NATIONAL HISTORIC LANDMARK NOMINATION

NPS Form 10-900

USDI/NPS NRHP Registration Form (Rev. 8-86)

OMB No. 1024-0018 Page 1
National Register of Historic Places Registration Form

AUBURN CORD DUESENBERG United States Department of the Interior, National Park Service

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I. N	AIVIII	OF	PKOŁ	PERTY	

Historic Name:	Auburn Cord Duesenberg Automo	bile Facility	
Other Name/Site Num	mber:		
2. LOCATION			
Street & Number: 160	00 South Wayne Street		Not for publication: N/A
City/Town: Auburn			Vicinity: N/A
State: Indiana	County: DeKalb	Code: 033	Zip Code: 46706
3. CLASSIFICATI	<u>ON</u>		
Private Public Public	rship of Property e: X -Local:State:Federal:	Category of Property Building(s): District: _X_ Site: Structure: Object:	
Number of Resources	s within Property		
Contri	buting	Noncontributing buildings sites structures objects Total	
	ing Resources Previously Listed in	the National Register: 1	
name of Kelated Mul	tiple Property Listing:		

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4. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic President that this nomination request for determination registering properties in the National Register of Historic I requirements set forth in 36 CFR Part 60. In my opinion, National Register Criteria.	of eligibility meets the documentation standards for Places and meets the procedural and professional
Signature of Certifying Official	Date
State or Federal Agency and Bureau	_
In my opinion, the property meets does not meet	et the National Register criteria.
Signature of Commenting or Other Official	Date
State or Federal Agency and Bureau	_
5. NATIONAL PARK SERVICE CERTIFICATION	
I hereby certify that this property is:	
Entered in the National Register Determined eligible for the National Register Determined not eligible for the National Register Removed from the National Register Other (explain):	
Signature of Keeper	Date of Action

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6. FUNCTION OR USE

Historic: Commerce/Trade Sub: Specialty store

Industry Manufacturing facility

Transportation Road-related

Current: Recreation and Culture Sub: Museum

7. DESCRIPTION

Architectural Classification: Modern Movement: Art Deco

Other: Industrial

Materials:

Foundation: concrete
Walls: brick
Roof: asphalt
Other: brick

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Describe Present and Historic Physical Appearance.

Overview

The Auburn Cord Duesenberg Automobile Facility is located in the southern portion of Auburn, DeKalb County, Indiana, bounded by South Wayne Street on the west and Gordon M. Buehrig Place on the north. A tree-lined median separates the building from South Wayne Street [see Photo 12]. The intact surviving resources of the Auburn Cord Duesenberg Automobile Facility include the showroom and administration building (1929), service and new parts department building (1923), and Cord L-29 building (1928) [see Photo 12 and Figure 1]. The imposing Art Deco showroom and administration building constructed of structural steel with tan-brick veneer, is two stories in height and oriented with its primary facade facing west [see Photos 1, 2 and 3]. Immediately behind the showroom and administration building are two industrial buildings: the service and new parts department, with a distinct barrel vaulted roof, and the Cord L-29 building with three sets of monitor windows rising from its flat roof [see Photos 6, 7 and 9]. The showroom and administration building was listed in the National Register of Historic Places in 1978.

The only major change made to these surviving buildings after 1937 is the one-story enclosure of the open space in the center of the U-shaped showroom and administration building. Replacement of the enclosure in 2001 by a three-story 36,000 square foot educational wing with exhibit space, archives, library, and conference and meeting facilities, allowed for the creation of new spaces within the existing mezzanine level [see Photo 2 and Figures 3 and 4]. Although it blends well, its newness is readily apparent. The walls are constructed of beige brick topped with stucco. Four emergency exits were added with this addition to accommodate safety regulations.

Windows in the basement of the service and new parts department, and Cord L-29 buildings were bricked over on the exterior for security purposes while the buildings were used for storage after the Auburn Automobile Company closed [see Photos 7 and 9]. The metal casement windows remain in the interior of the buildings. Emergency exits have been added on two elevations in the Cord L-29 building.

Setting

The city of Auburn is located in northeastern Indiana, twenty-five miles north of Fort Wayne, and 120 miles northeast of Indianapolis. The tree-lined streets give way to a wide range of architectural styles including Craftsman, and Colonial and Tudor revivals. The factory complex is situated on the south side of town, in a neighborhood mixed with small businesses and residences. This area was once the hub of a busy manufacturing complex. Although most of the remnants from this era are gone, the Auburn Automobile Company showroom and administration, service and new parts department, and Cord L-29 buildings remain as a reminder of Indiana's automotive heritage.

Showroom and Administration Building

Designed by Fort Wayne, Indiana, architect Alvin M. Strauss, the Auburn Cord Duesenberg showroom and administration building is a prime example of Art Deco architecture popular in the 1920s and early 1930s [see Photo 1]. A. M. Strauss studied with several prominent firms in Chicago during the first part of the twentieth century. During his career he received many varied commissions such as airport terminals, banks, churches, department stores, factories, residences, secondary and elementary schools, and skyscrapers.

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Constructed in 1929, this two-story plus mezzanine, U-shaped, steel-framed, tan brick veneered building rests on a concrete foundation. The main showroom portion of the building has a frontage of 192 feet on South Wayne Street and is 50 feet in depth. Extending eastward towards the service and new parts department building, the rear wings are 240x60 feet (southern wing) and 142x50 feet (northern wing) [see Photo 12 and Figures 3 and 4]. The entire building contains 66,000 square feet of floor space. The Auburn Automobile Company moved into the building on September 13, 1930. Activity in the administration building continued until shortly before the company's demise in 1937.

The primary facade [see Photo 1], the west elevation, faces South Wayne Street, and has four large display windows on either side of a central entrance. Large gold letters spelling the names: AUBURN, CORD, DUESENBERG--one name per window--repeat around three sides of the first floor of the showroom block, commanding attention. There are three steel, multi-pane windows with hopper openings in each bay on the second floor. This pattern continues for four bays on the north facade and two bays on the south facade [see Photos 2 and 3]. Each bay of the west facade is separated by vertical projections of restrained fluting in two-toned brick topped with a stylized abstract geometric motif in limestone and, between the first and second floors, a geometric design in two-toned brick. Just below the roofline, "THE AUBURN AUTOMOBILE CO." is carved into the limestone lintel along the cornice, and centered on the facade; "AUBURN" is carved into the limestone immediately above the entrance door. To the left of the "Auburn" is a carved shield with "Auburn Established 1900," and to the right is a shield with a suit of armor, and "Cord" inscribed on a banner. Two stylized coach lights illuminate the Philippine walnut doors and sidelights.

The primary entrance has been moved to the north facade facing Gordon M. Buehrig Place [see Photo 2]. An entrance foyer, circa 1998, is of a contemporary masonry veneer and located just behind the showroom block of the building. A fabric awning extends from the entrance to the sidewalk. As indicated earlier, this elevation partially retains the design of the primary facade with four bays at the western end of the facade consisting of large display windows on the first floor, and three steel, multi-pane windows with hoppers on the second floor in each bay. Extending eastward the other windows on this facade are paired double-hung sash.

The south elevation is the larger of the two wings [see photo 3]. It has an employee entrance in addition to three freight entrances. The eastern-most freight entrance houses an elevator with its original exterior door. The elevator shaft extends beyond the second floor near the eastern end of the building. Wall treatment is similar to that of the north elevation in relation to type and arrangement of window openings on the first and second floors. However, only the south elevation retains the primary facade design for the span of two bays rather than four. All windows on this facade are the original steel multi-panes with hopper opening. The location of the hopper varies, with some windows opening in the center pane, and others along the bottom pane. All windows maintain their original limestone sills. To the eastern end of the south facade is a new one-story concrete block mechanical room addition. It is located between the first and second freight dock openings. Both docks have replacement steel overhead doors.

An asphalt driveway, approximately 12 feet wide, separates the rear of the administration/showroom building from the Cord L-29 and service and new parts buildings. The eastern facade of the 1929 administration building has five steel, multi-pane windows with hoppers on both the first and second floors. The first floor sits on a raised basement, accessed by the original wooden double doors. The 1998 addition spans the remaining east facade. There are no windows, only steel double doors on the first floor. The Art Deco detailing of the 1929 building is reflected in the new addition through stylized brick piers with limestone caps and banding.

¹ Luedder's Historical and Pictorial City Directory of Auburn, Indiana, Vol. IV (Coldwater, MI: Otto E. Luedders, 1931), 25.

² Jon Bill to Christina Baich, 12 March 2003. Auburn Cord Duesenberg Museum, Auburn, Indiana.

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Fronting the first floor, the showroom is 12,000 square feet of Art Deco splendor [see Photo 4 and Figures 5 and 6]. It is the most architecturally significant space in the building. The terrazzo floor is a rich geometric pattern of triangles in three colors--gray-green, off-white, and oxblood--that result in a prismatic effect, one of the constituent characteristics of the Art Deco style. A center file of columns, which support the grid system of rectangular beams and their respective ceiling panels, articulates the space. In addition to the beams, the upper portion of the walls and column capitols are plastered in a stylized frieze of repetitive geometric pattern painted in greens and ocher, touched with silver leaf. The majority of the twenty-two three-tiered metal light fixtures with opalescent glass are original, although some have been reproduced from the architect's original designs. There are seventy-two sconces mounted on the support columns. The monumental staircase, which is centered in the room, has treads of gray-green terrazzo. Ironwork on the staircase is a restrained but well-executed expression of the Art Deco style. The staircase leads to the mezzanine level and second floor. Although not as grand, there are three additional staircases, one in the north wing and two in the south wing.

Today the showroom is used for its original intent, displaying different examples of the classic Auburn, Cord and Duesenberg automobiles made by the Auburn Automobile Company.

The first floor of the north wing originally housed offices for the switchboard, timekeeper, mailroom and factory superintendent.³ After completing the 2001 addition, the switchboard and timekeeper offices became an orientation room. The other areas are now used for museum storage and the catering kitchen.

In the south wing, the experimental engineering department originally occupied both the first and second floors [see Figure 7]. This included engineering and experimental administrative offices, a private drafting room, records department, and blueprint room. On the first floor, two-dead-level terrazzo floors, which enabled engineers to accurately gauge and make measurements of a chassis or completed car, remain. Adjacent to this area, through sliding wooden doors, was the engine dynamometer room, which had equipment that could accurately measure and record the delivered horsepower of the motor [see Figure 8]. The equipment of the experimental department allowed Auburn engineers to build experimental cars and give them a 10,000-mile road test without leaving the building.⁴ The dynamometer equipment is no longer present. The freight elevator, which is still used to move cars to the second floor, is on the south wall of this room. To the right of the elevator is a set of stairs to the second floor. The "Duesy Shop" (the museum gift shop), exhibit space, and storage occupy the first floor of this wing today. The second floor of the south wing originally housed a large drafting room in addition to offices for the Chief Engineer, Assistant Chief Engineer, Chassis Engineer, Body Engineer, and Body Designer.⁵ At the extreme east end of this floor was the sample body department where sample bodies were built, trimmed, and painted. This industrial looking area made ample use of large windows for natural illumination. The windows on the lower floor of this wing used frosted glass to discourage corporate espionage.

Originally the accounting, advertising, and cost departments, which included a soundproof room for teletype and telegraph equipment, were across the front, or west, elevation on the second floor. Exhibits currently occupy these rooms. Across the hall are the men's and women's restrooms and the staircase landing. The restrooms contain their original fixtures. Across the corridor from the cost department was the purchasing department suite, which is now an exhibit gallery of early Auburn automobiles, and adjacent to this area along the south wall is the automotive design studio. This studio is encased along the hallway with a Philippine walnut and plate glass partition. All office partitions throughout the building are of Philippine walnut.⁶

³ The Accelerator V, no. 7 (Auburn: IN, November 1930): 9. A monthly publication from the Auburn Automobile Company.

⁴ Ibid., 9.

⁵ Ibid., 7-8.

⁶ Ibid., 6-7.

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Errett L. Cord's office is found in the extreme northeast corner of the north wing. Windows overlook what was once the entire Auburn Automobile Company factory complex. The draperies are reproductions of the original; these are not only found in this office but all other office spaces throughout the second floor. The office furniture is similar to what was originally in his office. The desk is from Cord's office at "Cord Haven," his home in Beverly Hills, California. To the right of the entrance are two small narrow doors--one leads to a closet, the other to a restroom. Across the hall was the vice president's office, now used for storage. The layout of this office is a reverse plan of Cord's office.

Towards the front of the building in the north wing are the former board room and export department [see Photo 5], both appearing as they did originally. There was also a fine art gallery and the domestic sales and traffic department, which is now a gallery of Auburn-built automobiles. Historical photographs of early Auburn street scenes have been placed in the windows creating a window to the past, while not altering the original window and keeping ultra violet light from damaging the exhibits.

