HISTORIC STRUCTURE REPORT



AHIMAAZ KING HOUSE AND CARRIAGE HOUSE

February 15, 2008

Prepared for

Deerfield Township, Ohio 4900 Parkway Drive, Suite 150 Mason, OH 45040

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EXECUTIVE SUMMARY

In April 2007, Deerfield Township contracted with Sullebarger Associates to prepare a Historic Structure Report for the Ahimaaz King House and Carriage House. Located at 1720 East King Avenue, the Ahimaaz King property is a 65-plus-acre site in Kings Mills, a small, unincorporated community in the northeastern corner of Deerfield Township, in Warren County, Ohio. (See property location plan, Drawing A1, in Appendix A.) The property, now known as Carter Park, includes a house, carriage house, small frame shed, barn, office building, and large frame shed. (See existing site plan, Drawing A2, in Appendix A.) This study focuses on the house and carriage house only.

Built ca. 1885, the Ahimaaz King House and Carriage House represent the importance of Ahimaaz King (1842-1909), an early Ohio industrialist. King was a founder and the manager of both the King Powder Company and the Peters Cartridge Company until his death in 1909. Both businesses, located on opposite banks of the Little Miami River in Warren County, Ohio, were among the largest manufacturing establishments of their kind in the United States in their day. They were also responsible for building virtually the entire village of Kings Mills to house their employees.

The house is an excellent and intact example of a late Italianate-style rural dwelling. It is associated with architects Peters & Burns, among the early professional firms in Dayton, Ohio. Established in 1881, Luther Peters and Silas Burns proved to be outstanding architects of the late 19th century and early 20th century. Their body of work encompassed many different styles of public and commercial buildings.

The scope of work for this study included in-depth investigation of up to three new uses. Architectural drawings show how these uses could be accommodated. Based on suitability of the spaces, three potential new uses were investigated—bed and breakfast inn, community offices/meeting rooms, and reception facility. Additional uses were be considered, the latter two in combination with the three major uses include corporate guest house, museum, and caretaker's apartment.

Based on all the factors considered, we recommend a combination of uses for the King House and Carriage House focusing on a reception facility and museum, with some community offices and a caretaker's apartment. The house is best suited for a reception facility and museum on the first floor and offices on the second floor. A caretaker's apartment is also recommended for the second floor for added security. The carriage house offers the opportunity for a larger reception facility and community meeting space.

These combined uses require the least alteration of significant spaces and materials in the buildings, and offer the highest degree of public access, compatibility with zoning and the neighborhood, and together offer the greatest potential for financial sustainability. Renovation of the two buildings is estimated at \$1.8 million, including soft costs.

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In April 2007, Deerfield Township contracted with Sullebarger Associates to prepare a Historic Structure Report (and a nomination to the National Register of Historic Places) for the Ahimaaz King House and Carriage House. Beth Sullebarger, Principal, took primary responsibility for preparing the report, working with subconsultants Bruce Goetzman and Matt Scheidt of P.A.S.T. Architects. The team met several times with Lois McKnight, Community Development Director; Hayfaa Wadih, Urban Planning Analyst; and Joel Smiddy, CPM, Parks and Recreation Director, during the course of the work, and appreciate their advice and enthusiasm for the project.

The consultants wish to thank Thomas D. Schiffer, author of *Peters and King: The Birth & Evolution of the Peters Cartridge Co. & the King Powder Co.*, for generously sharing his knowledge and slide collection of photographs in the book. Bobby and Betty Lou Carter, who purchased the property from Joseph King and cared for it before selling it to Deerfield Township, also made a site visit, shared their memories and leant photographs.

This report is also based in part on the work of students from the University of Cincinnati College of Design, Art, Architecture & Planning—Li Alligood, Kathleen Luhn, Brian Ambrosius, Brian and Nancy Edwards—and architectural historian Walter E. Langsam, who recorded an interview and walk-through of the King House in 2005.

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PART 1. HISTORICAL BACKGROUND

The Ahimaaz King House and Carriage House were built ca. 1885 by Ahimaaz King (1842-1909), an important early industrialist. King was a founder and the manager of the King Powder Company as well as the related Peters Cartridge Company from their formation in 1877 and 1887, respectively, until his death in 1909. Both businesses, located on opposite banks of the Little Miami River in Warren County, Ohio, were among the largest manufacturing establishments of their kind in the United States in their day. They were also responsible for building virtually the entire village of Kings Mills to house their employees.

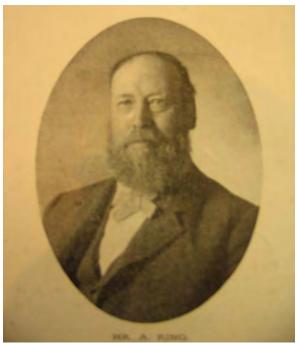


Figure 1. Ahimaaz King

One local resident described the Kings as a "sort of a Dupont of the Warren County area. They had huge operations. They owned the entire town of Kings Mills, most of the land surrounding it. It was an empire under the Kings rulings." The Ahimaaz King House was the first dwelling to be built in the community of Kings Mills, at the head of King Avenue, where it anchored the new company town. The house was the home of Ahimaaz King from its construction until his death, and remained in the family until 1988, when it was sold by J. W. King, grandson of Ahimaaz King.

The house is also an excellent and intact example of a late Italianate-style rural dwelling. The architects of the house were Peters & Burns, among the early professional firms in Dayton. Luther Peters and Silas Reese Burns were in practice together from 1881 to 1907, and succeeded by the firm Pretzinger & Musselman, who were Dayton's leading architects from 1907 until 1928. The firm was continued by Pretzinger and his sons, and endured for a century, until 1980. Peters & Burns, like many architects of their time, were interpreters of period styles, and the King Mansion exemplifies their early work.

A. HISTORY OF THE PROPERTY

The Ahimaaz King property [plat 16-12-200-025, Section 12, range 2 of Deerfield Township (4)], was part of the Miami Purchase of land between the Little Miami and Great Miami Rivers bought by John Cleves Symmes in 1788. In 1799, William Wood built a grist mill on the bank of the Little Miami River below the high bluff now occupied by the village of Kings Mills. A raceway led water from the river to supply power for the mill. Farmers brought their grain down the steep road to the mill, and shipped surplus grain down the river on flatboats.²

George Hunt bought the mill and surrounding land about 1815. The mill continued to do good business grinding grain and even carding wool. Ralph Hunt laid out a town on the riverfront called Gainesboro in the 1820s. An 1856 map of Warren County shows that Isaac Stubbs (1794-1874) owned the mill and surrounding property by that date. Gainesboro didn't last long, however; it was apparently abandoned by the time the 1875 atlas was issued probably because of flooding.

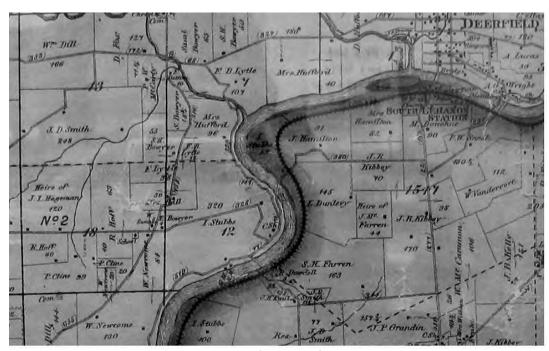


Figure 2. Map of Warren County, 1867



Figure 3. Combination Atlas and Map of Warren County, 1875

Isaac Stubbs had come to Ohio from Georgia with his father, also named Isaac Stubbs, in 1805. They settled in Millgrove on the Little Miami River, a place now known as South Lebanon. The elder Stubbs owned a saw mill, cooper shop and a woolen mill. His son Zimri ran a mill further upriver, which became known as Stubbs Mill. The road connecting it with Lebanon is still known as Stubbs Mill Road. According to the 1850 census, Isaac [II] had moved downriver to Deerfield Township, to the mill at the present-day Kings Mills. Isaac Stubbs [II] married Elizabeth Sherwood and produced two surviving sons-- Albert and Isaac [III]—and a daughter Margaret. In 1843, he purchased a hotel in Lebanon, known today as The Golden Lamb. Founded in 1803, the hotel is the oldest continuously operating hotel in Ohio.

At the end of his life, Isaac [II] was ruled to be insane by Judge Keys at the behest of his son Albert. The evidence of his insanity was his profligate purchases of real estate at inflated prices, including several derelict mills. By 1873, the mill at Kings Mills was rundown and inactive. Several derelict mills. By 1874, and the 1875 Atlas shows the property belonging to the "Isaac Stubbs Estate". His will, which excluded his only daughter, Margaret Irons, was deemed invalid due to insanity by the same judge in 1874.

