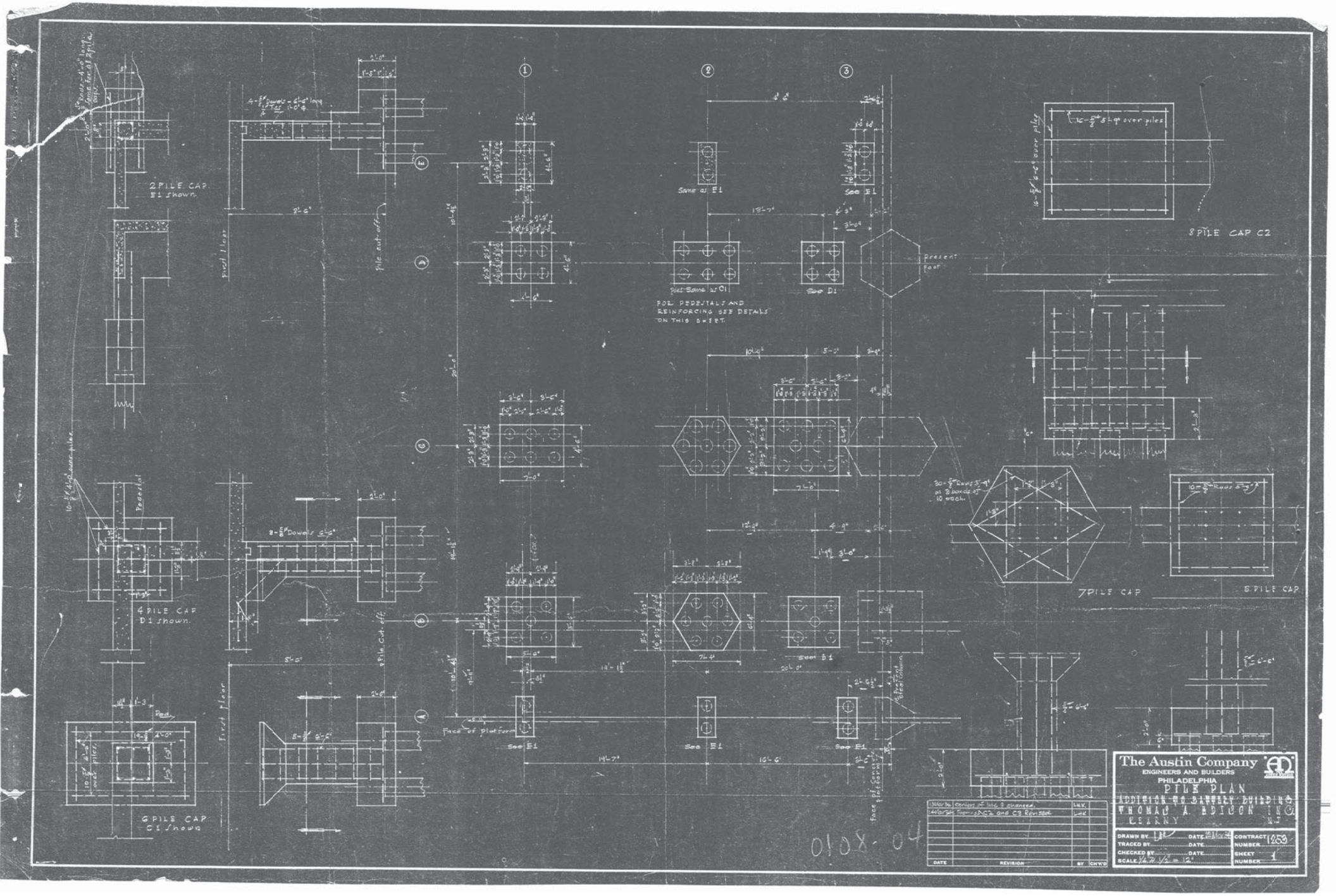
POWER FACTOR METER CONNECTIONS CHANGED

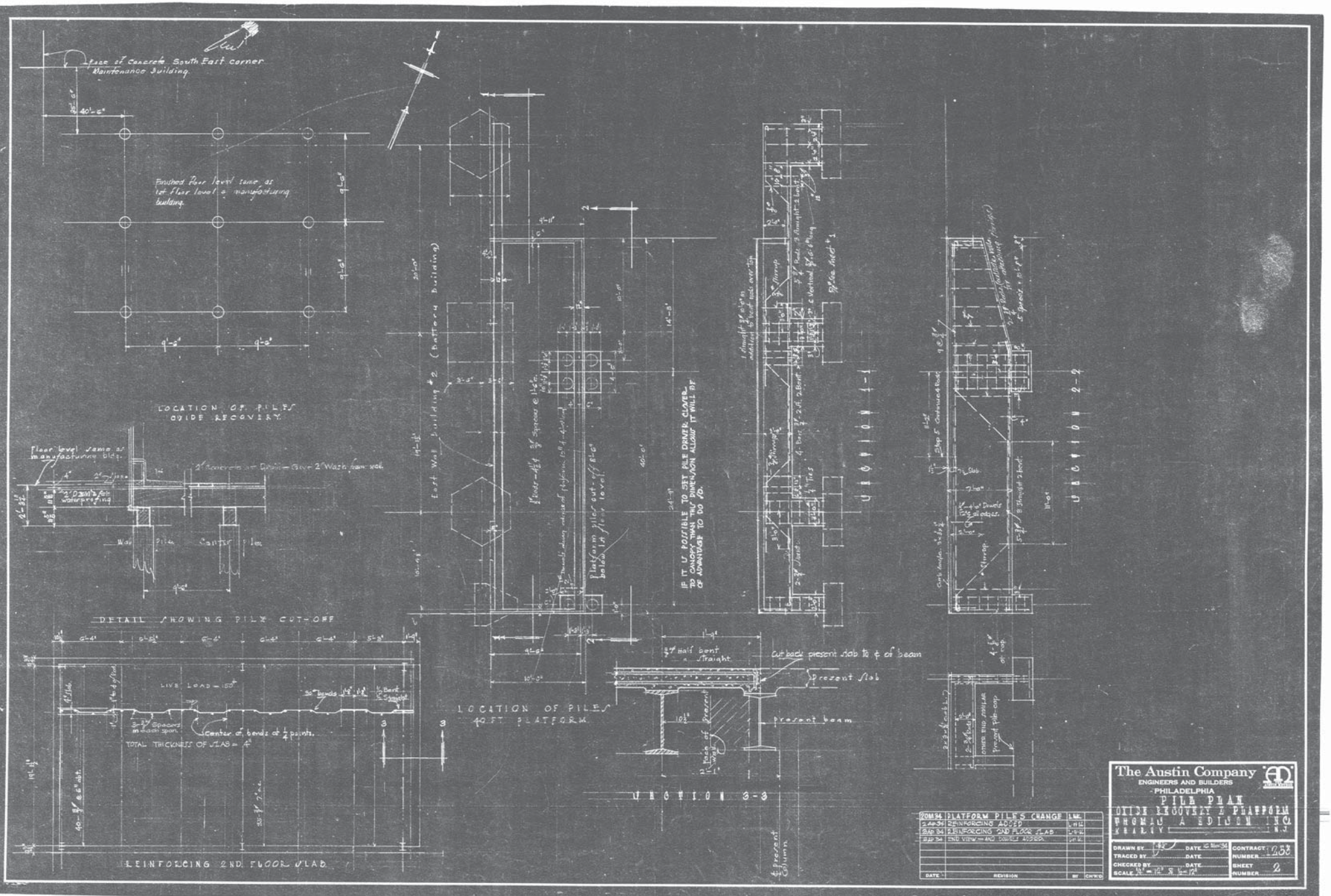
NOTE TO PURCHASER

THE MATERIAL SUPPLIED BY THE WESTINGHOUSE ELEC. & MFG. IS ACCORDING TO CONTRACT AND IS NOT MODIFIED BY ANYTHING SHOWN ON THIS DIAGRAM. TYPICAL MACHINE AND TRANSFORMER CONNECTIONS ARE SHOWN. SEE DIAGRAM FURNISHED WITH APPARATUS FOR DETAIL CONNECTIONS. DIAGRAM MUST NOT BE USED TO DETERMINE LOCATION OF APPARATUS, WIRE OR CONDUITS. SWITCHBOARD CONNECTIONS ARE SHOWN AS VIEWED FROM REAR OF BOARD. APPARATUS PERPENDICULAR TO THE PANEL IS SHOWN WITH PART NEAREST TO PANEL AS THE TOP PART OF SYMBOL. ALL APPARATUS IS SHOWN IN THE DE-ENERGIZED POSITION. AUXILIARY SWITCHES ARE SHOWN FOR OPEN POSITION OF THE MAIN DEVICE. CURRENT AND POTENTIAL TRANSFORMER SYMBOLS ARE SUCH THAT TERMINALS OF THE SAME INSTANTANEOUS POLARITY ARE AS INDICATED AT THE RIGHT.

- 5 AMP. 250 VOLT FUSES
- 1 AMP. 600 VOLT FUSES
- ½ AMP. 2500 VOLT FUSES

NY-10881


2 PILE CAP
E1 shown.
4 PILE CAP
D1 shown.
6 PILE CAP
C1 shown
8 PILE CAP C2
7 PILE CAP
5 PILE CAP
Same as E1
See E1
Pier Same as C1
See D1
FOR PEDESTALS AND
REINFORCING SEE DETAILS
ON THIS SHEET.
Present Foot
Face of Platform
Pile cut-off
First floor
Pedestal
Ped.
0108-04
The Austin Company
ENGINEERS AND BUILDERS
PHILADELPHIA
PILE PLAN
ADDITION TO BATTERY BUILDING
THOMAS A. EDISON INC.
KEARNY N.J.
DRAWN BY
TRACED BY
CHECKED BY
SCALE 1/4" = 1/2" = 12"
CONTRACT NUMBER 1253
SHEET NUMBER 1
DATE
REVISION
BY
CHK'D



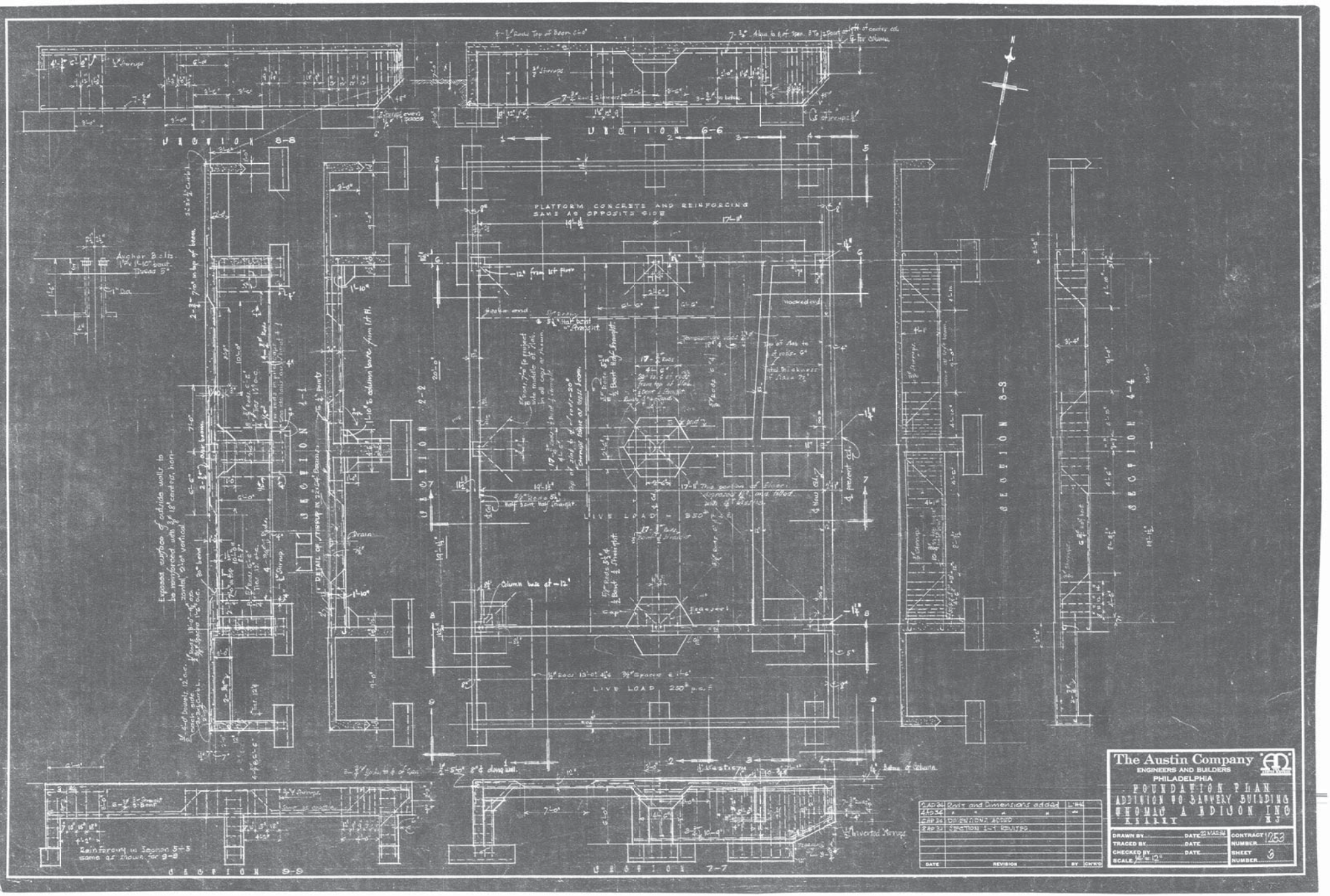
DATE	REVISION	BY	CHK'D
20 Mar 34	PLATFORM PILES CHANGE	LMK	
2 Apr 34	REINFORCING ADDED	LMK	
3 Apr 34	REINFORCING 2ND FLOOR SLAB	LMK	
3 Apr 34	END VIEW — AND DOUBLE ADDED	LMK	

The Austin Company
ENGINEERS AND BUILDERS
PHILADELPHIA

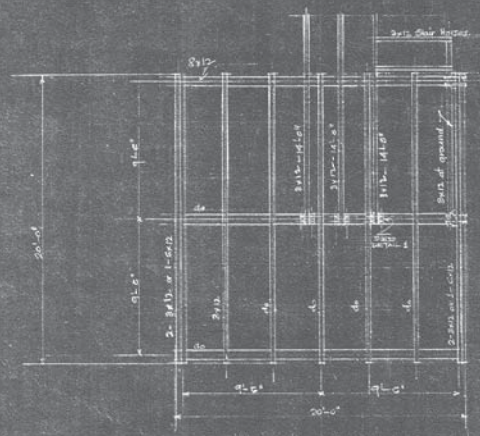
PILE PLAN
OXIDE RECOVERY & PLATFORM
THOMAS A EDISON INC.
KEARNY

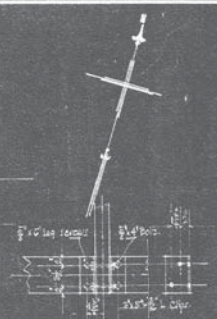
DRAWN BY [illegible] DATE 16 Nov 34
TRACED BY DATE
CHECKED BY DATE
SCALE 1/8" = 12" & 1/2" = 12"

CONTRACT NUMBER 1253
SHEET NUMBER 2

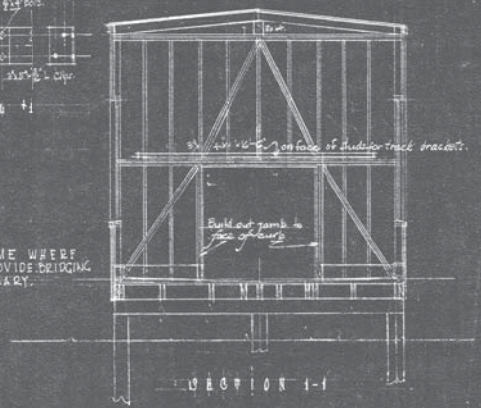


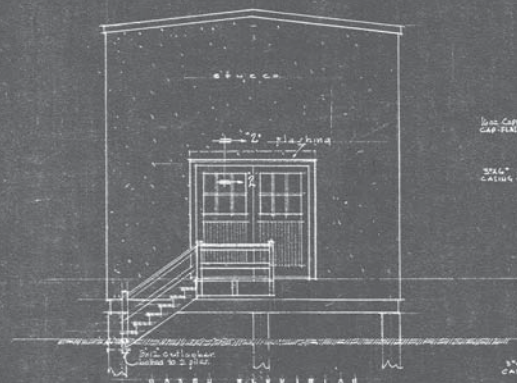
PLATFORM CONCRETE AND REINFORCING
SAME AS OPPOSITE SIDE
LIVE LOAD - 350# p.s.f.
LIVE LOAD 250# p.s.f.
SECTION 8-8
SECTION 6-6
SECTION 1-1
SECTION 2-2
SECTION 3-3
SECTION 4-4
SECTION 9-9
SECTION 7-7
Reinforcing in Section 5-5
same as shown for 9-9
Rods and Dimensions added
DIMENSIONS ADDED
SECTION 1-1 REVISED
DATE
REVISION
BY
CH'K'D
The Austin Company
ENGINEERS AND BUILDERS
PHILADELPHIA
FOUNDATION PLAN
ADDITION TO BATTERY BUILDING
THOMAS A EDISON INC
KEARNY NJ
DRAWN BY
DATE
TRACED BY
DATE
CHECKED BY
DATE
SCALE 1/4" = 1'-0"
CONTRACT NUMBER 1253
SHEET NUMBER 3

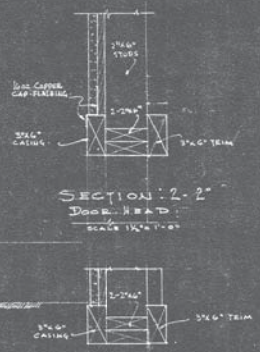


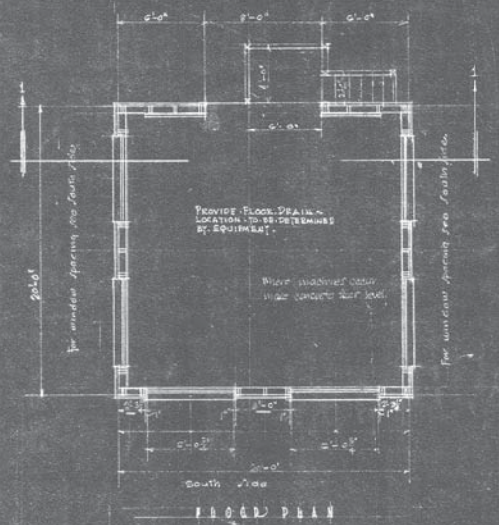


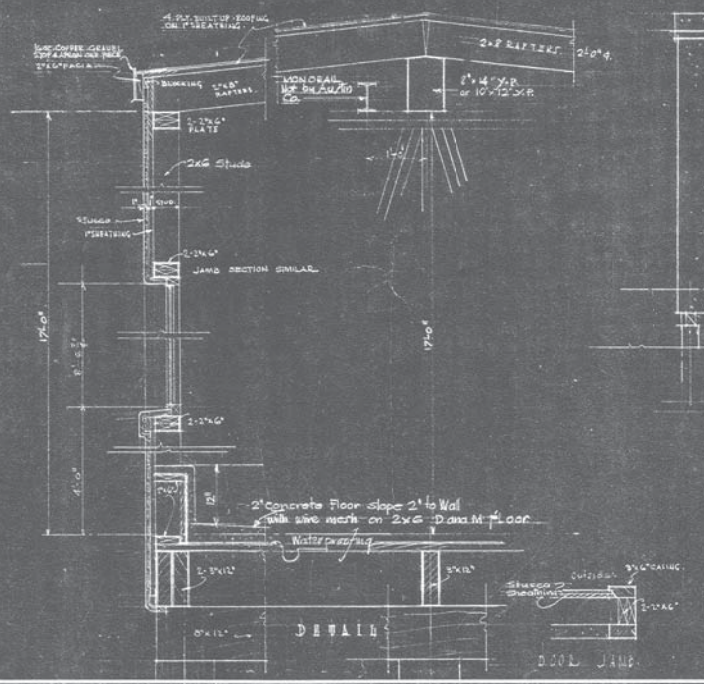
BRACE FRAME WHERE NEEDED. PROVIDE BRIDGING WHERE NECESSARY.

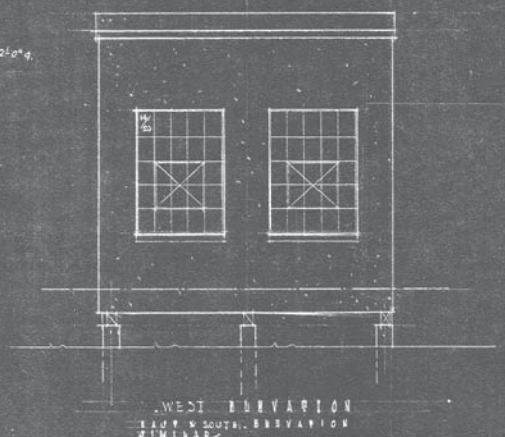












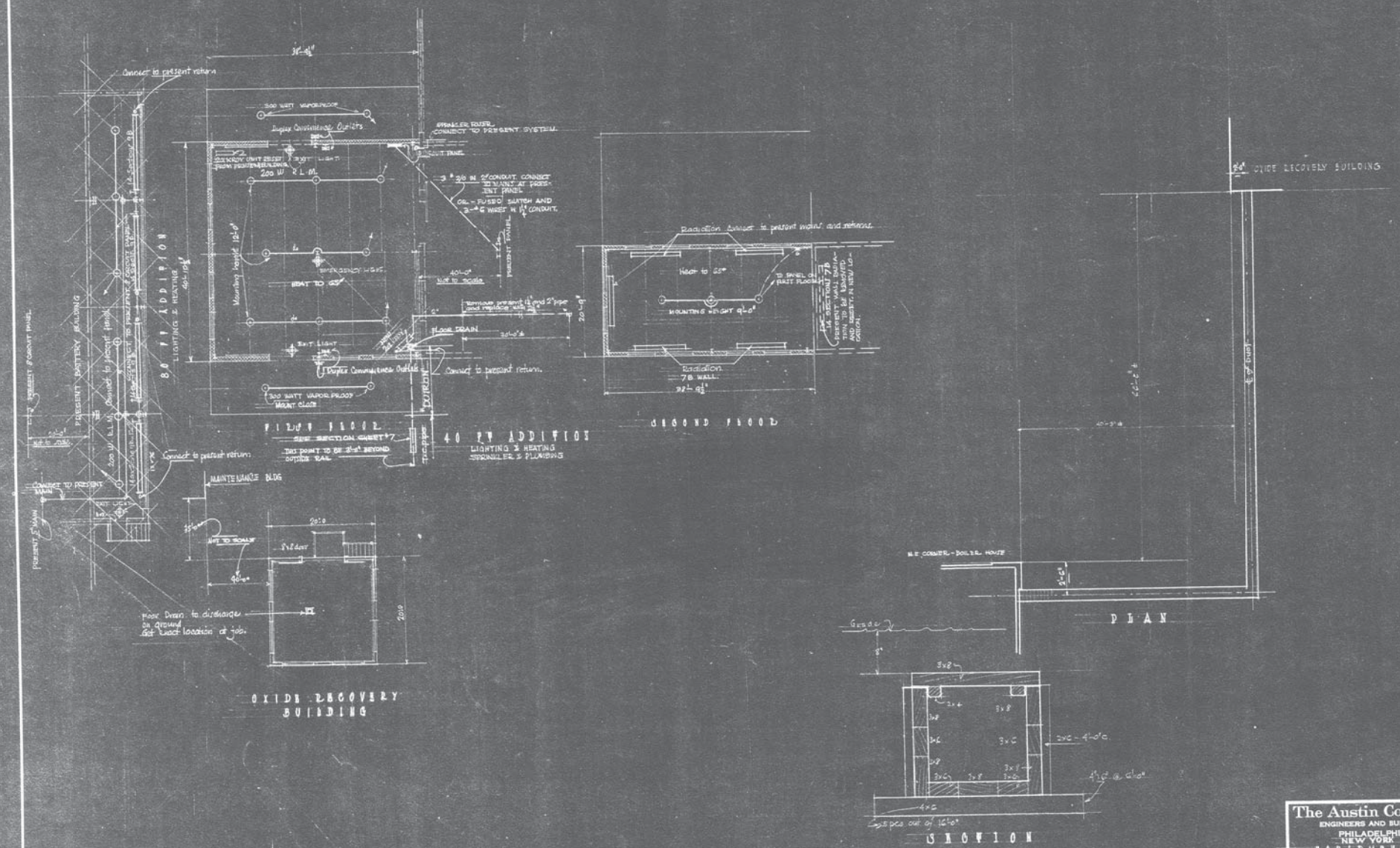
NOTES:-
ALL GLASS IN STEEL SASH & HAMMERED 14x20
GLASS FOR DOOR DOUBLE THICK CLEAR

DATE	REVISION	BY	CH'KD

The Austin Company
ENGINEERS AND BUILDERS
PHILADELPHIA

PLANS & ELEVATIONS
OXIDE RECOVERY BLDG
THOMAS A EDISON INC
KEARNY N.J.

DRAWN BY	DATE	CONTRACT NUMBER	1053
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	4
SCALE 1/4" and 1" = 1'0"			

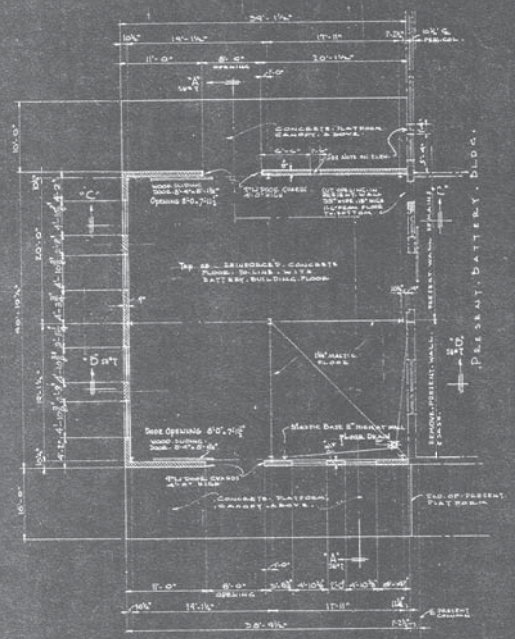


DATE	REVISION	BY	CH'K'D
25 MAY 34	CENTER LINE OF DUCT LOCATED.	J.H.K.	
17 MAY 34	DUCT ADDED	J.K.	

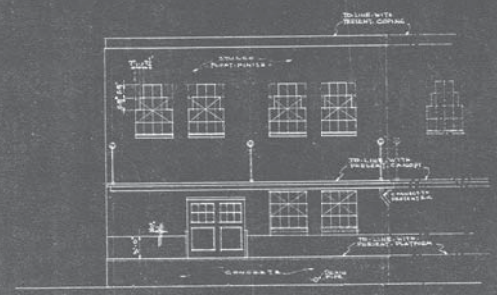
The Austin Company
ENGINEERS AND BUILDERS
PHILADELPHIA
NEW YORK

EQUIPMENT PLANS
ADDITIONS TO BATTERY BLDG.
THOMAS A. EDISON INC.
KEARNY N.J.

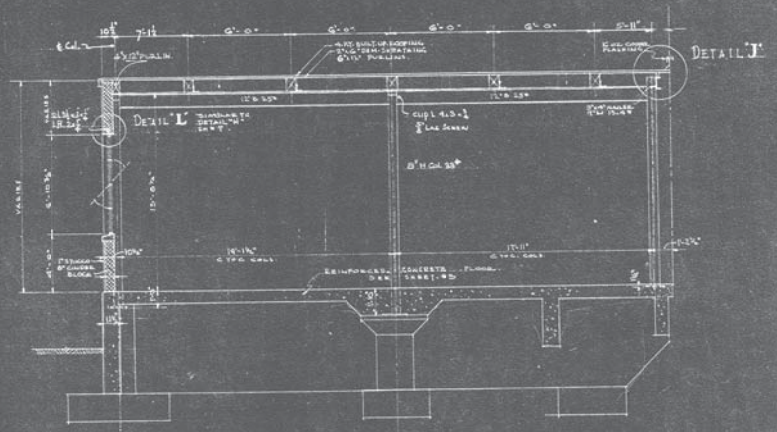
DRAWN BY C.A.V.	DATE 22 APR 34	CONTRACT NUMBER	1253
TRACED BY	DATE	SHEET NUMBER	5
CHECKED BY	DATE		
SCALE 1/2" = 12"			



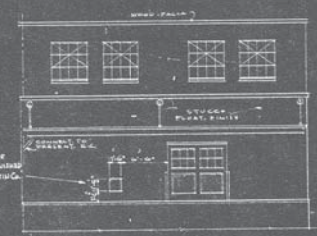
1. FIRST. FLOOR. PLAN.



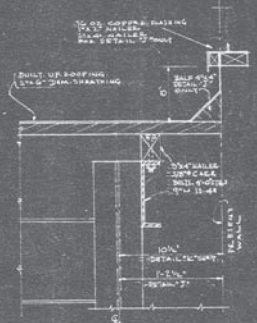
. SOUTH. ELEVATION.



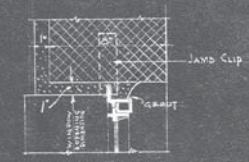
. SECTION. "C-C"



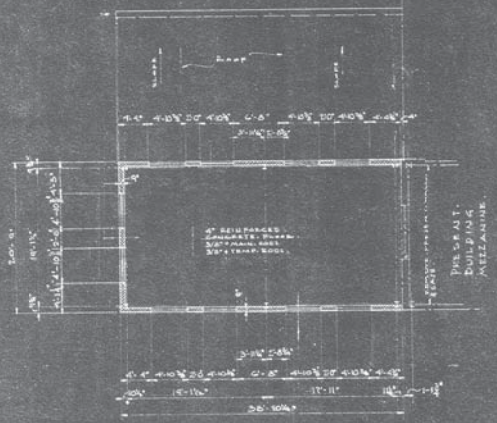
. NORTH. ELEVATION.



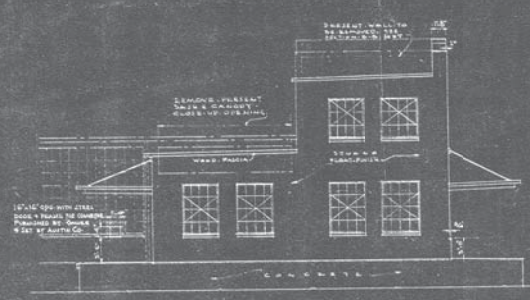
. DETAIL. "J"
. DETAIL. "K" SH'T SIMILAR.



. TYPICAL. JAMB.
. ALL. SASH.



. MEZZANINE. FLOOR. PLAN.



. WEST. ELEVATION.

NOTE.
ALL SASH GLASS 14"x20" 1/8" HAMMERED.
DOOR GLASS 1'-0 1/2" x 1'-4 1/2" CLEAR DOUBLE THICK.
ALL SILLS & COPING CONCRETE CAST IN PLACE.

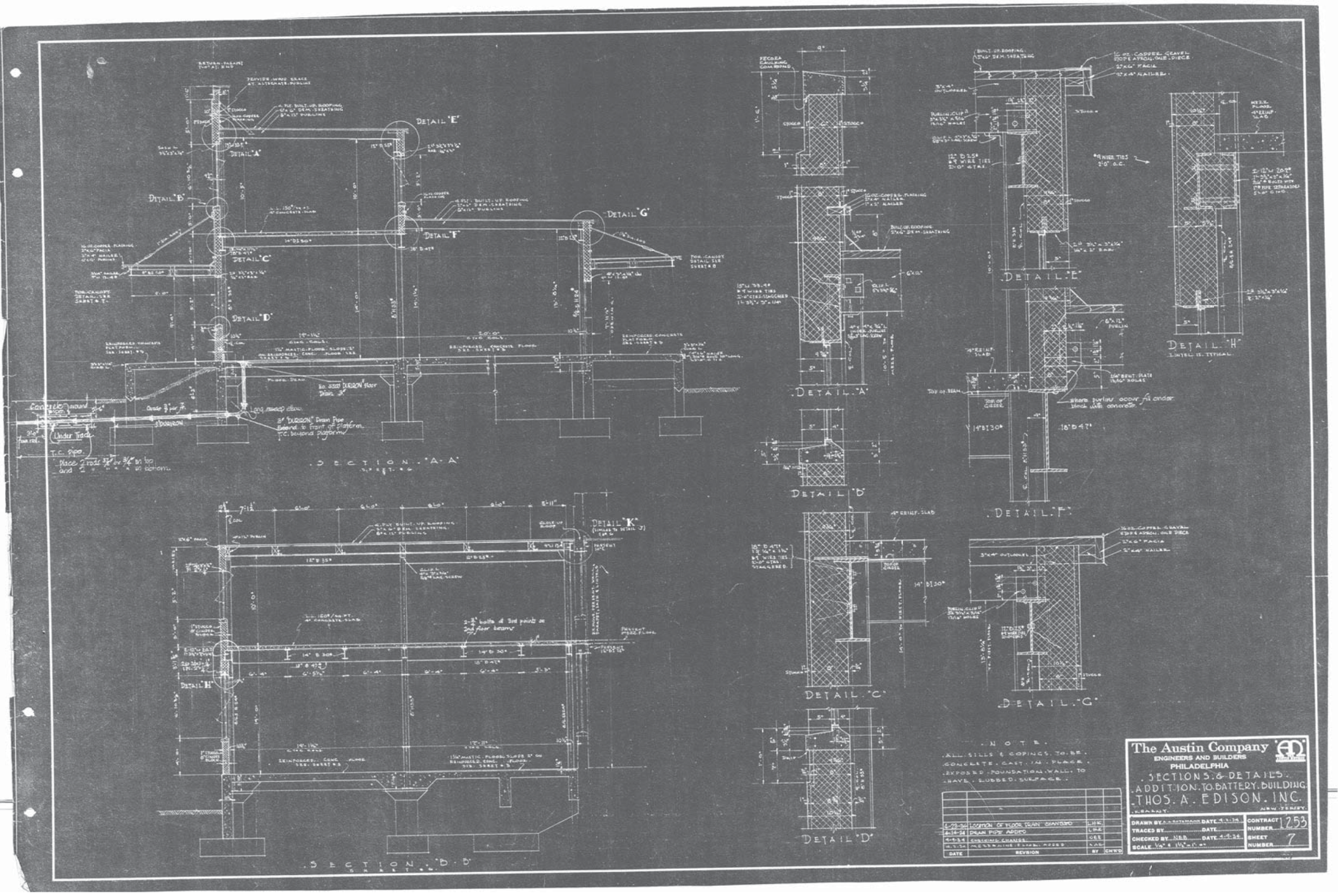
. NOTE.
. PAINTING ALL EXPOSED. INTERIOR
. SURFACES. AND. EXTERIOR. SURFACES
. TO BE. PAINTED. TO. MATCH. EXISTING
. WORK. IN. NUMBER. OF COATS, KIND &
. COLOR.

DATE	REVISION	BY	CH'K'D
4-9-34	CHECKING CHANGES	NES	
4-2-34	MEZZANINE FLOOR ADDED.	A.A.L.	

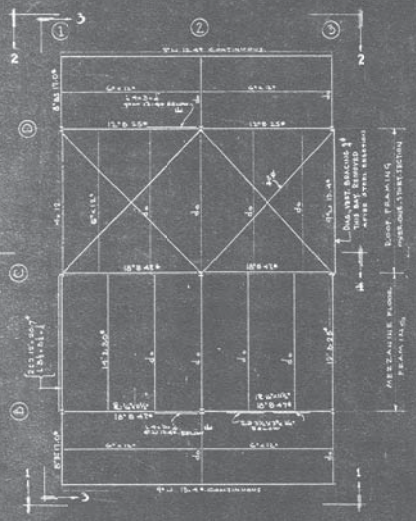
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK

. FLOOR. PLANS. & ELEVATIONS.
. ADDITION. TO. BATTERY. BUILDING.
. THOS. A. EDISON. INC.
. KEARNY. NEW. JERSEY.

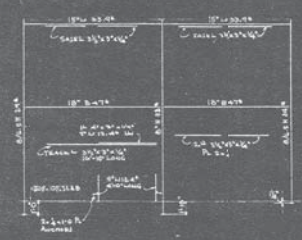
DRAWN BY A.A.L.	DATE 4-2-34	CONTRACT NUMBER	1253
TRACED BY	DATE		
CHECKED BY NES	DATE 4-9-34	SHEET NUMBER	6
SCALE 1/8"=1'-0"			



DETAIL "A"
DETAIL "B"
DETAIL "C"
DETAIL "D"
DETAIL "E"
DETAIL "F"
DETAIL "G"
DETAIL "H"
DETAIL "K"
SECTION "A-A"
SECTION "B-B"
NOTE
ALL SILLS & COPINGS TO BE CONCRETE CAST IN PLACE. EXPOSED FOUNDATION WALL TO HAVE RUBBED SURFACE.
The Austin Company
ENGINEERS AND BUILDERS
PHILADELPHIA
SECTIONS & DETAILS
ADDITION TO BATTERY BUILDING
THOS. A. EDISON, INC.
KEARNY, NEW JERSEY
DRAWN BY
TRACED BY
CHECKED BY
SCALE
CONTRACT NUMBER 1253
SHEET NUMBER 7

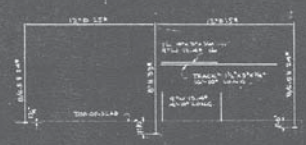


FRAMING PLAN.

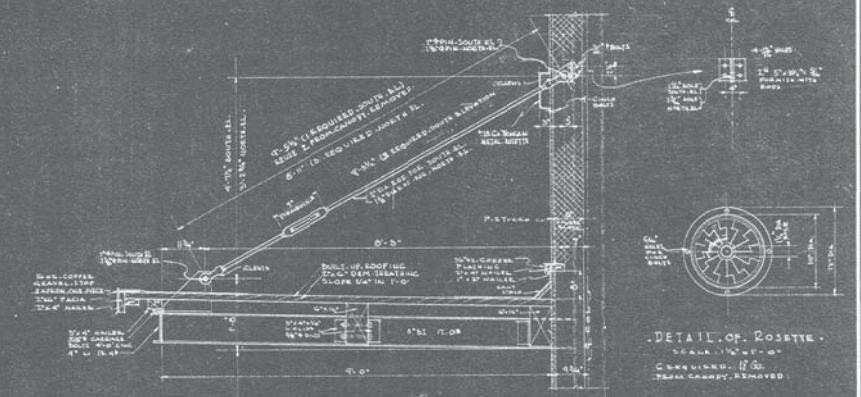


SECTION 1-1

NOTE: DETAIL SHOWING PUNCHING IN TRACK L TO BE FURNISHED LATER

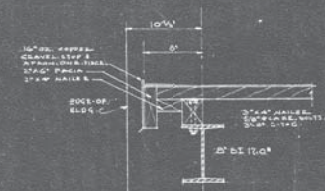


SECTION 2-2

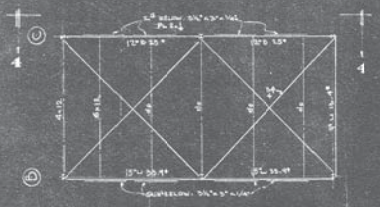


DETAIL OF CANOPY.

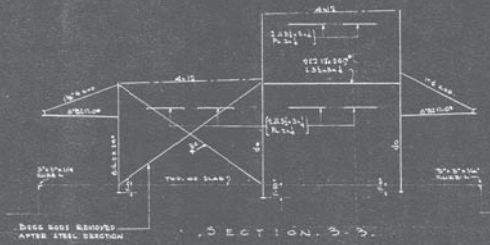
DETAIL OF ROSETTE.



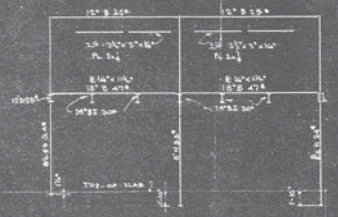
DETAIL OF CANOPY RETURN. FOR WEST END SOUTH ELEVATION & BOTH ENDS NORTH ELEVATION



MEZZANINE ROOF FRAMING PLAN.



SECTION 3-3.



SECTION 4-4.

BASE MATERIAL.

FOR COLS. B2, C2.
1 PL 16" x 1'-4" x 1½"
2 PL 6" x 4" x 3/8" 6" LONG.

FOR COLS. B1, B3, C1, C3.
1 PL 14" x 1'-2" x 1¼"
2 PL 6" x 4" x 3/8" x 6" LONG.

2 ANCHOR BOLTS PER COL.
1" ϕ x 1'-10" LONG, 5" THREAD.

FOR COLS D1, D2, D3
1 PL 10" x 10" x ⅜"
2 L 6 x 4 x ⅜" - 6" LONG

NOTE.

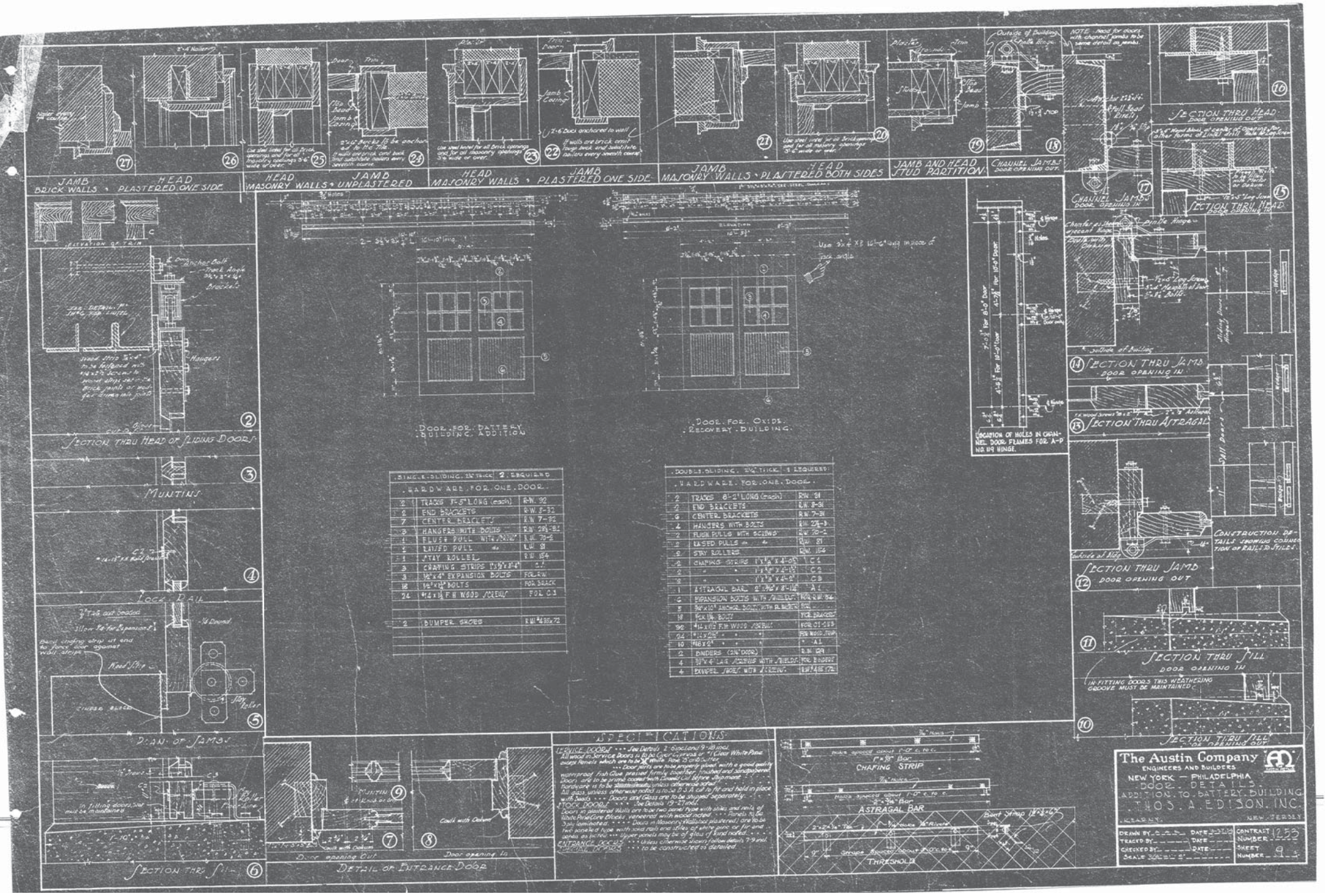
STEEL WORK TO BE SHOP RIVETED & FIELD BOLTED. SHOP RIVET STRESSES SHEAR 12,000# BEARING 24,000# FIELD BOLT STRESSES SHEAR 10,000# BEARING 16,000#
PROVIDE ALL HOLES IN TRACK L AND IN ALL STEELWORK WHERE REQUIRED FOR NAILERS. PAINT ONE SHOP COAT. DUPONT PRIMER #44

DATE	REVISION	BY	CH'K'D
4-9-34	CHECKING CHANGES	NBS	
4-6-34	CANOPY RETURN DETAIL ADDED	AAR	
4-6-34	STEEL SECTIONS CHANGED	NBS	
4-2-34	MEZZANINE FLOOR ADDED	AAL	

The Austin Company
ENGINEERS AND BUILDERS
PHILADELPHIA

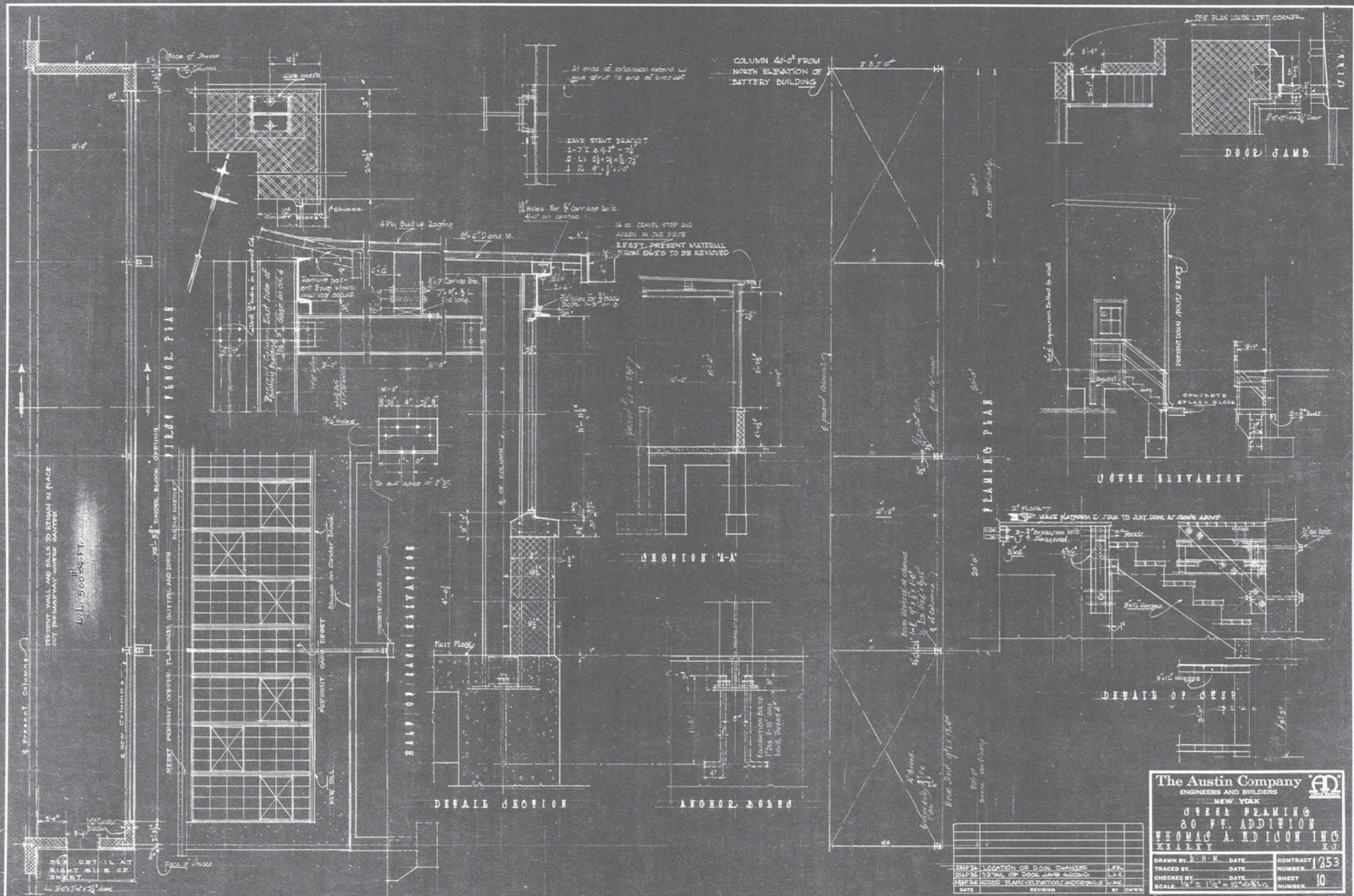
STEEL FRAMING.
ADDITION TO BATTERY BUILDING.
THOS. A. EDISON, INC.
KEARNY, NEW JERSEY

DRAWN BY A. A. BOTSMAN	DATE 4-2-34	CONTRACT NUMBER	1253
TRACED BY	DATE		
CHECKED BY NBS	DATE 4-9-34	SHEET NUMBER	8
SCALE			



SINGLE SLIDING 2¼" THICK	2 REQUIRED	
HARDWARE FOR ONE DOOR		
2	TRACKS 8'-5" LONG (each)	R.W. 92
2	END BRACKETS	R.W. 8-32
7	CENTER BRACKETS	R.W. 7-32
3	HANGERS WITH BOLTS	R.W. 28½-81
1	FLUSH PULL WITH SCREWS	R.W. 70-2
1	RAISED PULL do	R.W. 81
1	STAY ROLLER	R.W. 154
3	CHAFING STRIPS 1"x½"x8'-6"	C.S.
3	½"x4" EXPANSION BOLTS	FOR R.W.
18	½"x1¼" BOLTS	FOR BRACK
24	#14x1½ F.H. WOOD SCREWS	FOR C.S.
2	BUMPER SHOES	R.W. #435x72

DOUBLE SLIDING 2¼" THICK	1 REQUIRED	
HARDWARE FOR ONE DOOR		
2	TRACKS 8'-2" LONG (each)	R.W. 81
2	END BRACKETS	R.W. 8-31
6	CENTER BRACKETS	R.W. 7-31
4	HANGERS WITH BOLTS	R.W. 27½-3
2	FLUSH PULLS WITH SCREWS	R.W. 70-2
2	RAISED PULLS do	R.W. 81
2	STAY ROLLERS	R.W. 154
2	CHAFING STRIPS 1"x¾"x4'-0½"	C.1
2	" " 1"x¾"x4'-1½"	C.2
2	" " 1"x¾"x4'-2"	C.3
1	ASTRAGAL BAR 2"x¾"x8'-1½"	A.1
6	EXPANSION BOLTS WITH SHIELDS	FOR R.W. 154
5	¾"x10" ANCHOR BOLTS WITH PLASTER	FOR
18	½"x1¼" BOLTS	FOR BRACKETS
32	#14x1½ F.H. WOOD SCREWS	FOR C.1-C.3
24	#14x2½ " " "	FOR WOOD STRIP
10	#16x2" " " "	" A.1
2	BINDERS (2¼" DOOR)	R.W. 129
4	¾"x4" LAG SCREWS WITH SHIELDS	FOR BINDERS
4	BUMPER SHOES WITH SCREWS	R.W. #435x72

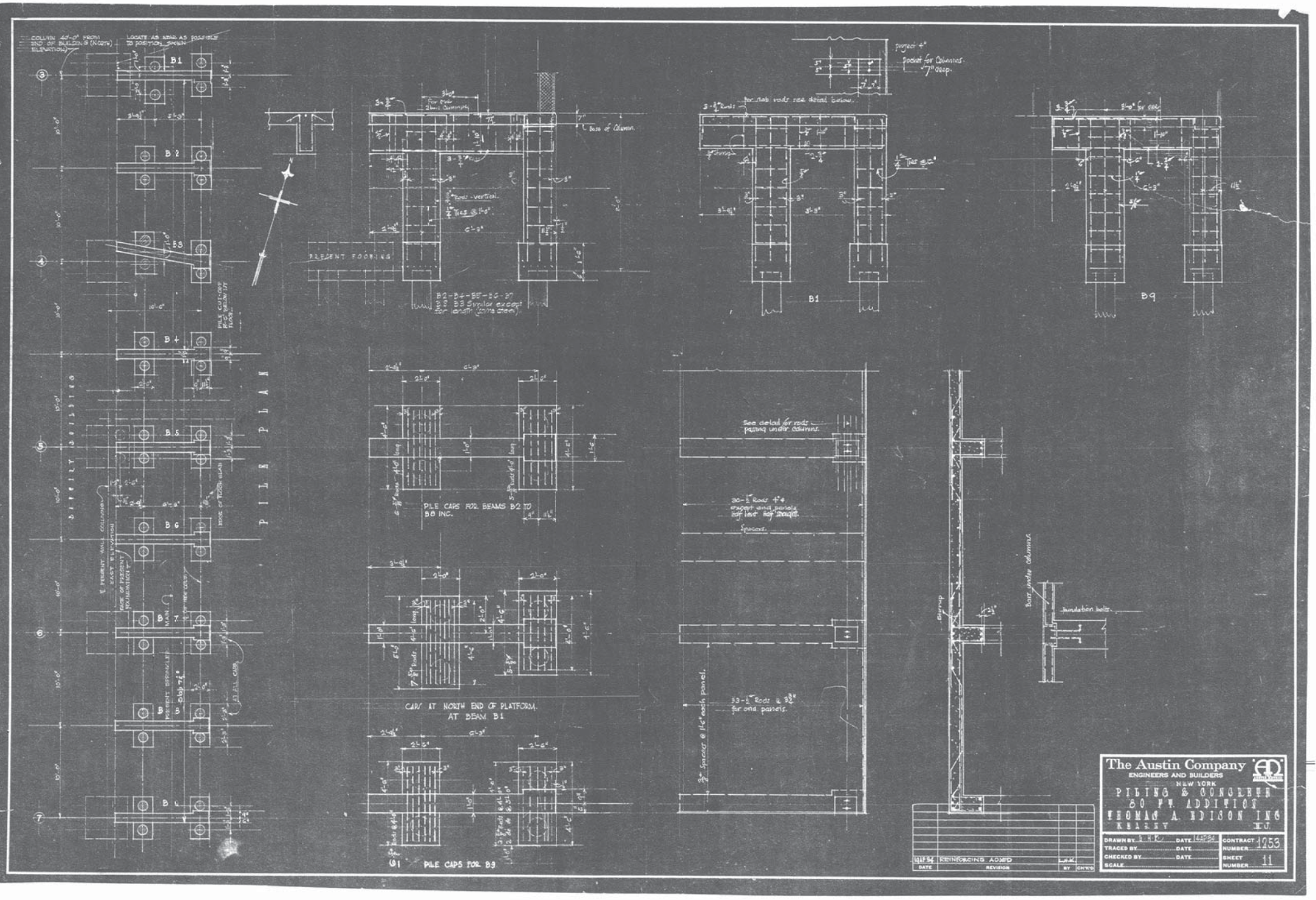


DATE	REVISION	BY	CH'K'D
28 AP 34	LOCATION OF DOOR CHANGED	L.E.K.	
20 AP 34	DETAIL OF DOOR JAMB ADDED	L.E.K.	
19 AP 34	ADDED PLANS-ELEVATIONS AND DETAILS	L.H.K.	

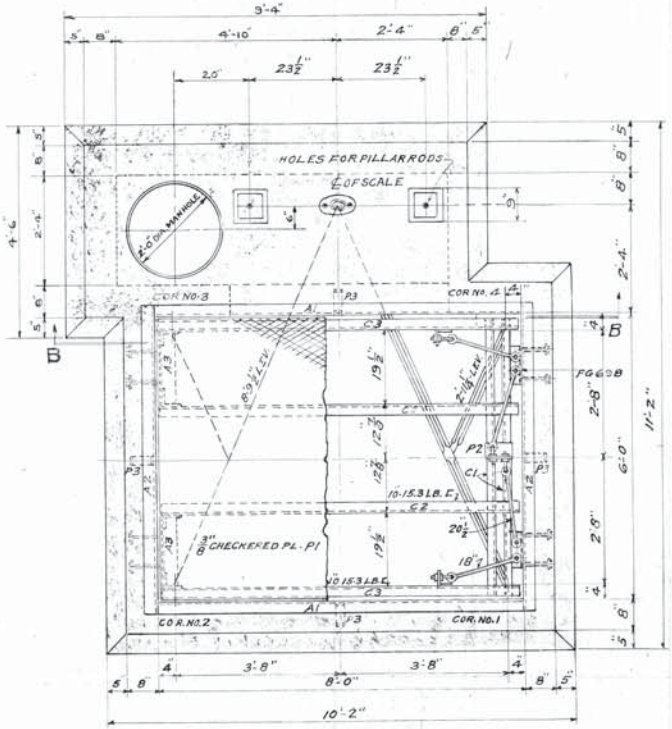
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK

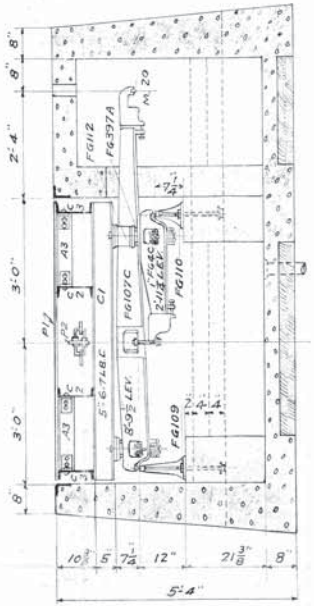
STEEL FRAMING
80 FT. ADDITION
THOMAS A. EDISON INC.
KEARNY N.J.

DRAWN BY	D. H. K.	DATE	CONTRACT NUMBER 1253
TRACED BY		DATE	
CHECKED BY		DATE	SHEET NUMBER 10
SCALE	1/4" = 1 1/2" = 12" ds 3/4" in.		

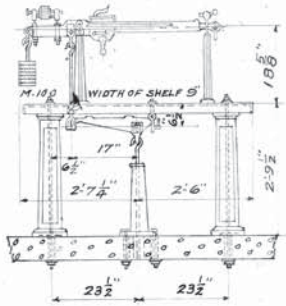

PILE PLAN
B1
B2
B3
B4
B5
B6
B7
B8
B9
PRESENT FOOTING
B2-B4-B5-B6-B7
B8 B3 Similar except for length (same steel)
PILE CAPS FOR BEAMS B2 TO B8 INC.
CAPS AT NORTH END OF PLATFORM AT BEAM B1
PILE CAPS FOR B9
See detail for rods passing under columns.
Spacers.
Stirrup
Base under columns.
Foundation bolts.
REINFORCING ADDED
DATE
REVISION
BY
CH'K'D
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK
PILING & CONCRETE
80 FT. ADDITION
THOMAS A. EDISON INC
KEARNY N.J.
DRAWN BY
DATE
TRACED BY
DATE
CHECKED BY
DATE
SCALE
CONTRACT NUMBER 1253
SHEET NUMBER 11

THIS PLAN SHOWS FOUNDATION IN ACCORDANCE WITH A.R.E.A. SPECIFICATIONS DEPTH OF PIT MAY BE MADE ACCORDING TO DOTTED LINES IF DEMANDED BY LOCAL CONDITIONS.

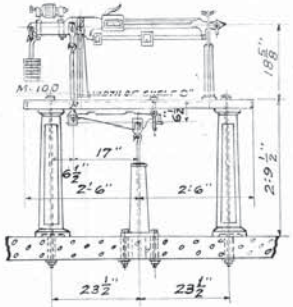




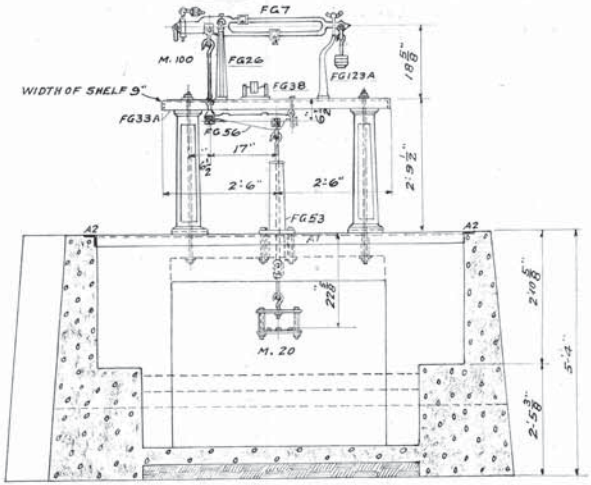
LONGITUDINAL SECTION



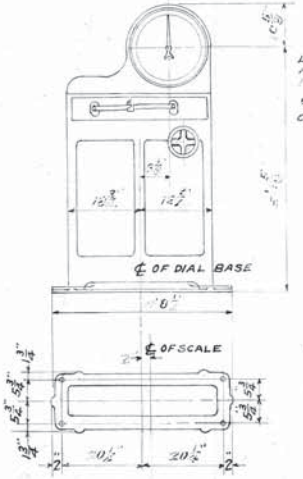
TYPE REGISTERING BEAM



FULL CAPACITY BEAM



SECTION AT B-B



LOCATION OF ANCHOR BOLTS APPLY ONLY TO [illegible] DIAL

SERIAL NO. [illegible]

CAPACITY [illegible] 13,000 LBS.

FOR FULL CAPACITY DIAL SET 4 - 1 1/4" SHEET METAL TUBES FOR ANCHOR BOLTS.

11691

E. AND T. FAIRBANKS AND COMPANY
ST. JOHNSBURY, VT. U.S.A.

BUILT-IN SCALE

TYPE-T.

LEVERS 8'-9 1/2" x 2'-11 1/4"

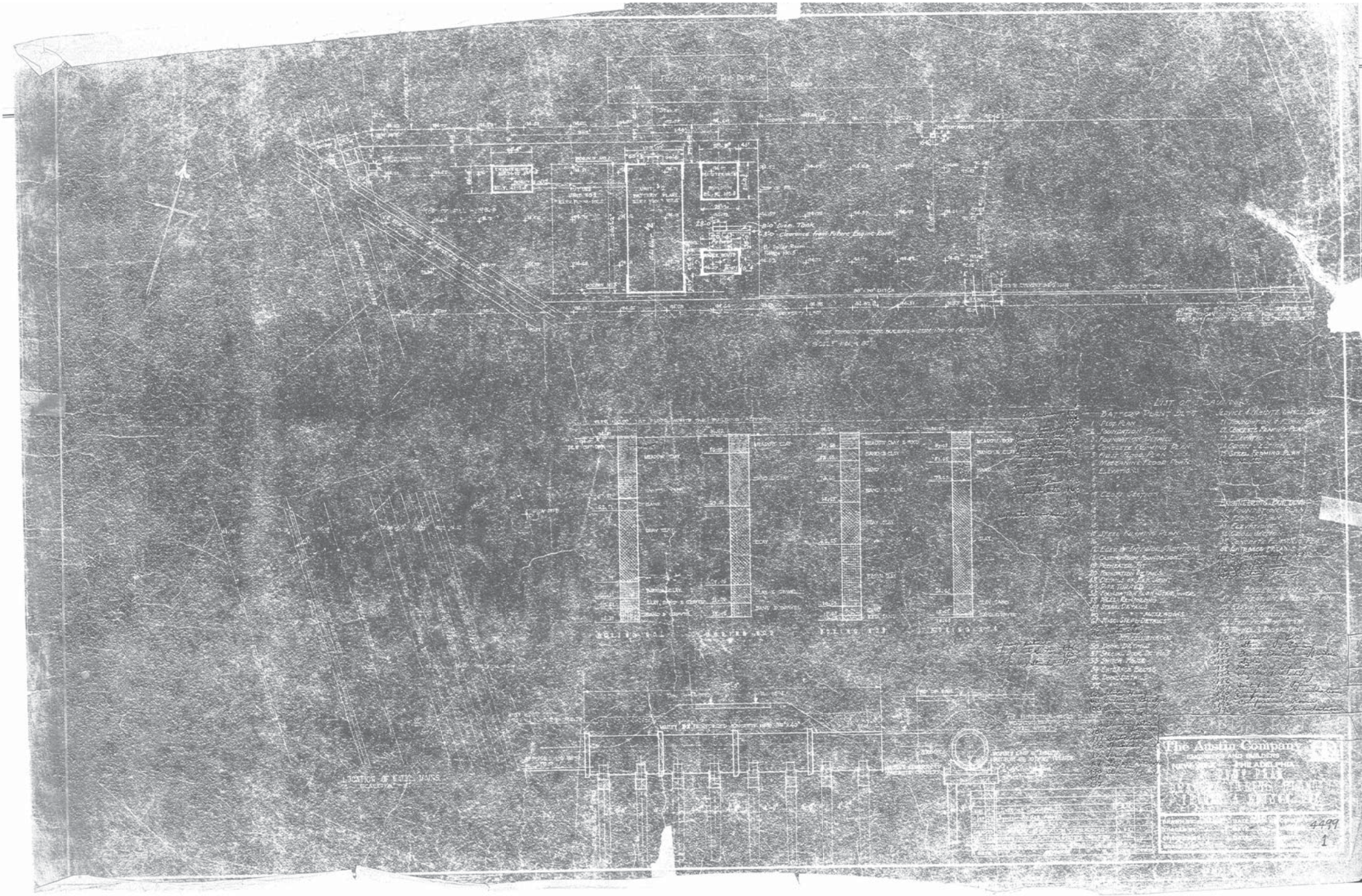
PLATFORM - 8'-0" x 6'-0"

R3921 A

DO NOT SCALE THIS PLAN FOR DIMENSIONS NOT SHOWN

SCALE 3/4 IN. PER FT. | SHEET 1 OF 2

DRAWN BY A.D. | TRACED BY G.E.T. | CHECKED BY [illegible] | APPROVED BY


LIST OF DRAWINGS
BATTERY PLANT
1 PLOT PLAN
2 FOUNDATION PLAN
3 FOUNDATION DETAILS
4 CONCRETE FLOORING PLAN
5 FIRST FLOOR PLAN
6 MACHINE FLOOR PLAN
7 ELEVATION
8 CROSS SECTION
9 STEEL FRAMING PLAN
10 ELEV. & INTERIOR PARTITIONS
11 CONNECTION DETAILS
12 FOUNDATION
13 FOUNDATION
14 CONCRETE
15 CONCRETE
16 FOUNDATION & FOUNDATION DETAILS
17 FIRST FLOOR PLAN
18 STEEL FRAMING
19 STEEL DETAILS
20 FIRST FLOOR PLAN
21 SECOND FLOOR PLAN
22 ELEVATION
23 CROSS SECTION
24 ELEVATION
25 CROSS SECTION
26 ELEVATION
27 CROSS SECTION
28 ELEVATION
29 CROSS SECTION
30 ELEVATION
31 CROSS SECTION
32 ELEVATION
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The Austin Company
ENGINEERS AND BUILDERS
NEW YORK PHILADELPHIA
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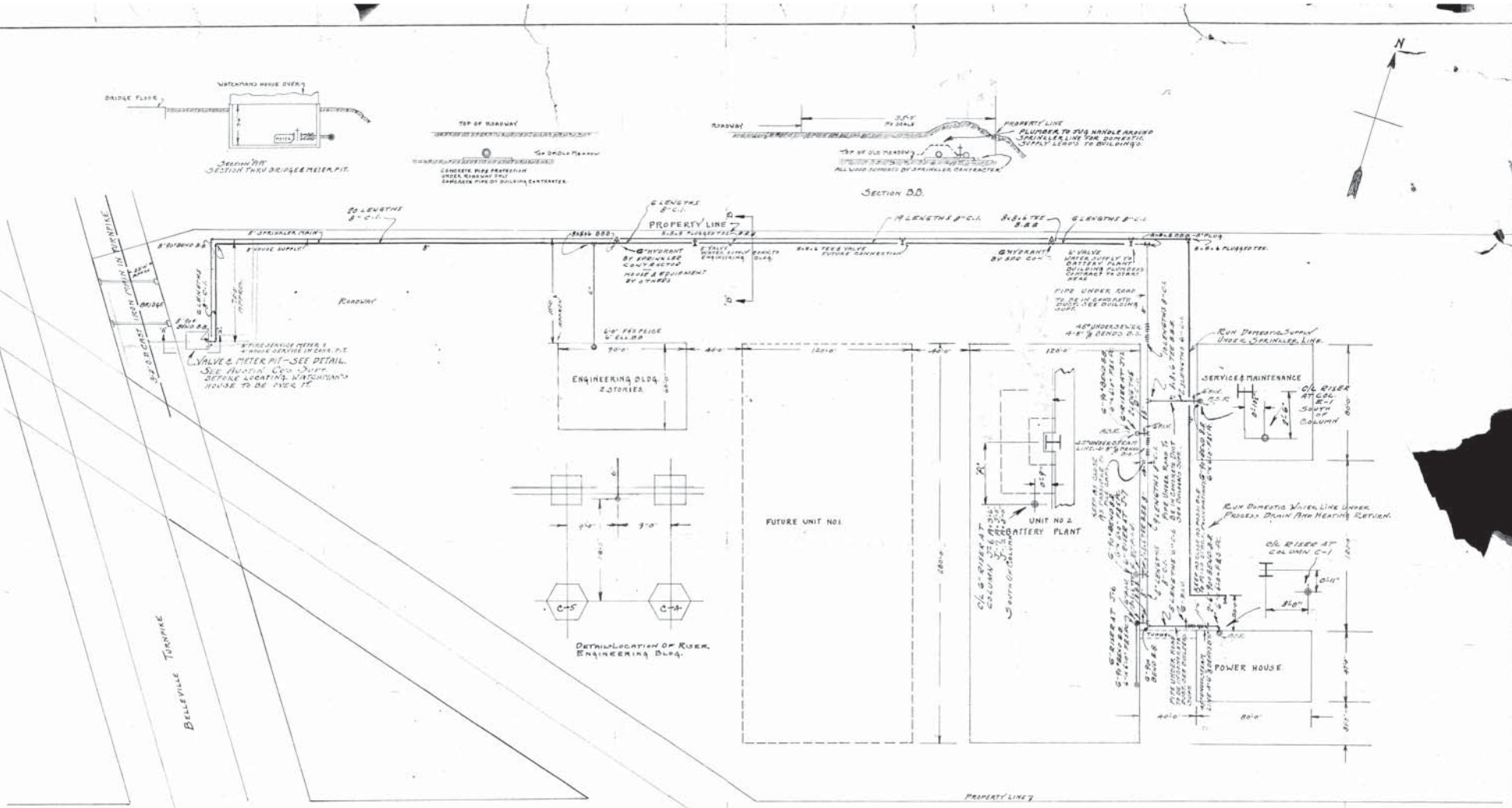
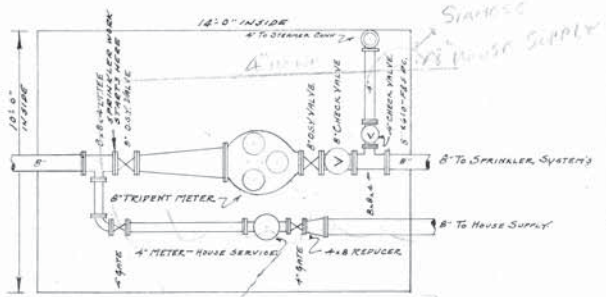




DETAIL OF VALVE & METER PIT.
SCALE 3/8"=1'-0"

BUILDING	No. OF SPRINKLER'S		TOTAL	SIZE OF ALARM VALVE
ENGINEERING	1ST FLOOR	67		
	ROOF	62	129	6"
SERVICE & MAINTENANCE	ROOF		105	6"
BOILER HOUSE	ROOF		49	4"
BATTERY				
RISER J-6	1ST FLOOR	125		
	ROOF	101	226	6"
RISER J-7	1ST FLOOR	155		
	ROOF	60	215	6"
RISER J-12	1ST FLOOR	160		
	ROOF	54	214	6"
			938	

REVISED 9/10/29 W.T.C.
REVISED 9/4/29 W.T.C.
REVISED 9/3/29 R.R.K.
HYDRANTS WITHOUT INDEPENDENT GATES

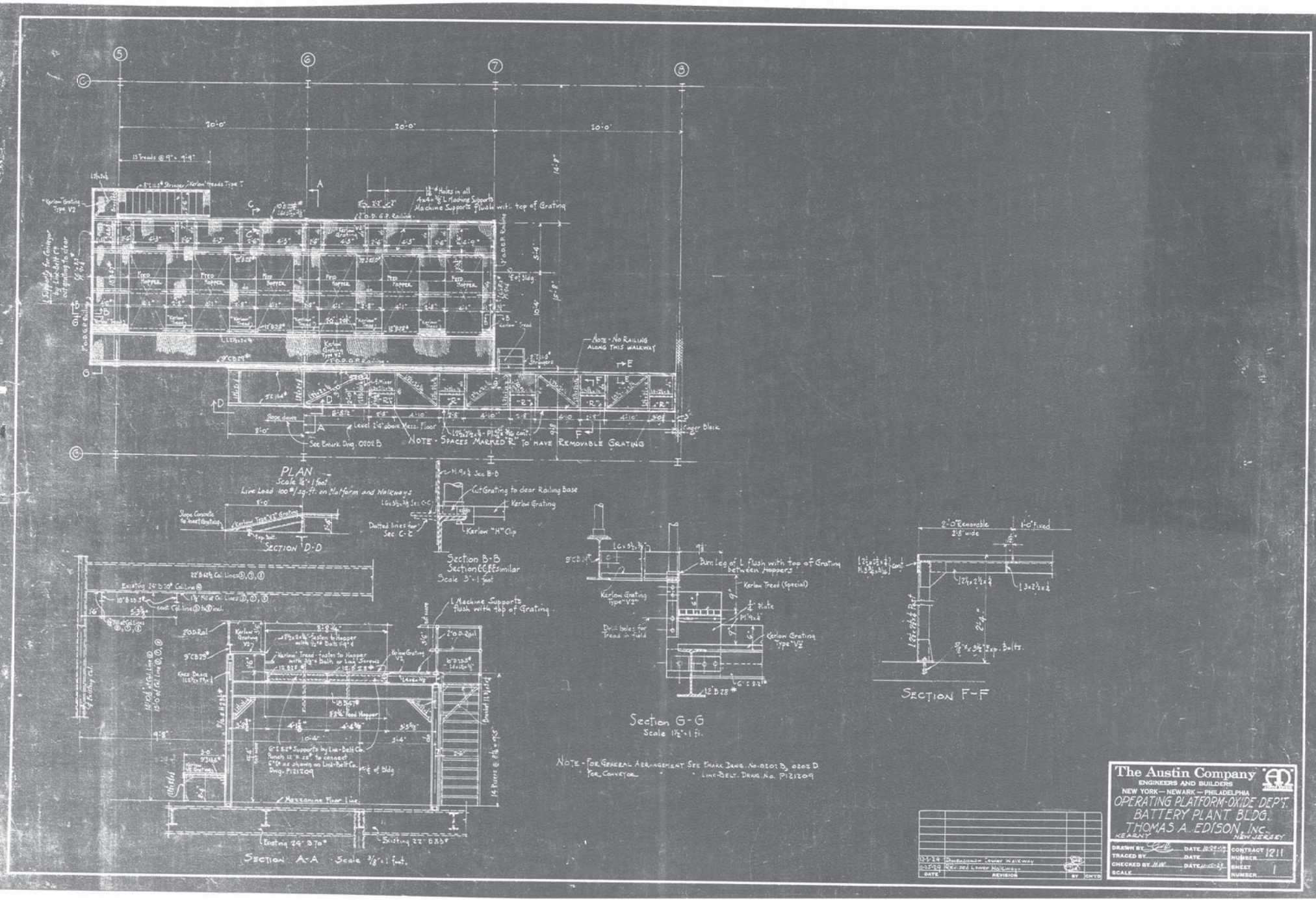
FOREMAN PLACE SPRINKLER PIPING AT HIGHER LEVEL THAN DOMESTIC SUPPLY LINE TO AVOID EXTRA BENDS.

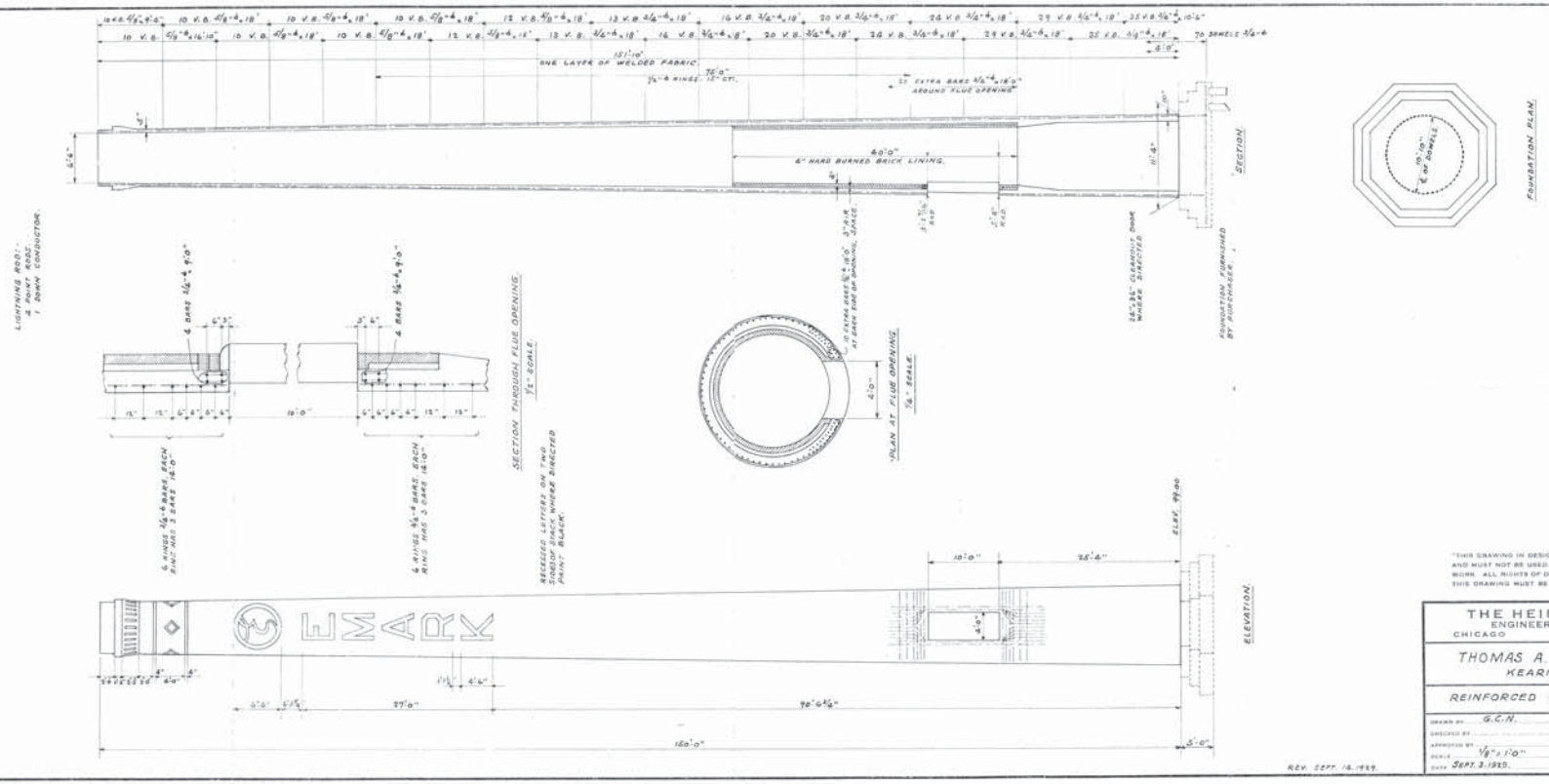
FOREMAN VERIFY COLUMN LETTERS & NUMBERS WITH CONTRACTOR'S REPRESENTATIVE ON JOB.

GLOBE AUTOMATIC SPRINKLER CO.
2035 WASHINGTON AVE PHILA. PA.

THOMAS. A. EDISON. INC.
BELLEVILLE TURNPIKE.
KEARNY. NEW JERSEY.

SURVEYED	BY ERK & PLANS	CONTRACT No. 6745
DRAWN 8-28-27	BY W.T.C. & ERK.	
APPROVED	BY	
INS. BUR.	BY	
SHEET No. 1 OF		NO. OF SPRINKLER
SCALE 1/8"-3/8"-1/32"=1'-0		THIS SHEET
		TOTAL


PLAN
Scale 1/4" = 1 foot
Live Load 100#/sq.ft. on Platform and Walkways
NOTE - SPACES MARKED "R" TO HAVE REMOVABLE GRATING
NOTE - NO RAILING ALONG THIS WALKWAY
SECTION D-D
Section B-B
Section C-C & E similar
Scale 3" = 1 foot
Section G-G
Scale 1 1/2" = 1 ft.
SECTION F-F
SECTION A-A
Scale 3/8" = 1 foot.
NOTE - FOR GENERAL ARRANGEMENT SEE EMARK DWG. No. 0202 B, 0202 D
FOR CONVEYOR " " LINK-BELT. DWG. No. P121209
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA
OPERATING PLATFORM-OXIDE DEP'T.
BATTERY PLANT BLDG.
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY
DRAWN BY
TRACED BY
CHECKED BY
SCALE
CONTRACT NUMBER 1211
SHEET NUMBER 1
DATE
REVISION
BY
CH'T'D



"THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY, AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK. ALL RIGHTS OF DESIGN AND DETAIL ARE RESERVED. THIS DRAWING MUST BE RETURNED IF REQUESTED BY US."

THE HEINE COMPANY
ENGINEERS AND BUILDERS
CHICAGO NEW YORK

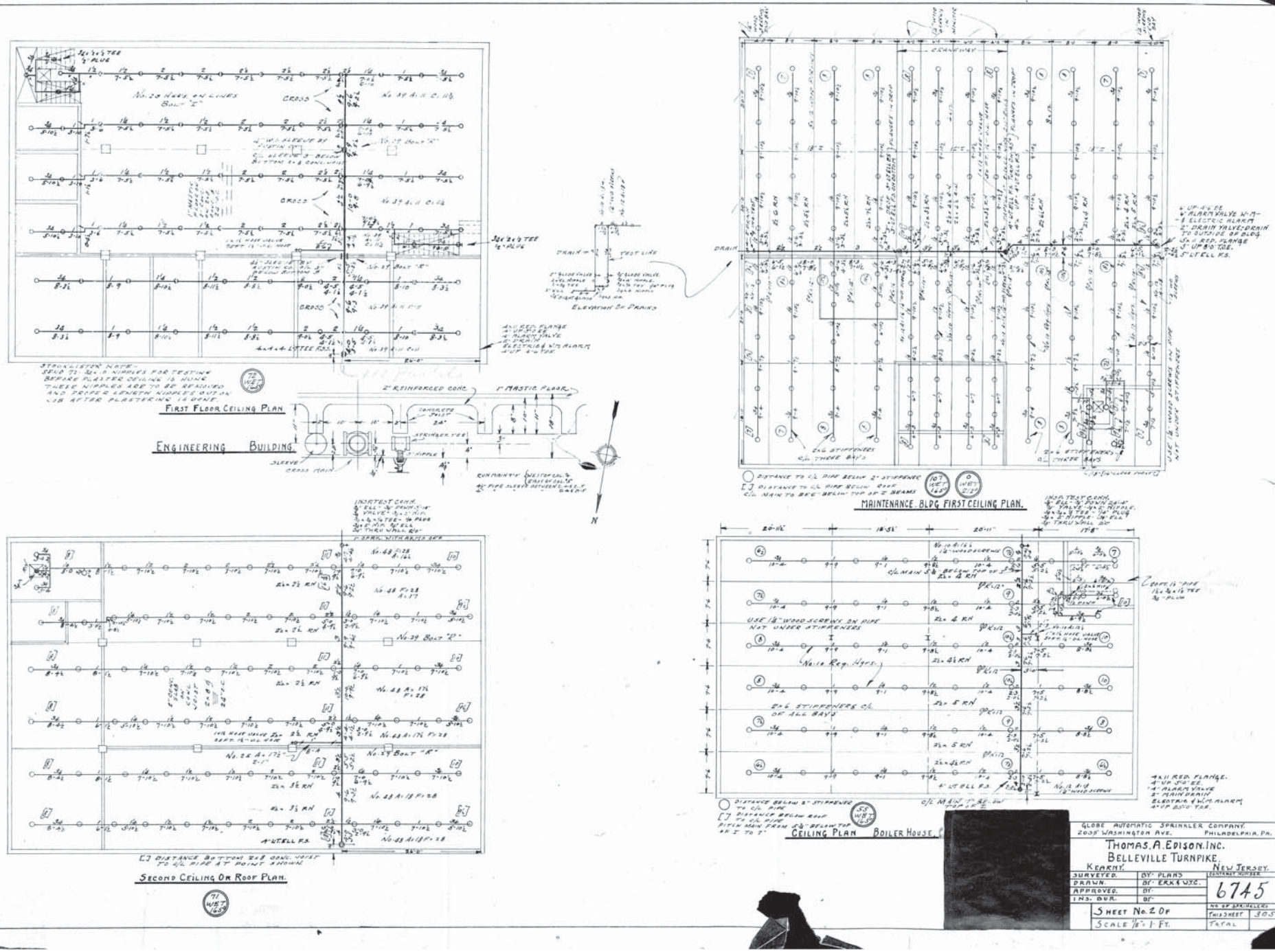
THOMAS A. EDISON CO.
KEARNEY N. J.

REINFORCED CONCRETE CHIMNEY.