Additional Buildings

Directly behind and to the east of the Auburn Automobile Company showroom and administration building are two single-story industrial buildings [see Photo 6 and Figure 2], originally known as the service and new parts department and the Cord L-29 building. Both buildings maintain a high degree of integrity despite primary changes to the main or west facade of the new parts building. These alterations consist of the addition of a Roman brick veneer c. 1960 and corrugated steel along the face of the vaulted roofline, both to lessen the industrial appearance of the building. Also on the main facade, windows were changed from steel to aluminum sash. Only minor changes, facilitating its use as a museum, have been made to the Cord L-29 Building. Such alterations include blocking in basement windows and the addition of two emergency exits. Both buildings are now home to the National Automotive and Truck Museum of the United States (NATMUS).

The site map indicates a large building located across Cedar Creek [#8 on Photo 12]. As originally built, this building served as the final inspection site for the Auburn complex. It was sold to the Warner Automotive Parts Division of the Borg-Warner Corporation, circa 1938. Sources familiar with this building's current use and operation as the Auburn Gear Company, indicate that it was heavily modified over the years, and that only a very small percentage of the original building fabric survives. Separately owned and physically separated from the nominated resources, the current owners of this building request that it not be included in this nomination.⁷

Service and New Parts Department Building

The service and new parts department building was constructed circa 1923 on a raised basement [see left side of Photo 6]. The walls are concrete block with steel fixed-sash windows along the north facade. The basement windows were filled in with concrete blocks when the building became a storage facility. The original barrel roof with its lattice truss construction remains intact [see Photo 10]. The primary facade, the west elevation, has a garage door opening at the northern end of the facade with a door and windows to the south of the garage door [see left side of Photo 6]. Behind the windows of the main facade are two offices, a conference room, and two restrooms. They are separated from the rest of the building by stucco walls and oak and glass partitions. The

⁷ The issue of this building's historic integrity was confirmed in a January 16, 2004, telephone conversation between Bob Sbarge, President of the Auburn Cord Duesenberg Museum, and Charles Schmidt, retired President of Auburn Gear. The issue of the owner's view on inclusion in the NHL nomination was addressed in recent conversations between Sbarge and the owner of Auburn Gear, George Kallas.

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rest of the building is a large open space including the basement [see Photo 11]. The basement can be reached by a set of stairs located in the middle of the south elevation.

The first floor of the service and new parts department building was used as a production area where all experimental cars were prepared and tuned. The new parts department was housed in the basement where a complete inventory of parts was kept for shipment to distributors and dealers. Railway Express trucks loaded shipments each day using the concrete ramp that is adjacent to the north elevation [see Photo 9]. The north and south facades both have large windows running the length of the building just below the roofline.

Cord L-29 Building

The Cord L-29 building, the larger of the two utilitarian buildings, was built in 1928 in conjunction with the production of the Cord L-29, the first front-wheel drive American passenger car [see right side of Photo 6 and Figures 2 and 9]. It is connected to the service and new parts department building by two enclosed walkways, one of which is large enough for an automobile. The building is square with the southeast corner, clipped at an angle to fit the site next to the meandering Cedar Creek. The walls are concrete block with steel hopper windows on all facades [see Photo 7]. The primary facade, the west elevation, has a tall garage door opening flanked by a set of double doors and three windows to both the north and south [see Photo 6]. Three monitor window units rise from the flat roof [see Photos 6 (right side) and 8]. The windows in the basement were enclosed for security purposes when the building was used as a storage facility. Emergency exits have been added to the south and west elevations. Two sets of stairs, one on the north elevation and the other on the south, provide access to the basement. Three rows of large concrete columns support the ceiling on both the first floor and basement level.

The first floor of the Cord L-29 building housed the Cord L-29s for detailing and preparation for shipment. The basement was used as an experimental area where all experimental and prototype cars were hand-built and assembled. Designers, including Alan Leamy and Gordon Buehrig, had "field offices" in this space and often supervised the building of prototypes. The Duesenberg brothers also used this space for their experimentation and testing area.⁸

⁸ John Martin Smith to Andrew Halter, 15 November 2001. Historic Landmarks Foundation of Indiana, Indianapolis, Indiana.

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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: $A \underline{X} B \underline{C} \underline{X} D$

Criteria Considerations

(Exceptions): A_B_C_D_E_F_G

NHL Criteria: 1

NHL Theme(s): V. Developing the American Economy

3: transportation and communication

Areas of Significance: Commerce, Industry, Transportation

Period(s) of Significance: 1923-1936

Significant Dates: 1923, 1928, 1929

Significant Person(s): N/A

Cultural Affiliation: N/A

Architect/Builder: Alvin M. Strauss and Associates

Historic Contexts: XII. Business

B. Manufacturing Organizations

2. Transportation Equipment

XIV. Transportation

G. Automobiles, Buses, Wagons and Highways

XVIII. Technology (Engineering and Invention)

B. Transportation

G. Industrial Production Processes

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State Significance of Property, and Justify Criteria, Criteria Considerations, and Areas and Periods of Significance Noted Above.

Introduction

The Auburn Cord Duesenberg Automobile Facility is nationally significant as one of the few remaining examples of an independent specialty automobile company that made hand-assembled rather than mass-produced automobiles. The Art Deco showroom and administration building, service and new parts department building, and the Cord L-29 building remain as visual reminders of this company's proud past and achievements in automotive history. Each building represents a different stage in automotive development and construction: from the drafting tables of the initial design stages to the final product display on the showroom floor. The range of extant buildings at the Auburn Cord Duesenberg complex is recognized as a rarity among comparable automotive facilities. Additionally, the high level of integrity, automotive innovations, and current interpretation, contribute to the national significance of Auburn.

While there were a number of small independent American auto manufacturers in the early years of the industry, few had the longevity and focus on handcrafted quality of the specialty manufacturers. The early twentieth century saw many upstart automobile companies that lasted just a few years; Indiana in particular was home to several independent specialty manufacturers now deemed classics around the world, including the Auburn, Cord and Duesenberg of the Auburn Automobile Company, and the automobiles of the Marmon and Stutz Motor Car Companies. Classic cars are identified by their outstanding engineering, styling, handling, or combination of all three. Specialty manufacturers prided themselves on all three of these classic-making features.

Historical Background

The automobile industry was a natural evolution of carriage manufacturers, which supplied materials and skilled labor. By the start of the twentieth century, the automobile inserted itself into American life, appearing in a variety of forms. Not only were the early automobiles diverse but their manufacturers were geographically dispersed, primarily in the Midwest and the Northeast. A proliferation of automobile manufacturers cropped up, but many lasted only long enough to produce a handful of automobiles while others barely managed to produce a prototype.¹¹

Between 1910 and 1920, the automobile changed the landscape of America. People embraced the automobile and the freedom that it gave them. The automobile brought Americans closer together as travel became easier and quicker, allowing them to stray farther from home on vacations or weekend trips and, on a daily basis, to live farther from their places of employment. The automobile facilitated the broad expansion of the suburbs and the development of an organized system of roadways--defining features of the American landscape today.

The growth spurt between 1910 and 1920 separated the nation's successful automakers into two groups: the mass-produced auto giants and the specialty manufacturers. Mass production resulted in the production of a single model--inexpensive but good--in large quantities with a small margin of profit. The system depended on

⁹ For a full discussion of the methodology used to identify and evaluate other comparable manufacturers, refer to the section of this nomination entitled "Other Comparable Facilities."

¹⁰ Alexander and Roland Leich, "Cars of Indiana, Part I," *Motor Trend* (September 1965): 67.

¹¹ Indianapolis Historic Preservation Commission, "Indianapolis-Marion County Automobile Industry, 1890-1940, Historic Context Study & Property-Type Analysis" (Indianapolis: Historic Landmarks Foundation of Indiana Library, 1990), 5-6.

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standardization, mechanization, speed, efficiency, and careful control of production and workers. For Ford, the Model T, produced year after year with only minor changes, opened the way for quantity production. In the early days of mass production, most automobile manufacturers did not have large enough output to warrant using the methods that Ford used. However, the boom in demand for automobiles in the second decade of the twentieth century gave other companies the opportunity to employ some of Ford's economies of scale.¹²

Alternatively, most specialty automakers, including Auburn, Cord and Duesenberg, purchased automotive parts and assembled them by hand using skilled machinists. They relied on suppliers who specialized in each component, adding to the quality and costs of the automobile.¹³ As a result, these companies were small, and many became known for producing high-quality and high-priced cars. Nearly every one of the Indiana cars that became well known was in this category, including names like Auburn, Cord, Duesenberg, Marmon, and Stutz, and appealed to the upper end of the consumer market.¹⁴ The Auburn Automobile Company remained a supplier-dependent company with Auburn factories acting as final assembly points for gasoline-powered passenger vehicles from 1903 to 1936.¹⁵

Indiana held many of the right ingredients for a lucrative automobile market to develop within the state. Carriage and wagon manufacture was a well-established tradition in Indiana. In the federal census of 1890, the manufacture of carriages and wagons was ranked as the state's fifth leading industry by value of product. At the turn of the twentieth century, Indiana's carriage and wagon industry was ranked second in the nation after Ohio. The numerous German immigrants who moved to Indiana brought their woodworking skills to the carriage industry. Such skills were also important in the early days of automobile production, as the earliest automobile bodies were merely adaptations of carriage frames. The railroad also played a significant role in the development of this industry, offering many ways in which raw materials might enter, with finished goods leaving on the same tracks. Construction of the Indianapolis Motor Speedway (NHL) in 1909 further secured Indiana's role as a leader in automotive testing and innovation.

Indianapolis was second only to Cleveland as Detroit's chief rival, with sixty-five makes to Cleveland's eighty-two. Indiana survived the struggle against Detroit longer than Cleveland, producing cars until the closing of the Auburn Automobile Company in 1937. More than eighty Indiana cities and towns housed automobile

¹² Lindy Biggs, *The Rational Factory: Architecture, Technology, and Work in America's Age of Mass Production* (Baltimore: The Johns Hopkins University Press, 1996), 112.

Most of the early automobile companies designed and assembled cars, buying components from small manufacturers. It was the Detroit giants, like Oldsmobile, Buick and Ford, that began the practice of manufacturing many of their own components. The job of assembling a car in 1903 required the skill of an experienced hand and the use of standard machine tools. Every piece had to be cut, filed, and fitted because the industry had not yet achieved the production of standardized, interchangeable parts. The work was done by small groups of skilled machinists working together to build one car at a time. The construction of an automobile depended on human skill rather than the skill of any special-purpose machine, even though such machines were commonly used in other industries by that time. The shop floor was divided among small working groups, each assembling a single car. This allowed them to produce a wide range of models. Management was minimal; in most companies both owner and foreman were skilled machinists rather than school-educated engineers or managers, a situation that created a collegial rather than hierarchical relationship. Lindy Biggs, *The Rational Factory: Architecture, Technology, and Work in America's Age of Mass Production* (Baltimore: The Johns Hopkins University Press, 1996), 110-112.

¹⁴ Lee Beck, "The Cord That Binds, E. L. Cord and the Auburn Automobile Company," *Traces of Indiana and Midwestern History* (Spring 1994): 3-11.

¹⁵ In the assembly process, the bodies were prepared on the second floor, while the chassis and engine assembly took place on the first level. Bodies were lowered through an opening in the floor, bringing the units together. It took four hours and forty-five minutes to assemble one car. The bodies were made of hardwood skeletons, covered by wire mesh, insulating fabric, and thin outer sheet metal. Jon Bill, Director of Education and Archives, Auburn Cord Duesenberg Museum, to Christina Baich, 12 March 2003. Auburn Cord Duesenberg Museum, Auburn, Indiana.

¹⁶ Indianapolis Historic Preservation Commission, "Indianapolis-Marion County Automobile Industry, 1890-1940, Historic Context Study & Property-Type Analysis" (Indianapolis: Historic Landmarks Foundation of Indiana Library, 1990), 2.

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manufacturers or assembly companies--thirty of those existing before 1920.¹⁷ No less than ten automotive manufacturers' nameplates emerged from the town of Auburn, Indiana alone.¹⁸ This is rather surprising when one considers the population of the town was only 5,000 at the turn of the century. Most of the car manufacturers lived and died before World War I and little if any physical evidence of them remain.