Margaret apparently inherited a 320-acre section of land in present-day Kings Mills—including the mill and related waterways. She transferred it to Albert and Isaac Stubbs on January 5, 1877. They quickly resold it on August 8, 1877 to Joseph Warren King (uncle of Ahimaaz), Ahimaaz King and other members of the King family including the grist mill and a large acreage of land for \$6,316.00. [In 1878, Albert Stubbs became the manager of the Golden Lamb hotel in Lebanon, which he owned and operated until 1914.]

On December 26, 1879, Joseph Warren King sold 57.32 acres to Kings Great Western Powder Company, predecessor of the King Powder Company. The company subsequently purchased more land, and on September 19, 1885, Amanda King (wife of Ahimaaz King) purchased 84.04 acres (part of the north side of the section) for \$5,462.60. Shortly afterward, Ahimaaz and Amanda King built their homestead on this parcel.

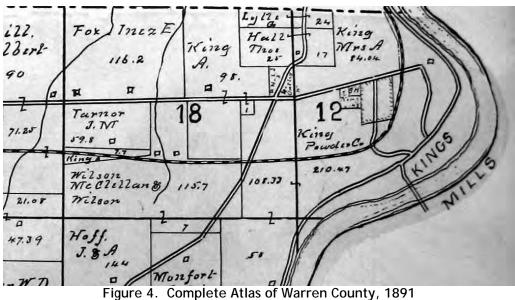




Figure 5. Centennial Atlas of Warren County, 1903

Plat maps drawn in 1910, after the death of Ahimaaz, show that Amanda still owned the 84.04 acres. The property was transferred to their son, Robert Ahimaaz King on July 19, 1917, two months after Amanda's death. Robert's will left the property to his two sons—Robert Ahimaaz King, Jr, and Joseph W. King—to whom it was transferred on September 1, 1944. At this time the property was divided up into smaller tracts.

Robert A. King, Jr., and his wife Margaret sold five acres and the house to his brother Joseph and his wife Lucille King on May 16, 1970.

After remaining in the King family for three generations spanning a century, the property and house were sold to Bobby and Betty Lou Carter on October 13, 1988. The Carters sold the property to Little Miami, Inc. on December 15, 1999 "for preservation and public enjoyment." Deerfield Township purchased the property on December 31, 2001 and is developing the 65-acre parcel as a park named after the Carters. Ahimaaz King (1839-1909)

Ahimaaz King was born in Suffield, Connecticut, on October 18, 1839, and grew up on a farm. "His father and mother died at an early age and Mr. King, then a mere 'boy, poor and without means,' came West and located at Xenia, Ohio, about 1857." There, thanks to his uncle Joseph Warren King, he worked for the Miami Powder Company for five years, first as an employee, and then as a foreman.⁷

Joseph Warren King was born on August 30, 1814, also at Suffield, Connecticut. "While still a boy, he struck out for the West seeking his fortune and within a few years acquired considerable means. He first entered the powder business in 1850, when he joined the Austin brothers (also from Suffield, CT) at Goes, near Xenia, Ohio, operating for a while as Austin & King, then under his own name and finally as the Miami Powder Company.⁸



Figure 6. Joseph Warren King

Ahimaaz became a partner in that business and traveled regularly through the state of Indiana peddling the company's wares. "King often left the mills with a wagon load of powder, selling it on a trip of several hundred miles which would last perhaps a month." (See figure 3.) According to J. W. King, his grandson, it was family lore that it was on such a trip that he met his wife, Amanda Luck, in Medora, Indiana." 10



Figure 7. Ahimaaz King and his Wagon (Schiffer, Peters & King, p. 11)

Amanda (b. Feb. 29, 1840, d. May 9, 1917) was born at Salem, IN, to Henry and Sarah Chandler Luck, who had moved there from North Carolina. Ahimaaz and Amanda married in 1863 and produced ten children and eight grandchildren. Seven of the children survived both parents--George, Hattie, Isa, Harry, Robert, Jessie and Stella. 11

About 1878, King sold his interest in the Miami Powder Company and partnered with his uncle in the establishment of "King's Great Western Powder Works" (renamed King Powder Company in 1889), in what was then known as South Lebanon, in Warren County, Ohio.

"Shortly after the powder company began operations, Mr. King laid out the hamlet now known as Kings Mills, and built the beautiful and commodious residence which he and his family have since occupied. He became a large land owner in the vicinity of his home and had various other interests. At the time of his death, he was President of the Loveland National Bank. For many years he had been a prominent member of the Kings Mills Baptist Church and took a great Interest in church work."

"Mr. King was essentially a man of affairs. He was possessed of a comprehensive grasp of mind, which enabled him to successfully manage great concerns. He was a man of very few words, but he was an active and concise thinker and he was quick to perceive and to understand the essential features of a business proposition. His mental grasp was such that few details of a business matter escaped him, and his wonderful executive abilities and powers enabled him to conduct an enterprise to a successful issue.

"In his family Mr. King was kind, generous and indulgent both as husband and parent. His affection for his home and family was charming. He was modest, quiet and gentle. Notwithstanding his signal success in business affairs he was wholly without ostentation and rarely alluded to his material success. He was plain and pleasant in his manners and always scrupulously respectful to others. He was not without great firmness of character, but his gentle methods

enabled him to maintain order and discipline. He was very just and possessed a sterling integrity without a trace of harshness. Such qualities made him conspicuous and endeared him to all with whom he came in contact in life..."¹²

According to his obituary, dated 1909, Ahimaaz died at his winter residence in St. Augustine, Florida. His three sons—George G., Harry L. and Robert A. King—all followed him into executive positions in the two manufacturing companies their father had been instrumental in establishing. The three sons all lived in Kings Mills, while the four daughters are all married and live elsewhere. He had been instrumental married and live elsewhere.

B. THE KING POWDER COMPANY

Very little gunpowder was made in the U.S. before the American Revolution. Great Britain was the major source, but banned the sale of gunpowder to the U.S. in 1777. Black powder was first manufactured in the U.S. by E. I. Dupont de Nemours and Company, which was established in 1802 in Wilmington, Delaware. The components of black powder are a nitrate (usually potassium nitrate), charcoal and sulfur.

In 1877 J. W. King and Ahimaaz King started the Great Western Powder Company, which was renamed the King Powder Company on January 15, 1889. The company made black powder, which was used for rifle ammunition and blasting in the mining industry. Coal mining was consuming vast quantities of blasting powder as was the construction of canals and other commercial enterprises.

The powder mill's location on the river was known as "The Gorge," with its very narrow valley and steep adjacent hills. The old Stubbs mill was converted to grinding powder, and the mill race was widened and a number of buildings necessary to powder manufacture erected along the mill race for a distance of over one mile.



Figure 8. Former Stubbs Mill (Schiffer, Peters & King, p. 13)

The river provided water power, amplified by a 500-foot dam, which turned "a portion of its waters through massive stone headgates into a race of fifty feet wide and along the mills for nearly a mile and a half before it is finally returned to the main current." (The headgates are still extant, but the dam, which was made of lumber, is gone.) The Little Miami Railroad, built in 1837-1848 along the far side of Little Miami River, contributed greatly to the growth of the powder mill (as well as the cartridge factory), enabling easy transport of workers, freight and first class mail. 15



Figure 9. Earliest known photograph of King Powder Company, c. 1892-1894, looking northeast

Kings started business with 832,000 pound of surplus cannon and musket powder from the St. Louis arsenal which they reworked in their mill. Production was 12,768 kegs of sporting powder and 28,067 kegs of blasting powder. Buying at a low price enabled them to undersell their competition, particularly their bitter rival Miami Powder Company, with which they were formerly associated. The resulting price war alarmed the Gunpowder Trade Association (GTA), formed by other producers including Dupont, Remington Arms, and Miami Powder. The GTA tried to buy Kings, but after being rebuffed, conspired with King to buy-out of Miami Powder. When King again declined, Lammot Dupont met with King in September 1880 to persuade King to conform with GTA's price schedules, still with no result. Matters were not resolved until after J. W. King's death, in 1885. A. King's son-in-law, Gershom Moore Peters, who joined the firm in 1881 and became president in 1885, quickly agreed to join the GTA and abide by their price guidelines. ¹⁶

By 1886, King's capacity was 1,000 kegs (25,000 lbs) of black powder per day, and it occupied 400 acres of land, and two miles along the river. It was described as the "largest powder concern west of the Allegheny Mountains." in *Leading Manufacturers of Cincinnati.*¹⁷

Black powder has the disadvantage of generating a thick smoke upon firing, which can impede aiming and reveal the location of the shooter. Hence there was a lot of interest in smokeless powder, developed by Carl Dittmar, a Prussian Army officer who had worked with Alfred Nobel. Dittmar came to the U.S. and began commercial

production of Dittmar's Sporting Powder by 1878. In 1882, Dittmar sold the business to a group of investors and Milton F. Lindsley, an associate of Dittmar's, became its superintendent. After the new company, known as the American Wood Powder Company, failed in the panic of 1893, Lindsley moved to Ohio and went to work for King. Together with G. M. Peters, he developed semi-smokeless powder, which used wood pulp that was nitrated, neutralized, and dried. Patented on January 17, 1899, this powder delivered wonderful results in shooting contests and was a bestseller for the company, which continued to make it until 1958. 18