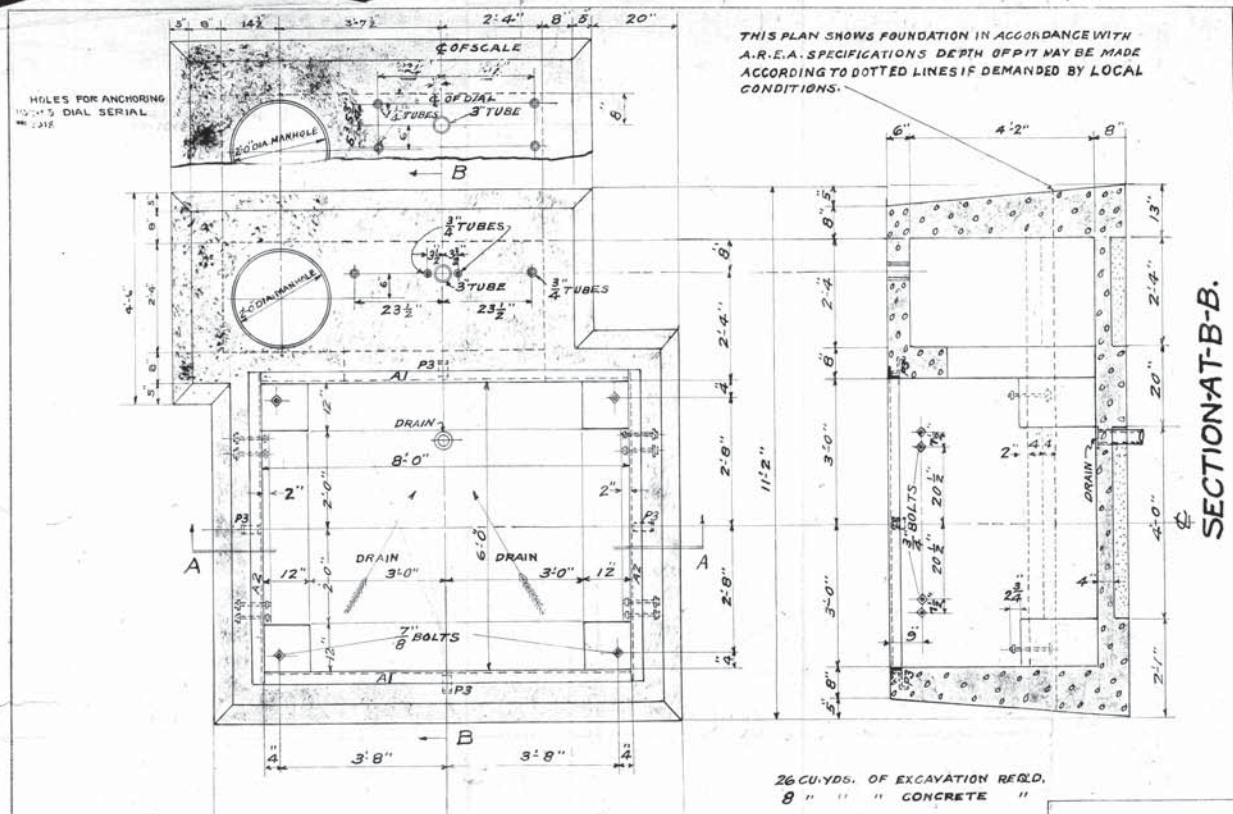
DRAWN BY G.C.N.
CHECKED BY
APPROVED BY
SCALE 1/8" = 1'-0"
DATE SEPT. 2. 1925.

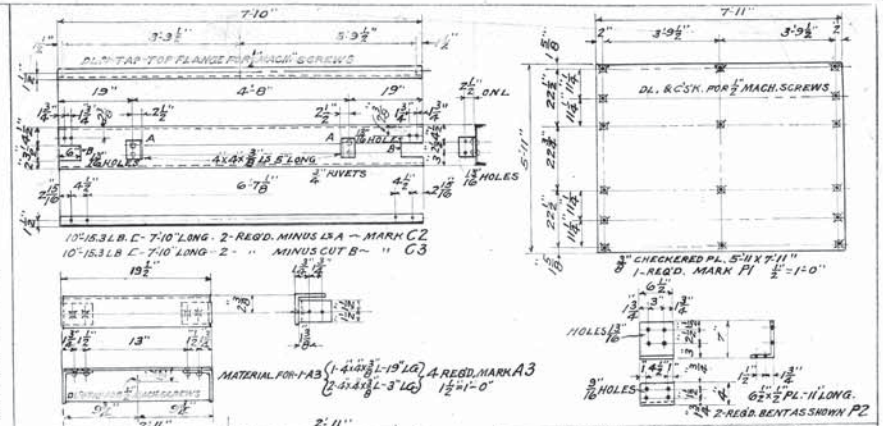
1742

REV. SEPT. 16. 1929.



FIRST FLOOR CEILING PLAN
ENGINEERING BUILDING
ELEVATION OF DRAINS
MAINTENANCE BLDG FIRST CEILING PLAN.
CEILING PLAN BOILER HOUSE.
SECOND CEILING OR ROOF PLAN.
GLOBE AUTOMATIC SPRINKLER COMPANY.
2035 WASHINGTON AVE. PHILADELPHIA, PA.
THOMAS. A. EDISON. INC.
BELLEVILLE TURNPIKE.
KEARNY. NEW JERSEY.
SURVEYED. BY PLANS
DRAWN. BY ERK & W.T.C.
APPROVED. BY
INS. BUR. BY
CONTRACT NUMBER
6745
SHEET No. 2 OF
SCALE 1/8" = 1 FT.
NO OF SPRINKLERS
THIS SHEET 305
TOTAL





~BILL OF STEEL~

REQ'D.	DESCRIPTION	MARK	WEIGHT
4	CROSS FRAME CHANNELS	C1	156
2	PLATFORM "	C2	240
2	" "	C3	256
1	" PLATE	P1	763
2	CHECK "	P2	21
4	PLATFORM SUPPORTS	A3	84
		TOTAL	1520

BOLTS ETC.

REQ'D.	DESCRIPTION	MARK	WEIGHT
16	C'S'K. HD. MACH. SCREWS PL TO C2-C3 & A3	1/2"x1"	2
16	SQ. HD BOLTS C2 & C3 TO C1	1/2"x2 1/2"	5
40	BEVEL WASHERS FOR 1/2" BOLTS		3
24	LOCK " " 1/2" "		1
16	" " " 3/4" "		1
8	SQ. HD. BOLTS " P2 TO C1	1/2"x2"	2
16	" " " " A3 TO C2 & C3	3/4"x1 3/4"	10
		TOTAL	24
8	CUT WASHERS 3/4" BOLTS DIAL INSTALLATION		

FOUNDATION STEEL
BILL OF STEEL

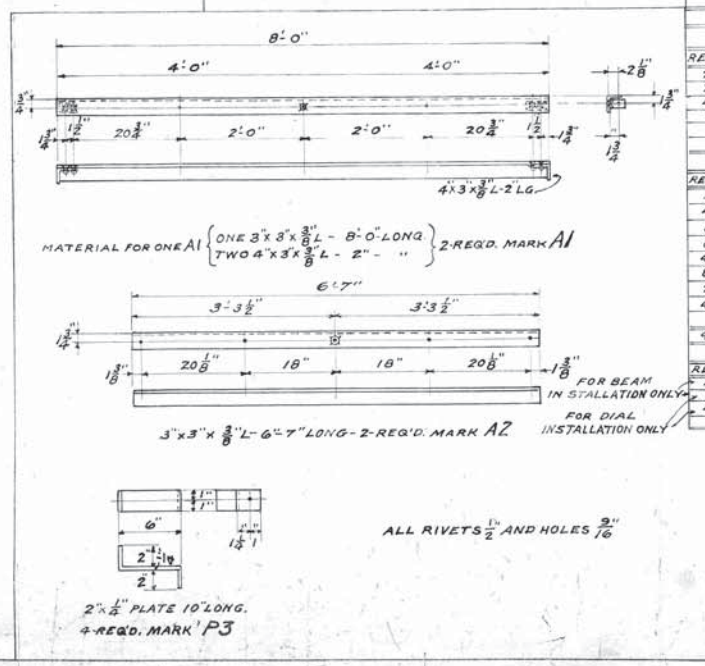
REQ'D	DESCRIPTION	MARK	WEIGHT
2	COPING ANGLES	A1	124
2	" "	A2	95
4	ANCHORS PER DETAIL	P3	6
1	MANHOLE RING AND COVER		
		TOTAL	225

BOLTS ETC

REQ'D	DESCRIPTION	SIZE	WEIGHT
4	SQ. H.D. BOLTS - STANDS	7/8"x12"	11
4	PLATE WASHERS FOR 7/8" BOLTS	3"x3"x1/4"	3
8	SQ. H'D.-BOLTS - " STAY IRONS	3/4"x9"	12
8	PLATE WASHERS " 3/4" BOLTS	3"x3"x1/4"	5
4	SQ. H'D. BOLTS " A1 & A2	1/2"x1 1/2"	1
8	" " " " A1 & A2 TO FORM	1/2"x3"	3
2	" " " " FLOOR TUBE	1/2"x7"	1
4	" " " " P3 TO A1 & A2	1/2"x1 1/2"	1
		TOTAL	37
4	SQ. HD BOLTS. DIAL INSTALLATION	3/4"x8"	

SHEET METAL TUBES

REQ'D	DESCRIPTION
4	3/4" TUBES - 6" LONG
1	3" TUBE 6" "
4	1 1/4" TUBES 6" "



E. AND T. FAIRBANKS AND COMPANY
ST. JOHNSBURY, VT., U.S.A.

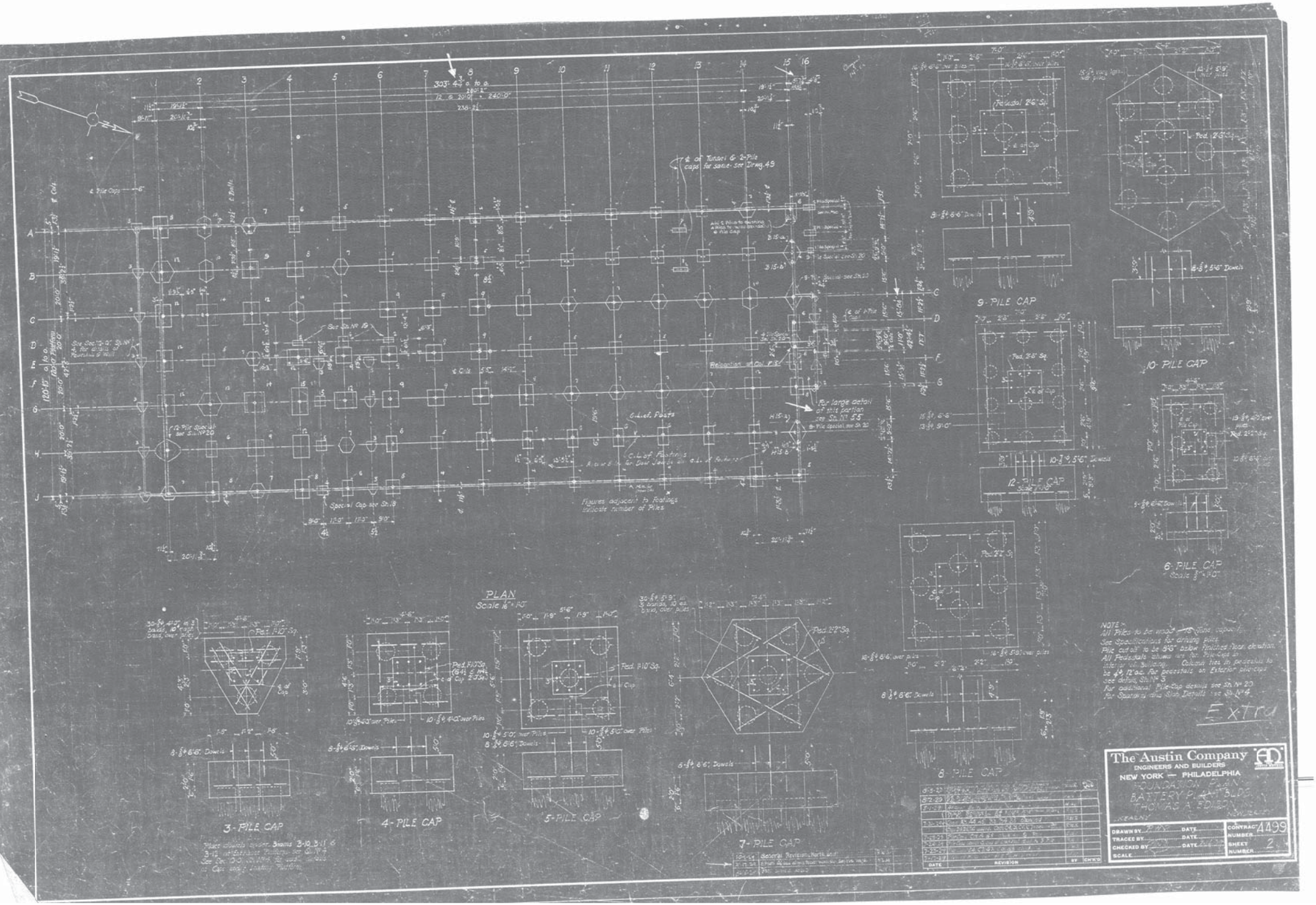
~BUILT IN SCALE~

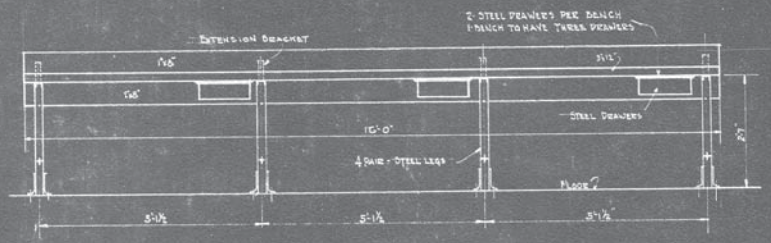
TYPE-T-
LEVERS - 8'-9 1/2" AND 2'-11 1/4"
PLATFORM 8'-0" x 6'-0"

R3921 A

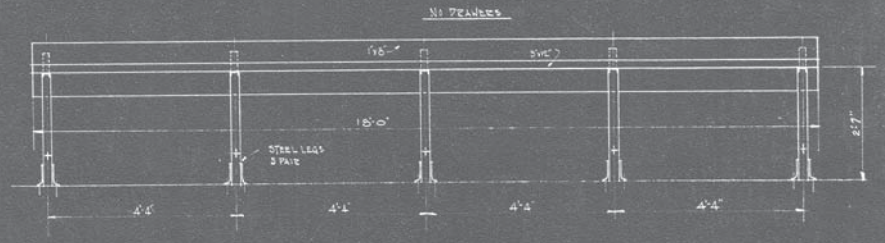
DO NOT SCALE THIS PLAN FOR DIMENSIONS NOT SHOWN

SCALE 3/4" IN. PER FT.	SHEET 2 OF 2	
DRAWN BY A.W.W.	TRACED BY G.E.T.	CHECKED BY SNW APPROVED BY

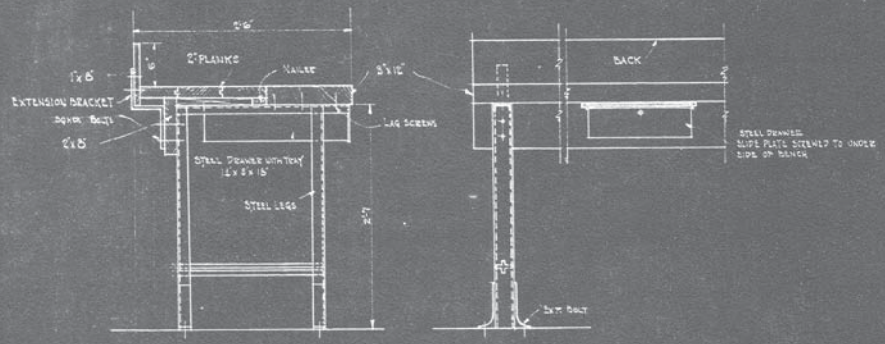

PLAN
Scale 1/16" = 1'-0"
3-PILE CAP
4-PILE CAP
5-PILE CAP
7-PILE CAP
8-PILE CAP
9-PILE CAP
10-PILE CAP
12-PILE CAP
6-PILE CAP
Figures adjacent to Footings indicate number of Piles
NOTE:-
All Piles to be wood - 16 Tons capacity.
See Specifications for driving piles.
Pile cut off to be 8'-6" below finished floor elevation.
All Pedestals shown are for Pile-Caps in interior of Building. Column ties in pedestals to be 4 1/2" o.c. For pedestals on Exterior pile-caps see detail, Sh. No. 3
For additional Pile-Cap details see Sh. No. 20
For Spandrel and Slab Details see Sh. No. 4
Extra
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
FOUNDATION PLAN
BATTERY PLANT BLDG.
THOMAS A. EDISON
DRAWN BY
TRACED BY
CHECKED BY
SCALE
DATE
CONTRACT NUMBER 4499
SHEET NUMBER 2



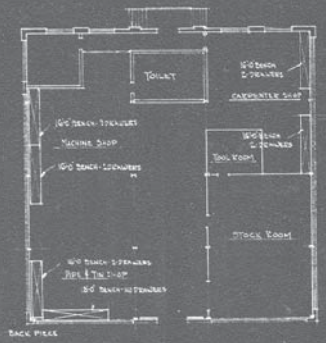
ELEVATION OF WORK BENCH
5 - REQUIRED



ELEVATION OF WORK BENCH
1 - REQUIRED



SECTION THRU BENCH
1½" = 1 FOOT



FLOOR PLAN
SERVICE AND MAINTENANCE BLDG

MATERIAL LIST

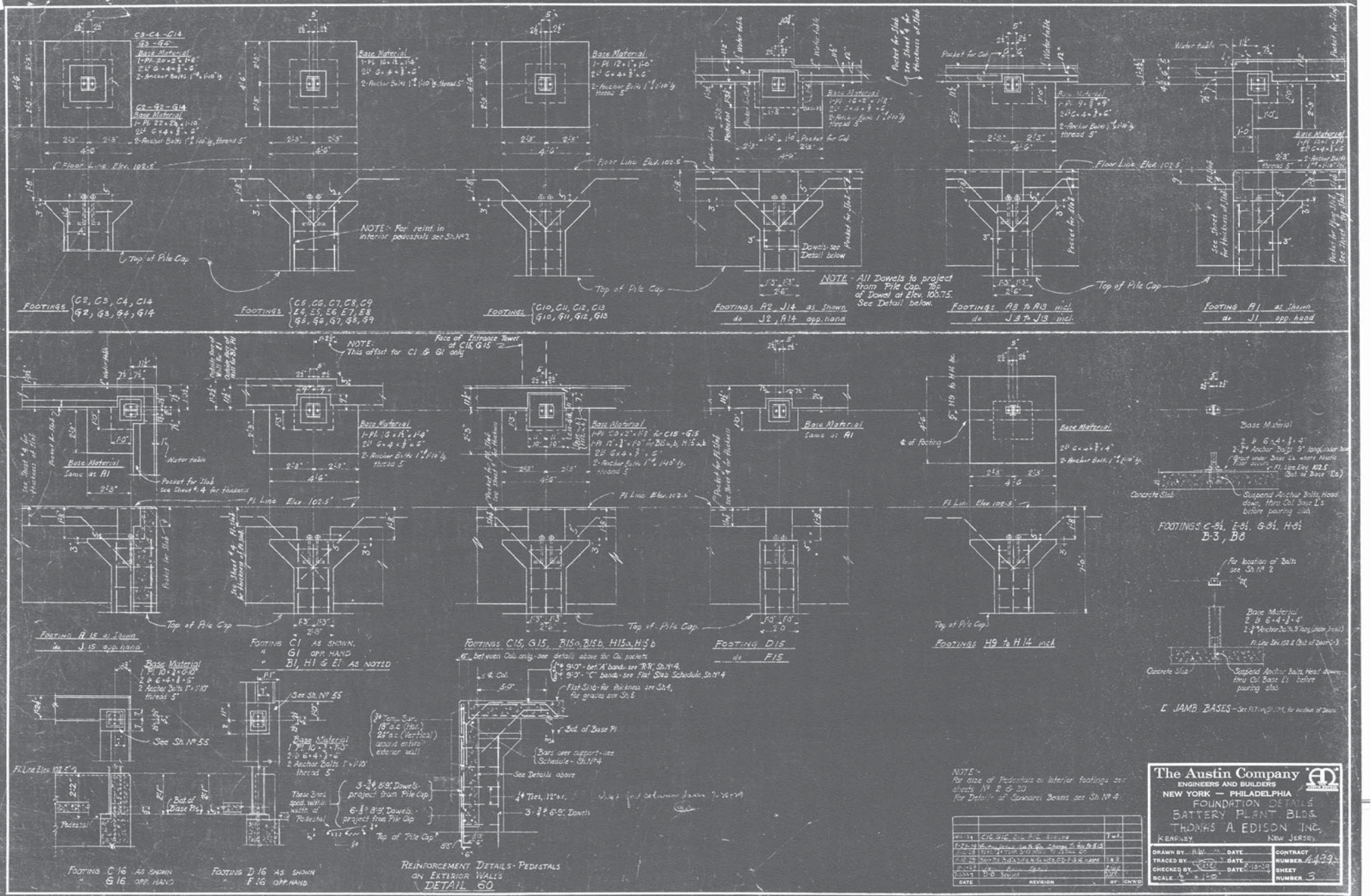
QUANTITY	DESCRIPTION	REMARKS
75 PR	STEEL LEGS	DWD LUFKIN SONS CO. N8820
75	EXTENSION BRACKETS	" N8520
11	BENCH DRAWERS	" N8512
11	TRAYS	" N8519
3-PCS	2"x12"x 16'-0" NO 1 LLYP	S4S
1 "	2"x12"x 18'-0" "	S4S
5 "	2"x8" x 16'-0" LLYP.	REAR BRACE
1 "	2"x8" x 18'-0" "	"
10 "	2"x6" x 16'-0" "	T&G
2 "	2"x6" x 18'-0" "	T&G
5	1"x8" x 16'-0" "	BACK S4S
1	1"x8" x 18'-0" "	BACK S4S
100	EXPANSION BOLTS	FOR FLOOR FLANGE
75	LAG SCREWS	1½" LONG
50	SQ'D MACKBOLTS	3" LONG
	SCREWS	FOR BRACKET & DRAWERS
1-PC	1"x8" x 2'-6" LLYP	BACK S4S
5	2"x8" x 16'-0" "	T&G
1	2"x8" x 18'-0" "	T&G

DATE	REVISION	BY	CH'KD

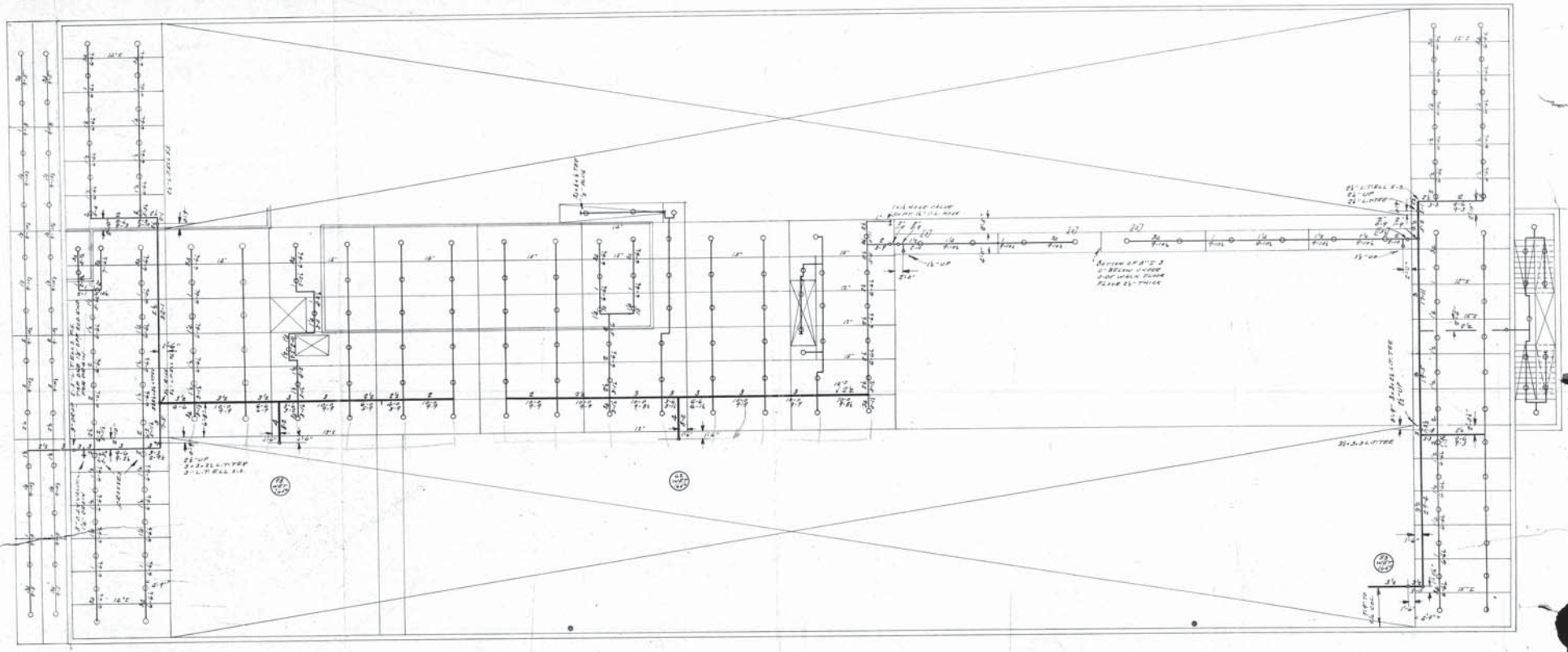
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA

WORK BENCH DETAIL
SERVICE & MAINTENANCE BLDG
THOMAS A. EDISON INC.
KEARNEY NEW JERSEY

DRAWN BY	STD	DATE 12-22-20	CONTRACT NUMBER 1211
TRACED BY		DATE	
CHECKED BY		DATE	SHEET NUMBER 2
SCALE 3/8" = 3/4" = 1 1/2" = 1 FT. 0"			



FOOTINGS C2, C3, C4, C14 G2, G3, G4, G14
FOOTINGS C5, C6, C7, C8, C9 E4, E5, E6, E7, E8 G5, G6, G7, G8, G9
FOOTINGS C10, C11, C12, C13 G10, G11, G12, G13
FOOTINGS A2, J14 as shown do J2, A14 opp. hand
FOOTINGS A3 to A13 incl. do J3 to J13 incl.
FOOTING A1 as shown do J1 opp. hand
NOTE - All Dowels to project from Pile Cap. Top of Dowel at Elev. 100.75. See Detail below.
NOTE - For reint. in interior pedestals see Sh. No 2
NOTE: This offset for C1 & G1 only
FOOTING A15 as shown do J15 opp. hand
FOOTING C1 AS SHOWN. " G1 OPP. HAND " B1, H1 & E1 AS NOTED
FOOTINGS C15, G15, B15a, B15b, H15a, H15b
FOOTING D15 do F15
FOOTINGS H9 to H14 incl.
FOOTINGS C-8½, E-8½, G-8½, H-8½ B-3, B8
℄ JAMB BASES
FOOTING C16 AS SHOWN G16 OPP. HAND
FOOTING D16 AS SHOWN F16 OPP. HAND
REINFORCEMENT DETAILS - PEDESTALS ON EXTERIOR WALLS
DETAIL 60
NOTE - For size of Pedestals on interior footings see sheets No 2 & 20
For Details of Spandrel Beams see Sh. No 4
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
FOUNDATION DETAILS
BATTERY PLANT BLDG.
THOMAS A. EDISON INC.
KEARNEY NEW JERSEY
DRAWN BY
TRACED BY
CHECKED BY
SCALE
CONTRACT NUMBER 4499
SHEET NUMBER 3

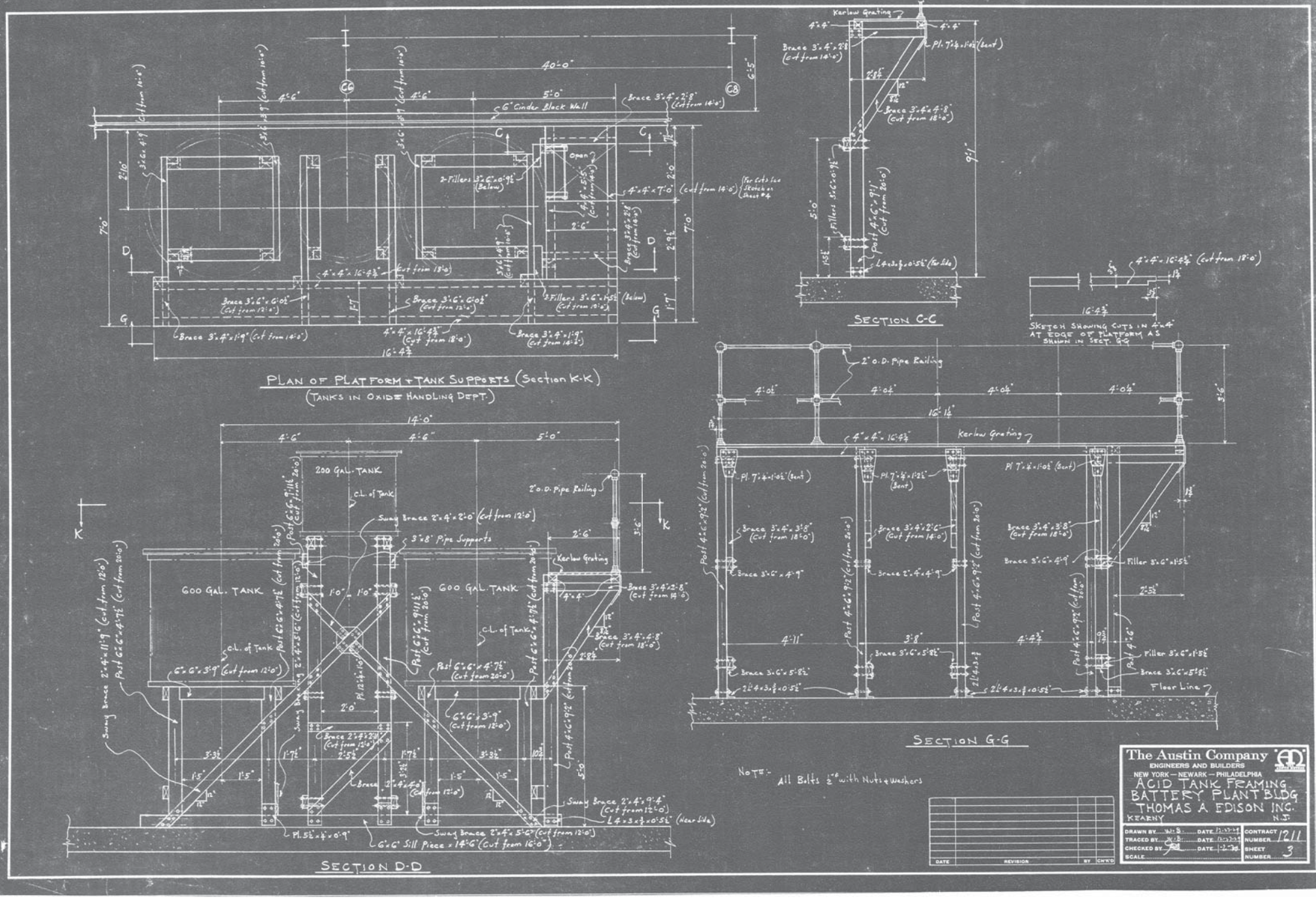


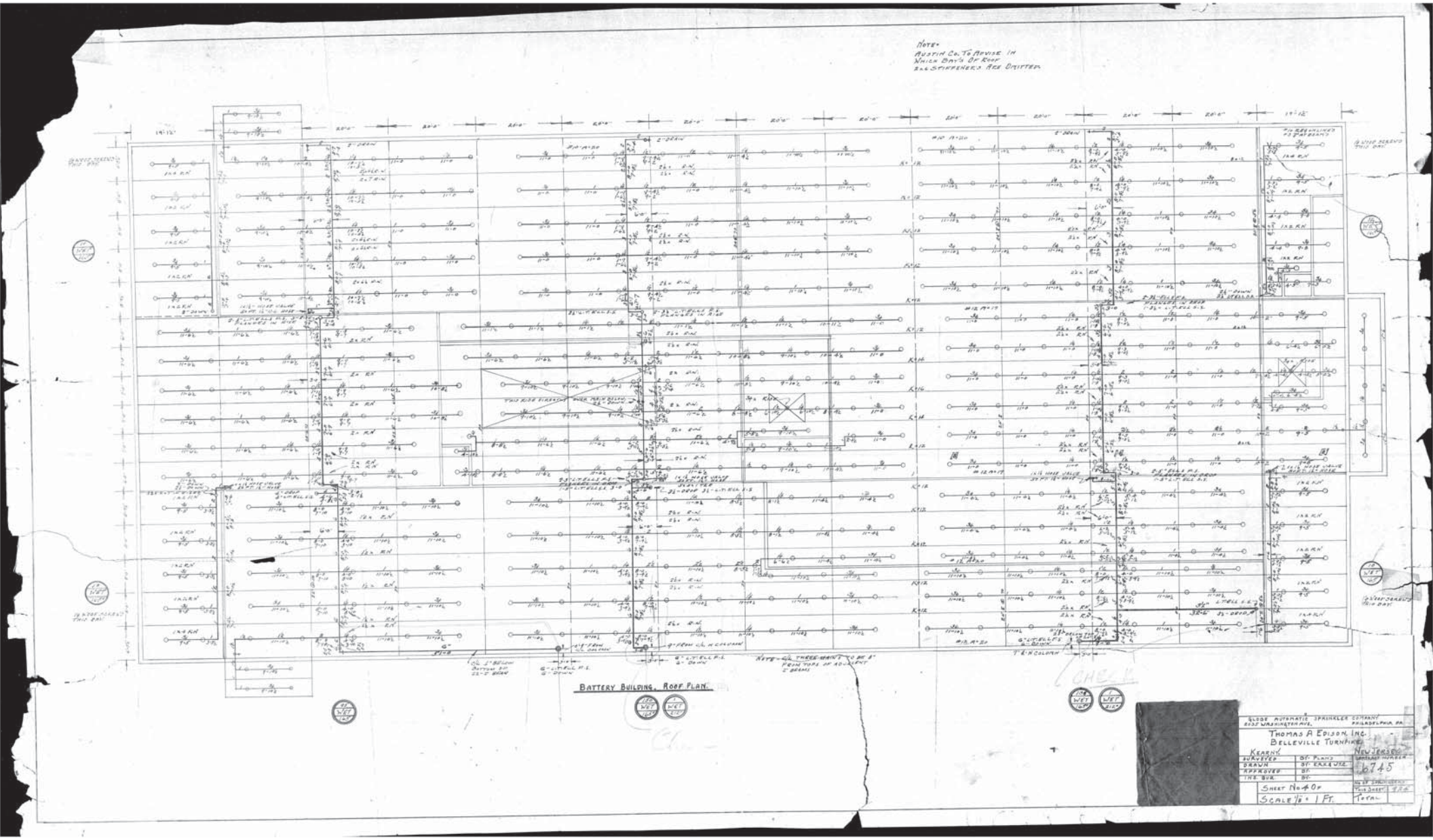
GLOBE AUTOMATIC SPRINKLER COMPANY
2035 WASHINGTON AVE. PHILADELPHIA

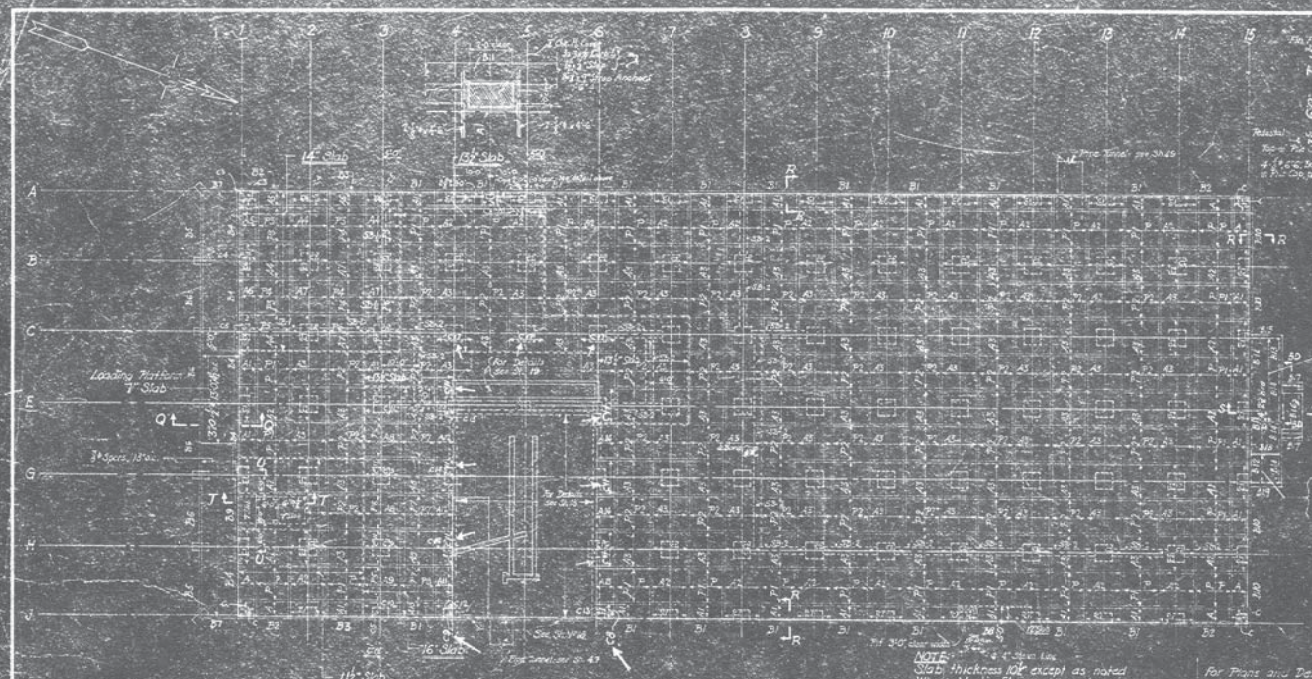
THOMAS. A. EDISON. INC.
BELLEVILLE TURNPIKE.
KEARNY, NEW J

SURVEYED.	BY-PLAN'S
DRAWN.	BY-ERK & W.T.C.
APPROVED	BY-
INS. BUR.	BY-

SHEET No. 3 OF
SCALE 1/8" = 1-FT.


PLAN OF PLATFORM + TANK SUPPORTS (Section K-K)
(TANKS IN OXIDE HANDLING DEPT.)
SECTION C-C
SKETCH SHOWING CUTS IN 4"x4" AT EDGE OF PLATFORM AS SHOWN IN SECT. G-G
SECTION G-G
SECTION D-D
200 GAL. TANK
600 GAL. TANK
600 GAL. TANK
6" Cinder Block Wall
Kerlow Grating
2" O.D. Pipe Railing
3"x8" Pipe Supports
Floor Line
NOTE:- All Bolts ½" with Nuts & Washers
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA
ACID TANK FRAMING
BATTERY PLANT BLDG.
THOMAS A EDISON INC.
KEARNY N.J.
DRAWN BY
TRACED BY
CHECKED BY
SCALE
DATE
REVISION
BY
CH'K'D
CONTRACT NUMBER 1211
SHEET NUMBER 3

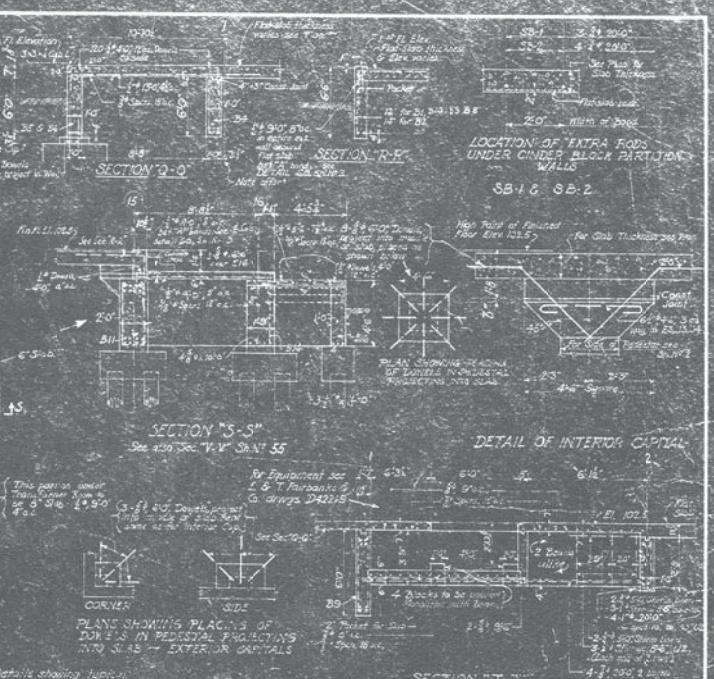

NOTE:
AUSTIN CO. TO ADVISE IN
WHICH BAY'S OF ROOF
2x6 STIFFENERS ARE OMITTED.
BATTERY BUILDING, ROOF PLAN.
GLOBE AUTOMATIC SPRINKLER COMPANY
2035 WASHINGTON AVE. PHILADELPHIA PA.
THOMAS A EDISON, INC.
BELLEVILLE TURNPIKE
KEARNY, NEW JERSEY
SURVEYED BY: PLANS
DRAWN BY: KRK & WRC
APPROVED BY:
INS. BUR. BY:
SHEET No 4 OF
SCALE 1/8" = 1 FT.
CONTRACT NUMBER
6745
No OF SPRINKLERS
THIS SHEET
TOTAL



PLAN - FIRST FLOOR
Scale 1" = 1'-0"

NOTE:
Slab thickness 10" except as noted.
Where Mastic Floor occurs, top of slab to be 1¼" below finished floor, otherwise top of slab to be at finished grade. For location of Mastic Floor & finished grades see Sh. N° 5.

For Plans and Details showing typical placing of bars in Bands "A", "C", "G" "P" also Concrete Support Block, see Sh. N° 31.



NOTE:
Exposed surface of partition walls to be reinforced with ⅜" ø 18" o.c. horizontal, 24" vertical.
For Foundation Plan and Details of Caps & Pedestals see Sheets No. 2, 3 & 20.

Extra

FLAT SLAB STEEL SCHEDULE

Mark	Width of Band	No. Steel in Band	Bottom Steel ⅜ Bar No.	Bottom Steel ⅜ Bar Length	Bottom Steel ⅜ Bar No.	Bottom Steel ⅜ Bar Length	Top Steel ⅜ Bar No.	Top Steel ⅜ Bar Length	Mark	Slab Steel Over Col. Mark	No.	Length	Remarks
A	4'-0"	4	12'-0"	4	28'-0"	2	24'-0"	2	4'-0"	C	11	9'-0"	Bent see Detail Sh. 3 #
A1	4'-0"	3	12'-6"	4	31'-0"	2	30'-0"	2	4'-0"	C1	22	9'-0"	—
A2	10'-0"	5	16'-0"	11	26'-0"	2	24'-0"	2	10'-0"	C2	13	10'-0"	—
A3	10'-0"	4	12'-6"	9	31'-0"	2	30'-0"	2	10'-0"	C3	15	9'-0"	—
A4	10'-0"	7	16'-0"	14	26'-0"	2	24'-0"	2	10'-0"	C4	1	10'-0"	—
A5	4'-0"	4	16'-0"	7	26'-0"	2	24'-0"	2	4'-0"	C5	4	10'-0"	—
A6	4'-0"	4	12'-6"	7	31'-0"	2	30'-0"	2	4'-0"	C6	30	9'-0"	—
A7	10'-0"	7	16'-0"	14	26'-0"	2	24'-0"	2	10'-0"	C7	5	10'-0"	—
A8	10'-0"	3	12'-6"	14	31'-0"	2	30'-0"	2	10'-0"	C8	10	10'-0"	—
A9	10'-0"	5	16'-0"	11	26'-0"	2	24'-0"	2	10'-0"	C9	6	10'-0"	—
A10	4'-0"	4	12'-6"	7	31'-0"	2	30'-0"	2	4'-0"	C10	31	9'-3½"	—
A11	4'-0"	4	16'-0"	7	26'-0"	2	24'-0"	2	4'-0"	C11	17	10'-0"	—
A12	5'-0"	4	12'-6"	7	31'-0"	2	30'-0"	2	4'-0"	C12	16	9'-0"	—
A13	5'-0"	5	16'-0"	9	24'-0"	2	24'-0"	2	4'-0"	C13	11	9'-0"	—
A14	5'-0"	2	12'-6"	5	31'-0"	2	30'-0"	2	4'-0"	C14	3	18'-9"	—
										C15	8	10'-0"	—
										C16	2	10'-0"	—
										C17	16	16'-9"	—
			※ 16'-0"		※ 16'-0"								
B	10'-0"	6	16'-0"	8	26'-0"								—
B1	10'-0"	6	16'-0"	8	31'-0"								—
B2	10'-0"	5	12'-6"	7	31'-0"								—
B3	10'-0"	5	16'-0"	9	26'-0"								—
B4	10'-0"	8	12'-6"	8	31'-0"								—
B5	10'-0"					2	10'-0"						Bars in Sec. Q-Q, R-R
B6	4'-0"					3	24'-0"						
B7	10'-0"	8	12'-6"	9	31'-6"								
B8	10'-0"	8	16'-0"	9	26'-6"								

Bent bars in "C", C1, C3, C6, C13, C12, C13 to be placed as "Bands" in Pedestals - see DETAIL, Sh. 3, Sh. N° 3.

※ 16'-0" Off Steel in bottom of "A" & "B" Bands in exterior bays to extend to edge of slab.

BEAM SCHEDULE

Beam Mark	Size	Straight Steel in Bottom N°	Size	Length	Straight Steel in Top N°	Mark	Size	Length	Stirrups N°	Mark	Size	Length	Spacing	Remarks
B1	12"x18"	2	⅝"	20'-0"	2		⅝"	10'-0"						See "R-R"
B2	14"x20"	3	⅞"	20'-0"	3		⅞"	10'-0"						
B3	14"x20"	3	⅞"	20'-0"	3		⅞"	10'-0"						
B4	12"x18"	4	⅝"	20'-0"	4		⅝"	10'-0"	4	U1	⅜"	15'-0"	15"	12" Overall "Q-Q"
B5	12"x18"	3	⅝"	20'-0"	3		⅝"	10'-0"						See also Sec. "Q-Q" & "S-S"
B6	12"x18"	3	⅝"	20'-0"	3		⅝"	10'-0"						
B7	12"x18"	2	⅝"	10'-0"										See also Sec. "Q-Q" & "S-S"
B8	12"x18"	4	⅞"	20'-0"	4		1⅛"	10'-0"						See Elevation
B9	12"x18"													See Sec. "R-R" & "U-U"
B10	12"x18"	3	⅞"	20'-0"	3		⅞"	10'-0"						See B10
B11	24"x50"													See also Sec. "V-V" & Sh. N° 55
B12	24"x50"	3	1"	20'-0"	3		1"	10'-0"	4	U2	⅝"	15'-0"	15"	12" o.c. (Typical)
B13	24"x50"	3	⅞"	20'-0"	3		⅞"	10'-0"						
B14	24"x50"	4	⅞"	20'-0"	2		⅞"	10'-0"						See also Sec. "BD-BD" & Sh. N° 55
B15	14"x18"	3	⅝"	9'-0"										See "T-T" & "U-U"
B16	14"x20"	3	1⅛"	15'-6"										
B17	14"x20"	2	1⅛"	9'-0"										
B18	14"x20"	3	1⅛"	9'-0"										
B19	14"x18"	3	1⅛"	15'-6"										
B20	14"x18"	3	1⅛"	9'-0"										
B21	14"x18"	3	1⅛"	9'-0"										
B22	14"x18"	3	1⅛"	9'-0"										See "W-W" Sh. N° 55
B23		3	⅝"	10'-0"										
B24		4	⅝"	10'-0"										In Flat Slab - see detail

Rods in Beams to be 4" from bottom.

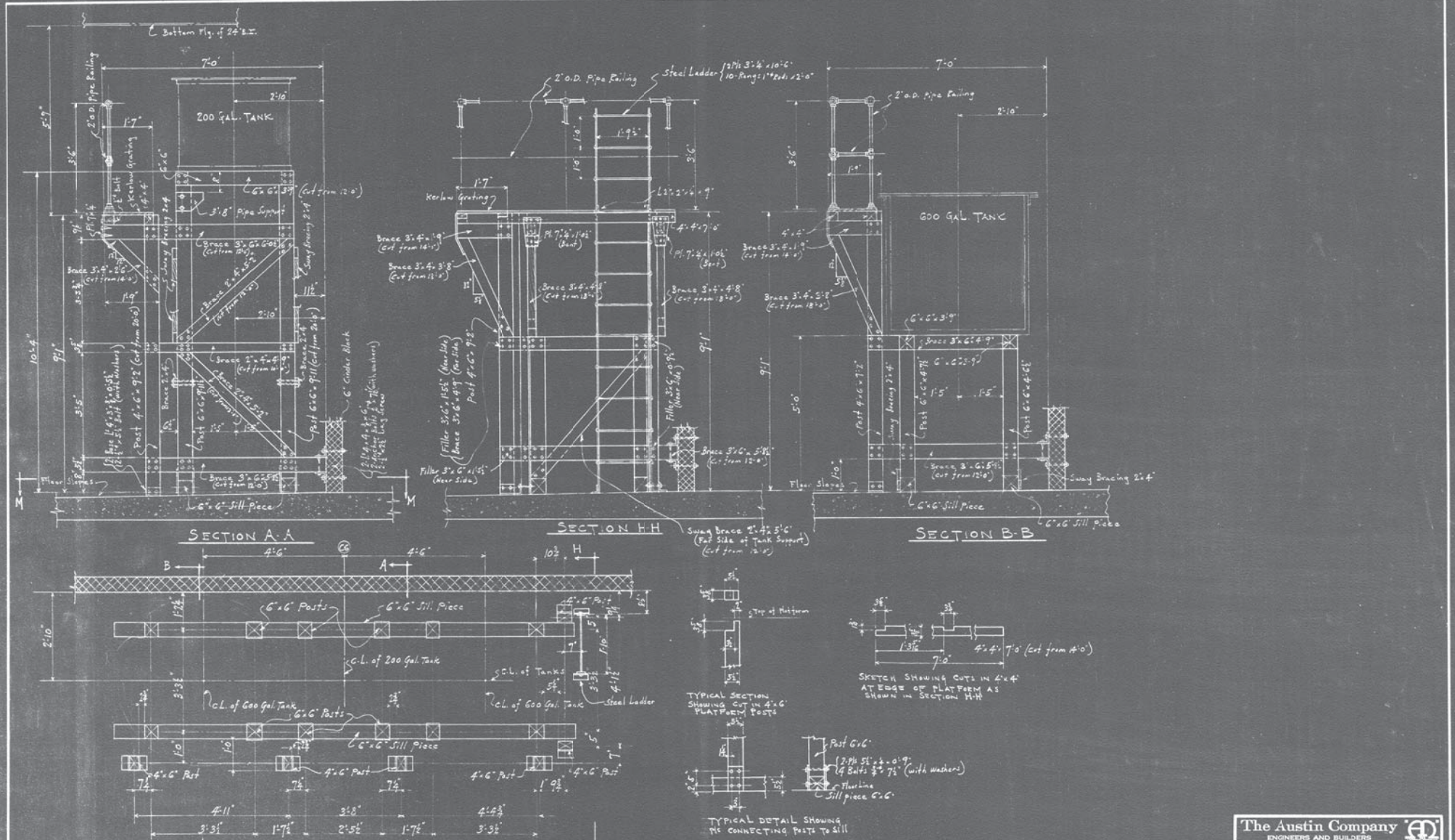
NOTE:
Extra rods in Cinder Block Partition Walls to be placed as shown in Sec. "U-U" on Sheet No. 2 (Sh. N° 2).

10-25-34	Cut Rebar, added & changed Mark	Zeuch	R.A.S.		
10-8-34	Cap on Pier Sec. Q-Q, A-N & A-B		J.P.		
9-2-34	Detail Rebar North Side		R.A.S.		
9-2-34	Detail of B-B Changed		R.A.S.		
8-10-34	Rev. B-B Stirrup Spacing		R.A.S.		
8-10-34	Changed Rebar Sec. "T-T"		R.A.S.		
8-8-34	Rev. B-B Stirrup Spacing		R.A.S.		
8-8-34	Rev. Sec. "T-T" & Sec. "U-U"		R.A.S.		
8-8-34	Rev. Sec. "T-T" & Sec. "U-U"		R.A.S.		
8-8-34	Rev. Sec. "T-T" & Sec. "U-U"		R.A.S.		
8-8-34	Rev. Sec. "T-T" & Sec. "U-U"		R.A.S.		
DATE	REVISION	BY	CHECK		

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

CONCRETE FRAMING PLAN
BATTERY
THOMAS A. EDISON, INC.
KEARNY, NEW JERSEY

DRAWN BY S.W.C.	DATE 10-2-34	CONTRACT NUMBER	4499
TRACED BY	DATE		
CHECKED BY	DATE 10-2-34	SHEET NUMBER	4
SCALE			



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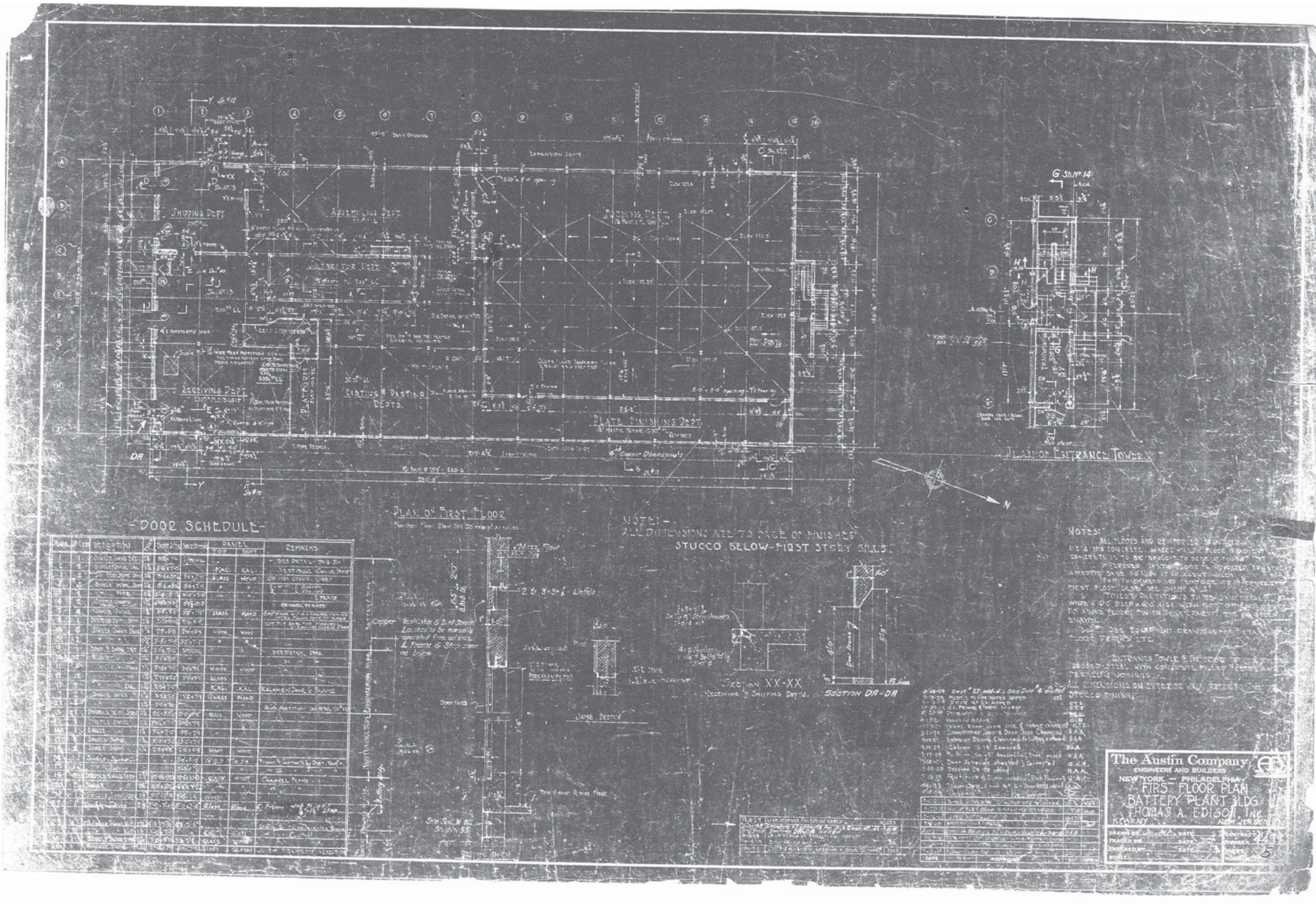
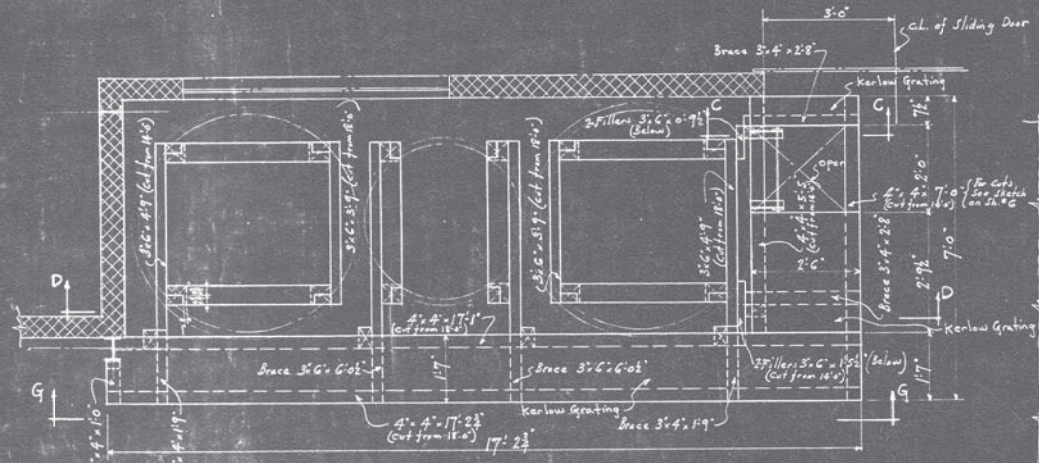
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA

ACID TANK FRAMING
BATTERY PLANT BLDG.
THOMAS A. EDISON INC.
KEARNY N.J.

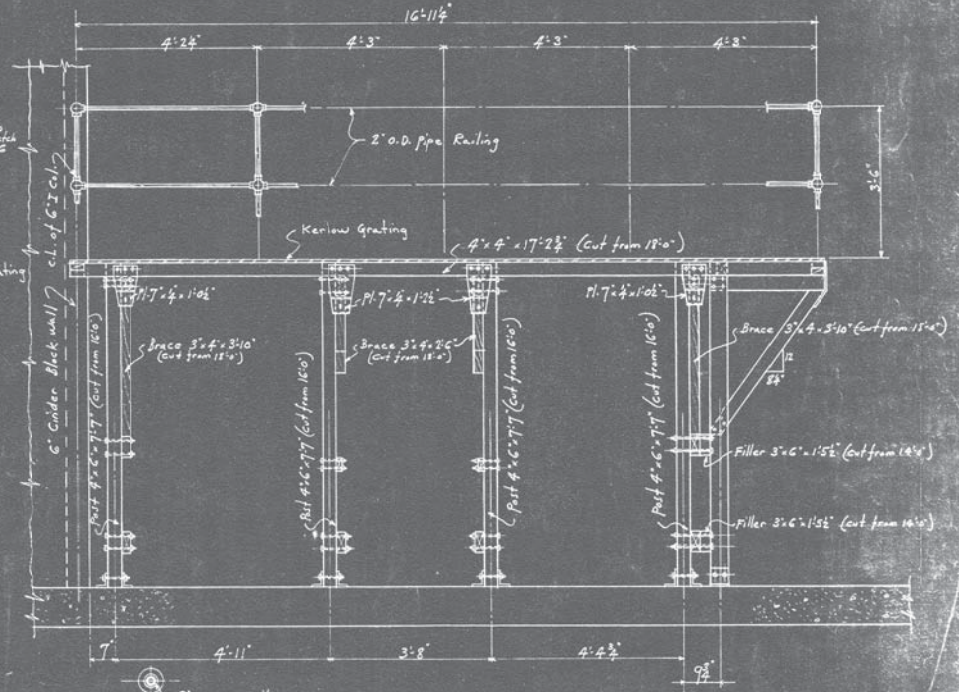
DRAWN BY W.S.	DATE 12-18-29	CONTRACT NUMBER	1211
TRACED BY W.S.	DATE 12-18-29		
CHECKED BY	DATE 1-3-30	SHEET NUMBER	4
SCALE			

DATE	REVISION	BY	CH'K'D

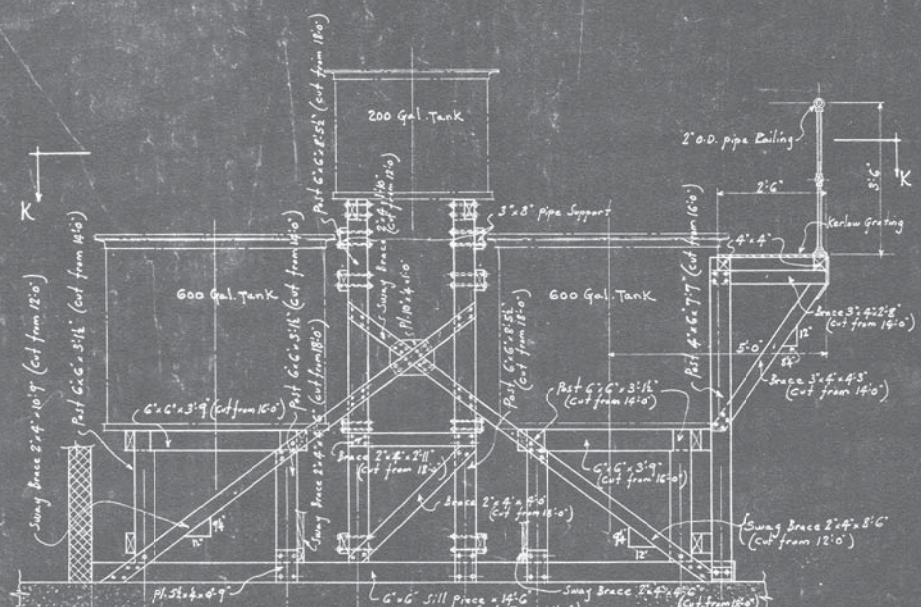

SHIPPING DEPT
ASSEMBLING DEPT
GENERATOR DEPT
RECEIVING DEPT
CASTING & PASTING DEPTS.
PLATE FINISHING DEPT
EXPANSION JOINT
PLAN OF ENTRANCE TOWER
PLAN OF FIRST FLOOR
NOTE:-
ALL DIMENSIONS ARE TO FACE OF FINISHED STUCCO BELOW FIRST STORY SILLS.
DOOR SCHEDULE
SECTION XX-XX
RECEIVING & SHIPPING DEPTS.
SECTION DA-DA
JAMB SECTION
NOTES:
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
FIRST FLOOR PLAN
BATTERY PLANT BLDG
THOMAS A. EDISON, INC.
KEARNY
NEW JERSEY



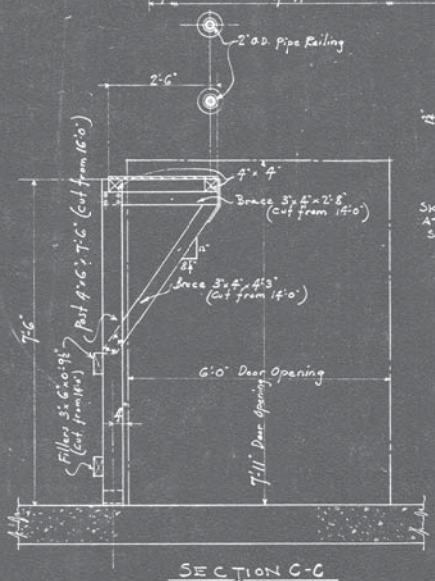
PLAN OF PLATFORM + TANK SUPPORTS (Section K-K)
(TANKS IN FORMING DEPT.)



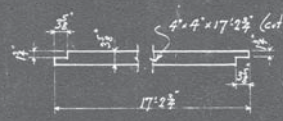
SECTION G-G



SECTION D-D



SECTION C-C



SKETCH SHOWING CUTS IN 4"x4" AT EDGE OF PLATFORM AS SHOWN IN SECTION G-G.

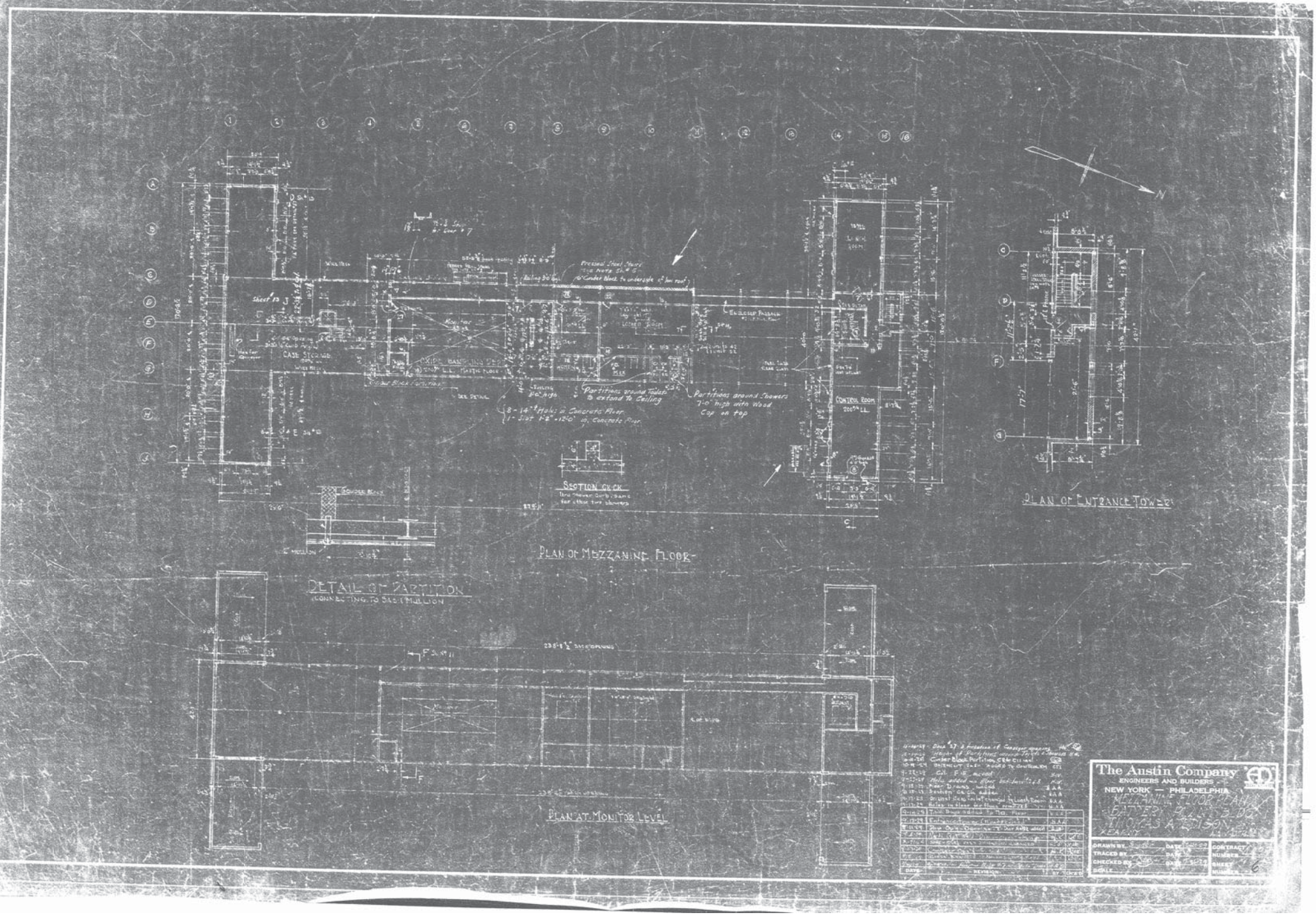
NOTE: All Bolts ½" with Nuts + Washers

DATE	REVISION	BY	CH'K'D
12-21-29	Sheet Number changed from 9 to 5	W.S.	

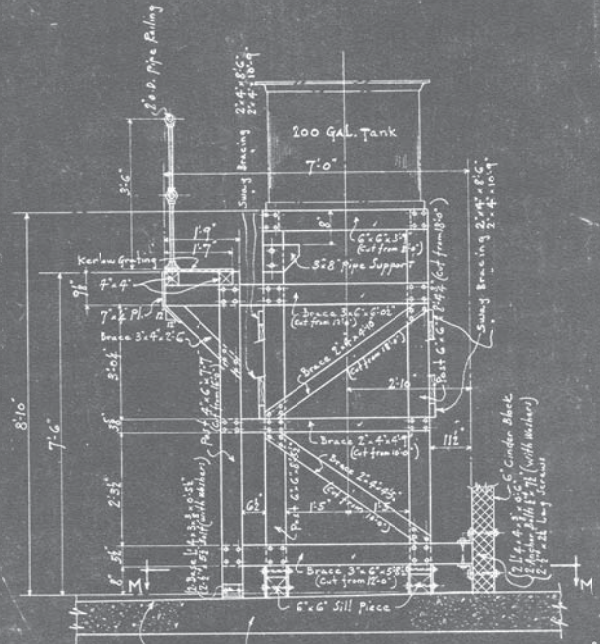
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA

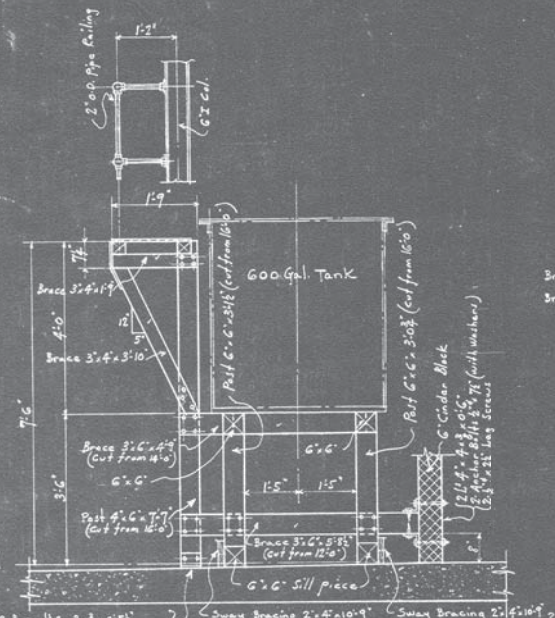
ACID TANK FRAMING
BATTERY PLANT BLDG
THOMAS A. EDISON INC.
KEARNY N.J.

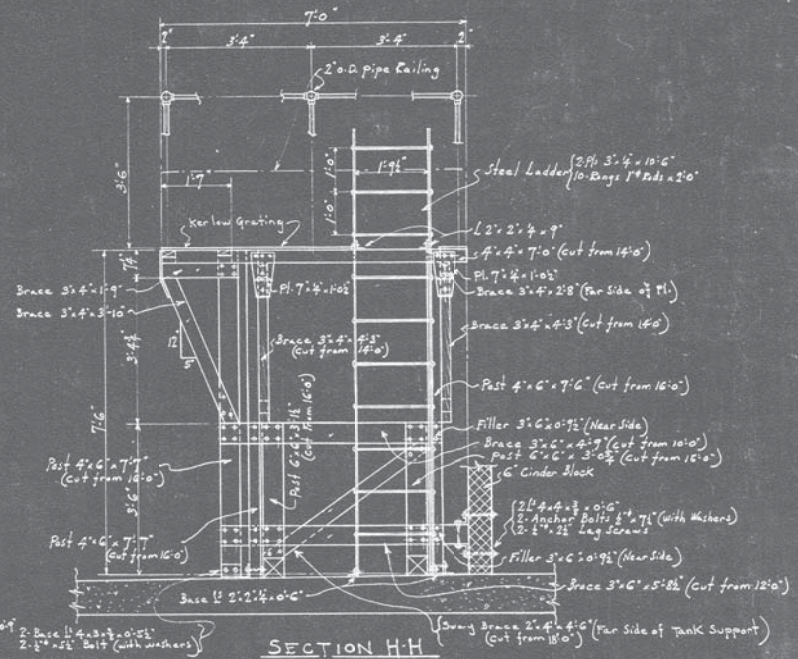
DRAWN BY W.S.	DATE 12-26-29	CONTRACT NUMBER	1211
TRACED BY	DATE		
CHECKED BY	DATE 12-31-29	SHEET NUMBER	5
SCALE ¾"=1'-0"			

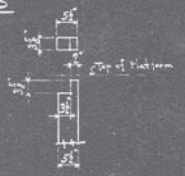


PLAN OF MEZZANINE FLOOR
PLAN OF ENTRANCE TOWER
DETAIL OF PARTITION
CONNECTING TO SASH MULLION
PLAN AT MONITOR LEVEL
SECTION CK-CK
CASE STORAGE
OXIDE HANDLING DEPT
CONTROL ROOM
Partitions around Toilets to extend to Ceiling
Partitions around Showers 7'-0" high with Wood Cap on top
8 - 14" Holes in Concrete Floor
1 - Slot 1'-2" x 12'-0" in Concrete Floor
Pressed Steel Stairs
Monitor
Sheet 13
N
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
MEZZANINE FLOOR PLAN
BATTERY PLANT BLDG.
THOMAS A. EDISON
DRAWN BY
TRACED BY
CHECKED BY
SCALE
DATE
CONTRACT NUMBER
SHEET NUMBER 6

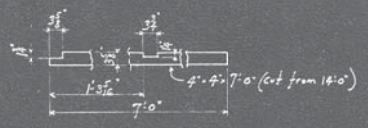




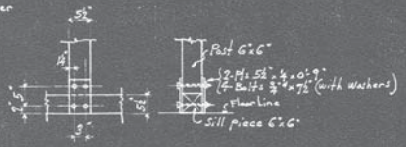




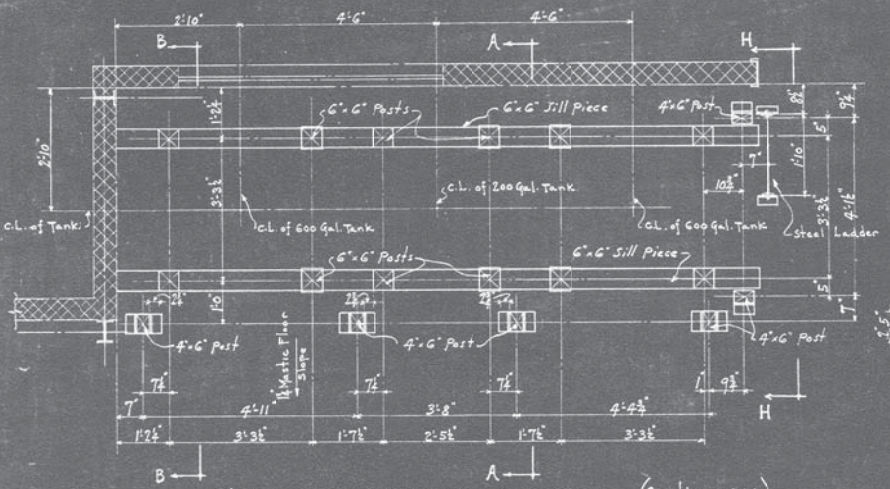
TYPICAL SECTION SHOWING CUTS IN 4"x6" PLATFORM POSTS



SKETCH SHOWING CUTS IN 4"x4" AT EDGE OF PLATFORM AS SHOWN IN SECTION H-H



TYPICAL DETAIL SHOWING Pls CONNECTING POSTS TO SILL



PLAN OF POSTS SUPPORTING ACID TANKS (Section M-M)

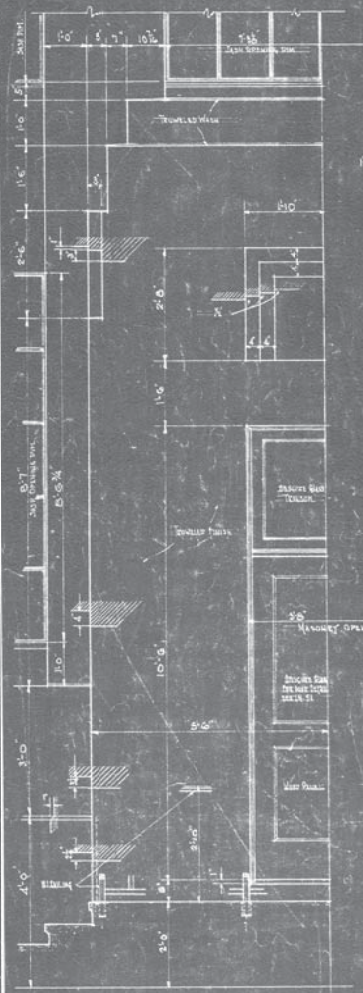
(TANKS IN FORMING DEPT.)

DATE	REVISION	BY	CH'K'D
12-23-29	Sheet Number changed from 2 to 6	W.B.	

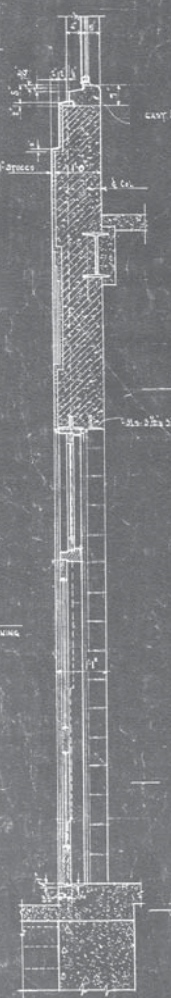
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA

ACID TANK FRAMING
BATTERY PLANT BLDG
THOMAS A. EDISON INC.
KEARNY N.J.

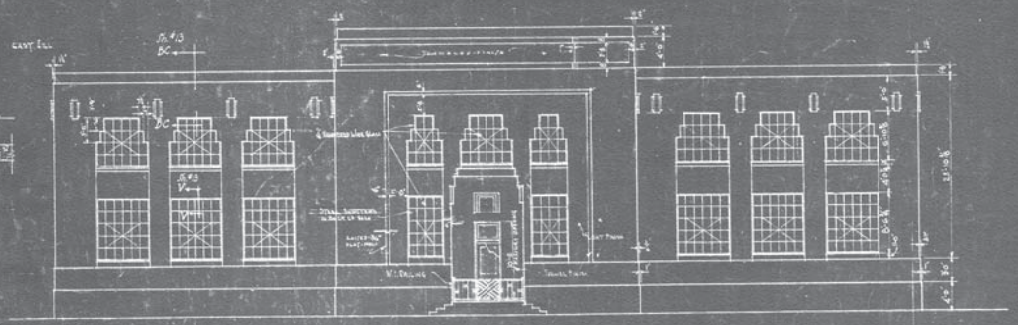
DRAWN BY W.B.	DATE 12-26-29	CONTRACT	1711
TRACED BY W.B.	DATE "	NUMBER	
CHECKED BY	DATE 12-31-29	SHEET	
SCALE		NUMBER	6



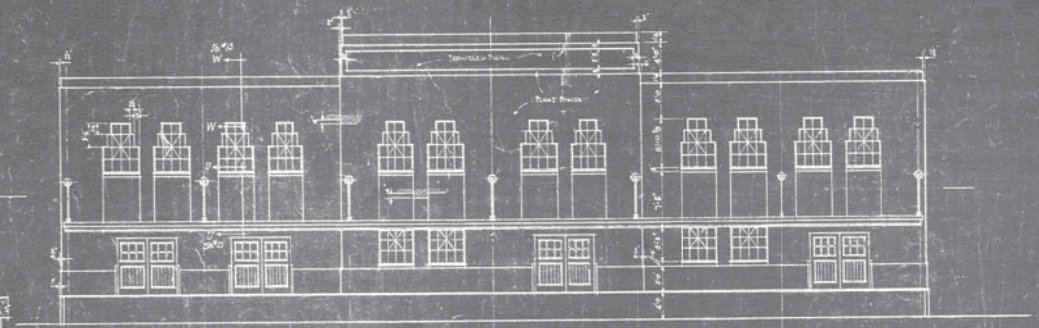
NORTH ELEVATION ENTRANCE
- DOOR TREATMENT -
SYMMETRICAL ABOUT ℄



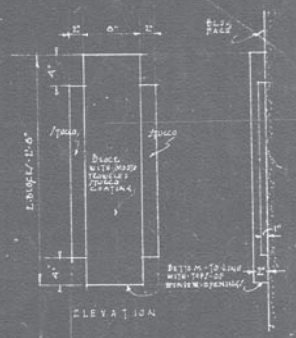
SECTION THRU ENTRANCE



NORTH ELEVATION



SOUTH ELEVATION

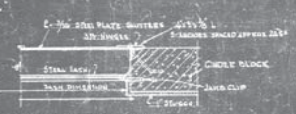


ELEVATION

DETAIL OF ORNAMENTAL BLOCK

SIDE ELEVATION

Steel Sash
All Sash to be Fenestra Horizontally Pivoted
Factory Type Sash
All Ventilators 6'-0" or Less above Floor to be
Push Bar Operated
Monitor Sash to Have Mechanical operator
Glazing
All Glass to be 14"x20" - 3/8" Hammered Glass
Except Where Noted.
Painting - see Specifications



DETAIL OF JAMB
FOR SASH WITH INSIDE SHUTTLE

Extra

DATE	REVISION	BY	CH'K'D
9-30-24	JAMB DETAIL FOR STEEL SHUTTER MISC DWG	CTS	
9-30-24	NORTH ELEV. ENTRANCE DETAIL ADDED	CTS	
9-14-24	Ornamental Entrance Frame	AAR	
8-20	Notes	AK	
8-18	New Sheet		

The Austin Company
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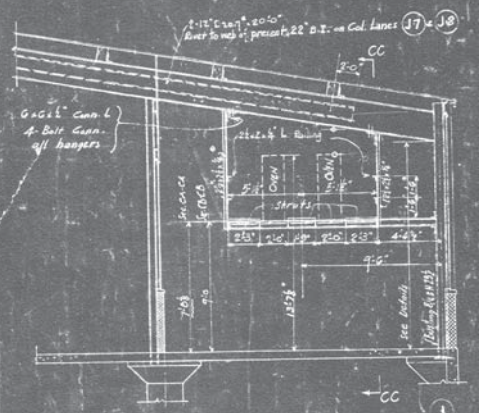
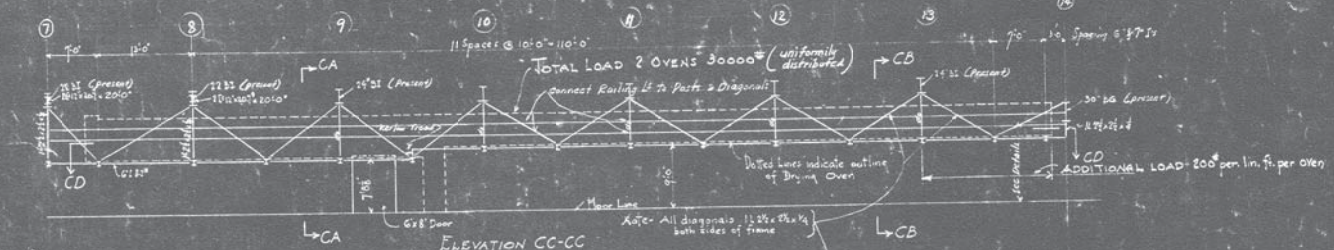
NEW YORK — PHILADELPHIA
- ELEVATIONS -
BATTERY PLANT BLDG.
THOMAS A. EDISON INC.
KEARNY N.J.