Names like Auburn, Cord, Duesenberg, Marmon, and Stutz lend distinction to Indiana's automotive legacy. Others may be more obscure, but have also played important roles in the evolution of the automobile. In fact, Indiana can claim many automotive firsts. The Auburn Automobile Company alone contributed a number of innovations that influenced the way many automobiles were manufactured in America. They include: the first front-wheel drive production automobile (the Cord L-29); unitized body construction (all-steel stamped body with built-in frame); concealed open-and-close headlamps; concealed fuel cap; one-piece hood which opens from the front; deletion of running boards, made possible by a low profile; deletion of exposed vertical radiator shell; and semi-automatic transmission with Bendix gear pre-selector. Additionally, the outstanding design of several of the company's automobiles was recognized in 1951 when a 1937 Cord 812 sedan was one of eight cars exhibited at New York's Museum of Modern Art. Under the control of the company's automobiles was recognized in 1951 when a 1937 Cord 812 sedan was one of eight cars exhibited at New York's Museum of Modern Art.

Until about 1920, there seemed to be enough demand for both the mass-produced and independently crafted cars. However, a series of economic factors during this time contributed to a nationwide decline of specialty auto making. Price slashing and an expansion-crazed environment trapped smaller manufacturers in a battle with the Michigan titans. Specialty companies were ill prepared for this kind of competition, and most wanted to concentrate on higher priced vehicles instead of diversifying. Plus, nearly a decade later, the Depression added more financial burden on the general population, which became increasingly interested in the less-expensive, mass-produced auto. Michigan had investors willing to commit financial resources to give the state's auto manufacturing the boost it needed.²²

The Auburn Automobile Company

The Auburn Automobile Company had its beginnings at the dawn of the twentieth century. Although the automobile as an industry was still in its infancy, particularly in the United States, it was growing fast. Many auto manufacturers developed from carriage manufacturers, a natural progression considering that early inventors installed internal combustion engines in, on, and under carriages. The Eckhart Carriage Company of Auburn, Indiana was no exception. By 1903, Charles Eckhart and two of his three sons, Frank and Morris, became involved in trying to bring an automobile to fruition which would bear their hometown's name. ²³

It is difficult to establish a date when the Eckhart's first built their automobile. The November 21, 1900 issue of *The Horseless Age*, an early automobile trade magazine, carried the following item, "G. H. (sic) Eckhart [Charles Eckhart], candidate for governor of Indiana, on the Prohibition Ticket, made his canvass during the recent campaign in an automobile. Mr. Eckhart is a carriage manufacturer and proposes manufacturing

¹⁷ Brockman, "Made in Indiana," 9.

¹⁸ John Martin Smith, *History of DeKalb County, Indiana*, 3 vols. (Auburn, IN: NATMUS, Inc., 1992), 951-1041.

¹⁹ Beck, "The Cord That Binds," 36.

²⁰ Each of these innovations is documented by patent numbers on file at the Auburn Cord Duesenberg Museum. Primary patent holders are Cornelius Van Ranst, Gordon Buehrig, Harold Ames, and Herb Snow.

²¹ Alexander and Roland Leich, "Cars of Indiana, Part I," *Motor Trend* (September 1965): 83.

²² Beck, "The Cord That Binds," 3-11; John B. Rae, *American Automobile Manufacturers: The First Forty Years* (Philadelphia: Chilton Company, 1959), 182-185; Leich, "Cars of Indiana, Parts I and II," 65-84, 68-89.

²³ A Short History of the Company, Auburn Automobile Company, 1932; The Inside Story of Auburn, A. B. Leach and Company, Inc., 1929.

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automobiles in the near future."²⁴ Unfortunately, the item does not state whether he or others built the car used by Eckhart. Nevertheless, it establishes the Eckharts' interest and intention at an early date. In later years, the Auburn Automobile Company extensively used the slogan "Established 1900."

According to *Moody's Manual of Investments*, the Eckharts incorporated their new operation in 1903 as the Auburn Automobile Company. The object of the company was "to manufacture and sell automobiles and self-propelling carriages and wagons." Charles was listed as president, Frank as vice president, and Morris as secretary-treasurer and general manager. In its April 29, 1903, issue, *The Horseless Age* reported, "The Auburn Automobile Company has one automobile being tested." This likely referred to the Auburn model the company displayed at its inaugural outing, the 1903 Chicago Automobile Show, held February 11 through 21.

Some accounts report that the company produced twenty-five automobiles by the end of its first year of manufacturing (1903), while others report fifty. By 1904, sales of Auburns justified the expansion of production facilities. The company erected a two-story 60x100 foot building behind the Eckhart Carriage Company complex (soon to be the Auburn Automobile Company complex) to manufacture the new automobile. The *Auburn Weekly Courier* noted in its July 5, 1906, edition that the Auburn Automobile Company "has increased its facilities until they can turn out 100 per year." Beginning in 1907, the Auburn Automobile Company started to use the slogan, "The Most for the Money." It remained in Auburn brochures throughout the Eckhart's ownership of the company. Sales literature also touted "Established 1902," in reference to the first Auburn prototype built that year. Before the Eckharts sold Auburn, the start date slid back to 1901. When Errett L. Cord gained control of the company in the late 1920s, his advertising people simply rounded the date off to 1900.²⁷

After Charles Eckhart's death in September 1915, the family officially liquidated the Eckhart Carriage Company in 1918.²⁸ The Auburn Automobile Company sale was finalized by the summer of 1919. Officers and directors of F. B. Hitchcock and Company, an investment-banking firm located in Chicago, filed articles of incorporation with the State of Indiana on June 25, 1919. "The Chicago Gang," as they were later referred to by a hometown employee of the Auburn Automobile Company, organized the Auburn Automobile Company with a capital stock consisting of 10,000 shares of preferred stock valued at \$1 million and 30,000 shares of common stock valued at \$750,000.

Net profits began to drop in 1921, yet by 1922 the factory expanded to 245,000 square feet in eleven buildings on twenty-three acres. Though these capital investments may have been necessary, they did not help matters as these expenditures collided head-on with an ongoing post-war depression. This was a problem experienced by many American auto manufacturers who expanded just before the war and during the short post-war boom that preceded the economic depression. In an attempt to turn its flagging fortunes around, Auburn hired Roy Faulkner in 1922. This well-known salesman of the Frank Santry Motor Company of Cincinnati became the sales manager for Auburn. Despite the company's product weakness, Auburn was on the leading edge of marketing. Recognizing early the power and independence that women were gaining in society, Auburn's literature depicted photographs of women at the wheel of its automobiles. The company constructed a service

²⁴ The Horseless Age (New York: The Horseless Age Company, 21 November 1900).

²⁵ John Moody, *Moody's Manual of Investments* (New York: Moody's Investment Service, 1903).

²⁶ The Horseless Age, 29 April 1903.

²⁷ Information from various pamphlets form the Auburn Automobile Company located in the Archives of the Auburn Cord Duesenberg Museum, Auburn, IN.

²⁸ "Death of Charles Eckhart," Auburn Courier (Auburn: IN), 29 September 1915.

²⁹ Beverly Rae Kimes, "Auburn Automobile Company," in George May, *The Automobile Industry*, 1896-1920 (New York: Facts on File, 1990), 21.

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and new parts building as a result of this increased activity. This provided additional factory space and a holding area for parts awaiting shipment to distributors and dealers.

Errett L. Cord took his first view of the Auburn Automobile Company in June 1924 and summed up the situation in his head. Sprawled over 18½ acres a number of long factory buildings, including the service and new parts department, offered 527,000 square feet of floor space. The original factory complex, including the original Eckhart family factory, was still extant when Cord arrived [see Photo 12]. Among the original factory buildings were a machine shop, office and experimental room, finishing and storage facilities, cleaning and enameling facilities, and storage space. The original Eckhart building was used primarily as a stock warehouse with office space and the sales room occupying the front of the building. This complex of buildings sat primarily to the north and northeast of the nominated buildings.

Cord, in a 1925 prospectus, noted "The capacity of the plant can be brought to 100 cars per day with slight additional capital expenditure." True, perhaps, but the need was hardly there. More than 700 Auburns collected dust in the back lots of the factory complex. Cord wasted no time moving the dusty Auburns, either piecemeal or in wholesale lots. He ordered the cars painted in two-tone color schemes with nickel-plated accoutrements. These sales generated enough capital to create the building blocks for Cord's empire, which would include the Duesenberg, geared toward engineering, and the Lycoming Manufacturing Company in Pennsylvania for production. Cord's method of market analysis was simple. He traveled the country, talking directly with the dealers and customers learning of their dislikes and preferences. His past experience taught him that "no salesman could talk quality into a car." Therefore, he would invite you to see the new Auburn. Get an expert mechanic to go over it. Compare it with cars costing more. Put it to any and every test. Then if the car did not sell itself, you would not be asked to buy. ³¹

As Auburn's literature promoted, "These cars are built by a home owning group of workmen in Auburn, Indiana, whose big purpose in life is the Auburn car. They build it with that exacting care that makes a good car a better one." Cord increased Auburn's sales by "cleverly marketing a modishly styled automobile that offered more for the money than most car buyers thought reasonable to expect. Although priced in the medium range, Auburns possessed high-priced features such as hydraulic brakes and Bijur lubrication." The Auburn was a high-performance vehicle that the middle class could afford.

While working to introduce a new model in 1925 with limited funds, Cord needed more bodies than Auburn could produce, so he approached Central Manufacturing Company of Connersville in March of the same year to inquire of their willingness to assist. Cord persuaded Central to build 100 of the upcoming Auburn bodies on credit and at a bargain price. Connersville's once massive automobile empire was now in shambles. Eventually, Central signed an 18 month contract worth \$1.5 million, and henceforth played a key role in the Auburn Automobile Company's affairs. This order was for the production of the Auburn 8-88 and 6-66, which represented styling far in advance of anything Auburn had previously manufactured.³⁴ By November 1, 1925,

³⁰ Companies like Ford were producing an average of 500 to 800 per day, with monthly production over 15,000. Lindy Biggs, *The Rational Factory: Architecture, Technology, and Work in America's Age of Mass Production* (Baltimore: The John Hopkins University Press, 1996), 110, 118.

³¹ "A New Leader Responsible For An Amazing Development in Motor Cars," *The Saturday Evening Post*, (October 3, 1925): 208.

³² Auburn Automobile Company promotional literature from the Auburn Cord Duesenberg Museum, Auburn, IN, ca. 1925; "A New Leader Responsible For An Amazing Development in Motor Cars," 208. The average non-union factory worker started at a wage of 25 cents an hour. In salaried jobs, the average man took home 59 dollars a week, the average woman 16. The auto company was the leading employer in town, with 592 Auburn residents working there, out of a population of 5,084.

³³ Kimes, "Auburn Automobile Company," 21.

³⁴ Henry Blommel, "The Way It Was," *Connersville Spirit* (Connersville, IN: Spirit Media, Inc., 1992).

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the Auburn Automobile Company was out of debt, the bankers' preferred stock liquidated, and Cord's takeover complete.³⁵

In its February 26, 1926, issue, *Automobile Topics* reported, "Cord has acquired a substantial interest in the company, and is now in complete control of its affairs." The transition of power occurred on February 2 at the Auburn Automobile Company's annual meeting. Cord, 32 years of age, was elected president. The Auburn Automobile Company's sales in 1926 climbed to \$10.8 million, while profits rose to over \$942,000. The company's balance sheet, dated September 1926, showed a surplus of \$1.7 million.

Cord continued to build his automotive empire. Production soon outgrew the Auburn facilities. The city fathers did not want Cord to expand his operations in Auburn, so Cord again turned to Connersville. On August 26, 1926, he purchased the Ansted Engineering facility. Three months later, on November 26, Cord received an offer not to be refused from the Bigger and Better Connersville Committee, which included a 135,000 square foot facility formerly belonging to the Lexington Motor Car Company. The Connersville complex covered 82 acres. Following a rebuilding program costing \$2 million, it consisted of between 20 and 26 buildings giving Cord approximately 631,299 square feet of manufacturing space. The facilities Cord purchased in Connersville were far more technically advanced than those of Auburn were, and they soon doubled Auburn's output. In 1930, 60-70 percent of Auburn production occurred in Connersville while all Cord L-29 and the remaining Auburn production occurred in Auburn. In 1931 the Auburn Automobile Company broke in to the top twenty auto manufacturers for the first and only time at number thirteen. Demand outstripped the Connersville plant's capabilities so Auburn production partially shifted back to the city of Auburn. In 1934 all production moved to Connersville except for the building of Speedster bodies, which remained in Auburn.

While expanding his presence in Connersville, Cord also purchased Duesenberg Motors Corporation, including its 16.5-acre complex in Indianapolis, out of bankruptcy court. Capitalized at over \$1 million, the company was incorporated as Duesenberg, Inc. on November 3, 1926. Cord appointed himself president and Fred Duesenberg as vice president of engineering. Thereafter, the Auburn Automobile Company always maintained a majority control of Duesenberg shares. Though Duesenberg went on to become the "premier" company of the Auburn, Cord, Duesenberg triumvirate, it always did so with the capital produced by the more moderately priced Auburn marque.

