

02000338

OMB No. 1024-0018

(N/A) vicinity of

NATIONAL REGISTER OF HISTORIC PLACES -- REGISTRATION FORM

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in "Guidelines for Completing National Register Forms" (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic nameCherokee Brick and Tile Companyother names/site numberCherokee Brick Company

2. Location

street & number3250 Waterville Roadcity, townMaconcountyBibbcodestateGeorgiacodeGAzip code31213

(N/A) not for publication

3. Classification

Ownership of Property:

(x) private

- () public-local
- () public-state
- () public-federal

Category of Property:

- () building(s)
- (x) district
- () site
- () structure
- () object

Number of Resources within Property:	Contributing	Noncontributing
buildings	11	10
sites	2	0
structures	11	8
objects	0	0
total	24	18

Contributing resources previously listed in the National Register: N/A Name of previous listing: N/A Name of related multiple property listing: N/A

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this nomination meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets the National Register criteria. () See continuation sheet.

Signature of certifyin

W. Ray Luce Historic Preservation Division Director Deputy State Historic Preservation Officer

In my opinion, the property () meets () does not meet the National Register criteria. () See continuation sheet.

Signature of commenting or other official

State or Federal agency or bureau

5. National Park Service Certification

I, hereby, certify that this property is:

- (ventered in the National Register
- () determined eligible for the National Register

() determined not eligible for the National Register

() removed from the National Register

() other, explain:

() see continuation sheet

or	
Keeper of the National Register	Date

Date

4.11.02

6. Function or Use

Historic Functions:

Industry: manufacturing facility, extractive facility, water works Commerce: office building Transportation: railroad tracks, bridge, tunnel, rail cars

Current Functions:

Industry: manufacturing facility, extractive facility Commerce: office building Transportation: railroad tracks, bridge, tunnel, rail cars

7. Description

Architectural Classification:

No Style

Materials:

foundation	Brick
walls	Brick
roof	Other: tar and gravel
other	Metal

Description of present and historic physical appearance:

Summary

The Cherokee Brick and Tile Company is a historic industrial facility that represents the entire brickmaking process from mining and transportation of clay to manufacture and shipping of brick. The 4,000-acre historic district is bisected by the Norfolk Southern Railroad Brosnan Yard, with the manufacturing plant to the west and the clay mines and clay reserves to the east. The two principal brick-making buildings at the plant are the combined Plant Nos. 1 and 2 (1920-1922, 1960s) and Plant No. 3 (1947-1949). A large gambrel-roofed clay storage building (1926) sends clay to both main buildings by overhead conveyors. Finished bricks ready for shipping are stacked along spur railroad lines on the site of earlier kilns. Smaller historic buildings include the office (1949), laboratory (1947), and various sheds (1930s).

The company's clay mines and clay reserves are located in the flood plain between the brick plant and the Ocmulgee River. The earliest mines from the 1870s are long furrows created by hand

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scraping the ground for clay. Later mines are larger, rectilinear pits, often filled with water. The dynamite shed on the east side of the rail yard is the only surviving building on the site of the company's original brick manufacturing plant. The historic district also includes networks of roads and rail lines, several surviving rail cars, and a plate-girder turntable bridge across the Ocmulgee River. The site of the original Cherokee brick manufacturing plant is located east of the Brosnan Yard. The site is marked by a dynamite shed, built about 1915, though no brick manufacturing buildings survive. In addition, the site of the Bibb Brick Company, which the Cherokee Brick Company acquired in the late 1930s, is located at the very north end of the historic district.

The Brick Manufacturing Plant

The brick manufacturing plant is located on the west side of the historic district and is separated from the clay mines and clay reserves by the north-south oriented, functionally unrelated, nonhistoric Brosnan Yard. The plant is dominated by the two principal buildings: Plant Nos. 1 and 2, and Plant No. 3 (photo 1). Both of these buildings are oriented to the Central of Georgia rail line to the west, which is used to transport the finished bricks. Numerous smaller buildings, such as offices, laboratories, and sheds, surround the two main buildings. The oldest buildings display brick or hollow tile walls that were made by the company when the plant was established at this location in 1904. Most buildings have been modified over time as the business expanded to meet increased demands for its product. Some buildings display a variety of brickwork, essentially a historical record of the various products the company has manufactured over time with different sizes, colors, and textures of brick manufactured since the early 20th century. Although the buildings exhibit little ornamentation, they are distinctive because of their large scale, massing, and indigenous materials manufactured at the site.

The following description of the brick manufacturing plant traces the transformation of clay into brick beginning with the **brick screen and grinding building** [noncontributing] (photo 29). Constructed in 1985, the screen and grinding building houses the raw material harvested from mines. Here, the clay is ground and screened to remove or pulverize small pebbles, pyrite, and other stony substances that interfere with the manufacturing of bricks. The clay is then mixed with kaolin and a fine granite powder called "grog." The building has steel beams and girders that support a gable roof surfaced with metal panels. Developed essentially as a utilitarian structure, the building has no walls and an earthen floor.

Clay is transported from the screen and grind building either by a conveyance system or, in some instances by vehicle to the **clay storage building** [contributing] (photos 18-20). The Stephens-Adamson Company of Illinois drafted the plans for the building, which was completed in 1926. Historically, clay was stored here, and mixed with kaolin, but expansion of the business compelled the company to build the brick screen and grinding building. Currently, some special mixtures of clay are stored here, but most clay simply moves through the building by the original wood conveyance system to factories where bricks are formed and burned. The clay storage building rises thirty-five feet with a high gambrel roof supported by steel scissor trusses. Corrugated metal panels protect the roof and side walls of the building, and a brick wall supports the roof system. Conveyance systems

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pierce the roof and walls. Oriented on an east-west axis, the building has a series of shed extensions that protrude from each end, and two concrete silos stand at the northeast elevation. Various pedestrian openings provide access to the interior, and a vehicle bay opens along the north elevation.

The conveyance systems projecting from the clay storage building ferry the clay into the main brickmaking plants of the company. Because of their large size, these are among the most dramatic features of the historic district. These two buildings house the operations where the bricks are manufactured. The conveyors dump the clay into pug tubs, where a sufficient amount of water is added to make the material into a pasty, workable substance. The material then flows into a pug mill, essentially a vacuum chamber that removes air from the clay. Then, the clay is forced through an extruder, which forms the substance into a continuous column (photo 5). The columns are cut into eight-foot lengths called "slugs." Each slug is then pushed through a bank of brick cutters, or heavy gauge wires, that form the individual bricks (photos 7-10). The bricks are pushed onto a table, where they are placed by hand onto metal kiln cars, which run on steel rails (photo 6). Once filled with brick, the kiln cars are pushed into holding rooms, and then into driers, where excess moisture is removed. After exiting the driers, the cars are pushed into the kilns, where the bricks are fired, or burned. After the firing, the kiln cars are transferred to the packaging area where the bricks are removed by hand and placed into bins, which form the products into cubes for shipping. The cubes are packaged, and then forklifts remove the products to the loading yard for storage and shipment.

The two main plants of the company are the largest buildings in the district. Each contains approximately one hundred thousand square feet of interior floor space. **Plant Nos. 1 and 2** [contributing] (photos 1-11) are contained within one building. Construction began in 1904, and modifications were made over time to accommodate new technology and physical expansion of the business. At its peak, the building rises the equivalent of three stories, although it has one floor with catwalks leading to areas above the machinery. The building has a rambling, irregular floor plan with three large, shallow-pitched gable roofs. From these radiate a series of smaller flat and shed roofs. Roofs are supported by a complex structure of steel columns, beams, and trusses. Steel-crimp panels protect this complex roof plan. Two round steel chimneys and a square ventilator shaft with a shed roof pierce one of the main roofs, and a series of smaller, round ventilators punctuate the ridge of the tallest roof. A low monitor roof extends the length of one of the primary gables. Only a few windows interrupt the steel-panel walls, which are devoid of ornamentation. Vehicle bays and loading docks punctuate the walls surfaces, and a continuous poured concrete foundation supports the building.

Although substantial portions of the building were built in the 1960s and 1970s (which are identified by the continuous welded steel beam-and-column structure system), the west wall and southwest corner consist of bricks manufactured and laid to form the building in the early 20th century (photos 3 and 4). Protected by the steel shell of the present building, these walls were built between 1904 and 1924 to accommodate the pug mill, molding rooms, stationary boilers, machinist's rooms, and other areas of the factory. The original walls that contained quarters for convicts who performed menial labor tasks (pre-1909) for the company still remain. Buttresses, pilasters, narrow arched openings,

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and a patchwork of bricks that differ in hue and size convey a sense of the organic nature of the historic expansion of the building over time.

Adjacent to Plant Nos.1-2 on the northwest side of the building is the **coal silo** [contributing]. This silo is built of concrete reinforced on the exterior with metal hoops. It is covered by a conical metal cap. Although no longer used, it remains connected to Plant Nos. 1-2 by an overhead pipe.