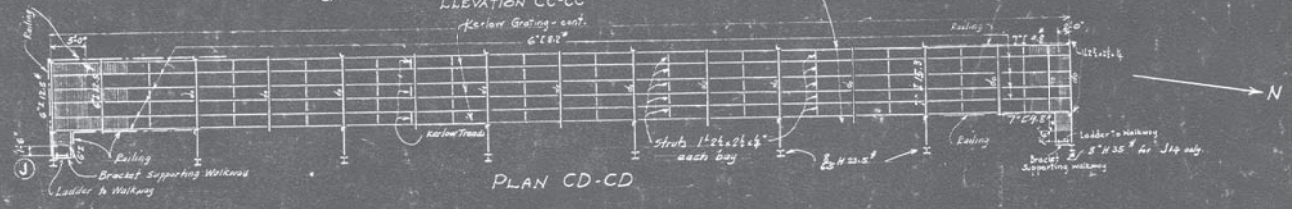
DRAWN BY CTS	DATE AUG 29	CONTRACT NUMBER	4499
TRACED BY	DATE	SHEET NUMBER	7
CHECKED BY	DATE 8-10-24		
SCALE			



CROSS SECTION CA-CA
CB-CB



ELEVATION CC-CC



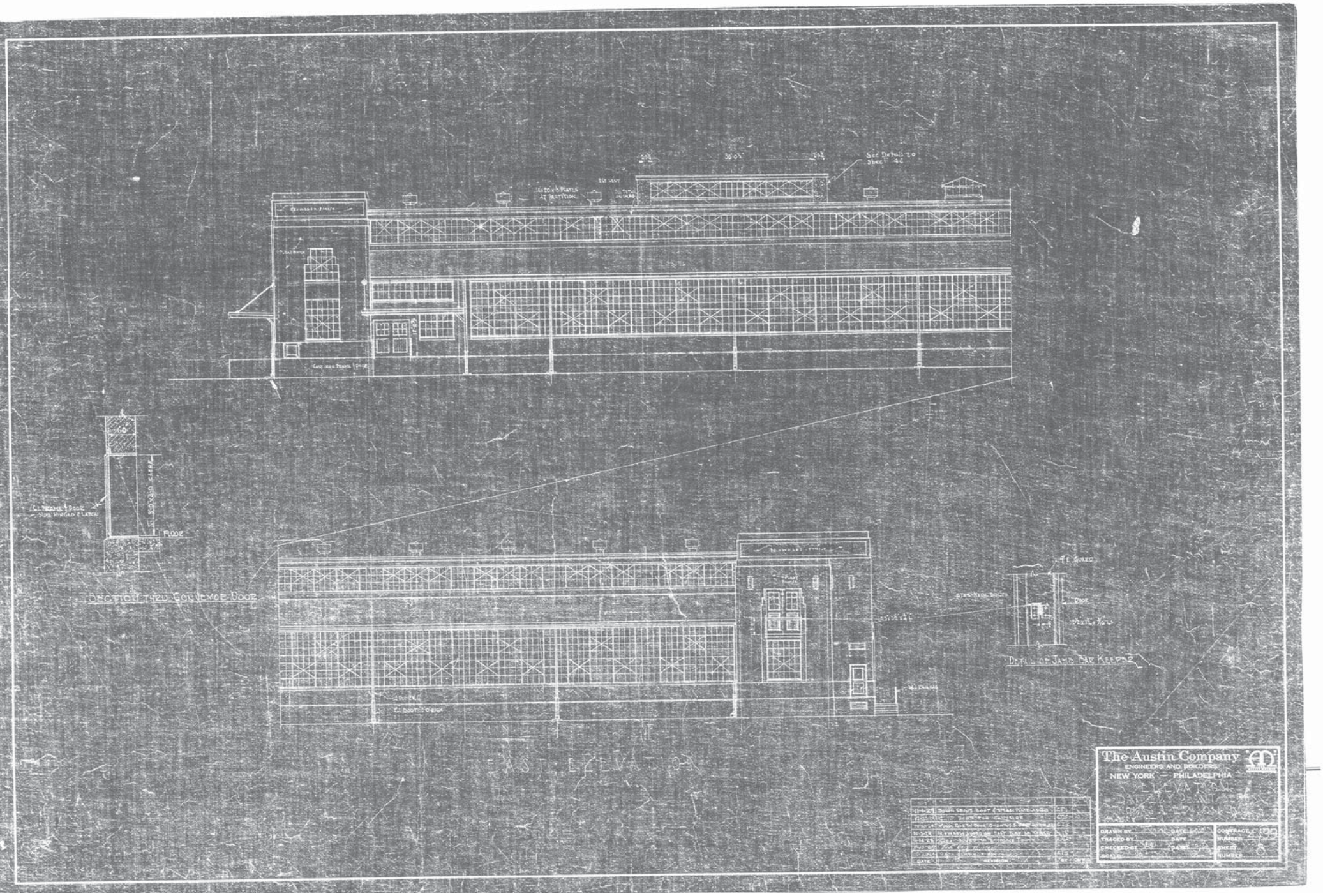
PLAN CD-CD

DATE	REVISION	BY	CH'K'D
1-28-30	Ladder & Crosswalk North end added		

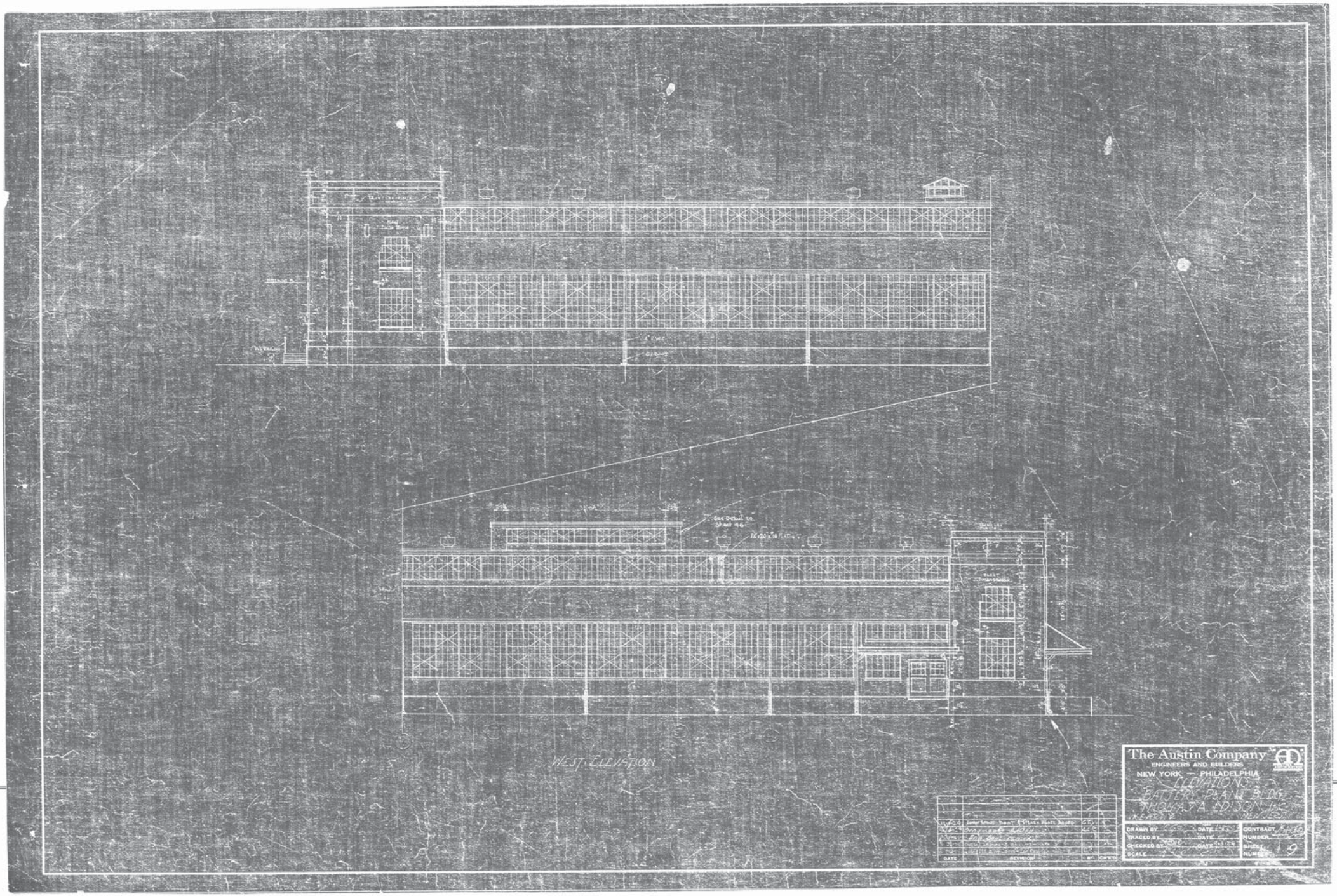
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA

CROSS-SECTION
PLATE FINISHING DEPT.
BATTERY PLANT BUILDING
THOMAS A. EDISON, INC
KEARNY N. J.

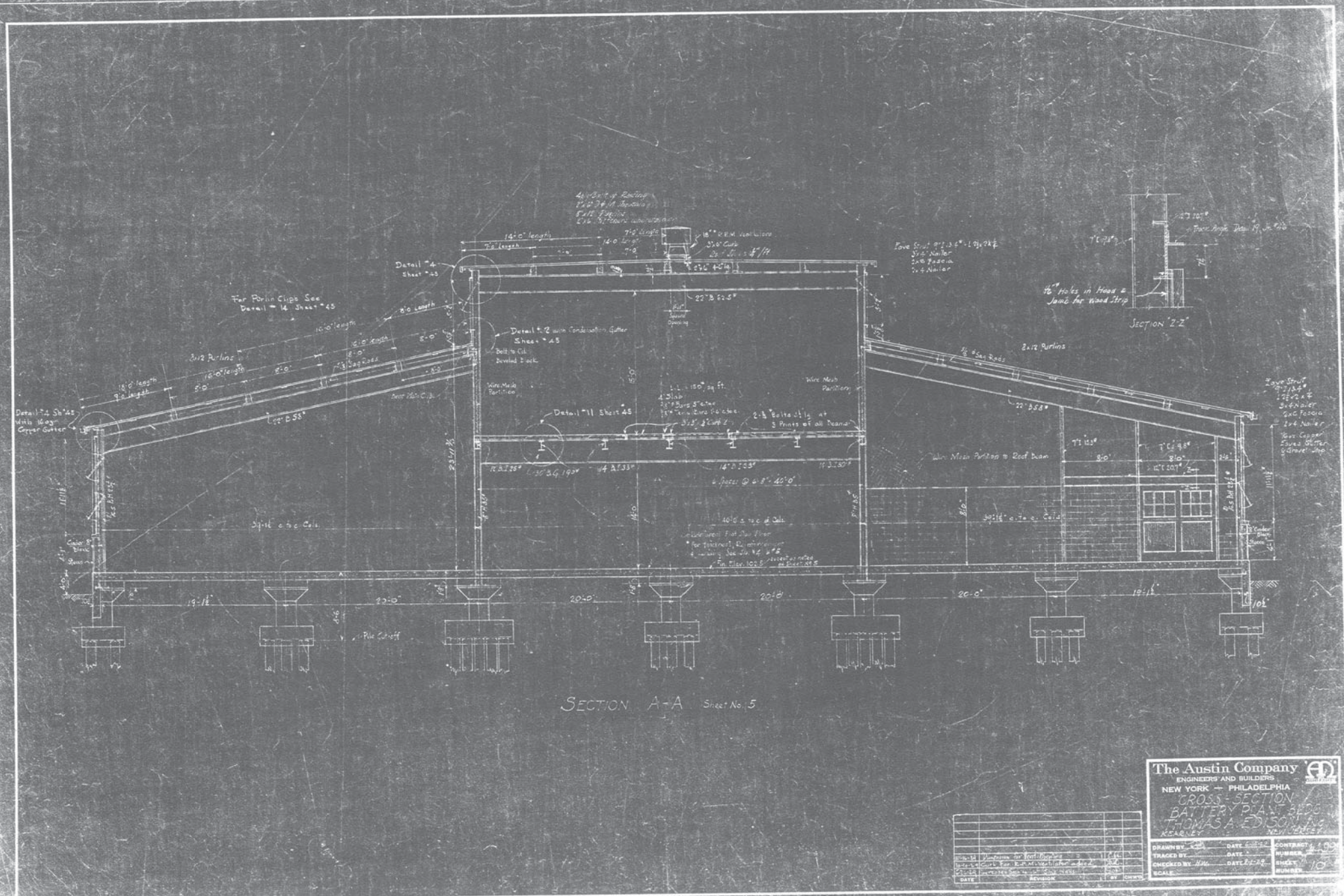
DRAWN BY	DATE 1-9-30	CONTRACT NUMBER	1211
TRACED BY	DATE		
CHECKED BY H.W.	DATE 1-18-30	SHEET NUMBER	7
SCALE ½" = 1'-0"			



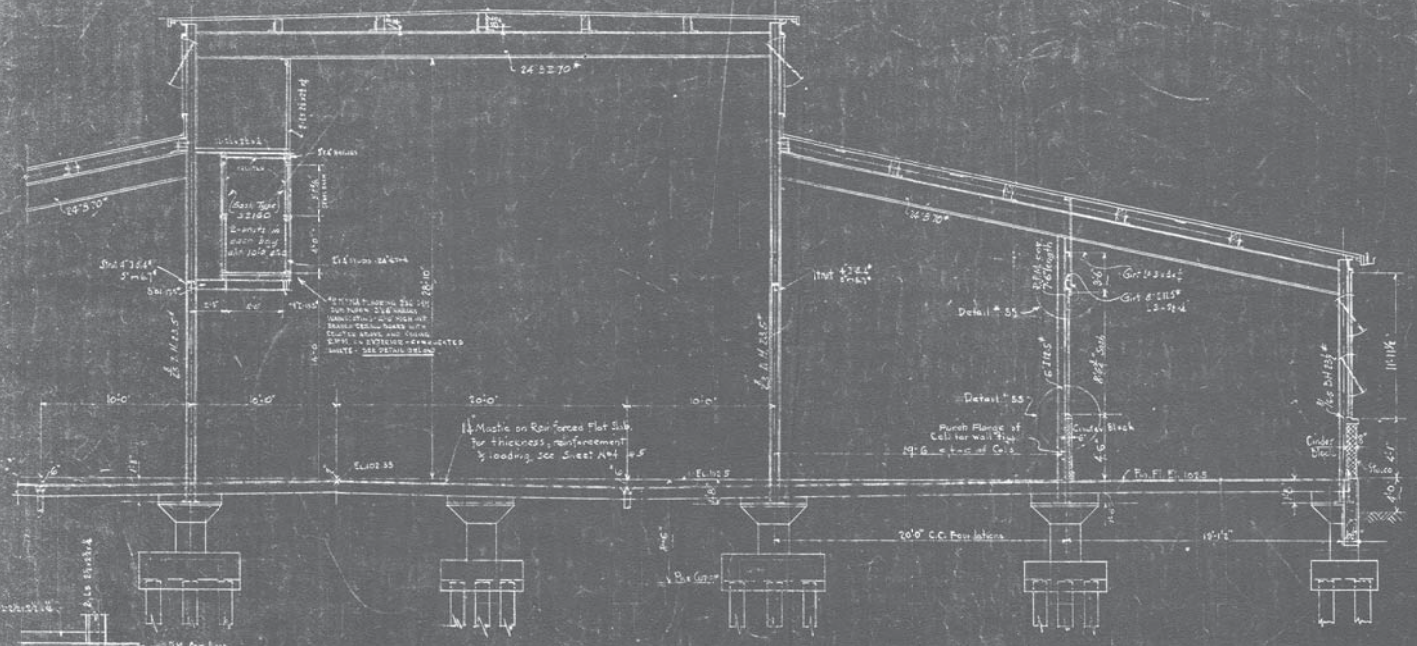
See Detail 20
Sheet 46
SECTION THRU CONVEYOR DOOR
FLOOR
DETAIL OF JAMB BAR KEEPER
EAST ELEVATION
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
ELEVATION
DRAWN BY
TRACED BY
CHECKED BY
SCALE
DATE
CONTRACT
NUMBER
SHEET
NUMBER
8



See Detail to Sheet 46
WEST ELEVATION
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
ELEVATIONS
BATTERY PLANT BLDG.
THOMAS A. EDISON INC.
DRAWN BY
DATE
TRACED BY
DATE
CHECKED BY
DATE
SCALE
CONTRACT
NUMBER
SHEET
NUMBER
9
DATE
REVISION
BY
CH'K'D

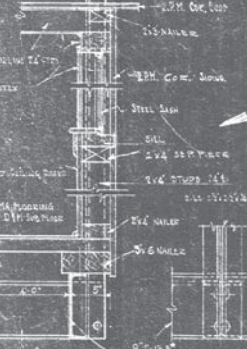


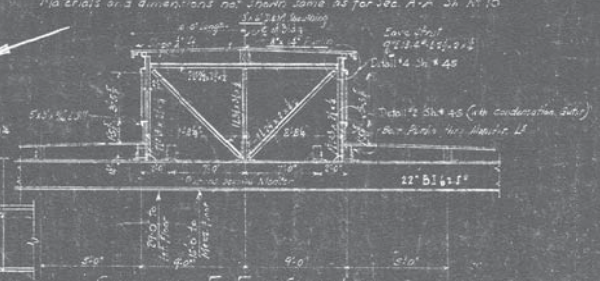
For Purlin Clips See Detail #14 Sheet #43
Detail #4 Sheet #43
Detail #2 with Condensation Gutter Sheet #43
Detail #11 Sheet #45
Wire Mesh Partition
Wire Mesh Partition to Roof Beam
Pile Cut-off
Section "Z-Z"
Section A-A Sheet No. 5
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
CROSS-SECTION
BATTERY PLANT BLDG
THOMAS A. EDISON, INC.
KEARNEY NEW JERSEY
DRAWN BY
TRACED BY
CHECKED BY
SCALE
DATE
CONTRACT NUMBER
SHEET NUMBER 10



SECTION B-B Sheet No. 5

Materials or dimensions not shown same as for Sec. A-A Sh. No. 10



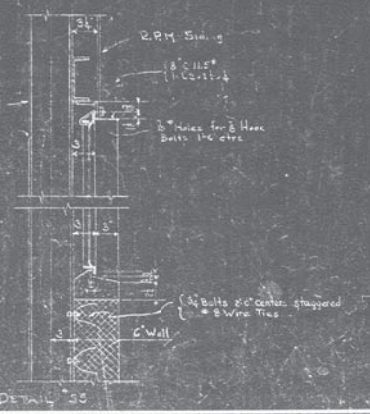


SECTION F-F Sheet No. 16

Part not shown same as Sec. A-A Sh. No. 10

DETAIL OF WALKWAY

SCALE: 1½" = 1'0"



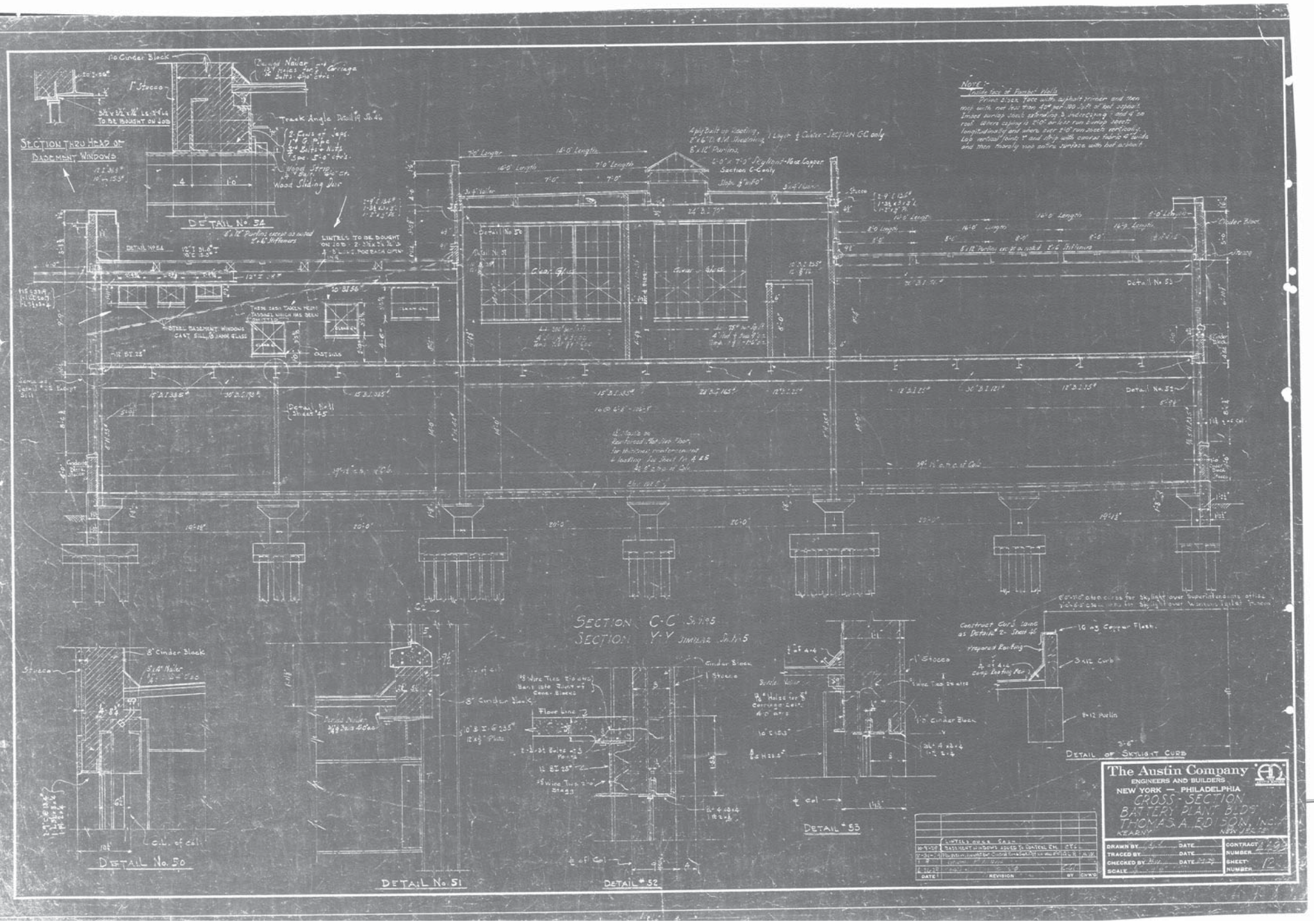
DETAIL # 55

DATE	REVISION	BY	CHK'D
10-2-29	CORRUGATED SIDING ON WALKWAY DETAIL	G.T.K.	
8/29/29	[illegible] BEAMS [illegible]		
7/1/29	Not [illegible] added to detail # 55	H.E.K.	
3-30-29	[illegible]	[illegible]	
10-1-28	Revised detail of [illegible] partition	[illegible]	

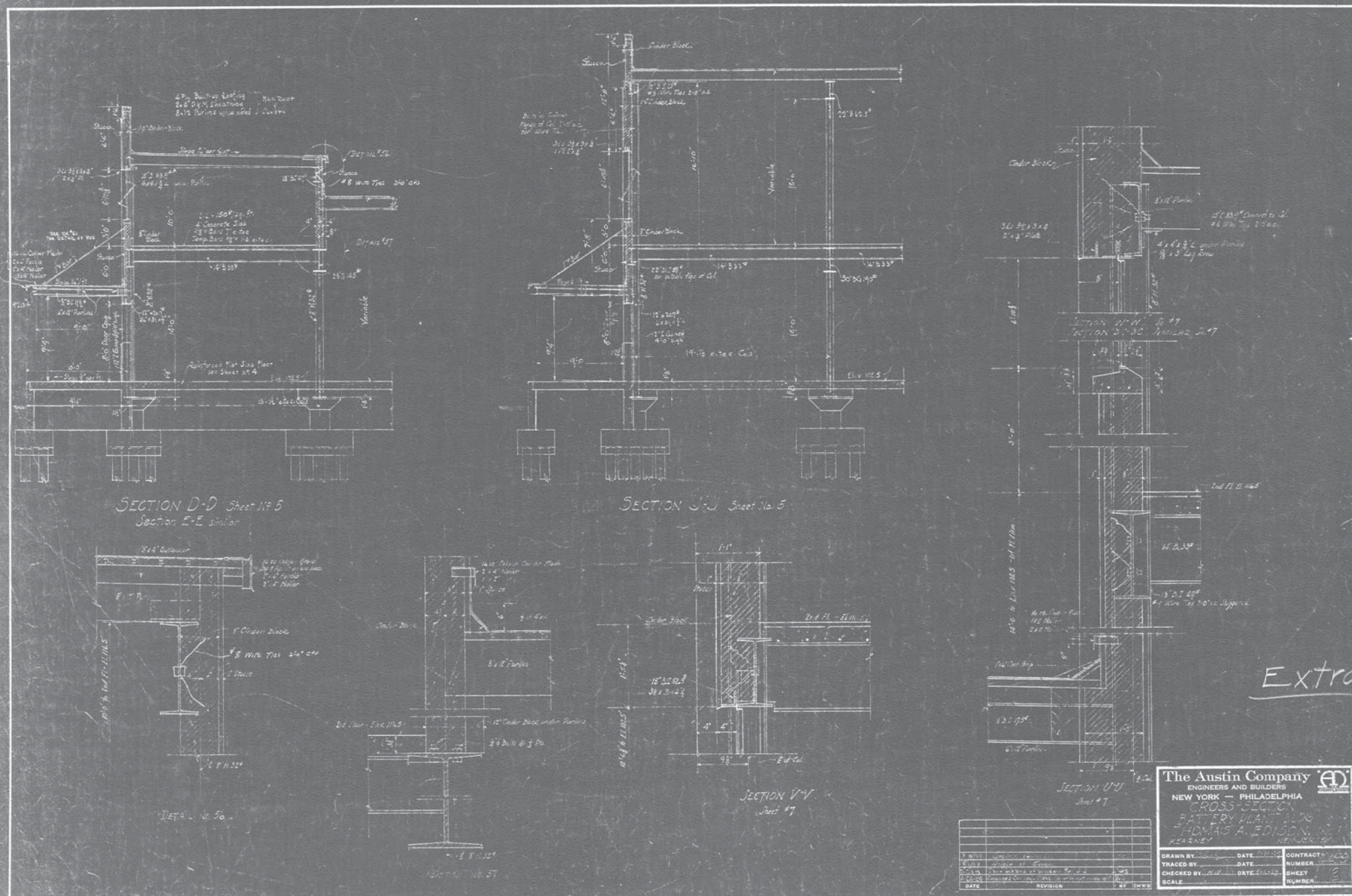
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

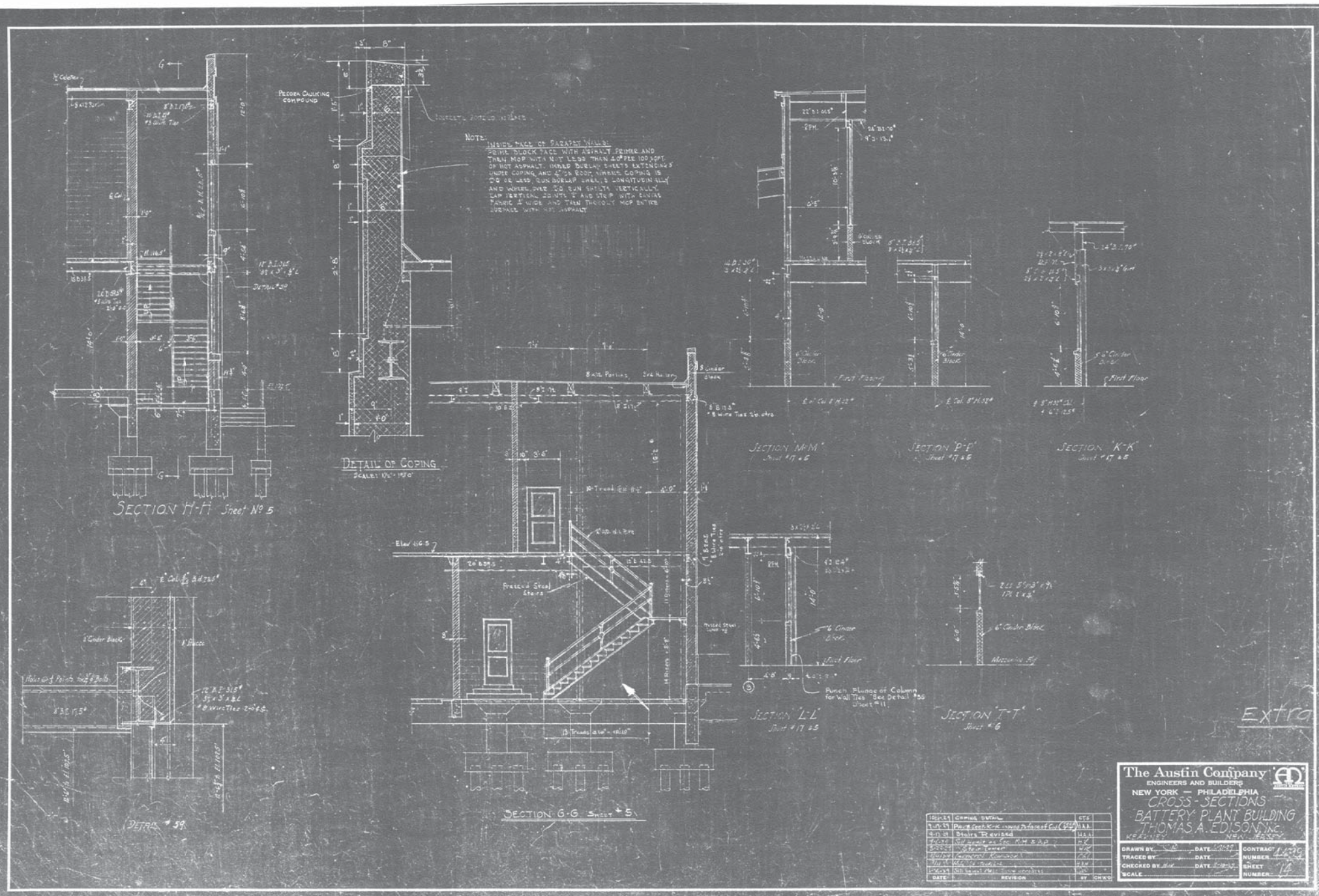
CROSS-SECTION
BATTERY PLANT BLDG.
THOMAS A. EDISON, INC.
KEARNEY — NEW JERSEY

DRAWN BY	[illegible]	DATE	CONTRACT NO.
TRACED BY		DATE	NUMBER
CHECKED BY		DATE	SHEET
SCALE			NUMBER 11

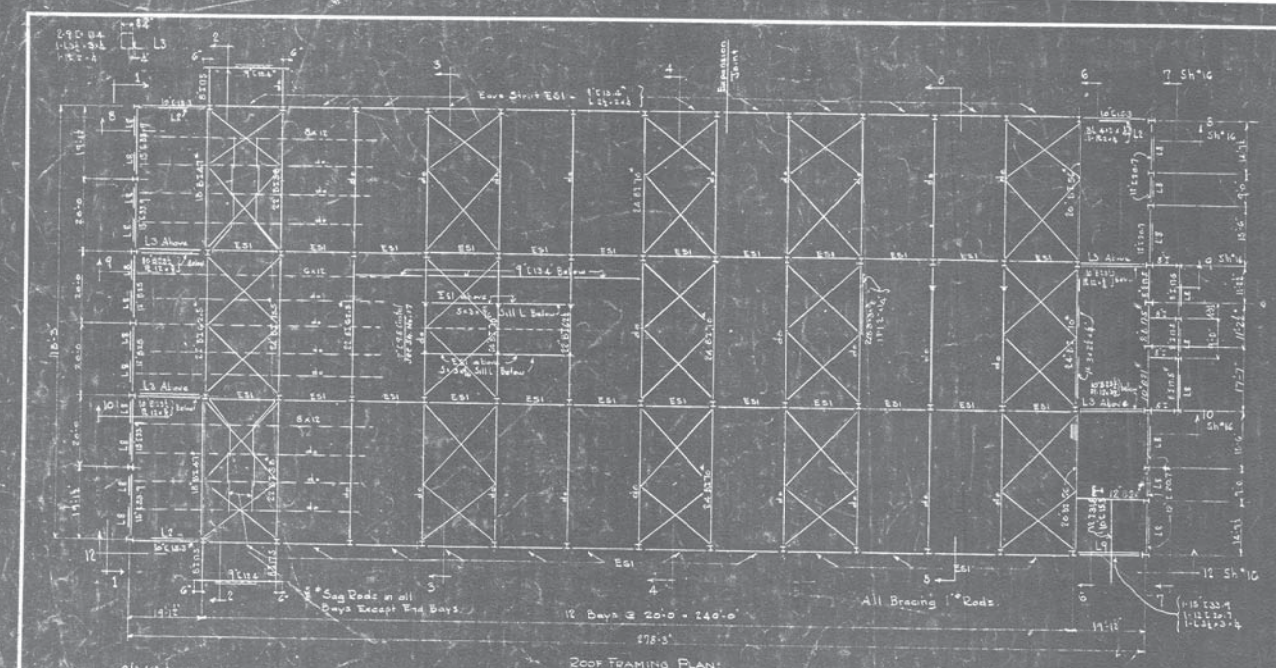


SECTION THRU HEAD OF BASEMENT WINDOWS
DETAIL No. 54
Track Angle Detail 19 Sh. 46
Wood Sliding Door
LINTELS TO BE BOUGHT ON JOB
STEEL BASEMENT WINDOWS CAST SILL, 1/8 JAMB GLASS
Clear Glass
Detail No. 50
Detail No. 51
Detail No. 52
Detail No. 53
Detail No. 54
Detail No. 55
Detail No. 56
SECTION C-C
SECTION Y-Y SIMILAR
DETAIL No. 50
DETAIL No. 51
DETAIL No. 52
DETAIL No. 53
DETAIL OF SKYLIGHT CURB
Construct Curb same as Detail No. 2 Sheet 45
Prepared Roofing
10 oz Copper Flash.
3x12 Curb
8x12 Purlin
8" Cinder Block
1" Stucco
Floor line
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
CROSS-SECTION
BATTERY PLANT BLDG.
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY
DRAWN BY
DATE
TRACED BY
DATE
CHECKED BY
DATE
SCALE
CONTRACT NUMBER
SHEET NUMBER 12
DATE
REVISION
BY
CHK'D

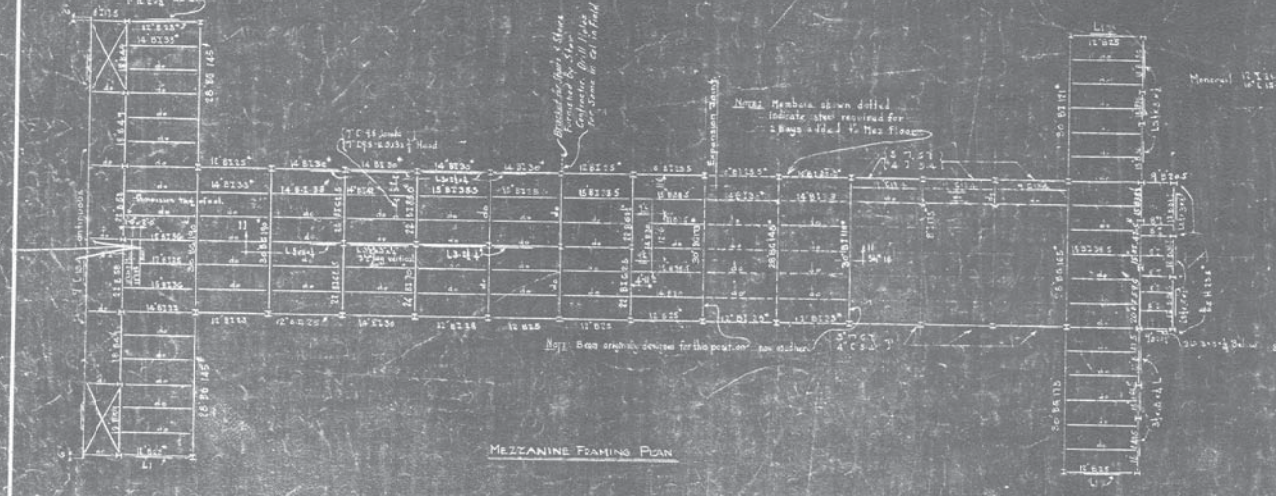

SECTION D-D Sheet No 5
Section E-E similar
SECTION J-J Sheet No. 5
SECTION V-V
Sheet #7
SECTION U-U
Sheet #7
DETAIL No. 56
DETAIL No. 57
Extra
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
CROSS-SECTION
BATTERY PLANT BLDG
THOMAS A. EDISON, INC.
KEARNEY NEW JERSEY
DRAWN BY
DATE
TRACED BY
DATE
CHECKED BY
DATE
SCALE
CONTRACT
NUMBER
SHEET
NUMBER
DATE
REVISION
BY
CH'K'D



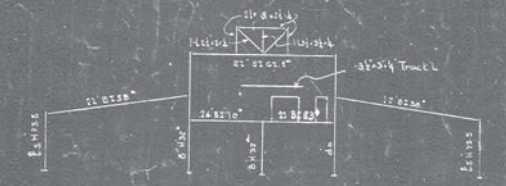
SECTION H-H Sheet No 5
DETAIL OF COPING
PECORA CAULKING COMPOUND
NOTE:
INSIDE FACE OF PARAPET WALLS:
PRIME BLOCK FACE WITH ASPHALT PRIMER AND THEN MOP WITH NOT LESS THAN 40# PER 100 SQ FT OF HOT ASPHALT. IMBED BURLAP SHEETS EXTENDING 3" UNDER COPING, AND 4" ON ROOF, WHERE COPING IS 20" OR LESS, RUN BURLAP SHEETS LONGITUDINALLY AND WHERE OVER 20" RUN SHEETS VERTICALLY. LAP VERTICAL JOINTS 2" AND STRIP WITH CANVAS FABRIC 4" WIDE AND THEN THOROUGHLY MOP ENTIRE SURFACE WITH HOT ASPHALT
SECTION M-M Sheet #17 & 5
SECTION P-P Sheet #17 & 5
SECTION K-K Sheet #17 & 5
SECTION G-G Sheet #5
SECTION L-L Sheet #17 & 5
SECTION T-T Sheet #6
DETAIL #59
Extra
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
CROSS-SECTIONS
BATTERY PLANT BUILDING
THOMAS A. EDISON, INC.
KEARNEY NEW JERSEY
DRAWN BY
TRACED BY
CHECKED BY
SCALE
CONTRACT NUMBER
SHEET NUMBER 14



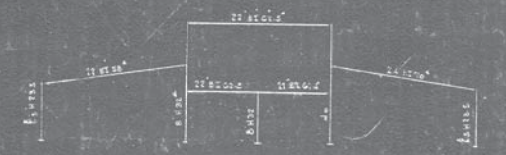
ROOF FRAMING PLAN



MEZZANINE FRAMING PLAN

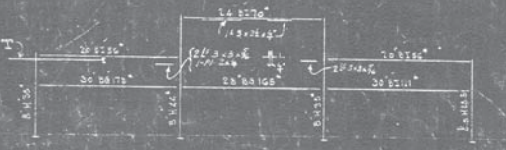


SECTION 3-3



SECTION 4-4

SECTION 5-5



SECTION 6-6

SECTION 2-2

Extra

North

DATE	REVISION	BY	CHKD
3-12-24	Revised & Error Roof Framing for Monorails		
3-12-24	Revised Sheet & Sheet L Bracing Added		
3-12-24	Two Bays added to Mezz. Floor		
3-12-24	Revised and Added Roof Framing		
1-16-24	Revised Roof Framing		
1-16-24	Revised Roof Framing		
1-16-24	Revised Roof Framing		
1-16-24	Revised Roof Framing		

The Austin Company
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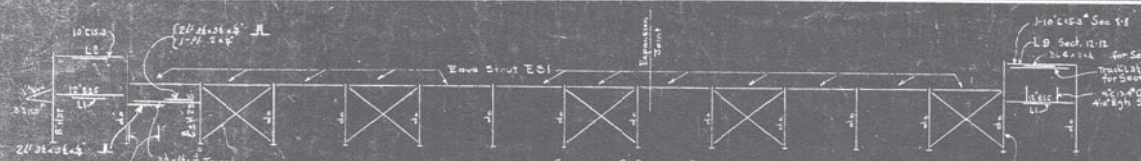
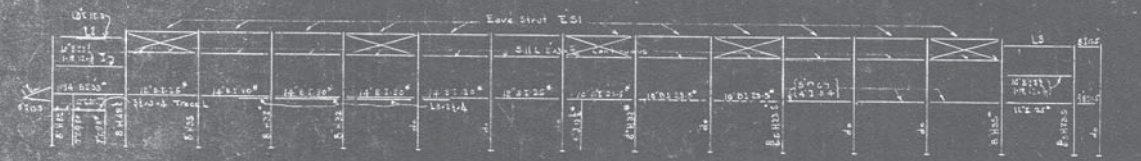
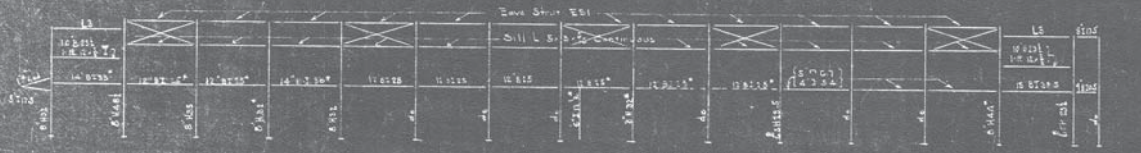
NEW YORK — PHILADELPHIA

STEEL FRAMING PLAN
BATTERY PLANT BLDG.
THOMAS A. EDISON, INC.
KEARNY

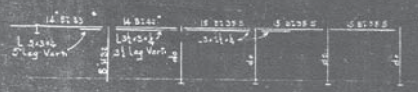
DRAWN BY H.K.	DATE 2-12-24	CONTRACT NUMBER	1496
TRACED BY	DATE		
CHECKED BY H.K.	DATE Nov 4	SHEET NUMBER	15
SCALE			



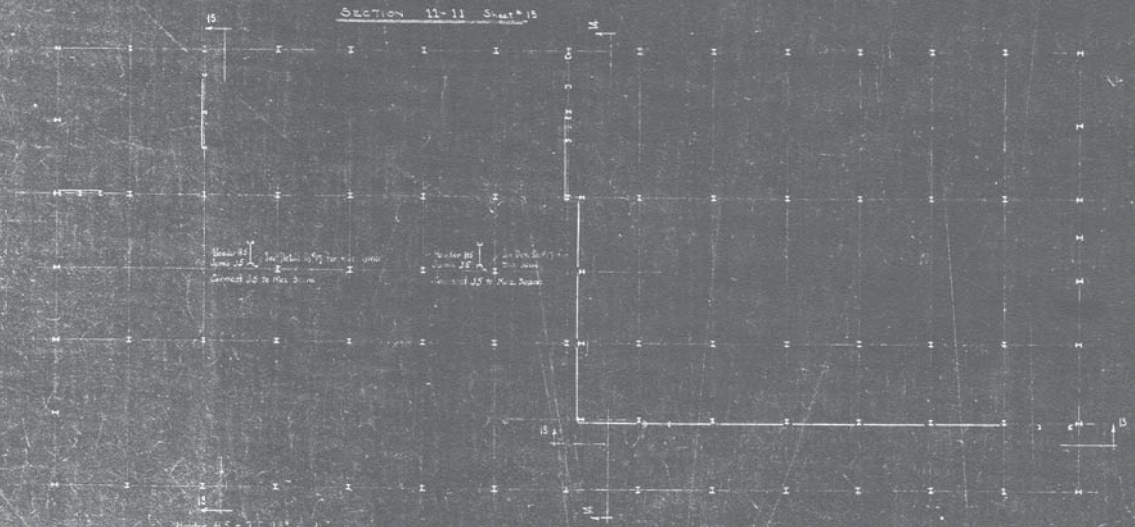


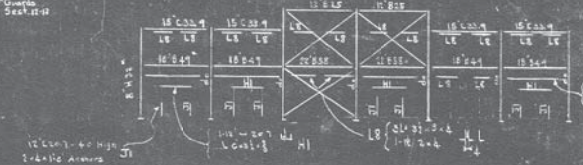


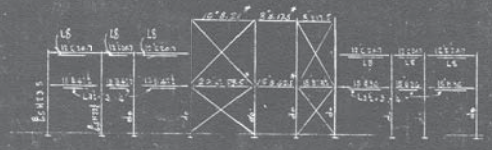
All Bracing - 1" Rods

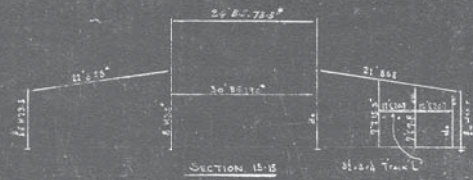


Note: Members shown dotted Scale 1/4 tone, & H.R. indicate steel required for 2 bays added to Mez. Floor









All Steel to be Shop Riveted. Main Members Field Riveted, Secondary Members Field Bolted
Shop Rivets 12,000 in Shear 24,000 in Bearing
Field " 9,000 " " 18,000 "
Paint one Shop Coat of D. Paint #44 Primer

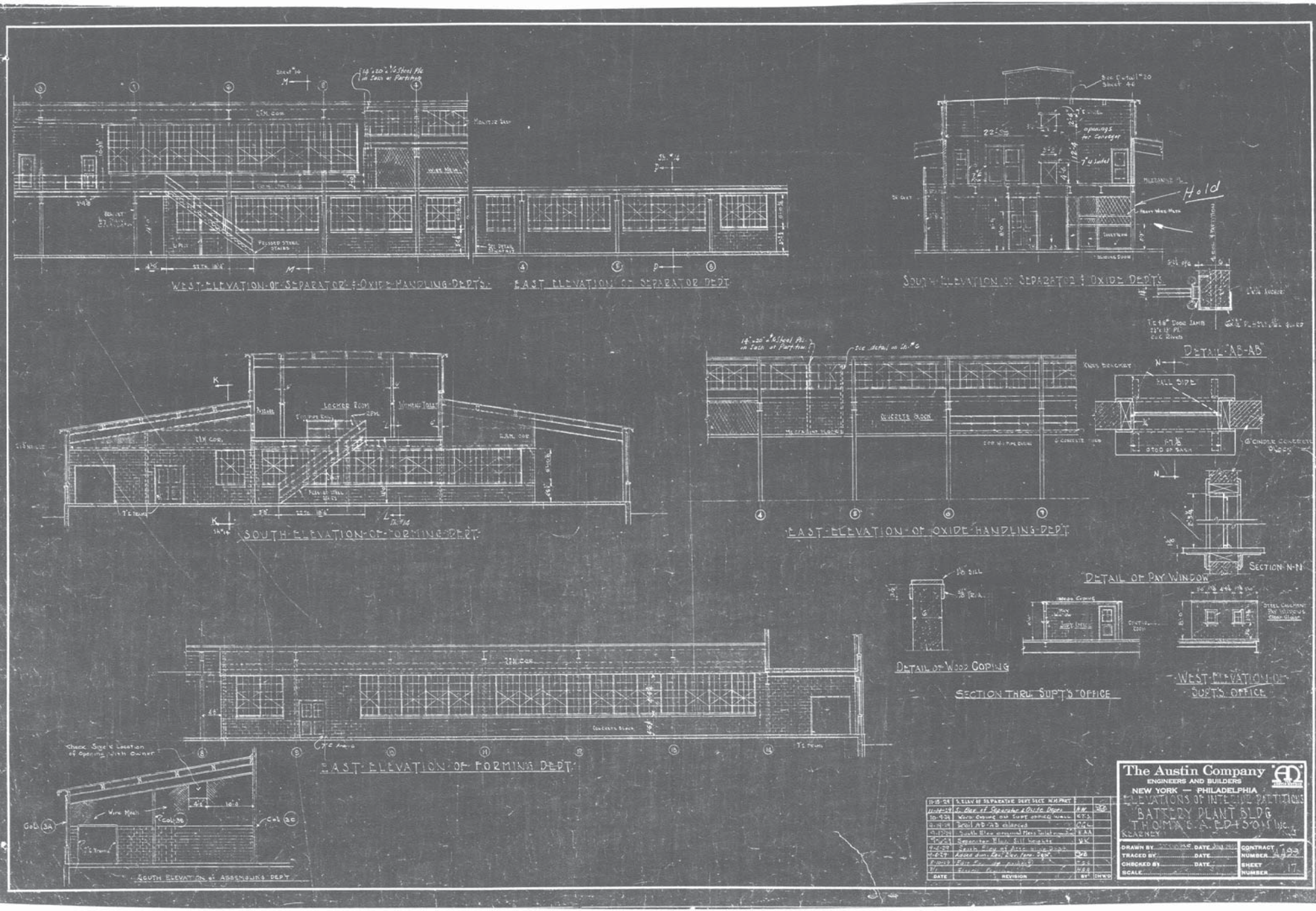
Lintels over Openings 3'-0 or Less to Have 6" Brg. 3'-0 to 15'-0 19" Brg over 15'-0" to Have 12" Bearing
Channel Lintels to have 1" G.I. Sash
Base of all Columns 18" Below Finish Floor Elev. 0

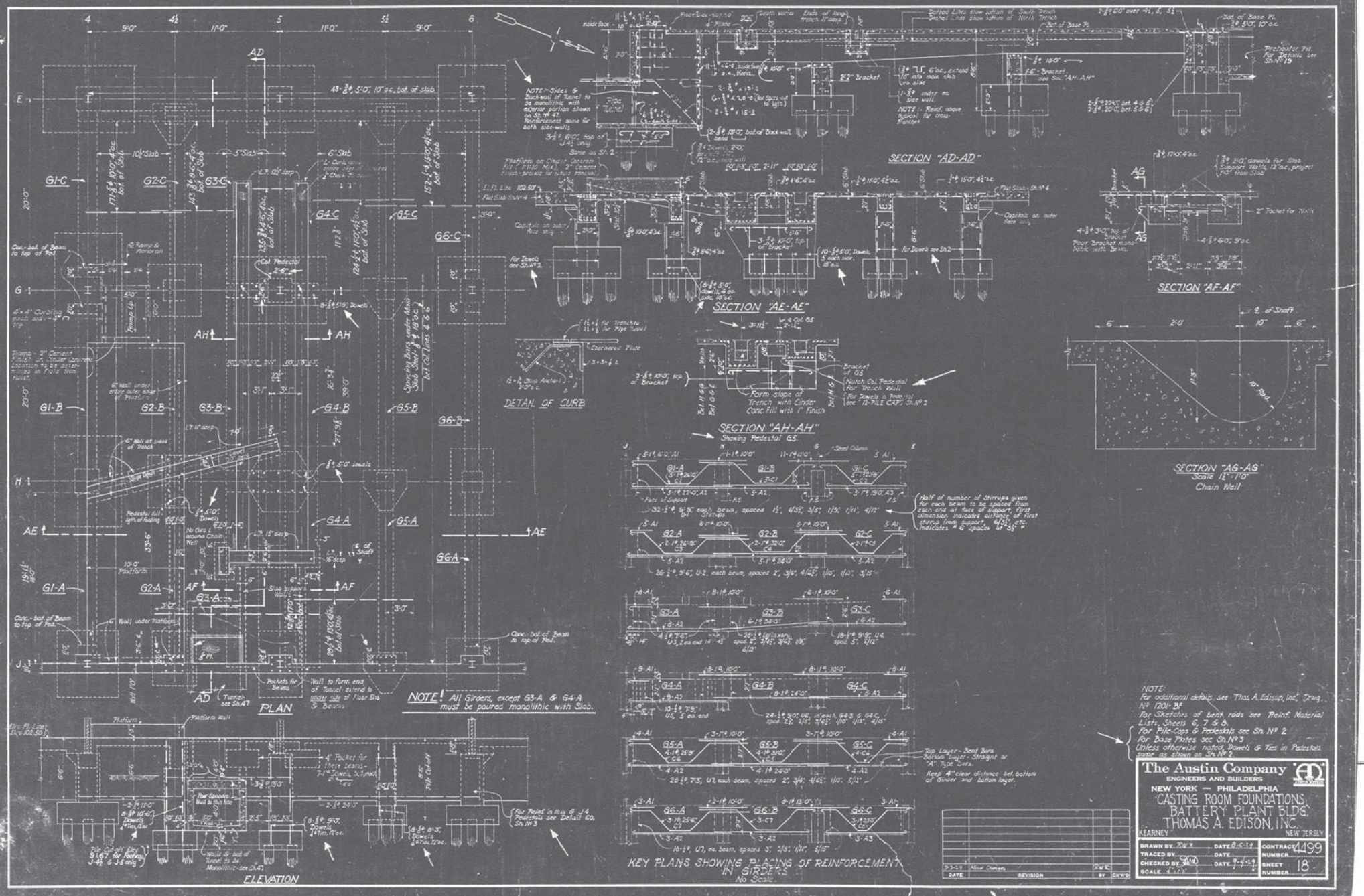
DATE	REVISION	BY	CH'KD
8-5-21	Section 7-7, Brace added		
4-27-16	Bracing Mez. Floor added		
[illegible]	[illegible]		
[illegible]	[illegible]		
[illegible]	[illegible]		
[illegible]	[illegible]		
[illegible]	[illegible]		

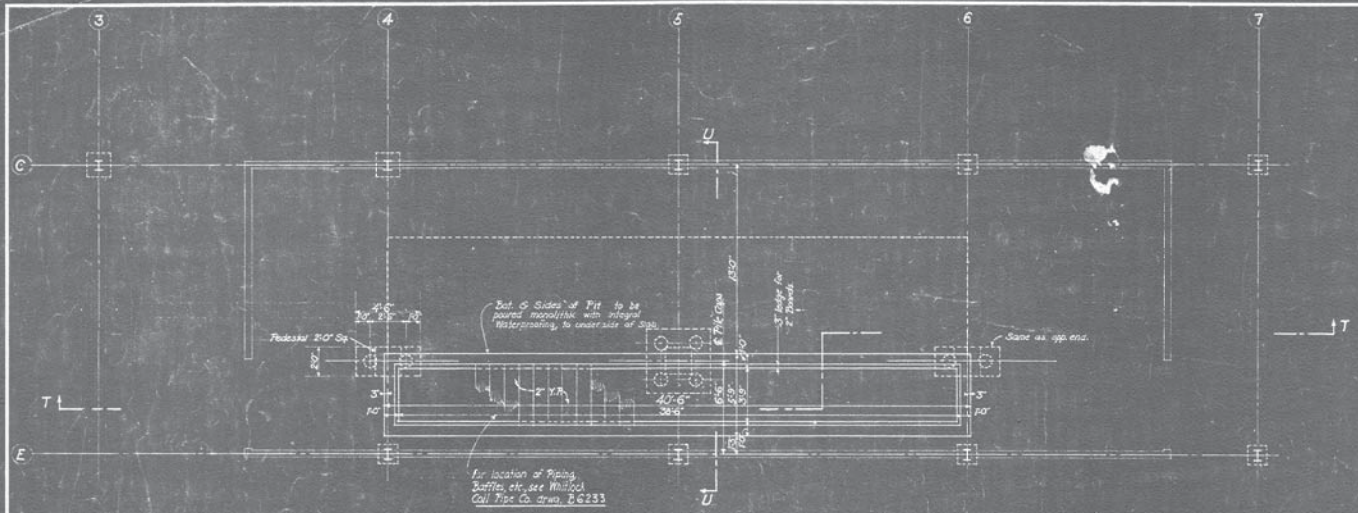
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

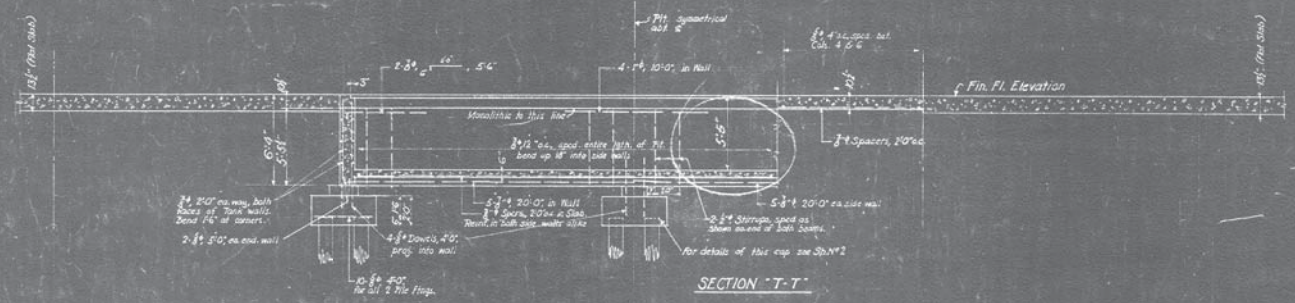
STEEL FRAMING SECTIONS
BATTERY PLANT - BLDG.
THOMAS A. EDISON, INC.
ORANGE, NEW JERSEY

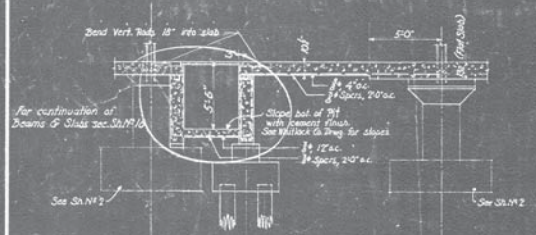
DRAWN BY H.K.	DATE 5-16-16	CONTRACT	199
TRACED BY	DATE	NUMBER	
CHECKED BY	DATE	SHEET NUMBER	16
SCALE			


WEST ELEVATION OF SEPARATOR & OXIDE HANDLING DEPTS.
EAST ELEVATION OF SEPARATOR DEPT
SOUTH ELEVATION OF SEPARATOR & OXIDE DEPTS.
Hold
DETAIL "AB-AB"
SOUTH ELEVATION OF FORMING DEPT.
EAST ELEVATION OF OXIDE HANDLING DEPT
SECTION N-N
DETAIL OF PAY WINDOW
DETAIL OF WOOD COPING
SECTION THRU SUPT'S OFFICE
WEST ELEVATION OF SUPT'S OFFICE
EAST ELEVATION OF FORMING DEPT
SOUTH ELEVATION OF ASSEMBLING DEPT
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
ELEVATIONS OF INTERIOR PARTITIONS
BATTERY PLANT BLDG
THOMAS A. EDISON INC.
KEARNEY
DRAWN BY
DATE
TRACED BY
DATE
CHECKED BY
DATE
SCALE
CONTRACT NUMBER 4193
SHEET NUMBER 17
DATE
REVISION
BY
CH'KD


PLAN
ELEVATION
SECTION "AD-AD"
SECTION "AE-AE"
SECTION "AF-AF"
SECTION "AG-AG"
Scale 1½" = 1'-0"
Chain Wall
DETAIL OF CURB
SECTION "AH-AH"
Showing Pedestal G5.
KEY PLANS SHOWING PLACING OF REINFORCEMENT IN GIRDERS
No Scale.
NOTE! All Girders, except G3-A & G4-A must be poured monolithic with Slab.
NOTE:
For additional details see Thos. A. Edison, Inc., Drwg. No 1201-BF
For Sketches of bent rods see Reinf. Material Lists, Sheets 6, 7 & 8.
For Pile-Caps & Pedestals see Sh. No 2
For Base Plates see Sh. No 3
Unless otherwise noted, Dowels & Ties in Pedestals same as shown on Sh. No 2.
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
CASTING ROOM FOUNDATIONS
BATTERY PLANT BLDG.
THOMAS A. EDISON, INC.
KEARNEY NEW JERSEY
DRAWN BY
TRACED BY
CHECKED BY
SCALE
DATE
CONTRACT 4499
NUMBER
SHEET 18
NUMBER
REVISION
BY
CH'K'D







Extra

NOTE:-
Bottom of Pit to be sloped with cement finish as shown on Whitlock Coil Pipe Drwg. B 6233-A
6233-1

DATE	REVISION	BY	CH'K'D
3/24/24	Bottom of pit changed from 3'-4" to 3'-6"		

The Austin Company
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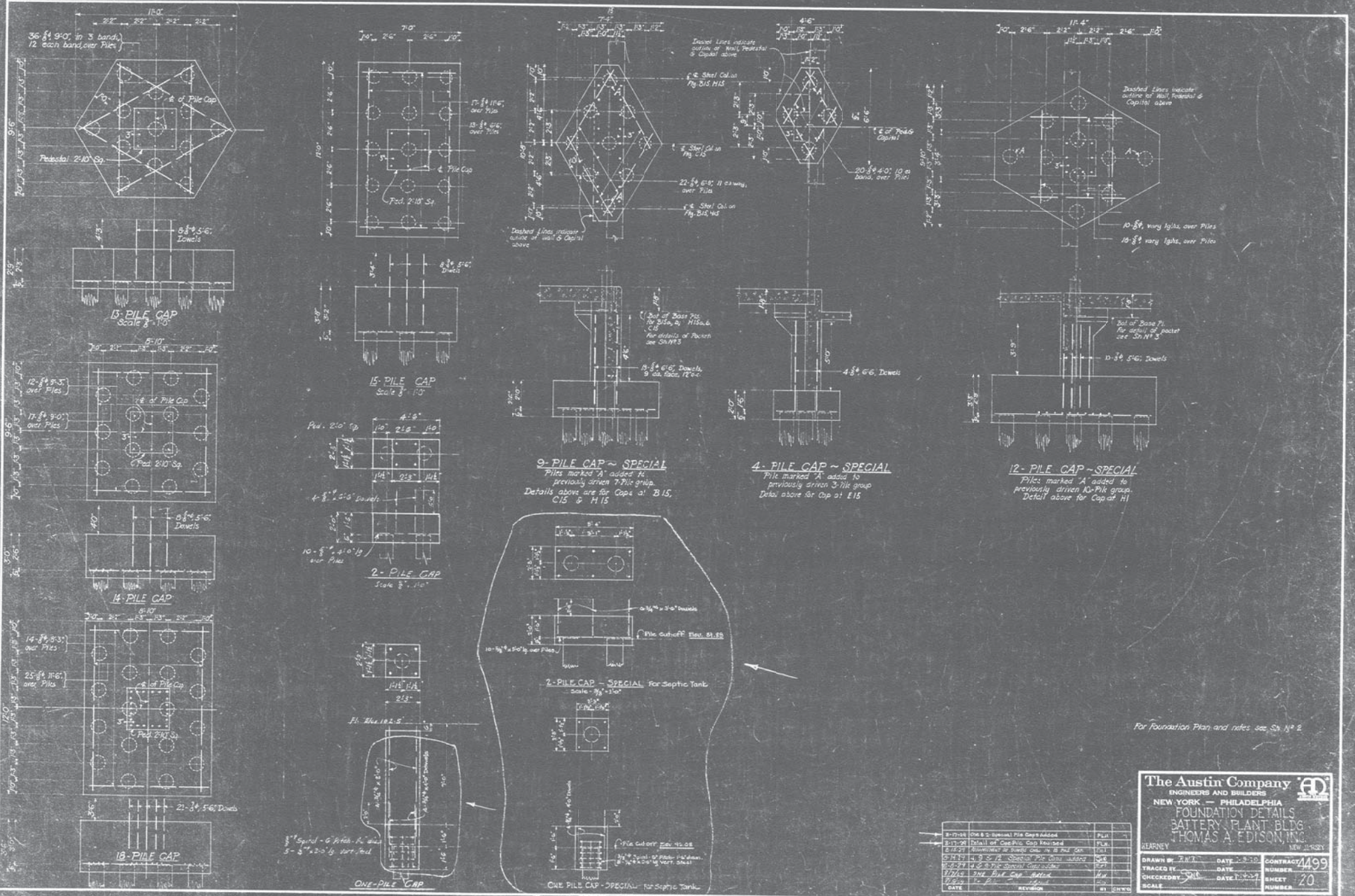
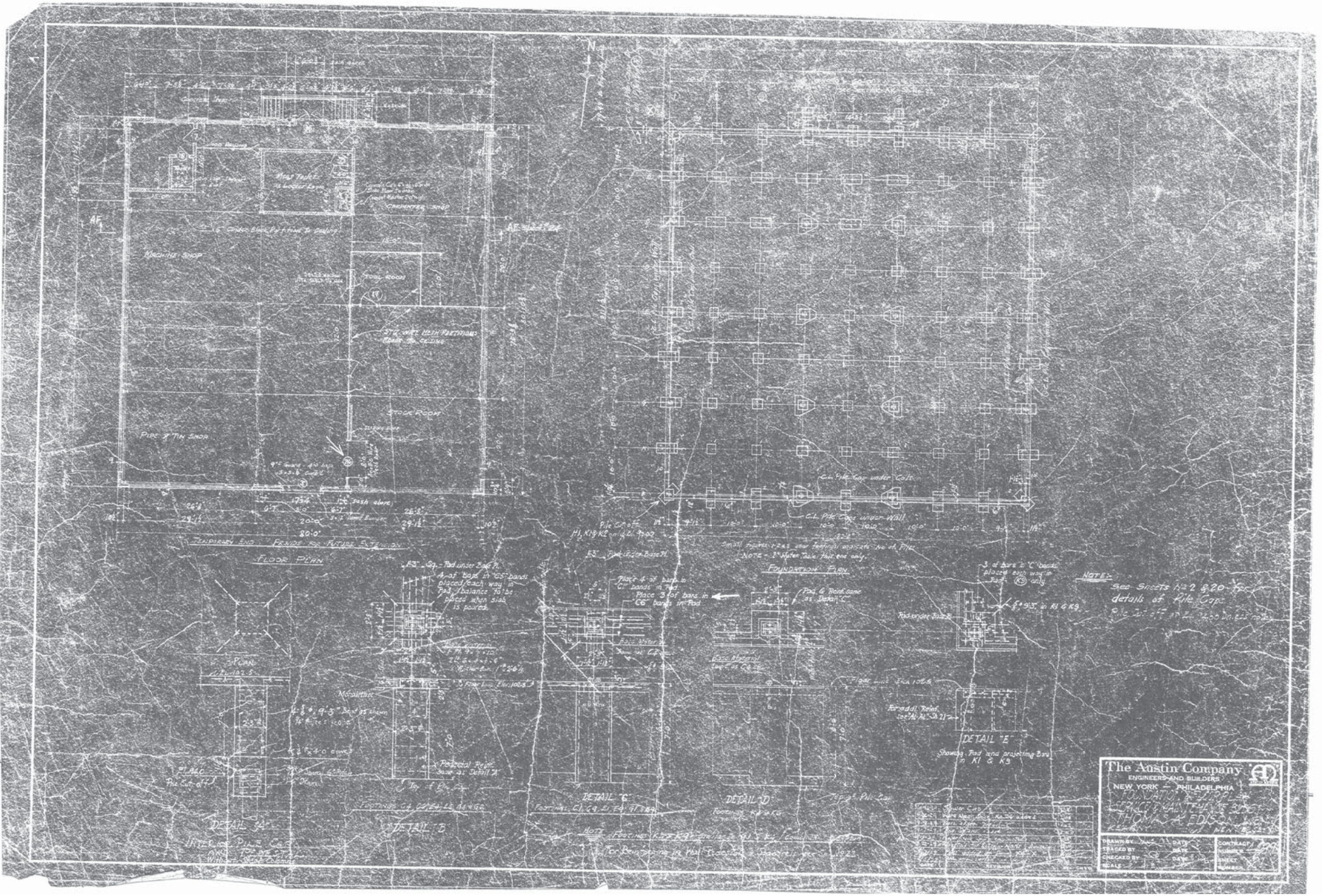
NEW YORK — PHILADELPHIA

PREHEATER PIT
BATTERY PLANT BLDG.
THOMAS A. EDISON, INC.
KEARNEY NEW JERSEY

DRAWN BY R.W. Reed	DATE 2-7-24	CONTRACT NUMBER	A499
TRACED BY	DATE	SHEET NUMBER	19
CHECKED BY	DATE		
SCALE 1/4" = 1'-0"			


13-PILE CAP
Scale 3/8" = 1'-0"
14-PILE CAP
18-PILE CAP
15-PILE CAP
Scale 3/8" = 1'-0"
2-PILE CAP
Scale 3/8" = 1'-0"
ONE-PILE CAP
9-PILE CAP ~ SPECIAL
Piles marked "A" added to previously driven 7-Pile group.
Details above are for Caps at B15, C15 & H15
4-PILE CAP ~ SPECIAL
Pile marked "A" added to previously driven 3-Pile group
Detail above for Cap at E15
12-PILE CAP ~ SPECIAL
Piles marked "A" added to previously driven 10-Pile group.
Detail above for Cap at H1
2-PILE CAP ~ SPECIAL For Septic Tank
Scale - 3/8" = 1'-0"
ONE PILE CAP - SPECIAL For Septic Tank
For Foundation Plan and notes see Sh. No. 2
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
FOUNDATION DETAILS
BATTERY PLANT BLDG.
THOMAS A. EDISON, INC.
KEARNEY NEW JERSEY
DRAWN BY
TRACED BY
CHECKED BY
SCALE
CONTRACT NUMBER 4499
SHEET NUMBER 20


FLOOR PLAN
MACHINE SHOP
TOOL ROOM
STORE ROOM
PIPE & TIN SHOP
CARPENTER SHOP
FOUNDATION PLAN
DETAIL "A"
DETAIL "B"
DETAIL "C"
DETAIL "D"
DETAIL "E"
NOTE:- See Sheets 1 & 2 & 20 for details of Pile Cap.
The Austin Company
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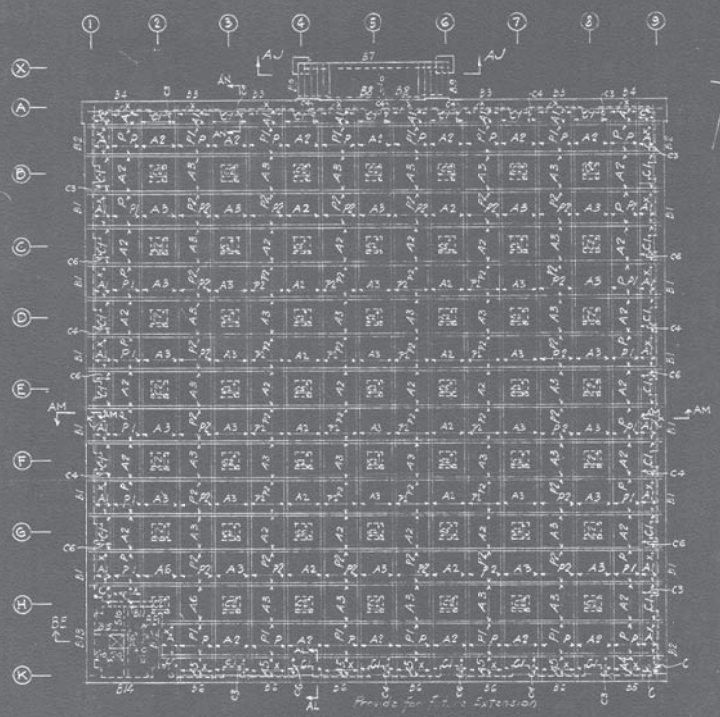
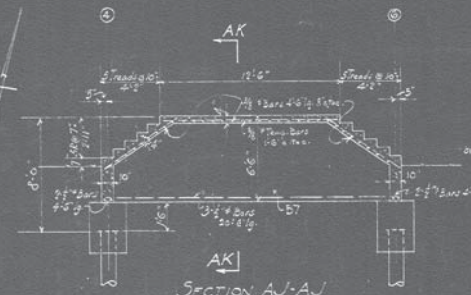
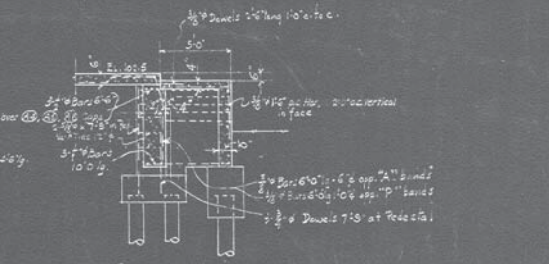
NEW YORK — PHILADELPHIA



FLAT SLAB REINFORCING PLAN
6" Slab



SECTION AJ-AJ
Scale ¼"=1'-0"



SECTION AK-AK
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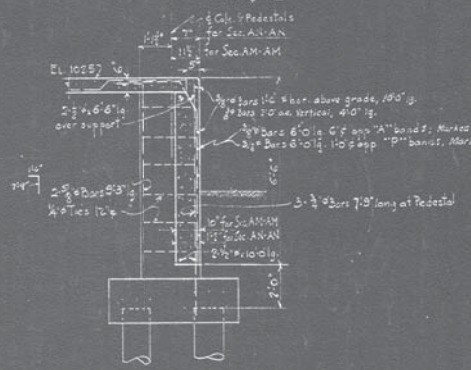
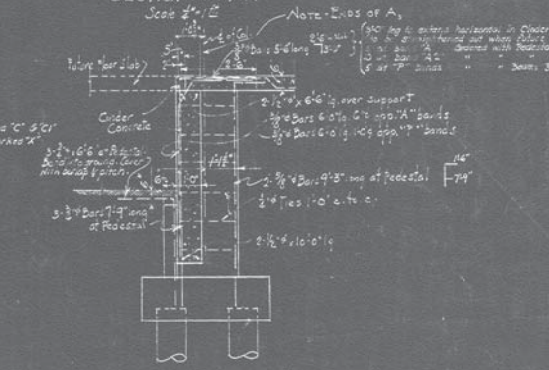
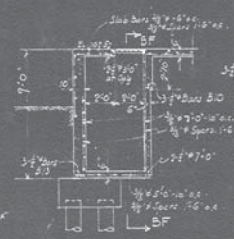


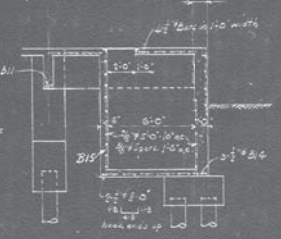
SECTION AM-AM
SECTION AN-AN
Scale ¼"=1'-0"



SECTION AL-AL (Temporary End)
Scale ½"=1'-0"



SECTION BE-BE



SECTION BF-BF

NOTES:-
For Details of Pedestals see Sh. 21

FLAT SLAB STEEL SCHEDULE

Mark	Negative at Bend	Str. Steel Bars No.	Str. Steel Bars Length	Add. Bars No.	Add. Bars Length	Str. Steel Bars No.	Str. Steel Bars Length	Add. Bars No.	Add. Bars Length	Str. Steel over Beams Mark	No.	Length	Remarks
A	12'-0"	2	9'-0"	2	16'-0"	2	10'-0"	2	5'-3"	C	5	6'-11"	C2 bars to lap bent "A" bars
A1	12'-0"	2	7'-9"	2	16'-0"	2	10'-0"	2	5'-3"	C1	10	8'-0"	C1 bars to lap bent A2 bars
A2	15'-0"	4	9'-0"	4	16'-0"	2	10'-0"	2	5'-3"	C2	6	5'-0"	
A3	15'-0"	4	7'-9"	3	16'-0"	2	10'-0"	2	5'-3"	C3	4	5'-0"	
A4	15'-0"	3	9'-0"	2	14'-0"	2	10'-0"	2	5'-3"	C4	4	5'-0"	
A5	15'-0"	3	7'-9"	2	16'-0"	2	10'-0"	2	5'-3"	C5	12	5'-0"	See Details "B" Sh. No. 21
A6	15'-0"	4	9'-0"	4	16'-0"	2	10'-0"	2	5'-3"	C6	8	5'-0"	" " "C" " " 21
P	15'-0"	2	9'-0"	2	14'-0"								
P1	15'-0"	2	7'-9"	2	16'-0"								
P2	15'-0"	2	7'-9"	2	16'-0"								
X	15'-0"	5	5'-6" & 6'-0" bent										to lap bars in "P" Band.

NOTE:- All Mark "C" type bars ordered with piers on Material List.

BEAM SCHEDULE

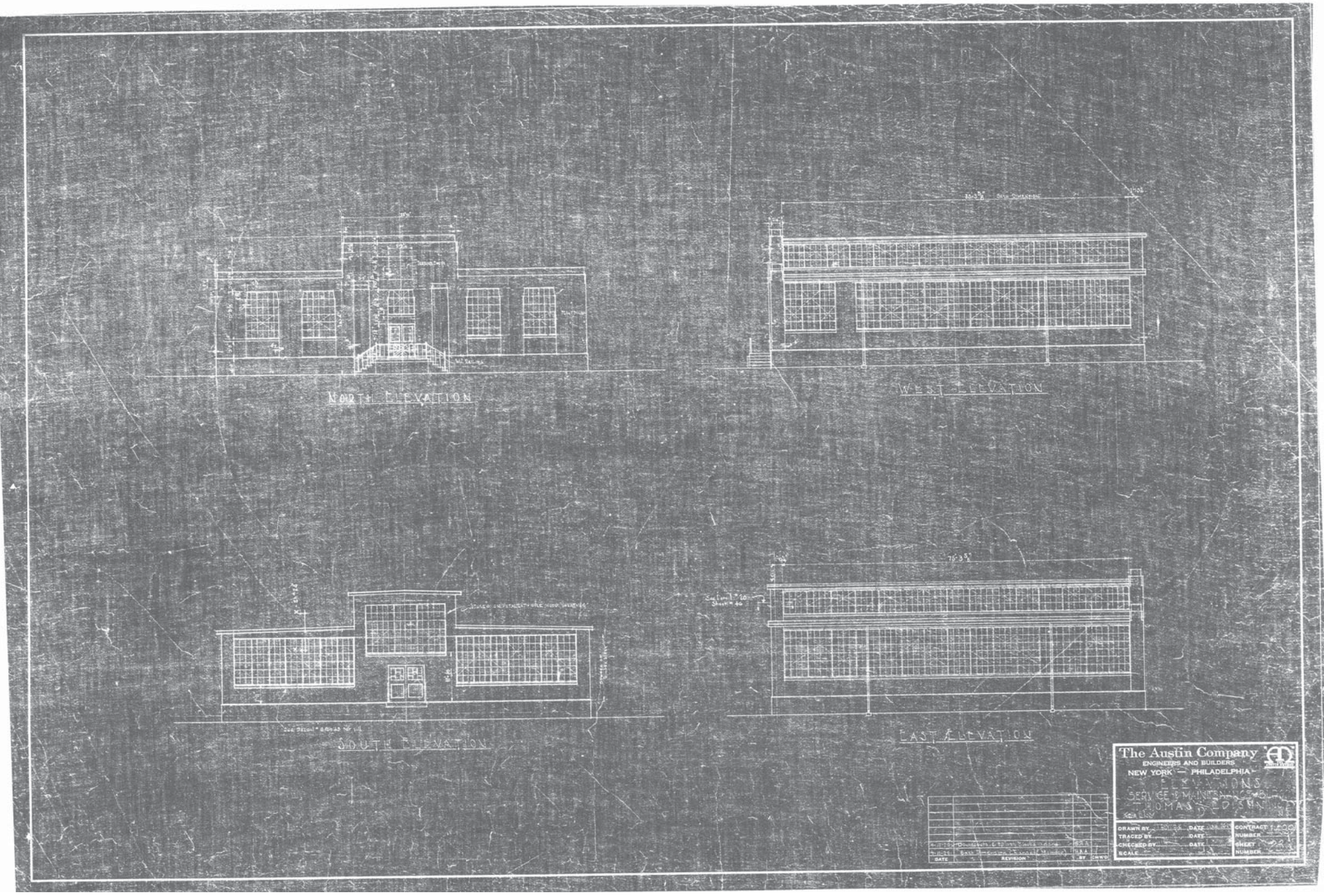
Mark	Size	Straight Steel Bottom No.	Size	Lgth.	Bent Steel No.	Mark	Size	Lgth.	Stirrups No.	Mark	Size	Lgth.	Spacing	Remarks
B1	10"x18"	2	1¼"ϕ	10'-0"										2-⅝"ϕ 6'-6" top over support
B2	10"x18"	2	"	10'-0"										2-⅝"ϕ 4'-6" top at end "
B3	14"x18"	2	"	10'-0"										2-⅝"ϕ 6'-6" top over support
B4	14"x18"	2	"	10'-0"										2-⅝"ϕ 4'-6" top at end "
B5	12"x18"	2	"	10'-0"										do " "
B6	12"x18"	2	"	10'-0"										2-⅝"ϕ 6'-6" top over support
B7	10"x Var.	3	"	26'-6"										See Detail "Sec. A-A" Sh. AK
B8	16" x Var.	3	1¼"ϕ	10'-0"										2-⅝"ϕ 6'-6" top over support See Detail
B9	10"x 25"	2	1¼"ϕ	4'-6"										See Sec. B2, Sh.
B10	8"x24"	3	¾"ϕ	10'-0"					2	11	¼"ϕ	6'-8"	6"	1 c.a. end
B11	8"x24"	3	¾"ϕ	10'-0"										
B12	8"x12"	3	¾"ϕ	10'-0"					4	U2	¾"	2'-8"	4"	11" 2 c.a. end
B13	10"x10.5"	3	¾"ϕ	10'-0"										3-⅝"ϕ 6'-0" 2 c.a. top of wall
B14	12"x10.5"	3	½"ϕ	10'-0"										
B15	6"x10.5"	-	-	-	2	¾"ϕ	8'-0"							See Sec. "BF-BF"

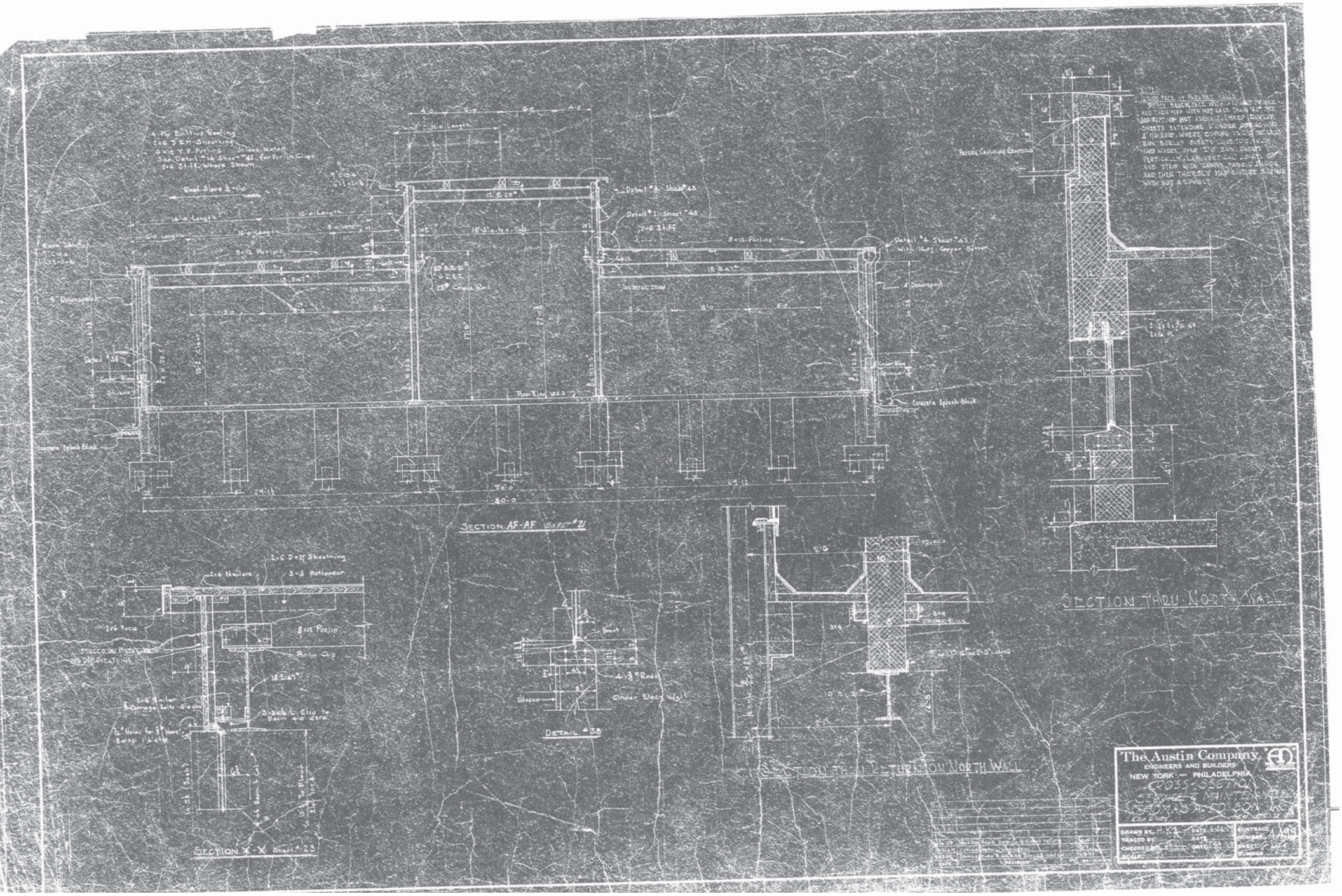
DATE	REVISION	BY	CH'K'D
11-13-25	6th Revision		
10-13-25	5th Revision		

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

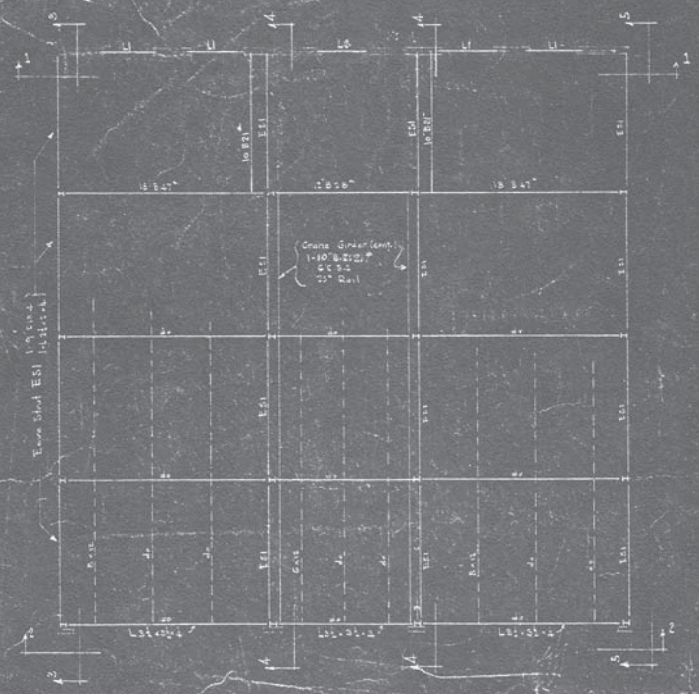
CONCRETE FRAMING PLAN
SERVICE & MAINTENANCE BLDG.
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY

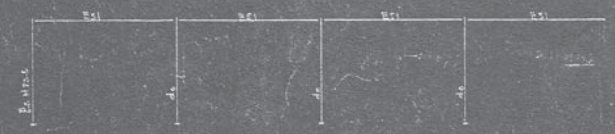
DRAWN BY	DATE 2-5-25	CONTRACT	1199
TRACED BY	DATE	NUMBER	
CHECKED BY	DATE	SHEET	22
SCALE		NUMBER	


NORTH ELEVATION
WEST ELEVATION
SOUTH ELEVATION
EAST ELEVATION
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
ELEVATIONS
SERVICE & MAINTENANCE BLDG.
THOMAS EDISON
DRAWN BY
DATE
TRACED BY
DATE
CHECKED BY
DATE
SCALE
CONTRACT
NUMBER
SHEET
NUMBER
DATE
REVISION
BY
CHK'D

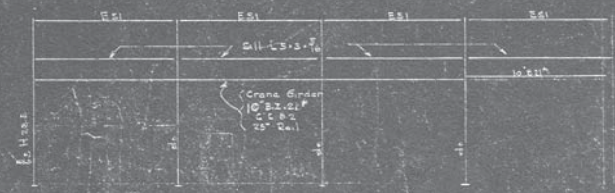


4 Ply Built-up Roofing
2x6 D.E.M. Sheathing
6 x 12 Y.P. Purlins Unless Noted
See Detail #14 Sheet #45 for Purlin Clips
2x6 Stiff. Where Shown
Roof Slope 1/4-1'-0
14'-0 Length
16'-0 Length
8'-0 Length
6'-0 Length
8x12 Purlins
Detail #4 Sheet #45
Detail #2 Sheet #45
2x6 Stiff
Detail #4 Sheet #45
With 16 oz Copper Batter
4" Downspout
Concrete Splash Block
Flow Elev. 102.5
80'-0
SECTION AF-AF Sheet #21
2x6 D+M Sheathing
2x4 Nailers
3x3 Outlooker
2x6 Facia
8x12 Purlin
Purlin Clip
Stucco on Metal Lath
Stucco
Cinder Block Wall
DETAIL #58
SECTION X-X Sheet #23
SECTION THRU RETURN ON NORTH WALL
SECTION THRU NORTH WALL
Forced Caulking Compound
NOTE:
INSIDE FACE OF PARAPET WALLS
PRIME BLOCK FACE WITH ASPHALT PRIMER
AND THEN MOP WITH HOT LESS THAN 45° PER
100 SQ.FT. OF HOT ASPHALT. (MOP DURLAP
SHEETS EXTENDING 6" UNDER COPING AND
4" ON ROOF. WHERE COPING IS 2'-0" OR LESS
RUN BURLAP SHEETS LONGITUDINALLY
AND WHERE OVER 2'-0" RUN SHEETS
VERTICALLY, LAP VERTICAL JOINTS
AND STRIP WITH CANVAS FABRIC BONDS
AND THEN THOROLY MAP ENTIRE SURFACE
WITH HOT ASPHALT
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
CROSS-SECTION
SERVICE & MAINTENANCE BLDG
THOMAS A. EDISON INC.
KEARNY
DRAWN BY
TRACED BY
CHECKED BY
SCALE
DATE
CONTRACT
NUMBER
SHEET
NUMBER

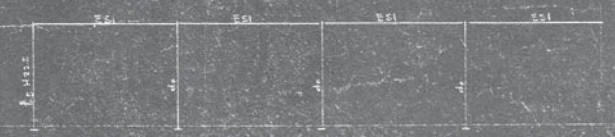




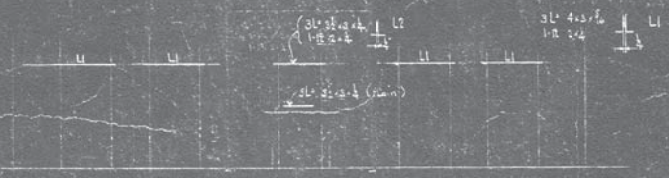
SECTION 3-3



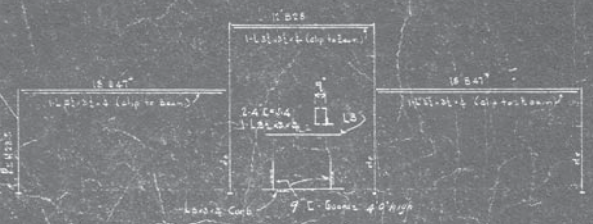
SECTION 4-4



SECTION 5-5



SECTION 1-1



SECTION 2-2

Notes:

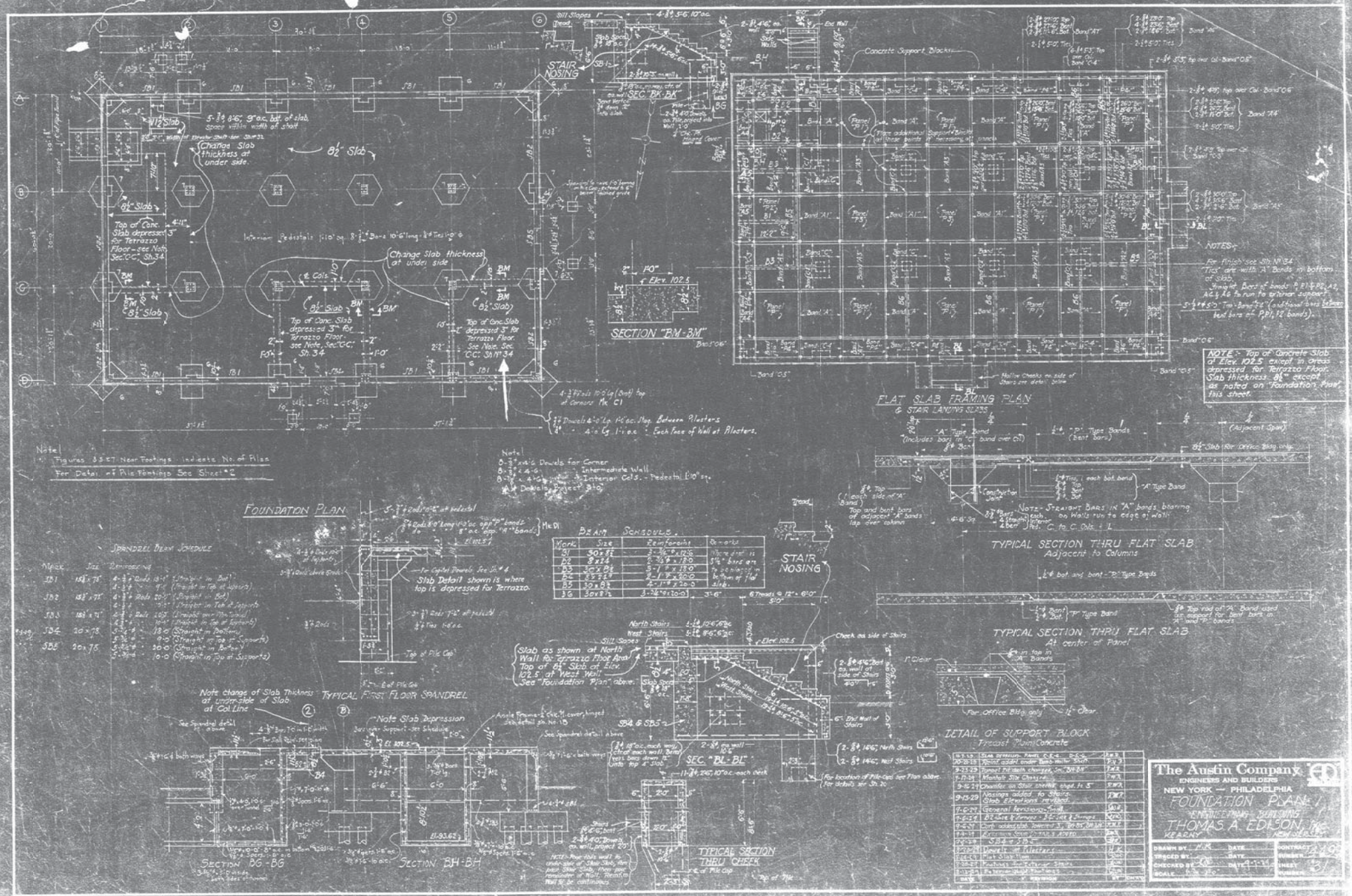
All Steel to be Shop Riveted. Main Members Field Riveted. Secondary Members Field Bolted.
Shop Rivets 12,000# in Shear 24,000# in Brg.
Field " 10,000# in " 20,000# in "
Paint one Shop Coat of Du Pont #44 Brown Primer.
Lintels over openings 3'-0" or less to have 6" Brg. 3'-0" to 5'-0" 9" Brg. over 15'-0" to have 12" Bearing. Channel Lintels to have 1" G.P. Seps.