Auburn's growing confidence was reflected in the sales slogan for the period: "Drive an Auburn Straight Eight and if it does not sell itself, you will not be asked to buy." Sales for 1927 saw a 57 percent increase over 1926. On the heels of this success, Auburn distributors popped up all over Europe, including Amsterdam, Athens, Berlin, Brussels, Bucharest, Copenhagen, Hamburg, Lisbon, London, Oslo, Paris, Prague, Riga, San Sebastian, Vienna, and Zurich. 39

³⁵ Griffith Borgeson, Errett Lobban Cord: His Empire, His Motor Cars: Auburn-Cord-Duesenberg (Princeton, NJ: Automobile Quarterly Publications, 1984), 45.

³⁶ Automobile Topics, (New York: Automobile Topics Inc., 1926).

³⁷ Michael J. Kollins, *Pioneers of the U.S. Automobile Industry Volume 3: The Financial Wizards* (Warrendale, PA: Society of Automotive Engineers, Inc., 2002), 172. Further discussion of the Connersville sites can be found in the "Other Auburn Automobile Company Facilities" section of this nomination.

³⁸ The Indianapolis Public Transportation Corporation developed the Duesenberg site into a METRO bus maintenance facility. This resulted in the demolition of all the buildings on the site except for the machine shop. The building was rehabilitated with significant exterior modifications as administrative offices for the city bus system in 1984-85. Further discussion can be found in the "Other Auburn Automobile Company Facilities" section of this nomination.

³⁹ The Accelerator (Auburn, IN), July 1927.

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In September 1927, Cord bought Lycoming Manufacturing Company of Pennsylvania, which had manufactured engines for Auburn since 1925. Lycoming continued to supply other auto manufacturers as well as serve as the exclusive engine for Auburn. Continuing Auburn's unconventional tradition of introducing models at any time during the year, the company carried over its 1927 models for a short time in 1928. However, the second series of Auburns for 1928 temporarily suspended the company's use of hyphenated model numbers. When Auburn finally rolled out the new 115, it became Auburn's *piece de resistance*. The 115 not only set new sales records for Auburn but also twelve new stock car records at the Atlantic City Motor Speedway, surpassing previous records by five to eleven mph. ⁴⁰

Griffith Borgeson quotes Eddie Miller as saying that the 115 was "the first real Auburn." Auburn offered the 115 in a sedan, sport sedan, roadster, cabriolet, and phaeton sedan. This last model represented a more civilized means to enjoy top-down motoring with a four-door model. Unlike a touring model, a phaeton owner enjoyed roll-up windows. Auburn was the first automaker to offer the phaeton body style on a production car.⁴¹

In 1928, Auburn introduced what became its most famous model. Still synonymous with the Auburn name, the Auburn Automobile Company presented the speedster as part of the 115 line. The speedster fearlessly challenged Stutz's performance image. Both companies' speedsters represented an answer to a stock car racing problem: How does a driver keep the competition from drafting in the wake of a boxy sedan? The answer was simple: Create a streamlined stern that eliminates the air wake [see Figure 10]. The origins of the first Auburn speedsters are rooted in Duesenberg's Model X Speedster.⁴²

By 1929, Auburn's lines seemed rather dated when compared to its larger siblings, the Duesenberg Model J and the new, front-wheel drive Cord L-29 [see Figures 11 and 12]. Both models went into production in 1929, outshining their lower priced brother. Auburn sales literature put a positive spin on this situation by claiming its continuance of styling since 1925 kept resale values high. If one could detect few changes, why not drive a four-year-old Auburn? Regardless of trailing its corporate brethren aesthetically, Auburn remained the lifeblood of Cord and Duesenberg operations. Despite the engineering and racing acclaim that the Cord and Duesenberg luxury models garnered, the less stylized Auburn continued to surpass them in terms of sales, providing the revenue to continue improving the Cord and Duesenberg lines. The Auburn Automobile Company remained a supplier-dependent company with Auburn factories acting as final assembly points.

New for 1929 was the Auburn Caravan, a representative selection of Auburns that traveled the country. The caravan stopped at local Auburn dealers with a sales promotion arranged around the event. In most cities, the caravan succeeded in obtaining local newspaper coverage. Auburn dealers sold 23,509 cars for the year, an all time high and an 82 percent gain over 1928. In September 1929, the company announced construction of a new administration building in Auburn.

Cord's acquisitions accumulated. To create an umbrella company that covered these various endeavors, Cord announced the formation of the Cord Corporation on June 15, 1929, its offices at 120 South LaSalle Street, Chicago, Illinois. The Cord Corporation served as a holding and operating company, capitalized at \$125 million. Its holdings included: Columbia Axle Company, LGS Devices Corporation, New York Shipbuilding Corporation, Auburn Automobile Company, Lycoming Manufacturing Company, Checker Cab Manufacturing

⁴⁰ Kollins, Pioneers of the U.S. Automobile Industry, Volume 3, 171.

⁴¹ Borgeson, Errett Lobban Cord, 76.

⁴² Ibid., 52.

⁴³ The Accelerator.

⁴⁴ Sales for 1928 totaled to 12,899. Sales records, Auburn Cord Duesenberg Museum Archive, Auburn, IN.

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Corporation, Parmelee Transport Company, Continental Air Lines, Inc., Embry-Riddle Corporation, and the Stinson Aircraft Corporation.⁴⁵

Auburn Automobile Company sales suffered in 1930, although a post-Wall Street crash economy contributed to a lean year for everyone. The business plan for 1930 called for a 50 percent increase in production over 1929. Despite this, unit sales dropped precipitously, to 13,627, though the Cord front-drive L-29 enjoyed its sales peak this year at 3,449. In conjunction with the initial success of the L-29, a new building was constructed to house Cord L-29s that awaited detailing or shipment as well as to provide facilities for experimental and prototype cars to be hand-built and assembled. Assembly of the L-29s occurred in the existing Auburn facilities.

The idea of developing an automobile propelled by its front wheels was hardly a new one when E. L. Cord decided to pursue the technology in 1927. The first "modern" front-drive passenger vehicle, distinguished from the primitive efforts that preceded it, appeared around 1904. Walter Christie applied the principle to racing cars, taxicabs, and tanks. In his earliest cars, Christie used an arrangement much like that of the later Austin/Morris designs of Alex Issigonis, with the engine mounted transversely over the front axle. This design is mirrored in the front-drive cars of today. But engineers in 1904 did not have the benefit of the metallurgy of almost a century later, and Christie's vehicles suffered from heavy front ends. Still, the logical notion of pulling a car by the front wheels, of placing the horse before the cart, as Auburn Automobile Company literature would later state, continued to draw the attention of automotive engineers.

Auto racing delivered a successful approach to front-drive technology--a forum in which many automotive innovations found their origins. In 1921, Jimmy Murphy won the French Grand Prix at Le Mans in a 183 cubic inch Duesenberg racecar. As the first American to win a Grand Prix, Murphy's fame, at least in the United States, grew overnight. With the fame came the offers of better racecars. California based racecar builder Harry A. Miller approached Murphy in 1923 with a proposal for a front-drive racecar. The design utilized a front-drive mechanism that connected the front wheels with a DeDion-type solid axle.⁴⁷

Murphy teamed with Miller and his designer, Leo Goossen, on the design of a front-drive racecar. Miller eventually created a series of front-drive racecars, driven by some of the country's best drivers. Motor sports were a popular subject with the public in the late 1920s, and Miller's record of successes created enormous interest in front-wheel drive. Automakers looked for ways to take advantage of the free publicity. General Motors bought two Millers. Packard signed a consultation contract with Miller. The Ruxton, using another front-drive system, was being rushed into production. It was only natural that E. L. Cord considered capitalizing on this publicity by applying Miller's front drive principles to a passenger car.

Auburn decided to investigate the front-drive concept for a passenger car in June 1927. No one at Auburn knew how to build a front drive car, so Cord sought the man whose name was now synonymous in the public's mind with front wheel drive. Cord contracted with Harry Miller for patent and manufacturing rights and also retained Miller as a consultant during the development of a front-drive automobile. As Auburn Automobile Company dealer literature stated, "In the fall of 1926 it was announced that the Auburn Automobile Company had purchased the right to use the front-drive designs and patents, which had made Harry Miller of Indianapolis

⁴⁹ Borgeson, Errett Lobban Cord, 173-75.

⁴⁵ Borgeson, Errett Lobban Cord, 60.

⁴⁶ Auburn Automobile Company Annual Report, 1930.

⁴⁷ Borgeson, Errett Lobban Cord, 172.

⁴⁸ According to Michael J. Kollins, in reference to the front wheel technology of the Ruxton produced by the Kissell Motor Car Company, "The technical design by W. J. Muller left much to be desired. The design might have been better applied to the front end of a four-wheel-drive truck. Quoted in Michael J. Kollins, *Pioneers of the U.S. Automobile Industry, Volume 2: The Small Independents* (Warrendale, PA: Society of Automotive Engineers, Inc., 2002), 304.

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famous in racing car construction, for use on a passenger automobile to be built." Company literature claimed 1926 as the initiation date of its first front-drive project, but factory records show June/July of 1927 as the start up date. Cornelius W. Van Ranst assumed the task of getting the Miller design into production. Automotive historian Henry Blommel describes the design as follows:

In the Cord version of the Miller system, the engine sat in its normal position under the hood but the drive train ran forward. Just ahead of the crankshaft was the flywheel, then clutch, transmission, differential. From the differential to each wheel ran an axle with two universals. That made a total of four universals. The front axle was tubular, curved forward to clear the differential housing. The two universals on each driven wheel were necessary because the front wheels had to turn at a constant velocity. Normally when the drive shaft is at an angle to the driving shaft, it turns faster for one-half its circle, slower the other half. This is not important when rear wheels are driven, but it would not be pleasant to steer front wheels that are turning at an uneven rate on corners. ⁵⁰

It required five months to complete the engineering and construction of this innovative car. Inadequate torsional rigidity was immediately evident, as the car's doors popped open. The frame had to be reinforced. Engineers suggested the use of a heavier frame. However, they rejected this idea since the engine barely gave satisfactory performance with the existing design; the added weight only detracted from the car's effectiveness. Herb Snow, Auburn's chief engineer, developed the idea of inserting an "X" within the frame, which was found to be far superior in resisting twist without significantly increasing frame weight. This was the first use of an X-cross-member frame in an American automobile, which eventually became an industry standard.⁵¹

Sales literature stated that: "Through the ingenuity of AUBURN production men it is estimated that the quality CORD FRONT DRIVE will be produced at the rate of 6,000 cars for the balance of 1929, and by 1930 the Auburn, Indiana, plant should be turning at the rate of 15,000 or more C.F.D's per annum." The first public announcement of the Cord front-drive appeared in the summer of 1929 in popular magazines and trade publications. The company decided to offer only four body styles, two open (cabriolet and phaeton-sedan) and two closed (brougham and sedan) [see Figure 13]. Both closed models had four doors, but the sedan sported a rear quarter window. ⁵² Blommel wrote:

The advertising campaign concentrated on the advantages of front-wheel drive, better roadability (sic), smoother handling, greater comfort, more stability on corners and slippery streets. Their Cords could out-corner most modern attempts at suspension fabrication produced by the Detroit people on the standard rear-drive chassis. The front wheels just pulled you around without apparent effort, leaving the passengers sitting still rather than pitching them off at a tangent....Another reason for extolling the merits of front-wheel-drive was the short turning radius. The Cord with all its 137-inch wheelbase, could U-turn in a 42-foot circle. Steering was so easy that grandmother could wheel through a maze without tiring a muscle.⁵³

When one considers the multitude of other companies whose front-drive projects did not succeed, it is surprising that the Auburn Automobile Company's efforts ever came to fruition. Yet not only did the company place a front-drive automobile in production, Auburn was the first American company to do so. The whole

⁵⁰ Henry Blommel, Cord: A Timeless Classic (manuscript), introduction.

⁵¹ United States Patent Office, 1929, patent number 1,841,510.

⁵² Auburn Automobile Company, promotional and sales literature; Advertisements from popular magazines from the time, *Saturday Evening Post*; located in the archives of the Auburn Cord Duesenberg Museum, Auburn, IN, clipping file.

⁵³ Henry Blommel, Cord: A Timeless Classic (manuscript), introduction.

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effort must have been influenced by Cord's own belief that if an automaker could not be big it had to be different. Unfortunately, the Depression hurt high-end automobiles like the L-29. Sluggish sales caused L-29 assembly to cease on December 31, 1931. The final L-29s sold as 1932 models even though none were actually produced that year.