Plant No. 3 [contributing] is located north of Plant Nos. 1 and 2 (photos 12-17). The Allied Engineering Division of the Ferro Enamel Corporation of Cleveland, Ohio, prepared the plans for the plant in 1946. Golian Steel & Iron Company of Atlanta began construction in January 1947. In November 1949, the new facility was featured in *Clay and Brick Record,* a nationally distributed trade journal published in Chicago, Illinois.

Plant No. 3 has an L-shaped plan covered by shallow-pitched shed roofs. The roofs are covered with steel panels and divided by arched-roof monitors. A shed extension projects from the southwest elevation, and a metal roof with a polygonal form rests on steel poles at the north elevation. The walls were built of brick and hollow tiles. Metal sliding doors protect delivery bays along the east and west elevations. The two linear kilns, which run the length of the building, burn brick at 2,100 degrees Fahrenheit and can produce 100,000 bricks every twenty-four hours (photos 16 and 17).

The **garage** [contributing], built in 1925, stands west of Plant Nos. 1 and 2 (photo 21). It was built as a twelve-bay, brick- and hollow-tile garage for mules and was later used for vehicles. Four bays were eliminated when the main office was built above it. The garage is still used to house vehicles and equipment.

The **main office building** [contributing] (photos 12 and 21) is located above the garage and includes below-grade office spaces. Constructed in 1949, it features a flat roof with tar-and-gravel surfacing, two flat extensions, brick walls, and fixed windows. An entrance porch with a flat roof and canopy opens at the northwest elevation. Ornamentation is restricted to slender belt courses and quoins.

An earlier office building, presently known as the **laboratory** [contributing] (photos 24-26), stands at the southwestern edge of the factory site. It displays an irregular plan with a cross-hip roof protecting the main body of the building. A shed extension with an arched-door opening projects from the northwest, or front facade. Another shed extension extends at the northeast elevation, and shed and curvilinear roof extensions protrude from the southwest elevation. A variety of brick products produced by the company serve as the exterior wall fabric, except for the curvilinear roof extension, which is fabricated with corrugated metal panels and steel poles. Diminutive gable and shed roofs supported by wood braces mark two doorways. Although some window openings have been filled with brick, several one-over-one light and six-over-six light double-hung sash windows and a five-light hopper window admit natural light into the interior.

Constructed about 1904, the laboratory has expanded over time. Initially, it had a rectangular shape. Then, in 1919, W. T. Johnstone prepared the plans for an expansion that formed an L-shape, with

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small shed extensions on the north and east elevations. In 1947, Macon architect W. Elliott Dunwody, who was also a director of the company, drafted plans for an addition along the north elevation, and interior alterations to the building. The metal curvilinear extension at the west elevation was built in the 1960s.

The **brickyard** [contributing] is located southeast of the laboratory where a dozen or more bee hivetype kilns had once been located (photos 23, 24, and 27). Established in the first decades of the 20th century, the brickyard is a mostly paved area where finished bricks from Plant Nos. 1 and 2 are brought to be loaded onto the rail cars and transported to customers. A siding from the Central of Georgia line bisects the yard. Two loading and packing sheds, built in c.1935, are located in the brickyard. The **rail car loading shed** [contributing] (photo 27) has a rectangular shape, and a gable roof supported by metal poles and protected by corrugated steel panels. The **brickyard shed** [contributing] is an L-shaped structure composed of gable and shed roof components, corrugated metal panels, and steel supports. The network of flues and the remains of the bee-hive kiln foundations are also located in the area.

Clay Mines and Related Resources (east of the Brosnan Yard)

Historic mines occupy most of the historic district. The mines are located in the flood plain between the Brosnan Yard and the Ocmulgee River. The oldest mines, called **"finger strip" mines** [contributing], date from the 1870s (photos 32-37). Located near the first brick-making plant, these mines appear as long furrows because the clay was excavated by hand and with mules. The clay was hauled to the plant by wagons. Some open-pit mines abandoned long ago have become large ponds. The finger strip mines have filled with water and appear as a series of canals called long ponds.

The mines are linked to the brick-making plant by the historic transportation corridor. The company established a **system of roads** [contributing], and in 1902, established a **rail system** [contributing] that expanded over time as the company acquired new clay reserves. In the 1920s, the company expanded the rail system, and by World War II, the business had built nearly ten miles of tracks to haul the clay by rail car. Parts of the historic railroad bed have been covered to form a clay roadway, but some rails are visible in the middle of the road (photo 43). In other portions, only a raised roadbed remains, because the rails, ties, and fasteners were dismantled several decades ago (photos 34).

Three **rail cars** [contributing] stand abandoned northeast of the mine shop (photos 44). Acquired by the company about 1936, the cars have conventional coupling, frame, and truck systems. Raised beds with steel frames, wood side panels, and side-dump mechanisms make these rail cars unusual to the brick industry. The cars, used to haul clay from mine to factory, were abandoned after the company began using dump trucks to haul clay from the mines.

The company's mines transformed the landscape from former wetlands, forest, and farmlands to an industrial site. In some cases, wetlands were drained to permit equipment and laborers to harvest

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clay. The process of creating the mines was developed without a master plan. Instead, after the company confirmed the presence of clay and assembled parcels in the Ocmulgee River basin south of Macon, a rail-haulage system was extended to the areas that held the greatest promise of good clay reserves. Clay was stripped out of pits and channels until those veins yielded levels of sand, rock, or other substances unsuitable for the manufacture of bricks. Then, the company moved its mining operations to adjacent deposits.

Large, **open-pit mines** are located in the center of the historic district. These large-scale mines represent the mechanization of the clay extraction process. Some of these mines date from the 1940s [contributing] and 1950s (photos 42, 43, and 45). Mines excavated after 1950 are located in the east end of the historic district and cover several hundred acres [noncontributing] (photos 46-50). Some of these mines are inactive while others continue to yield clay. Clay reserves are piled in this area so that brick production could continue if the mines are flooded by the Ocmulgee River (photo 51).

In 1965, Cherokee Brick built a **tunnel** beneath Norfolk Southern's Brosnan Yard to link its clay mines with the brick-making plant (photo 30). The tunnel is located outside the historic district in the discontiguous area between the brick manufacturing plant and the clay mines and clay reserves. Fabricated with heavy-gauge corrugated steel, the structure is located on the historic alignment of the company's railroad that was developed to transport clay. This underground crossing of railroads was initially at grade. Then, in the 1920s, an underpass was installed to improve safety, and eliminate the grade crossing. At that time, the company's clay trains began to travel under the mainline of the Southern Railway. Later, when the Brosnan Yard was completed in 1965, the tunnel was rebuilt.

Mainline railroad tracks bisect the historic district in two areas. One part of the Norfolk Southern mainline runs southeast from the Brosnan Yard. Its **rail bed** [contributing] runs across company property for less than three miles, and then crosses the Ocmulgee River at the south end of the historic district. This alignment is part of the original Macon & Brunswick Railroad line that was built in 1859. The mainline crosses the river on a single-track, **through-plate girder, turntable bridge** [contributing] (photos 38-40). The bridge was fabricated in 1928 by the Virginia Bridge & Iron Company of Roanoke, Virginia.

Another section of mainline extends northwest from the Brosnan Yard. The **rail bed** [contributing] line was built about 1887 as part of the Georgia Southern & Florida Railway (GS&F), which was later absorbed by Southern Railway. The one-mile segment of line in the district contains a double-track, **through-plate, fixed-girder bridge** [contributing], which was fabricated by the Virginia Bridge & Iron Company in 1916.

Built about 1948, a **mine shop** [contributing] stands northeast of the tunnel beneath the Brosnan Yard. The mine shop features a rectangular plan with a gable roof and shed extension covered with metal 3-V crimp panels. The north and west elevations are enclosed with metal panels; the other two elevations remain open. Wood poles and concrete walls support the building. Its primary function is to house tools and equipment used in mining operations.

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A **dynamite shed** [contributing] is the only building on the site of the company's first brick-making plant, which was located east of the tunnel (photo 31). Built about 1915, the shed has a rectangular plan with a gable roof covered with in corrugated metal and 3-V crimp panels. A brick chimney pierces the roof ridge. The wood-and-metal framed building has sliding metal doors. It currently serves as a storage shed.

Between the old GS&F alignment and the company's brick-making plant is **Tuft Spring** [noncontributing in the context of this brickyard nomination, but possibly significant in the context of Macon's water works]. Developed in 1880, Tuft Spring was the site of the Macon Gas-Light Company and, later, the Macon Water Works. In 1886, the spring supplied several million gallons of water each day to the residents of Macon. By 1912, the spring could no longer supply the needs of the city, which abandoned it and dismantled the buildings and equipment. In 1959, Cherokee Brick & Tile Company acquired the property from the City of Macon. About ten years ago, the company constructed small masonry structures over the primary and secondary wellheads to protect the water supply. Little survives of the water works except an original wellhead capped with a steel plate embossed with the initials "M. W. W." Though located in the historic district near the brick-making plant, Cherokee Brick utilized other water sources for its plant.