In his 1903 atlas of Warren County, Frank Bone asserts J. W. King is personally "the oldest and most successful powder manufacturer in the United States at that time." Bone describes the works, as consisting of "various factories magazines, warehouses and small mills, nestled along the race and river bank for a distance of two miles and spread back over the hills. A complete system of water works is provided for the grounds, having a pressure of about sixty-five pounds per square inch. The factories are equipped with automatic sprinklers and water mains pass along the mills and other buildings, with fire plugs at convenient distances. The system, with the aid of two well-drilled fire companies ever on the alert, affords great protection in case of fire or explosion. It is also a great convenience in many of the department of manufacture." ¹⁹

"The mills and factories are run by electricity transmitted from a single power house, the finest of generators and motors being used for this purpose. The water and steam are used for generating purposes and have a combined capacity of over 1,000 horse power. The mills are substantially built, are equipped with the latest and best machinery, and are strictly up-to-date in every particular. They have a combined capacity per day of about 40,000 pounds of blasting, 10,000 pounds of sporting and 5,000 pounds of smokeless powder." 20



Figure 10. King Powder Company Powerhouse, 1896

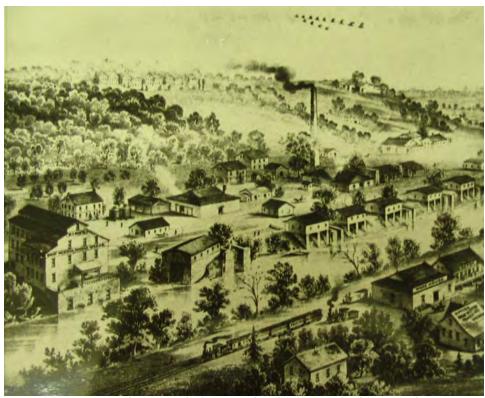


Figure 11. Early view of King Powder Company, looking northwest (Schiffer, *Peters & King*, p. 62)

After World War I, the coalfields of eastern Kentucky and West Virginia were King's biggest customers. Shipping black powder by truck was dangerous, so King Powder maintained its own trucks and drivers. However locating a plant closer to the customer meant lower costs and higher profits. Thus King Powder Company established a second plant in the town of Wurtland, in Greenup County, KY, in 1919. The area had a tradition for making charcoal—a main ingredient for black powder—and a supply of suitable workers. The county also had railroad service along the Ohio River that could deliver raw materials. The plant was named Kico, a contraction of King Powder Company.²¹

King Powder Company continued in business through World War II, after which demand for their product waned. Black powder, which had been used in coal mines, was being outlawed all over the country and different types of explosives were being substituted for it. The King Powder Company ceased operations in 1958, and Eugene King sold the business. The powder buildings were all destroyed to prevent injury by curious passers-by. All that remains is a ditch where the raceway once ran. The Taft Broadcasting erected King's Island Amusement Park on part of the property, along Columbia Road, in 1970.²²

C. THE PETERS CARTRIDGE COMPANY

After the Civil War, the development of the cartridge and the automatic cartridge-loading machine revolutionized the design of firearms and production of ammunition. The Rev. Gershom Moore Peters, a retired preacher and son-in-law of Joseph Warren King, invented the first power-driven (by steam engine-powered line shaft) machine

for loading shotgun cartridges. The machine drastically reduced labor costs, enabling three people to produce sixty cartridges per minute.²³ It was also critical to the continued success of the King Powder Co. because other cartridge-makers used their own powder and weren't interested in buy it from King.



Figure 12. G. M. Peters, President, Peters Cartridge Company, 1896

Born in Circleville, Ohio, in 1843, Peters graduated from Denison University in Granville, Ohio, in 1865, and from Rochester Theological Seminary in Rochester, NY, in 1869. He served as a minister in the Baptist Church for twelve years, mostly in Buffalo, N.Y. Even before he took up the ministry, Peters showed a natural talent for invention, and he became eminently successful. In 1881, he went to work for his father-in-law. When J. W. King died in 1885, leaving a large business behind with no sons to look after it, Peters assumed his business and became president of the King Powder Company. On January 24, 1887, he founded the Peters Cartridge Company.

Initially the cartridge business was located with the powder company on the west bank of the river, but it quickly ran out of space and moved to the other side of the river. By 1889, the machines were capable of loading 4,000 cartridges per hour. In 1890, a terrible explosion destroyed the entire industrial complex--the depot, a paper shell factory, cartridge factory office, residences, warehouses and more. The King Powder Company was not affected. In 1895, Peters built a massive wood-frame tower for making lead shot.

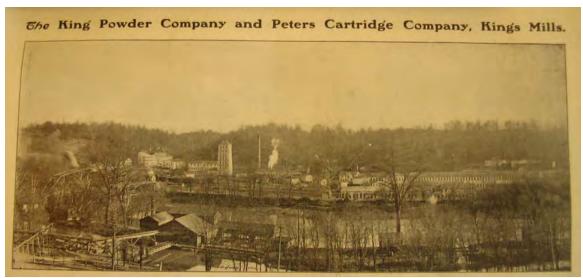


Figure 13. King Powder Co. (foreground) and Peters Cartridge Co. (background), 1896

In 1898, Peters received its first U.S. Army Ordnance contract.²⁵ Two years earlier, a company brochure touted that,

"Its loading machine is without an equal in the world. It loads with great rapidity and with far greater accuracy and uniformity than can be had by the most careful and expert hand-loading. It is entirely automatic and each operation is so guarded by testing and telltale devices that a mistake in loading is practically impossible. Numerous patents, covering this and other machines connected with the business have been obtained by this company and triumphantly fought through the courts to the full establishment of its exclusive rights.

The factories of this company are among the largest and certainly comprise the most complete ammunition plant in the world. Its various buildings aggregate a floor space of over 150,000 square feet, which would make one building about a mile in length with 30 feet in width. New buildings and extensions are constantly being added. These factories are crowded with machines of the latest improvements and all running in charge of men of large experience and great success in their special lines. The output of all kinds of shells and ammunition amounts to hundreds of millions annually.

The company started originally with the single purpose of loading shells, but the attitude of its competitors and the exigencies of its trade forced it into the manufacture of every thing pertaining to the ammunition business. Its printed list today embraces 165 different styles of metallic cartridges, and more are being constantly added. It is regularly putting out 34 different styles and loads of shotgun ammunition; and this number can be doubled and almost trebled by adding chilled shot loads and loads of various nitro powders. It produces the greatest variety of goods of any cartridge concern in the worlds, and does what no other concern attempts, makes practically everything entering into the completed shell or cartridge of whatever kind except some of the rawest parts of the raw material and some of the nitro powers.

The management of the two firms overlapped. In 1903, the officers of the King Powder Company were G. M. Peters, president; A. King, manager; O.E. Peters, Treasurer; J. H. McKibbon, Secretary; George G. King, Assistant Manager; and R. A. King, Second assistant Manager. The officers of the Peters Cartridge company were O. E. Peters, President; A. King, Manager; W. E. Keplinger, Vice President; J. H. McKibbon, Secretary; F. C. Tuttle, Treasurer; George G. King, Assistant Manager; and R. A. King, Second assistant Manager. The companies had offices at the southeast corner of Main and Fifth Streets in downtown Cincinnati and at 98 Chambers Street in New York.