In the wake of the stock market crash, Auburn shifted its internal management arrangements by playing musical chairs. While the names were not new, the titles were, as the company created a number of vice president positions. These personnel changes were announced at the annual stockholders meeting on February 3, 1931. Cord became chairman of the board and turned the Auburn Automobile Company presidency over to Faulkner. Most of the newly appointed vice presidents took on no additional responsibilities, since the positions were new to the company. These officers held positions with similar duties, but now gained the prestige of a loftier title.⁵⁴ Their offices were housed in the newly constructed Art Deco administration building.

In 1929, with the introduction of the Duesenberg Model J and the front-drive Cord L-29, Auburn's styling was left behind. As an investment for the future, the Auburn Automobile Company called upon Alan Huet Leamy, a designer at Auburn from 1928 to 1934, to ensure the company's return to preeminence in product design. With Leamy's assistance, the 1931 Auburn exuded the elegance of a luxury car and delivered sound performance. Yet, one could buy a part of the Auburn line for as little as \$945. As with most early designers, Leamy started his bodylines with the radiator shell, fenders, and hood. This acted as a foundation upon which an astute designer based everything else. The 1931 Auburn was groundbreaking in that its flat grille lost its identity, instead blending in with the hood line and painted in a matching body color rather than plated in chrome or nickel. The grille's visual impact may have lost its edge over the intervening years, but it was a compelling look at the time [see Figures 14 and 15]. 55

For 1931, Auburn offered the 8-98 in the following body styles, brougham, speedster, coupe, sedan, cabriolet, phaeton, and seven-passenger sedan. They ranged in price from \$945 to \$1,395, depending on body style and customization. *Fortune* magazine hailed the 8-98 as "the biggest package in the world for the price" and by *Business Week* as "more car for the money than the public has ever seen." Auburn officials at the New York Auto Show took in approximately 4,000 orders. The automotive press reported that not a single Auburn dealer had a 1930 car on the showroom floor at the time of the auto show, which, on the surface, appeared to indicate that sales overwhelmed production. In truth, Auburn slowed its 1930 production lines early due to the sluggish sales year. Early in the 1931 model year, management anticipated production at 2,000 per month. By February, it had to be doubled. The Connersville and Auburn factories worked at capacity to keep up with demand. Despite reports of booming sales in early 1931, a look at factory production records reveals the company was not ready for the onslaught. 57

By April 1931, the Auburn Automobile Company had produced more cars than it had for all of 1930. The company's production was already at 6,203 units for March, 6,555 in April, and 6,007 in May. Yet the peak was short lived, and production numbers declined steadily after this. Never again would the Auburn Automobile Company factories hum with the sound of success.

The 1931 Auburn was an initial success, but that was achieved by previous momentum. Sales fell quickly for Auburn, Cord and Duesenberg after 1931, and not only because of the ongoing Depression. Cord also pulled

⁵⁴ Auburn Automobile Company, Annual Report, Auburn Cord Duesenberg Museum, Auburn: IN.

⁵⁵ Borgeson, Errett Lobban Cord, 65.

⁵⁶ Quoted in Beverly Rae Kimes, Standard Catalog of American Cars, 1805-1942 (Iola, WI: Krause Publications, 1996), 68.

⁵⁷ Blommel, "The Way It Was."

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his support, and interest, from the automobile lines. He moved from the family home in Auburn to Beverly Hills, California, and spent less time at the Auburn Automobile Company's administration building.

While many blame the slogging pace of the Great Depression for the demise of the Auburn Automobile Company, others fault the new management that took over the Cord Corporation in 1937 and its lack of interest in automotive production. Cord lost interest. In Borgeson's biography of Cord, he quotes a U.S. Board of Tax Appeals report from 1938, which is quite revealing: "The executive committee of Cord Corporation had determined prior to June 1, 1932, to liquidate a substantial part of its investment in the automobile industry and to increase its investment in the field of aviation." Aviation, as an industry, was still in its formative stages. ⁵⁸

There were economies of scale to be had at Ford, General Motors, and Chrysler. Good cars were available at low prices. The Auburn Automobile Company, like most independents, was being squeezed out of the car business. The company had to compete on price in the midst of the Depression, but did not enjoy the previously mentioned economies of scale necessary to endure low profit margins. The Roaring Twenties supported an independent, boutique automaker; the Great Depression did not. The Cord Corporation at least had a chance in the aviation market.

By 1933, the Cord Corporation's annual report noted the company held less than 4,000 shares of Auburn Automobile Company stock. Although the move to "liquidate a substantial part of its investment in the automobile industry" never completely evolved, the fact that the Cord Corporation management even entertained the idea is significant. By design or otherwise, the reality of the Depression era auto market began to impact the Auburn Automobile Company in 1932, though it took five years to complete the inevitable.⁵⁹

Despite price cuts, Auburn's losses were staggering. By the end of 1932, the company suffered a worse year than 1930. Net sales were only \$12.9 million, profits turned into a loss of \$1.1 million, and the company's cash surplus turned into a deficit, now at \$2.6 million. In November 1932, Cord handed the Auburn Automobile Company's presidency over to W. Hubert Beal. Beal had been a sales manager at Lycoming for a number of years, ascending to that company's presidency in 1931. He had also been appointed to Auburn's board in that same year. ⁶⁰

Auburn continued to sustain losses in 1933. Net sales dropped to \$5.4 million, the company registered another loss of \$2.5 million, and the deficit rose to \$3 million. Unit sales dropped from 11,332 to 4,630 units. The Auburn Automobile Company closed its factory operations in Auburn, though the administration and factory service departments remained there, leaving only the Connersville factory complex to produce Auburns after 1933. Financial difficulties notwithstanding, Auburn still strove to offer a quality product. 61

For 1935 unit sales came to 6,553 for a total of 9,645 Auburns sold in 1934 and 1935. Net sales dropped to \$3.9 million. Partial financial salvation came from an unlikely source when Montgomery Ward contracted with the Auburn Company for a line of metal kitchen cabinets to be stamped at Central Manufacturing in Connersville. The cabinets proved a popular product for the retailer. By summer 1935 Montgomery Ward had given the Auburn Automobile Company a \$1 million contract for more cabinets. 62

⁵⁸ Borgeson, Errett Lobban Cord, 190-93.

⁵⁹ Cord Corporation, Annual Report, 1933.

⁶⁰ Ibid.

⁶¹ Ibid.

⁶² Cord Corporation, Annual Report, 1935.

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Under these grim conditions, Gordon Buehrig undertook the facelift of the Auburn line for 1935. The final series of Auburn speedsters returned in 1935 and are perhaps the most well known Auburns today. Many have replicated its looks, and many scale models have been created from the design. The Duesenberg speedster heavily influenced the design of the 1935 Auburn speedster [see Figures 16 and 17]. Despite the speedster's desirability today, at the time dealers did not want them; they were not considered practical cars.

Auburn continued to develop front-drive concepts even after the production of the Cord L-29 ceased. Herb Snow and his assistant, George Kublin, studied the weaknesses of the L-29 to design a completely new frontdrive chassis. As they did with the L-29, Auburn's engineers bought and studied other front-drive automobiles. Styling origins of the second front-drive automobile from the Auburn Automobile Company can be traced to Duesenberg, Inc. [see Figure 18]. As the Great Depression deepened, makers of expensive automobiles found it increasingly difficult to market their wares. Duesenberg, the most expensive make of them all, was no exception. Other luxury carmakers sought salvation through the creation of less expensive models. A smaller, lighter, less expensive Duesenberg might pull the company through the hard times. In the Indianapolis Duesenberg factory, Augie Duesenberg started to work in secret on the rear drive baby Duesenberg, installing the twin outboard radiators. The U.S. Patent Office later granted Augie a patent on the system. The dramatic Duesenberg prototype was turned over to the engineers and stylists at Auburn. They would adapt its modernistic design to Auburn's new front-drive chassis. It eventually became the Cord 810 in 1935, but for now the Cord prototype was referred to as the E 306 No. 2. Details included the concept of disappearing headlights as found on the baby Duesenberg. These hidden headlights could be located on the front of the fenders. The new car's striking beauty was in its shape, not its chrome decoration [see Figure 19]. The design team succeeded in turning practical engineering into fine art. Capital used to place this model in production came from the kitchen cabinets manufactured in Connersville.

Herb Snow assigned George Kublin to head the three-man team driving the Cord prototype to California for road testing and to show to E. L. Cord. For purposes of industrial security they scheduled the trip for a weekend, when there might be fewer cars on the road. There was no Cord emblem on the transmission cover of the prototype, nor even a space for one. The public, however, was not fooled. In a telegram to Faulkner from Evanston, Wyoming, Kublin wrote:

Every effort to avoid public eye is futile. They trail us up side streets, country wayside filling stations and literally stampede the car. They gaze in wonderment at this sleek low creation. We tellem its a special, a foreign make, a Bulgat, a Nazi, a Whosat etc for a prominent Hollywood star and lots of other answers but in spite of it dozens of people all walks of life, doctors, farmers, mountaineers, business men associate the car with Cord and some with Auburn. ⁶³

So indelible were the marques of Auburn and Cord etched in the public's collective mind as leaders in automotive design that even a prototype, so totally different from anything that preceded it, could not dissuade onlookers from associating it with the Auburn Automobile Company. While the prototype made its way across the country, the board of the Cord Corporation approved the all new front-drive car for production. By this time it had been named "Cord" and tagged with the model number "810."

In most of the United States and around the world, men and women sought gainful employment due to the lingering effects of the Depression. In the cities of Auburn and Connersville, however, 60- to 70-hour work weeks were common for many Auburn Automobile Company employees trying to finish the prototypes for the New York and Los Angeles auto shows. As the show date neared they realized that 100 cars would not be

⁶³ Western Union telegraph from George Kublin, Evanston, Wyoming, to Roy Faulkner on 27 July 1935.

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ready in time. Since transmission problems had still not been resolved, testing continued; therefore, the 25 cars that went to the shows did not have transmissions.

Every major newspaper in New York and Los Angeles covered the auto shows and a disproportionate amount of space sang the praises of the new front-drive Cord 810 from Indiana. The 810's startling styling, dramatic interior, innovative drive train, exciting color schemes, all made it hot news for the reporters and exciting reading. Reviews referred to the dense crowds that surrounded the Cord exhibit. Papers reported that show attendees stood on the running boards and bumpers of competing cars to get a better look at the Cord 810. Color brochures, prepared for the shows, vanished quickly. The factory was deluged with requests for information, over 7,000 inquiries according to Faulkner. The Cord 810 received the same warm reception from the attendees in Chicago that it received in New York and Los Angeles. 64

Auburn committed itself to building 100 cars for the auto shows. As already noted, not all of these were actually completed. But mechanical parts and body panels for the 810s waiting to be built were ordered and delivered, so work on hand-assembled cars continued.

The General Motors Proving Grounds bought and tested a Cord 810 Westchester sedan. At the time they obtained their sample, only 88 Cords were registered in the United States. Their report, issued March 1936, complimented the car's engineering and body design. The testers liked the ride; they called it a "roomy, comfortable car, especially for four passengers." Quietness, steering, and stability were also praised. So was the Bendix fingertip gearshift. The engineers were not pleased with the quality of construction. "The design appears to have been more carefully executed than the actual construction. The job actually impresses one as having been cheaply built." Where the engineers were the most correct was in their report summary, "This car attracts attention but we do not believe it will attract buyers to any extent."

There were some bugs, and a few areas that were not fully developed. Still the Cord 810 was a remarkable accomplishment for such a radical departure from the automotive norm, produced under such horrendous pressures of time and economics.

Auburn's dealer network, assembled by Cord in the 1920s, dwindled rapidly after the peak sales year of 1931. By 1935, only 499 Auburn dealers remained in the United States, but nearly half of these carried other makes as well. The Auburn Automobile Company worked hard to help their remaining dealers. They organized sales contests and provided promotional literature in abundance. Quality and safety were major themes, and Cord 810 advertising touted front-wheel drive as a safety feature. While many buyers admired the 810's mechanical innovation, most did not rush to purchase the model, especially in the lingering wake of the Great Depression. The competition reminded customers of the Cord's well-known propensity for slipping out of gear. Vapor lock, often loosely addressed as overheating, was also discussed without hesitation. 66

The Auburn Automobile Company appears to have exhausted its human and financial energies getting the 810 to market. By May 1936, many of the top engineering staff left the company for good. Some 1,600 Cord 810s were produced through September 1936 in Connersville; about 1,100 were sold. By then, only 250 Auburn dealers remained.

⁶⁴ Promotional and sales literature from the Auburn Automobile Company; *The Accelerator*. A monthly publication from the Auburn Automobile Company.