Another important feature of the historic district is a **levee** [contributing] designed by the U.S. Army Corps of Engineers. Constructed by W. T. Anderson, Inc., of Thomson, Georgia, in 1949, the levee was built to protect factories, including portions of the Cherokee Brick Company, south of Macon from Ocmulgee River floods. The five-mile structure forms a large arc that extends south from the Ocmulgee River and west across the historic district to the Norfolk Southern Railway line; approximately two miles of the levee is located in the historic district.

photos 1-11 photos 12-17 photos 18-20 photos 12 and 21

photo 21 photos 24-26 no photo photo 31 photo 27 no photo no photo

National Register of Historic Places Registration Form Continuation Sheet

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Inventory of Contributing and Noncontributing Resources

Contributing Buildings

Plant Nos. 1 and 2	(1 contributing building)
Plant No. 3	(1 contributing building)
Clay Storage Building with	attached silos (1 contributing building)
Office	(1 contributing building)
Garage	(1 contributing building)
Laboratory	(1 contributing building)
Mine Shop	(1 contributing building)
Dynamite Shed	(1 contributing building)
Rail Car Loading Shed	(1 contributing building)
Brickyard Shed	(1 contributing building)
Large Shed	(1 contributing building)

Contributing Structures

Brick-making equipmer	nt throughout plant (1 contributing structure)	photos 7-9 and 15-17
Mine system	(1 contributing structure)	photos 32-37
Internal rail system	(1 contributing structure)	photos 33 and 43
Road system	(1 contributing structure)	photo 41
Rail cars	(3 contributing structures)	photos 44
Main line railroad syste	m with two bridges (1 contributing structure)	photos 38-40
Levee	(1 contributing structure)	no photo
	ns and flues (1 contributing structure)	no photo
Coal silo	(1 contributing structure)	no photo

Contributing Sites

Original Brick Manufacturing Site	(1 contributing site)	photo 31
Bibb Brick Company Site	(1 contributing site)	no photo

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Noncontributing Buildings

Machine Shop	(1 noncontributing building)	photo 14
Electrical Office	(1 noncontributing building)	photo 13
Clay Preparation Building	(1 noncontributing building)	no photo
Auto Shop	(1 noncontributing building)	no photo
Forklift and Electrical Building	(1 noncontributing building)	no photo
Screen and Grind Building No. 1	(1 noncontributing building)	photo 28
Screen and Grind Building No. 2	(1 noncontributing building)	photo 28
Screen and Grind Building No. 3	(1 noncontributing building)	photos 28 and 29
Clay Storage Building No. 2	(1 noncontributing building)	photo 28
Loading Office	(1 noncontributing building)	no photo

Noncontributing Structures

Post-1949 mine system	(1 noncontributing structure)	photos 45-50
Post-1949 brick-making	equipment throughout plant (1 noncontribut	ing structure) photos 5 and 6
Diesel fuel tank	(1 noncontributing structure)	no photo
Propane Plant	(1 noncontributing structure)	no photo
Power Station No. 1	(1 noncontributing structure)	no photo
Power Station No. 2	(1 noncontributing structure)	no photo
Tuft Spring*	(1 noncontributing structure)	no photo
Overhead conveyor**	(1 noncontributing structure)	no photo

*Noncontributing in the context of this brickyard nomination. May be shown to be significant in the context of Macon's water works.

**Noncontributing in the context of this brickyard nomination. Is significant in the context of the adjacent Burns Brick Company and the National Register-listed Macon Railroad Industrial District.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

() nationally (x) statewide () locally

Applicable National Register Criteria:

(x)**A** ()**B** (x)**C** ()**D**

Criteria Considerations (Exceptions): (X) N/A

()A()B()C()D()E()F()G

Areas of Significance (enter categories from instructions):

Architecture Engineering Industry

Period of Significance:

1877-1949

Significant Dates:

1877 - C. C. Stratton established the Stratton Brick Company southeast of Macon

1904 – Company relocates brick-making plant three-quarters of a mile northwest and changes its name to Cherokee Brick Company.

1948 – Company changed its name to Cherokee Brick and Tile Company to reflect the importance of hollow tiles in its line of products.

1949 - Company built Plant No. 3, dramatically increasing its production of brick.

Significant Person(s):

N/A

Cultural Affiliation:

N/A

Architect(s)/Builder(s):

Dunwody, W. Elliott (architect)

Section 8--Statement of Significance

Narrative statement of significance (areas of significance)

Cherokee Brick and Tile Company is among the oldest brick manufacturing companies in Georgia still in operation. The 4,000-acre complex includes the clay mines and reserves that provided the company with raw materials, a network of roads and rail lines to transport the clay, the manufacturing plant where the bricks were produced, and loading facilities where brick was shipped to customers. Cherokee Brick is an important surviving brick plant because it features historic resources, including equipment as well as buildings and structures, from all aspects of brick production from the last quarter of the 19th century through the middle of the 20th century. As a modern manufacturing business, Cherokee Brick is unusual because it has continued to grow while leaving historic resources associated with its early growth and development intact, and in many cases incorporating them into present-day brick production. By the mid 20th century, Cherokee Brick was one of only a dozen brick manufacturing plants still in operation in Georgia so it represents an exceptionally rare historic resource.

The Cherokee Brick and Tile Company historic district is significant under the theme of <u>architecture</u> and <u>engineering</u> because many of its buildings reflect modern industrial design from the early decades of the 20th century. Plant Nos. 1 and 2 and especially Plant No.3 were designed with highly engineered structural steel framing, including posts, columns, beams, and trusses, for long roof spans that could provide vast expanses of open floor space. These unobstructed interior spaces were necessary for the large brick-making equipment and operations. Clerestory roofs and monitor windows provided light and air to the manufacturing floor. The gambrel-roofed clay storage building utilizes an unusual scissor truss, almost unique in Georgia in the 1920s, to establish a high clearance for the mounds of stored clay. These buildings, especially Plant Nos. 1 and 2 and Plant No. 3, represent the largest non-military historic industrial buildings in Georgia. It is also significant that the buildings at the manufacturing plant incorporate many of the company's brick and tile products, which is best seen in the variety of clay products used to construct the laboratory.

The Cherokee Brick and Tile Company historic district is significant under the theme of <u>industry</u> because it was among the oldest and largest brick-making companies in Georgia. Its extant historic brick-making equipment represents the process of brick manufacture in Georgia from the last quarter of the 19th century through the mid-20th century, and includes: the conveyance system and clay mixing and weighing equipment in the clay storage shed, brick cutting machines, kiln cars and rail cars, and the linear kilns. The layout and arrangement of the entire facility, which includes the brick-making plant and the clay mines and clay reserves, illustrates the historic and current process of brick making, including the evolution of the clay extraction process from the early mines that were excavated by hand to the later mines that were shaped by mechanized equipment. The brick company's location near two major rail lines and the expanded shipping possibilities that they provided was important to the growth and development of the company. Both rail lines are in use and include their historic rail beds as well as two examples of 20th-century plate-girder bridges, one an unusual turntable bridge. In addition, the historic levee built by the U.S. Army Corps of Engineers, is a physical testament to the importance of brick-making facility and other Macon industries along the

Section 8--Statement of Significance

Ocmulgee River. Two-fifths of the levee's five-mile length is included within the historic district.

Two historic sites important to the industrial development of the Cherokee Brick and Tile Company are located in the historic district. The first is the site of the company's first brick manufacturing plant that was established by C. C. Stratton in 1877. The only building located on the site, which is located east of the Brosnan Yard, is the dynamite shed which was built after the brick-making plant had moved west of the Central of Georgia Railroad line. The second historic site, located in the northernmost part of the historic district, is the site the Bibb Brick Company, which was established in 1900. Cherokee Brick acquired Bibb Brick in the late 1930s and later demolished the entire complex. There have been no archeological investigations at either of these two sites.

Developments at Cherokee Brick represented statewide and national trends in the clay mining and products industry. Also tied closely to the history of building construction trends in the South, the district contains buildings, sites, and structures that supported the mining, manufacturing, and transportation of bricks. Operating in an equipment-intensive industry, the company consistently turned to well-known manufacturers of cutters, dryers, kilns, and other brick making equipment in Illinois, Indiana, and Ohio. The company also invested in steam shovels and dredges to harvest clay. In addition, the company purchased steam locomotives and cars from Glover Machine Works, a prominent manufacturer in Marietta, Georgia. Clay was hauled by steam locomotives that pulled rail cars specifically designed to facilitate loading clay at the mines and emptying clay at the processing plant, three of which survive. Eventually, the company laid ten miles of rail line, much of which remains in place today as earthen berms. Cherokee Brick and Tile Company typically invested in state-of-the-art equipment for its production of brick. The historic equipment and layout of the plant are consistent with national and statewide trends in the American brick industry.

National Register Criteria

A—Because the brick-making equipment and clay mines represent brick manufacture in Georgia from the late 19th century through the mid-20th century.

C—Because many of its buildings reflect modern industrial design in the early decades of the 20th century.

Criteria Considerations (if applicable)

N/A

Period of significance (justification)

The period of significance begins with the establishment of the brick company in 1877 and ends in 1949 when the company's land holdings assumed their current configuration. Plant No. 3, the last major historic building constructed by the company, was completed in 1949.