DATE	REVISION	BY	CH'K'D
10-30-39	Shop Paint Box		

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

STEEL FRAMING PLAN
SERVICE & MAINTENANCE BODY
TACOMAS ALLEGHENY, INC.
KEARNY, NEW JERSEY

DRAWN BY H.K.	DATE 2-25-39	CONTRACT NUMBER	4499
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	25
SCALE			



BEAM SCHEDULE

Mark	Size	Reinforcing	Remarks
B1	30 x 8½	3-⅞" ⌀ x 12'-6"	Where dist. is 5½" bars are to be placed in bottom of flat slab.
B2	8 x 24	2-⅞" ⌀ x 18'-0"	
B3	30 x 8½	3-1" ⌀ x 18'-0"	
B4	8 x 24	2-1" ⌀ x 20'-0"	
B5	30 x 8½	4-1" ⌀ x 20'-0"	
B6	30 x 8½	3-¾" ⌀ x 20'-0"	

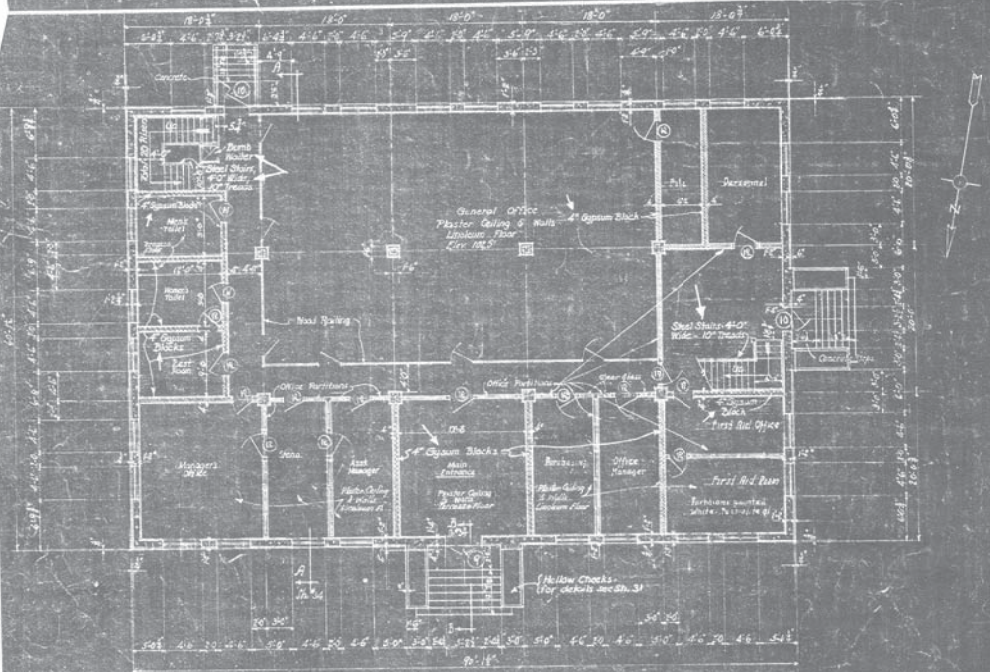
SPANDREL BEAM SCHEDULE

Mark	Size	Reinforcing	
SB1	15½ x 78	4-⅞" ⌀ Rods 18'-0"	(Straight in Bot.)
		4-⅞" ⌀ " 9'-0"	(Straight in Top at Supports)
SB2	15½ x 78	4-⅞" ⌀ Rods 20'-0"	(Straight in Bot.)
		4-⅞" ⌀ " 10'-0"	(Straight in Top at Supports)
SB3	15½ x 78	4-⅞" ⌀ Rods 20'-0"	(Straight over Mid-Turned)
		4-⅞" ⌀ " 10'-0"	(Straight in Top at Supports)
SB4	20 x 78	5-⅞" ⌀ " 18'-0"	(Straight in Bottom)
		5-⅞" ⌀ " 9'-0"	(Straight in Top at Supports)
SB5	20 x 78	5-⅞" ⌀ " 20'-0"	(Straight in Bottom)
		5-⅞" ⌀ " 10'-0"	(Straight in Top at Supports)

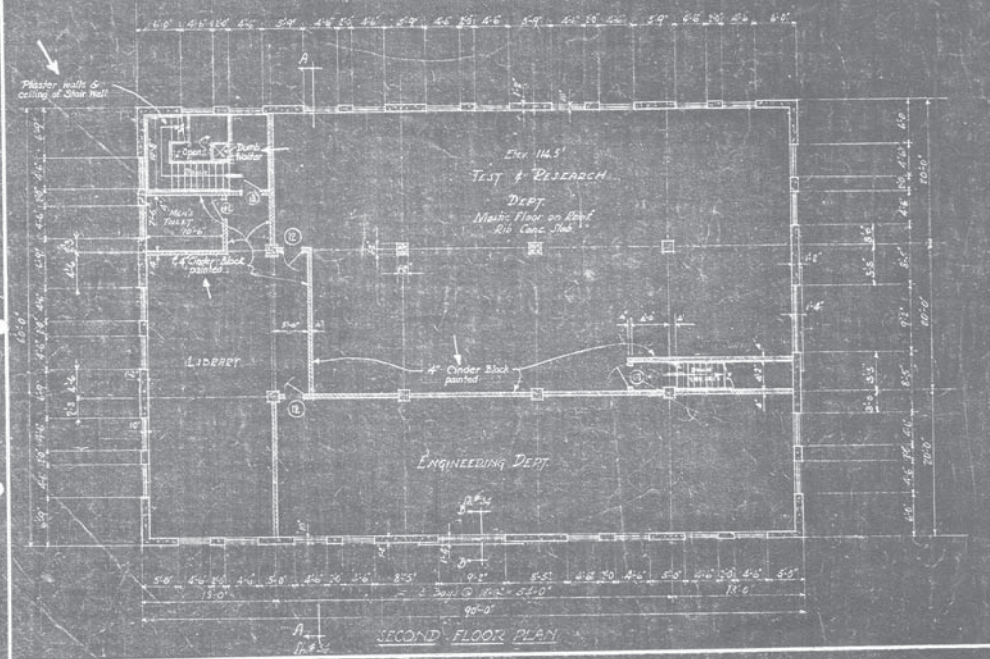
Date	Revision	By	Check
11-7-29	Slab Depression Panel C-5-6 D-5-6	R.W.R.	
10-28-29	Reinf. addl. under Bomb-water Shaft	R.W.R.	
9-23-29	Tunnel Pit depth changed, Sec. "BH-BH"	R.W.R.	
9-17-29	Manhole Size Changed	R.W.R.	
9-16-29	Chamfer on Stair sheet, chgd. to 5"	R.W.R.	
9-13-29	Nosings added to Stairs. Slab Elevations revised.	R.W.R.	
9-6-29	General Revisions - Final	[illegible]	
9-6-29	B2 Size & Stirrups - B4 Size & Stirrups	[illegible]	
9-6-29	Curb added, slab lowered 3", B9-B5, BH-BH	[illegible]	
9-4-29	Excessive Squeezing & Adjs.	[illegible]	
9-4-29	SB4 & SB5	[illegible]	
8-20-29	Dowels at Pilasters	[illegible]	
8-14-29	Wet Slab Plan	[illegible]	
8-13-29	Footings for Exterior Stairs	[illegible]	
8-13-29	Exterior Stairs Footings	[illegible]	
DATE	REVISION	BY	CHECK

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
FOUNDATION PLAN
ENGINEERING BUILDING
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY

DRAWN BY H.K. DATE
TRACED BY DATE
CHECKED BY DATE 9-7-29
SCALE 1/8" = 1'-0"
CONTRACT NUMBER 1449
SHEET NUMBER 31



FIRST FLOOR PLAN



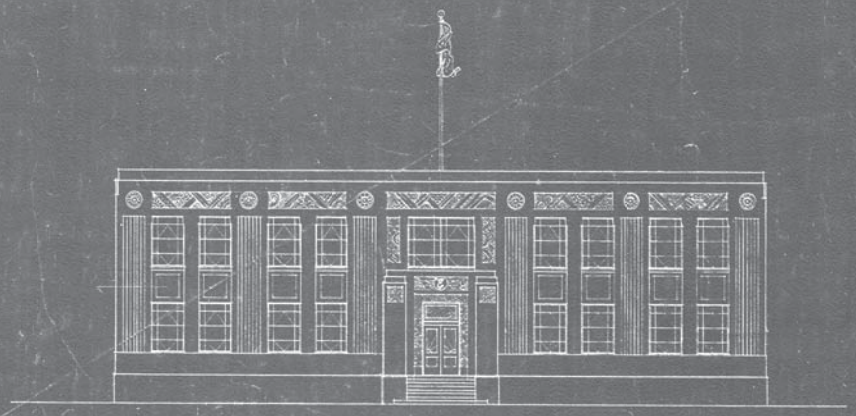
SECOND FLOOR PLAN

DATE	REVISION	BY	CH'K'D
9-6-29	[illegible]	K.W.K.	
8-23-29	[illegible]	K.C.	

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

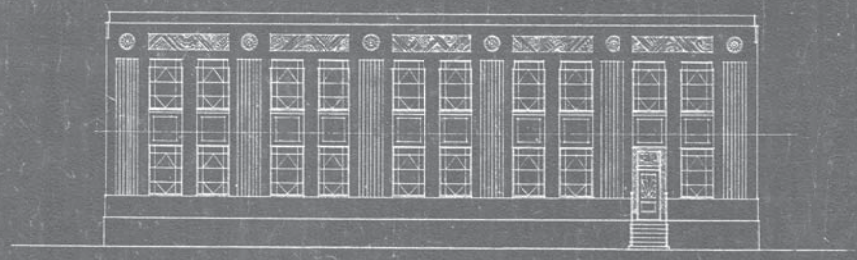
FLOOR PLANS
ENGINEERING BUILDING
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY

DRAWN BY F.W.R.	DATE 8-1-29	CONTRACT NUMBER	4499
TRACED BY	DATE		
CHECKED BY H.K.	DATE 8-23-29	SHEET NUMBER	32
SCALE 1/8" = 1'-0"			

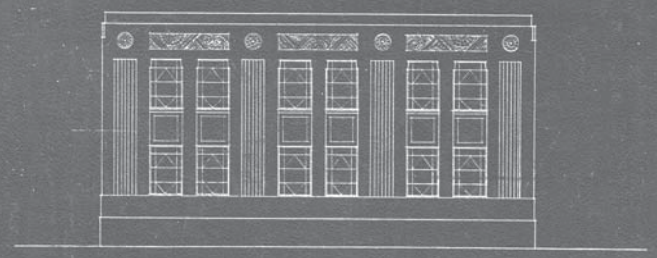


NORTH ELEVATION

WEST ELEVATION



SOUTH ELEVATION



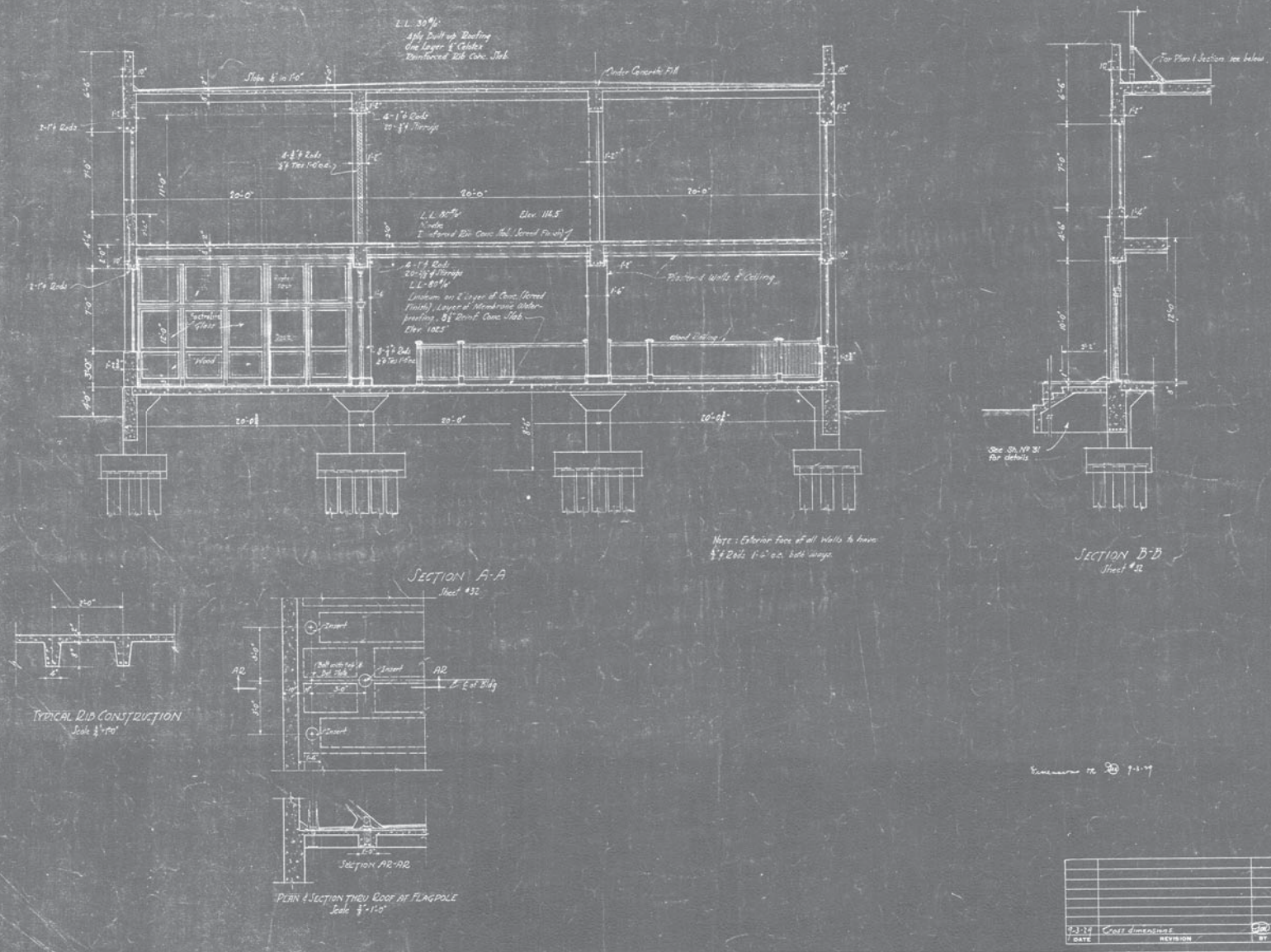
EAST ELEVATION

DATE	REVISION	BY	CH'K'D

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

ELEVATIONS
ENGINEERING BUILDING
THOMAS A. EDISON INC.
KEARNY N.J.

DRAWN BY		DATE	CONTRACT NUMBER 4499
TRACED BY		DATE	
CHECKED BY		DATE	SHEET NUMBER 33
SCALE:			

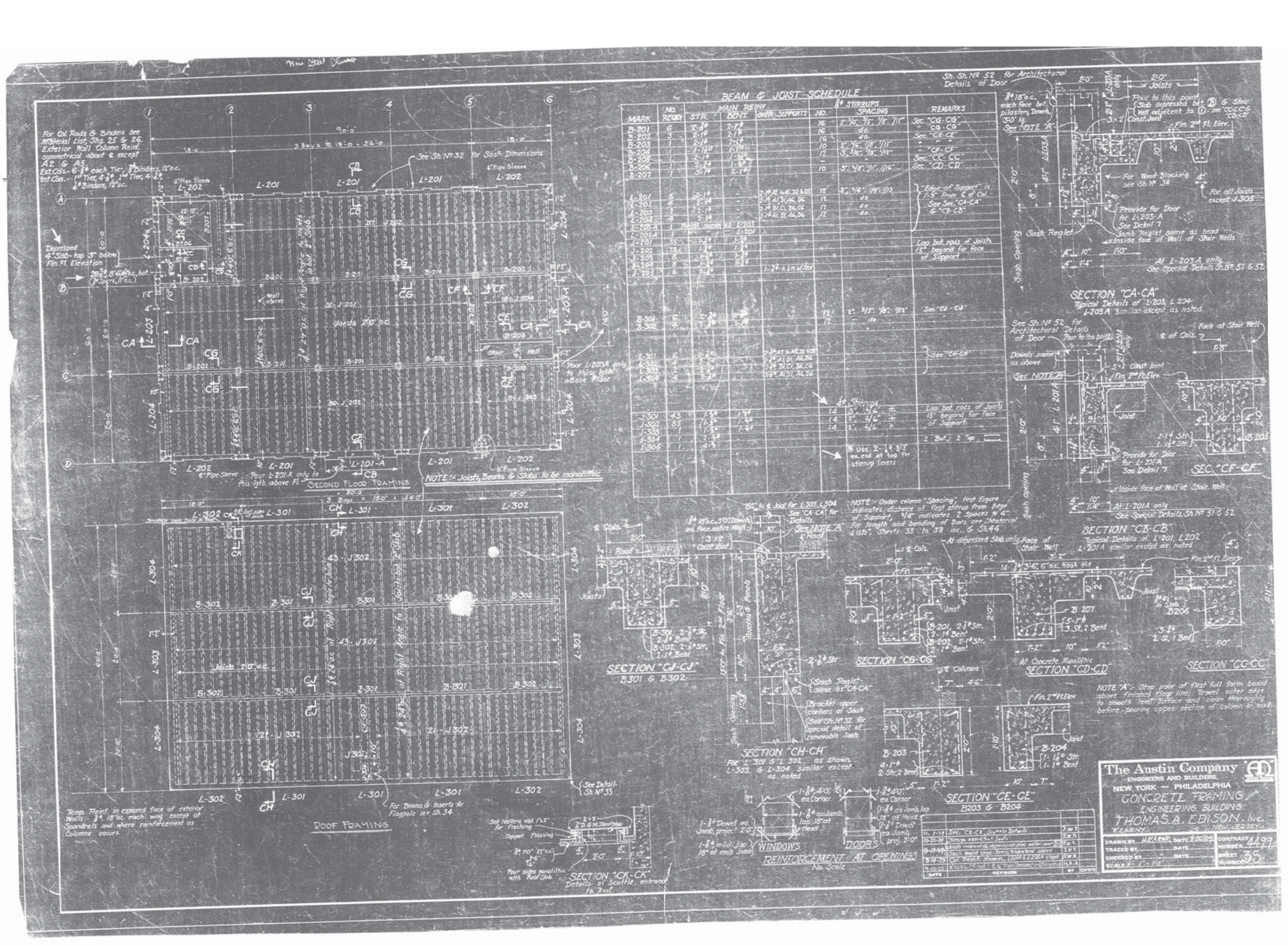


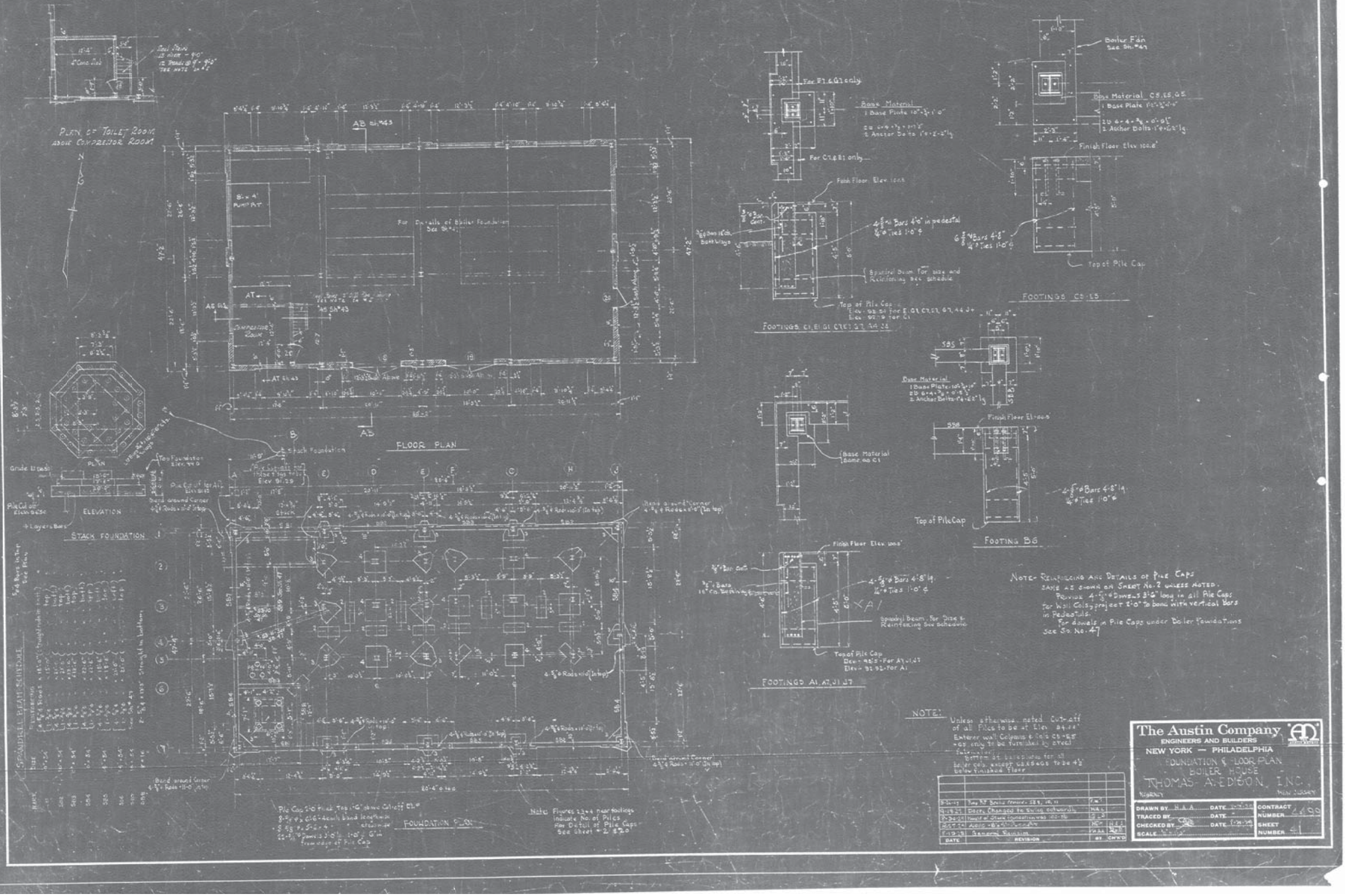
DATE	REVISION	BY	CH'K'D
9-3-24	Cross dimensions		

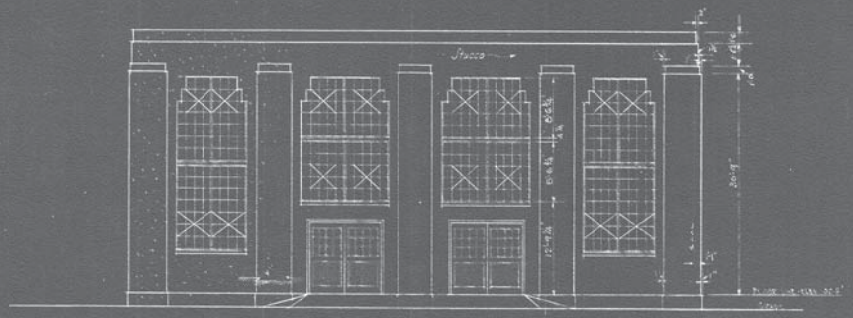
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

CROSS SECTION
ENGINEERING BUILDING
THOMAS A. EDISON, INC.
KEARNY, NEW JERSEY

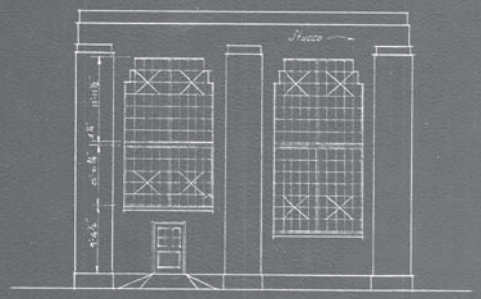
DRAWN BY C.G.L.	DATE 7-1-29	CONTRACT NUMBER	4499
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	34
SCALE 1/4"=1'-0"			


BEAM & JOIST SCHEDULE
MARK
NO. REQD.
MAIN REINF STR.
MAIN REINF BENT.
OVER SUPPORTS
STIRRUPS NO.
STIRRUPS SPACING
REMARKS
SECOND FLOOR FRAMING
NOTE:- Joists, Beams & Slabs to be monolithic
ROOF FRAMING
SECTION "CA-CA"
SECTION "CB-CB"
SECTION "CF-CF"
SECTION "CJ-CJ"
B301 & B302
SECTION "CG-CG"
SECTION "CD-CD"
SECTION "CC-CC"
SECTION "CH-CH"
SECTION "CE-CE"
B203 & B204
SECTION "CK-CK"
WINDOWS
DOORS
REINFORCEMENT AT OPENINGS
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
CONCRETE FRAMING
ENGINEERING BUILDING
THOMAS A. EDISON, Inc.
KEARNY, NEW JERSEY
CONTRACT NUMBER 1199
SHEET NUMBER 55

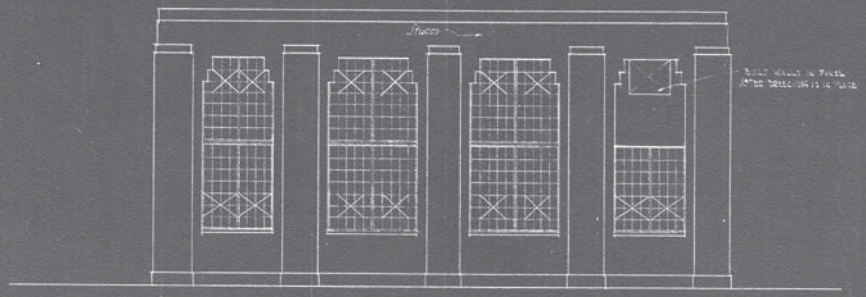

PLAN OF TOILET ROOM ABOVE COMPRESSOR ROOM
FLOOR PLAN
STACK FOUNDATION
ELEVATION
FOUNDATION PLAN
FOOTINGS C1, E1, G1, C7, E7, G7, A4, J4
FOOTINGS C5, E5
FOOTING B6
FOOTINGS A1, A7, J1, J7
Base Material
Finish Floor Elev. 100.8'
Top of Pile Cap
Boiler Fdn See Sh. #47
Note- Reinforcing and Details of Pile Caps same as shown on Sheet No. 2 unless noted.
Provide 4-5/8"ø Dowels 3'-6" long in all Pile Caps for Wall Cols, project 2'-0" to bond with vertical bars in Pedestals.
For dowels in Pile Caps under Boiler Foundations See Sh. No. 47
NOTE:
Unless otherwise noted Cut-off of all Piles to be at Elev. 94.00'
Exterior wall Columns & Cols C5-E5-G5 only to be furnished by steel fabrication.
Bottom of baseplates for all boiler cols. except C5, E5 & G5 to be 4½" below finished floor.
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
FOUNDATION & FLOOR PLAN
BOILER HOUSE
THOMAS A. EDISON, INC.
NEW JERSEY
DRAWN BY H.A.A.
TRACED BY
CHECKED BY
SCALE
CONTRACT NUMBER
SHEET NUMBER 41



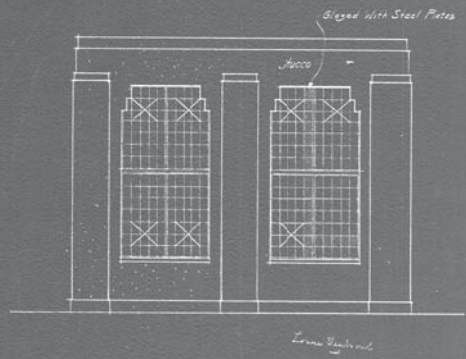
SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION



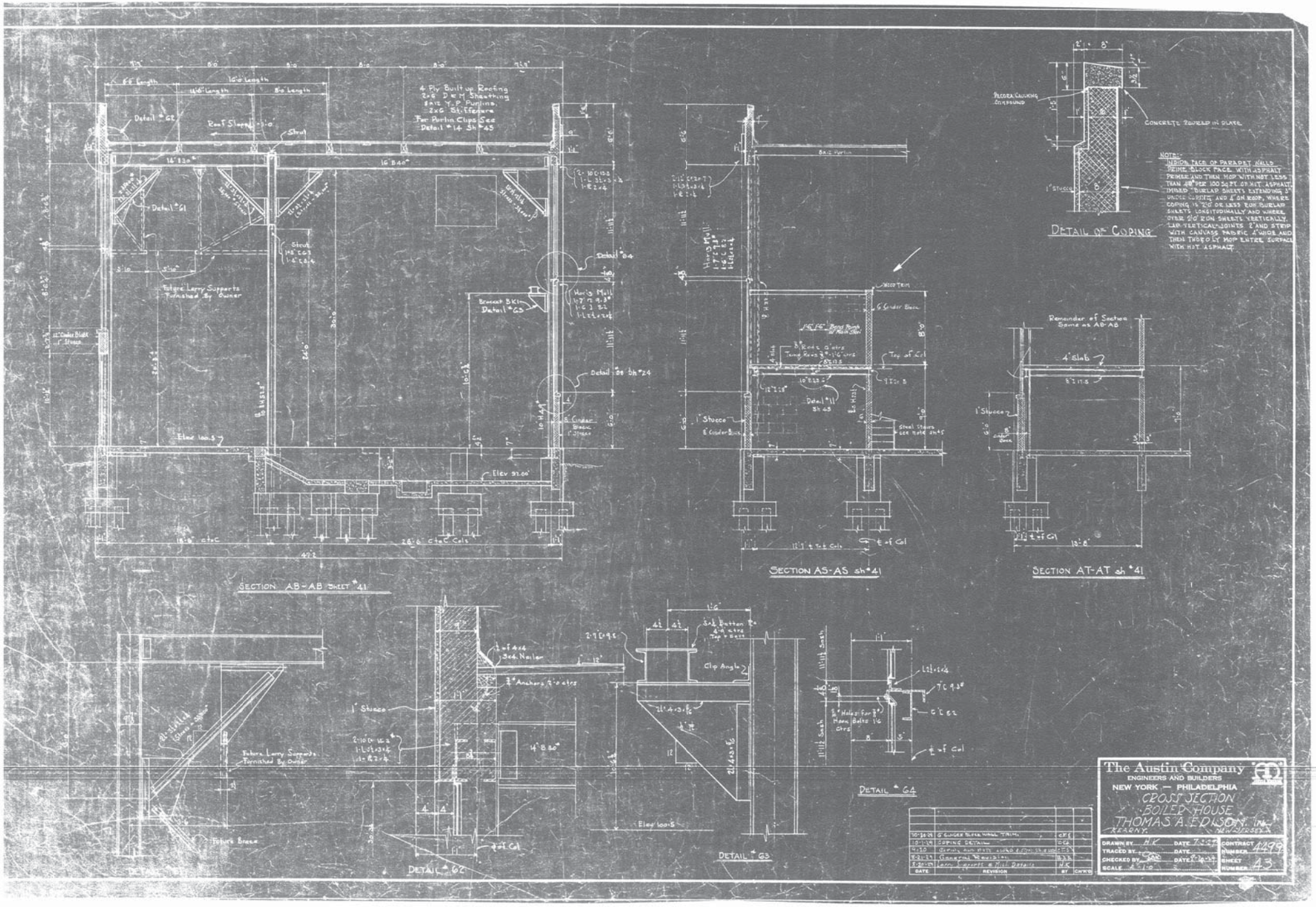
WEST ELEVATION

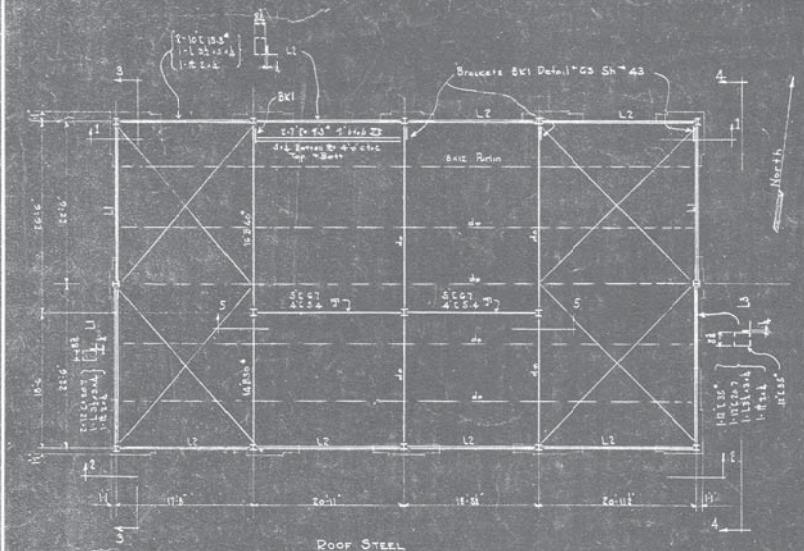
DATE	REVISION	BY	CH'K'D

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

ELEVATIONS
BOILER HOUSE
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY

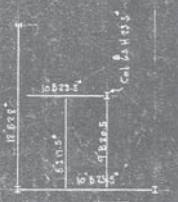
DRAWN BY C.G.	DATE 8-8-29	CONTRACT NUMBER	4499
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	42
SCALE 1/8"=1'-0"			


4 Ply Built up Roofing
2x6 D E M Sheathing
8x12 Y.P. Purlins.
2x6 Stiffeners
For Purlin Clips See
Detail #14 Sh #45
Roof Slope 1:1'0"
Strut
Detail #61
Future Lerry Supports
Furnished By Owner
Brocast Bkt.
Detail #63
Detail #64
Detail #68 Sh #24
Elev 100.5
Elev 97.00'
SECTION AB-AB SHEET #41
Detail #11
Sh #45
Steel Stairs
see note sh #5
Top of Col
1" Stucco
8" Cinder Block
SECTION AS-AS sh #41
Remainder of Section
Same as AB-AB
4" Slab
SECTION AT-AT sh #41
PECORA CALKING COMPOUND
CONCRETE POURED IN PLACE
NOTE:
INSIDE FACE OF PARAPET WALLS PRIME BLOCK FACE WITH ASPHALT PRIMER AND THEN MOP WITH NOT LESS THAN 40# PER 100 SQ FT. OF HOT ASPHALT. IMPREG BURLAP SHEETS EXTENDING 3" UNDER COPING AND 2' ON ROOF, WHERE COPING IS 20" OR LESS FOR BURLAP SHEETS LONGITUDINALLY AND WHERE OVER 20" FOR SHEETS VERTICALLY. LAP VERTICAL JOINTS 2" AND STRIP WITH CANVASS FABRIC 4" WIDE AND THEN THOROUGHLY MOP ENTIRE SURFACE WITH HOT ASPHALT.
DETAIL OF COPING
Future Lerry Supports
Furnished By Owner
Future Brace
DETAIL #62
DETAIL #63
DETAIL #64
Clip Angle
Elev 100.5
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
CROSS SECTION
BOILER HOUSE
THOMAS A. EDISON, INC.
KEARNY, NEW JERSEY
DRAWN BY H.K.
TRACED BY
CHECKED BY
SCALE 1/2"=1'0"
DATE 7-2-27
CONTRACT NUMBER 4499
SHEET NUMBER 43
10-26-28 8" GINDER SUPERSTRUCT. TRIMS. CFE
10-1-28 COPING DETAILS CCG
9-10 Details Sub Base added & Con. Sh. added CCG
8-8-28 General Revisions HK
8-20-28 Lerry Supports & Misc. Details HK
DATE REVISION BY CHK'D



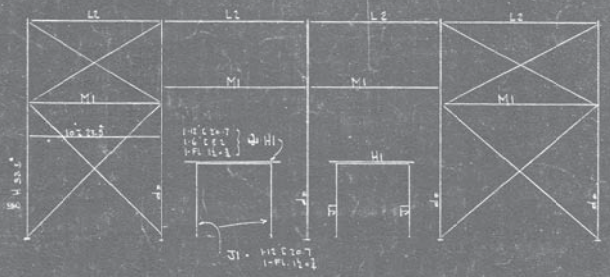
ROOF STEEL

All Bracing 1" ϕ Rods

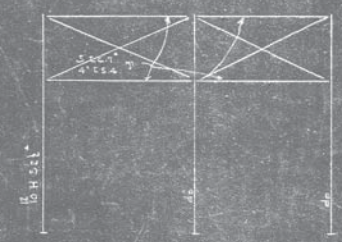


MEZZ FLOOR STEEL

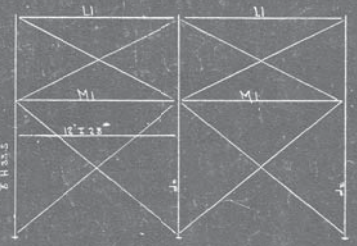
SECTION 2-2



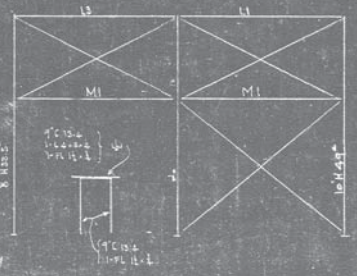
SECTION 2-2



SECTION 5-5



SECTION 3-3



SECTION 4-4

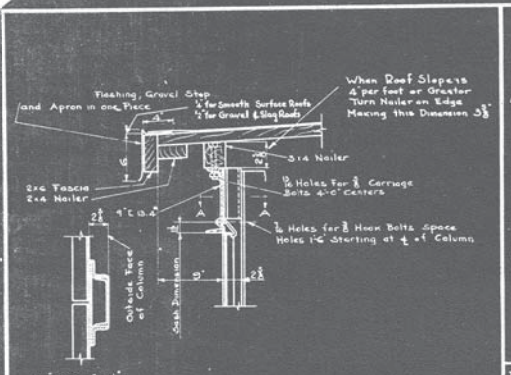
Notes:
All Steel to be Shop Riveted. Main Members Field Riveted. Secondary Members Field Bolted.
Shop Rivets 12,000#/□" Shear 24,000#/□" Bearing
Field " 10,000#/□" " 20,000#/□" "
Paint one Shop Coat of Dis. Ports #6 Gray Lead Primer.
Lintels to Have 2 Rows of G.P. Seps.
Door Guards to Have 2-½ Strap Anchors.

DATE	REVISION	BY	CHK'D
10-30-39	Mullion Marks Sect 4-4 - Point Note	[illegible]	
8-20	Pipe Brackets	H.K.	

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

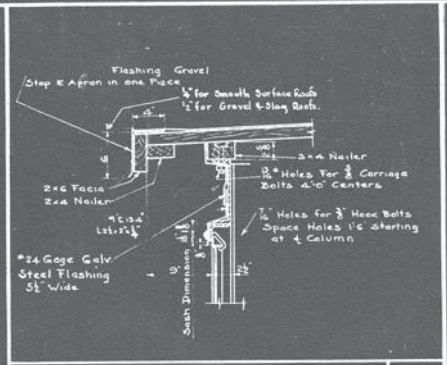
FRAMING PLAN
BOILER HOUSE
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY

DRAWN BY H.K.	DATE 8-13-29	CONTRACT NUMBER	4499
TRACED BY	DATE		
CHECKED BY [illegible]	DATE 8-20-29	SHEET NUMBER	44
SCALE			

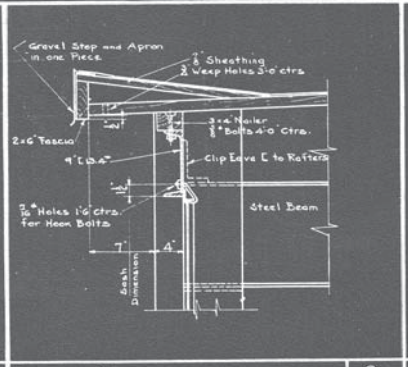


SECTION A-A

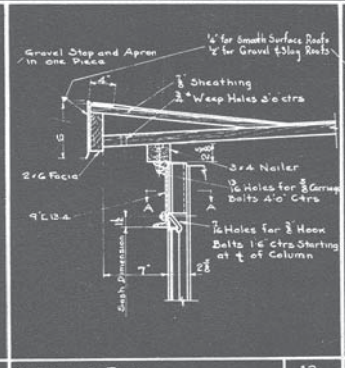
DETAIL AT EAVE 1



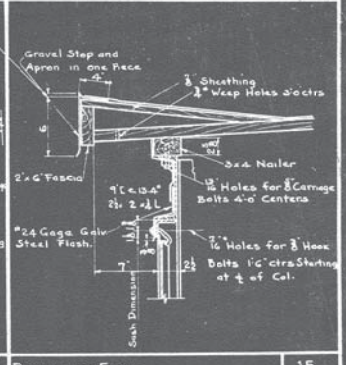
DETAIL AT EAVE 4



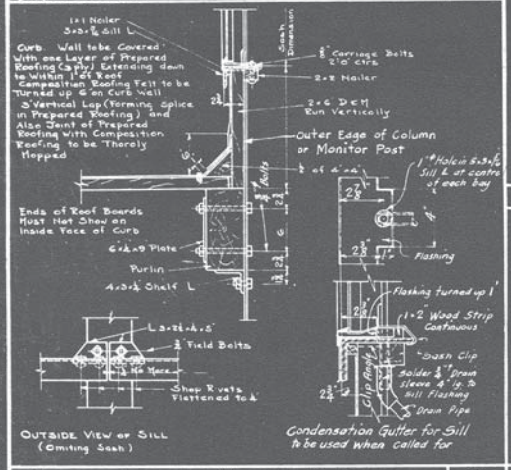
DETAIL AT EAVE 8



DETAIL AT EAVE 12



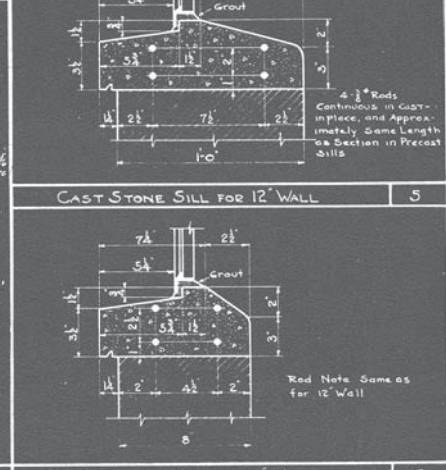
DETAIL AT EAVE 15



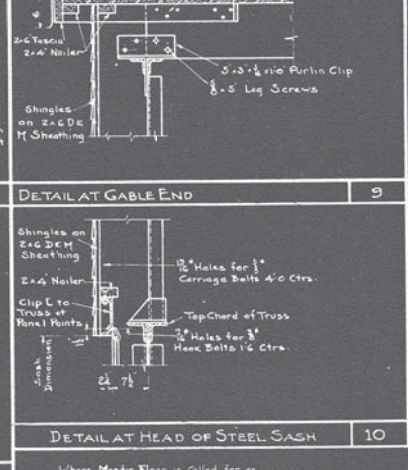
OUTSIDE VIEW OF SILL (Omiting Sash)

Condensation Gutter for Sill to be used when called for

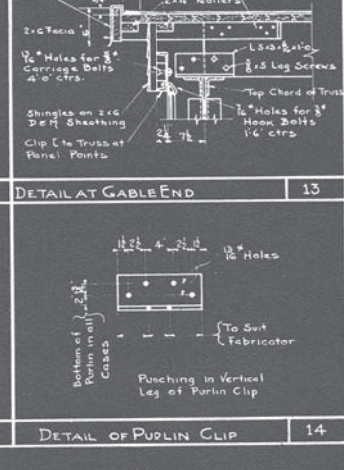
MONITOR CURB WITH VERTICAL SHEATHING 2



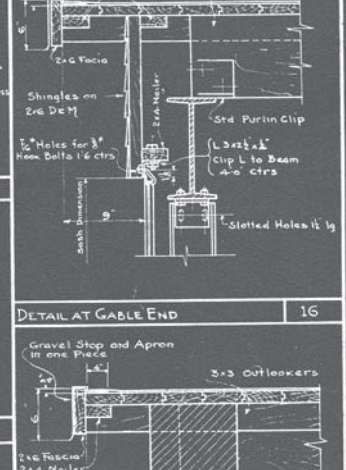
CAST STONE SILL FOR 12" WALL 5



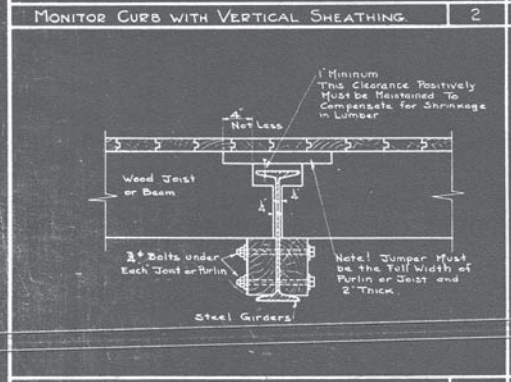
DETAIL AT GABLE END 9



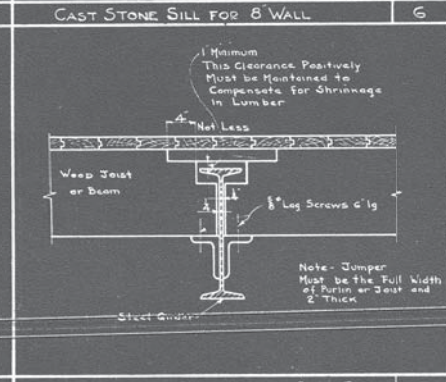
DETAIL AT GABLE END 13



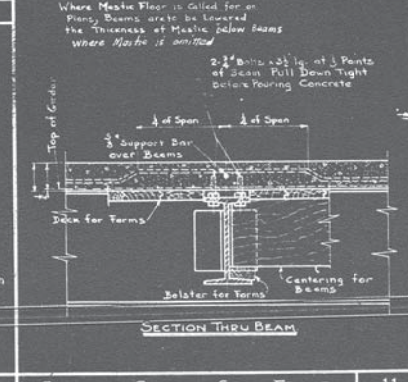
DETAIL AT GABLE END 16



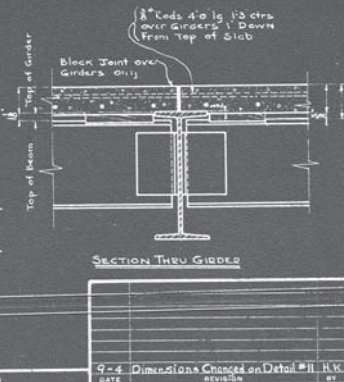
JOISTS OR BEAMS FRAMING INTO STEEL GIRDER 3



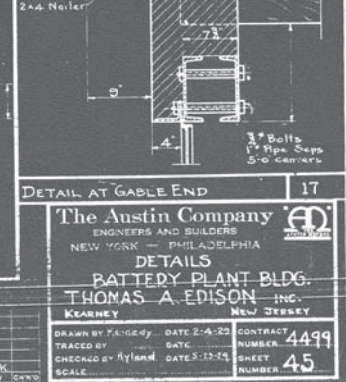
JOISTS OR BEAMS FRAMING INTO STEEL GIRDER 7



DETAIL AT HEAD OF STEEL SASH 10



DETAIL OF PURLIN CLIP 14



DETAIL AT GABLE END 17

SECTION THRU BEAM

SECTION THRU GIRDER

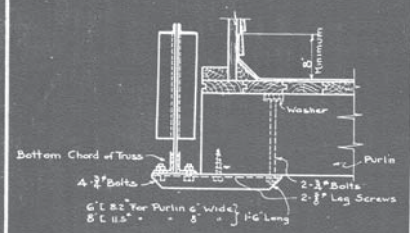
CONCRETE SLAB ON STEEL FRAME 11

DATE	REVISION	BY	CH'KD
9-4	Dimensions Changed on Detail #11	H.K.	

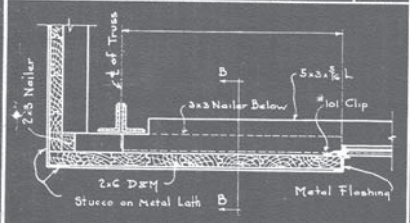
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

DETAILS
BATTERY PLANT BLDG.
THOMAS A. EDISON INC.
KEARNEY NEW JERSEY

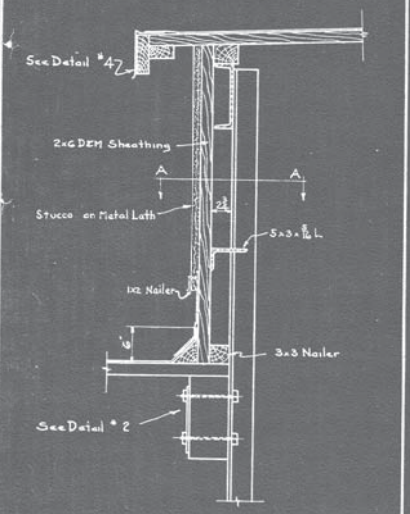
DRAWN BY F.R. Gedy	DATE 2-4-23	CONTRACT NUMBER	4499
TRACED BY	DATE	SHEET NUMBER	45
CHECKED BY Ryland	DATE 5-22-23		
SCALE			



PURLIN CONNECTION TO TRUSS | 18

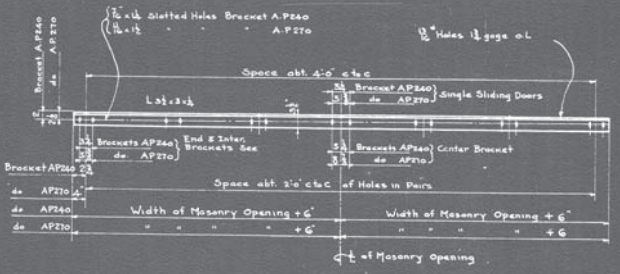


SECTION A-A



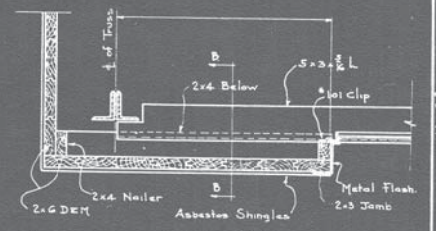
SECTION B-B

20

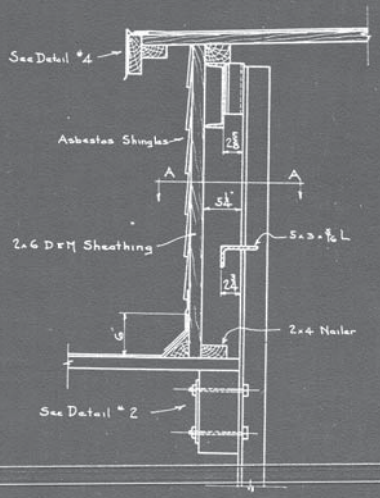


Note that holes for center Brackets change if Door is Single Sliding
A.P. Refers to Allith-Prouty Hardware.
See Catalog #47, for size of hangers and Hardware. For Size of Opening See Floor Plan or Door Schedule.

DETAIL OF TRACK ANGLE FOR SLIDING DOORS | 19

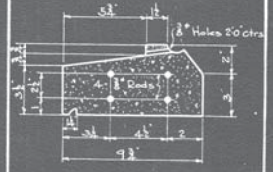


SECTION A-A

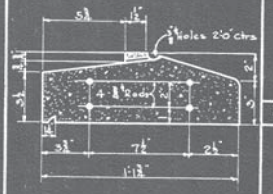


SECTION B-B

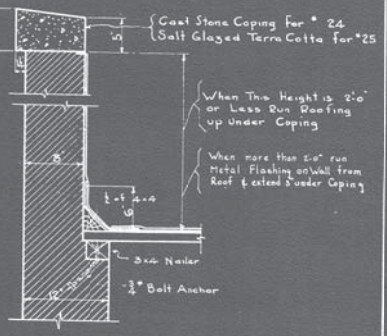
21



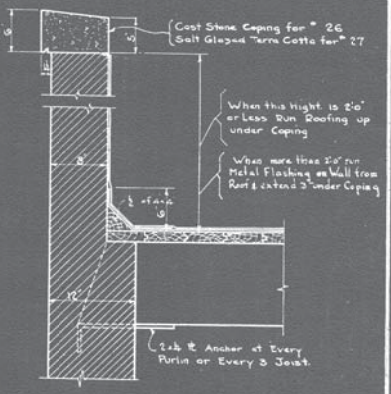
CONDENSATION SILL (8" WALL) | 22



CONDENSATION SILL (12" WALL) | 23



PARAPET | 24-25



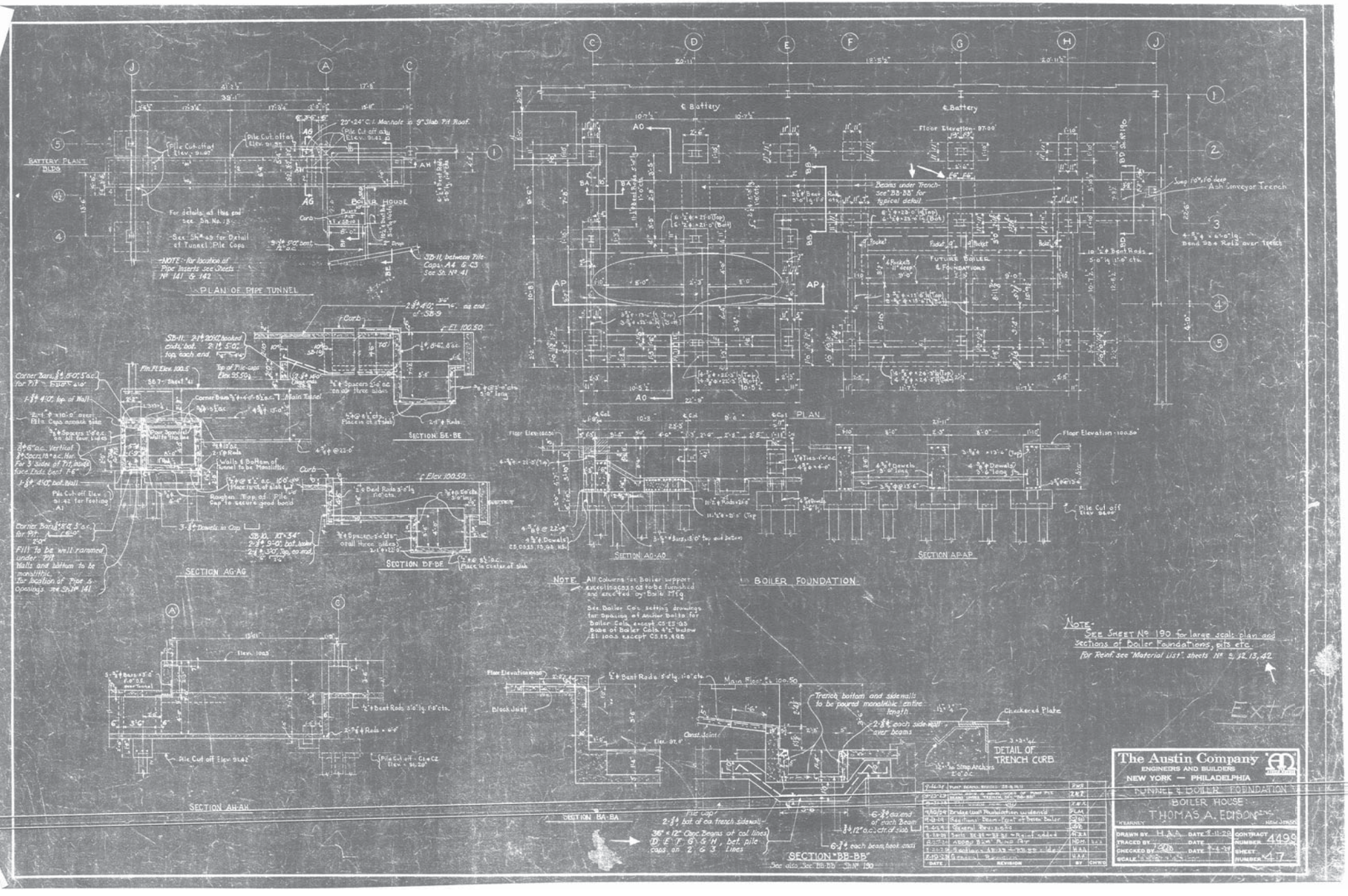
PARAPET. | 26-27

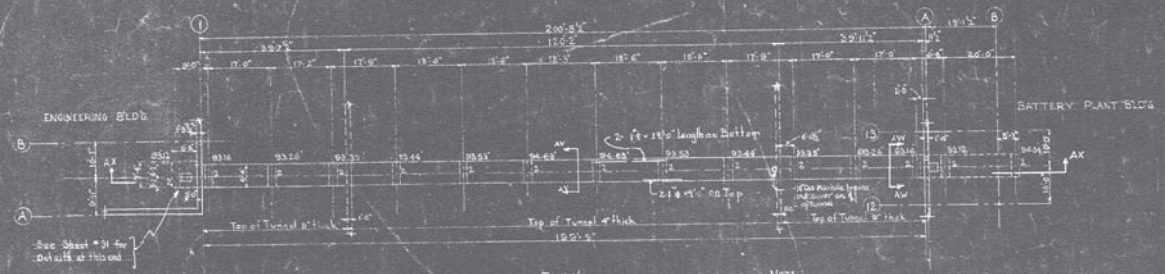
DATE	REVISION	BY	CHKD

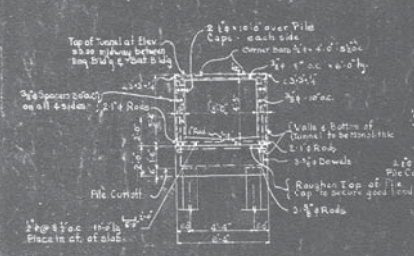
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

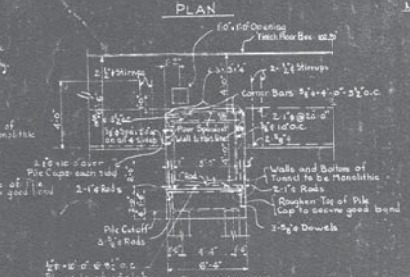
DETAILS
BATTERY PLANT BLDG.
THOMAS A. EDISON INC.
KEARNEY NEW JERSEY

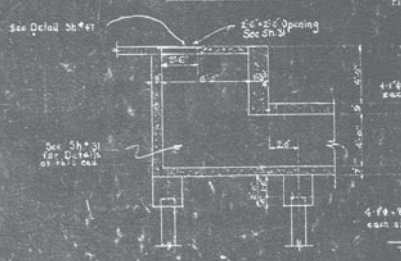
DRAWN BY
TRACED BY
CHECKED BY
SCALE
CONTRACT NUMBER 4499
SHEET NUMBER 46

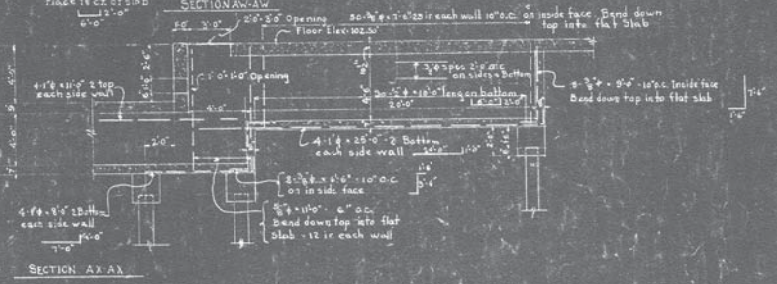

PLAN OF PIPE TUNNEL
BATTERY PLANT BLDG
BOILER HOUSE
NOTE:- For location of Pipe Inserts see Sheets Nº 141 & 142
SECTION AG-AG
SECTION BE-BE
SECTION BF-BE
SECTION AH-AH
SECTION BA-BA
SECTION "BB-BB"
See also Sec. BB-BB Sh. Nº 190
PLAN
BOILER FOUNDATION
SECTION AO-AO
SECTION AP-AP
NOTE All Columns for Boiler support exceptions as to be furnished and erected by Boiler Mfg.
See Boiler Co's setting drawings for Spacing of Anchor Bolts for Boiler Cols. except CS-25-QS Base of Boiler Cols. 4½" below El. 100.5 except CS-25, 4 QS
Note- See Sheet Nº 190 for large scale plan and sections of Boiler Foundations, pits etc.
For Reinf. see "Material List" sheets Nº 9, 12, 13, 42
DETAIL OF TRENCH CURB
Checkered Plate
Trench bottom and sidewalls to be poured monolithic entire length
Main Floor El. 100.50
Block Joint
Pile Cap
Floor Elevation - 97.00
Beams under Trench - see "BB-BB" for typical detail
Ash Conveyor Trench
Future Boiler & Foundations
Pile Cut off Elev. 91.42
Pile Cut off Elev. 91.42
Fill to be well rammed under Pit. Walls and bottom to be monolithic. For location of Pipe & Openings see Sh. Nº 141
Extra
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
TUNNEL & BOILER FOUNDATION
BOILER HOUSE
THOMAS A. EDISON
KEARNEY NEW JERSEY
DRAWN BY H.A.A. DATE 3-11-29
TRACED BY DATE
CHECKED BY DATE
SCALE
CONTRACT NUMBER 4499
SHEET NUMBER 47

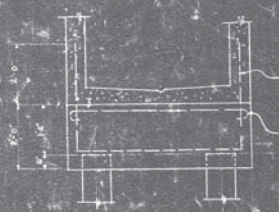












DETAIL OF TUNNEL PILE CAP

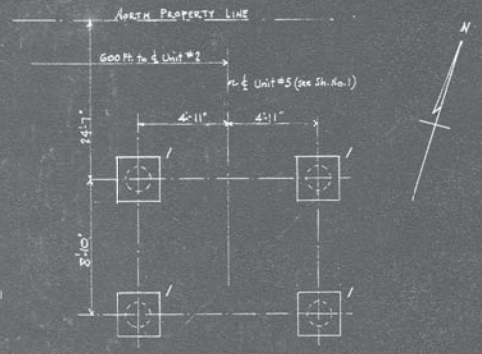
NOTE
Elevations shown near footings are elevations of tops of Pile Caps
Pile cut off to be 16" below
Figure 2 near footings indicate No. of Piles
For location of Pipe Inserts see Sh. 141 & 142

DATE	REVISION	BY	CHKD
9-21-29	Dimensions of Pile Caps		
9-21-29	Masonry Inserts (Typical)		
9-12-29	Revision		
9-12-29	Sizing & Location of Sh. for Tunnel Openings		

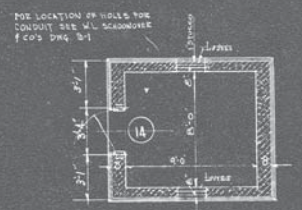
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

PIPE TUNNEL CONNECTING ENGINEERING & BATTERY BUILDINGS
THOMAS A. EDISON INC.

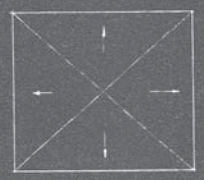
DRAWN BY	DATE	CONTRACT NUMBER	4499
TRACED BY	DATE	SHEET NUMBER	49
CHECKED BY	DATE		
SCALE			



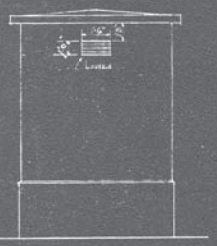
Pile Plan
Scale 1/8" = 1'0"



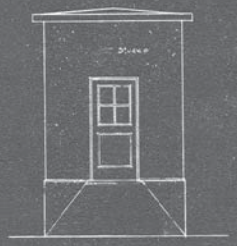
Floor Plan



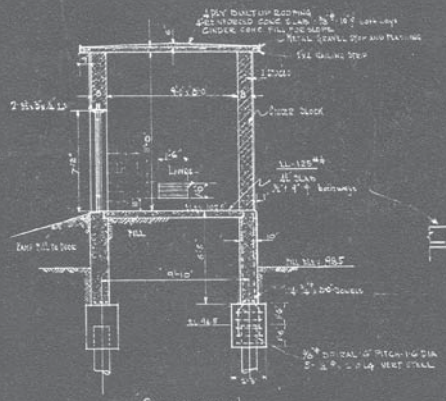
Roof Plan



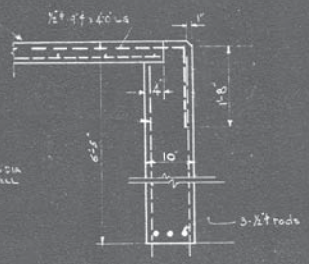
South Elevation



West Elevation



Section



Typical Beam
— All Four Sides —
Scale: 1" = 1'0"

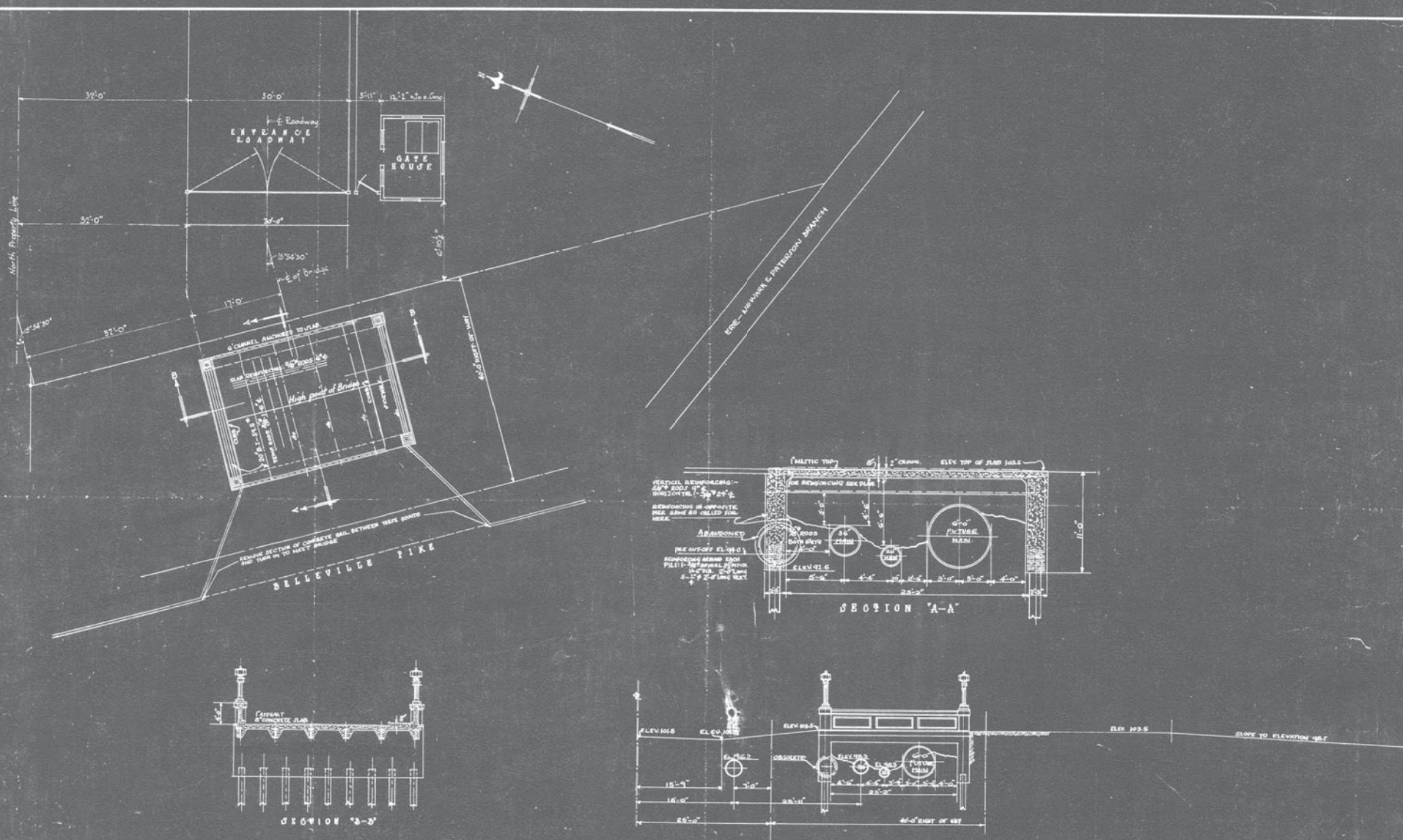
Note—
See Sh. No. 20 for detail of One Pile cap.
Pile Cut-off El. 94.5
For Reinf. see "Material List", Sh. No. 41

DATE	REVISION	BY	CH'K'D
10-15-29	Water over Dock Off.	RJB	
9-17-29	Beam size increased. Fill Elev. changed	CFS	
9-12-29	Dimension added	GA	
9-10-29	Plans, Elevations & Sections added	CFS	

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

PLANS & ELEVATIONS
SWITCH HOUSE
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY

DRAWN BY	DATE 9-11-29	CONTRACT NUMBER	1499
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	53
SCALE 1/8" = 1'0" & 1/4" = 1'0"			



DATE - Dec. 4th 1929

APPROVED BY - COMMISSIONER OF STREETS AND PUBLIC IMPROVEMENTS - Michael J. Fagen
WATER CONSERVATOR - - - Andrew B. Mungy

REVISED - - - T.A. EDISON - INC.
REVISED BY - W.D.B. 11-30-29
CHECKED - - -
APPROVED - - -

EXHIBIT - "B"

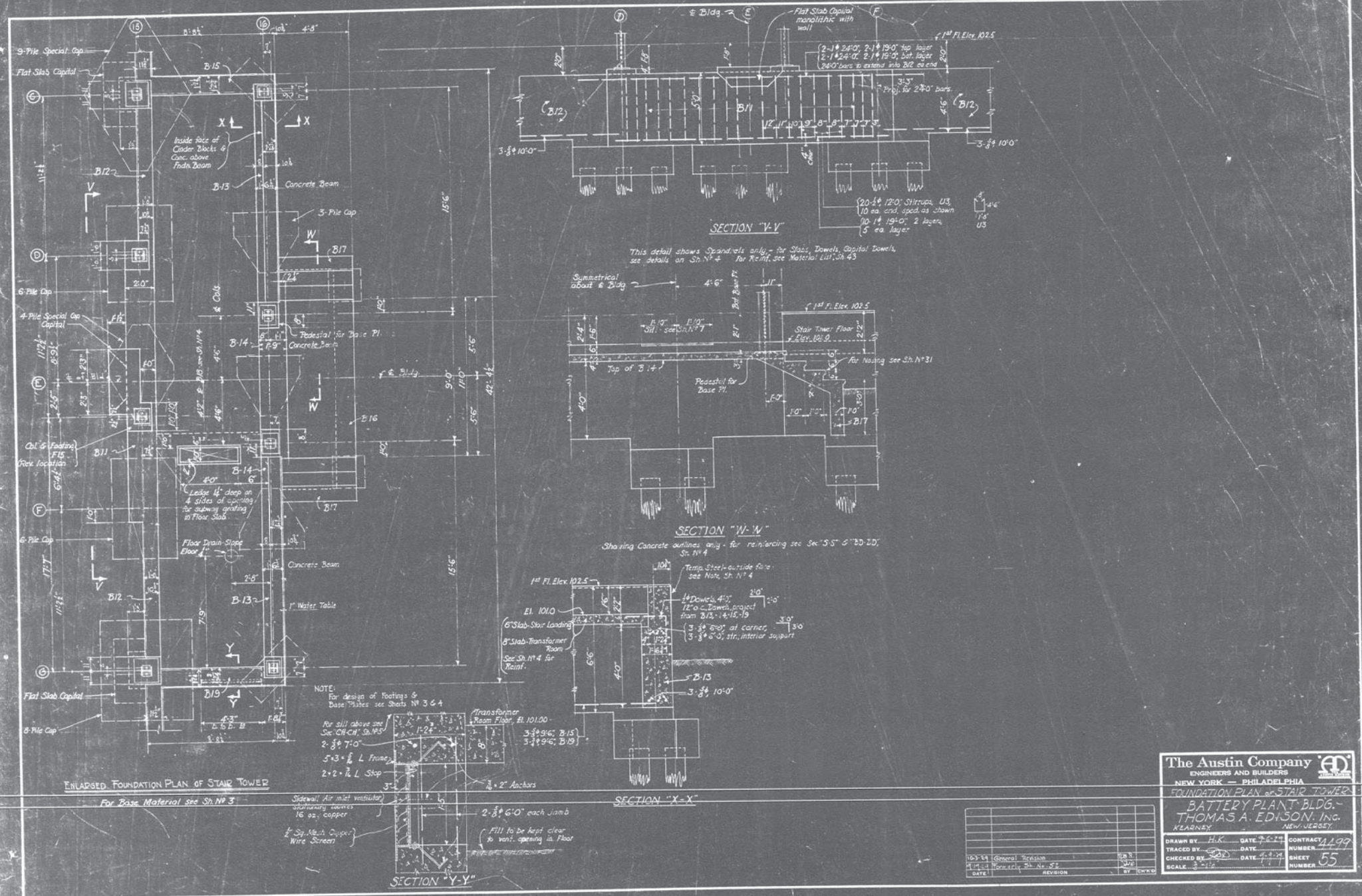
DATE	REVISION	BY	CH'K'D
12-19-29	Location of Bridge & 30" House		

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA

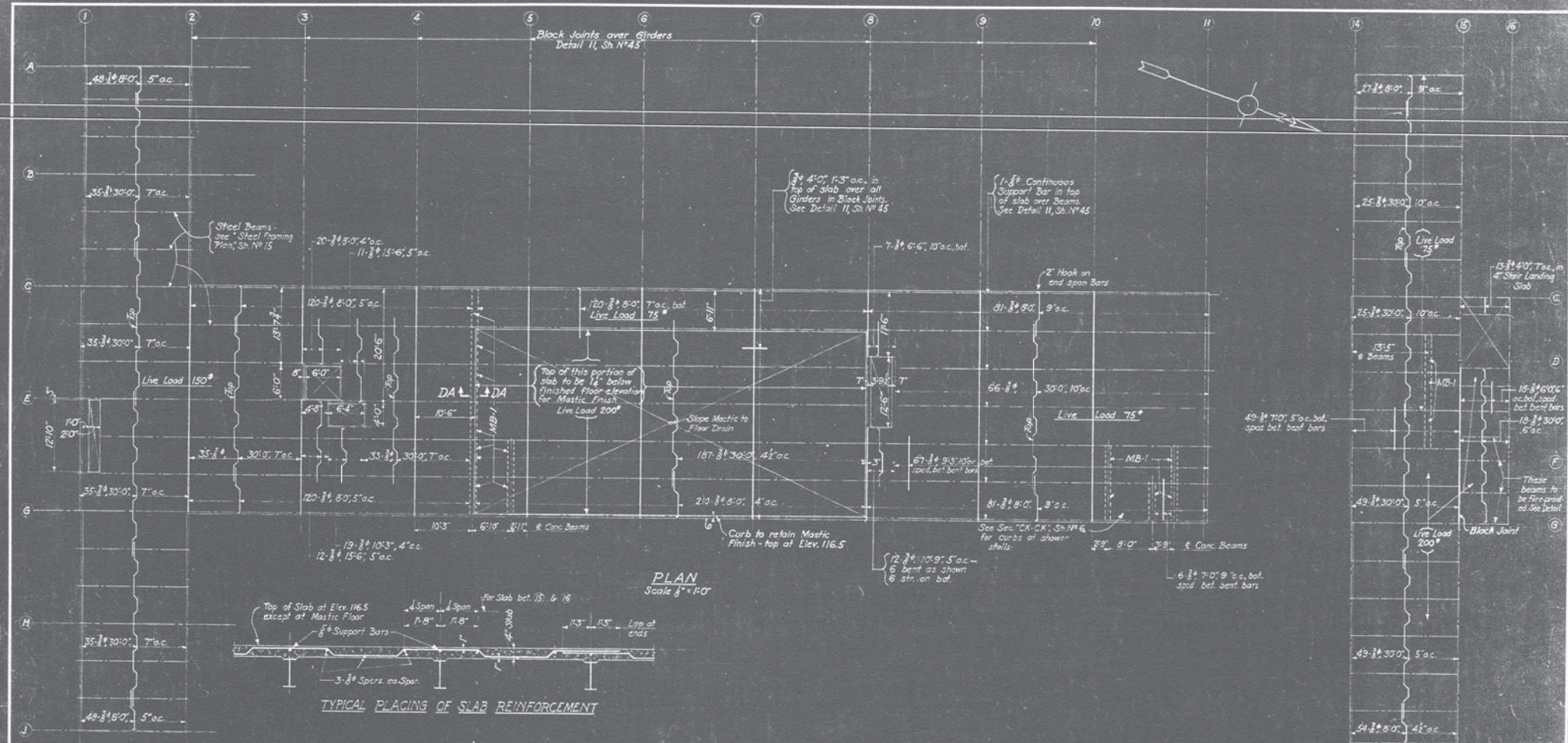
ENTRANCE BRIDGE
MANUFACTURING PLANT
THOMAS A. EDISON INC.
KEARNY NEW JERSEY

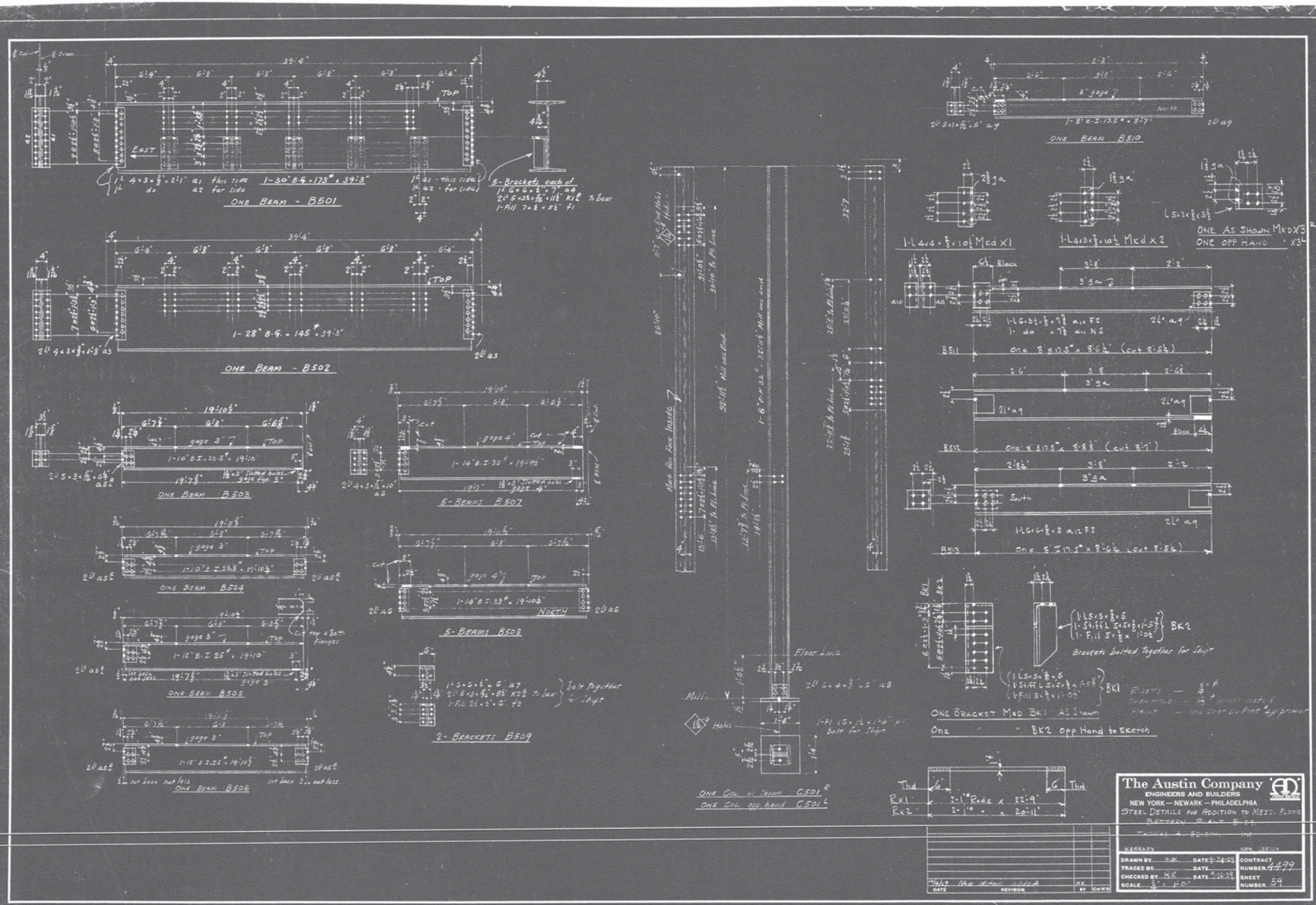
DRAWN BY D.H.K. DATE
TRACED BY DATE
CHECKED BY DATE
SCALE 1/8 & 1/4" = 12"

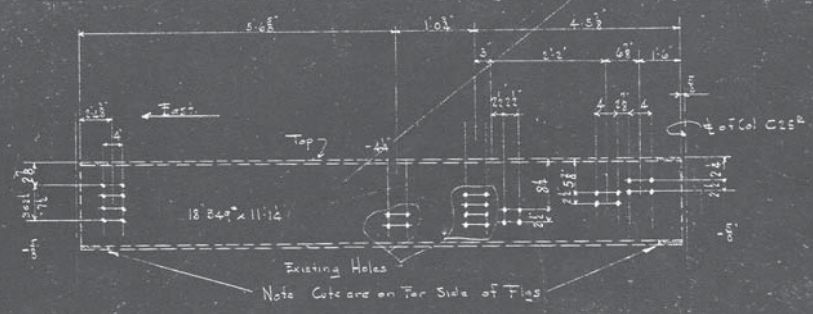
CONTRACT NUMBER 4499
SHEET NUMBER 54



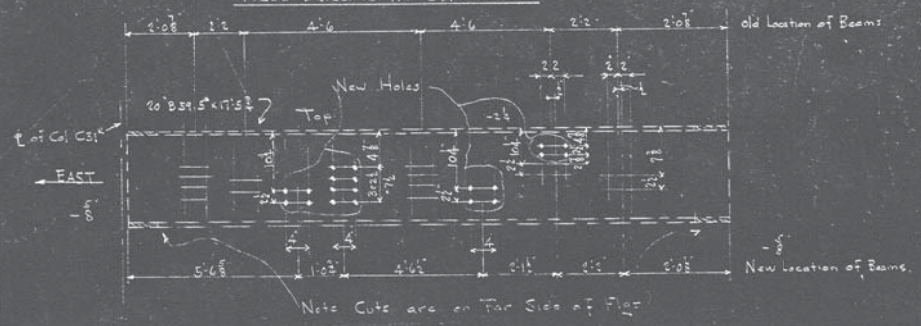
ENLARGED FOUNDATION PLAN OF STAIR TOWER
For Base Material see Sh. No 3
SECTION "V-V"
This detail shows Spandrels only - for Slabs, Dowels, Capital Dowels, see details on Sh. No 4 For Reinf. see Material List, Sh. 43
SECTION "W-W"
Showing Concrete outlines only - for reinforcing see Sec. "S-S" & "BB-BB", Sh. No 4
SECTION "X-X"
SECTION "Y-Y"
NOTE: For design of Footings & Base Plates see Sheets No 3 & 4
Flat Slab Capital
Concrete Beam
Pedestal for Base Pl.
Stair Tower Floor
Top of B 14
Symmetrical about ℄ Bldg.
Transformer Room Floor, El. 101.00
Sidewall Air inlet ventilator stationary louvres 16 oz. copper
Fill to be kept clear to vent. opening in Floor
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
FOUNDATION PLAN of STAIR TOWER
BATTERY PLANT BLDG.
THOMAS A. EDISON, Inc.
KEARNEY, NEW JERSEY
DRAWN BY H.K. DATE 9-6-29
TRACED BY DATE
CHECKED BY DATE 9-9-29
SCALE
CONTRACT NUMBER 4499
SHEET NUMBER 55
General Revision
Formerly Sh. No. 52


Block Joints over Girders
Detail 11, Sh. No 45
Steel Beams - see "Steel Framing Plan", Sh. No 15
Live Load 150#
Top of this portion of slab to be 1¼" below Finished Floor elevation for Mastic Finish. Live Load 200#
Slope Mastic to Floor Drain
Curb to retain Mastic Finish - top at Elev. 116.5
See Sec. "CK-CK", Sh. No 6 for curbs of shower stalls
Live Load 75#
Live Load 200#
Block Joint
These beams to be fire-proofed. See Detail
PLAN
Scale ⅛" = 1'-0"
Top of Slab at Elev. 116.5 except at Mastic Floor
Support Bars
Lap at ends
TYPICAL PLACING OF SLAB REINFORCEMENT
Fin. Fl. Elev. 116.5
Slab under Mastic Finish
Concrete Haunch at Steel Beams
DETAIL OF BEAM MB-1
Elev. 116.5
Ties, 2'-0" o.c.
Cont.
DETAIL OF FIRE-PROOFING
For Beams over Transformer Room. See Plan - North End - for location
Mastic
SECTION DA-DA
NOTE:
Bent slab bars to be bent in forms.
For reinforcement see "Material List", Sh. No 40.
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
MEZZANINE SLAB REINFORCEMENT
BATTERY PLANT BLDG.
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY
DRAWN BY R.W.R. DATE 9-15-29
TRACED BY DATE
CHECKED BY DATE 9-21-29
SCALE ½", 1", 1'-0"
CONTRACT NUMBER 4499
SHEET NUMBER 58
DATE REVISION BY CH'K'D

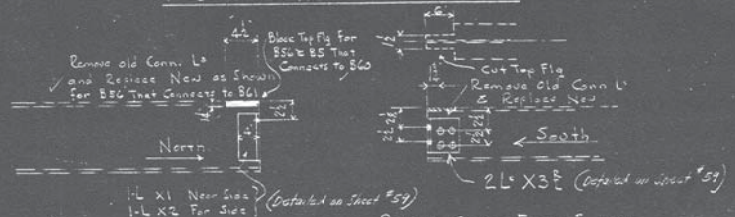

ONE BEAM - B501
ONE BEAM - B502
ONE BEAM B503
5-BEAMS B507
ONE BEAM B504
5-BEAMS B508
ONE BEAM B505
2-BRACKETS B509
ONE BEAM B506
ONE BEAM B510
ONE BEAM B511
ONE BEAM B512
ONE BEAM B513
ONE BRACKET MKD BK1 AS SHOWN
ONE " " BK2 OPP HAND TO SKETCH
ONE COL. AS SHOWN C501 R
ONE COL. OPP HAND C501 L
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA
STEEL DETAILS FOR ADDITION TO MEZZ. FLOOR
DRAWN BY
TRACED BY
CHECKED BY
SCALE
CONTRACT
NUMBER
SHEET
NUMBER 59



FIELD DRILLING IN BEAM B60



FIELD DRILLING IN BEAM B61



FIELD WORK ON BEAMS B56 & B5

Revise South End of one Beam B62 as Shown.