⁶⁵ General Motors Corporation, General Technical Committee, Proving Ground Section, Milford, Michigan, "Cord 810 1936 Sedan," Report #PG-1.1105A, Archives of the Auburn Cord Duesenberg Museum, Auburn, Indiana.

⁶⁶ Promotional and sales literature from the Auburn Automobile Company, Auburn Cord Duesenberg Museum.

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In Auburn sales literature, the company depicted the factory spreads at Auburn and Connersville as if they rolled out Auburns on a massive basis. In reality, the Auburn plant sat idle, and Connersville automotive production was minimal. In May of 1936, the few offices remaining at the administration building in Auburn left for Connersville. Only the service and new parts department remained.

To be sure, the cars held pizzazz, flair, and a sporting air about them. Or, as an Auburn ad stated: "Exclusive, Distinctive, Individual." They were part of the country club set, cars made for Hollywood. Although Auburns were affordable to many more than those who purchased the cars during the economically troubled times, they exuded a personality beyond their price range. As the Depression lingered, few wanted to be associated with leisurely wealth. The company's product planners continued to bring out lofty automotive products as if the Roaring Twenties never ended. Ironically, had Auburn responded to the depressed state of affairs with models that were sold at a more reasonable price, it would have diminished Auburn's reputation, then and now. Without the flair and pizzazz, Auburns would not have been Auburns; they would have been just cars.

The Auburn Automobile Company recorded revenues of \$3.4 million in 1937, manufacturing only Cord 812s that year [see Figure 20]. However, the company continued to generate income with non-automotive stampings produced in Connersville. On the downside, it also racked up another deficit of \$3.4 million. Victor Emanuel and Company purchased Cord's holdings in the Cord Corporation, liquidated the automobile concerns, retained the aviation enterprises, and reorganized as the Aviation and Transportation Corporation. Workers assembled the last Cord 812 during the week of August 21, 1937. The Auburn plant had turned out Cords since 1929 and manufactured Auburns from 1900 to 1933. Faulkner remained as president of the Auburn Automobile Company until it was officially shut down on November 11, 1937. Those automotive operations still showing a profit, such as Central Manufacturing, LGS Devices, and Columbia Axle, remained. The Auburn Automobile Company filed for bankruptcy and protection from creditors on December 11, 1937, in U.S. District Court in Fort Wayne, Indiana. On June 15, 1938, the bankruptcy court accepted a bid of \$85,000 from Dallas E. Winslow, Inc., of Detroit for the remaining Auburn and Cord parts. Winslow purchased the remaining parts and tooling of automakers that had gone under. In addition to Auburn, Cord, and Duesenberg (the latter under a separate deal), Winslow continued to provide service and parts to owners of Franklins, Grahams, Hupmobiles, and others as long as supplies lasted. For an additional \$25,000, Winslow purchased the Auburn Automobile Company's administration building, moving his operations there from Detroit.⁶⁷ The remaining buildings were sold to the Warner Automotive Parts Division of Borg-Warner Corporation. 68 Despite the failure of the company, Cord is said by some to have "more richly enhanced the classic car scene in the U.S. than any other single individual."69 As noted by automotive historian Dick Nesbitt, "No company produced more Classics relative to its size than Auburn-Cord-Duesenberg."⁷⁰ Cord and the Auburn Automotive Company were so influential, in fact, that Ford produced a reimagined version of the Cord 810 in the 1960s.

In 1938 Winslow organized his service and parts venture as The Auburn, Cord, Duesenberg Company. Winslow refused to sell his parts in large blocks and continued the service and supply venture originally intended. This saved the parts for the wave of the future, which paid off in the early 1950s when the classic boom took place. More and more enthusiasts of Auburn and Cord automobiles developed. Many wanted an authentic restoration and Winslow saw another opportunity. Seizing upon the idea he employed local people, many of whom had worked for the Auburn Automobile Company, and a small restoration venture was started. The Auburn, Cord, Duesenberg Company trademark and the remaining Auburn and Cord parts were sold to

⁶⁷ Alexander and Roland Leich, "Cars of Indiana, Part II," Motor Trend 17 no. 10 (October 1965): 54-57.

⁶⁸ John Martin Smith, Auburn: The Classic City (Charleston, SC: Arcadia, 2002), 121.

⁶⁹ Leich, "Cars of Indiana, Part I," Motor Trend (September 1965): 82.

⁷⁰ Dick Nesbitt, 50 Years of American Automobile Design, 1930-1980 (New York: Beekman House, 1985) quoted in Ray Boomhower, "Destination Indiana: Home of the Classics," Traces of Indiana and Midwestern History (Spring 1994): 35.

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Glen Pray of Tulsa, Oklahoma, in 1960. Restorations were taken over by his enterprise and eventually replicas of the Cord and Auburn Speedster were manufactured through the 1970s. ⁷¹

Owners of Auburn, Cord, and Duesenberg automobiles formed a club, and in the early 1950s, began to sponsor an informal Labor Day reunion in which members brought their cars back to Auburn. What began in 1956 as a casual gathering of Auburn, Cord and Duesenberg car owners has evolved into the largest event in the state outside of Indianapolis. The Auburn Cord Duesenberg Festival, held annually over Labor Day weekend, attracts more than 300,000 people to the town of 12,000. In 1969 the Indiana Secretary of State approved the incorporation of Auburn Automotive Heritage, Inc. The purpose of the organization, as stated in the by-laws, was "to discover, procure, and preserve whatever may relate to the history of the automotive industry in the City of Auburn and County of DeKalb, Indiana." Due to a lapse in corporate reports, the Indiana Secretary of State dissolved the first corporation. The group refiled Articles of Incorporation in 1973. Through a public fundraising campaign, Auburn Automotive Heritage raised the money to purchase and restore the Auburn Cord Duesenberg Administrative Building and Showroom. The building opened as a museum of automotive heritage in 1974.

During the 1960s most of the other factory buildings historically located at the Auburn Cord Duesenberg facility were demolished, and most of the cleared land became a city park. Warner continued to use the administration building, and he sold the former new parts building and the Cord L-29 building to a private party who used them for storage. In 1990 these two buildings were bought by the National Automotive and Truck Museum of the United States, Inc. NATMUS had been incorporated on September 15, 1988 as a not-for-profit corporation. To pened in these two buildings on a part-time basis in 1994, and in 1997 became a full-time operation. The collection consists of nearly 250 post-war classics, including 1950s, 60s, and 70s convertibles, muscle cars, street rods, trucks and Corvettes.

Auburn Automobile Company Workforce

The Auburn Automobile Company was an outgrowth of the Eckhart Carriage Company, a manufacturer of horse-drawn carriages in the town of Auburn in the late 1800s. The first employees of the Auburn Automobile Company were sourced from the carriage company. At this point in time, many residents of the Auburn area were German and English emigrants. They brought with them many generations of experience and tradition as skilled craftsmen. They were also "tinkerers" and inventors, always looking for a better, more efficient way of doing something.⁷⁶ It was from this pool of labor that the Auburn Automobile Company hired its workers in the town of Auburn. In 1912 the First Annual Report of the Indiana State Bureau of Inspection reported that the Auburn Automobile Company employed 160 men and 3 women. All worked 60 hours per week. The work was hard, the hours long, and the conditions less than desirable considering the lack of air conditioning in the summer and only nominal heat in the winter.⁷⁷ The Auburn company experienced modest growth over the next

⁷¹ Paul R. Hayes, "Man of Many Parts," *Antique Automobile* (September 1987): 26-28.

⁷² The Labor Day festival contributes more than \$20 million to the local economy. Only the Indianapolis 500, Brickyard 400 and the Indiana State Fair have more attendees. Auburn Chamber of Commerce, Auburn, IN, September, 2002.

⁷³ Articles of Incorporation, Auburn Automotive Heritage, Inc. Indiana Secretary of State, July 28, 1969.

⁷⁴ The National Automotive and Truck Museum of the United States (NATMUS) is dedicated to preserving significant cars and trucks and to interpreting their past and continuing effect on life in the United States. The NATMUS collection includes makes of recent origin as well as those of pioneering efforts in automobile and truck development. The automotive collection is focused on the post-World War II era while the truck collection spans the entirety of the motorized industry. The collection is not limited solely to automobiles and trucks, but also includes structures, artifacts, literature, models and toy vehicles, and other items related to the automotive and truck heritage of the United States.

⁷⁵ Auburn Evening Star (Auburn, IN) 17 June 1990, 15 August 1990.

⁷⁶ Smith, History of DeKalb County, Indiana, Vol. 1.

⁷⁷ Smith, Auburn: The Classic City.

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decade. By 1924 the company claimed a manpower force of 450 employees. This figure included employees at dealerships. ⁷⁸ The company grew rapidly under the leadership of E. L. Cord who took over control in the summer of 1924. The number of Cord Corporation employees grew to over 6,300 worldwide by 1928. F. L. Cord had a philosophy of his own about hiring. He would not hire a person away from another employer for equal money or for more money. Nor would he hire a person for the going standard scale. For such employees, he said, there was just one day in the week: payday. What he sought and chose were men and women whom he could infuse with enthusiasm for what he wanted to build, and that they would work for less. It was not that he was frugal - he chose those who were willing to make a moral and material investment in the enterprise, who would have a vital personal stake in it and couldn't wait for the start of each new day. 80 In 1931 Auburn reached its crest of automobile sales and production. During that year a standard working schedule consisted of a 12 to 16-hour day (with an hour off for lunch) and six-day workweeks. The body stamping departments worked night shifts and on Sundays. 81 The workers at the Auburn Automobile Company, like most of their small-town counterparts, were not unionized at this time. Most workers during the Depression were happy to have work and, with Cord's success, those fortunate to be living in the Auburn area had plenty of it. In 1985, a comprehensive survey was taken of former workers of the Auburn Automobile Company, comparing their work at Auburn with that of other companies. Over 75% reported their wages and standard of living to be average or above. Over 80% reported their working conditions to be average or above. 85% described their feelings toward building an Auburn car as proud or satisfying. When asked about their feelings toward the company when it closed, over 59% of the former employees felt sad and sympathetic toward the company while only 7% felt betrayed, the remainder were indifferent. 82 The self-respecting, hard-working citizens of northeast Indiana take great pride in the accomplishments of the Auburn Automobile Company workforce.

Auburns, Cords & Duesenbergs: Ongoing Recognition

The Auburn Automobile Company designers succeeded in turning practical engineering into rolling sculpture. The remarkable design elements were recognized immediately. At the 1935 New York auto show, for instance, people stood on the running boards of the other autos on exhibit just to get a glimpse of the 1936 Cord 810. 83 Not only were the automobiles that were designed and engineered at the Auburn Cord Duesenberg Automobile Facility icons in their own time, but each of the three marques, Auburn, Cord and Duesenberg have been held in the highest regard both nationally and even internationally from the time of their manufacture through the present.

In 1951, just sixteen years after its debut, The Museum of Modern Art named the Cord 810/812 one of the eight greatest car designs of all time. In 1958, the Institute of Design of the Illinois Institute of Technology named the 100 best-designed products (not automobiles) and the 1936 Cord 810 was 14th on the list. In 1960, Floyd Clymer Publications of Los Angeles, California published a book by three French automotive journalists, 100 Of The World's Finest Automobiles. Auburn, Cord and Duesenberg were all three included in the book with reference specifically to body styling. In 1986 American Heritage magazine published an article by leading industry authority, Brock Yates, entitled "The Greatest American Cars." The list included the Duesenberg Model SJ. Within the article Yates quoted one historian as stating that the SJ Duesenberg is "the most gorgeous

⁷⁸ The Inside Story of Auburn, A. B. Leach & Co., 1929.

⁷⁹ Ibid.

⁸⁰ Borgeson, Errett Lobban Cord.

⁸¹ Ibid.

⁸² Stanley W. Kuta, "The Auburn Automobile Company and Its Workers" (diss., Manchester College, 1985).

⁸³ Gordon M. Buehrig, Rolling Sculpture: A Designer & His Work (Newfoundland, NJ: Haessner Publishing, Inc., 1975), 98.

⁸⁴ Borgeson, Errett Lobban Cord, 144, 1 and 2p; Buehrig, Rolling Sculpture, 182, 1p.

⁸⁵ Buehrig, Rolling Sculpture, 182, 6p.

⁸⁶ Ibid., 7p.