Section 8--Statement of Significance

Contributing/Noncontributing Resources (explanation, if necessary)

Contributing resources in the historic district are those constructed between 1877 and 1949 that are significant for the themes of architecture, engineering, and industry and which retain historic integrity. This includes resources associated with the mining and transportation of clay and the manufacture and shipping of bricks. This includes the eleven contributing buildings that range in size from the large Plant No. 3 to the small brickyard sheds.

The contributing structures include the historic system of mines (one contributing structure); the internal rail system developed by Cherokee Brick to move raw materials and finished bricks around its property (one contributing structure); three surviving rail cars used by the brick company (three contributing structures); the system of roads developed by Cherokee Brick (one contributing structure); the main line railroad (and its two historic bridges) that runs through the property and was used by Cherokee Brick (one contributing structure); the levee that was built by the U.S. Army Corps of Engineers to protect from floods important industries located along the Ocmulgee River (one contributing structure); the beehive kiln foundations and flues that survive in the brickyard (one contributing structure); the coal silo adjacent to Plant Nos. 1-2 (one contributing structure); and the historic brick-making equipment located throughout the plant (one contributing structure).

Two sites contribute to the significance of the historic district. The first is the site of the original Cherokee Brick plant, which is located southeast of the current brick-making plant. Its location is marked by the dynamite shed. The second contributing site is the site of the Bibb Brick Company located at the north end of the district. Foundations of kilns and other structures of the Bibb Brick plant, which was acquired by Cherokee Brick, survive.

The noncontributing resources were built after 1949 or have lost sufficient historic integrity so that they no longer convey their historic significance. Nearly all of the noncontributing buildings do not contribute to the significance of the historic district because they are less than fifty years of age, and most were built in the 1980s and 1990s.

The noncontributing structures include the systems of mines that were developed after 1949 (one noncontributing structure) and the post-1949 brick-making equipment located throughout the plant (one noncontributing structure). In addition, an overhead conveyor associated with the Burns Brick Company is counted as a noncontributing structure because it is not functionally related to this nomination. (The overhead conveyor, which runs north to south through one-half mile of the historic district, was built between 1948 and 1950 to transport clay from mines near the Ocmulgee River to the distant brick manufacturing plant, which was established in the 1930s. The conveyor likely meets the National Register criteria in conjunction with the adjacent Burns Brick Company. The clay shed of the Burns Brick Company is listed as a contributing building in the Macon Railroad Industrial Historic District and the tramway may be considered a structural extension of the Burns Brick Company. The tramway also appears to be individually significant as the first mono-cable tramway in the United States, and when it was built it was the longest tramway in the western hemisphere. However, in the context of this nomination it is considered noncontributing because it has no historic association with

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the Cherokee Brick and Tile Company.) Other noncontributing structures include such modern utilitarian facilities as fuel tanks, propane tanks, and electrical substations. Tufts Spring, located adjacent to the brick plant on a small tract of land not acquired by the Cherokee Brick Company until 1959, is considered a single noncontributing structure in this context of this nomination, although it may be shown to be significant in the context of Macon's water works.

See Inventory of Contributing and Noncontributing Resources in Section 7.

Developmental history/historic context (if appropriate)

Summary

The Cherokee Brick and Tile Company expanded over time as the company improved its infrastructure in response to competitive conditions and the demands for brick by contractors, developers, lumber vards, and home owners in Georgia, Florida, and elsewhere in the South. In 1877, company officials selected a site southeast of Macon in proximity to major railroad lines and clay reserves. The district achieved its current form as a factory connected to distant clay mines and reserves by a private railroad by the early 20th century. Begun in 1902, the transportation system evolved as the company sought new sources of clay and other raw materials. The brick company laid out the earliest part of the system. In the 1920s, a professional engineer was enlisted to design a longer and more elaborate alignment to distant clay reserves. As clay reserves were gradually harvested and exhausted, new areas were identified for mining, resulting in an organic patchwork of clay mines throughout the area. Development of a brick-making plant began in the 1870s. The plant was relocated and expanded in 1904. The plant was upgraded about 1913 and during the 1920s and 1940s. In 1948, the Cherokee Brick Company changed its name to the Cherokee Brick and Tile Company to reflect the importance of hollow tiles into its lines of products. By the mid-1970s, the Cherokee Brick produced 130 million bricks annually. In 2000, the company produced 170 million bricks.

History of Brick Manufacture in Georgia

Although brick making dates to antiquity, the process of transforming clay into brick changed little until the middle of the 19th century. Early American brick makers employed methods familiar to their English and European ancestors. First, a brick maker selected a place with suitable clay and nearby built molds and kilns. Clay harvested from the earth, termed "won," was then crushed and screened to remove pebbles and stones. Sand and water were mixed into the clay until the desired consistency was reached. Because clay varied in composition, each brick maker judged the amount of sand mixed into the clay for a proper composition. After churning the clay into a fine consistency, the mixture was poured into wooden or iron molds and then left in the sun or storage sheds to dry. Several weeks later, the dried bricks were baked, or "burned" in a kiln, which typically reached a temperature of 1,800 degrees. During the 20th century, brick makers relied upon coal or wood to burn bricks. Difficulty in maintaining an even fire and temperature within the kiln often resulted in bricks of uneven quality. In some parts of the South, brick makers considered their operation successful if

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three-quarters of the bricks withstood the burning process. Automation and new technology dramatically improved the craft of brick making in the late 19th century. Fast growing towns such as Atlanta and Macon, and the expansion of the cotton industry, demanded more and more bricks, with some large buildings requiring several million bricks to construct. In 1877, Cyrus Chambers, one of the visionaries and inventors of modern brick making, postulated that large-scale, brick-making operations could succeed in the machine age using steam shovels to dig clay, rails to transport the earth into large hoppers at the machine house, where the clay would be screened, mixed, tempered, molded, dried, and burned without being touched by human hands. Through Chambers' inventive genius and that of countless other inventors, new equipment emerged that permitted brick makers to dramatically increase production (Bishir et al. 1990: 202-204, 235-237).

Brick manufacture has a long heritage in Georgia. Early instances of Georgians harvesting clay to make bricks to construct buildings include references to "grey clays" found along the Savannah River. Plantation owners of Colerain, Hermitage, and Royal Vale plantations recorded the use of Georgia clays by planters as early as 1748 (Tresp 1963: 322). Later, in 1820, the Hermitage plantation near Savannah achieved significance through its industrial development of bricks, rather than its agricultural harvests. Planter McAlpin built a short-line railway to haul bricks between kilns at Hermitage. By 1889, the plantation had achieved renown for its Savannah grey brick. Railroad stations maintained by the Central of Georgia and Fort Pulaski were among the buildings constructed from bricks fired in the Hermitage kilns (Georgia Writers' Project 1943: 72).

By the 1890s, Bibb County had earned a reputation for the best clay reserves in Georgia. From this region emerged the state's leading manufacturers of clay products. Action taken by the city of Macon during the 1850s presaged the significance of clay reserves south of Macon. In 1859, the city council set aside ten acres of the public reserve at "Camp Oglethorpe" on the south side of the city for lease as "brick yard purposes," noting that a brick yard had recently occupied the site (Acts of Georgia 1859: 186). The antebellum brick-making industry south of Macon expanded following the Reconstruction period. In 1898, George Ladd, assistant geologist of the Geological Survey of Georgia, noted that the Ocmulgee River valley, with its three terraces, contained rich beds of Columbia, Lafayette, and Potomac clay varieties. He identified the H. Stevens Sons Company, founded in 1887, as the leading sewer-pipe plant in the South. The Stevens company operated a factory about a mile north of the Stratton Brick Company site (later known as Cherokee Brick Company) and owned clay reserves south of the Stratton company. The Geological Survey of Georgia listed several other brick firms operating plants on the lower terrace near the Ocmulgee River, including George Anderson, J. G. Blake, A. C. Earnest & Co., Macon Brick Works, C. J. Tool, and C. C. Stratton (Ladd 1898: 101-105).

Although Bibb County was a center of brick production in Georgia, the state's brick producers were far behind the leading clay producing regions of the United States. Between 1894, when the U.S. Department of the Interior first recorded statistics on the clay-working industries, and the 1920s, Ohio ranked first in terms of the value of clay products produced. Pennsylvania, New Jersey, and Illinois were other leading producers. In 1890, Georgia ranked sixteenth among clay product manufacturing states, producing \$1,412,792 in clay products. Although relatively few in number, when compared to

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other brick producing regions of the country, Georgia's common, face, fire, ornamental, and vitrified paving bricks were among the least expensive clay products in America (Census 1908: 880, 884).

The Panic of 1893 slowed growth, and recurrent crises in the agricultural system of the South hampered development during the first decade of the 20th century (Woodward 1951: 264-265). In large measure, the fortunes of brick manufacturers rose and fell with the state's cotton economy and cotton mill owners. In 1905, Georgia ranked eighteenth among clay-product manufacturers with fifty-nine brick-and-tile companies recorded by the census bureau (Census 1908: 880). Two years later, the state had risen as the tenth leading producer of bricks in the United States. In 1907, its factories produced 318,844,000 common bricks. Along with face and vitrified bricks, sewer pipes, and pottery the total value of bricks products produced in 106 clay-product factories in Georgia amounted to \$2,490,237 (Census 1907: 182; Department of the Interior 1908: 517, 530).