Figure 14. Early view of Peters Cartridge Company, looking southwest

In 1907, Peters built a Machine Shop (known as Building R-3), and the shotshell loading building, R-21, which were the last of the wood-frame construction for major buildings. WWI was a period of frantic activity, when the Peters Company radically expanded. In 1913, although the US was not yet participating in the war, the company received large ammunition orders from Russia and England and added a building (R-6) for bullet manufacture. These contracts provided the cash flow to enlarge the plant and to replace most of the frame buildings with reinforced concrete and brick. ²⁶

During the war, Peters Cartridge Company was one of the six top commercial firms, along with the U.S. Cartridge Company, Winchester Repeating Arms Company, Western Cartridge Company and Remington Arms-Union Metallic Arms Company, that produced most of the small arms ammunition in the U.S. In 1916-17, Peters built R-1, the three-story 120,000-square-foot Main Building, which housed paper shell and metallic cartridge manufacturing, cafeteria, offices, hospital, stores, etc., (still standing); in 1917, R-17 Power House; 1918, R-2 Metallic cartridge loading; 1919, R-23 ballistics and indoor shooting range; 1919, R-9 primer assembly. The old wooden shot tower was replaced with a taller brick one that still stands. Large letter Ps on the tower and the huge smokestack identify the plant from a distance. The buildings were for the most part were connected by being built contiguous to one another or by an elevated pedestrian bridge.²⁷

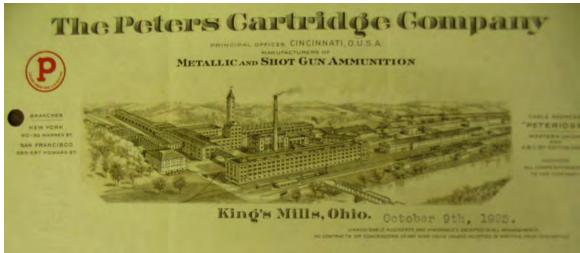


Figure 15. View of Peters Cartridge Company on Letterhead, 1925

In 1934, the Peters Cartridge Co. sold the factory, land and houses to the Remington Arms Company of Bridgeport, Connecticut. This company continued the manufacture of small arms ammunition. The two Kings Mills plants worked together in the making of shells for small arms during World War II. According to Captain Sharpe in his book *The Rifle in America*, the U.S. government engaged Remington in 1941 to build and operate several huge new regional ordnance plants across the country. The first one built was Lake City Ordnance plant, constructed on 2800 acres near Kansas City, and the second was the Denver Ordnance Plant, on 2,080 acres. A third new ordnance plant was built at Kings Mills, atop a hill adjacent to and south of the old Peters plant. Known as the Kings Mills Ordnance Plant (KMOP), it suspended operations in March 1944. It is still owned by the U.S. Government.

In 1944, Remington Arms sold all their interest to Columbia Records, Inc. of Bridgeport, CT. This firm made records for a few years, then ceased operations in 1949. They leased their buildings to Seagram Distillers for warehouse space. ²⁹ In 1968, the property was abandoned, and ownership fell to a Cincinnati attorney and Little Miami Inc. Most of the Peters plant has been razed, but a portion of the complex remains, including R-1, the main building; R-3, the machine shop; and R-9, the primer building; the tall boiler house and stack, and shot tower. In 1979, Joseph Dues and Ron Baker formed the Kings Mills Technical Center, Inc. There are a few tenants, but redevelopment has been hampered by the need and cost of hazardous waste removal.

D. HISTORY OF KINGS MILLS

Kings Mills is a small hamlet in Warren County, a company town built by the owners of the Kings Powder Company for their employees. It was described in the 1903 Bone atlas as follows:

"On top of the hill is a beautiful village, built and owned by the company, with the exception of a few private dwellings. Here live most of the employees of this and the Peters Cartridge Company, making a population of about 700 people." 30

Soon after its founding in 1877, the King Powder Company built the 16-room Cliff House, a sort of boarding house for workers building the millrace before manufacture of powder began. This was followed by houses on top of the hill for the exclusive use of the employees. Ahimaaz King was the first one to build a home, a large brick dwelling located at the head of King Avenue. The area immediately around the King House, which included half a dozen houses and two huge barns, was known as Fountain Square. The name probably derived from the cast iron fountain in King's front yard and perhaps also referred to Fountain Square in downtown Cincinnati.³¹



Figure 16. King Avenue, c. 1887, looking north, with King Mansion in center and church under construction on left. (Schiffer, p. 150)

As the company grew, more houses were built, typically wood-frame cottages. Most of the village was built by 1888. J. W. King's widow built the Stick-Style Baptist Church in memory of her husband in 1887. The first school was founded in 1889, and the high school was erected in 1890. A complex of six attached wood-frame row houses, called "The Manse," but more commonly known as "The Barracks," was built in the early 1890s. Electric power for homes and street lights was installed here long before it was available in the area. "In the early 1900s, the Peters Cartridge Company built about four more streets on the west, calling it Petersburg. Harry King and his new wife Grace...moved into the first house, finished in 1903." George King built a palatial wood frame house (Photo #62) on Church Street west of the school in this new part of town. ³²

The Peters Company also financed the Homestead Hotel, built in the early 1900s to house single employees and visitors. By September 1903 an electric Interurban Railway (figure 14) connected Kings Mills to Cincinnati 25 miles to the south and Lebanon seven miles to the north. Streetcars carried both passengers and freight, and made it possible for workers to commute to work. Houses on Walnut Street and two double houses on Maple Street were built after 1910. The companies continued to own the houses and rented them to the employees at a very reasonable rent. When the companies ceased operation in 1944 and 1958, all employees living in the houses were offered the chance to buy the houses in which they were living at a very reasonable price. ³³



Figure 17. King Avenue, 1890s, looking northwest

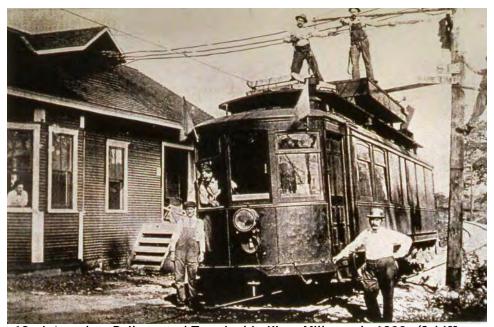


Figure 18. Interurban Railway and Terminal in Kings Mills, early 1900s (Schiffer, p. 150)

Today the village is largely intact, with about 140 dwellings. Most of the King-built buildings remain, except for the Cliff House, "The Manse," and the Homestead Hotel. The school still stands, but with a series of additions. After his death in 1957, George King's house was operated for several decades as a funeral home. It is now the King's Manor Inn Bed & Breakfast. Many of the old houses have been covered with artificial siding, but a few have been renovated by new owners. The livery stable and general store remain, but have been converted to other uses. The Interurban Railway ceased running in 1922 and was removed completely. The Little Miami Railroad, which was taken over by the Pennsylvania Railroad, is also gone and the road bed was converted to a bike trail beginning in 1984. The horse farm directly east of the old King

homestead has been recently subdivided for new houses. An earlier residential subdivision was built on the south side of the village about 20 years ago.

E. CONSTRUCTION OF THE KING HOUSE

An 1885 account cited by Rose Marie Springman in *Around Mason, Ohio: A Story* states that "Ahimaaz King had constructed a mansion in Kings Mills for his family's residence. It was a 12- room structure and clay from the Little Miami River was used for the bricks." ³⁴ It remains the finest home in Kings Mills, and the only home built of brick. A photograph from 1887 shows King Avenue with the King Mansion in the center rear of the frame. Other early photographs show the house with a wind mill, water tower and carriage house.



Figure 19. King Mansion, with Carriage House on left



Figure 20. King Mansion, with wind mill and water tower on right

The house is an excellent and intact example of a late Italianate-style dwelling. Typical characteristics of the style include the hipped roof, prominent bracketed cornice, single-story porches, ornamental woodwork, doors with large-pane glazing, and vertical proportions. The windows are not as elongated as earlier examples of the style. Italianate style windows are typically one-over-one and two-over-two. The King House has both; one-over-one in the formal rooms in the front and two-over-two in the service wing in the rear. This house is primarily of the centered gable subtype, which occurs in about fifteen percent of examples, but it does not display the symmetry associated with this subtype. The King House reflects a transition to the Queen Anne style— with its diagonally projecting and angled bays, which explode the symmetry of the massing, square headed windows, and a doorway with stained glass typical of the Aesthetic Movement. The marbleized slate mantels throughout the house are also exceptional in their quality and variety.



Figure 21. King Mansion, 1896



Figure 22. King Mansion, west elevation (Schiffer, p. 155)

According to *A Field Guide to American Houses*, the Italianate style dominated American houses between 1850 and 1880. It was particularly common in the expanding towns and cities of the Midwest as well as in many older but still growing cities of the northeastern seaboard. The style began in England as part of the Picturesque movement, a reaction to the formal classical ideals in art and architecture that had been fashionable for about two hundred years. The first Italianate houses in the US were built in the late 1830s; the style was popularized by the influential pattern books of Andrew Jackson Downing published in the 1840s and 1850s. By 1860, it was dominant, but it began to fade, along with the closely related style Second Empire style, after the panic of 1873 and the subsequent depression. When prosperity returned, new housing fashions, particularly the Queen Anne style—rose quickly to prominence.³⁵



Figure 23. King Mansion, date unknown

The integrity of the house is very high. The house retains two bathrooms from ca. 1910, with marble wainscot and backsplashes, an original claw-foot tub and sinks. The Carters, the last private owners of the house, converted the summer kitchen to a spa bathroom, enclosing the breezeway between the summer kitchen and the house. They renovated the current kitchen and refurbished most of the ceilings in the house with gypsum board. They also replaced the standing-seam metal roof with asphalt shingles. The only other significant change was the removal of a porch from the west side of the summer kitchen. The integrity of the carriage house is also very high, with its spindlework porch on the front.