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achievement in American automotive history," a statement Yates notes is generally undisputed. He also included the Cord 810 in his list of The Greatest American Cars, describing its debut at the 1935 New York Auto Show, "It gathered more votes for the best-styled car than the second- and third-place finishers combined." ⁸⁷

In more recent decades, the Arts & Entertainment Network's production of *The 10 Greatest American Cars* named the Cord 810 number three on the list, proclaiming it the most significant landmark car of this era and noted that it was the most creative car ever made in the world. The Duesenberg Model J was touted as the greatest American car of all time. It was number one on the list; the most powerful and beautiful car ever made; America's mightiest motorcar. Peter Morance, art director for American Heritage magazine, was asked to select the best-looking American car for the magazine's publication in November, 1996. The magazine reported, "Anguish: If we were talking about Britain, Peter said, it would be easy – the Jaguar XK-E. America, though, with its Packards and Duesenbergs and such. . . . But he settled at last on the Cord 810/812 . . . 'Look at this car in the context of when it was built,' says Peter. 'It was revolutionary. There's no other word. . .""89

The Auburn Automobile Company is the only automobile manufacturer with more than one marque in which every marque made, the Auburn, the Cord and the Duesenberg, have the distinction of being named a Full Classic[™] by the Classic Car Club of America. 90

Auburns, Cords, and Duesenbergs have each been reproduced as replicas at various times in recent decades with modern technology such as air-conditioning and power-steering, but replicating the original body styling and design elements.

In 2003, a major Art Deco traveling art exhibit originated at the Victoria and Albert Museum of Art in London. Its unabridged exhibit catalog lists examples of vehicles representing the time when speed and streamlining became synonymous in the minds of the public. It lists four examples of automobiles including both the Auburn Speedster and the Cord car series. Debuting in London, the exhibit featured the Auburn Speedster as rolling sculpture – the only automobile in the exhibit. Traveling to the San Francisco Museum of Art, the 810 Cord replaced the Auburn in the exhibit. Then, at the Boston Museum of Art, the Auburn Speedster was once again featured as the rolling sculpture piece.

At an auction of classic cars, held in Pebble Beach, California in September, 2004, a Duesenberg, known as the Mormon Meteor, sold for a reported \$4.5 million. The latest issue of *Automobile* ranks "The Kings of Cool" with its list of *The 100 Coolest Cars*, both foreign and domestic. The Auburn 851 Boattail Speedster is ranked number 69, the Cord 810/812 Roadster, number 28 and the Duesenberg SSJ is number six. 93

The art and design of these automobiles is significant and highly regarded, and that has never waned from the moment of inception. It continues strongly today. The conception, the design, and the technology of these three significant marques, coming out of the Auburn Cord Duesenberg Automobile Facility in Auburn, Indiana, has had great impact on American society and the automotive industry world-wide.

⁸⁷ Brock Yates, "The Greatest American Cars," American Heritage (February/March 1986): 32-40.

⁸⁸ "The 10 Greatest American Cars" VHS tape produced by Forever Blue Entertainment Group in association with Arts & Entertainment Network, HEARST/ABC/NBC, New York, New York, 1993.

⁸⁹ American Heritage 47, Issue 7 (November 1996): 6, 1p.

⁹⁰ http://www.classiccarclub.org/CarList.htm.

⁹¹ Charlotte Benton, Tim Benton and Ghislaine Wood, eds., Art Deco 1910 – 1939 (V & A Publications, 2003): 316, 1p.

⁹² Sports Car Market 16, no. 11 (November 2004), 56.

⁹³ Automobile 19, no. 7 (October 2004): 47 – 69.

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Other Auburn Automobile Company Facilities

At its height, the Auburn Automobile Company utilized 20 buildings in its Connersville operations.⁹⁴ The complex included nearly 1.5 million square feet of floor space and sat on 82 acres of Auburn-owned land.⁹⁵ All of the buildings formerly associated with the Auburn Automobile Company have been altered, many with corrugated metal siding covering window openings. A few buildings retain their monitor rooflines, similar to that seen on the Cord-L 29 Building in Auburn. Of the extant Connersville buildings, all are currently in use for new industrial purposes, and have lost a fair amount of their historic integrity.

The Auburn Automobile Company's Indianapolis facilities, the former Duesenberg factory complex, continued to manufacture the Duesenberg line until 1937. The complex consisted of three buildings: the showroom and administration building, the assembly building and the machine shop. Of these three buildings, only the machine shop is extant. The machine shop, constructed in 1922, was the location of the Duesenberg road testing department as well as the final finishing work on the chassis and motors.

The machine shop has steel-frame brick curtain walls, windows, and doors. A monitor skylight, wood framed with metal frame industrial windows, runs the full length of the building. The building is fifteen bays long on the east and west facades and three bays wide on the north and south facades. The central bays at each end function as a vehicle entrance. The third and eighth bays from the north end of the east facade are openings filled with metal-frame windows which extend from the ground up to a brick crosspiece, which is capped with a poured concrete sill. On the west facade, are garage door entrances at the eleventh and fifteenth bays from the north ends and a single door entrance in the middle of the fourth bay. The other metal-frame windows are supported by a four-foot brick pier the entire length of the west and east facades. It is capped by a poured concrete sill. The square monitor, which runs the full length of the building, has metal-frame windows, which pivot horizontally for ventilation. At the seventh bay, there is a raised section, metal-framed with brick corner columns, that was constructed by the Marmon-Harrington Company in the 1940s to house restrooms. The five southern-most bays were also added by the Marmon-Harrington Company. The north and south facades have stepped parapets and concrete coping. The center parapet is taller than the others to accommodate the six-foot height of the skylight.

After production ended in 1937, the Indianapolis factory complex was sold to the Marmon-Harrington Company. The site saw a variety of other owners until the Indianapolis Public Transportation Corporation purchased it in 1984. The showroom and administration building and the assembly building were demolished to facilitate the construction of a bus maintenance facility for Indianapolis METRO. The machine shop was also converted to administrative offices for Indianapolis METRO at this time, thus creating a great deal of interior alteration.

Due to alterations and demolitions at the Duesenberg plant, and deterioration at the Connersville complex, the Auburn facility remains the best extant example of the company's operations. It is well-documented in this nomination and company records that significant functions such as administration, design, marketing, and production occurred in the extant Auburn buildings.

Other Comparable Facilities

⁹⁴ Auburn Cord Duesenberg began utilizing Connersville facilities in 1925 and continued to do so until the company closed its doors in 1937. From 1930 on, approximately 60% of Auburn production occurred in Connersville while all Cord L-29, and the remaining Auburn production, occurred in Auburn.

⁹⁵ The Accelerator (Auburn, IN), Auburn Automobile Company (January/February 1929).

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In finding comparable facilities, one must take into consideration the characteristics that define the type of automobiles produced by the Auburn Automobile Company and the methods used to do so. Independent specialty manufacturers relied on suppliers who specialized in each component, adding to the quality and cost of the automobiles they produced. As a result, these independent specialty companies remained small. Many became known for producing high-quality and high-priced cars. In order to locate companies and facilities comparable to the Auburn complex, a number of sources were consulted. Among the most useful was the four volume set *Pioneers of the U.S. Automobile Industry* by Michael J. Kollins, which provided the best survey of specialty auto manufacturers. Also consulted were automotive historians with the Henry Ford Museum, Western Reserve Historical Society, Wisconsin Automotive Museum, Pierce-Arrow Museum, and Society of Industrial Archeology. As manufacturers were identified, additional research was done through state historic preservation offices and local historic preservation organizations. ⁹⁶ The following manufacturers, with factory, and/or administration facilities were considered in this study: Auburn, Cadillac, Cord, Duesenberg, Kissel, Lincoln, Marmon, Packard, Peerless, Pierce-Arrow, Studebaker and Stutz. 97 This study did not consider buildings built for showroom purposes only, in keeping with the administrative and production components of the Auburn complex. In terms of extant resources, Stutz and Pierce Arrow best compare with the Auburn facility.

Marmon Motor Car Company:

Nordyke, Marmon and Company, a manufacturer of milling machinery, relocated its operations to Indianapolis from Richmond, Indiana, in 1875. It continued producing milling machinery, but in 1902 built the first double side entrance motor car in the country, attracting much attention. In 1905, the Marmon motor car was formally placed on the market. That year twenty-five automobiles were sold. The most popular Marmon automobile was the Model 32 introduced in 1909. The racing version of this car was dubbed the Marmon Wasp and won the first Indianapolis 500 in 1911. The popular Model 34 was introduced in 1916 with an engine with aluminum components, which was an innovation at the time. Sales of Marmons rose from 2,397 in 1924 to almost 4,500 in 1925 and 1926. In 1926 the company was reorganized as the Marmon Motor Car Company and milling machinery operations were discontinued. 98

In 1928 the sales totaled 14,770 vehicles and 22,323 in the following year. The Depression took its toll with sales slipping to 12,369 in 1930 and to 86 in 1933. That year only one model, a luxury sixteen cylinder, was manufactured. Before production started, the Society of Automotive Engineers honored Colonel Marmon and the Marmon Sixteen for "the most notable engineering achievement of 1930." By May 1933, however, the company was in receivership due to the effects of the Depression. The last Marmon model designed never reached production.

At one time the Marmon complex consisted of roughly 30 buildings. The majority of the complex, which was located at 1514 South Drover Street, consisted of two factory buildings and a power plant, all of which were

⁹⁶ Consult the bibliography for a full list of primary and secondary sources consulted during this research.

⁹⁷ Cadillac, Lincoln, Packard and Studebaker were judged not comparable to the Auburn Cord Duesenberg facility due to their mass-scale production operations. Additionally, the Packard facility in Detroit has been seriously compromised due to demolition of several buildings, and deterioration of extant structures. The Lincoln Motor Company Plant in Detroit, formerly a National Historic Landmark, was demolished in 2002-2003. Only one manufacturing building remains at the Cadillac site. The Peerless Company of Cleveland (NR 1975) was demolished in the late 1990s. The last building associated with the Kissel Motor Car Factory (NR 1988 Louis Kissel & Sons Thematic Resources of Hartford) was demolished in February 2003. According to Dale Anderson, executive director of the Wisconsin Automotive Museum, the Kissel was less expensive than the Auburn products and not considered in the same class.

⁹⁸ Indianapolis Historic Preservation Commission, "Indianapolis-Marion County Automobile Industry, 1890-1940 Historic Context Study & Property-Type Analysis," National Register Nomination Continuation Sheets, located in Historic Landmarks Foundation of Indiana library, Indianapolis, 1990, 234.

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demolished. The administration building was incorporated into Building #328 of the Eli Lilly & Company complex. All that remains of this building is one brick wall which was incorporated into an employee cafeteria. The most intact building from the original complex is a five-story body plant constructed in 1919 at 1437 West Morris Street. The building is currently occupied by Bestfoods Specialty Products. The exterior integrity has been compromised through blocked in windows. Due to the overall loss of manufacturing and administrative buildings, the Marmon complex is no longer comparable in integrity to the facilities in Auburn.

Stutz Motor Car Company:

Harry C. Stutz organized the Stutz Motor Car Company in 1913 as a result of the merger of the Ideal Motor Car and Stutz Auto Parts Companies, both owned by Stutz. Stutz produced a variety of two, four, and six passenger cars. The Stutz Motor Car Company's most famous car was the Bearcat. First produced in 1914, it was expensive yet very popular. The increasing demand for the Stutz cars resulted in the construction of the Stutz Motor Car Company complex in Indianapolis, Indiana. Today the Stutz complex and the Ideal Motor Car Company are the only extant buildings in the United States associated with the Stutz Motor Car Company.

The Stutz Motor Car Company complex occupies an entire city block in downtown Indianapolis and is one of the few remaining remnants of a specialty car manufacturer in the country. Buildings A (built 1914), B, C, and E (all built 1920) face North Capitol Avenue and form the east half of the block. Each of the four, four-story buildings is three bays wide and eleven bays deep and built of glazed buff brick veneer over reinforced concrete frame and walls. The bays are marked by full height pilasters, which have gauged brick courses on the first floor. The floor levels are distinguished by a paneled brick spandrel below multi-pane industrial metal sash windows. The two outside bays of each facade are flanked by a narrow vertical band of windows. Within the plain cornice, there is a rectangular pattern identical to the lower stories. At the top of the pilasters, below the horizontal banding, are terra cotta shields each bearing an elongated letter "S." The complex was constructed for vehicle assembly. It was departmentalized, beginning with initial construction on the fourth floor and finishing on the first floor.

There are three other buildings in addition to the original core of the complex. Building F, a one-story machine shop built in two stages in 1917 and 1919, forms the southwest quarter of the block facing Illinois Street. Building D is a four-story structure north of the machine shop, which matches the proportions of the North Capitol buildings. Building G, constructed in 1950, is a two-story modern building at the northwest corner of the block. There are three delivery alleys, or "courts," between buildings A, B, C, and E and a service alley north from West 10th Street between buildings F and A.