Several economic factors affected the development of Southern brick manufacturers. Perhaps the most important was cotton, the engine of the region's economy and the cash crop of many Georgia farmers. Agriculturists clung desperately to the crop, even though cotton brought less financial return in the 1890s than in the 1870s. Prices briefly rebounded in the early 20th century, and then, in 1916, the boll weevil struck the state and further eroded the market (Tindall 1967: 121). An important factor that diminished the need for brick was the invention of the Bessemer process, which converted iron into steel. Established in the 1870s and consolidated in 1880 by Andrew Carnegie, the steel industry provided a new technology that diminished the importance of brick for larger building projects. Linked traditionally to skyscraper construction, steel, and later reinforced concrete, had a significant impact on the need for brick, especially in the commercial centers of America's larger cities (Maddex 1985: 103; Oliver 1956: 319-321; Roth 1979: 172-173).

Brick production in the U.S. reached a peak in 1898, and then declined until the 1920s. Face brick and, especially, ornamental brick manufacturing plummeted in the first two decades of the 20th century. Three billion fewer bricks were produced nationwide in 1915 than in 1898. Only fire brick and sewer pipe production showed any marked increases during the period. Still, Georgia retained its ranking as the tenth largest producer of bricks during this period. Bibb County remained Georgia's leading brick region, producing 88,655,000 bricks in 1914, valued at nearly \$250,000. That year, the entire state produced 214,979,000 bricks. The average price per thousand amounted to \$5.06 and common bricks accounted for forty-three percent of all clay products in the state. Reorganization and consolidation within the industry resulted in seventy operators statewide in 1915, down from 106 companies eight years earlier (Department of the Interior 1917: 891). The consolidation process persisted throughout the 20th century. By 1919, only sixty-two brick and tile companies operated in Georgia, and a decade later only twenty-seven remained. At the close of the second decade of the 20th century, only two brick and tile companies manufactured brick in Macon, down from seven in 1898. Government observers confirmed the trend nationwide, reporting 3,500 firms in 1914 and only 2.200 in 1925. Between 1925 and 1929, 200 clay-products companies ceased operations (Bureau of the Census 1923: 282, 290; Bureau of the Census 1933: 841, 845).

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The Great Depression wreaked havoc on an already reeling clay-products industry. Nearly thirty percent of the nation's brick manufacturers entered bankruptcy between 1929 and 1931. In the latter year, only nineteen Georgia companies continued to manufacture clay products for the flagging construction industry. Three more of the state's brick-and-tile businesses fell in the next two years. Increased construction starts and signs of economic recovery, associated with the New Deal, encouraged the formation of two new brick manufacturers in Georgia between 1935 and 1937. The value of clay products in the industry jumped from \$1,184,256 to \$3,641,371 between 1931 and 1937. However, only fourteen Georgia clay-products manufacturers survived the following decade. By then, Georgia stood second only to Texas in the manufacturing of bricks in the South. Some consolidation occurred in the industry, such as the acquisition of Bibb Brick Company by Cherokee Brick Company.

Businesses that weathered the final bleak years of the Great Depression and the financial stresses of World War II benefited from a robust construction industry that demanded huge quantities of brick in the 1950s, when the nation entered one of its great expansionary periods. Still, more consolidations and bankruptcies followed, and Georgia's brick manufacturers decreased to nine by 1958, and to seven by 1982. Currently, the Brick Industry Association reports only three brick manufacturing companies in Georgia. Cherokee Brick & Tile is the only American-owned brick company in Georgia (Bureau of the Census 1935: 737, 740; Bureau of the Census 1936: 406; Bureau of the Census 1939: 847; Bureau of Mines 1953:250-261; Bureau of the Census 1961: 12; Bureau of the Census 1985: 13).

History and Development of Cherokee Brick and Tile Company

In 1877, C. C. Stratton established the Stratton Brick Company southeast of Macon near the Ocmulgee River. Geography played an important role in the historical development of the brick company, which was located near clay reserves west of the Ocmulgee River and rail lines extending south from Macon. By the middle 1880s, Stratton claimed his business had "the best machinery made for the making of bricks." He noted that his location "in the great clay belt lying between the Ocmulgee river and the old Brunswick Railroad" yielded bricks of superior quality "sought after by brick masons and builders." By 1887, Stratton had assembled a relatively large factory with drying bins, kilns, and mines to make face, hollow, pressed, and building bricks. Yard capacity amounted to 190,000 bricks daily with annual manufacturing yielding fifteen million bricks (Industries of Macon 1886: 85; *Macon Telegraph*, October 21, 1887). By 1891, the company had invested in \$25,000 worth of equipment and employed 227 workmen, one of the largest single employers in Bibb County. Annual revenues amounted to \$91,000 (*Macon Evening News*, 1890-1891 industrial issue).

The site selected by Stratton for the brick business astride the tracks of the Macon & Brunswick Railroad was fortuitous because it furnished both a nearby source of clay for manufacturing bricks and a necessary rail connection for delivering products to customers. The factory was located in land lot ninety-nine of the Macon Reserve West. Eventually, the business acquired surrounding parcels and installed its own railroad tracks and rolling stock for hauling clay from distant reserves to its plant. The company's long-term use of railroads for mining clay and hauling products to market is part of Macon's railroading history.

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Macon's railroad heritage began in the 1840s with the arrival of the Central Rail Road & Banking Company of Georgia, which had been chartered in 1833. The state's first railroad company, the Central Railroad (reorganized as the Central of Georgia Railway in 1895) completed its line into East Macon in the 1840s, but insufficient funding and resistance by City of Macon officials to permit the railroad into town forestalled the construction of a bridge across the Ocmulgee until 1857 (Black 1947: 513, 515-517; Black 1952: 30, 44; Davis 1985: 236-237; Beckum et al. 1986 3-4). By 1861, a second railroad, the Macon & Brunswick, had completed tracks from Macon southward to Hawkinsville. Partially dismantled by Confederate forces for use elsewhere and then destroyed by Federal troops, the railroad was rebuilt as the Macon & Brunswick Railroad in 1870 (Stover 1955: 128). Ten years later, the Macon & Brunswick was acquired by the East Tennessee, Virginia and Georgia, which used the 187-mile line to support its system between Atlanta and Brunswick. That rail connection, along with the Central of Georgia terminus, made Macon (the Bibb County seat of government) the second most important rail hub in Georgia (Stover 1955: 196-198).

In 1890, the Georgia, Southern & Florida Railroad, a 285-mile route popularly known as the "Suwannee River Route to Florida," connected Macon with Palatka, Florida, on the St. Johns River. The alignment of the Georgia, Southern & Florida ran just west of Stratton's brick factory, providing the business with the uncommon advantage of two railroads from which to choose to ship its products to customers (Pettengill 1952: 109). Both railroads were acquired by Southern Railway, a regional giant assembled by financier J. P. Morgan. The Southern acquired the Georgia Southern & Florida in 1895. Later, the East Tennessee, Virginia & Georgia, after being reorganized into the Central of Georgia system, was acquired by Southern Railway in 1963 (Davis 1983: 237-238). Stratton's vision of developing a brick manufacturing business near the source of raw materials and an important transportation corridor in Middle Georgia played an important role in the longevity and success of the company.

Stratton operated his brick company for nearly twenty-five years, enduring the Panic of 1893 and increased competition and consolidation of the industry. In 1895, the facility consisted of eight rectangular brick kilns, two molding and pressing sheds, and a two-story wood frame office. A surface tramway brought clay from mines to the east. Railroad sidings bracketed the kilns to facilitate the packing and shipment of bricks (Sanborn Company 1895). Then, in 1900, Stratton sold the company to Macon businessmen S. T. Coleman and J. W. Cabaniss. In October 1900, Coleman and Cabaniss incorporated the company to protect themselves from liability, expand the business, and provide revenues for new equipment and facilities. They chartered a \$50,000 stock company, named Stratton Brick Company, Inc., issuing 500 shares of stock at \$100 per share. They retained the Stratton name to maintain name recognition with past clients and the company's reputation of manufacturing guality bricks. They also hoped to avoid the pitfalls of promoting a new name for an old company. The charter outlined the company's purpose as the "manufacture and sale of brick and various other articles of clay; contracting for building of dwelling houses, stores and other buildings to be constructed of brick or wood or both . . . establish commissaries . . . [with] principal office and plan of business in Bibb County, Georgia, but petition and pray that they may establish branch offices at such places as they desire" (Stratton Brick Company Minutes October 11, 1900, January 21, 1903).

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Coleman and Cabaniss retained C. C. Stratton as superintendent of the factory and in its first year of operation the newly formed corporation manufactured eight million bricks (Stratton Brick Company Minutes January 21, 1903).