F. THE ARCHITECTS

The house was designed by Peters & Burns, architects who practiced together in Dayton from 1881 to 1907. This is confirmed by an ink drawing of the foundation plan (figure 24) found in the house, which is signed and dated by the architects, "Peters and Burns, Dayton, Ohio, June 1884." Apparently the King House was one of their early commissions. Luther Peters and Silas Reese Burns were the progenitors of Pretzinger & Musselman, who were Dayton's leading architects from 1907 until 1928.

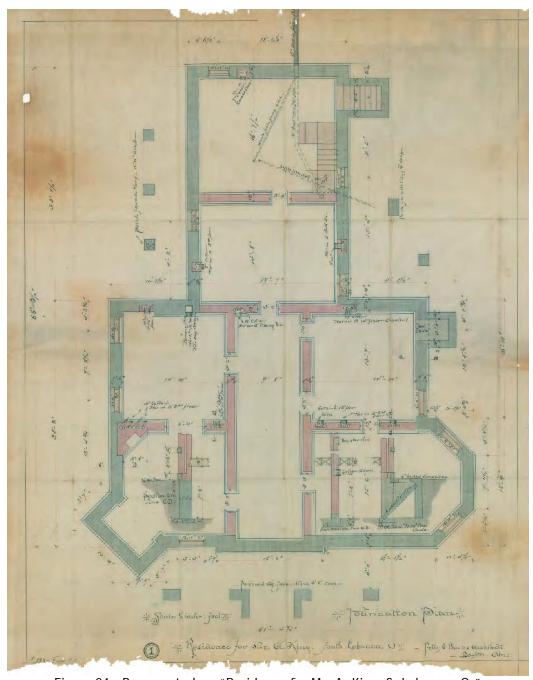


Figure 24. Basement plan, "Residence for Mr. A. King, S. Lebanon, O."
Peters & Burns, June 1884

Initially Albert Pretzinger began working with Peters and Burns during summer months. In 1893 he became a partner, and the firm became Peters, Burns & Pretzinger. This partnership was dissolved in 1907 when Silas Burns moved to California. Pretzinger was followed into the business by his son Freeman and grandsons Albert II and Robert. Freeman Pretzinger worked for his father as a high school student. He then earned a degree at Boston Tech, now MIT, returned to Dayton and went to back to his father's firm. After the dissolution of Pretzinger and Musselman in 1928, Albert and Freeman became partners in Pretzinger & Pretzinger. Albert II became an architect and joined the firm in the 1950s. Robert, a structural engineer, joined the firm in the 1960s. The firm Pretzinger and Pretzinger endured until 1980 when Albert II died. 36

Luther Peters (1846-1921)

Luther Peters' family moved to Dayton, Ohio, in November 1844 "making the entire distance by boat" according to biographical sketches from the Montgomery County Historical Society. His father, Joseph Peters, became one of the principal builders of the city, supervising construction of many churches and buildings in downtown Dayton. Luther is credited with designing the Fireman's Insurance Building, on the corner of Main and Second Street in downtown Dayton and the Dayton Public Library. 37

Luther Peters' father, Joseph, had apprenticed to the carpenter's trade in Pennsylvania when he was just 15 years old and served a term of three years. On April 10, 1840 Mr. Peters married Catherine States. In 1844 he and his family loaded their possessions on a section boat and landed in Dayton in November. Joseph Peters soon became one of the principal builders in Dayton with many buildings attributed to him. Luther was one of 8 children born to this union; five sons and a daughter survived. Luther, born May 11, 1846, is listed in the 1850 census at age 3 living at 230 Warren Street, Dayton, Ohio, with his parents and again in the 1860 census at age 13. He married Jennie (or Janie) Rutledge, daughter of Mark and Augusta Livermore Rutledge in 1867. They had no children but adopted a niece, Helen.³⁸

It is not known where Mr. Peters received his education. From 1881 to 1887 he was in practice with Mr. Silas R. Burns according to the *Biographical Dictionary of American Architects*. During that time they were the co-architects of the Dayton Public Library and a number of other public and commercial buildings. A young architect named Albert Pretzinger worked in their offices during the summer months. In 1893 Mr. Pretzinger was admitted into a partnership under the firm name of Peters, Burns & Pretzinger. The firm is listed in the Dayton City and Montgomery County Directory for 1896-97 with offices in Rooms 26 to 31 of the Kuhn Building. This partnership was dissolved in 1907 when Silas Burns moved to California. Today Pretzinger is considered Dayton's foremost native architect by Preservation Dayton.³⁹

Following this, Luther Peters worked in the firm of Peters, Hermann & Brown at 1129 to 1137 Reibold Building (across the street from the Kuhn Building). His partners were George H. Hermann and Clifford C. Brown. Luther and Jennie had their home at 307 S. Summit Street during the early 20th century and that is the address listed in obituaries in *The Dayton Journal* and *The Dayton Daily News* on Friday, February 18, 1921. He was buried in Woodland Cemetery on February 19th in a plot with his wife and inlaws. 40

Silas Reese Burns (1855-1940)

Silas Reese Burns started as a draftsman with firms in Dayton after graduating from Massachusetts Institute of Technology. He then served as co-architect of the Dayton Public Library with Luther Peters. In 1907 he moved to California and joined the firm of Hunt & Eager becoming a partner in 1910 when Mr. Eager left the partnership. While in California he designed the Alhambra Theater, the Southwest Museum and the Ebell of Los Angeles, among numerous other projects.⁴¹

Silas Reese Burns was born in Morgantown, Virginia on April 8, 1855, the son of Silas and Susan (Coombs) Burns. He received his architectural training at the Massachusetts Institute of Technology, Boston and served as a draftsman with leading firms in the city of Dayton before joining with Luther Peters. He married Louise Devereaux in 1891. Mr. Burns specialized in institutional and educational buildings. In 1907, he relocated to Los Angeles where he entered into a partnership with Mr. Hunt and Mr. A. Wesley Eager at that time. In 1910 Mr. Eager withdrew from the partnership and it became the firm of Hunt and Burns until 1930, when Mr. Burns retired.⁴²

According to the *Biographical Dictionary of American Architects*, Mr. Burns and his firm were involved in the building of many important structures in Los Angeles: the Children's Hospital, 1910; the Southwest Museum, 1914; the Los Angeles Country Club, 1922; the Automobile Club of Southern California, 1923; and Balch Hall at Scripps College, Claremont. Independently, Mr. Burns served as the architect of buildings at the Soldiers' Home at Sawtelle (now West Los Angeles). Mr. Burns was listed as the architect of the Alhambra Theatre in Los Angeles as well as the Glen Tavern Inn, a Craftsman Tudor style landmark built in 1911. The firm was also listed as the architects of The Ebell of Los Angeles, home to a non-profit women's educational, social and philanthropic organization. This elegant Italian Renaissance Revival design was a U-shaped concrete structure organized around a landscaped courtyard unified by arches (and listed on the National Register in May, 1994). Silas Burns died in 1940 in Los Angeles.⁴³

Other Commissions Associated with Peters and Burns

Numerous commissions by Peters and Burns are listed in the book, *Dictionary of Ohio* Historic Places. The Benjamin F. Kuhns Building, by Peters and Burns constructed in 1883, is an outstanding example of late 19th-century brick commercial architecture, and reputed to be the first major American office building to have a mail chute. Peters and Burns had offices in this building for several years. The Woodland Cemetery Gateway, Chapel and Office, completed in 1889, were designed in the Richardsonian Romanesque style. Mr. Burns and his wife are buried in this cemetery, whose gardens were landscaped by Mr. A. Strauch, then superintendent of Spring Grove Cemetery in Cincinnati. Dayton Fire Station No. 14, at 1422 N. Main Street, designed by Peters, Burns, and Pretzinger in 1901, is a fine example of the Mission style. It is a rectangular, two-story brick structure with a square, three-story hose drying tower. The First Lutheran Church, designed by the firm and built around 1907, is a Gothic-style building of buff-colored Bainbridge stone veined in red, blue, and brown, with a 100-foot high tower on the side. The elongated arched windows have opalescent glass. The Odd Fellows Hall, built in 1911 and designed by Peters, Hermann, and Brown, displays aspects of the Second Renaissance Revival style,

including a rusticated raised basement, geometric medallions, segmented arched entrance, and string courses.⁴⁴ Like many firms of the day, Peters and Burns were adept at interpreting revival styles popular in the late 19th and early 20th centuries.