The strength of the Stutz complex lies in its exterior integrity and collection of manufacturing buildings and administrative office space. The exterior has been only slightly modified by the addition of awnings to the windows of the lower level and a modern infill of the northern-most court. The large, central cornice medallions with the winged Stutz logo were removed, as were the two smaller matching medallions from the alley gates. However, the interiors were altered with the construction of cubicles and offices for a variety of mixed uses including studio spaces for area artists, businesses, a restaurant and bar, and space for storage rental. Unlike the Auburn complex, the Stutz building no longer maintains its original configuration of administrative and design space. The Stutz building never had a showroom at its manufacturing site.

Like the Auburn Cord Duesenberg lines, the Stutz Motor Car Company saw a decline in sales as the Depression loomed. In addition, their racing record began to deteriorate and a lack of high sales volume with consequent

⁹⁹ Telephone interview between John Rupp, automotive historian, Indianapolis, Indiana and Suzanne Stanis, 25 January 2004. In addition to lecturing and writing on Indiana automotive companies, Mr. Rupp personally examined the former Marmon building now incorporated into the Eli Lilly campus.

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lack of development capital doomed the high-quality American cars such as the Stutz, Duesenberg, and Pierce Arrow. The company's line of passenger cars disappeared in the 1930s, as did many other expensive cars. The company built a small, rear-engine delivery truck until 1938. In the 1940s, the south half of the Stutz complex served as a warehouse and merchandise building for L. S. Ayres and Company department store, while pharmaceuticals company Eli Lilly, operated its packaging division in the northern half until 1982. In 1992, Indianapolis developer Turner Woodard purchased the complex and developed the Stutz Business Center, which includes the Ideal Motor Car Company located immediately south of the Stutz complex. Both properties currently serve as mixed-use facilities. The property owner has informed Historic Landmarks Foundation of Indiana that he does not support National Register or National Historic Landmark nomination of his property.

Pierce Arrow Motor Car Company:

The Pierce Arrow Motor Car Company of Buffalo, New York, produced automobiles of similar quality to that of the Auburn, Cord and Duesenberg lines. Between 1873 and 1878, George N. Pierce partnered with two other men to form a company known as Heinz, Pierce and Munshauer to manufacture refrigerators, birdcages, iceboxes, and bathtubs. He left the firm to establish a rival concern under the name of George N. Pierce & Company, and in 1888 added a line of children's tricycles, a product that was becoming very popular at the time. Shortly after 1889, Pierce started building a full line of adult hard-tired and cushion-tired "safety" bicycles. By 1892 Pierce dropped all of his other products except birdcages and iceboxes and in 1895 stopped manufacturing these too, continuing as just a bicycle company. Like many other bicycle manufacturers, the Pierce company began experimenting with automobiles by the turn-of-the-century. Early efforts involved a steam-powered unit, but the first production Pierce automobile of 1901, the Arrow Motorette, used a single cylinder, 2 ¾ hp French de Dion engine, selling for \$950 at its debut at the Pan-American Exposition. The Great Arrow, which featured a four-cylinder Pierce engine, debuted in 1904, selling for \$4,000.

The Arrow automobile continued to be made in the old bicycle plant on Hanover Street until 1907 when the automobile company split off and built a new complex on Elmwood Avenue. The complex had 1,016,400 square feet of floor space for over 10,000 employees. The success of the Great Arrow prompted the company to change its name to Pierce Arrow in 1909 dropping the "Great" as redundant. ¹⁰⁰

Unfortunately for Pierce Arrow, the company's management continued to cling to the methods and features that made the company from the outset into the 1920s. As a result, while other automobile manufacturers experienced sales booms in the 1920s, Pierce Arrow struggled. After the death of Clifton Pierce, then president, Myron Forbes, negotiated a merger with South Bend's Studebaker fearing that the death of independent automobile manufacturing was imminent. This influx of capital sustained Pierce Arrow through the early years of the Depression. Pierce Arrow finally developed a 12-cylinder car in 1929 to compete with other luxury manufacturers. The car was not introduced until 1931, and in 1932 broke the 24-hour speed record at the Bonneville, Utah salt flats. Despite this excellent performance from Pierce automobiles, the company itself was in trouble. Though Pierce Arrow functioned independently since the merger, Studebaker was in receivership by 1933. In an effort to save Pierce Arrow, a group of Buffalo bankers came together to purchase the company. As the Depression deepened, sales worsened. The Pierce Arrow Company went into bankruptcy in 1938. Both equipment and property were sold at auction. 101

The original George N. Pierce and Company factory, built in 1878 on Hanover and Prime, no longer exists. Pierce manufactured ice chests, birdcages, household goods, bicycles and then automobiles until the move to the Elmwood complex.

¹⁰¹ Ibid., 390-391.

¹⁰⁰ Beverly Rae Kimes, "Pierce-Arrow Motor Car Company," in George May, *The Automobile Industry*, 390.

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Extant elements of the Elmwood complex are the administration and factory buildings (NR 1974). The long, narrow three-story administration building (1685 Elmwood Avenue) is constructed of reinforced concrete with brick and steel sides. A reoccurring arrow in the brickwork repeats itself on all elevations. The brick on the north section has been refaced. The first floor contained offices with a director's room, a private dining room and kitchen, and four vaults, while the second floor contained drafting rooms, offices, a cafeteria, kitchen and bakery. The basement contained locker rooms, the printing department, a first aid hospital, laboratory, library, water cooling room and storage rooms. Circa 1947 the state of New York acquired the Pierce Arrow complex following the company's bankruptcy. The state converted the administration building into classroom spaces for a technical school that eventually became Erie Community College. Classrooms were created through the addition of block walls and fire doors. The current owner purchased the administration building in 1982. The previous owner used the building for warehouse and office space. Most of the executive wing was stripped of its woodwork and ornamentation. Marble floors and some molding are the only indications of the area's original use. Among the current tenants of the building are the Neglia Conservatory of Ballet and Neglia Ballet Artists, the State University of Buffalo's Center for the Development of Human Services, and small businesses. The Pierce-Arrow Museum is not located in the Elmwood complex. 103

Built in 1906, the factory building, directly east of the administration building (255 Great Arrow Avenue), has experienced significant exterior alterations in the form of blocked-in windows and first floor alterations.

The Pierce Arrow facilities do not form a self-contained campus within the city of Buffalo to the same degree the Auburn Automobile Company did in Auburn. Pierce Arrow's first showroom (752 Main Street) was located on the other side of town from the administration and factory complex and was used by Pierce Arrow from 1905 to 1928. A battle is currently raging over the possible demolition of the showroom and the adjacent building, which was also owned by Pierce Arrow. Both buildings are in a state of disrepair. The current owners requested the vacant buildings be demolished in response to building code violations. The city's Preservation Board opposes the demolition. 104

The second showroom (2421 Main Street), also located at some distance from the administration and factory buildings, was built in 1929-30 as a result of Pierce Arrow's affiliation with Studebaker. Designed by H. E. Plumer & Associates with Harold F. Kellogg, the building retains its original Art Deco style. Used by Pierce Arrow from 1929 to 1938, the building was recently renovated and is currently used as a bank branch by The Buffalo Savings Bank. A Pierce Arrow car is kept on display on the bank floor to mark the heritage of the building.

Although most are cases of successful adaptive use, none of the buildings retain a comparable degree of interior integrity as the Auburn Cord Duesenberg complex in Auburn, Indiana.

Summary

The Auburn Cord Duesenberg Automobile Facility is nationally significant as one of the few remaining examples of a small independent automobile company. The Art Deco showroom and administration building, service and new parts department building, and the L-29 building, remain as visual reminders of this company's proud past and achievements in automotive history. Each building represents a different stage in automotive

¹⁰² Telephone interview between Ed Trudy, owner of the Pierce Arrow Administration Building, Buffalo, New York, and Suzanne Stanis, December 4, 2003.

¹⁰³ Ibid.

¹⁰⁴ Mark Sommer, "Fate of Two Historic Buildings Lies with Judge," *The Buffalo News* (Buffalo, NY) 23 January 2003.

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development and construction from the drafting tables of the initial design stages, to the final display on the showroom floor. Additionally, the high level of interior and exterior integrity, coupled with its interpretation of administrative space, showroom, and production facilities, contributes to its national significance.

More than one million people, from all fifty states and sixty foreign countries, have visited the Auburn Cord Duesenberg Museum since it opened in 1974. The Auburn Cord Duesenberg Museum and the National Truck and Automotive Museum of the United States continue to interpret the history of the Auburn Automobile complex in Auburn, Indiana. Future plans include continued restoration and preventative maintenance of the nominated resources.

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Preliminary Determination of Individual Listing (36 CFR 67) has been requested.

AUBURN CORD DUESENBERG

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Previous	documentation o	n file	(NPS):
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X 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:
State Historic Preservation Office
Other State Agency
Federal Agency
Local Government
University
X Other (Specify Repository): Auburn Cord Duesenberg Museum, Auburn, Indiana

National Automotive and Truck Museum of the United States, Auburn, Indiana

10. GEOGRAPHICAL DATA

Acreage of Property: approximately 7 acres

UTM References: Zone Easting Northing

16 662510 4579860

Verbal Boundary Description:

The Auburn Cord Duesenberg Museum (the showroom and administration building) and the National Automotive and Truck Museum (the Cord L-29 building and the service and new parts department building) are located in lots 4, 5, 6, 7 & 8 of squares 330 and 358 in Ensley's 3rd Addition to the City of Auburn, Indiana. The proposed NHL boundary is as follows:

Begin at the northwest corner of lot #4, then go 268' south along the eastern curb line of South Wayne Street. Turn east 303.65' following a line parallel to the south foundation of the showroom and administration building. Then turn south until reaching a point 15' south of, and parallel to, the south foundation of the Cord L-29 building. Follow that line 265' to the west bank of Cedar Creek, then follow that bank northerly for approximately 374', until reaching a point 15' north of, and parallel to, the north foundation of the service and new parts department building. Follow that line 425' west to a point 3' beyond the west edge of the service and new parts building. At that point turn south along a line 3' west of that building, to a point in line with the south curb of Gordon Buehrig Lane, and then turn west to return to the starting point.

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Boundary Justification:

The nominated property includes the land occupied by the three extant buildings associated with the Auburn Cord Duesenberg complex which retain integrity and represent the original factory complex. The heavily modified final inspection building (now Auburn Gear company), located on the opposite side of Cedar Creek from the three nominated resources (and the site of the ten other Auburn Cord Duesenberg buildings shown in the ca. 1930 aerial view), does not possess historic integrity and is not included within the proposed boundary. Additionally, the separate owner of the Auburn Gear building declined NHL consideration.

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Telephone: (202) 354-2257

DESIGNATED A NATIONAL HISTORIC LANDMARK April 05, 2005

List of Photographs

The following information is the same for photographs 1 - 11:

Auburn Cord Duesenberg Automobile Facility
Auburn, Dekalb County, Indiana
Marsh Davis
December 11, 2001
Historic Landmarks Foundation of Indiana, Indianapolis, Indiana.

- Photo 1. Auburn Automobile Company administration building west (main) elevation, camera facing east.
- Photo 2. Auburn Automobile Company administration building north and east elevations, camera facing northwest.
- Photo 3. South and west elevations of the Auburn Automobile Company administration building, camera facing northeast.
- Photo 4. Showroom of the Auburn Automobile Company administration building, camera facing southeast.
- Photo 5. Export department office, Auburn Automobile Company administration building, camera facing east.
- Photo 6. West (main) elevations of the Service Department and the Cord L-29 buildings, camera facing northeast.
- Photo 7. South and east elevations of the Cord L-29 building, camera facing northwest.
- Photo 8. North and east elevations of the Service Department, camera facing northwest.
- Photo 9. Interior view of the Service Department showing construction techniques.
- Photo 10. Interior view of the Cord L-29 building showing the monitor openings in the roof.
- Photo 11. Interior view of the basement of the Service Department, camera facing south.
- Photo 12. Ca. 1930 aerial view of the Auburn Automobile Company complex. (ACD Archives)

Key to ca. 1930s Aerial Photograph (Photo 12 and Figure 1)

The dark line on Photo 12 (or the white line on Figure 1) indicates the approximate historic property line for the Auburn Cord Duesenberg Automobile Facility in Auburn, Indiana. The dark broken line (or the white broken line on Figure 1) indicates the boundaries for the proposed National Historic Landmark designation. The building numbers below are also keyed to the ca. 1930 aerial photo.

1 Machine Shop

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- 2 Stock Warehouse
- 3 Office and Experimental Room
- 4 Sheet Metal Workshop
- 5 Finishing and Storage Buildings
- 6 Paint Storage
- 7 Cleaning and Enameling Buildings
- 8 Final Inspection Building
- 9 Service and Parts
- 10 Cord L-29 Factory
- 11 Administration Building and Showroom

Buildings 8, 9, 10, and 11 survive today (building 8 has been heavily modified).

Source: Sanborn Fire Insurance Map 1923 and Auburn Cord Duesenberg Archives