To increase capacity, the company invested in a steam locomotive and rolling stock in 1902. It contacted Glover Machine Works in Marietta, Georgia, and ordered the first steam locomotive constructed by that company. The locomotive was shipped from the factory on May 6, 1902. Between 1902 and 1930, the Glover Company built about 200 locomotives in its shop near Atlanta. Glover's customers included various Georgia short lines, plantations in South America, and the Russian government. Stratton Brick Company, the first and most enduring customer of the company, eventually ordered five locomotives from this important Georgia manufacturer of steam engines. Their first engine cost \$3,500, a significant investment for the period. In 1902, the brick company extended tracks from the plant southeast with crossing rights from the Georgia, Southern & Florida division of Southern Railway. The company mined clay south and east of the factory. Track construction in 1902 amounted to \$477 and a new trestle cost \$421 to build (Hillman 1996: 11, 45; Ferrell 1999: 12).

Coleman and Cabaniss continued to operate at the 19th century Stratton site until 1902, when the Ocmulgee River flooded the site and ruined "two kilns of brick." By then, the business owned approximately sixty acres in land lots 88, 99, 113, and 114 of the Macon Reserve West. To avoid future floods and retain access to railroad service, company officials acquired a site on higher ground about three-quarters of a mile to the northwest in the community of Waterville. Located in lots 74 and 75, the new site stood between the main lines of Southern Railway and Central of Georgia (Stratton Brick Company Minutes January 21, 1903). The new location was about 600 feet south of the H. Stevens Sons Company factory, then the leading sewer-pipe plant in the South. To the east stood Tuft Spring, which had been developed in 1880 by the Macon Gas, Light and Water Company to supply water to the residents of Macon. The relocated brick works placed the company slightly above the fall line of a collection of twenty-three springs, which had been attributed in part to the flooding of the former factory site. The company tapped one of these springs and created a well for its new facility (*Macon Evening News*, 1889 Illustrated Edition; Sanborn Company 1908)

By 1904, the relocation was largely complete. The property associated with the former factory site was retained for its clay reserves and railroad line that would provide a contiguous link between the new factory and projected clay reserves to the south and east. Older equipment and newer machinery were integrated at the new location. (The only building at the original location is the dynamite shed.) In November 1904, following a dispute with Stratton over plant operations, the officers amended the charter to rename the business Cherokee Brick Company. J. W. Cabaniss, Samuel T. Coleman, and William E. Dunwody, III, were named as directors. Dunwody supervised daily operations. By 1908, the company had built a clay shed, drying shed, dry kilns, brick kilns, and molding and pressing rooms and an office at the new plant location. Ten rectangular brick kilns were serviced by spur tracks of the Central of Georgia and the Georgia, Southern & Florida Railway. Both railroad companies extended their respective spur tracks astride the company's kilns, once again

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giving the company access to customers served by both major rail systems (Stratton Brick Company Minutes; Sanborn Company 1908).

Samuel Coleman served as president of Cherokee Brick from 1904 to 1948. Born in Macon in 1873, he attended Washington and Lee University in Virginia and then returned to Macon, where he organized the Coleman-Meadows-Pate Drug Company. His activities in the brick and drug companies led to other prominent positions, including a director of the Macon, Dublin & Savannah Railway and a board position on the Georgia State Fair Association. In the mid-1920s, he sold his summer home in Rivoli, west of Macon, to Wesleyan College, which constructed a new campus on the site in 1928. Brick for the campus buildings was supplied by the Cherokee Brick Company (Young et al. 1950: 633; *Macon Telegraph*, May 25, 1949).

William Dunwody, III, actively supervised operations at Cherokee Brick for over half a century. After serving as a cashier in several banks, Dunwody began work for C. C. Stratton about 1895, and helped incorporate Stratton Brick Company. He maintained a position as vice president of Cherokee Brick between 1904 and 1948. He also formed a subsidiary of Cherokee Brick, the Standard Brick and Tile Company of Macon, for which he served as president between 1904 and 1948. Active in politics, he served as chair of the Central Capitol Removal Association, which attempted to relocate the state house from Atlanta to Macon in 1911. Later, in 1912, he introduced former President Theodore Roosevelt at a political rally at Macon City Hall. Roosevelt was then making his third presidential election bid under the mantle of the Bull Moose Party. Dunwody's talents administering the brick companies and developing quality products earned him positions as president of the National Brick Manufacturers Association in the 1920s and the National Hollow Tile Association and Southern Clay Products Code. A leader in Georgia's YMCA, Dunwody also served on the Georgia State Chamber of Commerce and the Georgia State Fair Association. His business skills resulted in director posts on major banking institutions, including the Exchange Bank of Macon, the Citizens and Southern National Bank, and the Louisville and Wadley Railroad (Young et al. 1950: 465, 469, 647; Macon Telegraph, September 20, 1958).

During its formative years, Cherokee Brick supplied products to a host of customers. In May 1901, after a fire destroyed over 2,300 buildings and 145 blocks of downtown Jacksonville, Florida, Cherokee Brick received numerous orders for brick by property owners and builders. Compelled to rebuild its shops and yard buildings, the Atlantic, Valdosta & Western Railway ordered hundreds of thousands of bricks between June and November 1901. Other repeat customers included the Richardson Company and G. S. Baxter of Jacksonville, who relied heavily upon Cherokee Brick to help rebuild Florida's gateway city. Three years later, a fire in Tifton, Georgia, which destroyed \$300,000 worth of buildings, resulted in a similar upsurge in orders (Stratton Brick Company, Journal No. 1; *Macon Telegraph*, November 5, 1904).

Orders were filled for developers, merchants, and lumber yards in other Florida cities and towns, including Bartow, Cocoa, Daytona, Fernandina, Fort Pierce, Jasper, Madison, Monticello, and West Palm Beach. Lott W. Johnson, a contractor in Lake City, Florida, regularly purchased products from Cherokee Brick Company. S. S. Leonard, a prominent Jacksonville builder, periodically ordered brick

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from the Macon company to build projects in Savannah, Georgia, on Tybee Island in Georgia, and in Jacksonville (Stratton Brick Company, Journal No. 1; Stratton Brick Company, Customer Ledger No. 1).

Most company orders, however, came from Georgia customers. One early repeat customer was the Middle Georgia Cotton Mills, located in Eatonton, Georgia. Several buildings in downtown Eatonton were constructed with Cherokee Company products. Between 1900 and 1904, the Middle Georgia Cotton Mills ordered several hundred thousand brick to build and expand its cotton mills. Strickland Cotton Mill in Valdosta also periodically ordered clay products. A number of buildings in the Valdosta Commercial Historic District were assembled with Cherokee Company's brick. Customers in Americus, Bainbridge, Cordele, Decatur, Montezuma, Reynolds, Savannah, Tifton, Vienna, and Wenona included contractors, developers, and home owners. L.G. Council of Americus and R.P. Williams & Company of Decatur ordered several thousand dollars worth of products between 1900 and 1902. Occasional out-of-state customers included Levy Brothers of Indianapolis, Indiana, and Southeastern Lime & Cement Company of Charleston, South Carolina (Stratton Brick Company, Journal No. 1; Stratton Brick Company, Customer Ledger No. 1).

Many Macon merchants and builders used Cherokee Brick products. One early regular customer was R. H. Smalling, a local builder. Organized in 1886, R. H. Smalling's Sons Construction Company built many projects in Middle Georgia, including plants for the Bibb Manufacturing Company in Columbus, Macon, and Porterdale, and a roundhouse for the Central of Georgia Railway in Macon. Smalling's large orders of Cherokee bricks indicate that most of the masonry buildings constructed by Smalling in the early 20th century were assembled with Cherokee products (Stratton Brick Company, Journal No. 1).

Sustained production of quality products resulted in an expansion of the physical plant. A new hydrant system was installed to protect the plant from burning. By 1914, four of the rectangular kilns had been destroyed and replaced with round "bee-hive" type kilns. Coleman and Dunwody selected kilns from the John C. Boss Company of Elkhart, Indiana. A. H. Ellwood, an architect with the Boss Company, drafted the plans for the kilns. Installed in 1913, these structures operated in a down-draft system with burners imbedded in fire-brick around the outside of the kiln and a large central burner. Within several years, all of the rectangular kilns had been replaced by bee-hive kilns. None of the bee-hive kilns survive, although the kiln site is now used as a brick yard and the kiln foundations and underground tunnels that served the kilns survive intact. (John C. Boss to C.M. Goforth, September 6, 1913; Proposed Hydrant System for Cherokee Brick Company, February 1914).

Responding to increased demand for bricks, the company began acquiring new land and extended its railroad farther south. Lots 113, 125, 126, and 135 in Macon Reserve West were acquired between 1912 and 1916. New steam locomotives were acquired from the Glover Company in 1912 and 1913. In 1916, to improve access and safety to clay reserves on the property, Cherokee Brick negotiated with the Georgia, Southern & Florida Railway to build a tunnel under its main line south of the brick plant. The tunnel was located several hundred feet west of the former Stratton Brick Company Plant and eliminated a dangerous grade crossing along the main line. In 1920, the company purchased

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two additional steam locomotives from the Glover Company and changed its roadbed from narrow to standard gauge. These engines served the company into the 1950s and were later donated to the Georgia Agrirama (Ferrell 1999: 12; Hillman 1996: 45; Deed Book 186, p. 369, 373, Deed Book 193, p. 462, Deed Book 200, p. 560, 732, Bibb County Courthouse).