Beam with New End Ls and Flange Cut Frames into B60

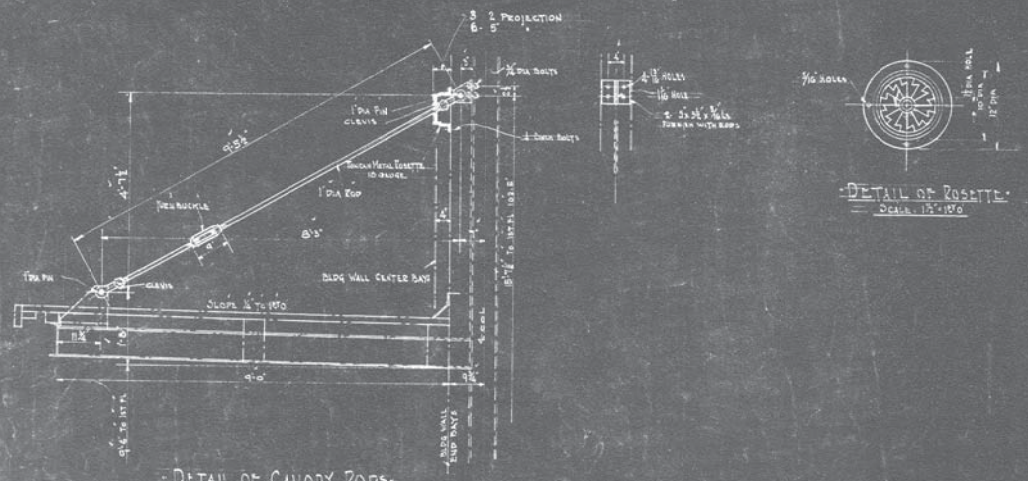
Note All Holes 13/16"
Rivets ¾"

DATE	REVISION	BY	CH'K'D

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

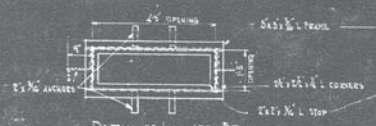
REVISIONS TO STEEL WORK AT JOB
BATTERY PLANT BLDG.
THOMAS A. EDISON INC.
KEARNEY NEW JERSEY

DRAWN BY H.K	DATE 10-2-29	CONTRACT NUMBER	4479
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	60
SCALE			



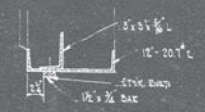
DETAIL OF CANOPY RODS
11 REQUIRED
SCALE: 3/4"=1'-0"

DETAIL OF ROSETTE
SCALE: 1 1/2"=1'-0"

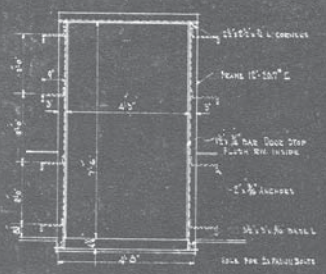


DETAIL OF LOUVRE FRAME
TWO REQUIRED

DETAIL OF LOUVRE FRAME HEAD



DETAIL OF DOOR FRAME HEAD



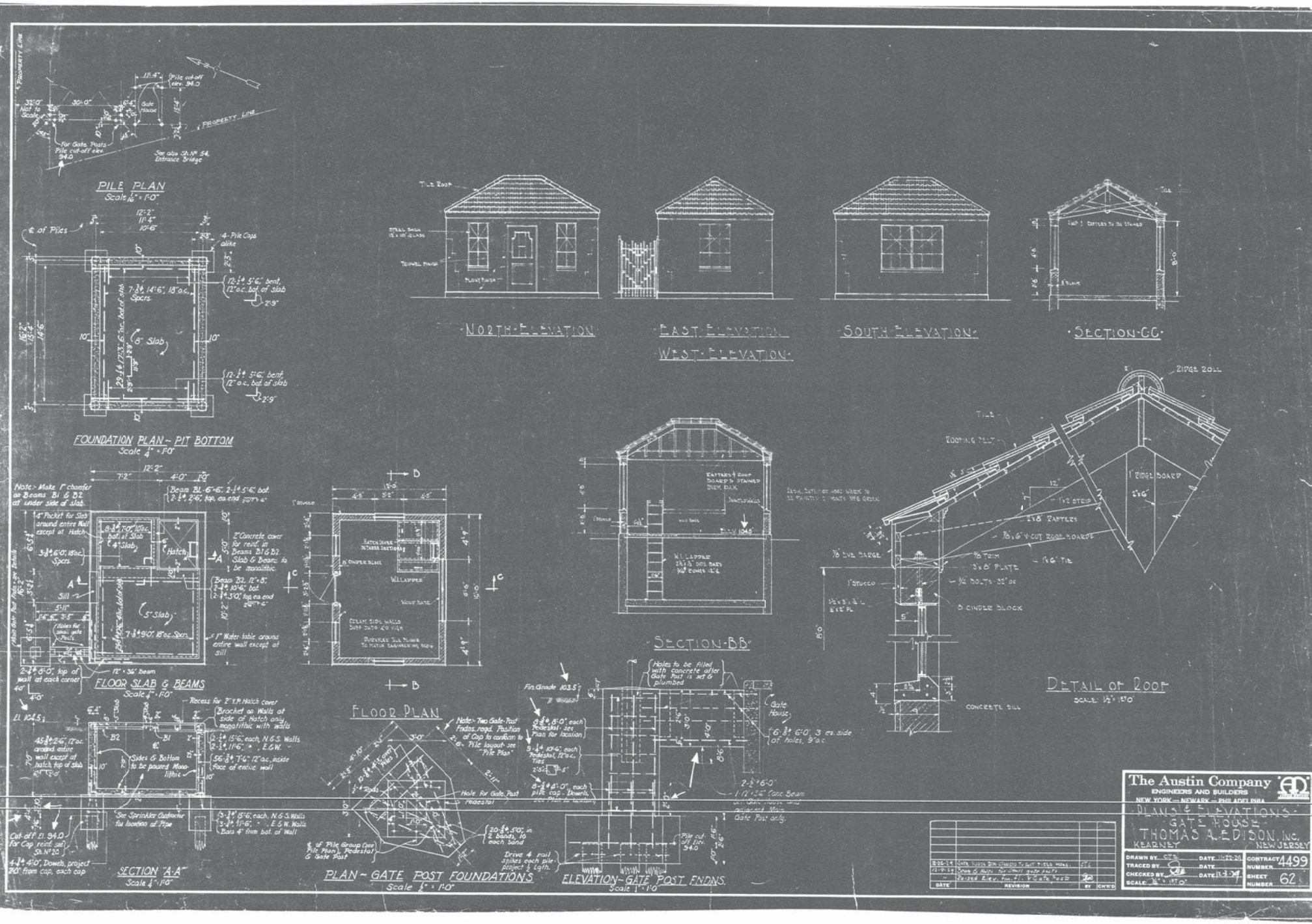
DETAIL OF DOOR FRAME
DOOR #23 TRANSFORMER ROOM
SCALE: 1/2"=1'-0"

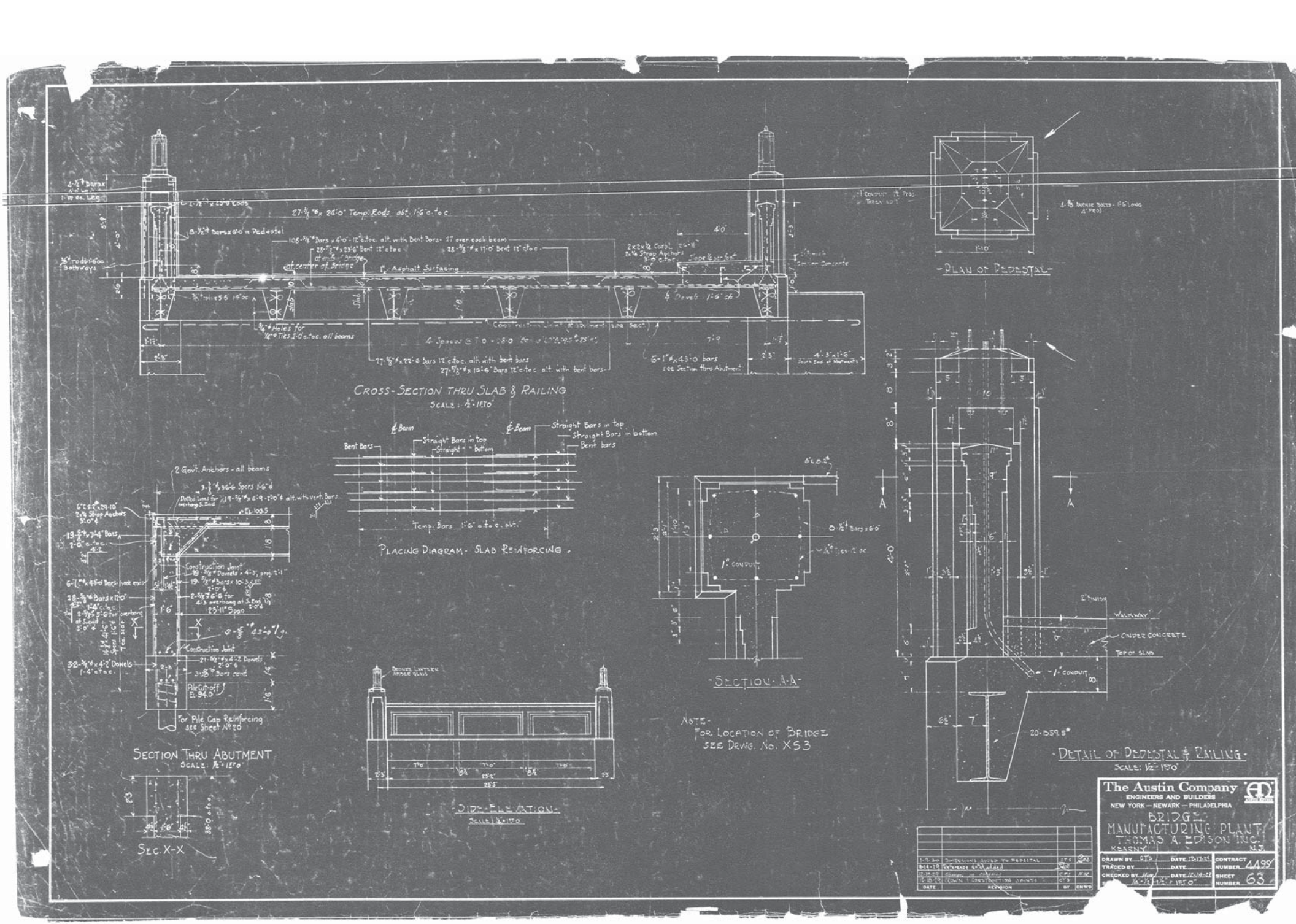
DATE	REVISION	BY	CH'K'D
10-8-04	METAL THICK ON ROSETTE	CTS	
10-5-04	LOUVRE & DOOR PROVIDE	TJS	HK

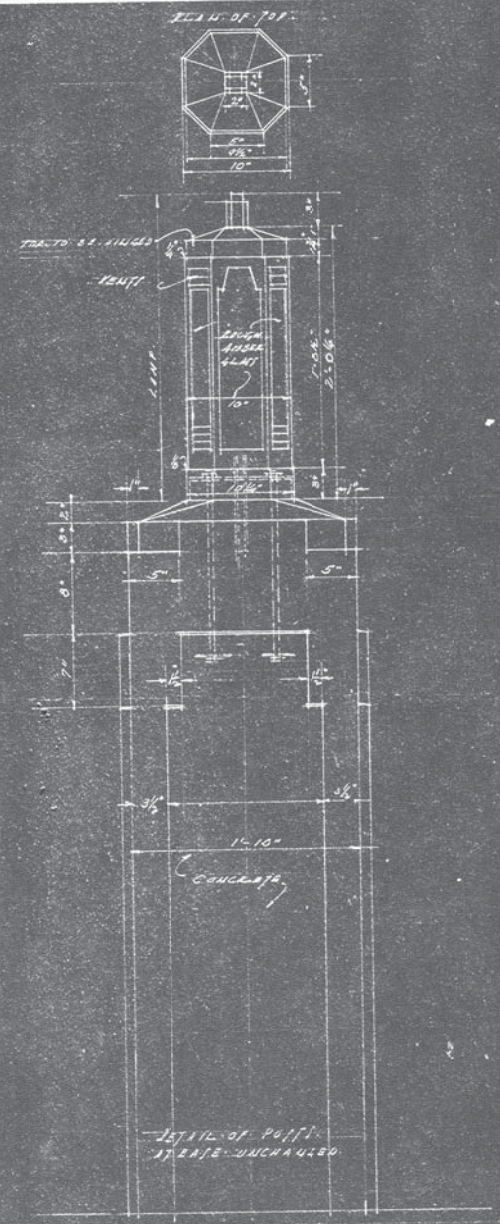
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA

MISCELLANEOUS STEEL DETAILS
BATTERY PLANT BLDG
THOMAS A. EDISON INC.
KEARNY N.J.

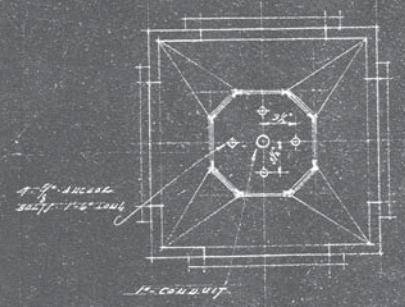
DRAWN BY C.T.S.	DATE 10-3-24	CONTRACT NUMBER	4499
TRACED BY	DATE		
CHECKED BY H.K.	DATE	SHEET NUMBER	61
SCALE: 3/4, 1 1/2"	1'-0"		


PILE PLAN
Scale 1/16" = 1'-0"
FOUNDATION PLAN - PIT BOTTOM
Scale 1/4" = 1'-0"
FLOOR SLAB & BEAMS
Scale 1/4" = 1'-0"
SECTION "A-A"
Scale 1/4" = 1'-0"
FLOOR PLAN
PLAN - GATE POST FOUNDATIONS
Scale 1/2" = 1'-0"
NORTH ELEVATION
EAST ELEVATION
WEST ELEVATION
SOUTH ELEVATION
SECTION-CC
SECTION-BB
ELEVATION - GATE POST FNDNS.
Scale 1" = 1'-0"
DETAIL OF ROOF
SCALE: 1/2" = 1'-0"
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA
PLANS & ELEVATIONS
GATE HOUSE
THOMAS A. EDISON, INC.
KEARNEY NEW JERSEY
CONTRACT 4499
SHEET NUMBER 62


CROSS-SECTION THRU SLAB & RAILING
SCALE: 1/2" = 1'-0"
PLAN OF PEDESTAL
PLACING DIAGRAM - SLAB REINFORCING
SECTION THRU ABUTMENT
SCALE: 1/4" = 1'-0"
SEC. X-X
SIDE ELEVATION
SCALE: 1/8" = 1'-0"
SECTION A-A
DETAIL OF PEDESTAL & RAILING
SCALE: 1/2" = 1'-0"
NOTE-
FOR LOCATION OF BRIDGE
SEE DRWG. No. X53
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA
BRIDGE
MANUFACTURING PLANT
THOMAS A. EDISON INC.
KEARNY, N.J.
DRAWN BY
DATE
TRACED BY
DATE
CHECKED BY
DATE
CONTRACT NUMBER 4499
SHEET NUMBER 63
DATE
REVISION
BY
CHK'D



ELEVATION OF POST
℄ LAMP
SCALE 1½" = 1'-0"



PLAN OF POST TOP
℄ LAMP ANCHORS
SCALE 1½" = 1'-0"

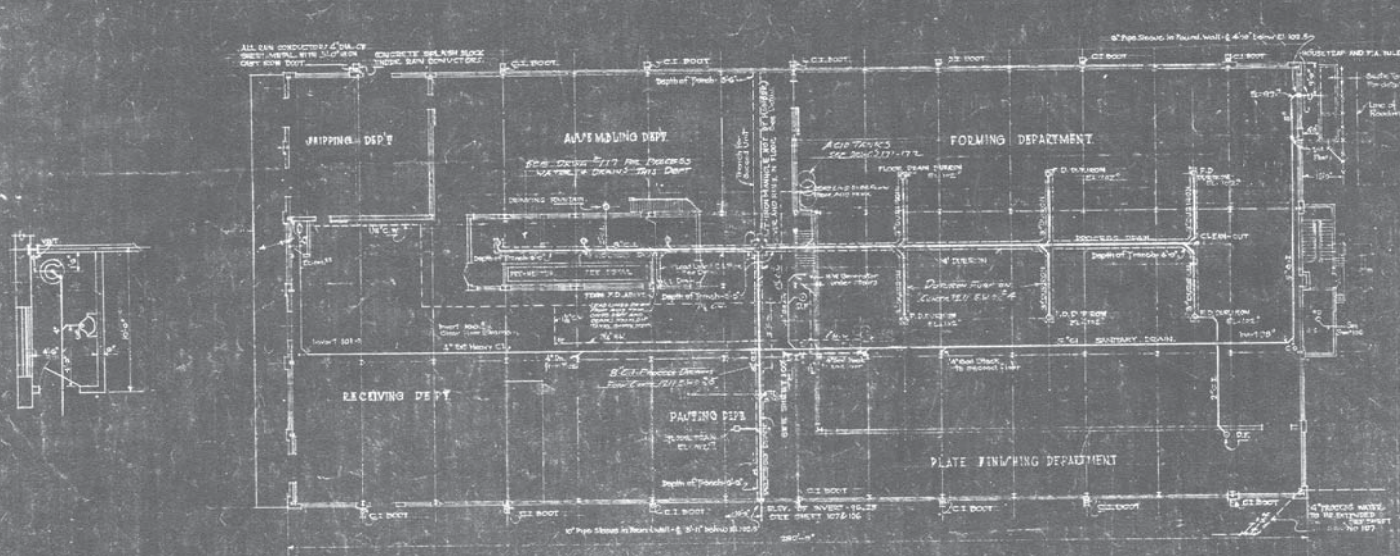
NOTE: 4 LAMPS REQUIRED.
DULL BRONZE FINISH
FOR EXTERIOR
GLASS TO BE ROUGH
AMBER COLOR.

DATE	REVISION	BY	CH'K'D

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

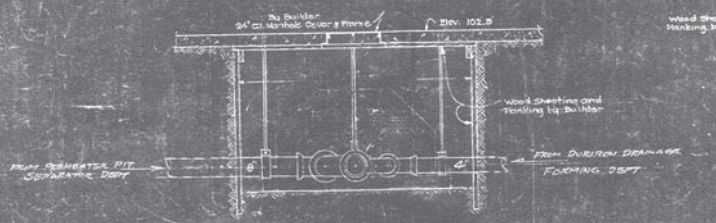
REVISED BRIDGE POSTS
THOS. A. EDISON, INC.
KEARNEY NEW JERSEY

DRAWN BY [illegible]	DATE 1/11/20	CONTRACT NUMBER 4499
TRACED BY	DATE	
CHECKED BY	DATE	SHEET NUMBER 63-A
SCALE 1½" = 1'-0"		

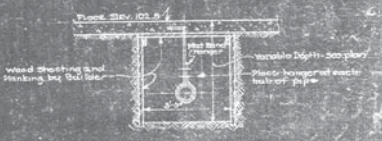


DETAIL OF SANITARY DRAIN LINE

PLAN
Lead Lined Floor Drain
Scale 1/2"=1'0"



DETAIL OF PROCESS SEWER MANHOLE
Scale 1/2"=1'0"



DETAIL OF WOOD TRENCH FOR DURIRON & C.I. PROCESS DRAIN
Scale 1/2"=1'0"

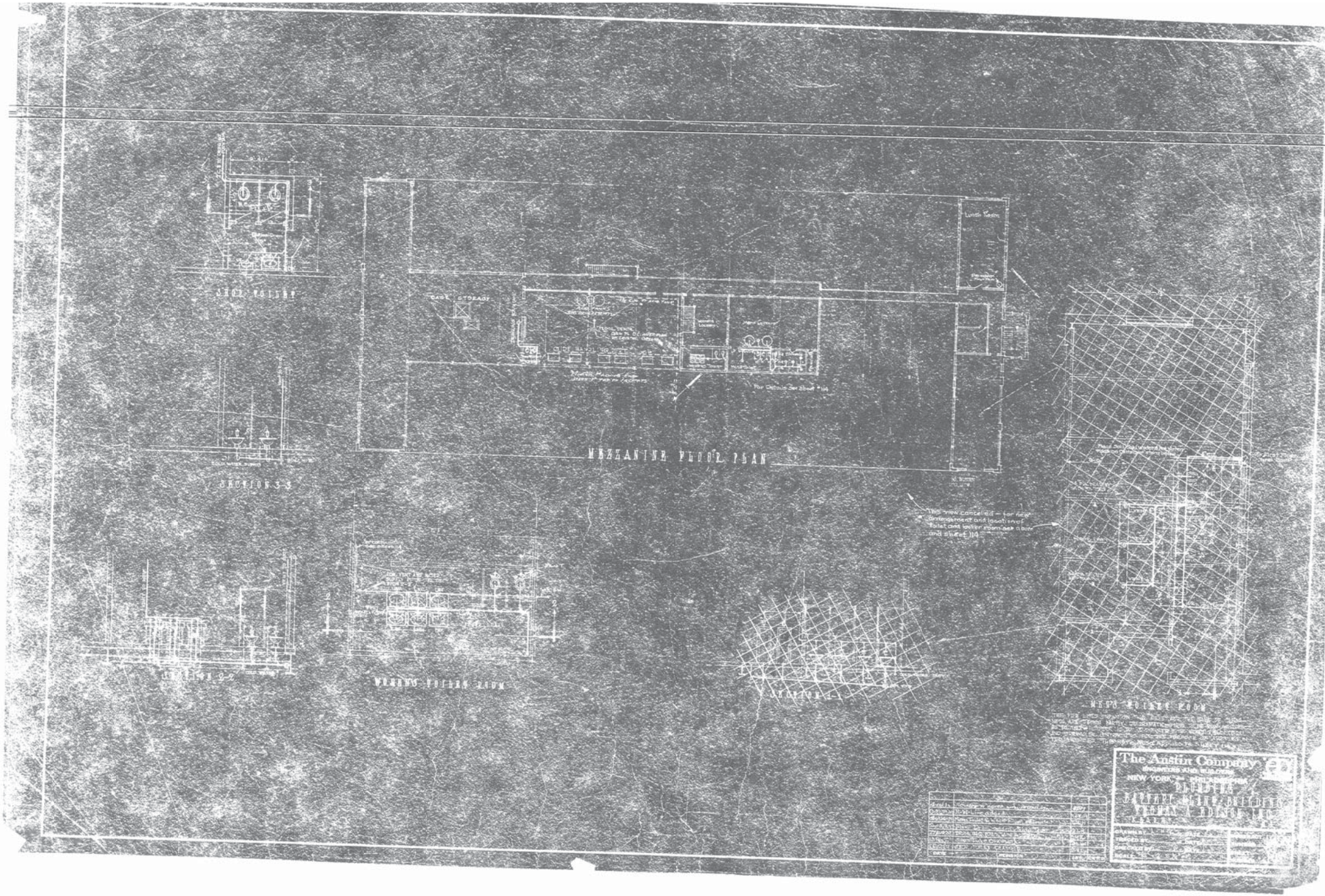
NOTE: ALL DRINKING FOUNTAINS ARE G.E. ELEC. REFRIG. TYPE BUBBLERS 1½" WATER 1½" W.S. & ELEC. CONN.

DATE	REVISIONS	BY
4-10-34	REVISIONS TO AGREE WITH INSTALLATION	NDM
6/19/34	Toilet Room Detail Changed - Partitions added	FLM
10/1/34	Acid Tanks added - C.I. Drain changed	SLS
11/15/34	System Water Indicating Valves changed	SLS
12-12-34	Grease Interceptor Changed - C.I. Drain	SLS
1-9-35	Acid Tanks Changed - Drain Lines added	FLM
2-25-35	Sanitary Drain Changed - Pipe Hangers added	FLM
3-13-35	Tank on Wood Frame Changed to Concrete Tank	SLS
3-27-35	Sewer Changed	NDM
DATE	SUBMITTED	BY

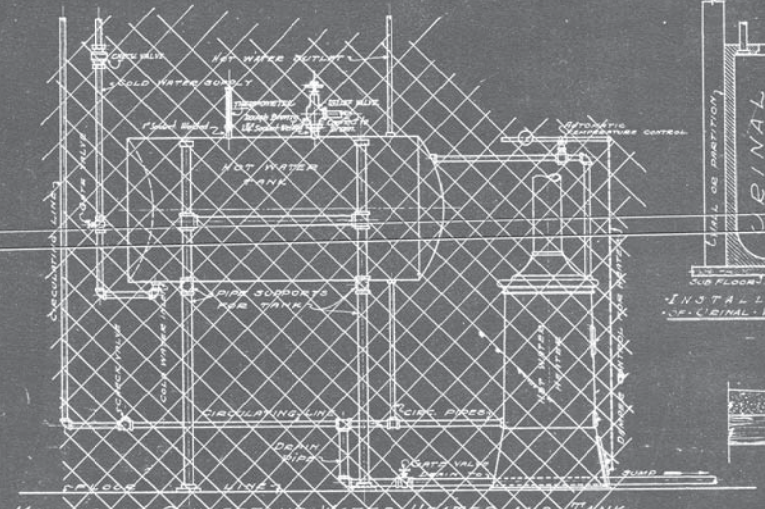
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

PLUMBING
BATTERY PLANT BUILDING
THOMAS A EDISON INC.
ORANGE

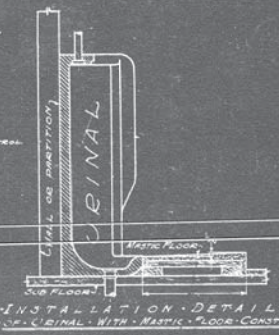
DRAWN BY	DATE	CONTRACT NUMBER	4198
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	10
SCALE			



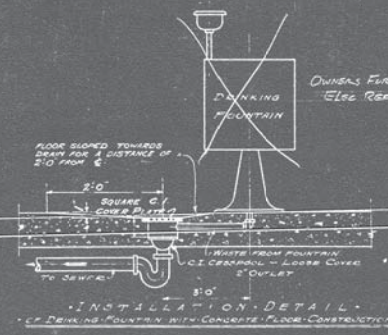
MEZZANINE FLOOR PLAN
SECTION 3-3
SECTION 2-2
WOMEN'S TOILET ROOM
SECTION 1-1
MEN'S TOILET ROOM
This view cancelled — for new arrangement and location of toilet and locker room see above and sheet 114
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK
PLUMBING



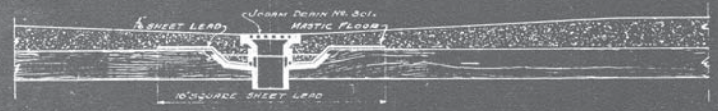
- METHOD OF CONNECTING WATER HEATER AND TANK -



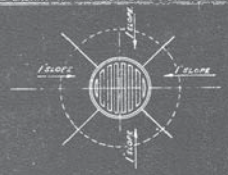
- INSTALLATION DETAIL -
- OF URINAL WITH MASTIC FLOOR CONSTRUCTION -



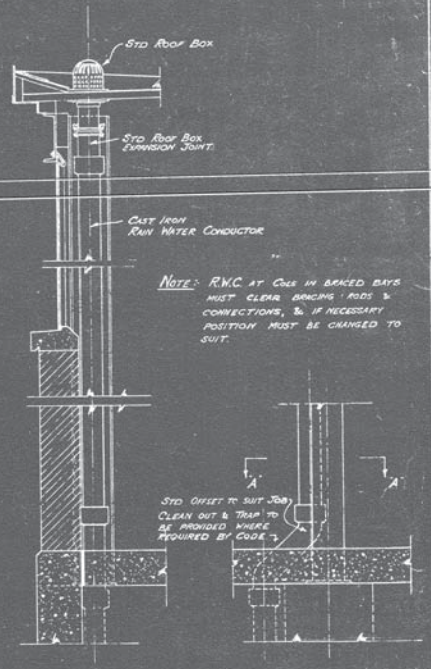
- INSTALLATION DETAIL -
- OF DRINKING FOUNTAIN WITH CONCRETE FLOOR CONSTRUCTION -



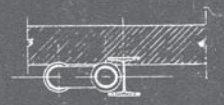
- INSTALLATION DETAIL -
- OF FLOOR DRAIN WITH MASTIC FLOOR CONSTRUCTION -



FLOOR SLOPED TOWARDS DRAIN FOR A DISTANCE OF 20' FROM CENTRE. FLOOR DRAIN ROUGHED IN 1" BELOW LEVEL OF FINISHED FLOOR.



NOTE: R.W.C. AT COLS IN BRACED BAYS MUST CLEAR BRACING RODS & CONNECTIONS, & IF NECESSARY POSITION MUST BE CHANGED TO SUIT.



SECTION 'A A'

- TYPICAL DOWNSPOUT INSTALLATION -

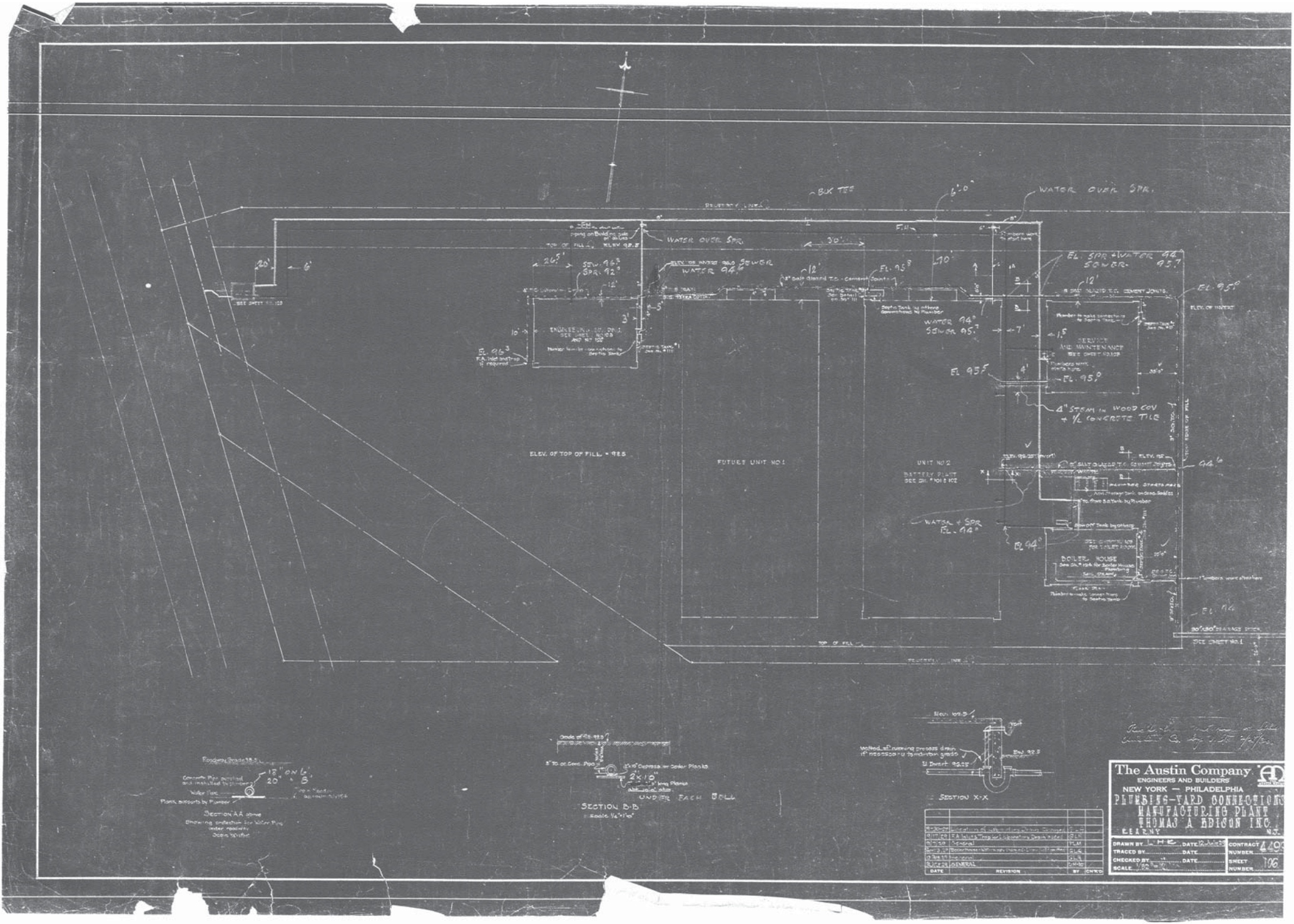
STANDARD DETAILS - TO BE FOLLOWED WHERE APPLICABLE.

DATE	REVISION	BY	CHK'D

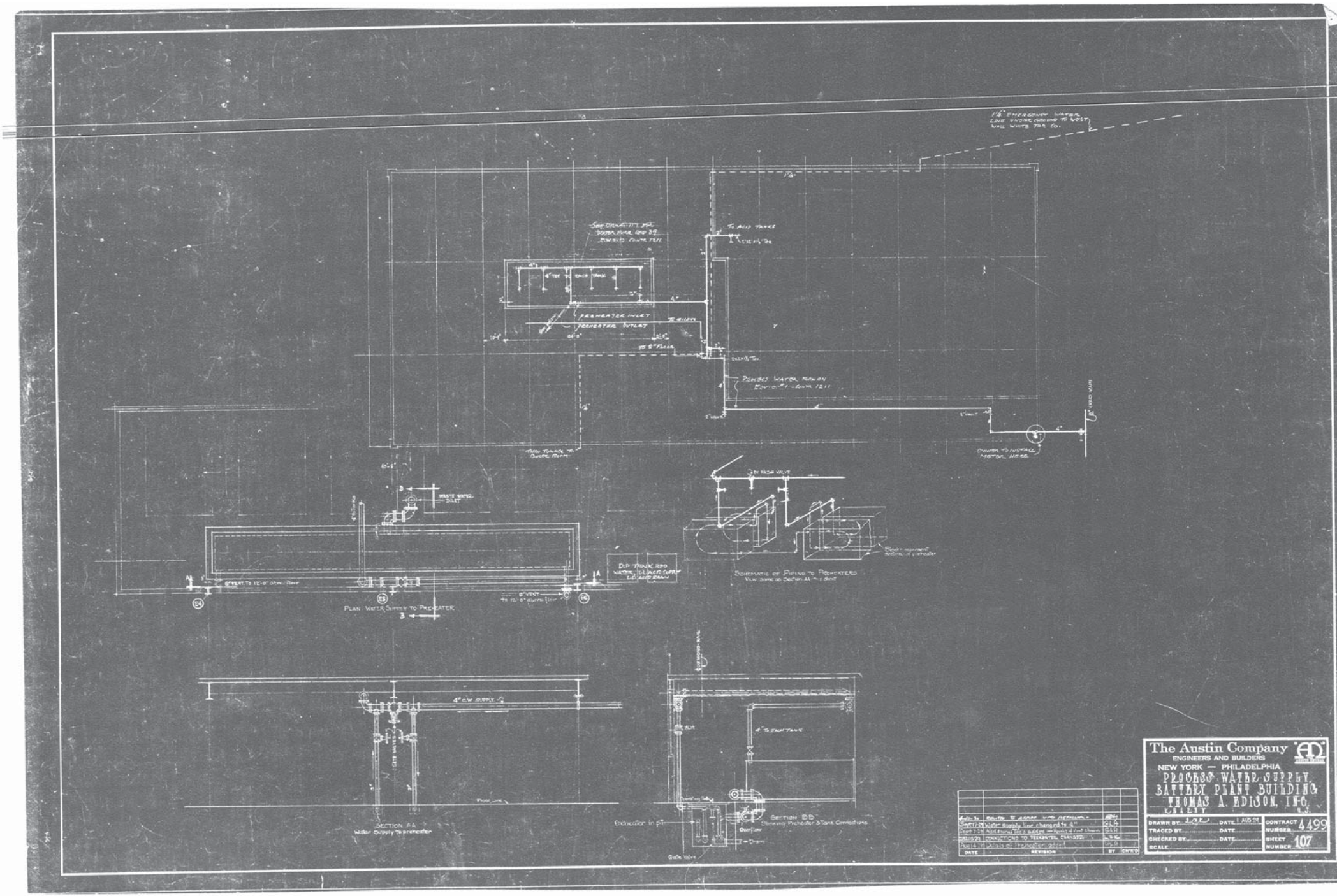
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK AND PHILADELPHIA

PLUMBING DETAILS
MANUFACTURING PLANT
THOMAS A. EDISON - INC
KEARNY NEW JERSEY

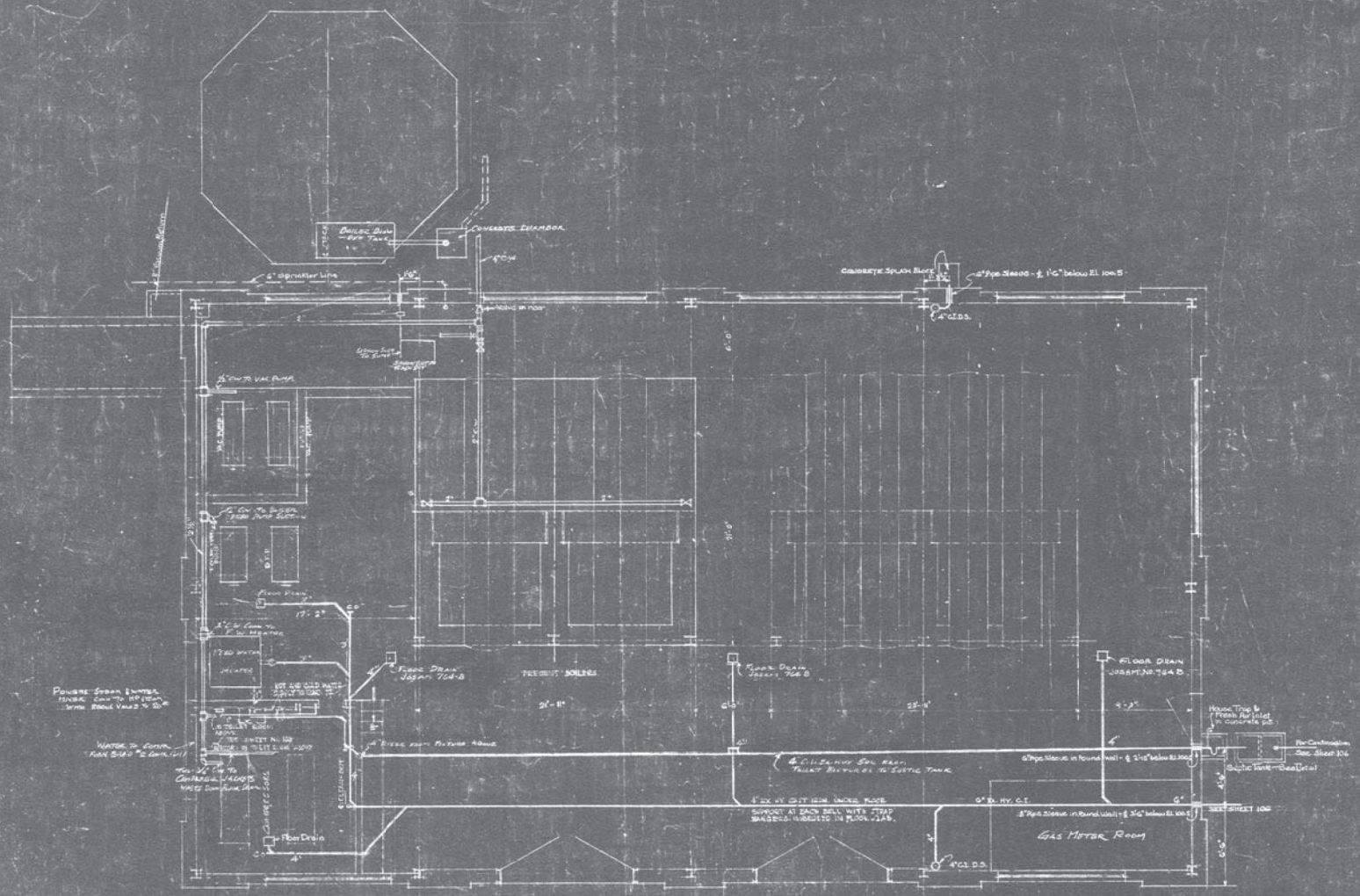
DRAWN BY	DATE	CONTRACT NUMBER	4499
TRACED BY	DATE	SHEET NUMBER	104
CHECKED BY	DATE		
SCALE None			



WATER OVER SPR.
WATER OVER SPR.
SEWER
WATER 94.6
EL. SPR + WATER 94
SEWER 95.7
EL. 95.0
SERVICE AND MAINTENANCE
EL. 95.5
EL. 95.0
4" STEAM IN WOOD COV + 1/2 CONCRETE TILE
ELEV. OF TOP OF FILL = 98.5
FUTURE UNIT NO. 1
UNIT NO. 2
BATTERY PLANT
WATER + SPR
EL. 94.0
BOILER HOUSE
EL. 94
SEE SHEET NO. 1
SECTION B-B
UNDER EACH BELL
SECTION X-X
SECTION AA above
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
PLUMBING-YARD CONNECTIONS
MANUFACTURING PLANT
THOMAS A EDISON INC.
KEARNY N.J.
DRAWN BY
TRACED BY
CHECKED BY
SCALE
CONTRACT NUMBER 449
SHEET NUMBER 106



PROCESS WATER FROM ON
PLAN WATER SUPPLY TO PREHEATER
SCHEMATIC OF PIPING TO PREHEATERS
SECTION AA
Water Supply to preheater
SECTION BB
Showing Preheater & Tank Connections
Gate valve
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
PROCESS WATER SUPPLY
BATTERY PLANT BUILDING
THOMAS A. EDISON, INC.
ORANGE, N.J.
DRAWN BY
DATE
TRACED BY
DATE
CHECKED BY
DATE
SCALE
CONTRACT NUMBER 4499
SHEET NUMBER 107

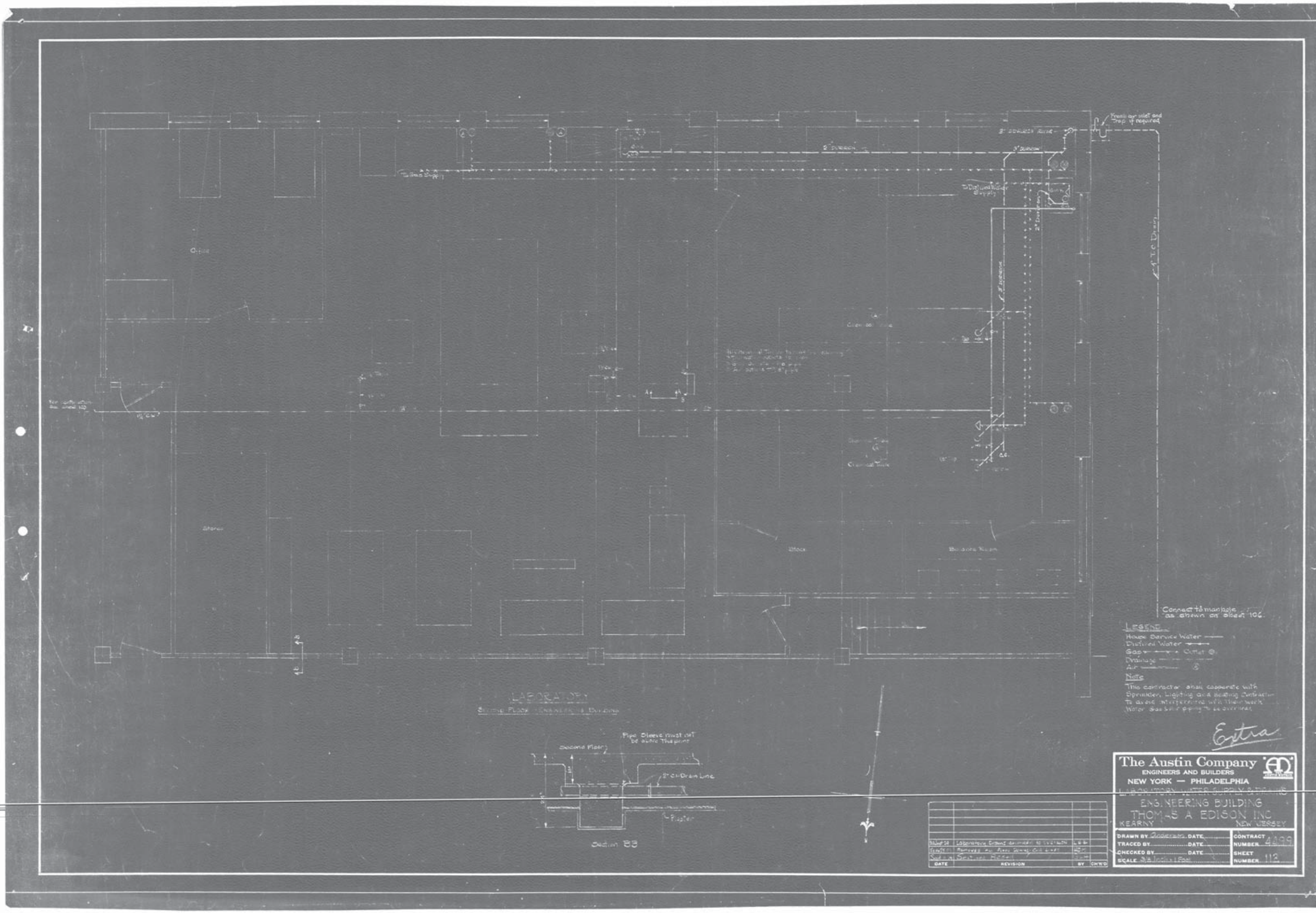


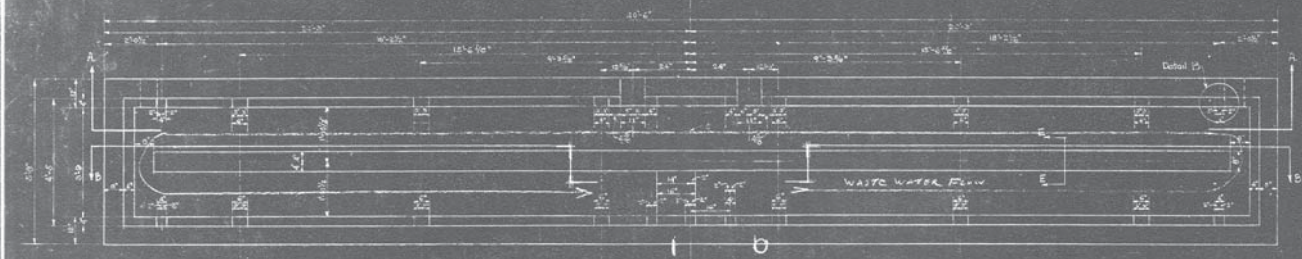
DATE	REVISION	BY	CH'K'D
4-10-20	Revised to agree with installation	NDM	
8/25/19	Relocated K.W. Site Tank Drain Pr. Trans	JPM	
9/3/29	Dimensions added to C.W. Line	JLM	
9/6/29	Pipe inserts added in found. walls	JLM	
07AUG29	LAVATORY RELOCATED	LGK	

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

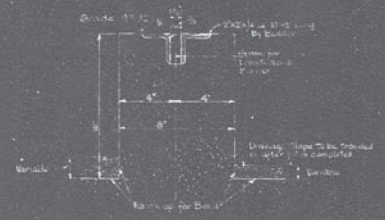
PLUMBING PLAN
BOILER HOUSE
THOMAS A. EDISON, INC.
KEARNY N.J.

DRAWN BY	DATE	CONTRACT NUMBER	4A99
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	110
SCALE 1/4" = 1 Foot			


Office
Stores
Stock
Balance Room
LABORATORY
Second Floor - Engineering Building
Second Floor
Pipe Sleeve must not be above the joint
2" C.I. Drain Line
Plaster
Section "B-B"
Connect to manhole as shown on sheet 106.
LEGEND
House Service Water
Distilled Water
Gas Outlet
Drainage
Air
Note
This contractor shall cooperate with Sprinkler, Lighting and Heating Contractor to avoid interference with their work.
Extra
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
ENGINEERING BUILDING
THOMAS A EDISON INC
KEARNY
NEW JERSEY
DRAWN BY
DATE
TRACED BY
DATE
CHECKED BY
DATE
SCALE 3/8 Inch = 1 Foot
CONTRACT NUMBER 4499
SHEET NUMBER 112
DATE
REVISION
BY
CHK'D



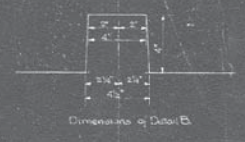
PLAN OF HEATER PIT



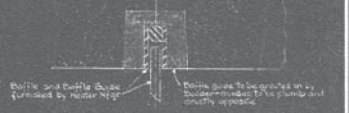
SECTION EE

Cork and Felt on top and bottom of wall

Scale 3"=1 Foot



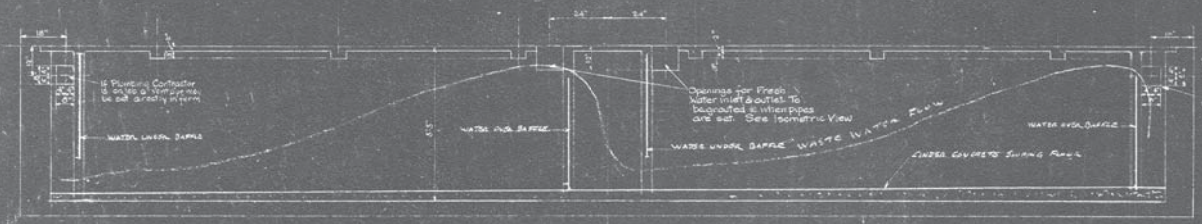
Dimensions of Detail B



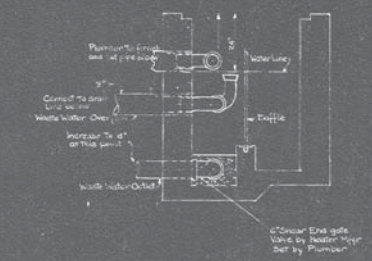
DETAIL B

Showing Slot for Baffle Guides and Guides in position

Scale 3"=1 Foot

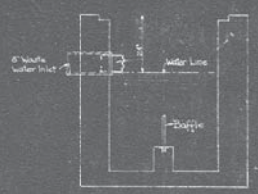


SECTION AA



SECTION CC

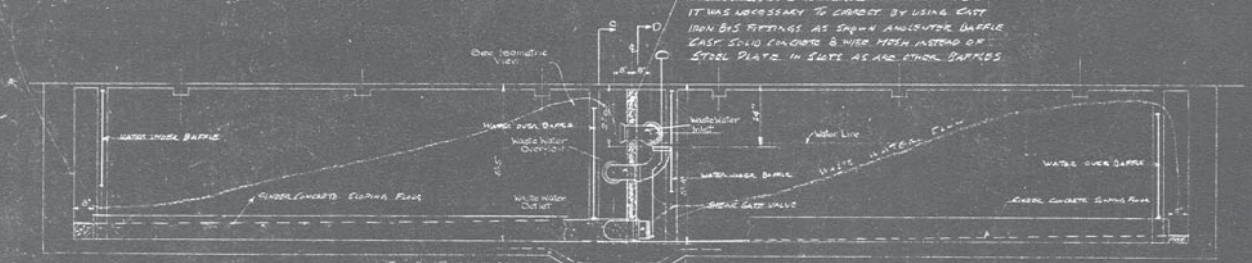
Waste Water Overflow & Drain



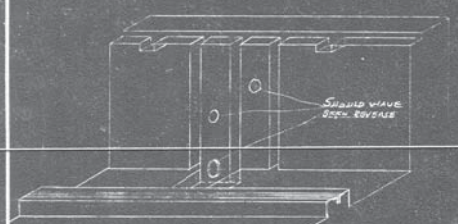
SECTION DD

Waste Water Inlet

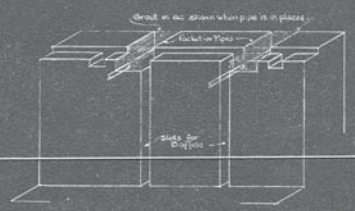
DUE TO WATER INLET, OUTLET & OVERFLOW OPENINGS IN CONCRETE WALLS BEING LOCATED TO CONSTRUCT HAND TO A GREAT WITH PRO HEATER IT WAS NECESSARY TO CARRY IT BY USING CAST IRON BYS FITTINGS AS SHOWN AND CUTTER BAFFLE CAST SOLID CONCRETE & WIRE MESH INSTEAD OF STEEL PLATE IN SLOTS AS ARE OTHER BAFFLES



SECTION BB



Isometric View Baffle Slots - Inlet, Overflow & Outlet
No Scale



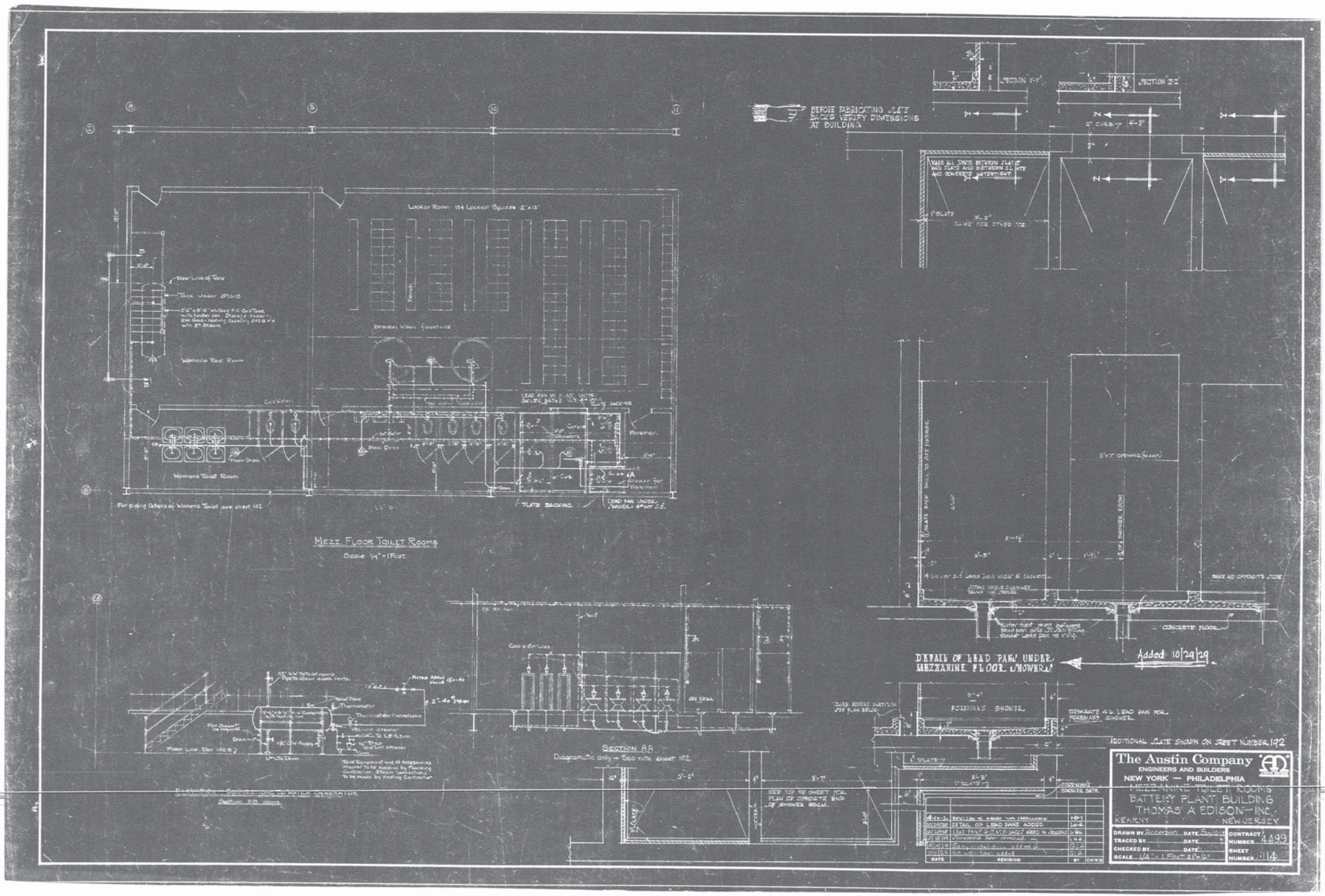
Isometric View - Baffle Slots & Pipe Pockets
No Scale

DATE	REVISION	BY	CH'K'D
4-10-34	REVISED TO AGREE WITH INSTALLATION	HDM	

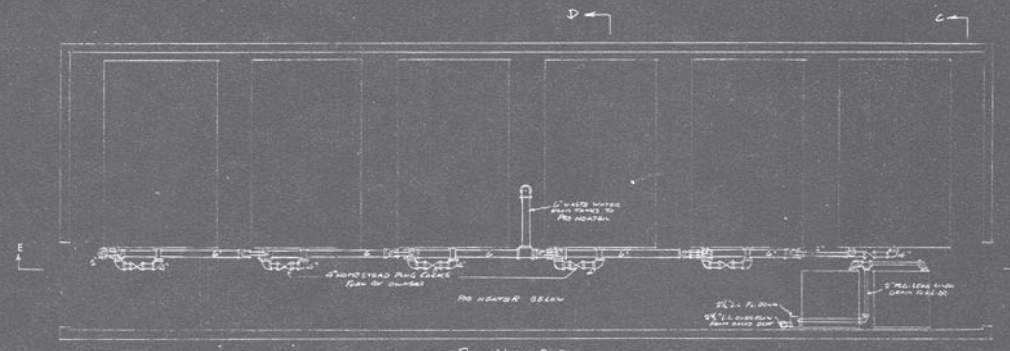
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

SLOTS & OPENINGS — PROHEATER PIT
BATTERY PLANT BLDG
THOMAS A. EDISON - INC.
KEARNY NEW JERSEY

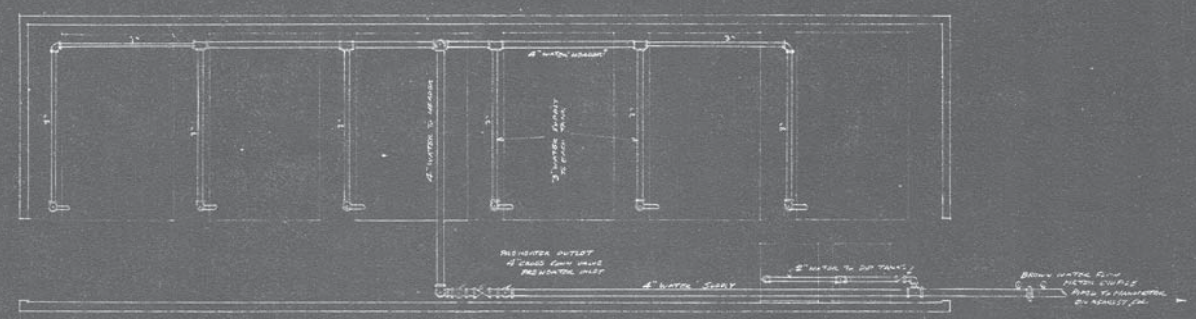
DRAWN BY	DATE	CONTRACT NUMBER	
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	113
SCALE 1/4" and 3"=1 Foot			



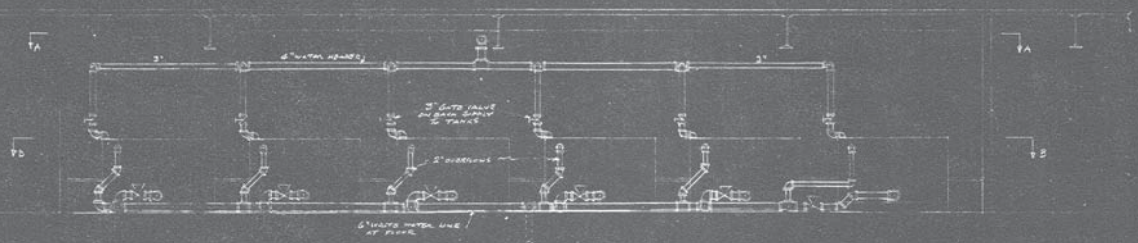
Locker Room 154 Locker Spaces 12"x15"
Bradley Wash Fountains
Tank Under Stairs
Womens Toilet Room
Foremen
Shower for Foremen
SLATE BACKING
For piping Details of Womens Toilet see sheet 102
MEZZ. FLOOR TOILET ROOMS
Scale 1/4" = 1 Foot
BEFORE FABRICATING SLATE BACKS VERIFY DIMENSIONS AT BUILDING
SECTION Y-Y
SECTION Z-Z
SAME FOR OTHER SIDE
SAME AS OPPOSITE SIDE
CONCRETE FLOOR
DETAIL OF LEAD PANS UNDER MEZZANINE FLOOR SHOWERS
Added 10/29/29
FOREMANS SHOWER
SEPARATE 4 lb. LEAD PAN FOR FOREMANS SHOWER
SECTION AA
Diagramatic only - See note sheet 102.
SEE TOP OF SHEET FOR PLAN OF OPPOSITE END OF SHOWER ROOM.
ELEVATION - CONNECTION TO FOTER GENERATOR
Section BB above
ADDITIONAL SLATE SHOWN ON SHEET NUMBER 192
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
MEZZANINE TOILET ROOMS
BATTERY PLANT BUILDING
THOMAS A EDISON — INC.
KEARNY NEW JERSEY
DRAWN BY
TRACED BY
CHECKED BY
SCALE 1/4" = 1 Foot
CONTRACT NUMBER 4499
SHEET NUMBER 114



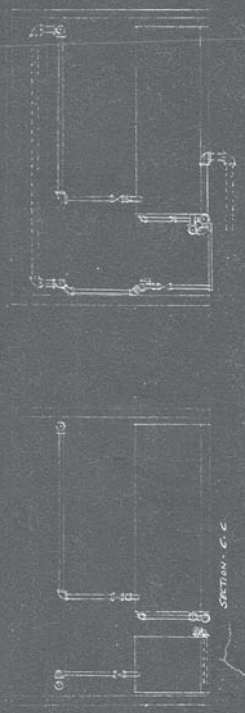
PLAN VIEW B-B



PLAN VIEW A-A



ELEVATION FRONT OF TANK E-E



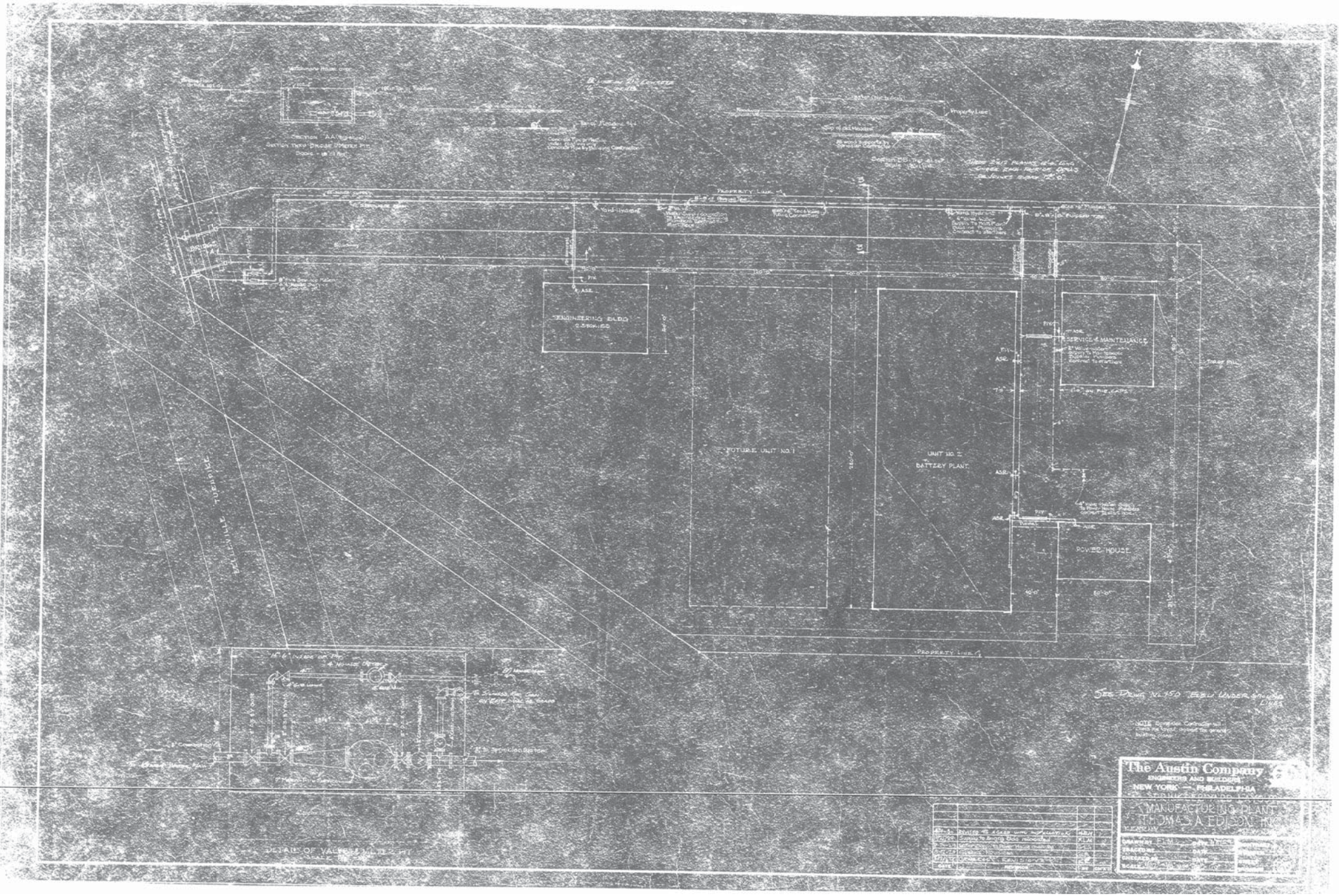
NOTE:
WORK FURN ON REQ 34, EX. W.O. No 13
EMARK DRWG 0207-03 SHEETS
No 11 & 14 SEE DRWG 147 STEAM & AIR

DATE	REVISION	BY	CH'K'D

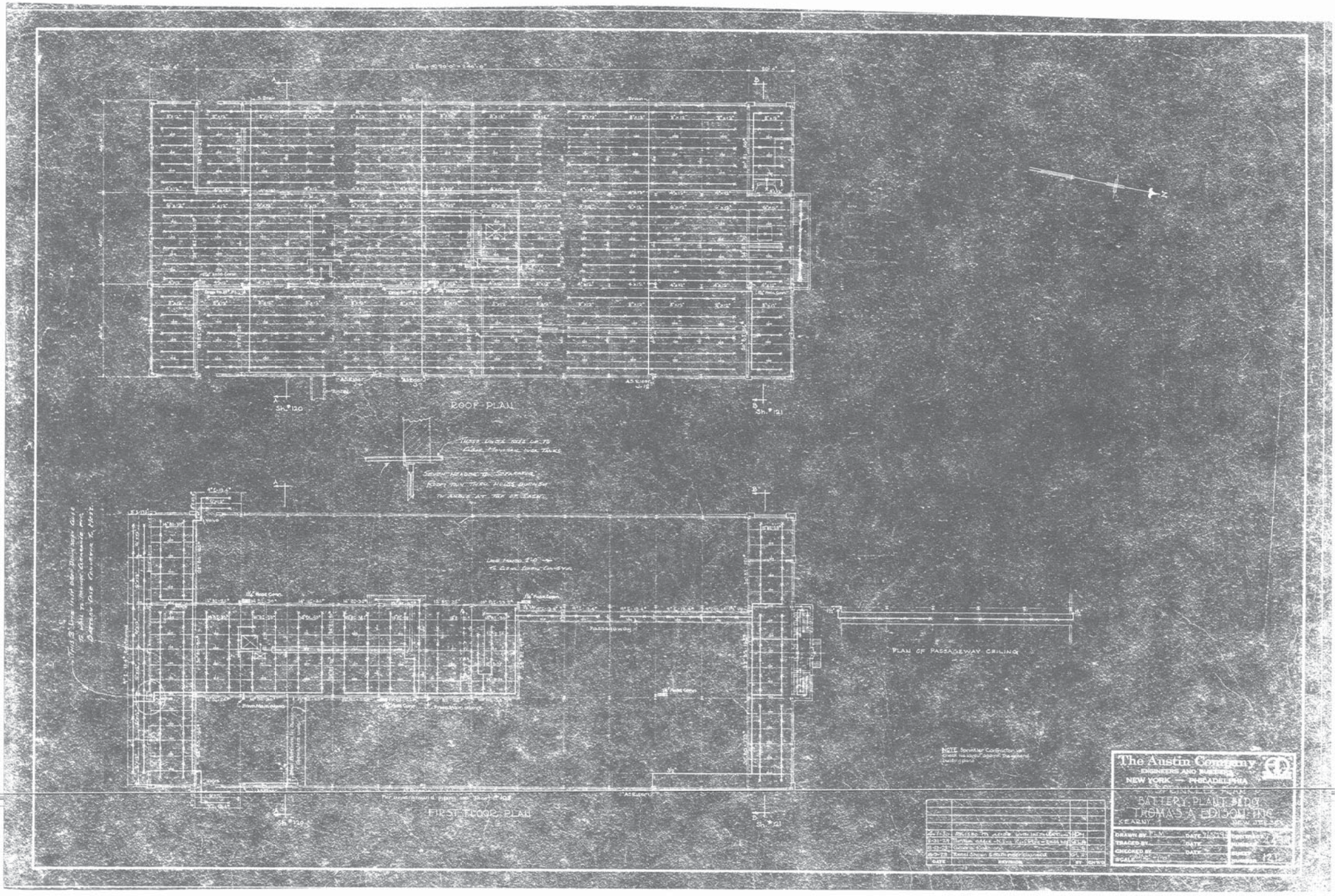
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK NEWARK

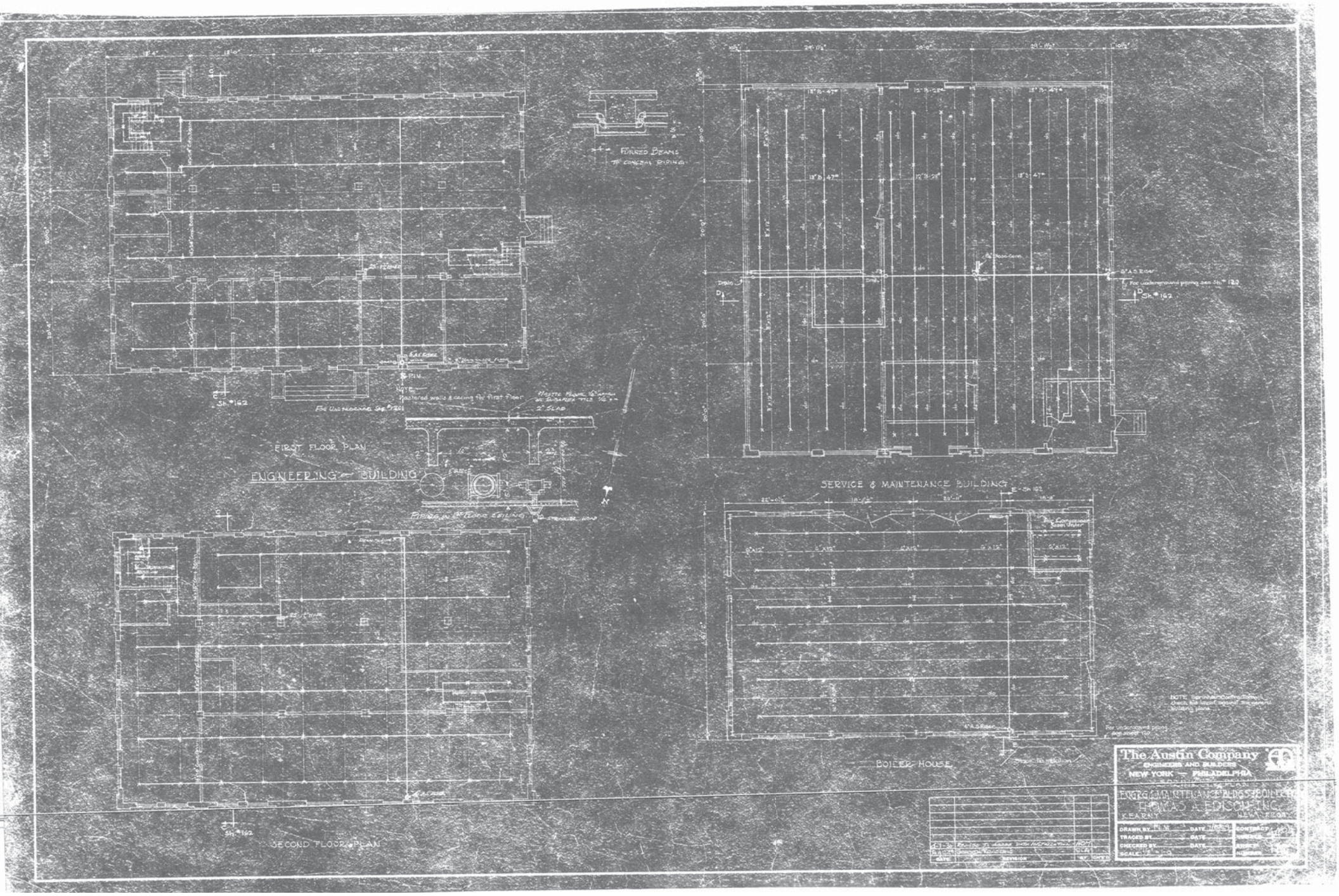
PROCESS WATER SUPPLY AND WASTE
SEPARATOR DEPARTMENT
EMARK BATTERY CORPORATION
KEARNY NEW JERSEY

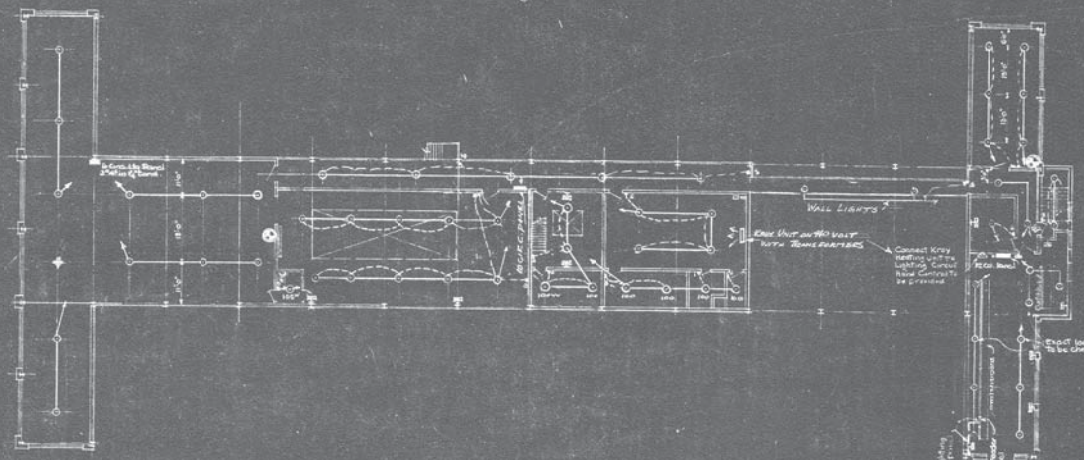
DRAWN BY HDM	DATE 4-15-40	CONTRACT NUMBER	121 H
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	117
SCALE 1/4" = 1'-0"			



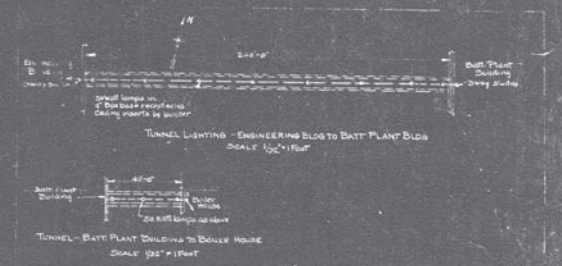
PROPERTY LINE
Property Line
Yard Hydrant
BRIDGE
ENGINEERING BLDG
2 STORIES
FUTURE UNIT NO. 1
UNIT NO. 2
BATTERY PLANT
SERVICE & MAINTENANCE
POWER HOUSE
BELLEVILLE TURNPIKE
PROPERTY LINE
SEE DRWG. NO. 150 ELEV. UNDERGROUND LINES
DETAIL OF VALVE & METER PIT
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
MANUFACTURING PLANT
THOMAS A. EDISON, INC.

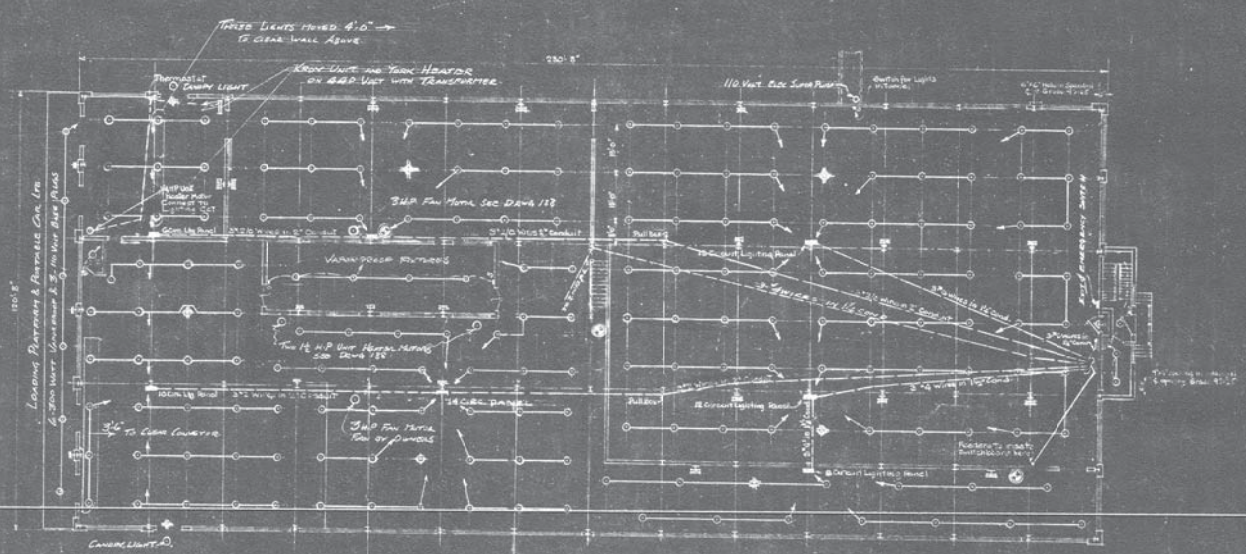

ROOF PLAN
Sh. #120
Sh. #121
FIRST FLOOR PLAN
PLAN OF PASSAGEWAY CEILING
NOTE Sprinkler Contractor will check his layout against the general building plans
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
SPRINKLER PLAN
BATTERY PLANT BLDG.
THOMAS A. EDISON INC.
KEARNY
NEW JERSEY
DRAWN BY
TRACED BY
CHECKED BY
SCALE
DATE
REVISION
BY
CH'K'D


FIRST FLOOR PLAN
ENGINEERING BUILDING
SECOND FLOOR PLAN
SERVICE & MAINTENANCE BUILDING
BOILER HOUSE
FURRED BEAMS TO CONCEAL PIPING
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
THOMAS A. EDISON, INC.
KEARNY
NEW JERSEY



MEZZANINE FLOOR PLAN





FIRST FLOOR PLAN

NOTE:-

All motors must be on 440 volt either direct or through transformer as provisions are made at switchboard to connect up three wire A.C. lighting circuits to two wire D.C. from M.G. sets.

All small 110 volt A.C. motor would be damaged by application of direct current.