G. STATEMENT OF SIGNIFICANCE

Built ca. 1885, the Ahimaaz King House and Carriage House carriage house represent the importance of Ahimaaz King (1842-1909), an early Ohio industrialist. King was a founder and the manager of both the King Powder Company and the Peters Cartridge Company until his death in 1909. Located on opposite banks of the Little Miami River in Warren County, Ohio, the first company represents "the history of a frontier-era powder manufacture which evolved into a force in the industry, and to be the third largest in the country by 1890. The King Co. was the first to develop semi-smokeless powder. It later founded another company to load cartridges which far outstripped the founder in size. According the author and expert Thomas Schiffer, "King Powder was not a huge concern like Dupont, but it did have unique products—such as smokeless and semi-smokeless powder exclusively for fifteen years, until 1911 when Dupont came out with similar products." Peters invented the first automatic cartridge-loading machine. "Both companies had an influence in the trade that far exceeded their market share." "Together these companies supplied this country with fine quality gunpowder and ammunition for sporting, military and industrial use." "45

The sister companies were also responsible for building virtually the entire village of Kings Mills to house their employees. The Ahimaaz King House was the first dwelling to be built in the community, at the head of the main street, and it anchored the new company town. The house was occupied by three generations of the King family for over a century. The house is the best remaining relic of the life and career of Ahimaaz King. Almost nothing remains of the King Powder Company. A portion of the Peters complex remains, but the buildings are very deteriorated, with rusted and broken windows, and boarded up openings.

The house is also an excellent and intact example of a late Italianate-style rural dwelling. It is associated with architects Peters & Burns, among the early professional firms in Dayton. Established in 1881, Luther Peters and Silas Burns proved to be outstanding architects of the late 19th-century and early 20th -century. Their body of work encompassed many different styles of public and commercial buildings. Through its successor firms, Peters, Burns & Pretzinger, Pretzinger & Musselman, and Pretzinger & Pretzinger, the practice endured over a century, and left major architectural works in Dayton and southwest Ohio.

PART 2. EXISTING CONDITIONS

A. NARRATIVE DESCRIPTION

1. Setting

Located at 1720 East King Avenue, the Ahimaaz King property is a 65-plus-acre site in Kings Mills, a small, unincorporated community in the northeastern corner of Deerfield Township, in Warren County, Ohio. The King Property occupies the highest ground in the area (El 784') on the west bank of the Little Miami River (El 600'). The property includes a house, carriage house, small frame shed, barn, office building, and large frame shed. (This study focuses on the house and carriage house only.) The property is located at the northeast corner of the village, where Kings Mills Avenue takes a right-angle turn to the south; the house is on axis with the road. The house is set back about 150 feet from the street and accessed by a U-shaped concrete driveway which curves around the rear of the house. Historic views show the house surrounded by trees and a cast iron fence running along the street frontage. The fence and some trees were removed in 2006.



Photo 1. Front elevation, looking north

2. House Exterior

The King House is an imposing two-story building of brick and limestone reflecting the influences of the Italianate and Queen Anne styles. The dominant features are a hipped roof with wide bracketed eaves, central pediment and widow's walk, prominent porches on the front and sides, angled bays and limestone base and trim. Irregular in plan, the house is approximately 54-feet-wide, 87 ½-feet-deep, and approximately 33-feet-high. The building has a deep basement with a 20-inch thick fieldstone foundation. The exterior walls are three withes of brick (about 13") thick and four withes in places, and laid in American bond. According to Eugene King, a descendent of the original owner, the brick was made and fired on the property. The

brick is punctuated by limestone trim throughout—a low base, water table, window lintels and sills.

The building would present a five-bay façade if the easternmost bay were not windowless. The front portion is essentially a two-story rectangular block with a two-story ell with a further one-story former summer kitchen connected on the rear, creating a telescoping effect. The envelope of the main block is expanded by a one-story diagonally projecting rectilinear bay at the southwest corner, a two-story angled bay on the southeast corner and porches on the front and sides. The design is an intriguing mix of formal symmetry of the Renaissance-based Italianate style and exuberant asymmetry of the Queen Anne style, which emerged in the Victorian era. The paired end-wall chimneys and central pediment at the roofline emphasize the symmetry. The projecting bays and asymmetrical porch treatment break out from the rectilinear constraints.



Photo 2. Southwest corner bay

The structural system consists of masonry load-bearing walls and wood floor framing. The wood joists are full-sized 2- by 10-inch boards. The floor boards throughout are tongue-and-groove.

The hipped roof was originally standing-seam metal; it was replaced with asphalt shingles in the 1990s. The roof is crowned by a widow's walk enclosed by a balustrade of galvanized tin approximately eight by sixteen feet. Dentils decorate the pediments at the top of the wall, the diagonal bay and the cornice of the front porch. Paired scrolled brackets support the cornice. Six slender brick chimneys pierce the roof flush with the exterior wall--two on the east side of the house, two on the west and three on the north, including one on the one-story summer kitchen wing at the rear. The chimneys on the main house are tall and slender and have a textured, limestone band near the base, while the chimney of the summer kitchen is smaller, simpler and lacks the stone detail. The latter has a metal cap and two metal vents that serve the later conversion of the kitchen into a bathroom. Four of the chimneys are in good

condition; the two on the East side and the one over the summer kitchen are somewhat deteriorated. One chimney was removed to below the roof line after 1999.

The house has four porches—a full-width one-story porch on the front (south) elevation, a two-story porch and a one-story porch on the east elevation and a one-story solarium on the west elevation. The one-story, full-width, front porch, eight feet deep, has a wood deck, wood railing with chamfered square posts and balusters and decorative scrollwork. The stone slab steps have contemporary iron railings. A wood swing hangs from the porch ceiling on the east side. The two-story side porch is similar in design to the front porch, but less deep. A smaller one-story porch shelters a doorway near the rear. The original west porch has been replaced with an enclosed solarium with a concrete foundation and deck, brick walls and steel windows. A porch on the west side of the former summer kitchen was removed after 1999.



Photo 3. West and north elevations, looking southeast

The formal entrance to the house on the south elevation has a wide door surround with rectangular transom and sidelights of stained and painted leaded glass and limestone sill and header. The doorway is discreetly decorated with egg-and-dart molding around the sides and a plain, rounded beading at the top. The front door is half-glazed, with a single large pane of clear glass in the top and two vertical raised panels with chamfered edges below. The door frame is recessed with a small vertical raised panel at the top, a tall raised panel below that, a cross rail with the same three horizontal, carved bands as seen on the door and sidelights below this, and another small raised panel below this. A paneled oak screen-door-and-window assembly infills the opening. This assembly appears to date from the 1910s; its original pine counterpart is stored in the barn.

The stained glass sidelights and upper panel in the door are typical of the Aesthetic Movement and exhibit a Japanese influence. The design comprises geometric patterns and motifs based in nature—a pomegranate or apple and butterfly. Red jewel glass is

used as accents. The corner panes have jewels in the center surrounded by four painted *fleur de lis*.

The enclosed porch on the west elevation was added some time after 1919. It has two doors—one on the west and the other on the north. Both doors are half-glazed wood doors with fifteen lights of glass. Eight-light sidelights flank the west door, which is surmounted by a three-light transom. The north door is similar, but it has a single wide sidelight rather than two sidelights, which flank the west door.

Inside the porch, two original doors provide access to the kitchen and dining room respectively. Each consists of a half-glazed door with a single large light and two vertical raised panels below. Both doors are pine; the door to the dining room retains its original finish and the kitchen door has a natural finish applied later. The door to the kitchen was reset so that it swings outward into the porch rather than inward into the kitchen. The doorway has a deep wood frame with raised vertical panels, a rectangular transom and a limestone header.



Photo 4. East elevation

There are three doors on the east elevation. The basement door has a limestone header and a wood batten door painted blue. To the south, a vinyl replacement door provides access to the laundry room between the kitchen and summer kitchen. The screen door features spindle work and decorative brackets in the corners. Farther to the south is a door to the dining room. Simple white-painted trim surrounds the door, as well as a limestone sill and header. The pine screen door retains its original finish, has a top and bottom rail, a hinge stile and a lock stile, two cross rails and a mullion stretching from the bottom rail to the bottom most cross rail. The door is identical to the two doors on the West side of the house, consisting of two vertical raised panels above the bottom rail, a horizontal raised panel between the cross rail and the lock rail, and a clear glass panel between the top rail and the lock rail.

The formal front portion of the house has one-over-one, double-hung sashes and rough limestone headers, while the windows in the less formal spaces at the rear have two-over-two, sashes. There is a projecting square bay on the southeast corner, with

windows on each side, but not in the center. The rectangular bay on the southwest corner has windows on the sides and paired windows in the center. A continuous limestone water table joins the sills of these windows. The windows are wider and more generous than is typical of the elongated examples associated with the Italianate style.

The basement windows have small casement sashes and limestone sills and headers. For the most part, the windows are regularly spaced, except for two smaller windows on the east elevation that light the back stairs. A single two-over-two, double-hung window that extends from floor to ceiling provides access to the second floor of the two-story porch on the east side of the building. The attic windows have single-light casement sashes. A continuous dentil molding serves as a header. The summer kitchen has a vinyl replacement window on the east side elevation.