Cherokee Brick and Tile Company remained on the leading edge of the brick-making industry by constantly upgrading brick-making equipment. In 1906, the company purchased dryers and a waste heat duct system from the American Blower Company of Detroit. The system, predicated on a design used successfully by the Hocking Valley Brick Company of Logan, Ohio, was periodically upgraded when new kilns were installed between 1913 and 1917. Drying kiln tunnels fabricated by the C. W. Raymond Company of Dayton, Ohio were also improved. By 1919, the company office, completed about 1904, had been expanded. Refinements to the brick-making process were implemented to increase production levels, which in the 1920s reached 200,000 brick daily. By then, twenty different shapes and sizes of hollow tile products and four types of face bricks were available (*Macon Telegraph*, Centennial Edition, 1926).

Numerous laborers have fabricated brick for the Cherokee Brick and Tile Company over the past century. The company developed neither a brick village nor workers' quarters for its employees. Instead, most laborers found homes in Macon, or across the Ocmulgee River in East Macon. Longtime workers of the early 20th century included mechanic Jake Davis who lived at 140 Cowan Street in East Macon; molder R. L. Smith lived at 862 New Street; bricklayer Lamar W. Rutland resided at 458 Edgewood Street: and machinist Homer Gurganious initially resided in East Macon at 328 Hydrola, then 206 Peachtree Street, and later moved to 531 Rutherford Avenue. Foreman H. V. Wagnon lived at 104 Culver Street, west of downtown Macon, and engineer Tom Sweeney also resided in Macon at 719 Orange Street. Robert Mitchell tended the kiln fires; he resided near the company plant at 202 Waterville Road. Laborers who performed the task of digging clay, loading bricks into the kilns, packaging the fired bricks into cubes, and other related jobs included Jonas Brown, George Calhoun, Will Cornelius, Berry Hall, Arthur Hightower, Anton Meadows, Obie Ross, and Daniel Shanks. Most of these employees lived south of downtown Macon. Several families made a career of working for the company, including James T. Smyly, Sr., and his son, James T. Smyly, Jr., an electrician for the company, who lived in East Macon at 310 Cutter's Green. Two other long-time employees with family connections were John R. Lamb, who lived at 145 East Laurel Street in East Macon, and his brother, Henry S. Lamb, who rose to the position of company foreman and resided at 126 Napier Avenue west of downtown Macon (Cherokee Brick Company Records, 1925-1926, 1929-1935, and 1947; Polk 1922: 304; Polk 1925: 296, 414, 566, 662, 841, 844; Polk 1930: 235, 307, 437; Baldwin 1935; 323, 440).

In the mid-1920s, increasing demand for brick compelled the company to acquire more property, extend its railroad farther south, and open new mines. Several hundred additional acres had been purchased by 1924, and in March 1925, William Robinson, an Augusta civil engineer, prepared site plans for a new railroad alignment that ran several miles south of the plant. The company installed new tracks and began harvesting clay from new mining areas as far as four miles from the factory. Increased storage needs resulted in the construction of a large clay storage building in 1926. The

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Stephens-Adamson Manufacturing Company of Aurora, Illinois, prepared the designs for the building and its conveyance systems. The company employed several trade names to sell their bricks, including "Cigvenettes," "Cherokee Reds," "End Cut Selects," "Mercus," and "Ratines" (Inventory Book 1923-1933, Cherokee Brick & Tile).

The Wesleyan College campus at Rivoli was among the largest projects assembled with company products during the 1920s. The nation's oldest institution of higher education of women, Wesleyan had been founded in the 1830s and expanded its campus in the 1920s. Samuel Coleman, then president of Cherokee Brick and Tile, sold his summer home to the college, which transformed the site into a campus of twelve buildings. Coleman's wife, Edith S. Coleman, served on the board of directors of Wesleyan during the interval. The architects for the campus were Walker & Weeks of Cleveland, Ohio, who associated with the local firm of Dunwody & Oliphant (Young et al. 1950: 648; *Atlanta Journal*, January 28, 1986). Built in twenty months, the buildings on the new campus consumed 3.378 million bricks, including 500,000 face brick, all supplied by the Cherokee Brick Company. Construction began in January 1927, and the campus was dedicated in September 1928 (Quillian 1928: 24-25, 43, 50; *Macon Telegraph*, January 19, 23, 1927).

With the onset of the Great Depression in 1929, orders decreased and the company adapted to the austere economic conditions. For several years, brick orders fell precipitously and few investments were made in new equipment. Then, after 1932, the company began to reap the rewards of construction projects funded, in part, by federal relief "New Deal" programs. Those programs were created by the administration of Franklin Roosevelt to assist states and municipalities in a host of projects to improve infrastructure, construct buildings, conserve natural resources, and create recreational facilities. Providing jobs to the unemployed, a series of "Alphabet Programs," so-called for the acronyms assigned them, were created, including among others the Works Progress Administration (WPA), Civil Works Administration (CWA), Civilian Conservation Corps (CCC), and Federal Emergency Relief Agency (FERA). In late 1933, Cherokee Brick reported the addition of 125 employees to its work force (*Macon Telegraph*, December 23, 1933).

The company acquired various parcels as adjacent property owners struggled to endure the challenges of the Depression. In the late 1930s, responding to new demands and the financial collapse of a neighboring brick company, Cherokee Brick increased its capital stock and then acquired Bibb Clay Products, a brick manufacturing plant northeast of the Cherokee Brick factory (Cherokee Brick Company Minutes; Deed Book 468, p. 351). Organized in 1900 as Bibb Brick Company, the enterprise was initially headed by local businessman and politician John T. Moore and W. J. Massee. Later, in the 1920s, W. J. and T. D. Massee served as company officers. Bibb Brick fell victim to the depressed economy of the 1930s and was absorbed by the older Cherokee Brick Company (*Macon Telegraph*, December 31, 1930; Young 1950: 556; Polk 1909: 132; Polk 1924: 294; Sanborn Company 1895, 1908). Initially, Cherokee Brick integrated the former Bibb Brick Company plant into its system, renaming it Plant No. 2. Eventually Cherokee Brick demolished the facility, which was located in the northernmost section of the historic district, and consolidated operations at its current plant (Cherokee Brick Company Minutes).

Section 8--Statement of Significance

In 1940, Kenneth W. Dunwody and W. Elliott Dunwody, IV, sons of W. Elliott Dunwody, III, acquired shares in the brick business (Cherokee Brick Company Minutes). A graduate in engineering from the Georgia School of Technology, Kenneth Dunwody worked his way up in the family business. Eventually, Kenneth served as president of Cherokee Brick and also as president of Dixston Brick Company of Jacksonville, Florida, president of the Southern Brick & Tile Manufacturing Association, and vice-president of the National Brick Manufacturing Association. In 1990, the Brick Institute of America posthumously issued an award of appreciation to Dunwody, "in recognition of the dedicated leadership provided to the brick industry during his lifetime. He understood the need for industry involvement in the political process, and his guiding efforts in the fight for clay depletion legislation have left a lasting legacy for our industry. In addition, he worked tirelessly in the area of product standards, and helped shape the ASTM specifications that govern the brick industry even today." The current owners of the company trace their heritage through Kenneth Dunwody's family line (Young et al. 1950: 649).

Although not involved in the day-to-day operations, W. Elliott Dunwody IV influenced the company's growth and development. He had gained a substantial reputation as a prominent Georgia architect. Gifted and tireless in his craft, Dunwody worked in association with several Macon architects until the early 1930s, when he organized his own company. Early projects included the president's home at Mercer University, Macon's Winship School, and Cherokee Heights Methodist Church. Later, he executed a design for a building at Georgia State College for Women. In the early 1930s, he served several terms on the Board of Regents of the University System of Georgia. Professional associations included a term as vice-president of the Georgia Chapter of the American Institute of Architects (Young et al. 1950: 648). Dunwody also prepared the plans for several projects at Cherokee Brick Company, including an expansion of the office in 1947 (see architectural plans at Cherokee Brick & Tile).

During World War II, strong demand for brick to construct factories, military bases, and airfields lifted Georgia's economy out of its depression. Cherokee Brick received orders for brick for military-related projects even prior to the United States' entry into the conflict. In October 1941, Butler Manufacturing Company of Ohio requested a shipment to help build hangars at Wright Field in Dayton, Ohio. Later in the war, Butler Manufacturing again turned to Cherokee Brick for products to help build fifty land-plane hangars at various air bases.

Between 1941 and 1943, Cherokee Brick acquired 650 additional acres to help ensure sufficient clay reserves (Book 489, p. 784, 655, Book 492, p. 215, 273, 298, Book 496, p. 269, Book 512, p. 85). In 1944, responding to a need to increase brick production, the company commissioned the Ferro Enamel Corporation of Cleveland, Ohio, to draft plans for a new factory. Construction began in 1946, and the Golian Steel and Iron Company of Atlanta completed the assembly of the new factory in 1947. A straight kiln system, the new plant was featured for its technical excellence in the *Brick & Clay Record*, a leading trade magazine published in Chicago, Illinois. The plant could accommodate 425 tons of clay each day to produce 100,000 bricks every twenty-four hours. The company invested in state-of-the-art equipment from well-known manufacturers throughout the country, including

Section 8--Statement of Significance

Southern Car & Manufacturing Company of Birmingham and J. C. Steele & Sons of Cincinnati. Fork lifts were also introduced to the new facility. One of the first applications of the new motorized technology in Georgia, the fork lifts moved about ninety percent of the bricks produced in the kilns on to rail cars and trucks (*Brick & Clay Record*, November 1949).