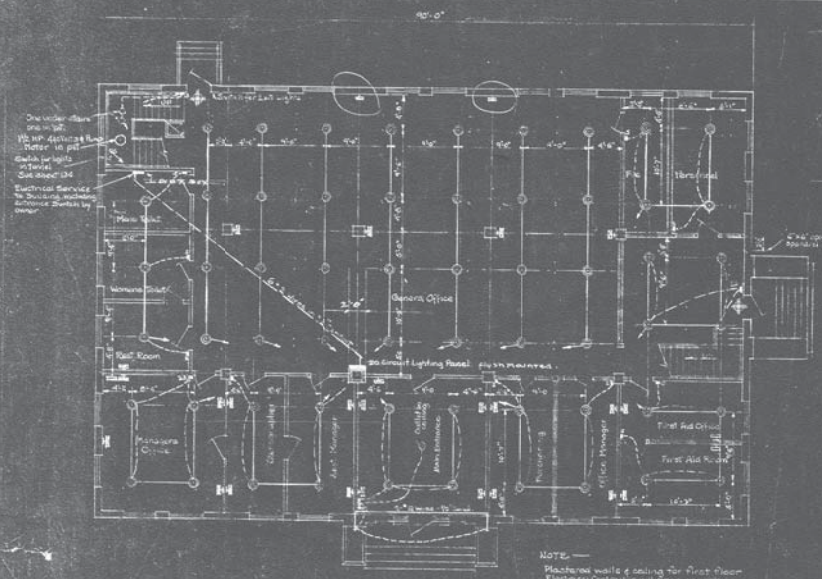
- 200 Watt Angle
- 200 Watt R.L.M.
- 300 Watt R.L.M.
- 200 Watt Trojan
- 300 Watt Emergency Light
- Exit Light
- Twin Convenience Outlet
- Wall Switch
- Floor Receptacle
- 100 Watt Trojan
- G.E. Refrig. Drink Fountains Furn. by Owner. Conn. to 440 Volt with Transformer to 110V.

DATE	REVISION	BY	CH'K'D
4-1-34	Revised to agree with installation	HDM	
11/16/33	Feeder Boxes Corrected		
10/6/33	Feeders Changed - & Convenience Outlets Added		
10/6/33	Switchboard Location and Wiring Changed		
9/19/33	General - Outlets Added & Wiring Changed	PLM	
Aug 15-33	General Revisions		

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

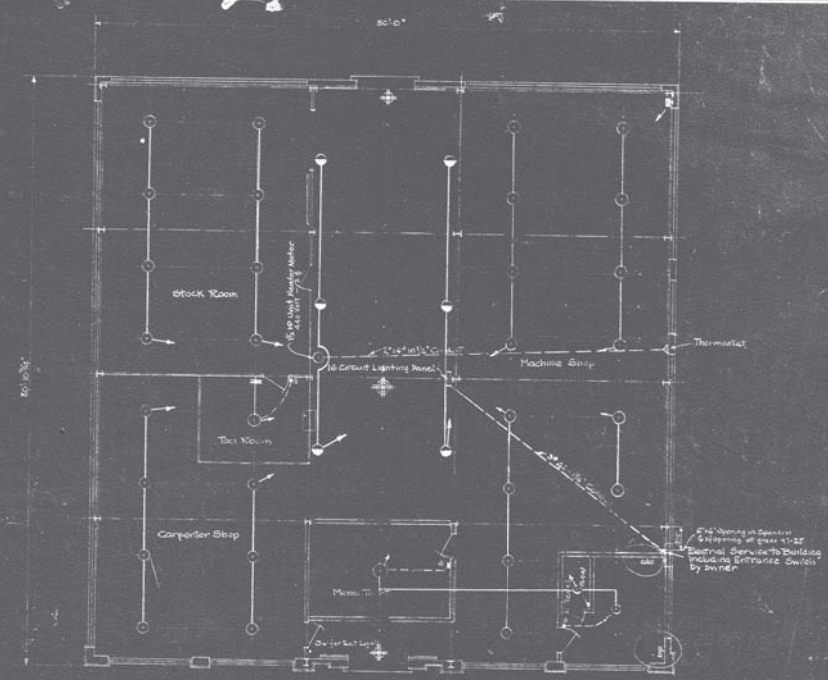
LIGHTING PLAN
BATTERY PLANT BUILDING
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY

DRAWN BY PLM	DATE	CONTRACT NUMBER	4199
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	130
SCALE 1/8" = 1'-0"			

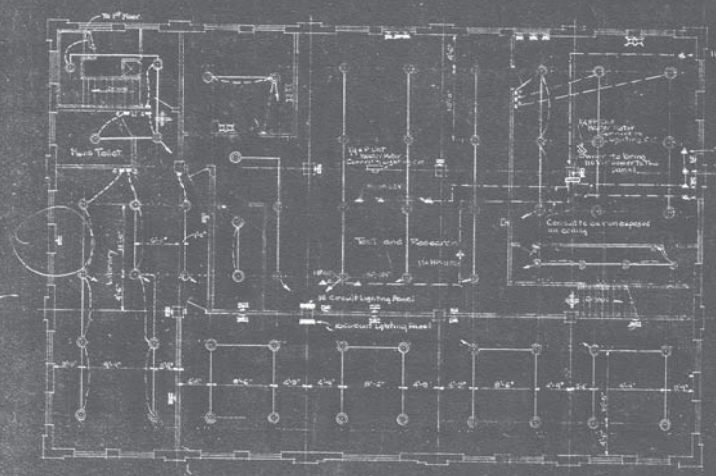


FIRST FLOOR PLAN

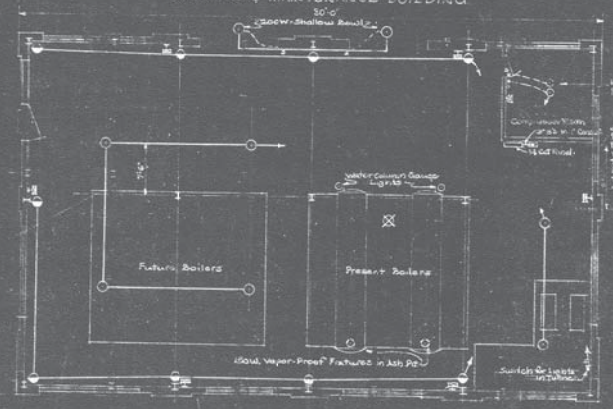
ENGINEERING ~ BUILDING



SERVICE & MAINTENANCE BUILDING



SECOND FLOOR PLAN



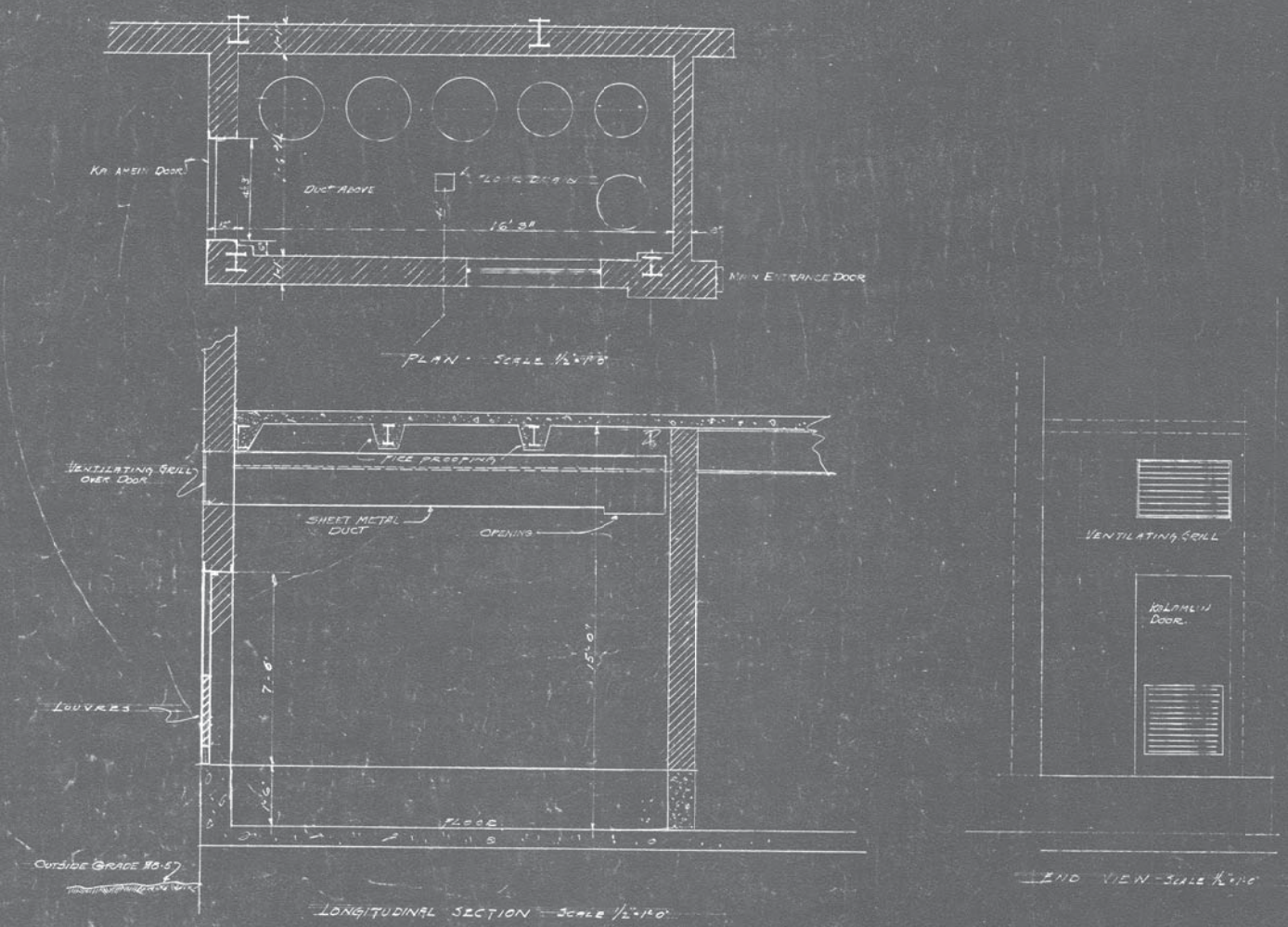
BOILER HOUSE

DATE	REVISION	BY	CK'D
	FLUSH PANEL FOR 1ST FLOOR	K.R.	
	6 Convenience outlets added		
10/4/29	Note on 110 Volt Power & Voltage Note added	G.L.A.	
10/4/29	5 Convenience Outlets Added	G.L.A.	
11/4/29	Dimensions added on Sub Base	G.L.A.	
4/18/29	General Revisions of Outlets	F.L.M.	
Sept 16-29	Note to Reserve Light & Low Power Acc. Circuits	F.L.M.	
Oct 1-29	Note added Location of Crossing	J.F.B.	
Aug 1-29	General Revisions	F.L.M.	

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

LIGHTING PLAN
ENGRG & MAINTENANCE BLDGS-BOILER HO
THOMAS A. EDISON INC
KEARNY NEW JERSEY

DRAWN BY F.L.M.	DATE	CONTRACT NUMBER	2199
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	131
SCALE 1/8" = 1'-0"			



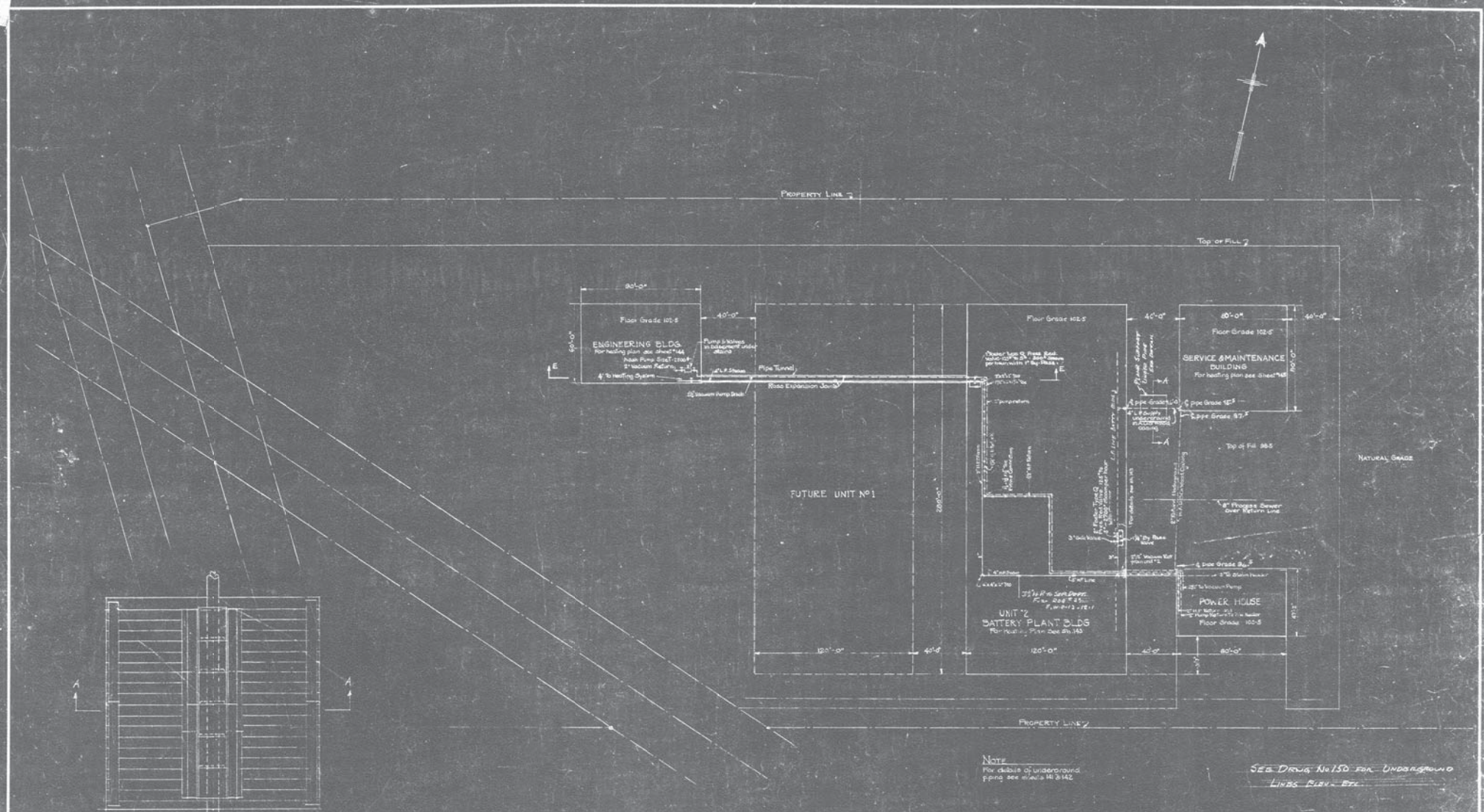
DATE	REVISION	BY	CH'K'D
9/24/29	Door Size Changed	CJS	
9/18/29	General Revision - Enlarged	GLA	

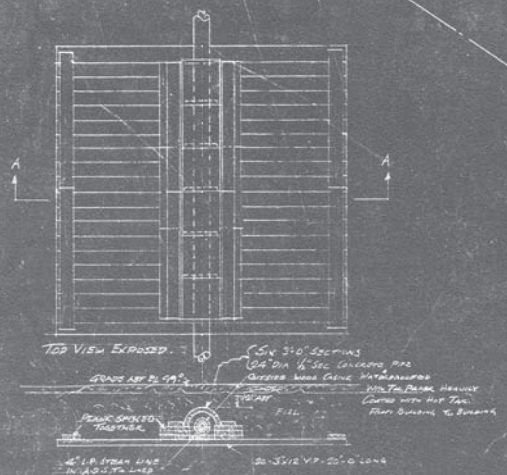
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

TRANSFORMER ROOM
BATTERY PLANT BLDG.
THOS. F. EDISON INC.
KEARNY NEW JERSEY

DRAWN BY K.E.R. DATE 9/14/29
TRACED BY ..... DATE .....
CHECKED BY ..... DATE .....
SCALE .....

CONTRACT NUMBER 4499
SHEET NUMBER 132





Sec A-A thru Support under 4" L.P. Steam Main Underground between Buildings.

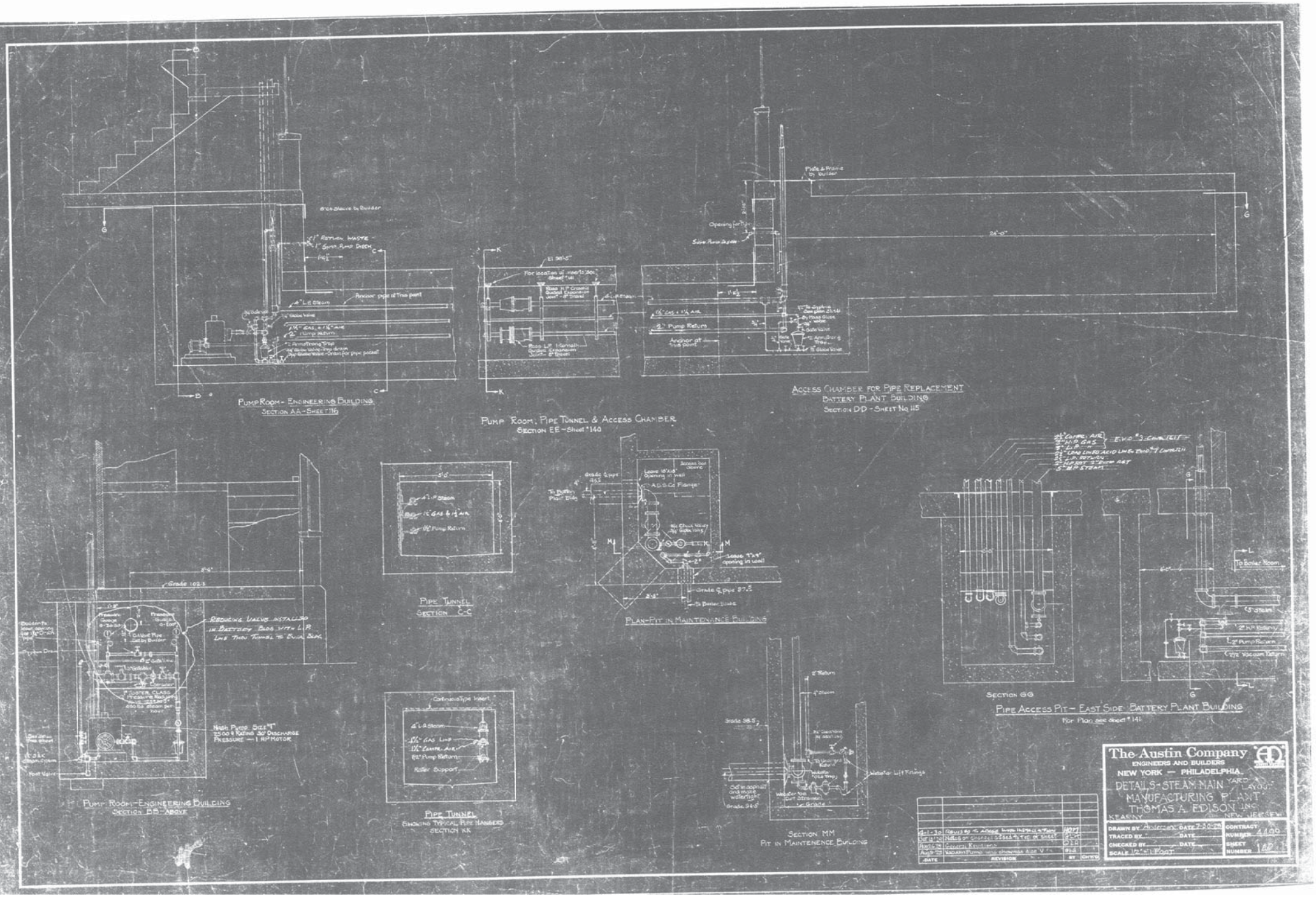
Note
For details of underground piping see sheets 141 & 142

See Drwg No 150 for Underground Lines Elev. Etc.

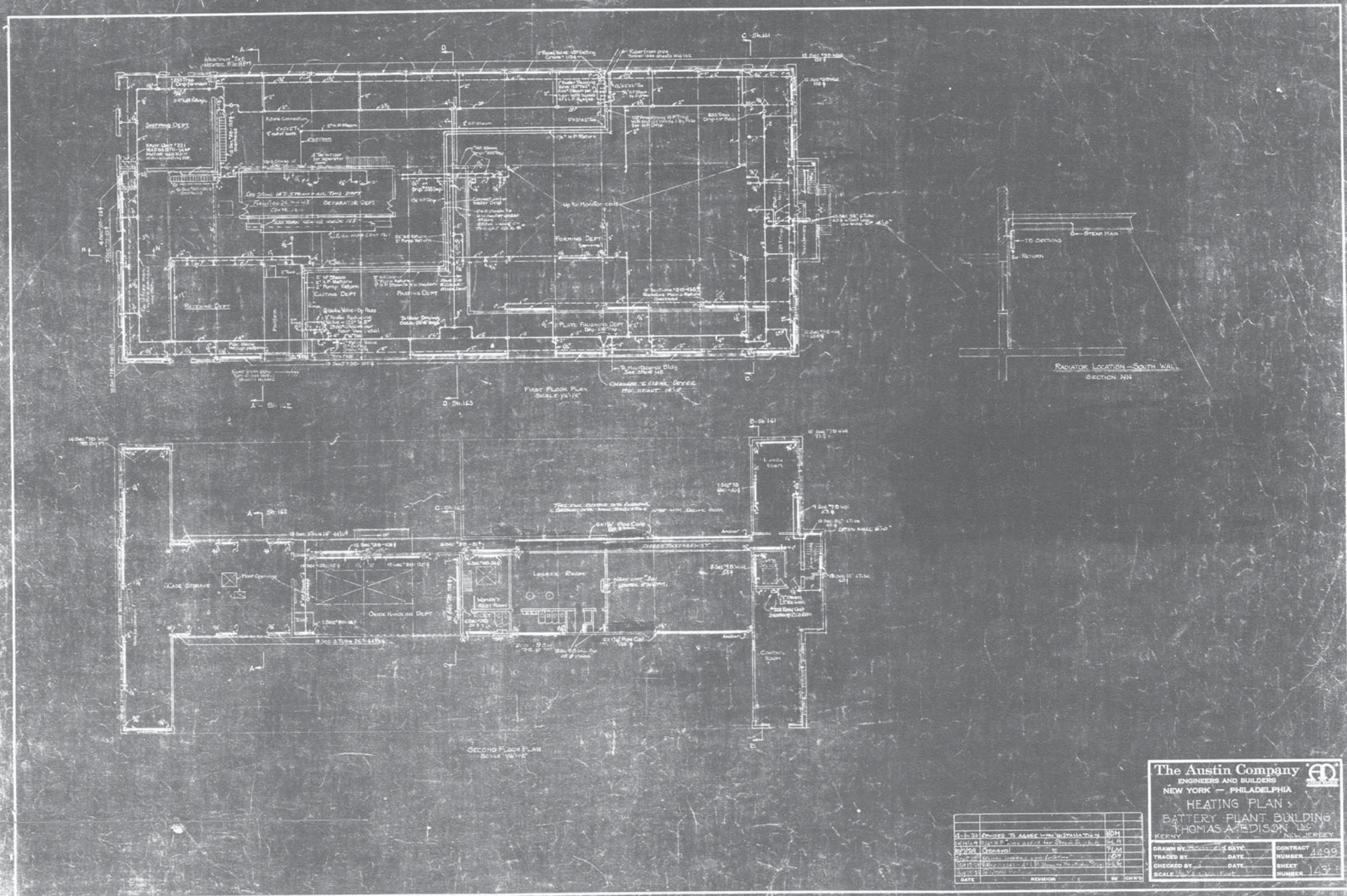
DATE	REVISION	BY	CH'K'D
4-1-30	Revised to agree with installation	HDM	
Oct 24 '29	General Revisions	G.L.O.	
Aug 24 '29	General Revisions	GLK	

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
STEAM MAIN — YARD LAYOUT
MANUFACTURING PLANT
THOMAS A. EDISON INC.
KEARNY NEW JERSEY

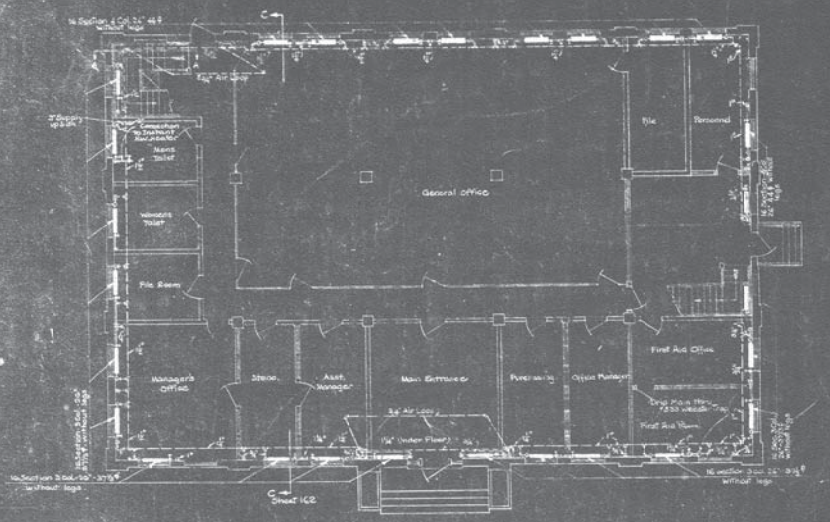
DRAWN BY Anderson	DATE 7/17/29	CONTRACT NUMBER	4499
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	140
SCALE 1/32" = 1'-0"			



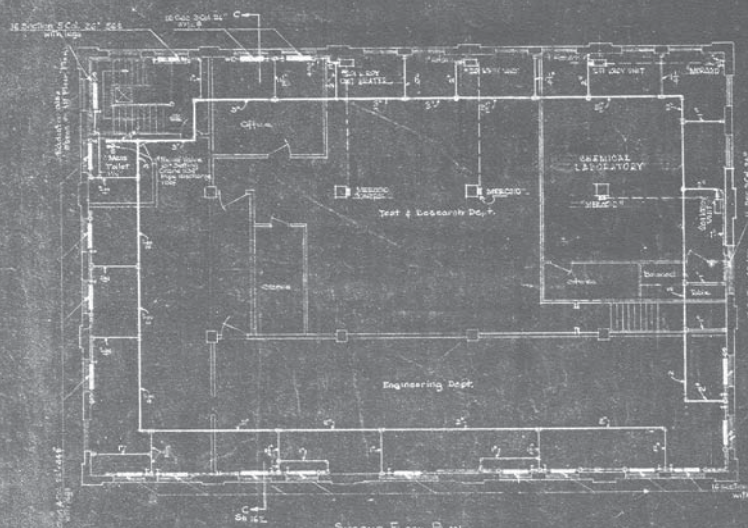
Pump Room - Engineering Building
Section AA - Sheet 116
Pump Room, Pipe Tunnel & Access Chamber
Section EE - Sheet #140
Access Chamber for Pipe Replacement
Battery Plant Building
Section DD - Sheet No 115
Pipe Tunnel
Section C-C
Plan - Pit in Maintenance Building
Section GG
Pipe Access Pit - East Side Battery Plant Building
For Plan see sheet #141
Pump Room - Engineering Building
Section BB - Above
Pipe Tunnel
Showing Typical Pipe Hangers
Section KK
Section MM
Pit in Maintenence Building
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
DETAILS - STEAM MAIN YARD & LAYOUT
MANUFACTURING PLANT
THOMAS A. EDISON INC.
KEARNY NEW JERSEY
DRAWN BY
TRACED BY
CHECKED BY
SCALE
CONTRACT NUMBER
SHEET NUMBER
REVISION



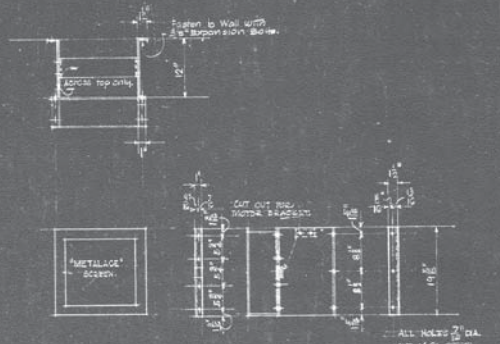
Shipping Dept
Separator Dept
Forming Dept
Casting Dept
Pasting Dept
Receiving Dept
Plate Finishing Dept
Up to Monitor coils
Steam Main
Return
Radiator Location - South Wall
Section NN
First Floor Plan
Scale 1/4"=1'0"
Case Storage
Oxide Handling Dept
Locker Room
Control Room
Second Floor Plan
Scale 1/4"=1'0"
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
HEATING PLAN
BATTERY PLANT BUILDING
THOMAS A. EDISON INC
KERNY NEW JERSEY
DRAWN BY
TRACED BY
CHECKED BY
SCALE
DATE
CONTRACT NUMBER 4499
SHEET NUMBER 143
DATE
REVISION
BY
CHK'D



FIRST FLOOR PLAN



SECOND FLOOR PLAN.



DETAIL FOR SUPPORTING KROY UNITS.
3 REQUIRED FOR 4 KROY UNITS.

RADIATOR TAPPING LIST

SUPPLY	RETURN
0-25 SQ FT - 1/2"	0-90 SQ FT - 1/2" S&Z Trap
25-60 SQ FT - 3/4"	Above 90 SQ FT - 1 1/2" - 1222 Trap

All return laterals to be 3/4"

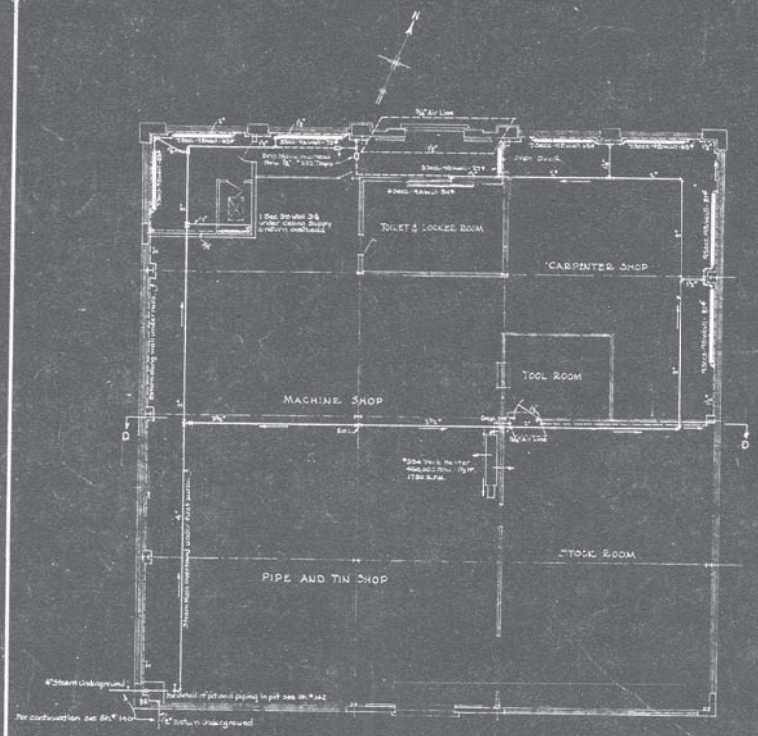
NOTE
Radiation under windows are omitted.

DATE	REVISION	BY	CHK'D
5-14-34	KROY UNITS AND DETAIL OF BRACKETS	W.K.	
12-18-33	Note Regarding radiation under lavatories	W.K.	
10-13-33	Tap size for KROY UNITS	W.K.	
11-14-32	Original Issue	W.K.	

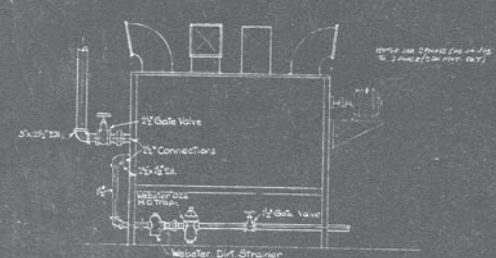
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

HEATING PLAN
ENGINEERING BUILDING
THOMAS A. EDISON INC.
KEARNY NEW JERSEY

DRAWN BY Anderson	DATE 11-4-32	CONTRACT NUMBER	4493
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	144
SCALE 1/8" = 1'-0"			



FLOOR PLAN



CONNECTION DETAILS — YORK HEATER
NOT TO SCALE

RADIATOR TAPPING LIST

SUPPLY	RETURN
0 TO 25 ft. — 1/2"	0 TO 90 ft. — 1/2" #512 Trap
26 TO 60 ft. — 1/4"	Above 90 ft. — 1/2" #522 Trap
61 TO 90 ft. — 1"	
Above 90 ft. — 1/4"	

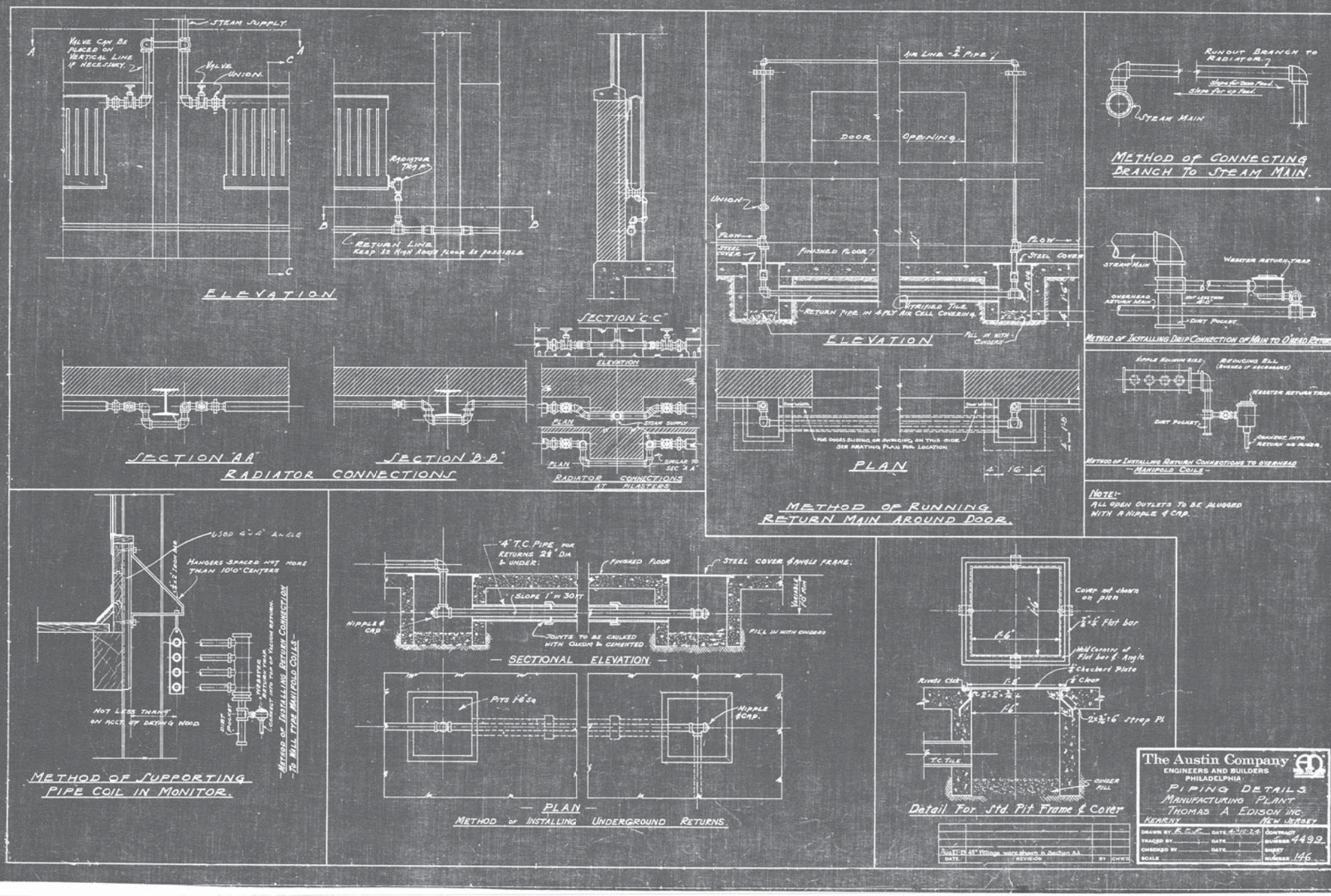
DATE	REVISION	BY	CH'K'D
4-1-30	REVISED TO AGREE WITH INSTALLATION	[illegible]	
[illegible]	[illegible]	[illegible]	
9/2/29	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	

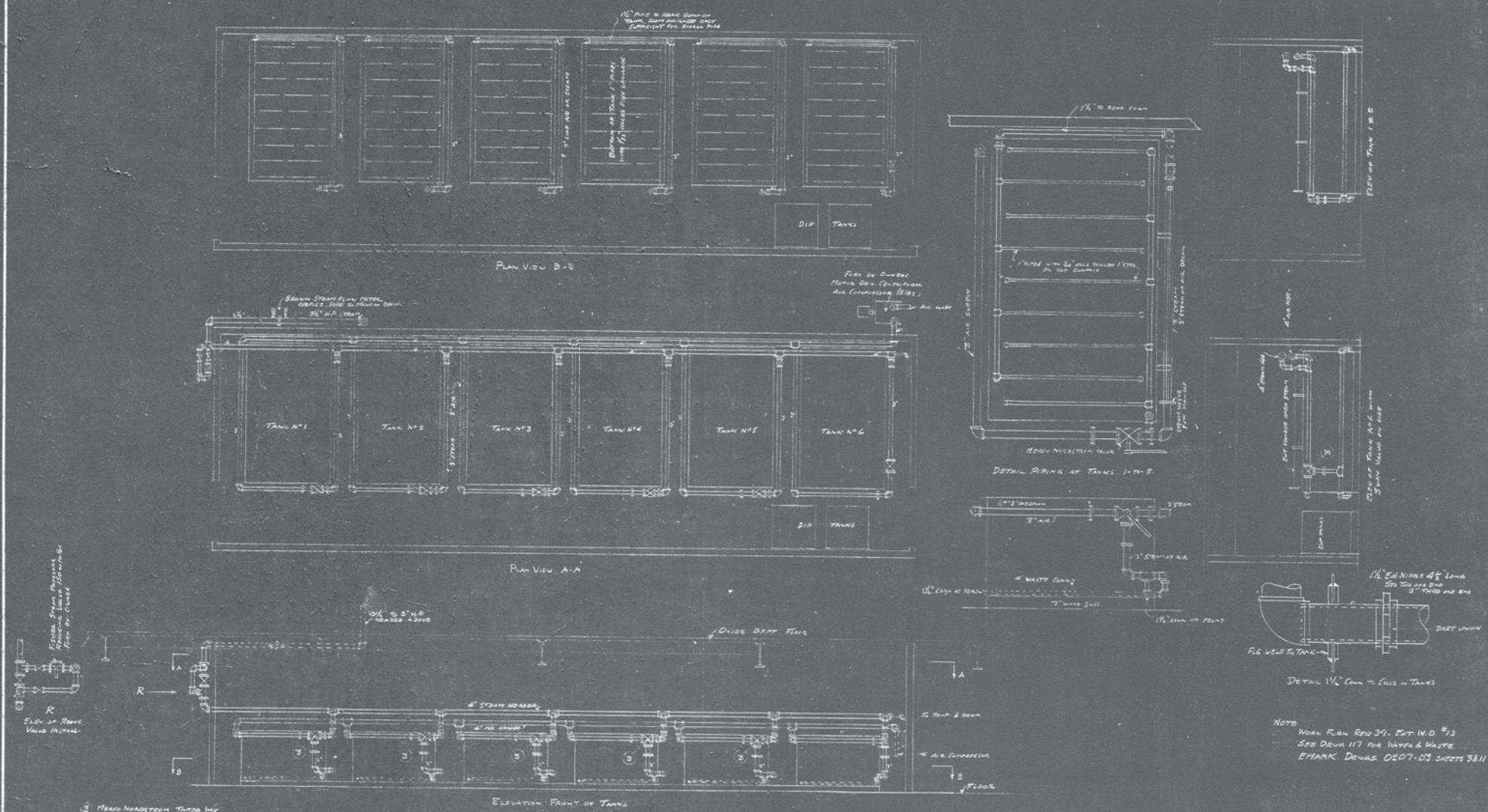
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

HEATING PLAN
SERVICE & MAINTENANCE BUILDING
THOMAS A. EDISON INC.
KEARNEY NEW JERSEY

DRAWN BY [illegible] DATE July 30 '28
TRACED BY ..... DATE .....
CHECKED BY ..... DATE .....
SCALE 1/8" = 1 Foot

CONTRACT NUMBER 4-99
SHEET NUMBER 145


STEAM SUPPLY
VALVE CAN BE PLACED ON VERTICAL LINE IF NECESSARY.
VALVE
UNION
RADIATOR TRAP
RETURN LINE KEEP AS HIGH ABOVE FLOOR AS POSSIBLE
ELEVATION
SECTION "C-C"
ELEVATION
PLAN
STEAM SUPPLY
SIMILAR TO SEC "A-A"
SECTION "A-A"
SECTION "B-B"
RADIATOR CONNECTIONS
RADIATOR CONNECTIONS AT PILASTERS
AIR LINE - 3/4" PIPE
DOOR OPENING
UNION
FLOW
STEEL COVER
FINISHED FLOOR
FLOW
STEEL COVER
RETURN PIPE IN 4 PLY AIR CELL COVERING
VITRIFIED TILE
FILL IN WITH CINDERS
ELEVATION
FOR DOORS SLIDING OR SWINGING ON THIS SIDE SEE HEATING PLAN FOR LOCATION
PLAN
METHOD OF RUNNING RETURN MAIN AROUND DOOR.
RUNOUT BRANCH TO RADIATOR
Slope for Down Feed
Slope for up Feed
STEAM MAIN
METHOD OF CONNECTING BRANCH TO STEAM MAIN.
STEAM MAIN
WEBSTER RETURN TRAP
OVERHEAD RETURN MAIN
DIRT POCKET
METHOD OF INSTALLING DRIP CONNECTION OF MAIN TO O'HEAD RETURN
NIPPLE MAXIMUM SIZE
REDUCING ELL (BUSHED IF NECESSARY)
WEBSTER RETURN TRAP
DIRT POCKET
CONNECT INTO RETURN OR RISER
METHOD OF INSTALLING RETURN CONNECTIONS TO OVERHEAD MANIFOLD COILS
NOTE:- ALL OPEN OUTLETS TO BE PLUGGED WITH A NIPPLE & CAP.
USED 4"x4" ANGLE
HANGERS SPACED NOT MORE THAN 10'0" CENTERS
NOT LESS THAN 9" ON ACCT. OF DRYING WOOD
DIRT POCKET
WEBSTER RETURN TRAP
CONNECT INTO TOP OF VACUUM RETURN.
METHOD OF INSTALLING RETURN CONNECTION TO WELL TYPE MANIFOLD COILS
METHOD OF SUPPORTING PIPE COIL IN MONITOR.
"4" T.C. PIPE FOR RETURNS 2 1/2" DIA & UNDER.
FINISHED FLOOR
STEEL COVER & ANGLE FRAME.
SLOPE 1" IN 30 FT
VARIABLE 7'0" MIN
NIPPLE & CAP
JOINTS TO BE CAULKED WITH OXIDUM & CEMENTED
FILL IN WITH CINDERS
SECTIONAL ELEVATION
PITS 1'-6" SQ
NIPPLE & CAP.
PLAN
METHOD OF INSTALLING UNDERGROUND RETURNS.
Cover not shown on plan
1'-6"
1'-6"
7/8"x1/4" Flat bar
Weld Corners of Flat bar & Angle
1/4" Checkerd Plate
Rivets Click
1'-6"
1'-6"
2"x2"x3/16" L
2"x3/16"x6" Strap Pl.
T.C. TILE
CINDER FILL
Detail For Std. Pit Frame & Cover
Aug 21 '24 45° Fittings were shown in Section A-A
DATE
REVISION
BY
CH'K'D
The Austin Company
ENGINEERS AND BUILDERS
PHILADELPHIA
PIPING DETAILS
MANUFACTURING PLANT
THOMAS A EDISON INC.
KEARNY
NEW JERSEY
DRAWN BY R.E.E. DATE 4-10-24
TRACED BY DATE
CHECKED BY DATE
SCALE
CONTRACT NUMBER 4492
SHEET NUMBER 146



Note
Work Furn Req 39 - Ext W.O #13
See Drwg 117 for Water & Waste
Emark Drwgs 0207-03 Sheets 3 & 11

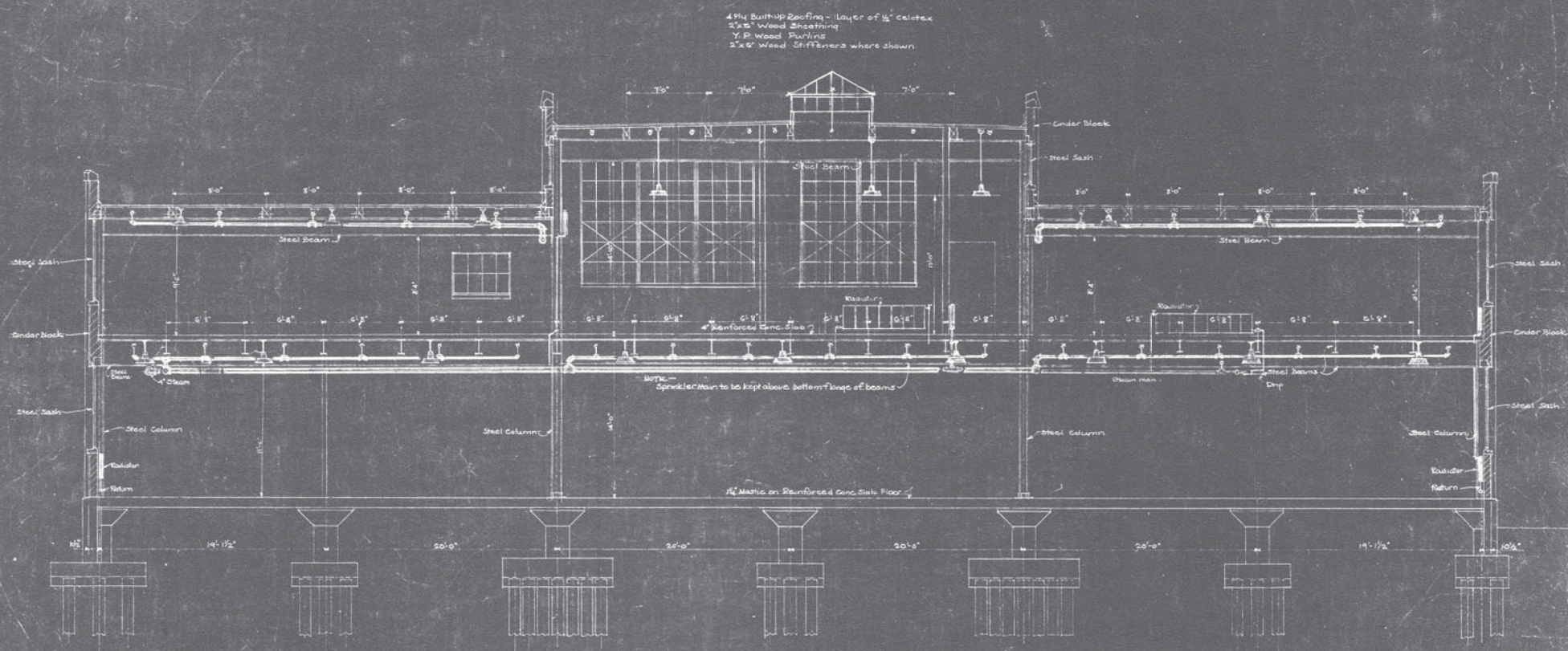
3 Merco Nordstrom Three Way Valves Furn by Owner.
Used to admit either 10 lb Steam or 5 lb Air to Tanks.

DATE	REVISION	BY	CH'K'D

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK NEWARK

STEAM AND COMPRESSED AIR SEPARATOR DEPT
EMARK BATTERY CORPORATION
KEARNY NEW JERSEY

DRAWN BY H.D.H.	DATE 4-15-36	CONTRACT NUMBER	1211-11
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	147
SCALE 1/4" & 1/2" = 1'-0"			



SECTION C-C
Sheet 3 and 145

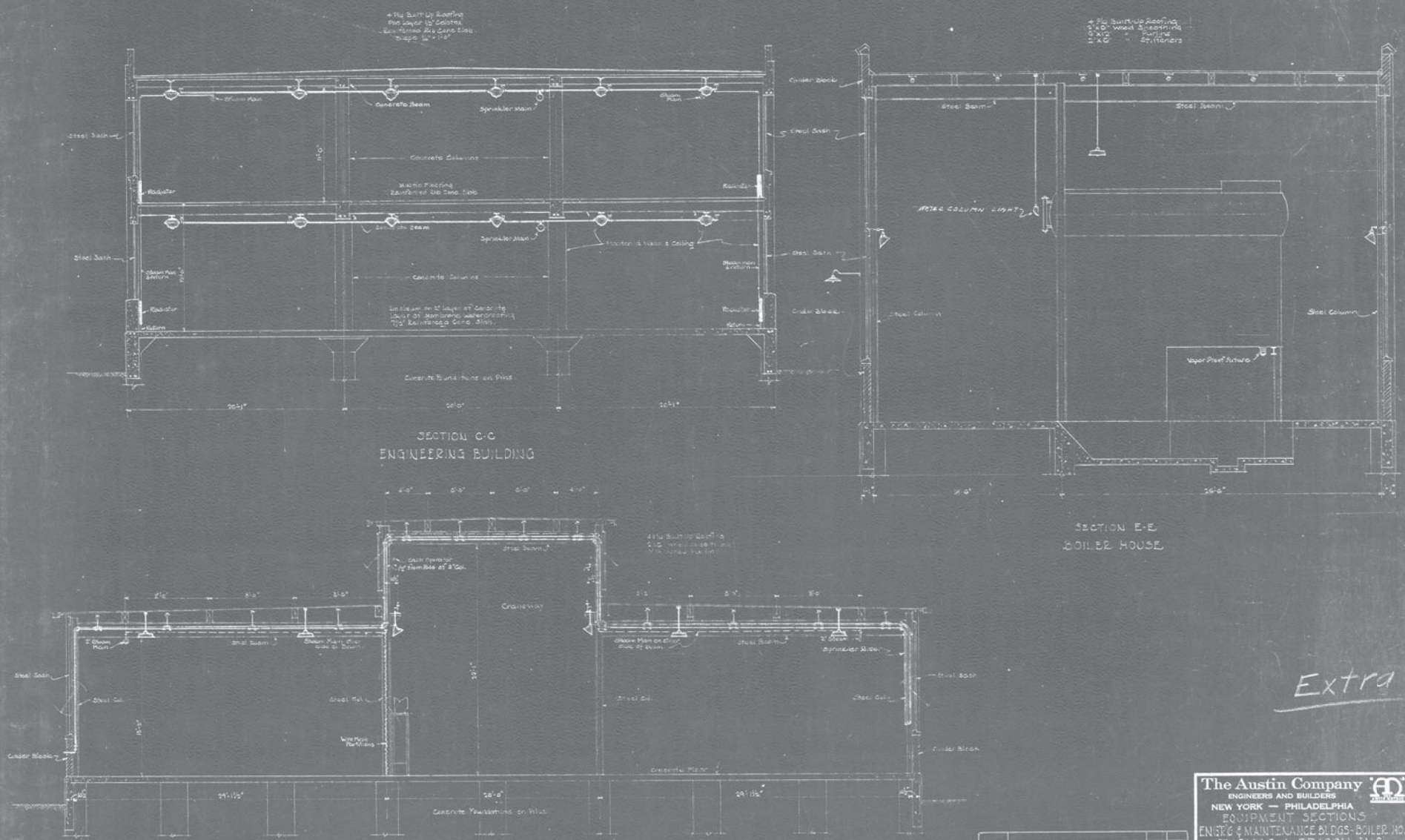
DATE	REVISION	BY	CH'K'D
4-1-30	Revised to agree with installation	WBM	
9/17/21	Maint. Ht. of 2nd Fl. Lights increased	TLM	
Aug 9 '15	Heating added	GLA	

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

EQUIPMENT SECTION
BATTERY PLANT BUILDING
THOMAS A EDISON INC
ELLEVY N.J.

DRAWN BY [illegible] DATE
TRACED BY DATE
CHECKED BY DATE
SCALE

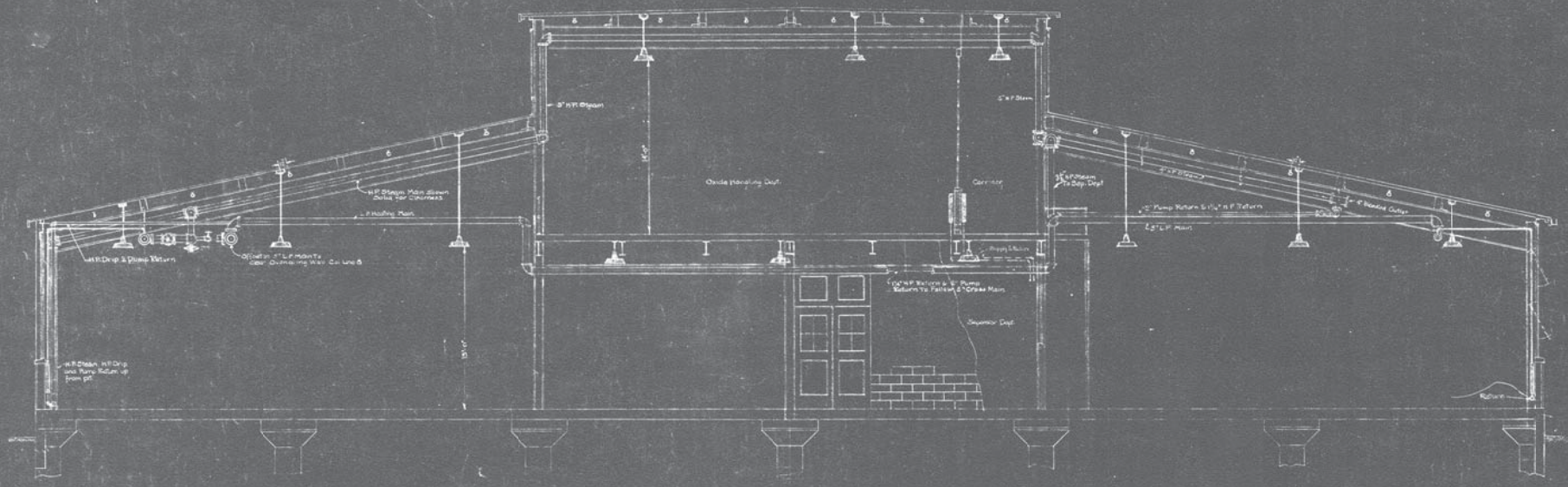
CONTRACT NUMBER 4499
SHEET NUMBER 161



DATE	REVISION	BY	CH'K'D
8/19/29	Mounting Pts in Boiler House rev.	FLM	
8/21/29	Steam main cases	[illegible]	

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
EQUIPMENT SECTIONS
ENGR'G & MAINTENANCE BLDGS-BOILER HO.
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY

DRAWN BY FLM	DATE 7/18/29	CONTRACT NUMBER	2499
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	162
SCALE 1/4" = 1'-0"			

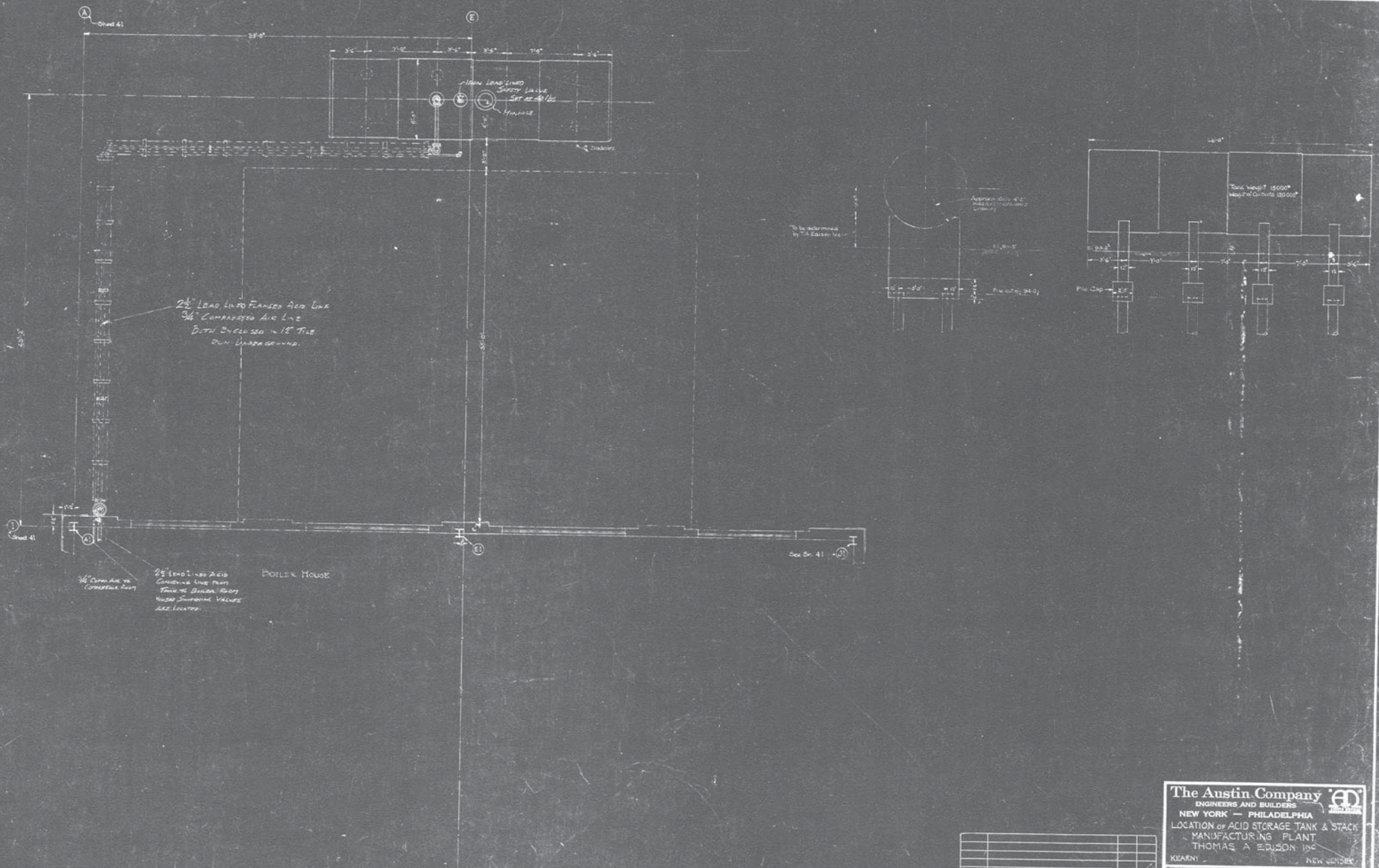


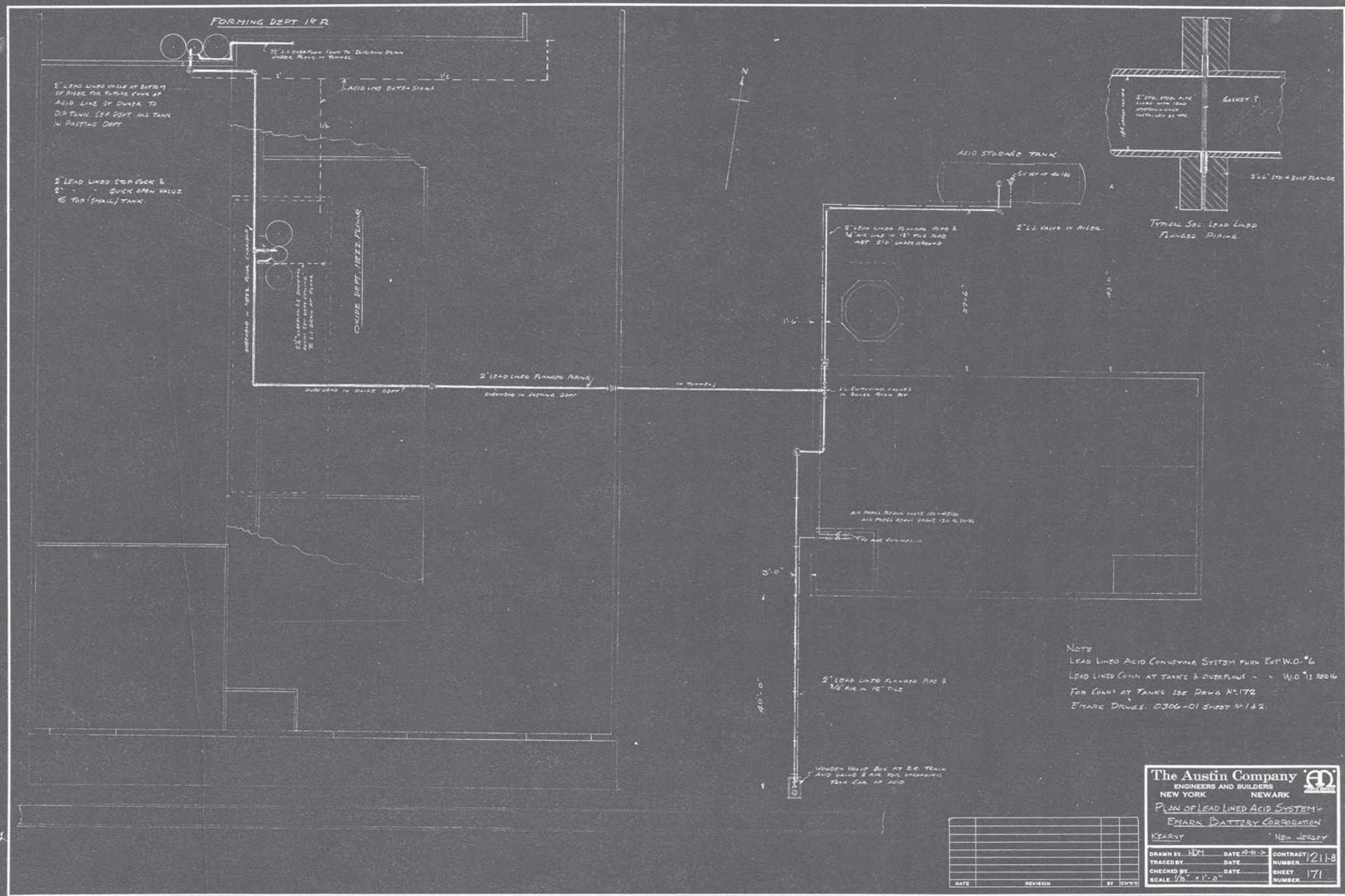
SECTION "DD" — SHEET 143.

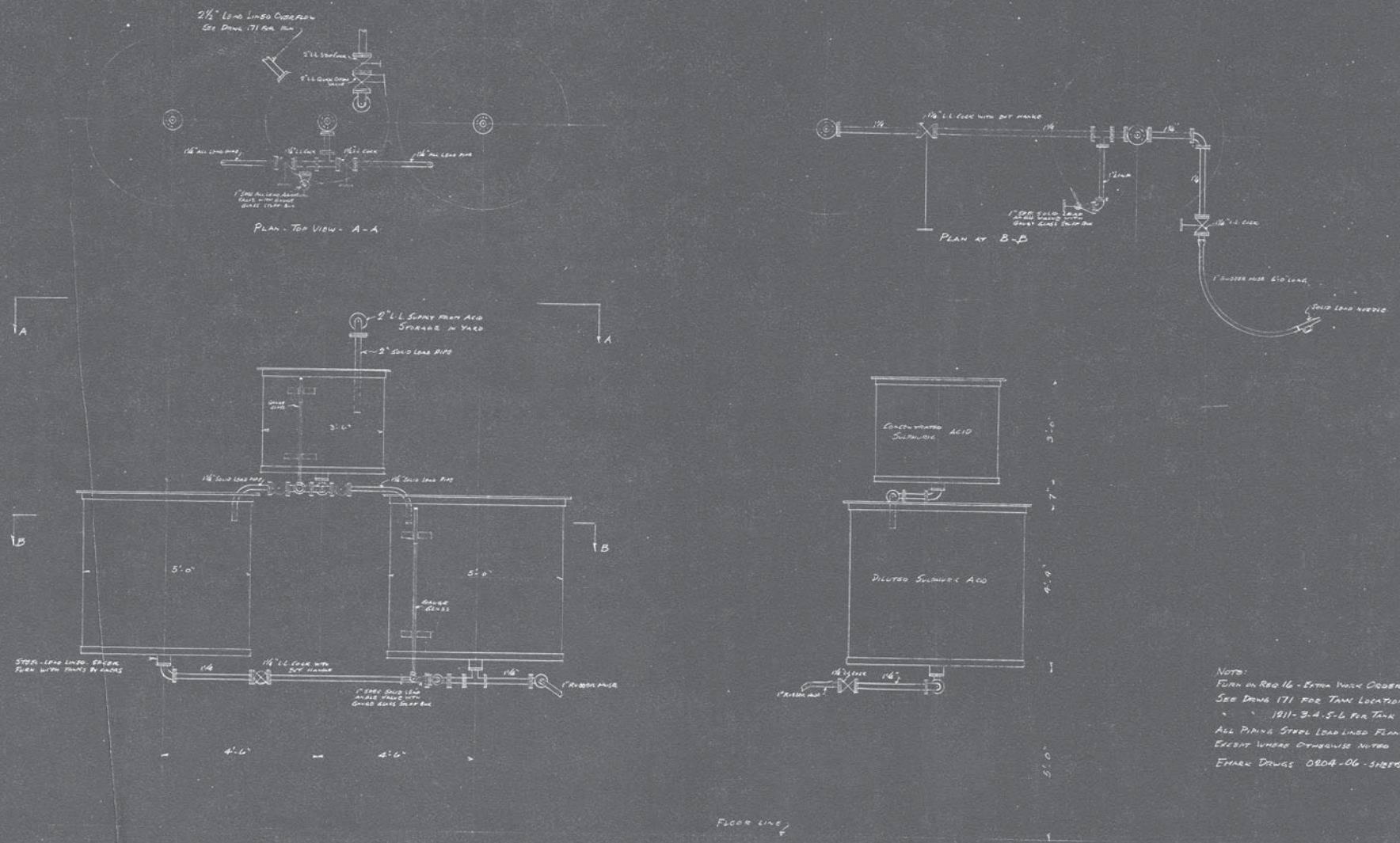
DATE	REVISION	BY	CH'K'D

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
EQUIPMENT SECTION
BATTERY PLANT BUILDING
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY

DRAWN BY Anderson, DATE Aug 26 '13	CONTRACT NUMBER 4499
TRACED BY ..... DATE	
CHECKED BY ..... DATE	SHEET NUMBER 163
SCALE 1/4" = 1 Foot	


Sheet 41
33'-0"
Iron Lead Lined Safety Valve
Set at 40 lbs
Manhole
Gradient
2½" Lead Lined Flanged Acid Line
¾" Compressed Air Line
Both Enclosed in 12" Tile
Run Underground.
Sheet 41
¾" Comp Air to Compressor Room
2½" Lead Lined Acid Conveying Line from Tank to Boiler Room
Where Switching Valves are Located.
Boiler House
See Sh. 41
To be determined by T.A. Edison Inc.
Tank Weight 15000#
Weight of Contents 120000#
Pile Cap
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
LOCATION OF ACID STORAGE TANK & STACK
MANUFACTURING PLANT
THOMAS A EDISON INC
KEARNY
NEW JERSEY
DRAWN BY Anderson
DATE
TRACED BY
DATE
CHECKED BY
DATE
SCALE 1/4" = 1 Foot
CONTRACT NUMBER 4499
SHEET NUMBER 170
41-30
REVISED TO AGREE WITH INSTALLATION
HDM
DATE
REVISION
BY
CH'K'D


FORMING DEPT 1st FL
2" L.L. OVERFLOW CONN TO DILUTION DRAIN UNDER FLOOR IN TUNNEL
ACID LINE BATTERY SIDE
2" LEAD LINED VALVE AT BOTTOM OF RISER FOR FILLING CONN OF ACID LINE BY OWNER TO DIP TANK SOP. DEPT AND TANK IN PASTING DEPT
2" LEAD LINED STOP COCK & 2" - - QUICK OPEN VALVE TO TOP (SMALL) TANK.
OVERHEAD IN MEZZ. FLOOR CONDUIT
3/4" MPIPE L.L. SPRINKLER ACROSS DEPT CONTROL TO L.L. DRAIN AT FLOOR
OXIDE DEPT MEZZ. FLOOR
OVERHEAD IN OXIDE DEPT
2" LEAD LINED FLANGED PIPING
OVERHEAD IN CASTING DEPT
IN TUNNEL
N
ACID STORAGE TANK.
2" L.L. VALVE IN RISER.
2" LEAD LINED FLANGED PIPE & 3/4" AIR LINE IN 12" TILE PIPE ABT 2'-0" UNDERGROUND
1'-6"
37'-6"
40'-0"
L.L. SWITCHING VALVES IN BOILER ROOM BAT
AIR PRESS. REDUCE VALVE 120 TO 30 LBS
TO AIR EXPANSION
3'-0"
2" LEAD LINED FLANGED PIPE & 3/4" AIR IN 12" TILE
WOODEN VALVE BOX AT R.R. TRACK ACID VALVE & AIR TOP. SPRINKLING TANK CAR OF ACID
2" STD. STEEL PIPE LINED WITH LEAD INTERMITTENTLY INSTALLED BY HAND.
GASKET
2"x6" STD & BOLT FLANGE
TYPICAL SEC. LEAD LINED FLANGED PIPING.
NOTE
LEAD LINED ACID CONVEYING SYSTEM FURN. EXT. W.O. #6
LEAD LINED CONN AT TANKS & OVERFLOWS " " W.O. #13 REG 16
FOR CONN. AT TANKS SEE DRWG. No. 172
EMARK DRWGS. 0306-01 SHEET No. 1 & 2.
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK NEWARK
PLAN OF LEAD LINED ACID SYSTEM - EMARK BATTERY CORPORATION
KEARNY NEW JERSEY
DRAWN BY HDM DATE 4-10-2
TRACED BY DATE
CHECKED BY DATE
SCALE 1/8" = 1'-0"
CONTRACT NUMBER 1211-8
SHEET NUMBER 171
DATE REVISION BY CH'K'D



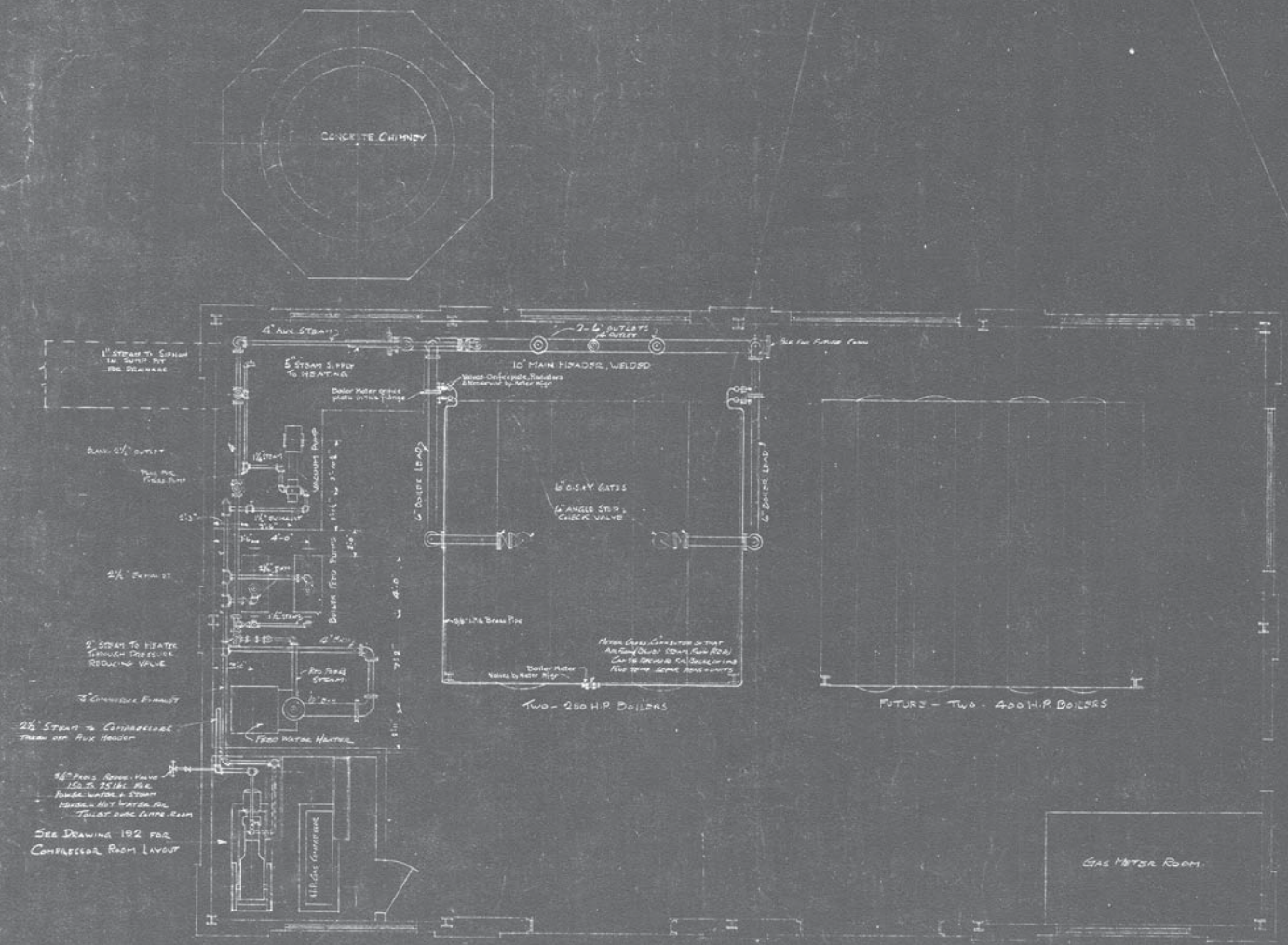
NOTE:
FLOW ON REQ 16 - ESTIMA WORK ORDER No 13
SEE DRWG 171 FOR TANK LOCATIONS
" " 1211-3-4-5-6 FOR TANK SUPPORTS
ALL PIPING STEEL LEAD LINED FLANGED JOINTS
EXCEPT WHERE OTHERWISE NOTED
EMARK DRWGS 0204-06 - SHEETS 3-4 & 5

DATE	REVISION	BY	CH'K'D

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK NEWARK

LEAD LINED PIPING CONNECTION BETWEEN TANKS
OXIDE AND FORMING DEPARTMENTS
EMARK BATTERY CORPORATION
KEARNY NEW JERSEY

DRAWN BY H.D.M.	DATE 4-15-10	CONTRACT NUMBER	1211A
TRACED BY	DATE	SHEET NUMBER	172
CHECKED BY	DATE		
SCALE 3/4" = 1'-0"			

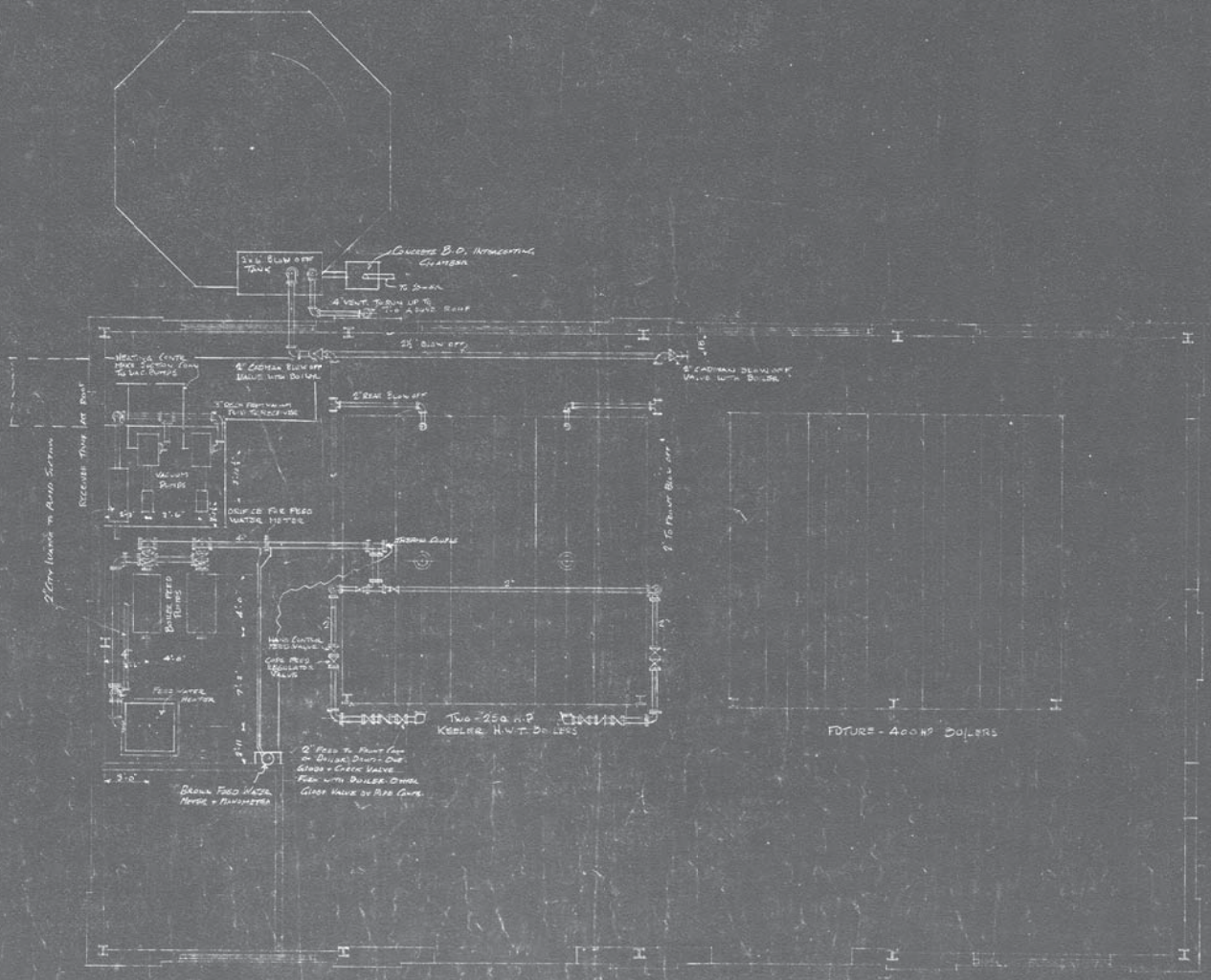


DATE	REVISION	BY	CH'K'D
4-7-30	REVISED TO AGREE WITH INSTALLATION	HDM	
10/18/29	[illegible]	[illegible]	
8-7-29	ADD 6" NOZZLE TO 10" HEADER	HDM	
7/17/29	ADD COMPRESSOR STEAM SUPPLY	HDM	
3/22/29	REDUCE FOW. HTR. LOCATION [illegible]	HDM	

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

PLAN OF STEAM & EXHAUST BOILER HOUSE
T. A. EDISON INC.
KEARNY NEW JERSEY

DRAWN BY HDM	DATE 5-12-29	CONTRACT NUMBER	4479
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	180
SCALE 1/4"=1'-0"			

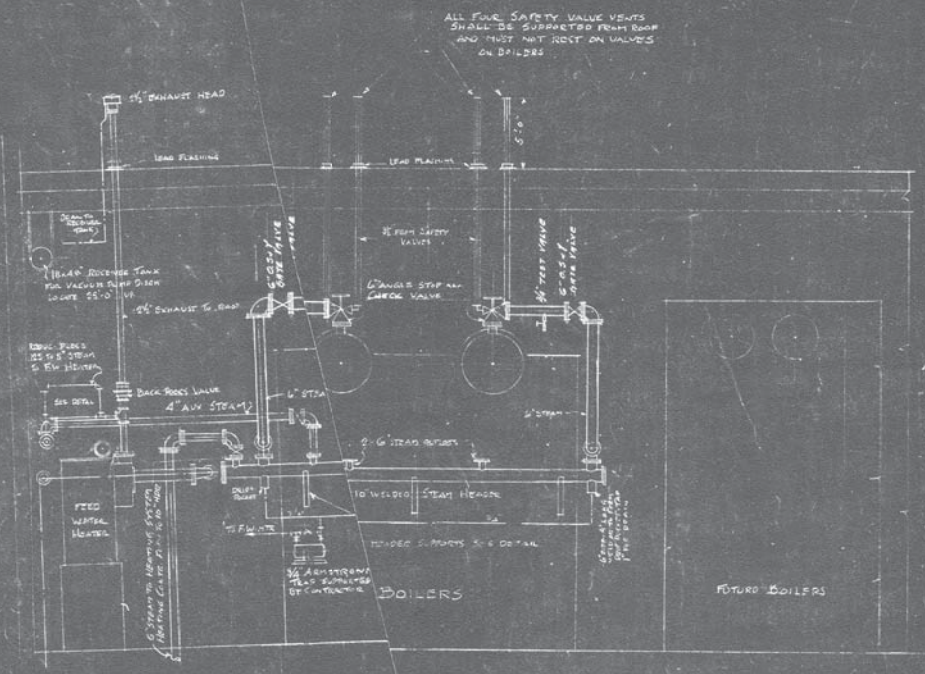


DATE	REVISION	BY	CH'K'D
4-7-30	Revised to agree with installation	HDM	
10-3-30	Feed out 4" check	HDM	
11/31/30	Added 2" check valve & 4" check valve	HDM	
11/04/30	Added 2" check valve & 4" check valve	HDM	

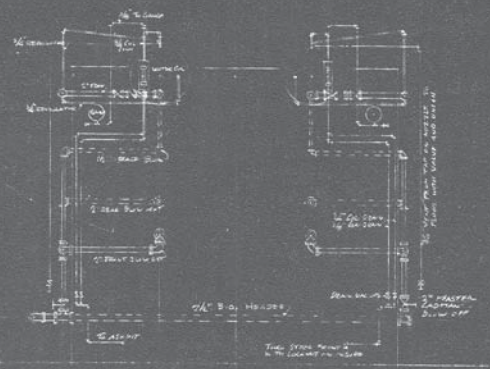
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

PLAN OF BOILER FEED & BLOWOFF
BOILER HOUSE
T. A. EDISON INC.
KEARNY NEW JERSEY

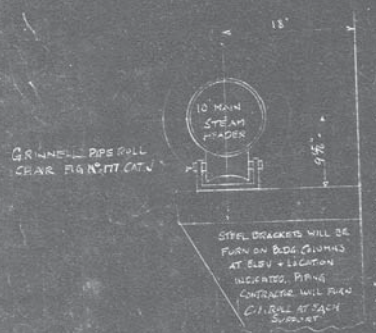
DRAWN BY HDM	DATE 8/5/29	CONTRACT NUMBER	4499
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	181
SCALE 1/4" = 1'-0"			



FRONT ELEVATION OF BOILERS
SHOWING STEAM & EXHAUST



FRONT ELEVATION OF BOILERS
SHOWING WATER COL CONN'S, STEAM GAUGE AND REGULATOR PIPING ALSO BLOW OFFS BRASS PIPE REQUIRED FOR WATER COLUMN AND ALL GAUGE CONNECTIONS

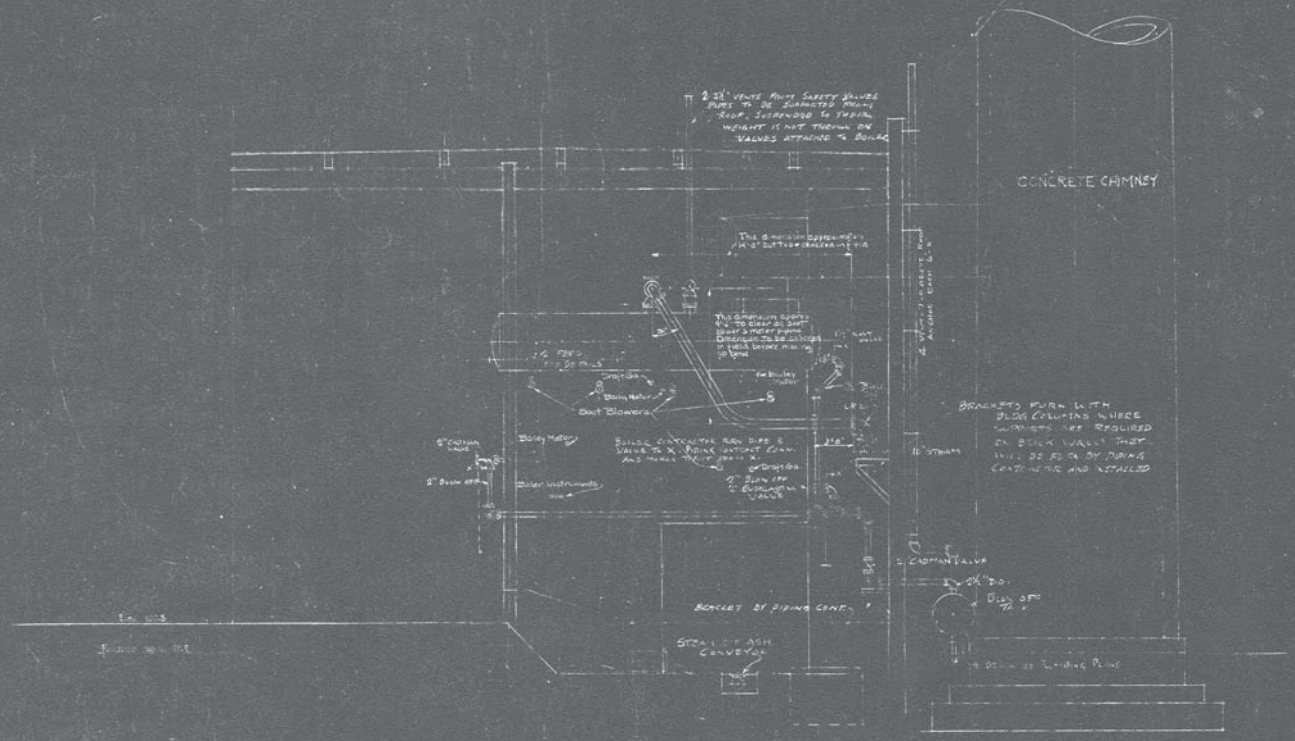


DATE	REVISION	BY	CH'KD
8-7-24	REVISED TO AGREE WITH INSTALLATION	HDM	
8-15-24	¾" TEST VALVE ADDED	CEK	
10/16/24	Revised to Conform with Shop Drawings	[illegible]	
11/1/24	Incl. Shown to Conform	[illegible]	

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

FRONT ELEVATIONS-BOILERS
BOILER HOUSE
THOMAS A. EDISON INC
KEARNY NEW JERSEY

DRAWN BY HDM	DATE 8-16-24	CONTRACT NUMBER	4499
TRACED BY	DATE		
CHECKED BY	DATE	SHEET NUMBER	182
SCALE ½"=1'-0"			