Original shutter hardware remains, and the original shutters can still be found in the barn along with several generations of storm windows. The first and second floor windows have contemporary aluminum storm windows. The main roof is a low pitched hipped roof typical of the Italianate style. The main roof and porch roofs were all originally standing-seam metal. The main roof was replaced in the 1990s with asphalt shingles; but the solarium and former summer kitchen retain the metal roofing. There is a simple cornice with scroll shaped double brackets at the corners and spaced evenly along the roof edge. Dentil molding adds to the ornamentation. A fascia encircles the building below the eaves. The widow's walk is of galvanized tin in an ornate design. It is approximately fifteen feet by eight feet, composed of columns and comer posts with a top rail.

3. House Interior

The first floor is divided by a central longitudinal main stair hall flanked by a formal parlor on the east side and a ladies parlor and library on the west. The doorway between the hall and the east parlor is wide and open, while the other doorways are less wide and feature pocket doors. The hall leads back to the dining room in the rear ell. The dining room has door openings on all four sides; the east and west doorways lead to porches. The rear opening leads to the kitchen, which has a pass-through to the dining room. The kitchen has three doors on the east wall, one to a large walk-in pantry, the second to a small closet and the third to a back stairway. All three doors are capped by flat, pedimented lintels, which were reconstructed by Bobby Carter after he removed wood paneling from the walls. Beyond the kitchen is the original summer kitchen, now a modern spa bathroom.

A large formal stairway in the center hall runs up the west wall to the second floor. The hall on the second floor runs from the front to the rear, where a back stair runs down to the kitchen. Four rooms flank the hallway—three bedrooms and a study. In the rear ell, are a full bathroom (original to the house), servant's quarters, a cedar closet, and an enclosed stair to the attic.



Photo 5. Stair hall, first floor, looking northwest

The main stair is built primarily of pine; the newel post and spindles appear to be walnut. The newel post at the bottom of the stairs is intricately carved and features a starburst pattern. Newel posts anchor the corners of the railing; drop finials hang from the ceiling below in line with the newel posts on the floor above. The turned spindles resemble the profile of the newel posts. All of these elements retain their original finish.

The rear stair, a half-turn stair with two landings, runs along the east wall and provides access to the service areas of the house. A pine banister bracketed to the wall serves the longest run of steps. The pine railing on the other side ends at the top with several newel posts. These elements, as well as the treads and risers of the steps, are black, either from paint or patina.

The floors in the front part of the house and in the dining room have two-inch-wide golden oak planks, while those in the rear ell are mostly five-inch pine boards. The pine flooring was apparently original throughout the house; the more durable oak floors are slightly higher, and were probably added c. 1917. The formal first-floor rooms have borders of contrasting dark-stained boards around the perimeter. The kitchen has five-inch-wide pine planks. The butler's pantry off the dining room has two-and-a-half-inch quarter-sawn pine boards, with the exception of the cabinet interiors, which have five-inch pine planks.

The bedrooms upstairs in the front of the house have the same patterned oak flooring as the floor below. The southeast master bedroom has an inlaid border of alternating wood species, which skirts a half-bathroom added in the inside corner. The back hall has pine, but the small, northwest bedroom has the same oak flooring as the front.

The floor is slightly worn. The floors in the rest of the house were refinished during the 1990s.



Photo 6. Master bedroom, looking west

All the interior walls are plaster on wood lath, and many were repapered in the 1990s. Original Lincrusta-Walton wainscoting covers the walls in the front hall on the first and second floors. Four-feet-high, this wainscoting is brown in color, to imitate leather, and is unpainted. A decorative wood molding, which appears to be machined or embossed with rosettes, tops the wainscoting. Original plaster ceilings survive only in the small passage to the dining room and in the nook off the hall on the second floor. The coved ceilings are intact and show evidence of being covered with wallpaper that has been painted. Most ceilings were covered with drywall in the 1990s to mask their deterioration. The ceiling is the kitchen is tongue-and-groove wood planking, added in the 1990s.



Photo 7. Lincrusta detail

Door and window surrounds in the formal rooms are richly molded with bullseye corner blocks, while those in the rear are simple. Original brass hinges remain throughout the house, and the butler's pantry has original engraved drawer pulls on the cabinetry.

Most rooms feature a fireplace with a marbleized slate mantel and grate. The fireplace in the west parlor is extremely delicate with its theme of stylized flowers reminiscent of the aesthetic movement of the 1880s. The tile hearths feature tile in dark saturated colors. There is a hierarchy of ornateness in the mantels that corresponds to the function of the rooms. The public rooms on the first floor have the most ornate mantels; they also vary from front to back or by the sex of the occupants. The ladies parlor in the southwest corner has a more delicate design with a flat incised floral motif outlined in gold and tile with raised floral pattern. The library has an altered fireplace flanked by built in book cases.



Photo 8. Fireplace mantel, east parlor

The house was originally heated with a gravity furnace, as reflected in the 1884 basement plan. The original vents are intact, and a metal coal chute remains in the basement. Sometime in the 20th century, a coal-fired boiler system with steam radiators was installed throughout the main portion of the house. A modern gasforced-air unit has been added under the spa bathroom (formerly the summer kitchen) and now heats that room and the kitchen. Ventilation was achieved during hot weather by opening the windows, equipped with screens, to promote cross breezes. Contemporary triple-track storm/screen windows have been installed, but the original screen windows still remain in the barn.

The house retains a few of its original gas lighting fixtures throughout, and a gas pump remains in the basement. Each room had a centered ceiling fixture. Original fixtures have been stored in the attic. The chandelier in the dining room consists of a domed shade of opalescent glass with six bell-shaped pendant lights around the perimeter. The colors of the glass, ivory with greenish streaks and orange bands, are typical of the 1920s. Although the chandelier is not made by Tiffany, it is quite handsome.



Photo 9. Dining Room, chandelier

The existing electrical system is a mix of knob-and-tube system, a two-pronged update, followed by three-pronged outlets. The kitchen has been updated with contemporary appliances.

The building has four bathrooms. One of the second-floor bathrooms appears to be original while two others appear to be early additions, and one is recent. The central bathroom on the second floor, probably original to the house, has a marble floor and wainscoting. Fixtures include a wall-mounted marble corner sink with an oval porcelain bowl and separate chrome faucets, and a cast-iron, claw-foot tub with a recently added shower ring. The toilet is a replacement; the original wood commode is stored in the attic, along some other early chrome fixtures. Copper water lines run from the tub, behind the toilet and over to the sink, which fits into the corner directly in front of the door. On the east wall are mounted a chrome cup holder, soap dish and towel bar, all in the Victorian style.



Photo 10. Bathroom, 2nd floor

The second bathroom on the second floor, a half-bath, is in the northwest corner of the front bedroom on the east side. This bathroom is considered by architectural historian Walter E. Langsam to be a later addition; it was rare for a house to have more than one bathroom until the 1890s, and also unusual to have a toilet in a front room. Moreover, the striped inlaid design in the floor that wraps around it indicates that both the floor and the bathroom were probably part of a later remodeling. The extensive built-in closets in the back halls are also unusual.

The first-floor bathroom was probably a closet converted into a lavatory in the early 20th century. The summer kitchen was converted to a spa bathroom in the 1990's with a double vanity sink, toilet, Jacuzzi, and a shower stall. A plastic waste line on the north wall of the basement below the kitchen serves this bathroom and the kitchen sink. The two earlier bathrooms are located in the front portion and still employ a cast iron waste line imbedded in an interior wall of the basement. All water lines have been replaced with new copper pipes, probably when the summer kitchen was converted into a bathroom. There is evidence of original lead supply lines and a metal water tank in the attic.



Photo 11. Attic Tack Room, looking south

The low ceiling attic has a winter tack room with wood plank walls punctuated with two-over-two sash windows, half-glazed paneled wood doors on the north and south, and access to a widow's walk on the roof. Numerous original furnishings are stored in the attic, including an original mantel and surround from the fireplace in the library, which was altered to burn wood, early roller shades, gas lighting fixtures for six rooms and remnants of the original wooden wall water closet. Many books belonging to the King family remain in the attic and in the built-in bookcases of the library. Mr. Carter left many pieces of furniture that had been owned by the King Family: a leather chair, a leather chaise lounge, upholstered sofa and chairs, cane-seat chairs, and 20th century oriental rugs. There is also a cast-iron safe with painted decoration. "Hall's patent 1849" appears on the inside of the door, and the date 1867 appears inside. Hall's was a local firm in the Cincinnati area.

4. Alterations

There are a few elements in the house which appear to be alterations made in the 1910s, possibly around 1917, when the house was transferred to Robert A. King, son of Ahimaaz and Amanda. These include widening of the doorway between the hall and parlor, the installation of new floors, the chandelier in the dining room, and the insertion of a bathroom in the front bedroom. Drawings prepared by Samuel Hannaford & Sons in 1917 show a two-story addition in the northwest corner for a sun room and sleeping porch above. (See figures 25-28.) These plans were not carried out, but a one-story solarium was eventually built at this location, probably in the 1930s or 1940s.