In 1948, important events occurred within the company. In April, to reflect the increase of hollow tile products in its line, the board of directors changed the company's name to Cherokee Brick and Tile Company. In November of that year, Samuel Coleman resigned as president and Kenneth W. Dunwody, III, was elected to the post by the board of directors (Cherokee Brick & Tile Company Minutes). Additional parcels were acquired in 1946 and 1948, essentially forming the shape of the company's current landholdings (Book 531, p. 560, Book 559, p. 767).

Since the 1950s, the company has continued to expand its production. The bulk of the company's customers continued to come from Georgia and Florida. Early in the Cold War era, the company responded to a bid to produce bricks for corner and stretcher units of an I. I. C. Doppler's "super atomic [bomb] shelter." Doppler refined his shelter with the professional assistance of L. J. Mineo, a New Jersey architect. By the mid-1970s, annual brick capacity amounted to 130 million bricks. In 2000, the company produced 170 million bricks. Large, local projects built with company products included Macon's C & S Bank, Macon Coliseum, First National Bank, INA Building, farmer's market, post office, and Eisenhower Parkway Vocational School (*Macon Telegraph*, February 29, 1976).

AcMajos Bibliographia Raferesces Printers, 1860.

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Section 9—Major Bibliographic References

Previous documentation on file (NPS): (X) N/A

- () preliminary determination of individual listing (36 CFR 67) has been requested
- () preliminary determination of individual listing (36 CFR 67) has been issued date issued:
- () previously listed in the National Register
- () previously determined eligible by the National Register
- () designated a National Historic Landmark
- () recorded by Historic American Buildings Survey #
- () recorded by Historic American Engineering Record #

Primary location of additional data:

- (x) State historic preservation office
-) Other State Agency
- () Federal agency
- () Local government
- () University
- () Other, Specify Repository:

Georgia Historic Resources Survey Number (if assigned): N/A

10. Geographical Data

Acreage of Property Approximately 4000 acres

(Brick-making plant: Approximately 430 acres)

(Clay mines: Approximately 3,570 acres)

UTM References

Brick-making plant:

Point	Zone	Easting	Northing
A)	17	253300	3632890
B)	17	254110	3632890
C)	17	253750	3630330
D)	17	253320	3630330
E)	17	252850	3631810

Clay mines:

Point	Zone	Easting	Northing
A)	17	251380	3624830
B)	17	258300	3631920
C)	17	257210	3628240
D)	17	256000	3626200
E)	17	254580	3626240
F)	17	253610	3627160
G)	17	253540	3629690
H)	17	253960	3630940

Verbal Boundary Description

The National Register boundary is indicated on the attached USGS topographic maps, drawn to scale with a heavy black line.

Boundary Justification

The boundary encloses the property associated historically with the manufacture of bricks and the transportation and mining of clay by the Cherokee Brick and Tile Company. The historic district includes the company holdings, which largely assumed their current form by 1949 when the company achieved its historic peak. The boundary also includes the site of the company's earliest factory (1877), and several small areas where clay rights were established in the late 1940s.

Section 10-Geographical Data

The boundary is discontiguous with the brick manufacturing plant on the west side of the Brosnan Yard and the clay mines on the east side. In 1904, Cherokee Brick built its brick-making plant on the west side of the Macon & Brunswick Railroad, a main line from Macon to Florida. Cherokee Brick first used at-grade crossings, and in the 1920s the company built a tunnel beneath the rail line that linked its brick-making plant with its clay mines and clay reserves. In 1965, Southern Railway built the Brosnan Yard along an existing historic main line, thereby splitting the Cherokee Brick property and creating a large visual barrier between the company's holdings. Cherokee Brick improved the tunnel under the new expanded railroad facility.

The discontiguous boundary for the Cherokee Brick and Tile Company historic district is appropriate because the Brosnan Yard that separates the two elements of the district (the brick-making plant and the clay mines) was not historically associated with Cherokee Brick and did not exist during the historic period of the brick company. The presence of the Brosnan Yard does not diminish the integrity of the historic district because the brick-making plant and the clay reserves had been historically separated geographically since 1904. Visual continuity is not a factor and the intervening space lacks historical significance. In addition, both elements of the brick company have sufficient significance and integrity to meet National Register criteria.

11. Form Prepared By

State Historic Preservation Office

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Consulting Services/Technical Assistance (if applicable)

() not applicable

name/title Sidney Johnston organization historic preservation consultant mailing address 535 North Clara Avenue city or town DeLand state Florida zip code 32720-3405 telephone (904) 734-8535 e-mail N/A

- () property owner
- () regional preservation planner
- (x) consultant
- () other:

Property Owner or Nomination Sponsor Name and Address

name (property owner or contact person) Kenneth Sams, President organization (if applicable) Cherokee Brick and Tile Company mailing address 3250 Waterville Road city or town Macon state Georgia zip code 31213 e-mail N/A

Photographs

Name of Property: City or Vicinity:	Cherokee Brick and Tile Company Macon
County:	Bibb
State:	Georgia
Photographer:	James R. Lockhart
Negative Filed:	Georgia Department of Natural Resources
Date Photographed:	May 2001

Description of Photograph(s):

Number of Photographs: 51

Brick-making plant

- 1. Plant No. 3 (middleground), Plant Nos. 1 and 2 (background), photographer facing south.
- 2. Plant Nos. 1 and 2, photographer facing south.
- 3. Plants Nos. 1 and 2, interior, photographer facing northwest.
- 4. Plants Nos. 1 and 2, interior, photographer facing north.
- 5. Plants Nos. 1 and 2, interior, photographer facing west.
- 6. Plant Nos. 1 and 2, interior, photographer facing west.
- 7. Plant Nos. 1 and 2, interior, wire brick cutter, photographer facing northwest.
- 8. Plant Nos. 1 and 2, interior, wire brick cutter, photographer facing northwest.
- 9. Plants Nos. 1 and 2, interior, wire brick cutter, photographer facing northwest.
- 10. Plant Nos. 1 and 2, interior, wire brick cutter, photographer facing south.
- 11. Plant Nos. 1 and 2, interior, kilns, photographer facing southeast.
- 12. Plant No. 3 (foreground), main office (background), photographer facing southwest.
- 13. Plant No. 3, photographer facing north.
- 14. Plant No. 3 (right), machine shop (center) photographer facing northeast.

Photographs

15. Plant No. 3, interior, photographer facing east.

16. Plant No. 3, interior, kiln 1 (left), kiln 2 (right), photographer facing northeast.

17. Plant No. 3, interior, kilns, photographer facing northwest.

18. Clay storage building (center), Plant No. 3 (left), Plant Nos. 1 and 2 (right), photographer facing northeast.

- 19. Clay storage building, photographer facing northwest.
- 20. Clay storage building, photographer facing northwest.
- 21. Garage (foreground), main office (background), photographer facing northeast.

22. Central of Georgia Railroad with laboratory, brickyard, and Plant Nos. 1 and 2 (right), photographer facing northeast.

23. Laboratory (left), brickyard (center), and Plant Nos. 1 and 2 (background), photographer facing east.

- 24. Brickyard and laboratory, photographer facing north.
- 25. Laboratory, photographer facing southwest.
- 26. Laboratory, entrance detail, photographer facing north.
- 27. Rail car loading shed, photographer facing south.
- 28. Storage and sifting sheds, photographer facing north.
- 29. Brick screen and grinding building, photographer facing southeast.

Clay Mines and Related Resources (east of the Brosnan Yard)

- 30. Tunnel beneath the Brosnan Yard, photographer facing southeast.
- 31. Dynamite shed, photographer facing north.
- 32. Finger mines, photographer facing southwest.

Photographs

- 33. Mine and railbed (right), photographer facing north.
- 34. Railbed, photographer facing east.
- 35. Finger mines, photographer facing northeast.
- 36. Finger mines, photographer facing east.
- 37. Finger mines, photographer facing south.
- 38. Through-plate girder, turntable bridge, photographer facing south.
- 39. Through-plate girder, turntable bridge, photographer facing southeast.
- 40. Through-plate girder, turntable bridge, photographer facing southwest.
- 41. Unpaved mining road, photographer facing southeast.
- 42. Mine excavated during the 1940s and 1950s, photographer facing north.
- 43. Rail lines and mine, photographer facing northeast.
- 44. Rail cars, photographer facing northeast.
- 45. Mine excavated during the 1950s, photographer facing south.
- 46. Nonhistoric mine (approx. 100 acres), photographer facing northwest.
- 47. Nonhistoric mine, photographer facing southeast.
- 48. Nonhistoric mine (approx. 200 acres), photographer facing south.
- 49. Nonhistoric mine, photographer facing east.
- 50. Nonhistoric mine, photographer facing east.
- 51. Clay reserves, photographer facing north.

HPD version 051301