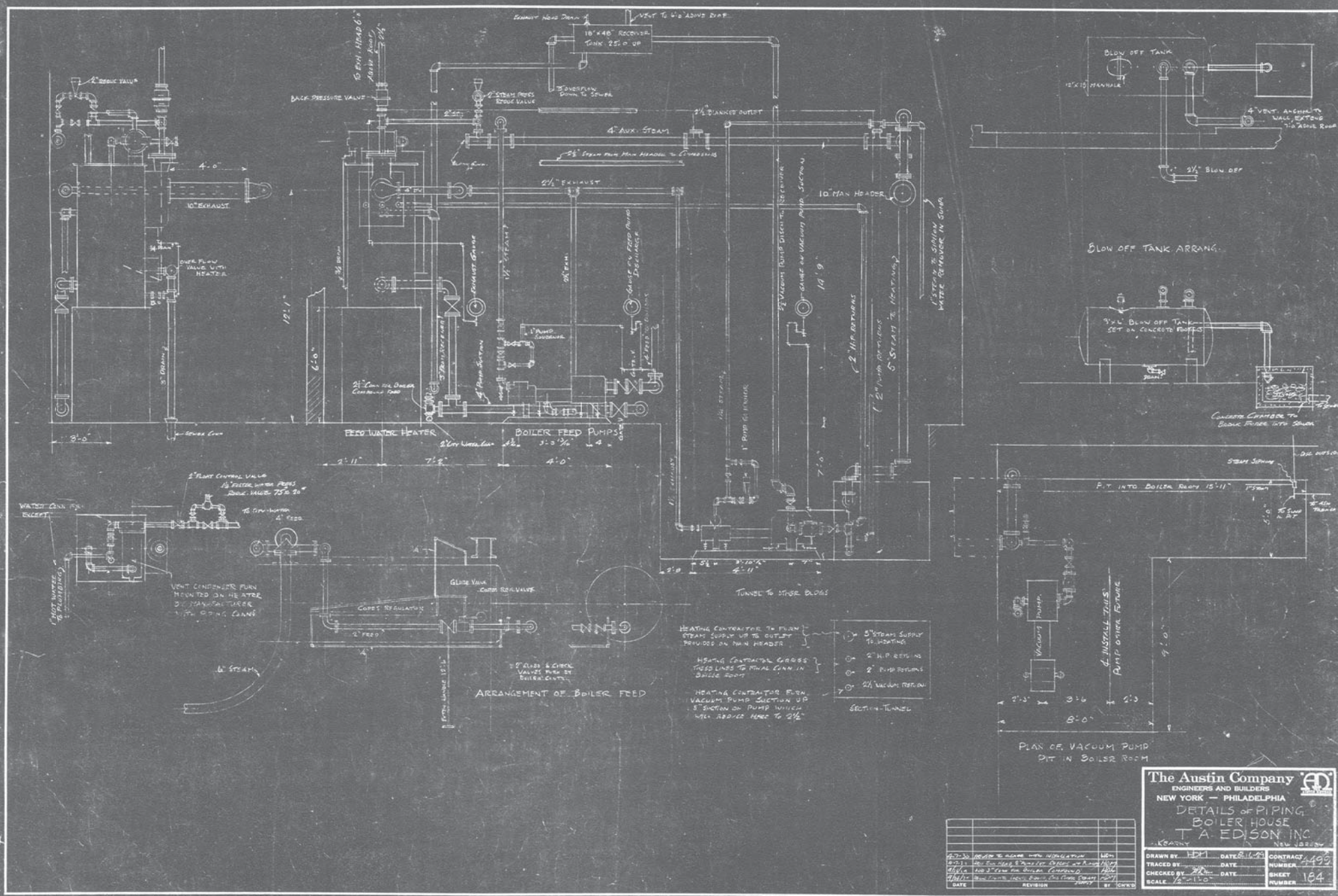


DATE	REVISION	BY	CH'K'D
6-7-34	REVISED TO AGREE WITH INSTALLATION	HDM	

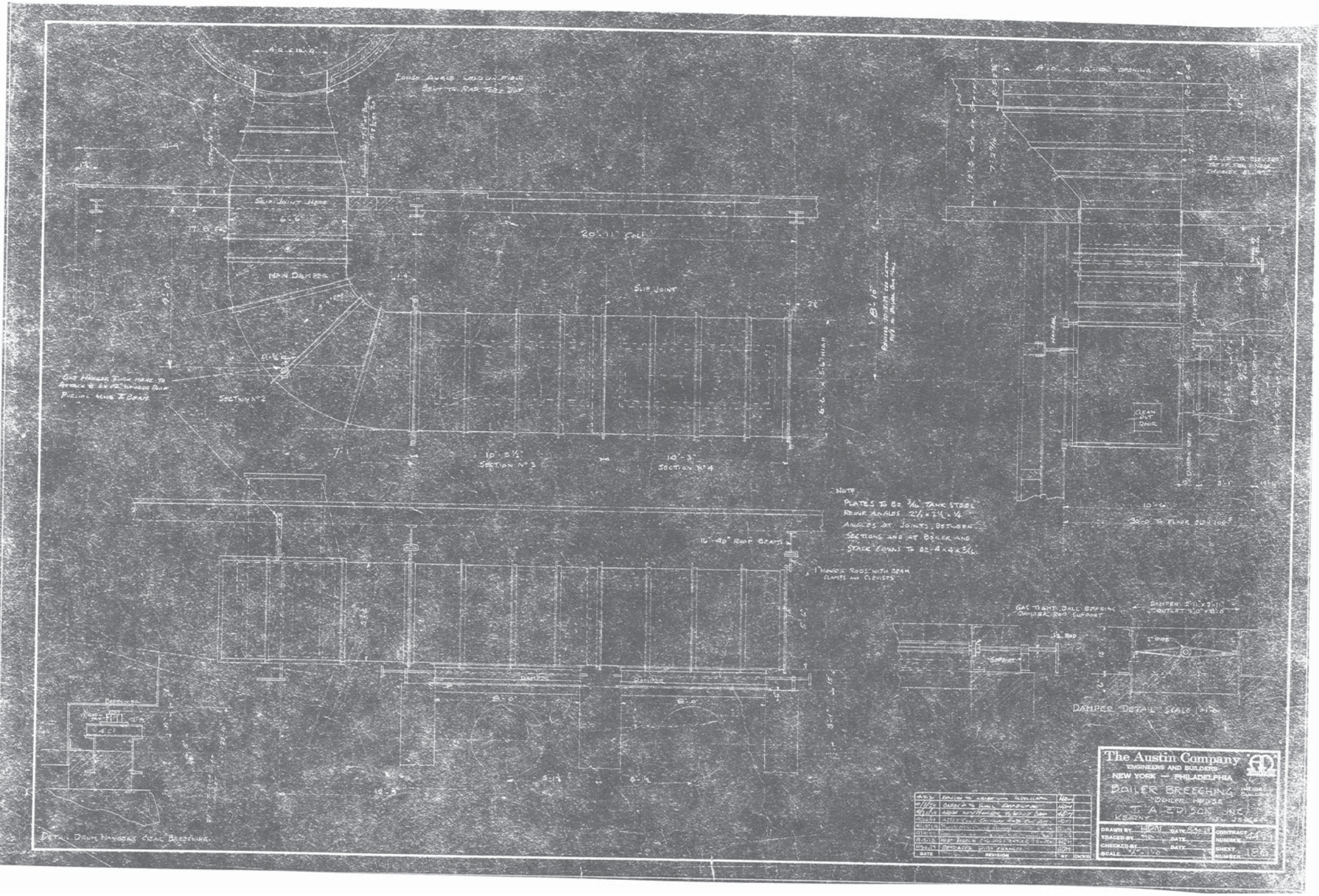
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA

SIDE ELEVATION
BOILER HOUSE
T. A. EDISON INC.
KEARNY NEW JERSEY

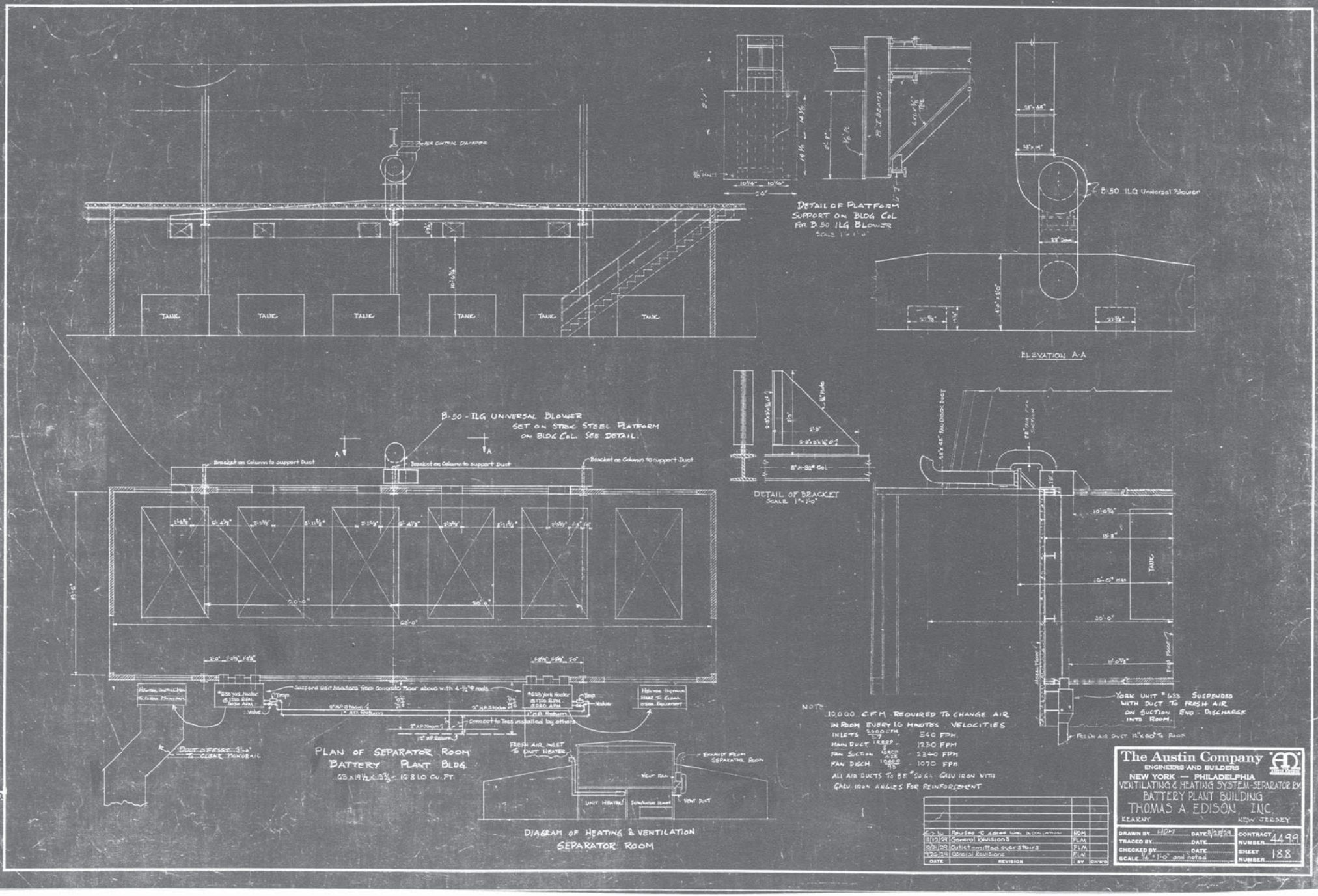
DRAWN BY	DATE 8/1/29	CONTRACT NUMBER	4499
TRACED BY	DATE	SHEET NUMBER	183
CHECKED BY	DATE		
SCALE	1/4"=1'-0"		



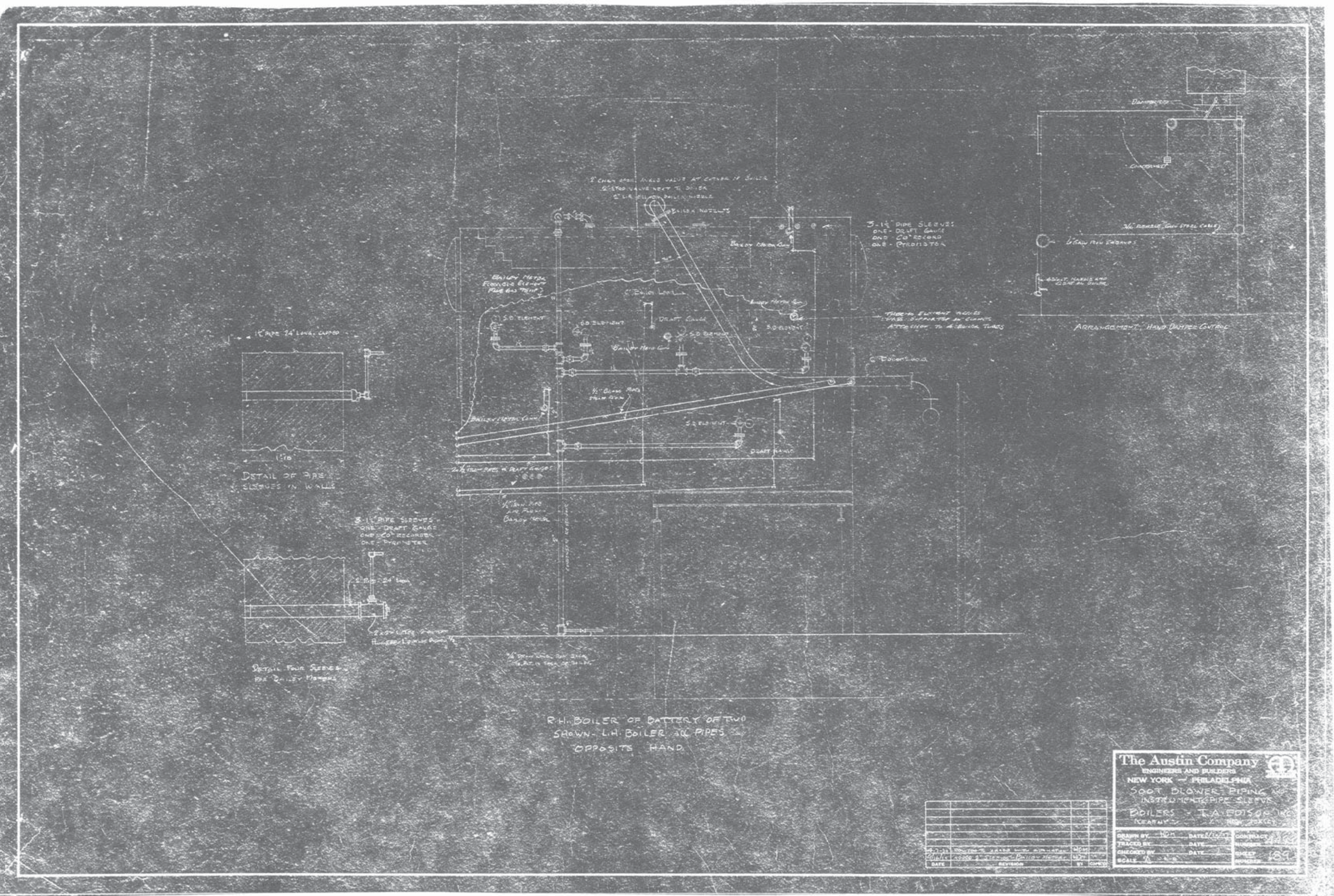
18"x48" RECEIVER TANK 25'-0" UP
BACK PRESSURE VALVE
4" AUX. STEAM
2½" EXHAUST
10" MAN HEADER
10" EXHAUST
FEED WATER HEATER
BOILER FEED PUMPS
TUNNEL TO OTHER BLDGS
ARRANGEMENT OF BOILER FEED
SECTION-TUNNEL
BLOW OFF TANK
BLOW OFF TANK ARRANG.
PIT INTO BOILER ROOM 15'-11"
PLAN OF VACUUM PUMP PIT IN BOILER ROOM
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
DETAILS OF PIPING
BOILER HOUSE
T. A. EDISON INC.
KEARNY NEW JERSEY
DRAWN BY HDM DATE 8-16-29
TRACED BY DATE
CHECKED BY DATE
SCALE ½"=1'-0"
CONTRACT NUMBER 4499
SHEET NUMBER 184

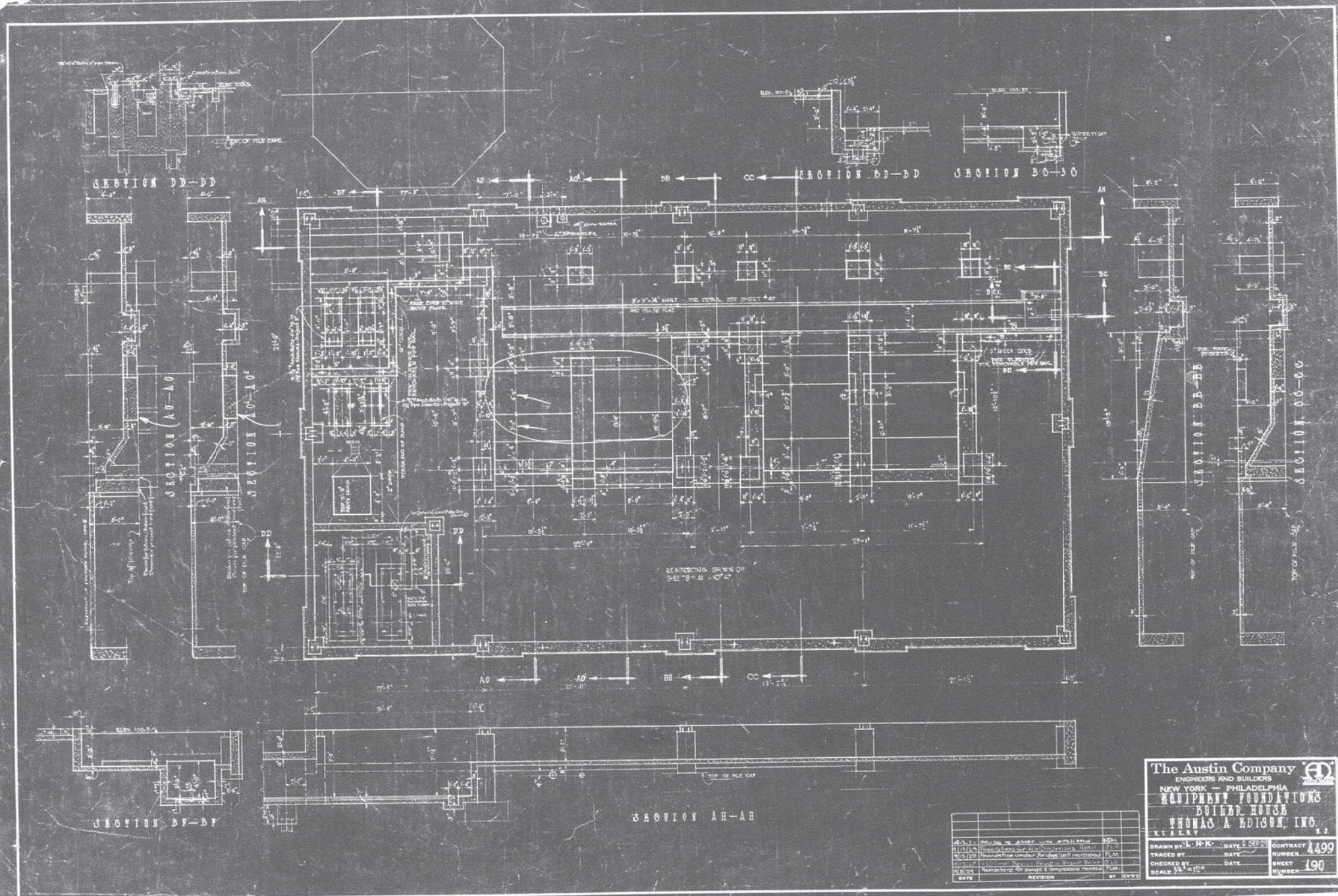


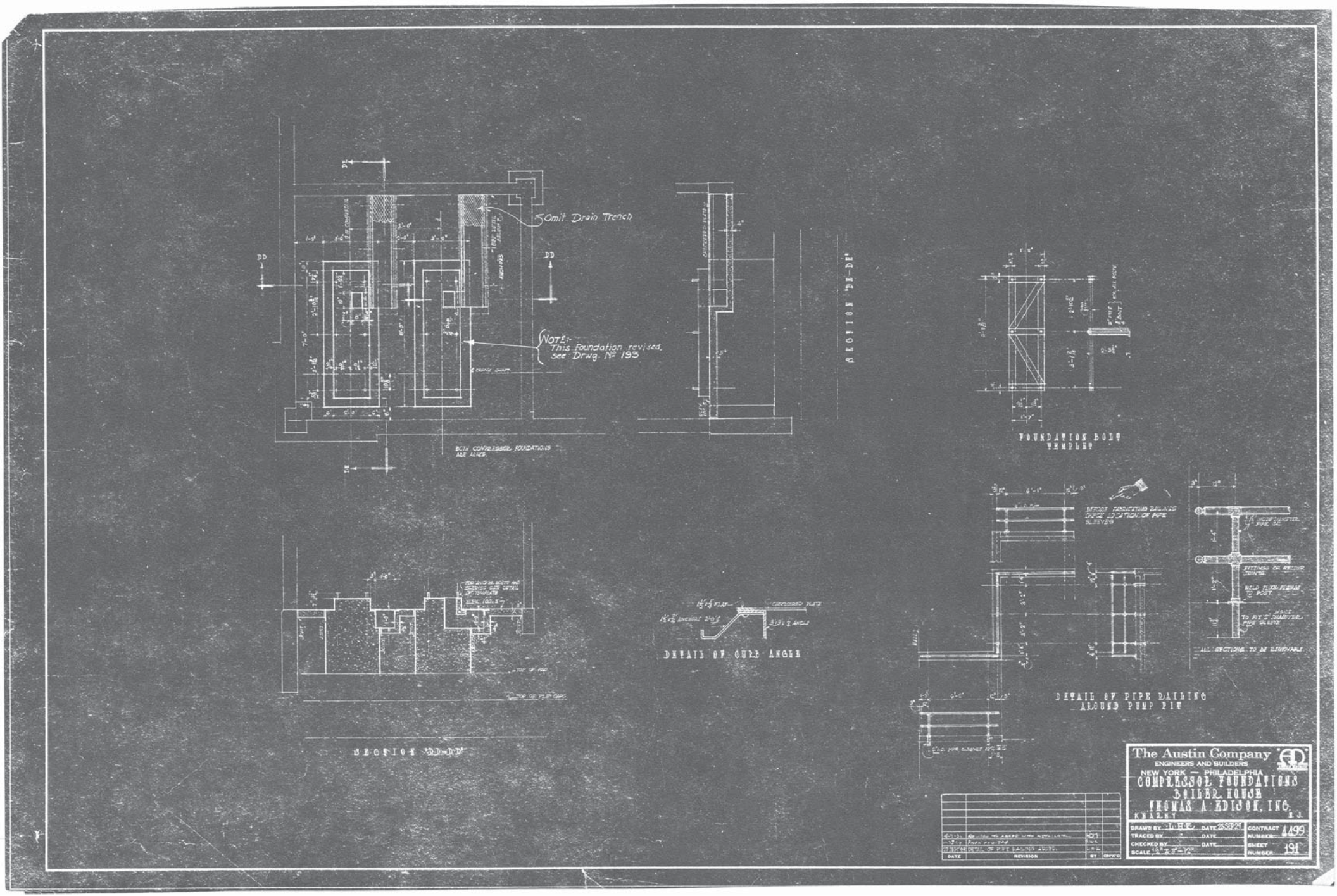
Loose Angle Weld on Field
Bent to Rad Test Dot
Slip Joint Here
Main Damper
Slip Joint
20'-11" Coil
Section No 2
10'-5½"
Section No 3
10'-3"
Section No 4
Note
Plates to be 3/16" Tank Steel
Reinf Angles 2½ x 2½ x ¼
Angles at Joints, Between
Sections and at Boiler and
Stack Conns to be 4 x 4 x 5/16
16'-40" Roof Beams
1" Hanger Rods with Beam
Clamps and Clevises
Damper
Damper
Gas Tight Ball Bearing
Damper Rod Support
Damper Detail Scale 1"=1'-0"
Clean Out Door
Detail Drum Hangers Clear Breeching
The Austin Company
Engineers and Builders
New York — Philadelphia
Boiler Breeching
Boiler House
T. A. Edison Inc
Kearny
New Jersey
Drawn by
Traced by
Checked by
Scale
Date
Contract Number
Sheet Number
Revision
Date
By
Chk'd

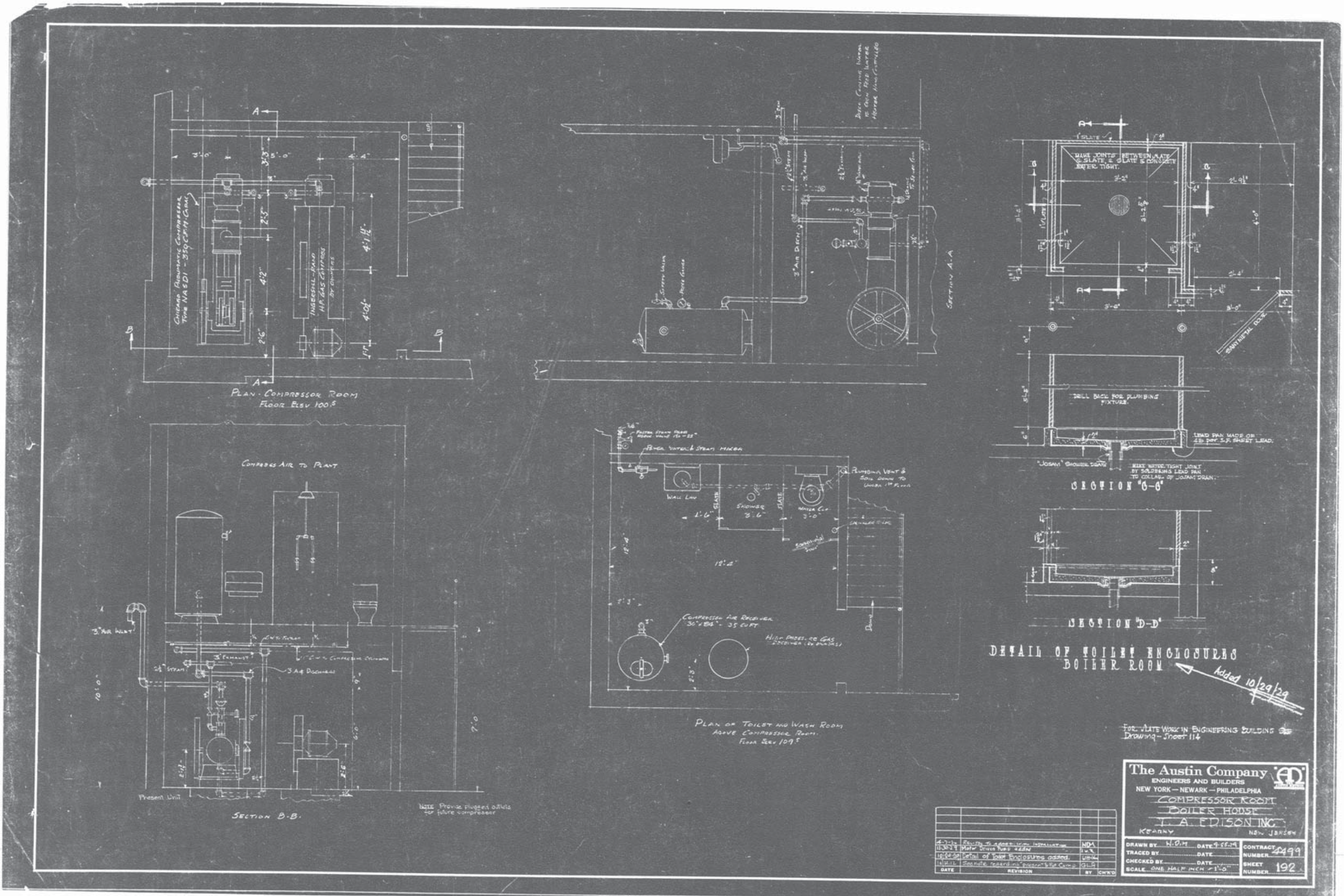


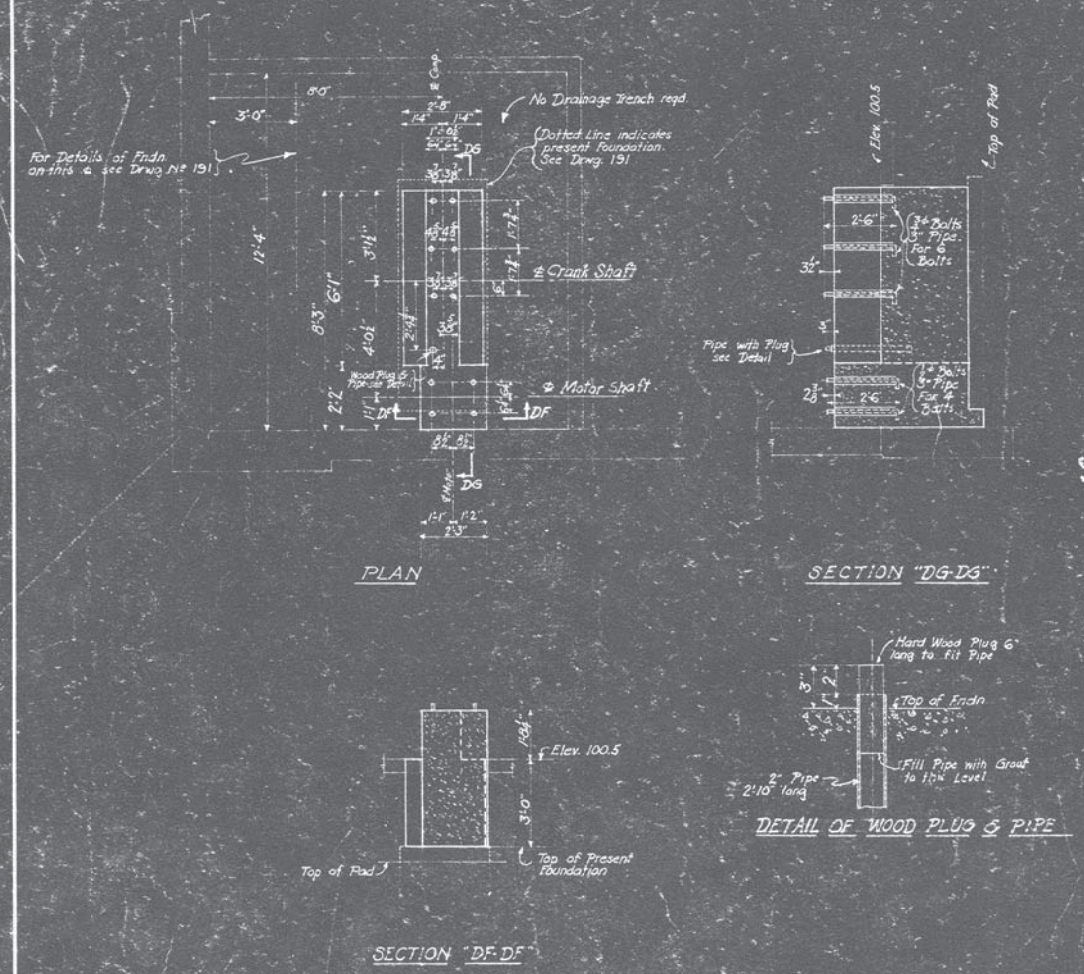
AIR CONTROL DAMPER
TANK
TANK
TANK
TANK
TANK
TANK
DETAIL OF PLATFORM SUPPORT ON BLDG COL FOR B-50 ILG BLOWER
B-50 ILG Universal Blower
ELEVATION A-A
B-50 - ILG UNIVERSAL BLOWER SET ON STRUC STEEL PLATFORM ON BLDG COL. SEE DETAIL.
Bracket on Column to support Duct
Bracket on Column to support Duct
Bracket on Column to support Duct
DETAIL OF BRACKET
SCALE 1"=1'-0"
TANK
YORK UNIT #633 SUSPENDED WITH DUCT TO FRESH AIR ON SUCTION END - DISCHARGE INTO ROOM.
FRESH AIR DUCT 12"x60" TO ROOF
Suspend Unit Heaters from Concrete Floor above with 4-1/2" ϕ rods
Connect to Tees installed by others
DUCT OFFSET 1'-0" TO CLEAR MONORAIL
PLAN OF SEPARATOR ROOM
BATTERY PLANT BLDG.
63x19½x13⅔ - 16810 CU. FT.
FRESH AIR INLET TO UNIT HEATER
EXHAUST FROM SEPARATOR ROOM
VENT FAN
UNIT HEATER
SEPARATOR ROOM
VENT DUCT
DIAGRAM OF HEATING & VENTILATION
SEPARATOR ROOM
NOTE
10,000 C.F.M. REQUIRED TO CHANGE AIR IN ROOM EVERY 16 MINUTES VELOCITIES
INLETS 2000 CFM / 27 - 540 FPM.
MAIN DUCT 12000 / 8 - 1250 FPM
FAN SUCTION 10000 / 4.28 - 2340 FPM
FAN DISCH 10000 / 9.5 - 1070 FPM
ALL AIR DUCTS TO BE #20 GA. GALV IRON WITH GALV. IRON ANGLES FOR REINFORCEMENT
6-7-30 Revised to Added Line Installation HDM
11/12/29 General Revisions FLM
10/3/29 Outlet omitted over stairs FLM
9/26/29 General Revisions FLM
DATE REVISION BY CHK'D
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
VENTILATING & HEATING SYSTEM-SEPARATOR RM
BATTERY PLANT BUILDING
THOMAS A. EDISON, INC.
KEARNY NEW JERSEY
DRAWN BY HDM DATE 8/28/29
TRACED BY DATE
CHECKED BY DATE
SCALE 1/4"=1'-0" and noted
CONTRACT NUMBER 4499
SHEET NUMBER 188


3-1½" PIPE SLEEVES
ONE - DRAFT GAUGE
ONE - CO2 RECORD
ONE - PYROMETER
ARRANGEMENT, HAND DAMPER CONTROL
DETAIL OF PIPE SLEEVES IN WALLS
DETAIL FOUR SLEEVES FOR BAILEY METERS
R.H. BOILER OF BATTERY OF TWO SHOWN - L.H. BOILER ALL PIPES OPPOSITE HAND
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
SOOT BLOWER PIPING AND INSTRUMENT & PIPE SLEEVES
BOILERS - T.A. EDISON INC
DRAWN BY
DATE
TRACED BY
DATE
CHECKED BY
DATE
SCALE
CONTRACT NUMBER
SHEET NUMBER
DATE
REVISION
BY
CHK'D


SECTION DD—DD
SECTION BD—BD
SECTION BC—BC
SECTION AO—AO
SECTION AO'—AO'
SECTION BB—BB
SECTION CC—CC
SECTION BF—BF
SECTION AH—AH
REINFORCING SHOWN ON SHEETS 41 - 40 - 47
TOP OF PILE CAP
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
EQUIPMENT FOUNDATIONS
BOILER HOUSE
THOMAS A. EDISON, INC.
KEARNY N.J.
DRAWN BY L. H. K. DATE 2 SEP 29
TRACED BY DATE
CHECKED BY DATE
SCALE 1/4" = 1'-0"
CONTRACT NUMBER 4499
SHEET NUMBER 190
DATE
REVISION
BY
CH'K'D


Omit Drain Trench
NOTE:- This Foundation revised, see Drwg. No 193
BOTH COMPRESSOR FOUNDATIONS ARE ALIKE.
SECTION "DE-DE"
FOUNDATION BOLT TEMPLET
SECTION "DD-DD"
DETAIL OF CURB ANGLE
DETAIL OF PIPE RAILING AROUND PUMP PIT
ALL SECTIONS TO BE REMOVABLE
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
COMPRESSOR FOUNDATIONS
BOILER HOUSE
THOMAS A. EDISON, INC.
KEARNY N.J.
DRAWN BY
TRACED BY
CHECKED BY
SCALE
DATE
CONTRACT NUMBER 4499
SHEET NUMBER 191
DATE
REVISION
BY
CH'K'D


PLAN - COMPRESSOR ROOM
FLOOR ELEV 100.5
SECTION A-A
SECTION B-B
COMPRESS AIR TO PLANT
Present Unit
NOTE Provide plugged outlets for future compressor
PLAN OF TOILET AND WASH ROOM ABOVE COMPRESSOR ROOM.
FLOOR ELEV 109.5
COMPRESSED AIR RECEIVER 30" x 84" - 35 CU FT
HIGH PRESSURE GAS RECEIVER (BY OWNERS)
WALL LAV
SHOWER
SLATE
SECTION "C-C"
SECTION "D-D"
DRILL BACK FOR PLUMBING FIXTURE.
LEAD PAN MADE OF 4 lb. per S.F. SHEET LEAD.
"JOSAM" SHOWER DRAIN
MAKE JOINTS BETWEEN SLATE & SLATE & SLATE & CONCRETE WATER TIGHT.
DETAIL OF TOILET ENCLOSURES BOILER ROOM
Added 10/29/29
FOR SLATE WORK IN ENGINEERING BUILDING SEE Drawing - Sheet 114
The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — NEWARK — PHILADELPHIA
COMPRESSOR ROOM
BOILER HOUSE
T. A. EDISON INC.
KEARNY NEW JERSEY
DRAWN BY W.O.M. DATE 9-25-29
TRACED BY DATE
CHECKED BY DATE
SCALE ONE HALF INCH = 1'-0"
CONTRACT NUMBER 4499
SHEET NUMBER 192
Detail of Toilet Enclosures added.
DATE REVISION BY CH'K'D



DATE	REVISION	BY	CH'K'D

The Austin Company
ENGINEERS AND BUILDERS
NEW YORK — PHILADELPHIA
COMPRESSOR FOUNDATION
BOILER HOUSE
THOMAS A. EDISON, INC.
KEARNY N.J.

DRAWN BY R.W.R. DATE 11-30-27
TRACED BY DATE
CHECKED BY DATE
SCALE 1" = 1'-0"

CONTRACT NUMBER 4499
SHEET NUMBER 193

This Is the Story of EMARK

A LIFETIME EFFORT

Early 1930s Emark promotional material
Source: Thomas Edison National Historical Park

Batteries, Emark's sole product, reflect Thomas Edison's lifetime work with power generation, distribution, and storage. In the early twentieth century, he worked extensively on developing storage batteries that—in contrast to the earlier "primary" batteries—could be charged and discharged multiple times. Although Edison's efforts to develop a successful storage battery to power an electric car were unsuccessful, batteries ultimately became a lucrative product for Edison and his successor company for use in rail and marine signals, industrial trucks, mining equipment, and—as evidenced by Emark—in cars.

"... this new battery is the master achievement of a vast organization... extensive laboratories.... Every condition the battery will meet in actual service is anticipated before the Emark Power-Measured Battery leaves the factory."

1932 advertisement for the Emark Battery Corporation
Source: Collection of property owner

In the early 1930s, Emark lead-acid batteries were acclaimed for two reasons:

- Power-Measured to test under various road and weather conditions.
- Positive End Zones with extra capacity provided by an additional positive plate not used in typical batteries of the time.

MODERN PLANT, MODERN EQUIPMENT

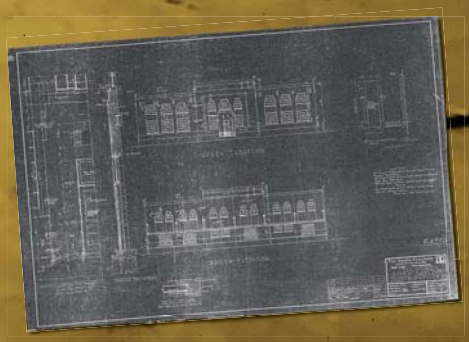
1930 photographs of the Emark Engineering Building (left) and Battery Plant Building (above) Source: Collection of property owner

THE EMARK BATTERY CORPORATION · a Thomas A. Edison, Inc. subsidiary formed in the late 1920s to produce automotive starter batteries for the Ford Motor Company. The facility, located at 1025–1035 Belleville Turnpike in the Town of Kearny, operated from 1930 until 1953.

"... the elimination of all waste has been pursued. Waste motions, waste effort, waste time and waste material—all are strikingly absent."

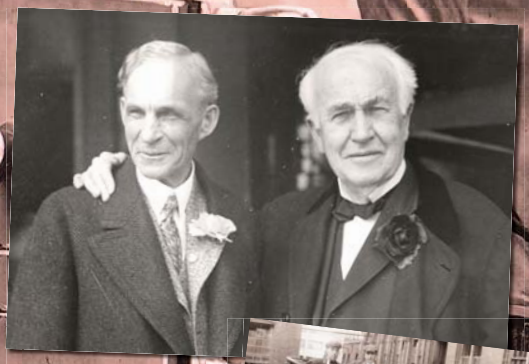
"No Place for Experts," *Factory and Industrial Management*, New York, NY: McGraw-Hill Publishing Company, February 1932.

Designed and built by one of the country's top industrial design firms (The Austin Company of Cleveland, Ohio), the Emark complex featured Art Deco architecture and a modern automated production line.



1929 architectural blueprint of the Battery Plant Building Source: Collection of property owner

TWO GIANTS COLLABORATE



1927 photograph of Henry Ford (left) & Thomas Edison (right)
Source: Thomas Edison National Historical Park

1910 photograph of Edison's electric car
Source: Thomas Edison National Historical Park

"The battery... passes all Ford specifications with flying colors... we will have no expensive advertising—no service stations—no sales dept expense—as we will sell only to Ford...."

May 7, 1927 letter from TAE, Inc. President Charles Edison to his parents, Thomas and Mina
Source: Thomas A. Edison Papers, Rutgers University (Courtesy of the Charles Edison Fund and Thomas Edison National Historical Park)

The Emark Battery Corporation—perhaps better than any other site in New Jersey—represents the close relationship between two of the twentieth century's greatest innovators: Thomas Edison and Henry Ford. For many years, these two men shared business interests and a close friendship.

In 1927, when Ford introduced his Model A, Thomas A. Edison, Inc. was prepared to take advantage of the economic opportunities by producing batteries for the Ford Motor Company, building on land the Edisons had bought in close proximity to Ford's Kearny automotive assembly plant.

Although Emark later produced replacement batteries for other car companies, Emark remained focused on the Ford Motor Company as their primary customer, appropriate for a company whose very existence, location and production were based on the Edison-Ford relationship.

THIS IS THE STORY OF

EMARK

A PRODUCT OF

THOMAS A. EDISON, INC.

This Booklet Was Prepared For:

- United States Environmental Protection Agency
- SCCC Site Performing Parties Group c/o Key Environmental, Inc.
- Langan Engineering and Environmental Services, Inc.

By:

ARCH^2, Inc., Metuchen, New Jersey

Nancy L. Zerbe, Historian and Author

Surjit K. Singh, Designer and Report Coordinator

Laura Z. Materna, Graphic Design Intern

Front cover:
March 1, 1930 photograph of the entrance to the Emark complex.
Source: Thomas Edison National Historical Park

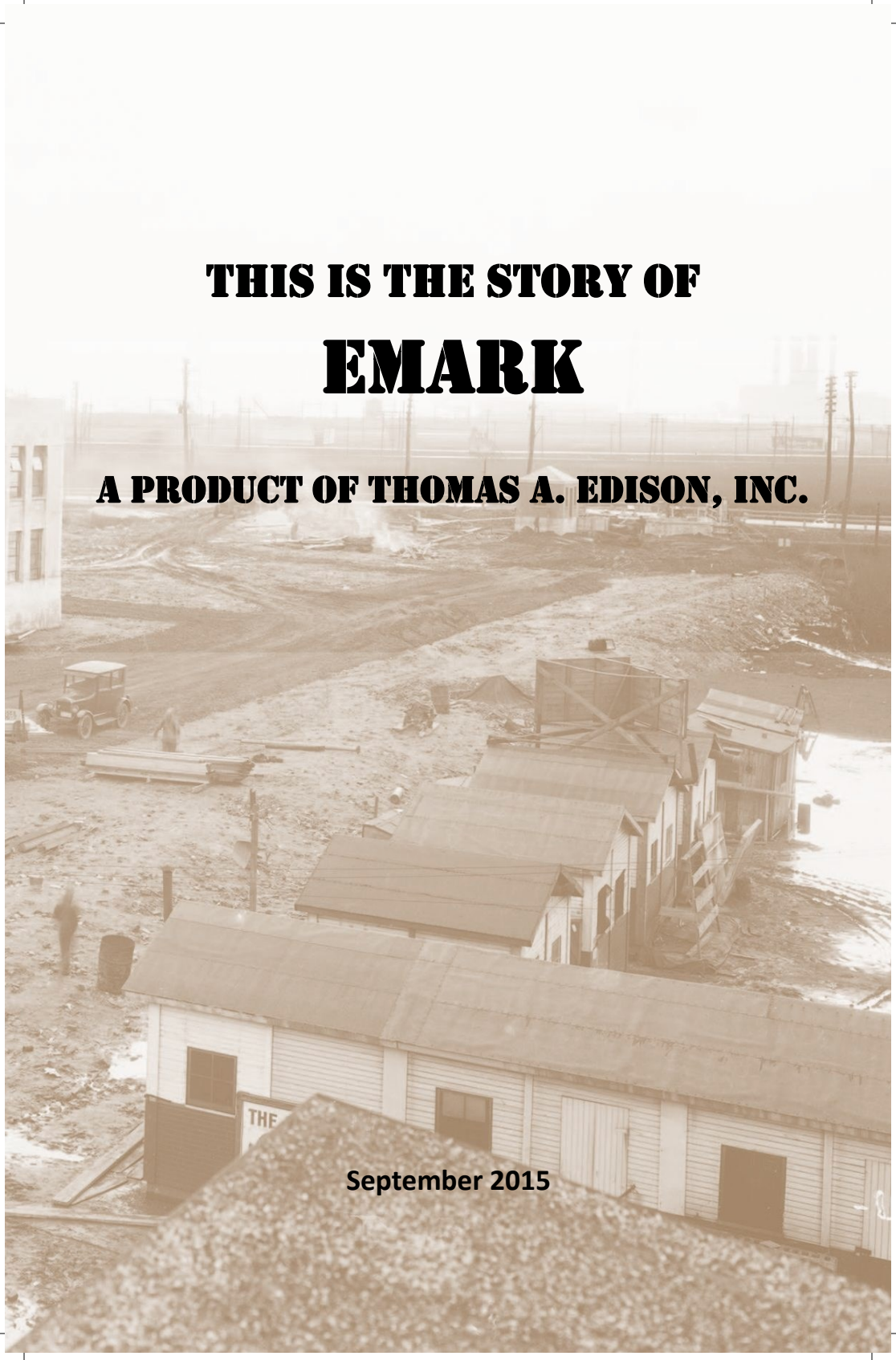
Back cover:
Emark promotional material, ca. 1930.
Source: Thomas Edison National Historical Park

Inside front cover:
1930 photograph of Emark under construction.
Source: Collection of property owner

THIS IS THE STORY OF

EMARK

A PRODUCT OF THOMAS A. EDISON, INC.



September 2015

INTRODUCTION

"This is the Story of Emark, A Product of Thomas A. Edison, Inc." were the words used in the 1930s to proudly advertise the Emark Battery Corporation. Once a source of pride, the Emark complex by 2014 consisted of five vacant and deteriorating concrete buildings at 1025-1035 Belleville Turnpike in the Town of Kearny, Hudson County, New Jersey. Although similar to hundreds of other old industrial buildings that have outlived their usefulness, these particular five buildings have a special historic significance related to two important American innovators: Thomas Edison and Henry Ford.

At the time of this booklet's publication, it was anticipated that the five early twentieth century buildings would be demolished by the owner. The proposed new development on the site required a Remedial Investigation/Focused Feasibility Study (RI/FFS) for the Standard Chlorine Chemical Company (Standard Chlorine) Superfund Site. Consequently, the United States Environmental Protection Agency (USEPA) requested compliance with the requirements of Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations in order to support remedial investigations and activities to be conducted on the site.

The five Emark buildings were evaluated by the New Jersey State Historic Preservation Officer as eligible for inclusion in the National Register of Historic Places.[1] To mitigate the adverse effect of the anticipated demolition of National Register-eligible historic resources, SCCC Site Performing Parties Group c/o Key Environmental, Inc. and Langan Engineering and Environmental Services, Inc. retained the cultural resources firm of ARCH[2], Inc. to prepare this public education booklet. The goal is to promote understanding and appreciation of the site's historic significance.

Gate House

Engineering Building

Service and Maintenance Building

Boiler House

Battery Plant Building

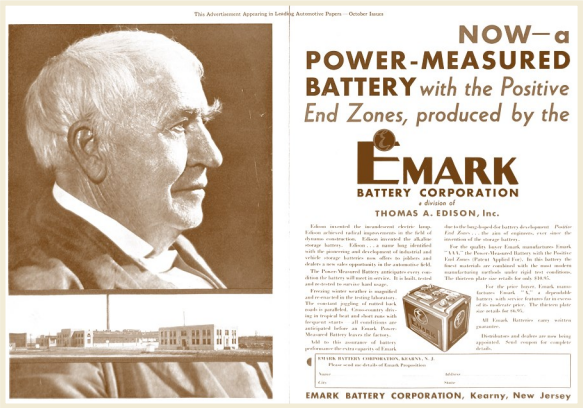
The Emark buildings as they appeared in 2014.

Source: Michael Audin (photographer), Langan Engineering and Environmental Services, Inc., June 2014

Why Was Emark Important?

Built in 1927-1929 for the Emark Battery Corporation, a subsidiary of Thomas A. Edison (TAE), Inc., the Emark buildings were used from 1930 until 1953 to produce automotive starter batteries, primarily for the Ford Motor Company.

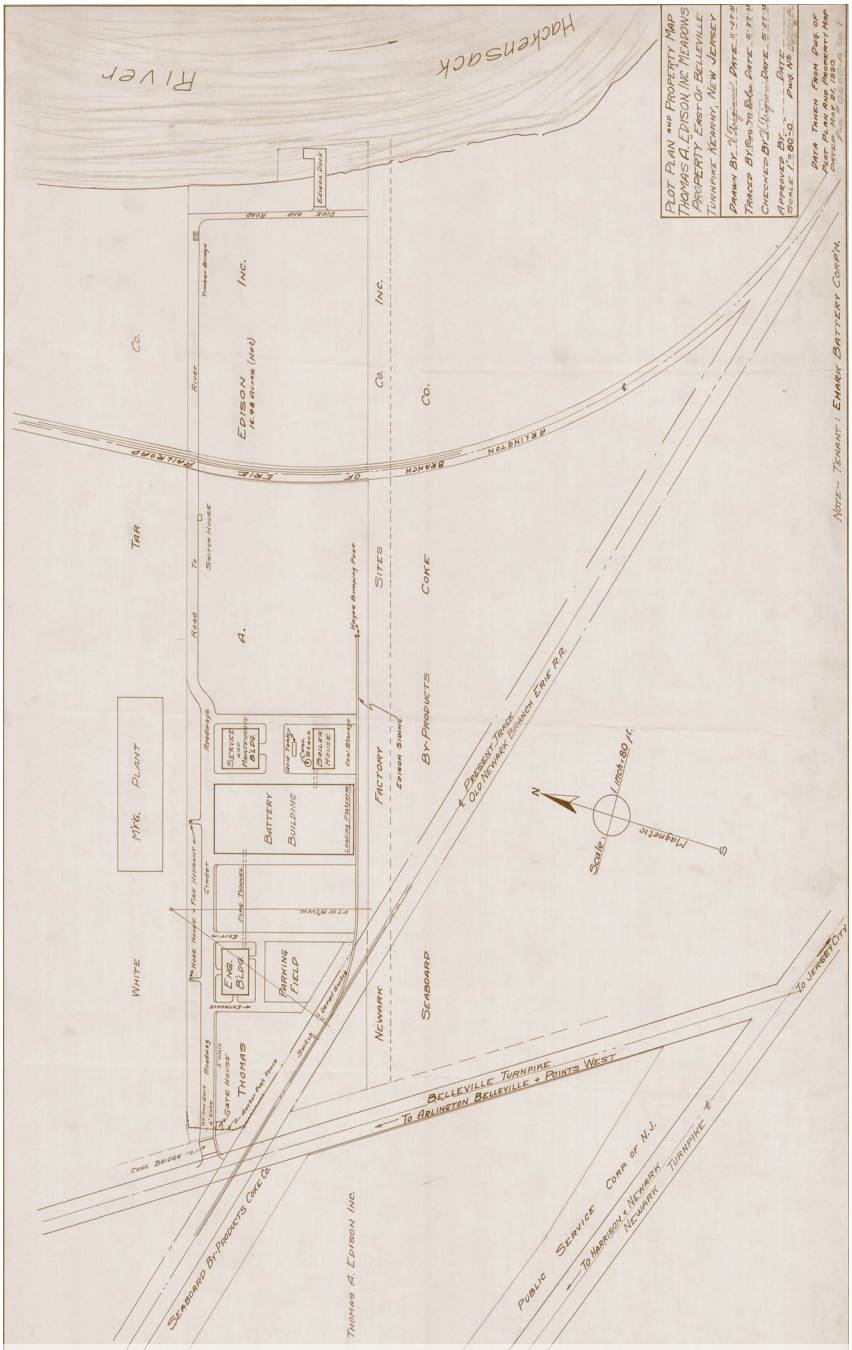
Despite the fact that Emark capitalized on Edison's reputation in their promotional material, Thomas Edison had limited direct involvement in the company. He had retired before Emark was formed by his son Charles, and he passed away in 1931, only a year after Emark started producing batteries. In addition, the type of battery produced by Emark (a lead-acid battery) was not Thomas Edison's favorite battery. In fact, he had spent years working on an alternative to lead-acid, resulting in his invention of nickel-iron-alkaline batteries.



Early 1930s Emark advertisement that proudly displays its Thomas Edison connection.

Source: Thomas Edison National Historical Park

Nevertheless, Thomas Edison laid the foundation for Emark through his lifetime work with batteries, his close relationship with Henry Ford, and his emphasis on a modern facility that included research and development as well as the modern production techniques championed by his friend and colleague Henry Ford. These factors, critical for understanding Emark's historic significance, certainly justify Emark's proud promotion of their Thomas Edison roots.

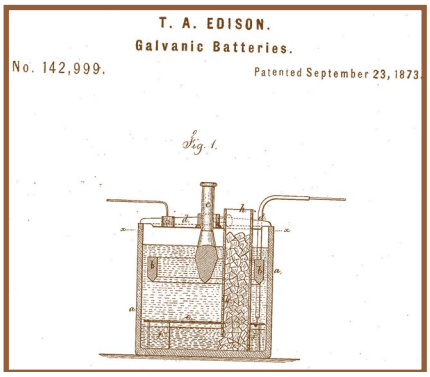


May 21, 1930 Plot Plan and Property Map showing the Emark site and buildings.

Source: Collection of property owner

Edison's lifetime work with batteries

Batteries, Emark's sole product, reflect Thomas Edison's lifetime work with electric power generation, distribution, and storage. He worked with batteries as a young telegrapher; in his development of electric pens, phonographs, telephones, doorbells, fans, and sewing machines; in his efforts to develop central stations for the generation and distribution of electricity; and ultimately for vehicles.



An early battery patent by Thomas Edison, September 23, 1873.

Source: Thomas A. Edison Papers, Rutgers University

By the late nineteenth century, Edison was working to develop a "storage" battery that—in contrast to the earlier "primary" battery—could be charged and discharged multiple times.

In the early twentieth century, Edison's experimental work with storage batteries was one of his major initiatives, requiring an extensive amount of his time, energy, and financial resources. His primary goal was to develop an electric car that was solely powered by a rechargeable storage battery. In order to do so, he needed a storage battery other than the commonly used lead batteries, because lead is heavy and would require a large and heavy battery to power a car.

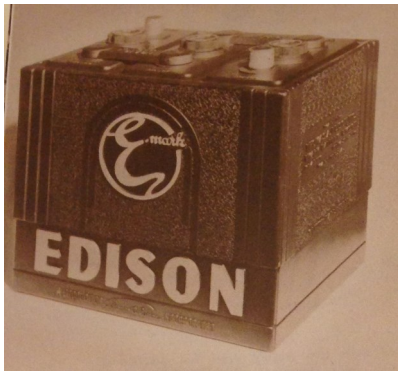
Typical of Edison's earlier work to perfect the incandescent light bulb, he experimented with many different materials and chemical combinations.[2] As later described in a TAE, Inc. report, Edison was determined "to ferret out 'Nature's secret of a good storage battery.'"[3]

Edison's work resulted in his invention of nickel-iron-alkaline storage batteries. These batteries were used in many applications, including to power trucks, which could operate in urban areas where batteries could be more easily re-charged. However, these batteries were not effective for use as the main power source in cars, which were driven longer distances.[4]

In 1911, Edison's business incorporated as Thomas A. Edison, Inc. This entity, which was eventually taken over by Edison's son Charles, built upon Edison's extensive work with batteries. A 1947 company booklet highlighted their ten "most important" products, including three batteries:[5]

***Nickel-Iron-Alkaline Storage Batteries**, used in electric locomotives, railroad signals, industrial trucks, shuttle cars for mines, and miners' lamps.*

***Primary Batteries**, used in railroad signals, stationary marine signals, and alarm systems.*



***Lead-acid Storage Batteries,** produced by Emark and used in automotive applications.*

Source for all three images: 1947 Thomas A. Edison, Incorporated booklet on file at Thomas Edison National Historical Park

This is the story of EMARK

A PRODUCT OF
THOMAS A. EDISON, Inc.

THE POWER MEASURED BATTERY with POSITIVE END ZONES

It is the purpose of this folder to give the car owner the FACTS about automobile storage battery construction . . . to show why the Emark resources, organization and strict manufacturing standards producing the new Power Measured Battery with POSITIVE END ZONES assures the best battery value per dollar.

HERE ARE THE FACTS:

FACT 1
MATERIALS USED

CASES

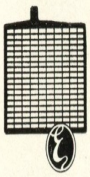
Strength and durability are needed in storage battery cases. **Emark uses extra weight material for all battery cases and covers.**

LEAD PARTS

Emark connectors and post straps have extra weight and capacity to take care of the heaviest discharges without voltage loss. Emark **does not skimp on lead.**

SEPARATORS

Only vertical grain Douglas Fir separators are used in Emark Batteries. This tough-fibre wood is uniform in structure and porosity and adds to battery life. Results of tests by U. S. Bureau of Standards show very desirable qualities in Douglas Fir for separators.



GRIDS

Battery life depends largely upon the purity of the lead used in the construction. **Emark grids are rigidly inspected to avoid construction flaws** - only carefully refined lead is used in **their making.**

ACTIVE MATERIALS

Unless active materials are held to a rigid standard, battery capacity and life will vary greatly. **All active materials used in Emark Batteries are standardized by constant laboratory inspection and control.**

FACT 2
POWER MEASURED

FOR WINTER WEATHER

Winter weather demands are magnified and re-enacted by Emark Laboratory tests to assure perfect winter performance.

FOR TROPIC HEAT

The demands of cross-country driving in tropic heat are anticipated by the temperature control test.

FOR JOGGLING OF RUTTED ROADS

The Bump Test conceived by Thomas A. Edison gives Emark more severe service than a battery could ever encounter in a car.

FOR SHORT RUNS AND FREQUENT STARTS

The demands of city traffic are anticipated by the Razzle-Dazzle Test conceived by Thomas A. Edison. Short charges - discharges - open circuits - repeated over and over thousands of times.

FOR ALL CONDITIONS

In addition to laboratory tests Emark batteries are field-tested in thousands of cars under all conditions.

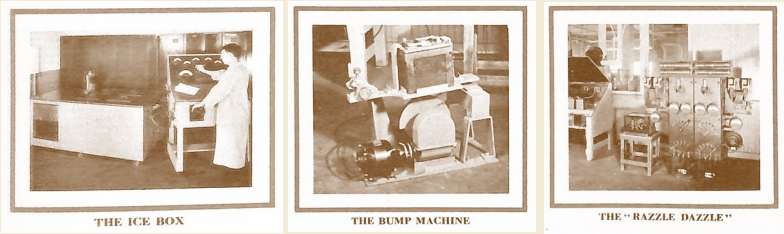
Early 1930s Emark advertisement.

Source: Thomas Edison National Historical Park

What was special about Emark batteries?

The Emark Battery Corporation promoted two aspects of its batteries:

- Power-Measured, to highlight the various tests that the batteries were put through. Three of these tests were featured in early 1930s promotional material (see below, left to right): "the ice box" to simulate winter, "the bump machine" to simulate rutted rural roads, and the "razzle dazzle" to simulate the frequent starts and stops of city driving.



1930s promotional material.

Source: Thomas Edison National Historical Park

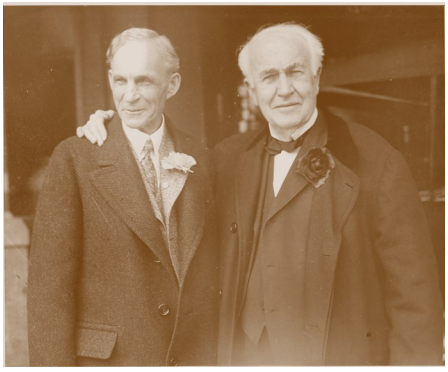
- Positive End Zones, with extra capacity provided by seven positive and six negative plates in contrast to the typical batteries with six positive and seven negative plates. This feature, although prominently advertised by Emark, was dropped in April 1935, after only a few years of production.[6]

Why was the company called Emark?

When the Kearny facility closed in the 1950s, Charles Edison reminisced that TAE, Inc. had used the trade name of Emark to honor his father's wish that "during his lifetime, [he] never wanted his name on a lead-acid battery. His favorite battery was, quite naturally, the nickel-iron-alkaline type which he pioneered and perfected."[7]

Edison and Ford: Friends and Colleagues

The Emark Battery Corporation complex—perhaps better than any other site in New Jersey—represents the close relationship between two of the twentieth century's greatest innovators: Thomas Edison and Henry Ford. For many years, these two men collaborated with each other, developed a mutual respect, and shared business interests and a close friendship. In the late 1920s, after years of Edison research on batteries—in part funded by Henry Ford—the Edison company created Emark for the sole purpose of producing starter batteries for the Ford Motor Company based on Ford specifications and on land close to a Ford automotive assembly plant.



Henry Ford (left) and Thomas Edison, 1927.
Source: Thomas Edison National Historical Park

Early Struggle Between Gasoline-Powered and Electric Cars

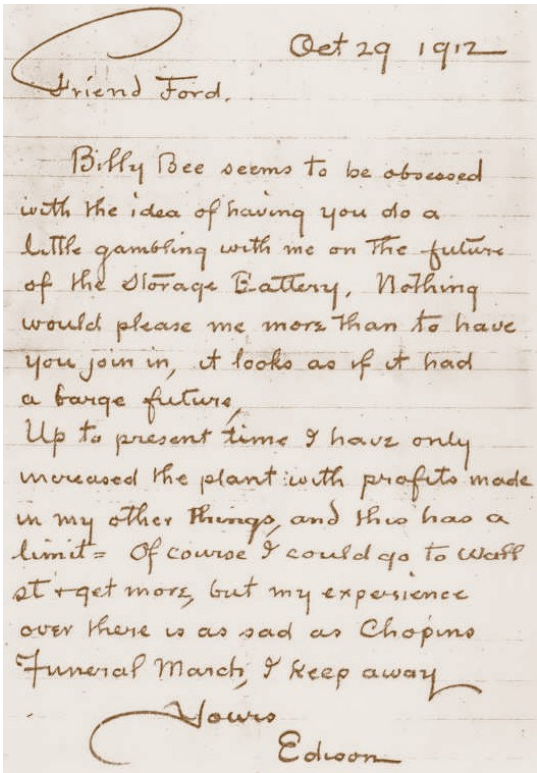
Edison's and Ford's paths first crossed in 1891 when Henry Ford began working at the Edison Illuminating Company in Detroit. By 1893, he was the company's chief engineer; three years later he met Thomas Edison at a company event. Young Henry Ford admired Thomas Edison and was encouraged by Edison's enthusiasm for Ford's work to develop a gasoline-powered vehicle.[8]

In the early twentieth century, as Edison worked on developing a successful storage battery to power an electric car, Henry Ford was hard at work developing gasoline-powered cars. In 1906, he introduced his Model N car; in 1908, he began producing his popular Model T.[9]

In 1912, after having successfully developed the Model T—as well as having successfully fought off a multi-year patent infringement lawsuit—Henry Ford did what one historian called "arguably the biggest turnaround in American business."[10] He teamed up with Thomas Edison in a joint effort to develop an affordable electric car that operated on the clean energy of an Edison storage battery. Thomas Edison continued his experiments to improve storage batteries, now with funding from Henry Ford, one of the country's wealthiest men.

Thomas Edison's electric car, 1910.

Source: Thomas Edison National Historical Park



Oct 29 1912

Friend Ford,

Billy Bee seems to be obsessed with the idea of having you do a little gambling with me on the future of the Storage Battery, Nothing would please me more than to have you join in, it looks as if it had a large future,

Up to present time I have only increased the plant with profits made in my other things, and this has a limit = Of course I could go to Wall St + get more, but my experience over there is as sad as Chopins Funeral March, I keep away

Yours

Edison

On January 9, 1914, Henry Ford publicly announced his plans to develop an electric car that would be available for $500-700, complimenting his collaborator and friend Thomas Edison as "the biggest man in the world today."[11]

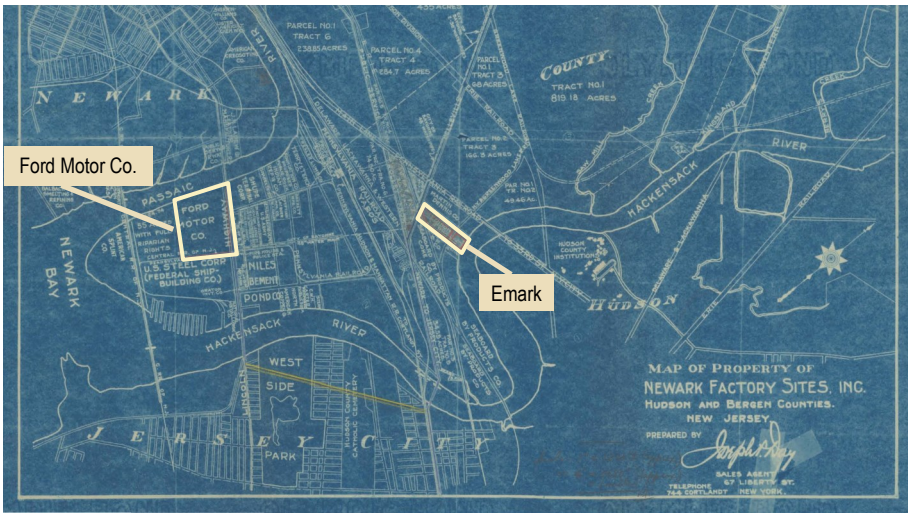
October 29, 1912 letter from Thomas Edison to Henry Ford asking for funding; Edison describes going to Wall Street "as sad as Chopin's Funeral March."

Source: The original letter is in The Henry Ford's Benson Research Center and a copy is available in the Thomas A. Edison Papers, Rutgers University digital edition, (X001C8BR; TAEM 0:0).

Unfortunately, their plans never came to fruition, in part due to continued technical problems with Edison's batteries. By the end of 1914, the project had fallen apart; however, the two men's friendship and business ties continued throughout the rest of Edison's life.

Kearny Meadows

In April 1916, Henry Ford bought eighty acres of "reclaimed meadow land" in Kearny to construct "factories for making and assembling the new Ford tractor, and headquarters for the export business of the Ford tractor and automobile concerns."[12] Within two years, Thomas Edison had bought the future Emark property: 8.4 acres in 1917 and 8.08 acres in 1918.[13]

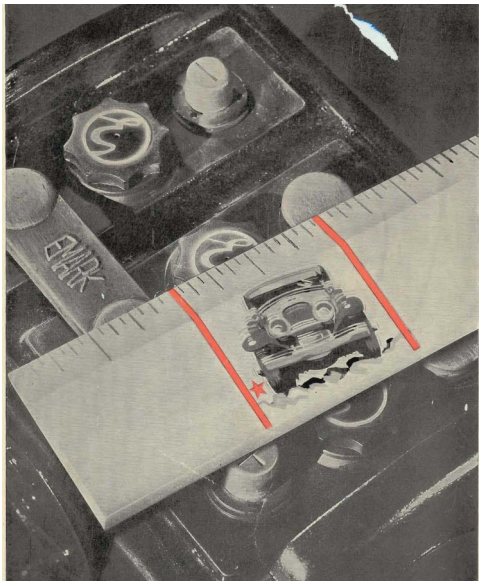


Ca. 1925 map showing the proximity of the Ford and Edison parcels.
Source: Collection of property owner

Emark's Beginning

When Edison and Ford's joint effort to develop an electric car failed, Ford focused solely on gasoline-powered cars, using the prevalent lead-acid starter batteries that were produced by Edison's competitors.[14] Throughout the 1920s, however, Thomas Edison and TAE, Inc. continued to experiment on starter

batteries.[15] Realizing that nickel-iron-alkaline batteries did not provide the needed initial burst of energy to start a car, TAE, Inc. turned to lead-acid starter batteries[16] to supply Ford's new Model A, introduced in 1928.[17]



1930s Emark advertisement.
Source: Collection of property owner

On May 7, 1929, Charles Edison wrote to his parents about the plans to produce batteries for the Ford Motor Company:

> *the battery...passes all Ford specifications with flying colors...we will have no expensive advertising—no service stations—no sales dept expense—as* ***we will sell only to Ford*** [emphasis added]. *Also we will save on freight & packing & make many other economies if we locate close to Ford on the meadows that are not open to our competitors...the land we already own on the meadows is the engineers' ideal location.*[18]

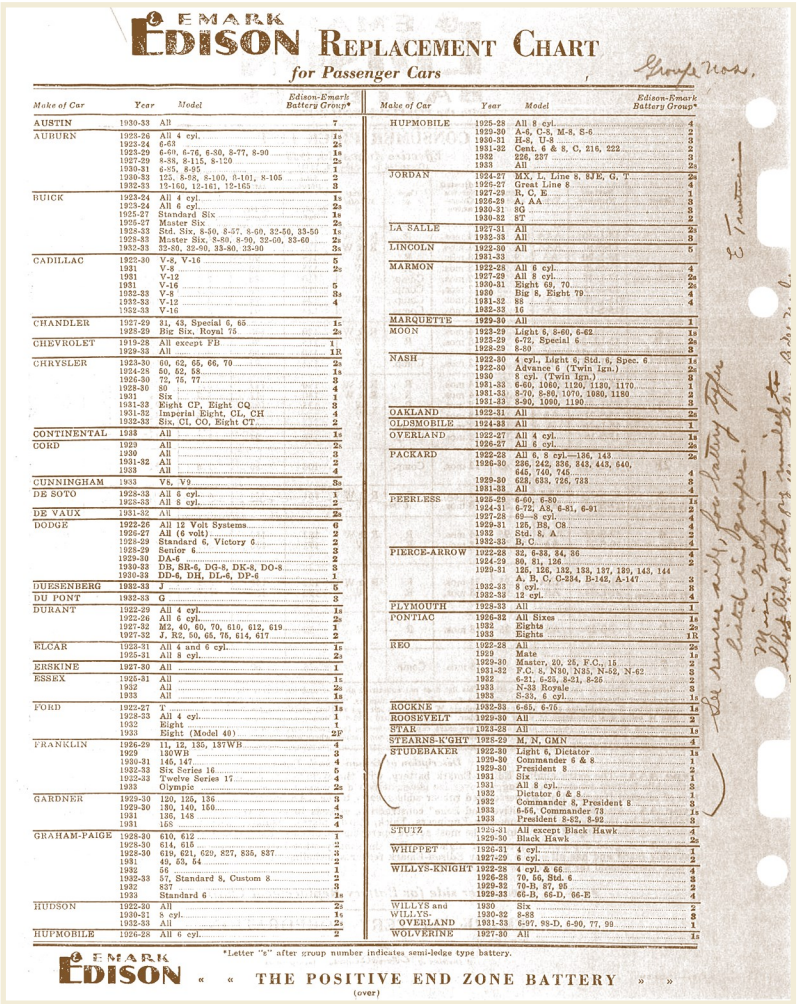
In December 1930, Charles Edison wrote to an executive in the Ford Motor Company, alluding to the fact that there is "something rather vague about the whole status of Emark's relations to the Ford Motor Company." Edison proceeds:

> *Of course, you and I know that there is something to the relationship between Emark and Ford Motor more than simply buyers and sellers. Our very entrance into the business proves it. But this is where the vagueness comes in. How much more? What are the limits etc.? Figuratively, is Emark a member of the family, a guest, a servant in the house, a distant relation, or what?*[19]

The underlying reality that Charles Edison was alluding to is the friendship between his father and Henry Ford, which was the foundation upon which the Emark Corporation was built.

Ongoing Importance of Ford Motor Company

As Charles Edison later recalled, it was not long after Emark started producing batteries before finances forced them to expand beyond selling batteries to the Ford Motor Company.[20] As a result, Emark sold replacement batteries for other cars via distributors and wholesalers (also called "jobbers"). Although replacement batteries became a significant part of Emark's



EMARK EDISON REPLACEMENT CHART

for Passenger Cars

Make of Car	Year	Model	Edison-Emark Battery Group*
AUSTIN	1930-33	All	7
AUBURN	1923-26	All 4 cyl.	1s
	1923-24	6-63	2s
	1923-29	6-69, 6-76, 6-30, 8-77, 8-90	1s
	1927-29	8-88, 8-115, 8-120	2s
	1930-31	6-95, 8-95	1
	1930-33	125, 8-98, 8-100, 8-101, 8-105	2
	1932-33	12-160, 12-161, 12-165	3
BUICK	1923-24	All 4 cyl.	1s
	1923-24	All 6 cyl.	2s
	1925-27	Standard Six	1s
	1925-27	Master Six	2s
	1928-33	Std. Six, 5-50, 8-57, 8-60, 32-50, 33-50	1s
	1928-33	Master Six, 8-80, 8-90, 32-60, 33-60	2s
	1932-33	32-80, 32-90, 33-80, 33-90	3s
CADILLAC	1925-30	V-8, V-16	5
	1931	V-8	2s
	1931	V-12	
	1931	V-16	5
	1932-33	V-8	3s
	1932-33	V-12	4
	1932-33	V-16	
CHANDLER	1927-29	31, 43, Special 6, 65	1s
	1925-29	Big Six, Royal 75	2s
CHEVROLET	1919-28	All except FB	1
	1929-33	All	1R
CHRYSLER	1923-30	60, 62, 65, 66, 70	2s
	1924-28	50, 52, 58	1s
	1926-30	72, 75, 77	3
	1928-30	80	4
	1931	Six	1
	1931-33	Eight CP, Eight CQ	3
	1931-32	Imperial Eight, CL, CH	4
	1932-33	Six, CI, CO, Eight CT	2
CONTINENTAL	1933	All	1s
CORD	1929	All	2s
	1930	All	3
	1931-32	All	2
	1933	All	4
CUNNINGHAM	1933	V8, V9	3s
DE SOTO	1928-33	All 6 cyl.	1
	1928-33	All 8 cyl.	2
DE VAUX	1931-32	All	2s
DODGE	1922-26	All 12 Volt Systems	6
	1926-27	All (6 volt)	2
	1928-29	Standard 6, Victory 6	2
	1928-29	Senior 6	3
	1929-30	DA-6	2
	1930-33	DS, SS-6, DG-8, DK-8, DO-8	3
	1930-33	DD-6, DH, DL-6, DP-6	1
DUESENBERG	1932-33	J	5
DU PONT	1932-33	G	3
DURANT	1922-29	All 4 cyl.	1s
	1922-26	All 6 cyl.	2s
	1927-32	M2, 40, 60, 70, 610, 612, 619	1
	1927-32	J, K2, 50, 65, 75, 614, 617	2
ELCAR	1923-31	All 4 and 6 cyl.	1s
	1925-31	All 8 cyl.	2s
ERSKINE	1927-30	All	1
ESSEX	1925-31	All	1s
	1932	All	2s
	1933	All	1s
FORD	1922-27	T	1s
	1928-33	All 4 cyl.	1
	1932	Eight	1
	1933	Eight (Model 40)	2P
FRANKLIN	1926-29	11, 12, 135, 137WH	4
	1929	130WH	3
	1930-31	145, 147	4
	1932-33	Six Series 16	5
	1932-33	Twelve Series 17	4
	1933	Olympic	2s
GARDNER	1929-30	120, 125, 136	3
	1929-30	130, 140, 150	4
	1931	136, 148	2s
	1931	158	4
GRAHAM-PAIGE	1928-30	610, 612	1
	1926-30	614, 615	2
	1928-30	619, 621, 629, 827, 835, 837	3
	1931	49, 53, 54	2
	1932	56	1
	1932-33	57, Standard 8, Custom 8	2
	1932	837	3
	1933	Standard 6	1s
HUDSON	1922-30	All	2s
	1930-31	8 cyl.	1s
	1932-33	All	2s
HUPMOBILE	1926-28	All 6 cyl.	2
HUPMOBILE	1925-28	All 8 cyl.	4
	1929-30	A-5, C-3, M-3, S-5	2
	1930-31	H-8, U-8	3
	1931-32	Cent. 6 & 8, C, 216, 222	2
	1932	226, 237	3
	1933	All	2s
JORDAN	1924-27	MX, L, Line 8, SJE, G, T	2s
	1925-27	Great Line 8	4
	1927-29	R, C, E	1
	1926-29	A, AA	3
	1930-31	8G	3
	1930-32	87	2
LA SALLE	1927-31	All	2s
	1932-33	All	3
LINCOLN	1922-30	All	5
	1931-33		
MARMON	1922-28	All 6 cyl.	4
	1927-29	All 8 cyl.	2s
	1930-31	Eight 69, 70	2s
	1930	Big 8, Eight 79	4
	1931-32	88	4
	1932-33	16	
MARQUETTE	1929-30	All	1
MOON	1923-29	Light 6, 8-60, 6-62	1s
	1923-29	6-72, Special 6	2s
	1928-29	8-80	3
NASH	1922-30	4 cyl., Light 6, Std. 6, Spec. 6	1s
	1922-30	Advance 6 (Twin Ign.)	2s
	1930	8 cyl. (Twin Ign.)	3
	1931-33	6-60, 1060, 1120, 1170	1
	1931-33	8-70, 8-80, 1070, 1080, 1180	2
	1931-33	8-90, 1090, 1190	3
OAKLAND	1922-31	All	2s
OLDSMOBILE	1924-33	All	1
OVERLAND	1922-27	All 4 cyl.	1s
	1926-27	All 6 cyl.	2s
PACKARD	1922-23	All 6, 8 cyl.—136, 143	2s
	1926-30	236, 242, 336, 343, 443, 640, 645, 740, 745	4
	1929-30	633, 633, 725, 733	3
	1931-33	All	4
PEERLESS	1925-29	6-60, 6-80	1s
	1924-31	6-72, A8, 6-81, 6-91	2
	1927-28	69—8 cyl.	4
	1929-31	125, B8, C8	4
	1932	Std. 8, A	4
	1932-33	B, C	4
PIERCE-ARROW	1922-23	33, 6-33, 34, 36	4
	1924-29	80, 81, 126	2
	1929-31	125, 126, 132, 133, 137, 139, 143, 144 A, B, C, C-234, B-143, A-147	3
	1932-33	8 cyl.	3
	1932-33	12 cyl.	4
PLYMOUTH	1928-33	All	1
PONTIAC	1926-32	All Sixes	1s
	1932	Eights	2s
	1933	Eights	1K
REO	1922-28	All	2s
	1929	Mate	1s
	1929-30	Master, 20, 25, F.C., 15	2
	1931-32	F.C. 8, N30, N35, N-52, N-62	3
	1932	6-21, 6-25, 8-51, 8-56	2
	1933	N-33 Royale	3
	1933	S-33, 6 cyl.	1s
ROCKNE	1932-33	6-85, 6-75	1s
ROOSEVELT	1929-30	All	2
STAR	1923-28	All	1s
STEARNS-K'GHT	1928-29	M, N, GMN	4
STUDEBAKER	1922-30	Light 6, Dictator	1s
	1929-30	Commander 6 & 8	1
	1929-30	President 8	2
	1931	Six	1
	1931	All 8 cyl.	3
	1932	Dictator 6 & 8	1
	1932	Commander 8, President 8	3
	1933	6-66, Commander 73	1s
	1933	President 8-82, 8-92	3
STUTZ	1929-31	All except Black Hawk	4
	1929-30	Black Hawk	2s
WHIPPET	1926-31	4 cyl.	1
	1927-29	6 cyl.	2
WILLYS-KNIGHT	1922-28	4 cyl. & 66	4
	1926-28	70, 56, Std. 6	3
	1929-32	70-B, 87, 88	2
	1929-33	66-B, 66-D, 66-E	4
WILLYS and WILLYS-OVERLAND	1930	Six	2
	1930-32	8-88	3
	1931-33	6-97, 98-D, 6-90, 77, 99	1
WOLVERINE	1927-30	All	1s

*Letter "s" after group number indicates semi-ledge type battery.

EMARK EDISON « « THE POSITIVE END ZONE BATTERY » »

(over)

1933 list of Emark replacement batteries showing the wide range of automotive models.

Source: Thomas Edison National Historical Park

business, the monthly reports of the Emark managers almost solely focused on their relationship with Ford. These reports discuss Emark's ongoing goal to gain a higher percentage of Ford's battery business; Ford's pressure for lower per unit costs; Ford's strikes or shut-downs and their ripple effects on Emark; and even technical challenges associated with new Ford models. In the late 1930s, for example, Ford's new model placed the battery under the hood rather than "keeping it under the floor boards in a carrier slung from the chassis." This change resulted in higher temperatures for the batteries and ultimately led to problems with cracking in the Emark battery cases.[21]

Personal Ties

Throughout their lives, Edison and Ford had many personal ties, from joint travels to purchasing adjacent properties in Fort Myers, Florida for their winter homes. In the late 1920s, shortly before Edison's death, the two men went to the site of Edison's Menlo Park research lab (now in Edison, NJ) to identify features that Ford could salvage for his historic village in Dearborn, Michigan.[22] In 1938, following Edison's death, Henry Ford and his son Edsel traveled back to Menlo Park to check on the construction of the beautiful 130-foot Art Deco Edison Memorial Tower.[23]

Henry Ford talking to Thomas Edison at the Menlo Park site, 1928.
Source: The Henry Ford Museum

The relationship between Edison and Ford involved many facets, but is perhaps best exemplified in New Jersey by Emark, an Edison company whose very existence, location, and production were based on their relationship.

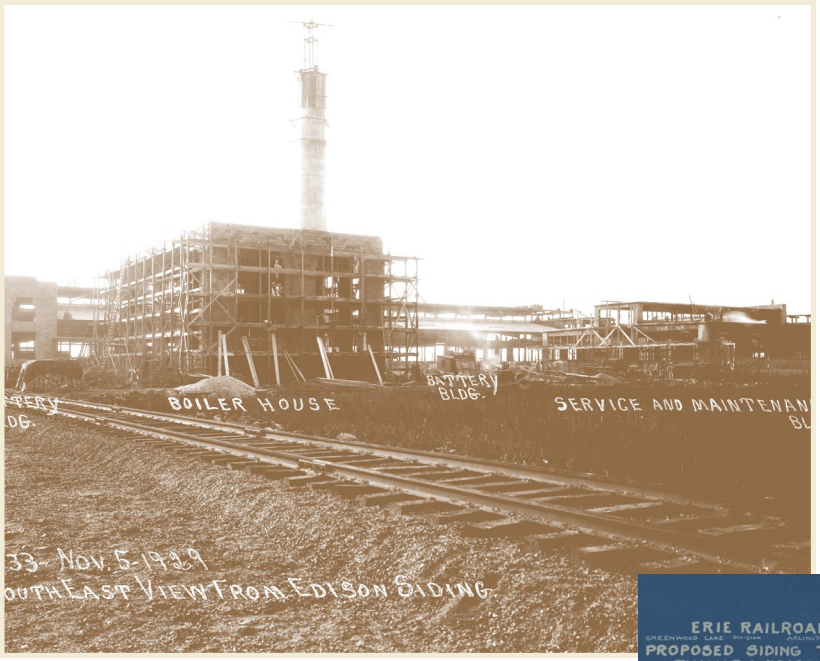
A MODERN FACILITY

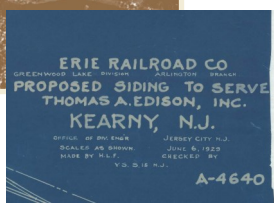
The Emark complex was built to be a modern, efficient industrial complex, one that took advantage of Kearny's excellent location, reflected the latest thinking in terms of architectural design and planning, and—true to Thomas Edison's thinking—included a research and development facility.

Kearny: An Ideal Location for Industry

In March 1928 Henry Ford inspected the Ford Motor Company's Kearny plant, praising the area:

> I...am impressed with the development of the Port of Newark. Newark is certain to become one of the great commercial centres of the United States, largely through development of the port.[24]





Above: 1929 photograph of the Emark site and rail siding.

Right: 1929 title block for the architectural blueprint of the Erie Railroad Company's siding to serve Emark.

Source: Collection of property owner

The Emark site had several major transportation advantages besides proximity to the Ford plant.[25] It was located at the intersection of the two main roads from Essex County, the Belleville Turnpike and Newark Avenue; it was situated along the Hackensack River and thus provided the opportunity for an Edison Dock; it was in close proximity to Edison's main laboratory in West Orange as well as to New York City; and finally, it had excellent rail service that ran right through the Edison property.[26]

1930 photograph of the eastern end of the Emark site, showing the Edison Dock and the Hackensack River.

Source: Collection of property owner

Designing a Modern Facility

An important part of the plant design was allocation of the second floor of the Engineering Building for research and quality control testing. Starting with Menlo Park in the 1870s, Thomas Edison had established a model for modern research and development.

1930 photograph of The Austin Company's sign at the entrance to the Emark site.
Source: Collection of property owner

To design and build the Emark facility, TAE, Inc. chose one of the country's top industrial designers, The Austin Company from Cleveland, Ohio. In early 1930, as Emark batteries began rolling off the assembly line in Kearny, The Austin Company was advertising in a national magazine promoting their role in "*1930—Modernization Year in Industry*."[27]

Emark's modernity is reflected in the use of Art Deco architecture, a style popular in the 1920s for its geometric angular design that became synonymous with modernity. In addition, The Austin Company, which had strong ties to the automotive industry, understood the need to design a complex that—in the true spirit of Henry Ford—relied on the efficiency of an assembly line to maximize production. Thomas Edison admired Ford's emphasis on efficiency, as was evidenced following a major fire in 1914 at Edison's West Orange laboratory. To help him rebuild, Edison borrowed one of Henry Ford's Efficiency Engineers.[28]

Gate House

Engineering Building

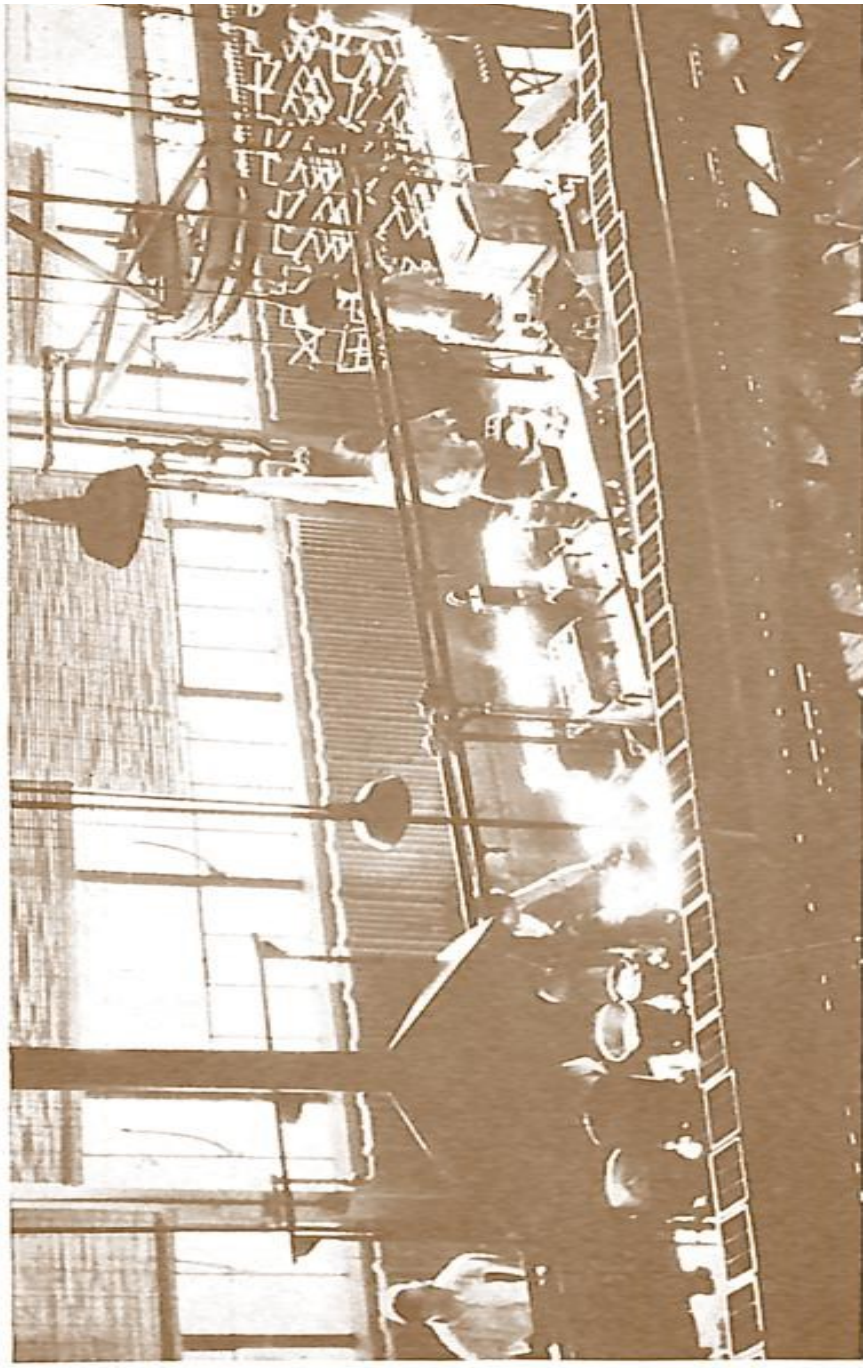
Service and Maintenance Building

Boiler House

Battery Plant Building

1930 photographs of the Emark buildings.

Source: Collection of property owner



Emark assembly line as depicted in "No Place for Experts," *Factory and Industrial Management* magazine, February 1932.

Source: Thomas Edison National Historical Park

A 1932 article in the *Factory and Industrial Management* magazine, which included one of the few known photographs of the Emark assembly line (see opposite page), praised Emark's modernity and efficiency:

"Every operation has been studied to secure maximum production at minimum expense.

---

modern plant, modern equipment, methods and processes.

Instead of men servicing conveyors, here conveyors serve the workers. Parts move through this plant, with almost uncanny regularity, from operation to operation.

...machine pasting gives absolute uniformity of plates—which greatly helps to eliminate battery failure.

Operations are so planned that various groups take their places throughout the plant in sequence according to schedule...neither men nor machines are idle. Thus, one of the hidden costs of operation finds no place at Emark.

The various lead parts...are made on automatic equipment especially designed here.

...the elimination of all waste has been pursued. Waste motions, waste effort, waste time and waste material—all are strikingly absent.

Refusing to accept the statement that lead could not be piped from point to point in the plant, Mr. Martin went ahead and did it...Thus molten lead is available at required points throughout the plant by the mere opening of a valve."

Emark timeline

1930

Battery production begins.

1933

TAE, Inc. Operating Committee discusses the possibility of merging Emark with TAE, Inc. The merger results in the new name of "Edison-Emark Battery Division."

1935

Emark eliminates the positive end zone feature, removing the words "positive end zone" from the battery cases and from advertisements.

Emark stops distribution in the South and the Midwest due to high costs.

1936

Emark and Ford agree Emark would get 50% of Ford's business in exchange for Emark dropping their price 10 cents per battery.

1937

Sales reports show large increases due to the cold snap, but labor strikes among suppliers hurt Emark.

Emark annual sales of 550,000 batteries, one of the highest years in its early development.

1938

Emark reports that "Automobile production is still in the dumps and we are there with them."

1939

Car production increases from 1938.

Emark begins discussing having regional facilities to compete with other battery companies.

1940

Increasing cost of materials causes Emark managers to negotiate with Ford to keep the per unit cost down in exchange for Emark receiving a higher percentage of Ford's business.

1941

187 employees work at Emark.

1942

To compete in other regions of the country, Emark opens a plant in Cairo, Illinois. Kearny becomes known as Emark Division-Plant #1 and Cairo as Plant #2.

With increasing rubber shortages due to World War II, the War Production Board restricts any use of rubber—even reclaimed rubber—for use in battery cases.

Emark begins producing batteries for Ford jeeps to be sold to the Army Ordnance Department.

1943

Emark begins producing boat batteries.

1944

Emark receives several contracts to supply batteries to the Navy Department.

1947

TAE, Inc. discontinues use of the name "Emark" and the Kearny facility becomes part of the company's Automotive Division.

1952

214 employees work at the Kearny facility.

1953

TAE Inc. stops all production at the Kearny facility.

1954

Crown Rubber Products, Inc. acquires property.

1959

Keaton Rubber Company acquires property.

1962

Standard Chlorine Chemical Company acquires property.

Conclusion

A crumbling industrial complex that only served its original purpose for 23 years may on the surface not seem that noteworthy. Yet, the story behind the Emark complex has tremendous significance.

The Emark story is the tale of the close relationship between two of America's greatest twentieth century innovators, Thomas Alva Edison and Henry Ford. Although the company history is short, that history provides an insight into the closeness of these two men as well as to each of their natures. Through Emark, you witness Edison's lifetime work with batteries and his emphasis on research and development. Through Emark, you also witness Ford's push for efficient production and how his approach was emulated by other industrial leaders such as Thomas Edison.

Emark was a business built upon a personal relationship. In January 1931, Charles Edison, Thomas' son and the President of TAE, Inc., wrote to Henry Ford, stating:

> *I want to express my very real appreciation for your recent action in regard to Emark. Father was 'tickled skinny.'*[29]

We don't know exactly what action Henry Ford took, but this warm note of thanks symbolizes the close personal and professional relationship that led to Thomas Edison's company forming Emark for the sole purpose of supplying Henry Ford's nearby assembly plant. With two such prominent men involved, the story of Emark certainly serves as a source of pride in New Jersey's history.

Acknowledgements

Special thanks to:

Dr. Paul Israel
Director and General Editor
Thomas A. Edison Papers
Rutgers University

For guidance and peer review throughout all aspects of this project.

Leonard De Graff
Archivist
Thomas Edison National Historical Park

For guidance in reviewing the National Park Service's extensive collections and assistance obtaining copies of relevant images.

Paula Gangopadhyay
Benson Research Center
The Henry Ford

For facilitating the use of the Benson Research Center's documents.

David Charette
Vice-President
Langan Engineering and Environmental Services, Inc.

For overall management and client coordination, including assistance with the property owner's documents.

End Notes

[1] April 8, 2008 letter from New Jersey Deputy State Historic Preservation Officer Terry Karschner to Federal Railroad Administration Associate Administrator for Railroad Development Mark E. Yachmetz (on file at the New Jersey Historic Preservation Office).

[2] The overview of Edison's work with batteries is based on Dr. Paul Israel's biography of Thomas Edison, *Edison A life of Invention*, 410-421.

[3] *Thomas A. Edison, Incorporated, "Where Thoroughness is a Tradition"* booklet, 1947. Collection #EDIS 95121, Box 6, Thomas Edison National Historical Park.

[4] Edwin Black, *Internal Combustion: How Corporations and Governments Addicted the World to Oil and Derailed the Alternatives.* New York: St. Martin's Press, 2006; also Dr. Paul Israel's biography of Edison (cited above).

[5] *Thomas A. Edison, Incorporated, "Where Thoroughness is a Tradition"* booklet, 1947.

[6] The positive end zone feature is explained in Allan H. Mogensen's February 1932 article "No Place for Experts" in *Factory and Industrial Management* magazine. The end date for Emark's use of this feature is reported in Emark's April 1935 reports to the Operating Committee of Thomas A. Edison, Incorporated, Collection #EDIS 95121, Box 19, Thomas Edison National Historical Park.

[7] "Closing Down of Automotive Division Plants Is Offset by Planned Increase in Nickle-Iron-Alkaline Cells," *Edison Herald*, June 1953, Vol. 1, No. 1, 2, Collection #EDIS 95121, Box 99, Thomas Edison National Historical Park.

[8] Black, 126-127.

[9] Israel, 421.

[10] Black, 124.

[11] Black, 147.

[12] "$5,000,000 Factory for Ford in Newark." *The New York Times*, 24 April 1916, 6.

[13] "The Real Estate Field." *The New York Times*, 20 January 1917, 16; and "Real Estate Field." *The New York Times*, 14 August 1918, 14.

[14] Black, 159.

[15] During the 1920s, there was ongoing correspondence between Thomas Edison and the Ford Motor Company about starter batteries.

Correspondence available at http://edison.rutgers.edu/.

[16] Personal interview with Dr. Paul Israel, 23 September 2014.

[17] George J. Hill, M.D. *Edison's Environment: Invention and Pollution in the Career of Thomas Edison.* Morristown, New Jersey: New Jersey Heritage Press, 2007, 274.

[18] Letter from Charles Edison to Thomas and Mina Edison, 7 May 1929. Courtesy of the Charles Edison Fund and the Thomas Edison National Historical Park. http://edison.rutgers.edu/ (TAED X018A3BU6).

[19] Letter from Charles Edison to D. J. Jend, 12 December 1930. Courtesy of the Henry Ford Museum and Greenfield Village Research Center. http://edison.rutgers.edu/ (TAED X001C8BR).

[20] "Closing Down of Automotive Division Plants is Offset by Planned Increase in Nickel-Iron-Alkaline Cells," 2.

[21] The summary of issues related to Emark and the Ford Motor Company is based on a review of the minutes of the monthly meetings of the Thomas A. Edison, Incorporated Operating Committee, Collection #EDIS 95121, Boxes 16-19, Thomas Edison National Historical Park.

[22] By the time Edison and Ford went to Menlo Park, most of the original laboratory buildings had fallen into disrepair and Ford took only one building, the Sarah Jordan Boarding House, which he incorporated into his re-created Menlo Park Laboratory complex at Greenfield Village.

[23] "Ford and His Son at Edison Shrine." *The New York Times,* 26 January 1938, 25.

[24] "Kearny Ford Plant Pleases Its Owner," *The New York Times*, 18 March 1928, 21.

[25] The Ford Motor Company moved its assembly plant from Kearny to Edgewater, New Jersey by the end of 1930; however, Ford remained Emark's main customer.

[26] Hill, 269-273.

[27] Smith, Terry. *Making the Modern Industry, Art, and Design in America*. Chicago: The University of Chicago Press, 1993.

[28] Israel, 432.

[29] Letter from Charles Edison to Henry Ford, 8 January 1931. Courtesy of The Henry Ford Museum and Greenfield Village Research Center. http:// edison.rutgers.edu/ (TAED X001C9AA).

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The Henry Ford Collections, Dearborn, Michigan.

Thomas A. Edison, Inc. Records, Collection #EDIS 95121, Thomas Edison National Historical Park, West Orange, New Jersey.

Thomas A. Edison Papers, Rutgers University, Piscataway, New Jersey.

Suggested resources

Places To Visit

Thomas Edison National Historical Park, 211 Main Street, West Orange, New Jersey, including Thomas Edison's home (Glenmont) and laboratory.

The Thomas Edison Center at Menlo Park, 37 Christie Street, Edison, New Jersey, including the early twentieth century Edison Memorial Tower, a small Edison museum, and the 36-acre Edison State Park. http://www.menloparkmuseum.org.

The Henry Ford Museum and Greenfield Village, 20900 Oakwood Boulevard, Dearborn, Michigan, including an extensive collection of artifacts and a re-creation of Edison's Menlo Park Laboratory.

Historical Collections

Thomas Edison National Historical Park, National Park Service
The National Historical Park has information on its website as well as extensive archives including correspondence, company records, and photographs.
http://www.nps.gov/edis/index.htm

Thomas A. Edison Papers, Rutgers University
The Edison Papers has copies of correspondence online as well as on microfilm. In addition, the Edison Papers website has extensive information on Thomas Edison and his inventions.
http://edison.rutgers.edu/

The Henry Ford Museum and Benson Research Center
The Henry Ford Museum has an extensive collection of archival material and artifacts related to Henry Ford, including the items that he collected pertaining to his colleague Thomas Edison.
http://www.thehenryford.org

THOMAS A. EDISON, INC.

. . . . now places the E mark of approval on an

AUTOMOBILE STORAGE BATTERY

THIS IS THE STORY OF

EMARK:

Learning from New Jersey History

TEACHER'S GUIDE AND LESSON PLANS
GRADE 4

This Advertisement Appearing in Leading Automotive Papers — October Issues

NOW—a POWER-MEASURED BATTERY with the Positive End Zones, produced by the

EMARK BATTERY CORPORATION
a division of
THOMAS A. EDISON, Inc.

Edison invented the incandescent electric lamp. Edison achieved radical improvements in the field of dynamo construction. Edison invented the alkaline storage battery. Edison . . . a name long identified with the pioneering and development of industrial and vehicle storage batteries now offers to jobbers and dealers a new sales opportunity in the automotive field.

The Power-Measured Battery anticipates every condition the battery will meet in service. It is built, tested and re-tested to survive hard usage.

Freezing winter weather is magnified and re-enacted in the testing laboratory. The constant joggling of rutted back roads is paralleled. Cross-country driving in tropical heat and short runs with frequent starts — all conditions are anticipated before an Emark Power-Measured Battery leaves the factory.

Add to this assurance of battery performance the extra capacity of Emark due to the long-hoped-for battery development—*Positive End Zones* . . . the aim of engineers, ever since the invention of the storage battery.

For the quality buyer Emark manufactures Emark "AAA," the Power-Measured Battery with the Positive End Zones (Patent Applied For). In this battery the finest materials are combined with the most modern manufacturing methods under rigid test conditions. The thirteen plate size retails for only $10.95.

For the price buyer, Emark manufactures Emark "A," a dependable battery with service features far in excess of its moderate price. The thirteen plate size retails for $6.95.

All Emark Batteries carry written guarantee.

Distributors and dealers are now being appointed. Send coupon for complete details.

EMARK BATTERY CORPORATION, KEARNY, N. J.
Please send me details of Emark Proposition
Name ..... Address .....
City ..... State .....

EMARK BATTERY CORPORATION, Kearny, New Jersey

Early 1930s Emark advertisement
Source: Thomas Edison National Historical Park

THIS IS THE STORY OF EMARK:

Learning from New Jersey History

TEACHER'S GUIDE AND LESSON PLANS
GRADE 4

Prepared for:

United States Environmental Protection Agency
SCCC Performing Parties Group c/o Key Environmental, Inc.
Langan Engineering and Environmental Services, Inc.

By:

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September 2015

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Overview and Core Curriculum Standards

The Emark complex—perhaps better than any other site in New Jersey—represents the close relationship between two of the twentieth century's greatest innovators: Thomas Edison and Henry Ford. For many years, these two men collaborated with each other, developed a mutual respect, and shared business interests and a close friendship. In the late 1920s, after years of Edison research on batteries—in part funded by Henry Ford—Thomas A. Edison, Inc. created Emark for the sole purpose of producing starter batteries for the Ford Motor Company. Located at 1025-1035 Belleville Turnpike, Town of Kearny, Hudson County, New Jersey, the complex consisted of five concrete buildings that were used to produce batteries from 1930 until 1953.

The following three lesson plans related to the Emark site can be used to teach New Jersey history and to foster local pride:

Lesson 1 **Geography and the Location of the Emark Battery Corporation**
(6 resources provided)

Lesson 2 **Thomas Edison and Batteries**
(6 resources provided)

Lesson 3 **Thomas Edison and Henry Ford**
(6 resources provided)

These lessons are designed to address and fulfill specific standards and goals laid out in the New Jersey Core Curriculum Content Standards for Social Studies and Science (Lesson 2) at:
www.state.nj.us/education/aps/cccs/ss/
http://www.state.nj.us/education/aps/cccs/science/

The specific standards addressed are:

6.1 US History: America in the World *(Lessons 1, 2, 3)*

All students will acquire the knowledge and skills to think analytically about how past and present interactions of people, cultures and the environment shape the American heritage. Such knowledge and skills enable students to make informed decisions that reflect fundamental rights and core democratic values as productive citizens in local, national and global communities.

6.3 Active Citizenship in the 21st Century *(Lessons 1, 2, 3)*

All students will acquire the skills needed to be active, informed citizens who value diversity and promote cultural understanding by working collaboratively to address challenges that are inherent in living in an interconnected world.

Within each standard, these lessons pertain to strands:
B: Geography, People and the Environment

C: Economics, Innovation and Technology
D: History, Culture and Perspectives

4-PS3-2: Make observations and provide evidence that energy can be transferred from place to place by sound, like, heat and electric currents. *(Lesson 2)*
Make observations to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution.

Disciplinary Core Ideas:
PS3.A: Definitions of Energy
PS3.B: Conservation of Energy and Energy Transfer

4-PS3-4: Apply scientific ideas to design, test and refine a device that converts energy from one form to another. *(Lesson 2)*
Apply scientific ideas to solve design problems.

Disciplinary Core Ideas:
PS3.B: Conservation of Energy and Energy Transfer
PS3.D: Energy in Chemical Processes and Everyday Life

Lesson 1:
Geography and the Location of the Emark Battery Corporation

Grade: 4

Class Duration: 1 class period

Core Curriculum Standards: Social Studies 6.1, 6.3

Lesson Objectives:

1. Students will learn about Kearny's historic development.
2. Students will understand and explain how geographic features affected development.
3. Students will learn about the importance of different forms of transportation (rail, water, automotive) and how they affected industries.

Background Information:
With the exception of copper mining operations and farming, the area around present-day Kearny was relatively undeveloped until the middle of the 19th century. In 1873, the Erie Railroad was laid through the area and connected Kearny to New York, Newark, and Jersey City. The water and rail transportation routes, combined with the prospering industrial areas of nearby Newark and Jersey City, made Kearny a suitable area for residential, commercial, and industrial development.

In 1901, the *Industrial Directory of New Jersey* promoted Kearny for its location on the Erie Railroad as well as its frontage on the Passaic River, where "vessels of fair size come to the wharves." In addition, the *Industrial Directory* stated that "the town is naturally a part of Newark, and enjoys all the conveniences of trolley transportation."

In the 1920s, the two largest employers in Kearny were the Ford Motor Company and Western Electric. In 1940-41, the *Industrial Directory* indicated that some of Kearny's major advantages were "the new high level bridges on Route 25 (Lincoln Highway) over both rivers [which] afford a direct and short route to the Holland Tunnel and Manhattan." By this time, Kearny was served by the Central Railroad of New Jersey, the Lehigh Valley Railroad, the Pennsylvania Railroad, the Erie Railroad, and the Delaware, Lackawanna, and Western Railroad.

The Emark Battery Corporation was located in an industrial area of Kearny that consisted of land reclaimed from salt marshes in the late nineteenth century. The Emark property was located between the Belleville Turnpike (to the west) and the Hackensack River (to the east). In addition, the site is bisected by a branch of the Erie Railroad.

In March 1928 Henry Ford inspected the Ford Motor Company's Kearny assembly plant, praising the area:

> I...am impressed with the development of the Port of Newark. Newark is certain to become one of the great commercial centers of the United States, largely through development of the port.
>
> Source: *The New York Times*, March 18, 1928, 21

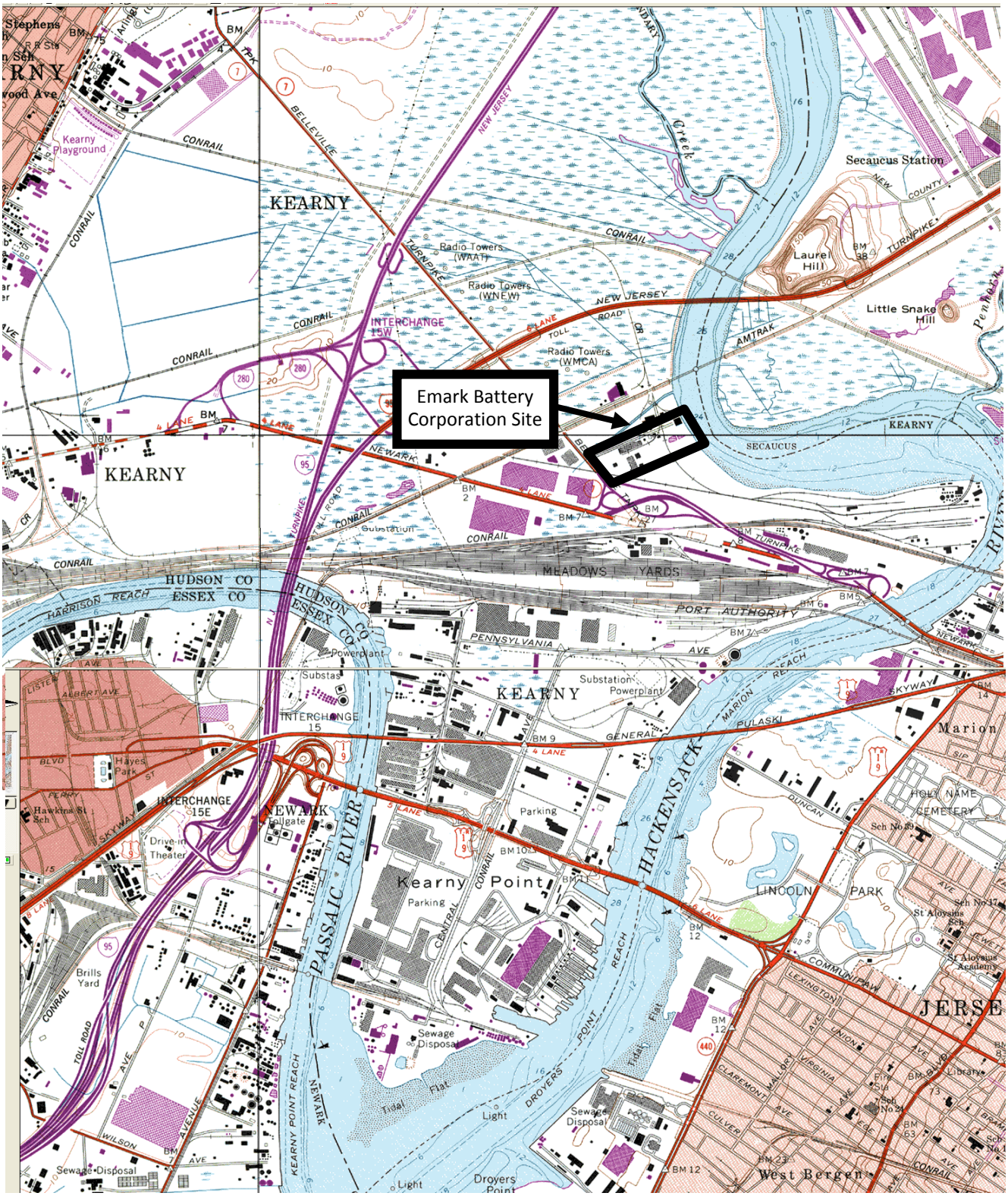
Resources:

- Resource 1: Late Twentieth Century Map of the Kearny Area Showing the Emark Site
- Resource 2: 1844 Historic Map of Kearny and the Emark Battery Corporation Site
- Resource 3: 1931 Historic Map Showing the Emark Battery Corporation and the Ford Assembly Plant
- Resource 4: 1931 Historic Plot Plan and Property Map of the Emark Battery Corporation Complex
- Resource 5: 1930 Historic Photos of Emark Battery Corporation Buildings
- Resource 6: Excerpts from a May 7, 1929 Letter from Charles Edison to his Parents, Thomas and Mina Edison, Regarding the Emark Battery Site

Activities:

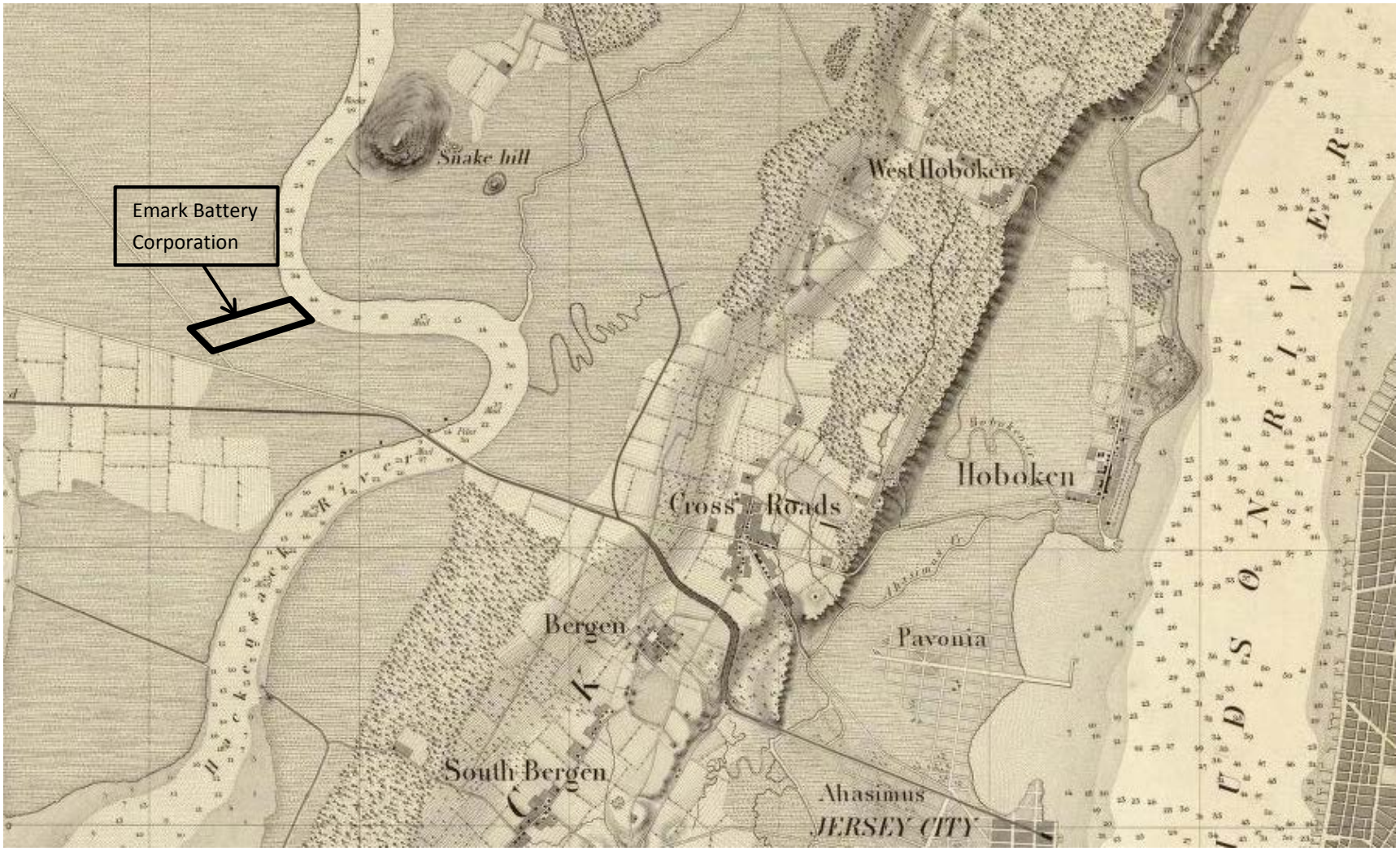
- Briefly discuss the geography of New Jersey and Thomas Edison's work in the state. Using readily available maps of Hudson County and the Town of Kearny, New Jersey, identify where the Emark Battery Corporation site and the Ford Assembly Plant were located within Kearny.
- Divide students into cooperative groups and distribute a site plan of the Emark Battery Corporation complex and its surrounding area (Resource 1) as well as the two historic maps (Resources 2 & 3). Ask students to identify by circling or marking:
    - Railroads
    - Rivers (Passaic and Hackensack)
    - Highways
    - Major cities
    - Any other resources nearby that could help the Emark Battery Corporation
- Share with the students the 1931 Historic Plot Plan and Property Map (Resource 4) as well as the historic photographs of the Emark buildings (Resource 5). Ask them to describe what they think happened in each building. Ask them what features of these buildings are different from those of office or industrial buildings built today.
- Share the letter excerpt (Resource 6) from Charles Edison to Thomas and Mina Edison (his parents) regarding the Emark Battery Corporation site and the importance of its location. Have students assume the role of Charles Edison and write a letter to Thomas Edison explaining the importance of this location and, using the map, include detailed reasons why this site was chosen.

Resource 1: Late Twentieth Century Map of the Kearny Area Showing the Emark Site



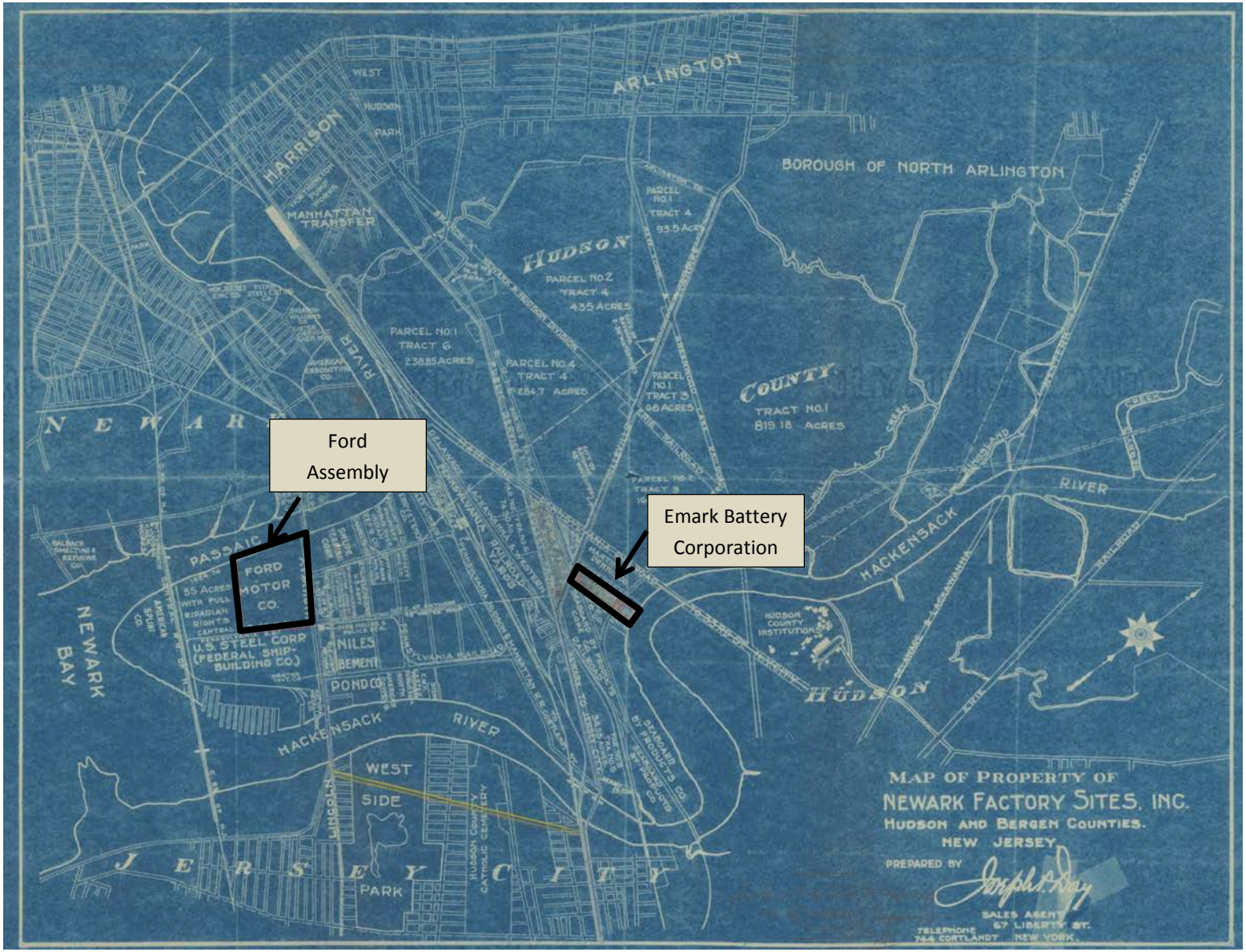
Map Reference: 1967/1981 Jersey City and Weehawken, NJ USGS 7.5 Minute Quadrangle maps

Resource 2: 1844 Historic Map of Kearny and the Emark Battery Corporation Site



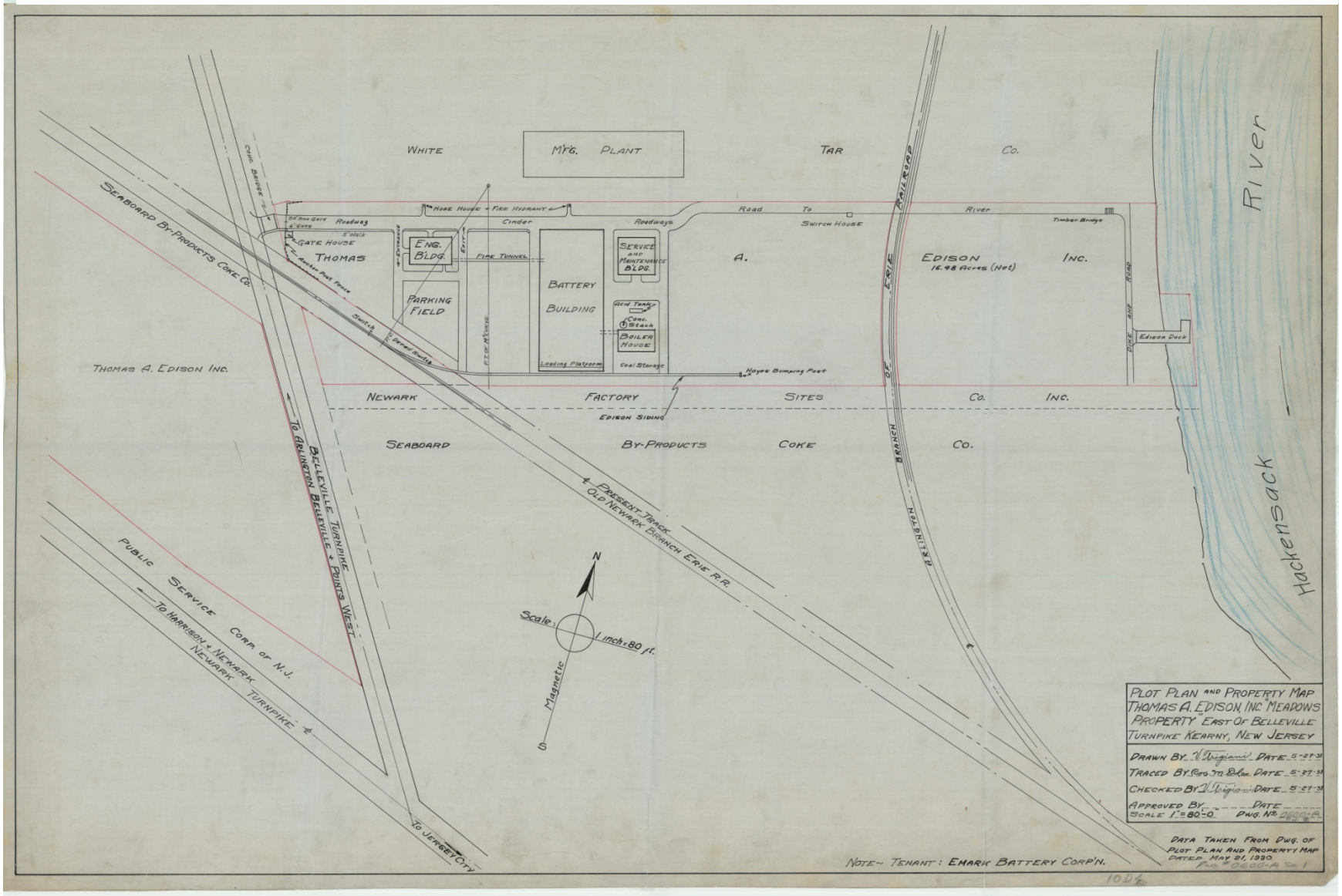
Source: 1844 U.S. Coast Survey Map of New York Bay and Harbor and the Environs. David Rumsey Map Collection www.davidrumsey.com.

Resource 3: 1931 Historic Map Showing the Emark Battery Corporation and the Ford Assembly Plant



Source: Collection of property owner

Resource 4: 1931 Historic Plot Plan and Property Map of the Emark Battery Corporation Complex



Source: Collection of property owner

Resource 5: 1930 Historic Photos of Emark Battery Corporation Buildings

Engineering Building

Battery Plant Building

Resource 5 (continued): 1930 Historic Photos of Emark Battery Corporation Buildings

Gate House

Boiler House

Resource 5 (continued): 1930 Historic Photos of Emark Battery Corporation Buildings

Service and Maintenance Building

Source: Collection of property owner

Resource 6: Excerpts from a May 7, 1929 Letter from Charles Edison to his Parents, Thomas and Mina Edison, Regarding the Emark Battery Site

May 7/29

Dear Mother and Father,

…the battery…passes all Ford specifications with flying colors…we will have no expensive advertising—no service stations—no sales dept expense—as ***we will sell only to Ford*** [emphasis added]. *Also we will save on freight & packing & make many other economies if we locate close to Ford on the meadows that are not open to our competitors…*

…We have considered using buildings at Orange and at Silver Lake and elsewhere but every time it gets back to the fact that if we are to get low costs <u>*all*</u> <u>*the*</u> <u>*way*</u> *thru, the land we already own on the meadows is the engineers ideal location…*

C

Source: Letter from Charles Edison to Thomas and Mina Edison, 7 May 1929 (TAED X018A3), Courtesy of the Charles Edison Fund and Thomas Edison National Historical Park. Online at the Thomas A. Edison Papers, Rutgers University, http://edison.rutgers.edu/.

Lesson 2:
Thomas Edison and Batteries

Grade: 4

Class Duration: 1 class period

Core Curriculum Standards: Social Studies 6.1, 6.3; Science 5.1, 5.2

Lesson Objectives:

1. Students will understand the importance of batteries for storing energy, and see examples of how they are used (both historically by Thomas Edison and in our modern society).
2. Students will learn about the work habits that helped make Thomas Edison so successful.
3. Students will demonstrate how a battery works by creating a Potato Battery.

Background Information:

Batteries, Emark's sole product, were an important part of Thomas Edison's life. He worked with them as a young telegrapher; in his development of small appliances such as electric pens, phonographs, telephones, doorbells, fans, and sewing machines; in his generation and distribution of electricity; and in vehicles.

Although people often think of Edison's work with the light bulb, he worked with all aspects of electrical energy, from generating electricity to distributing it to houses and businesses, to storing energy in the form of batteries.

By the late nineteenth century, Edison was working to develop a "storage" battery that—in contrast to the earlier "primary" battery—could be charged and discharged multiple times.

We can learn a lot about Thomas Edison through his work with batteries, including:

- Edison believed in hard work (see his quotations in Resource 3).
- Edison did not give up easily. In order to develop a new product, he conducted lots of experiments, always keeping good records of his experiments.
- Similar to his experiments to perfect the incandescent light bulb, Edison experimented with many materials for his storage battery. His company later described him as having been determined "to ferret out Nature's secret of a good storage battery."
- Edison believed in having a research facility in order to develop, test, and improve his products.
- 100 years ago, in the early twentieth century, Edison was working hard to develop an all-electric car powered by a storage battery. He did succeed in developing a storage battery that was used to power trucks, which could operate in urban areas where they could more easily re-charge their batteries. However, he was never successful in developing a storage battery that was effective for use in cars, which were often driven longer distances at times over bumpy rural roads.

Resources:

- Resource 1: Historic Photographs of Products in which Thomas Edison Used Batteries
- Resource 2: Historic Photographs of Products in which Thomas Edison Used Batteries (Teacher's Information)
- Resource 3: Thomas Edison Quotations
- Resource 4: Historic Photographs of the Testing Machines Used at Emark
- Resource 5: Historic Photographs of the Testing Machines Used at Emark
- (Teacher's Information)
- Resource 6: Potato Battery Experiment

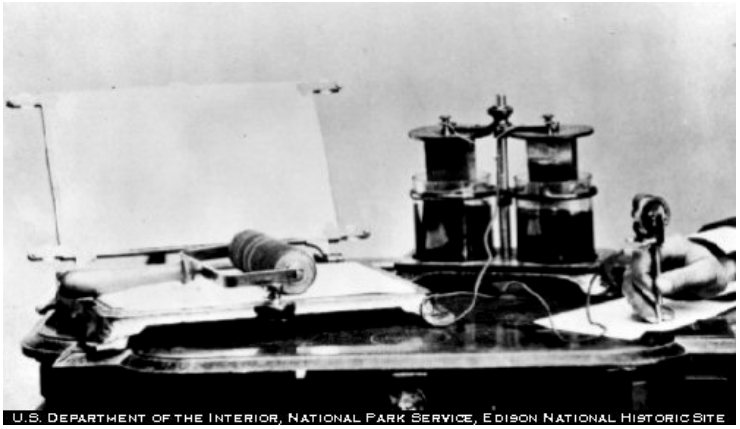
Activities:

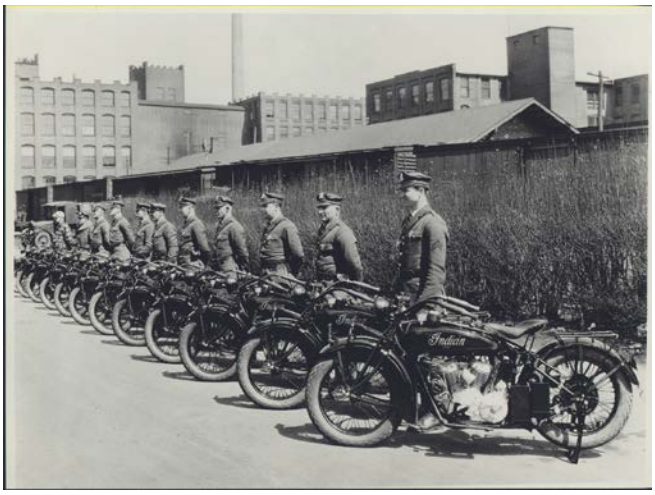
- Ask students to generate a list of items in their school and homes that require batteries to work. Show historic photographs of how Thomas Edison used batteries (Resources 1 & 2). See if they recognize the items and discuss whether or not these items are still used today. If so, do they still use batteries?
- Ask students to brainstorm about a new invention that could use a battery. Have them pretend that they are Thomas Edison and answer the following questions:
    - What is the new invention? What does it do? Ask them to draw the invention.
    - What materials will they try in order to build the new invention?
    - How long do they think it will take to develop the new invention? A day? Week? Month? Year? or Longer? Share Thomas Edison quotations (Resource 3). Thomas Edison believed in hard work and in not giving up!
    - What kind of tests will they need to see if their product is successful? Share with the students the photographs of the testing machines used at Emark (Resources 4 & 5). Ask them what they think the tests were used for. Then, encourage them to give their own tests fun names.
- Have students build a Potato Battery Experiment (Resource 6).

Resource 1: Historic Photographs of Products in which Thomas Edison Used Batteries

Source for all three images: Thomas Edison National Historical Park

Resource 1 (continued): Historic Photographs of Products in which Thomas Edison Used Batteries





Source for all four images: Thomas Edison National Historical Park

Resource 2: Historic Photographs of Products in which Thomas Edison Used Batteries
(Teacher's Information)

Nickel-Iron-Alkaline Storage Batteries, used for miners' lamps, electric locomotives, shuttle cars used in mines, industrial trucks, and railroad signals.

Photograph taken from 1947 *Thomas A. Edison, Incorporated* booklet

Primary Batteries, used for railroad signals, stationary marine signals, and alarm systems

Photograph taken from 1947 *Thomas A. Edison, Incorporated* booklet

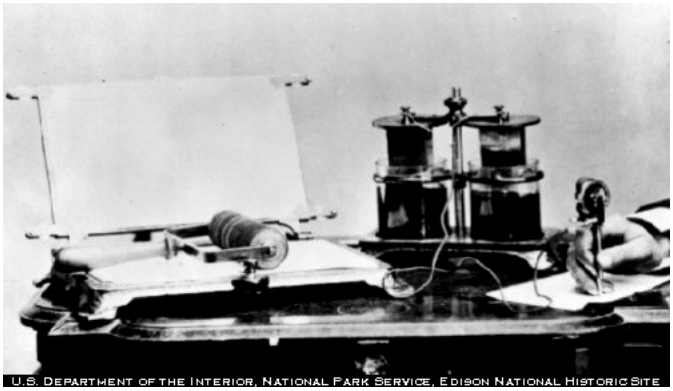
1910 photograph of Thomas Edison's electric car

Source for all three images: Thomas Edison National Historical Park

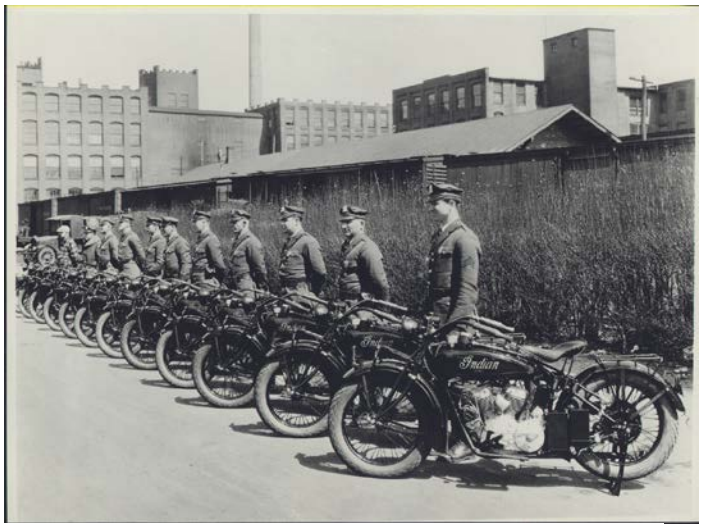
Resource 2 (continued): Historic Photographs of Products in which Thomas Edison Used Batteries (Teacher's Information)

Undated photograph of a washing machine powered by storage batteries

Undated photograph of an Edicraft toaster



Ca. 1878 photograph of an Edison mimeograph and electric pen



Undated photograph of motorcycles equipped with Edison batteries

Source for all four images: Thomas Edison National Historical Park

Resource 3: Thomas Edison Quotations

"Genius is one per cent inspiration and ninety-nine percent perspiration."

Source: "Thomas A. Edison: Philosopher- The Great Inventor's Thoughts on Work, Women, Art, Life and the Hereafter." *The Golden Book Magazine*. Vol. 13. Page 78. April 9, 1931.

"There is no substitute for hard work."

Source: "Thomas A. Edison: Philosopher- The Great Inventor's Thoughts on Work, Women, Art, Life and the Hereafter." *The Golden Book Magazine*. Vol. 13. Page 78. April 9, 1931.

"I don't believe in the six-hour day. If a man is interested in what he is doing he won't keep his eye on the clock, but he'll see the thing through. Hard work never hurts anybody who likes it."

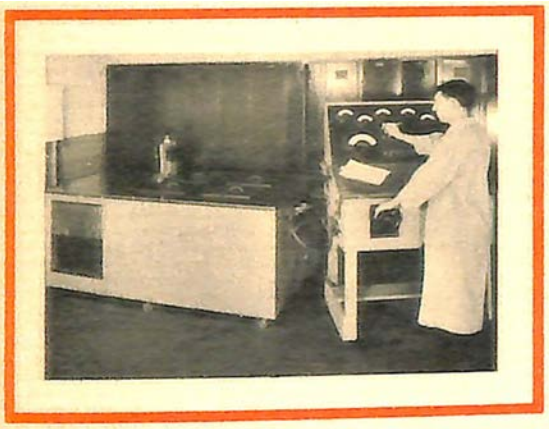
Source: "Mr. Edison's Views of Life and Work." *Review of Reviews.* Vol. 85. Page 31. January 1932.

"The brain can be developed just the same as the muscles can be developed, if one will only take the pains to train the mind to think."

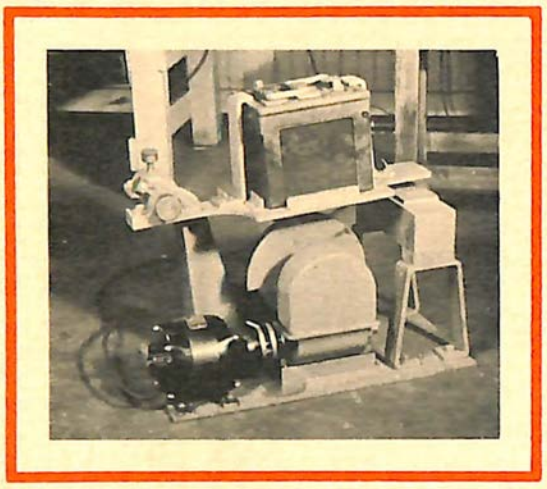
Source: "Why Do So Many Men Never Amount to Anything?" *The American Magazine*. Vol. 91. Page 10. January 1921.

From an unpublished list of Thomas Edison quotations developed by Dr. Paul Israel, Director and General Editor, Thomas A. Edison Papers, Rutgers University.

Resource 4: Historic Photographs of the Testing Machines Used at Emark, as shown in an Early 1930s Advertisement



THE ICE BOX

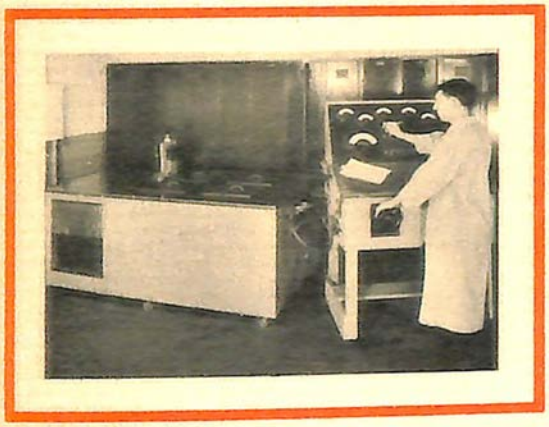


THE BUMP MACHINE

THE "RAZZLE DAZZLE"

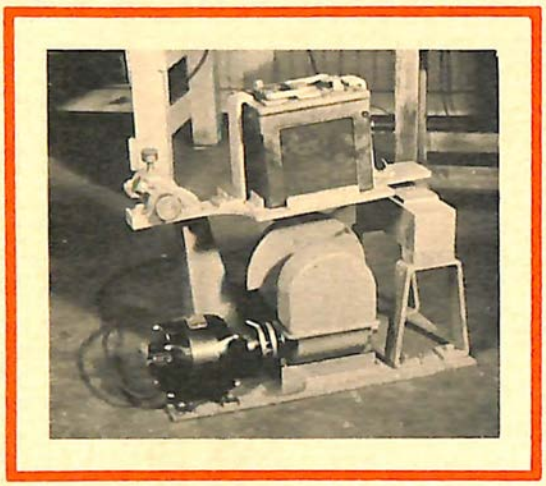
Source for all three images: Thomas Edison National Historical Park

Resource 5: Historic Photographs of the Testing Machines Used at Emark, as shown in an Early 1930s Advertisement (Teacher's Information)



THE ICE BOX

One of the tests used on the Emark batteries. The Ice Box was used to simulate winter weather.



THE BUMP MACHINE

One of the tests used on the Emark batteries. The Bump Machine was used to simulate rutted, rural roads.

THE "RAZZLE DAZZLE"

One of the tests used on the Emark batteries. The Razzle Dazzle was used to simulate the frequent starts and stops of city driving.

Source for all three images: Thomas Edison National Historical Park

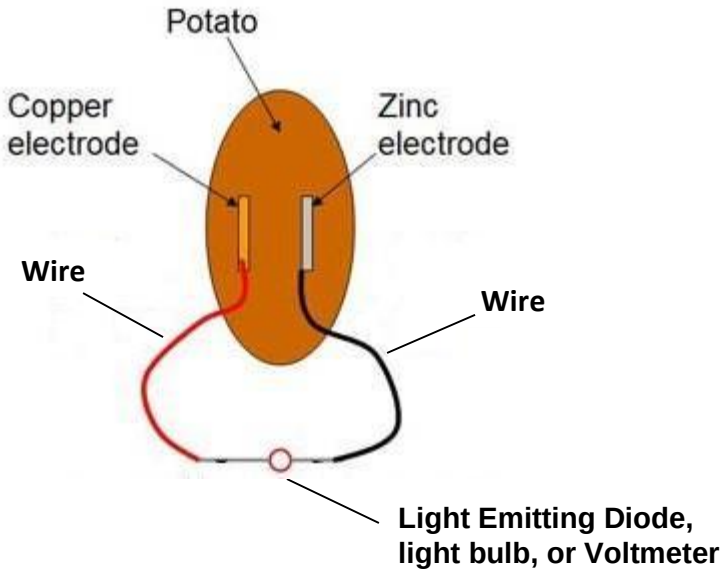
Resource 6: Potato Battery Experiment

What is a Battery?

- What is a battery? A battery is a combination of chemistry and electricity. In a battery, a chemical reaction produces electricity. In some kinds of batteries, a second kind of reaction in the same battery can receive and store electricity so the battery can give electricity back later.
- A battery has:
    - two electrodes, called a positive electrode and a negative electrode. The electrodes are metals.
    - an electrolyte between the two electrodes. An electrolyte is something that can react chemically with the electrodes and that electricity can flow through. The electrolyte contains ions.
- Electric Circuit: For electricity to flow, there needs to be an electric circuit. Electric current has to be able to flow all the way around a path from a starting point around a circuit and back to the starting point.
- There are two kinds of batteries:
    - A primary (non-rechargeable) battery can only be used once, to produce electricity, and then the ingredients are not good for being a battery any more. Most batteries for toys are this kind of battery.
    - A storage (rechargeable battery): A storage battery can be used to give you electricity like a primary battery, and then you can connect it in the other direction to a source of electricity, and "fill it back up" and use it again. The chemical reactions are reversible (can go in both directions) and the battery can be charged and discharged many times. Batteries in cell phones, computers, and cars are this kind of battery.
- What kinds of storage batteries exist?
    - Lead-acid battery (made at Emark)
    - Nickel-iron-alkaline battery (invented by Edison and still used)
    - Many other kinds (used for cell phones, computers, modern electric cars)
- What is a lead-acid battery? A lead-acid battery is one of the oldest known kinds of rechargeable battery (discovered in the 1850s). Today it is used in almost all cars to power the starter motor and other electronics in the car. The battery contains:
    - lead (a grey, heavy metal)
    - sulphuric acid (a widely used, corrosive acid)
- What happens in a lead-acid battery when it produces electricity?
    - At one electrode, the metal electrode corrodes, which is like rusting (Lead turns into lead sulphate)
    - At the other electrode, hydrogen gas is produced (Hydrogen gas can burn or even explode)
- What are features of lead-acid batteries?
    - Good: Low cost; can supply large current for short times
    - Bad: Is heavy for the amount of electricity stored

Resource 6 (continued): Potato Battery Experiment

Experiment about batteries (Potato Battery or Lemon Battery)

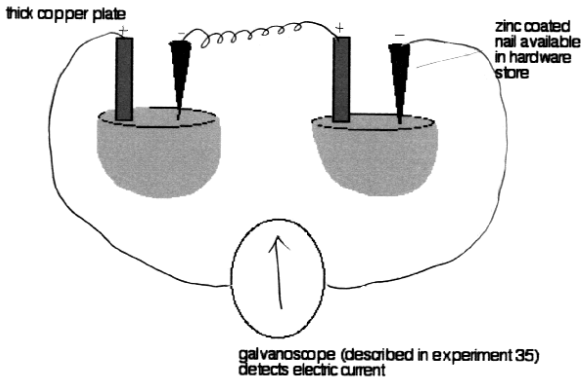


- Equipment needed:
  - Zinc-coated (galvanized) nail (= one electrode)
  - Copper (stiff copper wire, or penny) (= other electrode)
  - Potato or lemon (= electrolyte)
  - Copper wire or wire with alligator clips (to make circuit)
  - LED (light emitting diode) or tiny light bulb or voltmeter (to show what is happening)

- Procedure: Connect as shown
- What makes a Potato Battery or Lemon Battery work, or not work? One metal is one electrode, the other metal is the other electrode, and the potato or lemon is the electrolyte. The reaction at one electrode is corrosion, like rusting. If the light is on, or the LED is on, or the voltmeter shows more than about a Volt of voltage, it is working correctly. Here are some things that can go wrong, and what they indicate, or questions to ask yourself:
  - What happens if you don't have two different metals? Try using the same metal at both ends (both electrodes copper, or both electrodes zinc). Do you get any electricity through the light or LED? (Using the same metal for both electrodes means there is no difference between the two electrodes so there is nothing to make electricity flow. It should fail to light the bulb or LED or make a voltage reading at the voltmeter.)
  - What happens if you don't connect the battery to anything such as a light or LED? (Nothing. There is no circuit, so no current flows, so nothing happens.)
  - What happens if you connect the LED, light bulb or voltmeter in the opposite direction? (If it is a light bulb, the result will be the same, because a light bulb works in either direction. If it is a voltmeter, the voltmeter will display a number that is positive for one direction of connection, negative for the other direction

of connection. If it is an LED, it should light for one direction but not for the other direction, because a LED only works for one direction. A LED will not be harmed by being connected in the wrong direction.)

- What happens if you have a large potato and move the two electrodes as far away from each other as possible in the potato (or lemon)? Does the ability of the battery to light the light or LED decrease? (It should decrease, because distance between the electrodes makes it harder for electricity to flow through the electrolyte.)
- What happens if you put the two electrodes in a container of pure water, instead of in a potato or lemon? Does it still work as a battery? (It should not work, because water by itself is not a good enough electrolyte.)
- Look at the electrodes after using the battery. Has one of them changed color, or does it look corroded? (It should have a different color or look corroded, at least if the battery has been on for a while. The chemical reaction that happens inside a primary battery is like corrosion. Rusting of iron and steel is a common example of corrosion.)
- What does the use of pure water, the use of dissimilar metals, and the distance between electrodes say about what are the right conditions for making a potato battery or lemon battery?
- Series connection: Connect two batteries in series as shown. Does the light shine more brightly when two cells are connected in series? (It should.) If a voltmeter, does the voltage read approximately twice the number for one cell? (It should.) (An automobile starter battery usually has about six cells in series, because an automobile needs about 12 Volts.) Depending on the LED, it might be necessary to connect two batteries like this in order to get the LED to light up.



Voltmeter

Helpful information is available online, including YouTube videos on topics such as “how to make a potato or lemon battery” and “how to jumpstart a car battery” (which is a lead-acid battery).

Lesson 3:
Thomas Edison and Henry Ford

Grade: 4

Class Duration: 1 class period

Core Curriculum Standards: Social Studies 6.1, 6.3

Lesson Objectives:
1. Students will identify major inventions by Thomas Edison.
2. Students will identify major work by Henry Ford.
3. Students will understand how Thomas Edison and Henry Ford worked together.

Background Information:
Henry Ford, 16 years younger than Thomas Edison, met Edison in the 1890s after Ford started working for the Edison Illuminating Company in Detroit. Ford admired Edison and thought of him as a hero.

In the early twentieth century—after Ford had started his own company and successfully introduced a gasoline-powered car—the two men became close friends. In 1912-14, they worked together on an unsuccessful attempt to develop an electric car that was powered by an Edison storage battery.

Thomas Edison continued with his experiments to improve storage batteries, with funding from Henry Ford, one of the country's wealthiest men. However, the new goal was to develop a storage battery that could start a gasoline-powered car.

In April 1916, Henry Ford bought eighty acres of land in Kearny in order to build an automobile assembly plant. In 1917-1918, Edison purchased land in Kearny near Ford's property.

In 1928, when Ford introduced his Model A automobile, Edison's company (by then run by his son Charles) was ready to take advantage of the financial opportunities by producing starter batteries for the Ford Motor Company.

On May 7, 1929, Charles Edison wrote to his parents, Thomas and Mina, about the plans to produce batteries for Ford, explaining that:

> *the battery is developed. It passes all Ford specification with flying colors...we will have no expensive advertising—no service stations—no sales dept expense—as* ***we will sell only to Ford*** [emphasis added]. *Also we will save on freight & packing & make many other economies if we locate close to Ford on the meadows that are not open to our competitors...the land we already own on the meadows is the engineers' ideal location.*
>
> Source: Letter from Charles Edison to Mina Edison, 7 May 1929 (TAED X018A3), Courtesy of the Charles Edison Fund and Thomas Edison National Historical Park. Online at The Edison Papers, Rutgers University, http://edison.rutgers.edu/.

As Charles Edison later recalled, it was not long after the company started producing batteries that for financial reasons they had to expand beyond just selling batteries to Ford Motor Company. As a result, Emark sold replacement batteries to other car companies and to automotive suppliers. However, the Ford Motor Company remained as their most important customer.

The relationship between these two men involved many facets, from business to personal, but is perhaps best exemplified in New Jersey by Thomas A. Edison Inc.'s Emark Battery Corporation, a company whose very existence, location, and production were based on their relationship.

Brief Biography of Thomas Edison (1847-1931)

Thomas Alva Edison was born on February 11, 1847 in Milan, Ohio. His family moved to Michigan when he was 7 years old. He went to school for a short time and then was educated by his mother at home. He loved to read and always worked hard. He liked to take things apart and see how they worked and then decided to start inventing things himself. Edison, who was called Al when he was a child, had Scarlet Fever when he was young and this affected his hearing.

At age 12, Al went to work on the railroad selling newspapers on the train. He spent a lot of time on the train and eventually started doing science experiments in one of the baggage cars. Al also printed his own newspaper, *The Weekly Herald*, which he sold on the train. Then he became very interested in the telegraph and learned how to send coded messages over a wire to someone far away using Morse Code. At age 15, he travelled around to different cities to work on the telegraph.

Edison took a job in Boston and invented an automatic vote counter that legislators could use to count votes. Unfortunately, this invention was not well received so Edison kept trying to invent something else. He moved to New York City and found a way to improve the stock ticker that keeps track of the changing stock prices and by 1870 was producing the ticker at a factory in Newark, New Jersey. He also found a way to improve the telegraph.

Thomas Edison married Mary Stilwell in December, 1871 and they had three children: Marion, Thomas, Jr., and William. They moved from Newark to Menlo Park, New Jersey (now part of Edison Township), where Edison built his most famous laboratory. Edison is often called "the Wizard of Menlo Park" because of his work at this laboratory where he invented the phonograph and perfected the incandescent light bulb.

Edison's wife, Mary, passed away in 1884. Thomas married Mina Miller in February, 1886 and they had three children: Madeleine, Charles and Theodore. They lived in Glenmont, a large home in West Orange, NJ, where Edison built a much larger laboratory and continued to invent. While working in this laboratory, he invented the first successful motion picture camera, improved the phonograph, and invented an alkaline storage battery. Edison earned half of his 1093 patents while working in West Orange.

Thomas Edison was awarded a Congressional Gold Medal in 1928 for all of his work and inventions during his lifetime. Thomas Edison died on October 18, 1931 at the age of 84.

Brief Biography of Henry Ford (1863-1947)

Henry Ford was born on July 30, 1863 on a farm in Dearborn, Michigan. He was the oldest of six children and went to a one-room schoolhouse and helped work on the farm. Henry was always tinkering and liked to take watches apart to see how they worked.

At age 16, Henry went to Detroit and became an apprentice to a machinist. Then he got a job working for a company that built steamship engines. He became a certified machinist in 1882 and went to work for the Westinghouse Company, where he worked on steam engines.

Then Henry went to work at the Edison Illuminating Company (Thomas Edison's company) and was promoted to Chief Engineer after only two years. He spent his spare time working on inventing a horseless carriage or automobile. In 1896, he succeeded with his Quadricycle which he then sold so he would have money to keep working on improvements. Henry left his job at Edison's company and in 1903 formed The Ford Motor Company. Ford wanted to make cars that were affordable for everyone. He set up an assembly line for building the cars to save time and money. On October 1, 1908, Ford introduced the Model T, his vision of a better, cheaper "motorcar for the multitude."

Henry Ford married Clara Bryant in April, 1888, and they had one son named Edsel. Henry Ford died on April 7, 1947 at the age of 83.

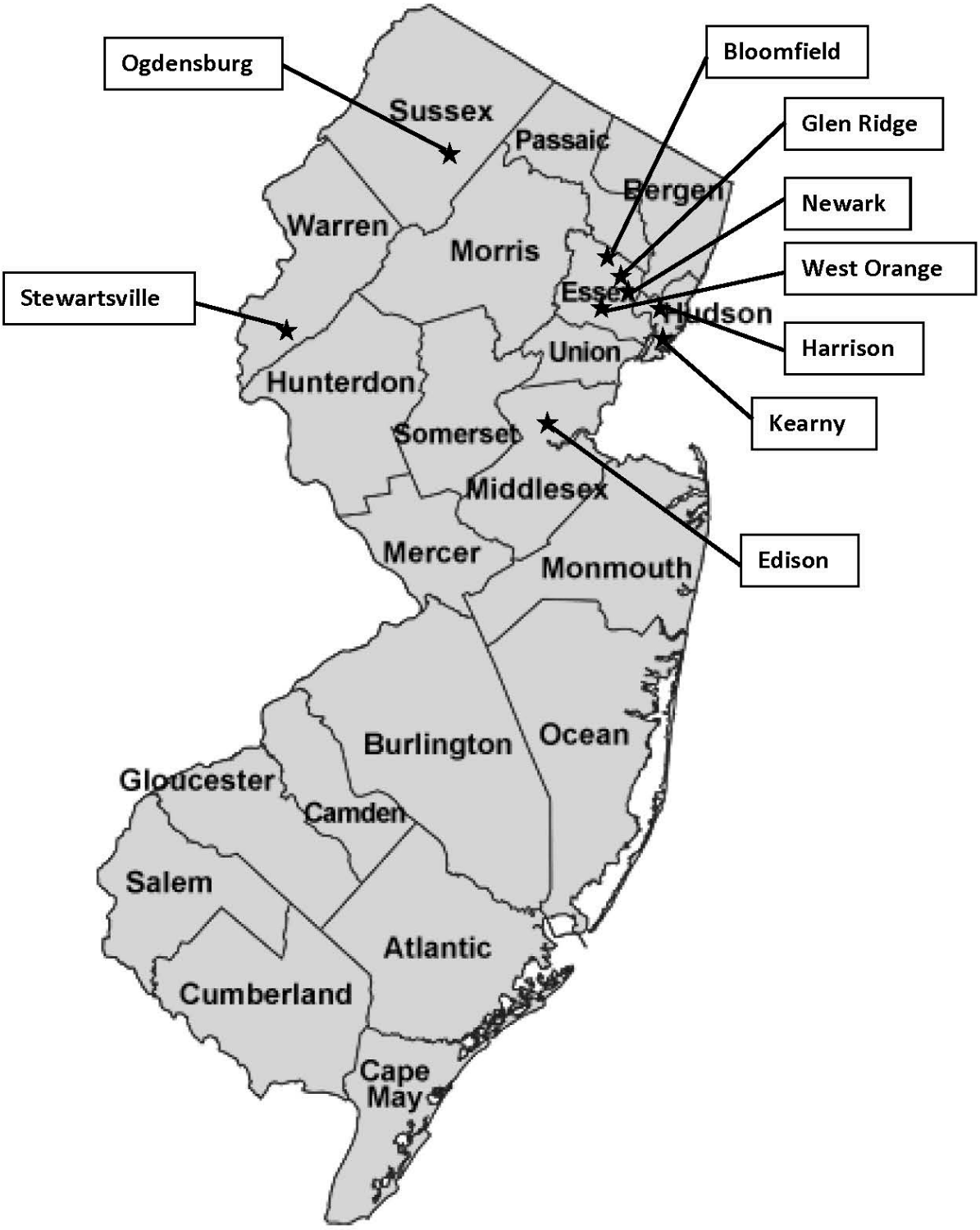
Resources:

- Resource 1: Locations of Edison's Work Sites and Residences in New Jersey
- Resource 2: Locations of Ford Motor Company Facilities in New Jersey
- Resource 3: 1927 Photograph of Henry Ford and Thomas Edison
- Resource 4: 1928 Photograph of Henry Ford Talking to Thomas Edison at Edison's Abandoned Menlo Park Laboratory Site
- Resource 5: Venn Diagram Template
- Resource 6: Venn Diagram Template (Teacher's Copy with Suggested Responses)

Activities:

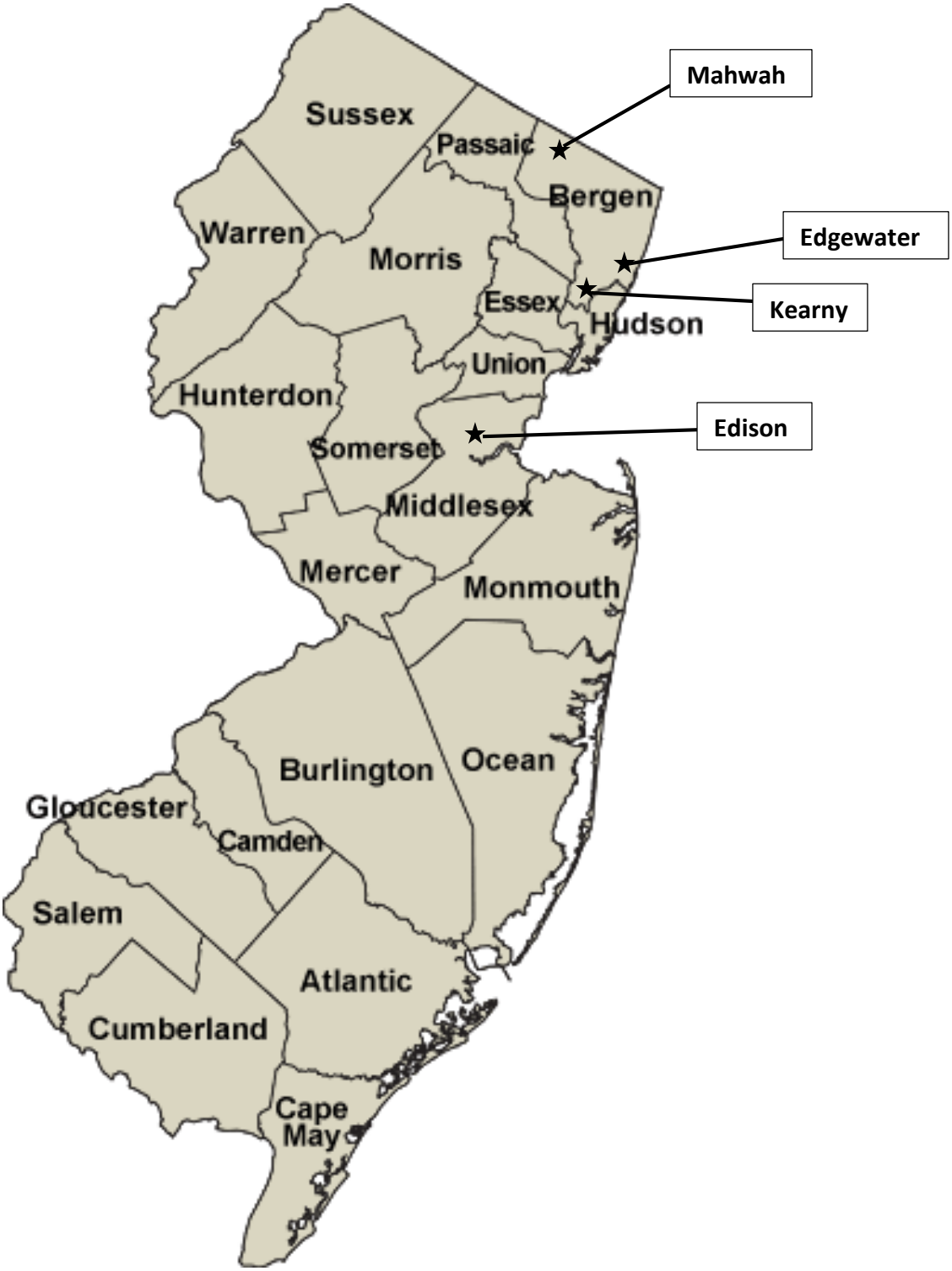
- Divide the class into two groups. Using on-line biographies and children's books, have one group gather facts about Thomas Edison and the other group gather facts about Henry Ford. Have students share all information learned with the class.
- Have the students mark-up a map of New Jersey to show towns where Henry Ford or Thomas Edison either had a facility or lived. Ask them to see how many towns had facilities representing both men (Resources 1 & 2).
- Discuss any facts known about Thomas Edison and Henry Ford. Tell students that these two men were alive at the same time and were friends. Show historic pictures (Resources 3 & 4) of Thomas Edison and Henry Ford together.
- Create a Venn Diagram (Resources 5 & 6) about Edison and Ford and discuss.

Resource 1: Locations of Key Edison Work Sites and Residences in New Jersey



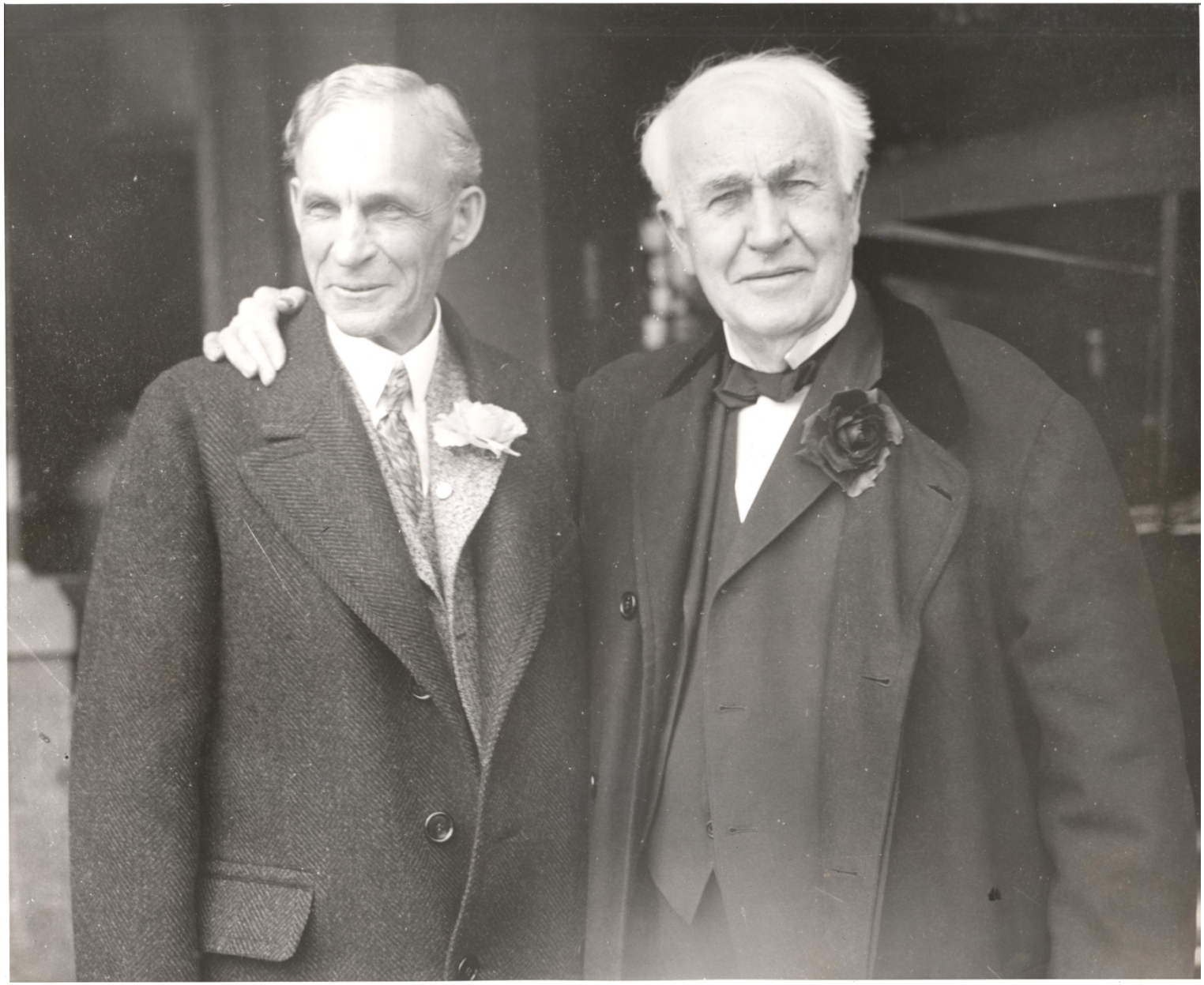
Source of the base map: Rutgers website, https://njaes.rutgers.edu/county/

Resource 2: Locations of Ford Motor Company Assembly Plants in New Jersey



Source of the base map: Rutgers website, https://njaes.rutgers.edu/county/

Resource 3: 1927 Photograph of Henry Ford and Thomas Edison

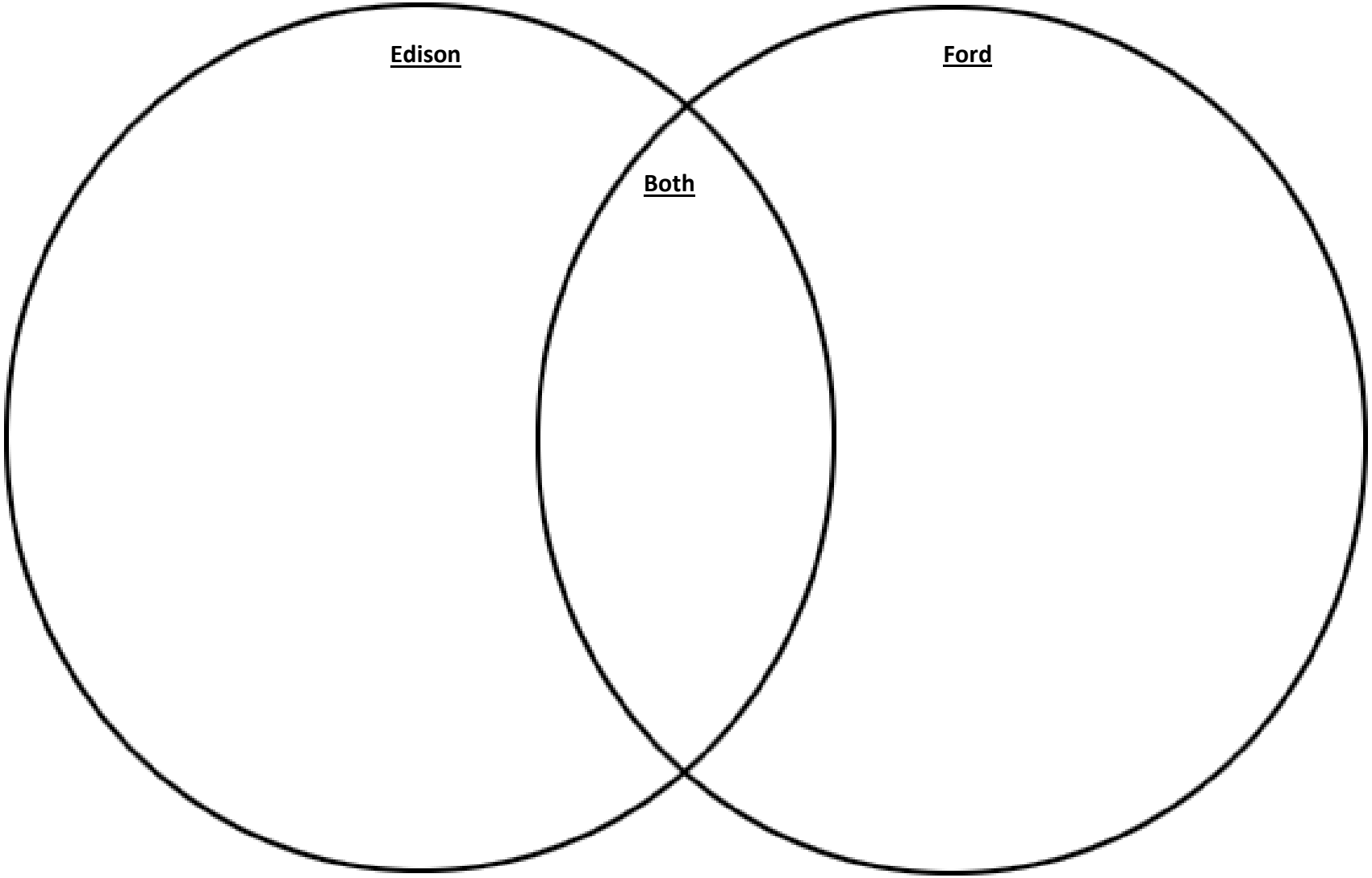


Source: Thomas Edison National Historical Park

Resource 4: 1928 Photograph of Henry Ford Talking to Thomas Edison at Edison's Abandoned Menlo Park Laboratory Site

Source: From the Collections of The Henry Ford Museum

Resource 5: Venn Diagram Template



Thomas Edison and Henry Ford

Resource 6: Venn Diagram Template (Teacher's Copy with Suggested Responses)

Edison

Born in Ohio on Feb 11, 1847
Moved to Michigan when 7 years old
Had Scarlet Fever and had trouble hearing
Started working at age 12
Worked on railroad selling newspapers
Became a telegraph operator
Lived in Boston and NYC
Built a laboratory in Menlo Park, NJ
Invented the phonograph and electric light system
Built another lab in West Orange, NJ
Invented motion picture camera and alkaline storage battery
Had 3 children with first wife and 3 children with second wife
Earned 1093 patents
Awarded a Congressional Gold Medal in 1928
Died October 18, 1931

Both

Liked to take things apart and see how they work
Spent time inventing
Liked to camp and be outdoors
Friends with each other
Worked on developing an electric car
Married

Ford

Born in Michigan on July 30, 1863
Became an apprentice to a machinist at age 16
Worked at Edison Illuminating Co
Became Chief Engineer after 2 years
Invented Quadricycle in 1896
Started Ford Motor Co in 1903
Model T was introduced in 1908 and was a success
Had one son
Used assembly line so that cars could be more affordable
Started Ford Foundation to donate to education and research projects
Had Edison's Menlo Park Lab recreated in Greenfield Village, MI
Ford made war equipment during WWII
Died April 7, 1947

Thomas Edison and Henry Ford

Reference Material

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Letter from Charles Edison to Thomas and Mina Edison, 7 May 1929. Courtesy of the Charles Edison Fund and Thomas Edison National Historical Park. Online at Thomas A. Edison Papers, Rutgers University, (TAED X018A3). http://edison.rutgers.edu/.

The Life of Henry Ford: A micro-site providing a brief overview of Henry Ford as a young boy, his work as an engineer, his innovations with Ford Motor Company, his other interests and activities, and his legacy. http://www.thehenryford.org/exhibits/hf/default.asp.

Thomas A. Edison, Incorporated, "Where Thoroughness is a Tradition" booklet, 1947.

Thomas Alva Edison. The Biography.com website. http://www.biography.com/people/thomas-edison-9284349.

Thomas Edison Center at Menlo Park (includes Edison Museum and the Edison Memorial Tower) http://www.menloparkmuseum.org.

Thomas Edison National Historical Park, http://www.nps.gov/edis/index.htm.

Suggested Resources

Places To Visit:

Thomas Edison National Historical Park
211 Main Street, West Orange, New Jersey, including Thomas Edison's home and laboratory.

The Thomas Edison Center at Menlo Park
37 Christie Street, Edison, New Jersey, including the early twentieth century Edison Memorial Tower, a small Edison museum, and the 36-acre Edison State Park.
http://www.menloparkmuseum.org.

The Henry Ford Museum and Greenfield Village
20900 Oakwood Boulevard, Dearborn, Michigan, including an extensive collection of artifacts and a re-creation of Edison's Menlo Park Laboratory.

Historical Collections:

Thomas Edison National Historical Park
The Park has extensive archives related to Thomas Edison, including correspondence, company records, and photographs. In addition, information can be found on their website:
http://www.nps.gov/edis/index.htm.

Thomas A. Edison Papers, Rutgers University
The Edison Papers has copies of correspondence online as well as on microfilm. In addition, their website has extensive information on Thomas Edison and his inventions:
http://edison.rutgers.edu/.

The Henry Ford Museum and Benson Research Center
The Henry Ford has an extensive collection of archival material and artifacts related to Henry Ford, including the items that he collected pertaining to his friend Thomas Edison.
http://www.thehenryford.org.