One fireplace, in the library, has been altered to a wood-burning fireplace; however the original mantel and surround are stored in the attic. The first-floor bathroom was probably inserted in a closet, a common practice in the early part of the twentieth century as technology improved. The small space has just enough room to house a toilet and a sink vanity. These were much later additions to the house.

The renovation of the kitchen, conversion of the summer kitchen into a spa bathroom, removal of the side porch from the summer kitchen, and replacement of the standing seam metal roof with asphalt shingles, were all done in the 1990s. Other than these changes, the house is very much intact and a fine example of the late Italianate style.

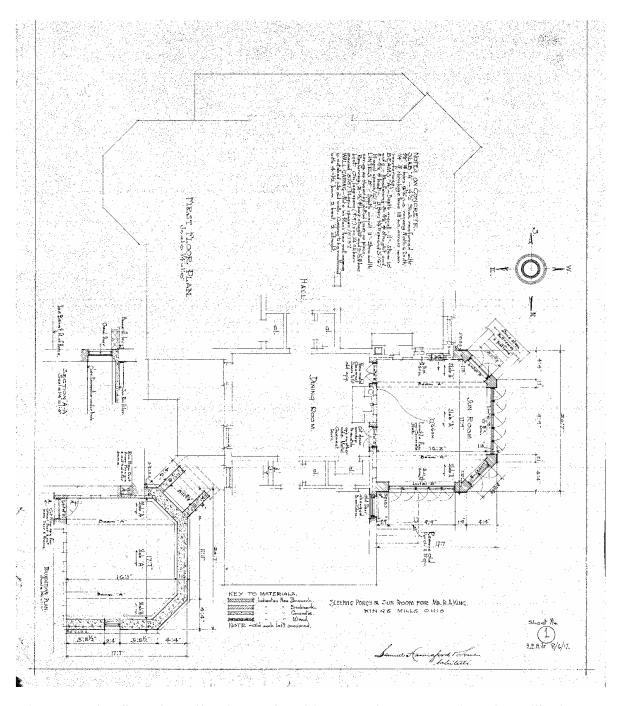


Figure 25. First floor plan, "Sleeping Porch and Sun Room for Mr. R. A. King, Kings Mills, OH," Samuel Hannaford & Sons, August 16, 1917

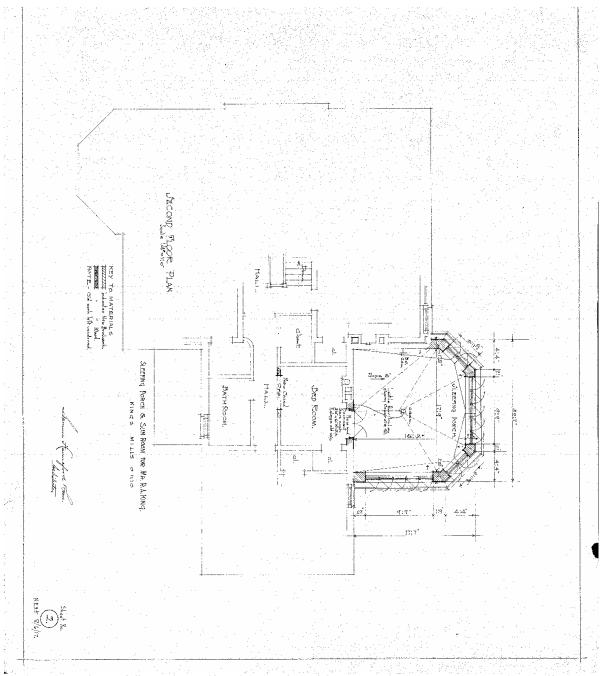


Figure 26. Second floor plan, "Sleeping Porch and Sun Room for Mr. R. A. King, Kings Mills, OH," Samuel Hannaford & Sons, August 16, 1917

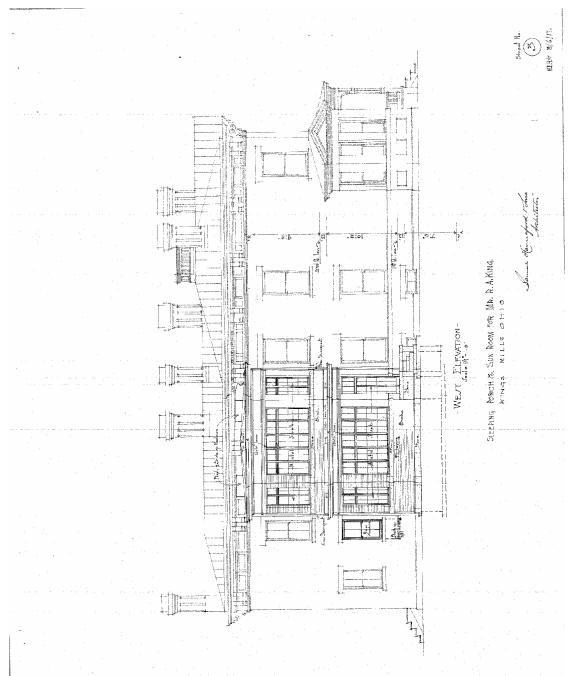


Figure 27. West elevation, "Sleeping Porch and Sun Room for Mr. R. A. King, Kings Mills, OH,"
Samuel Hannaford & Sons, August 16, 1917

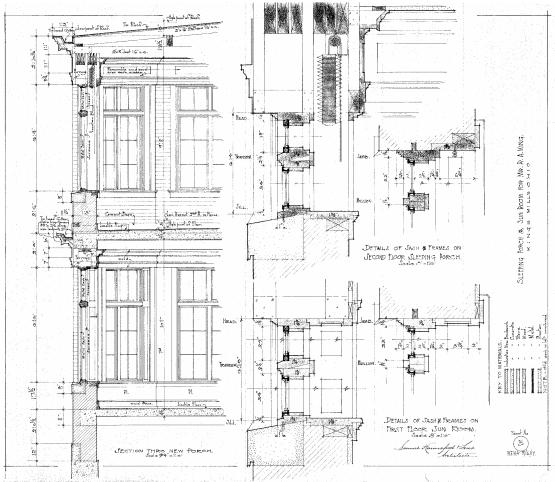


Figure 28. Section and window details, "Sleeping Porch and Sun Room for Mr. R. A. King, Kings Mills, OH," Samuel Hannaford & Sons, August 16, 1917

5. Carriage house

Reached by a U-shaped concrete drive which turns behind the house, the carriage house/barn is a substantial red-brick structure with an ashlar stone basement and a cross-gabled roof covered mostly with asphalt shingles. The roof has a steep center gable and a cross gable that ends in a hoist to the loft.



Photo 12. Carriage House, south and west elevations

A wood-frame porch, a later addition, extends across the front, divided by wood posts into three bays and enclosed on the sides. The porch has a hipped roof and a shed-roofed porch with elaborate spindle work, which features starburst motifs in the corners of each bay. In the center of each bay, a rectangular panel includes the name, "A. King" in cut-out letters and a vine motif above.



Photo 13. Carriage House, south porch detail

The barn is built into a bank, which slopes away from the house. The bottom floor, exposed at the rear and in an areaway on the west side, served as a milking area for cows. The main level is occupied by horse stalls, tack room, tool room, and a large area for storage and repair of equipment. Wide doors in the center bay in the front and rear allow a carriage to be driven through the building. An earth-filled stone ramp at the rear provides access to the main floor. The second floor served as a storage area for hay and carriages. There is a gabled, metal-roofed hatch on the west end, and a pulley system as well as two carriages and a sleigh.

6. Landscape features

A few original landscape features survive, including a three-tiered cast-iron water fountain on the south lawn, which appears in photographs dating from the 1890s. The fountain retains its basin, which is decorated with four Italianate cartouches. On the west side of the house, there are two rough stone benches in the yard, a cast-iron water pump, and a stone mounting block along the driveway. A rough stone monument installed by the Kings Mills Civic Club, carries a bronze plaque from the old iron bridge that once spanned the Little Miami River, reading "1913, built by the Oregonia Bridge Company, Lebanon, Ohio," and listing the names of the three county commissioners, auditor and engineer. Two smooth stone hitching posts with iron rings originally stood in front the iron fence along the road; they have been salvaged and stored on the property. All eight of these historic landscape features are contributing objects and should be retained.



Photo 14. Fountain, looking north



Photo 15. Bridge monument, looking southeast



Photo 16. Hitching posts



Photo 17. hand-levered water pump

B. ARCHITECTURAL DRAWINGS OF EXISTING BUILDINGS

See Appendix A for Architectural drawings of Existing Buildings.

PART 3: CODE AND SYSTEMS ANALYSIS

A. CODE ANALYSIS

1. Zoning Code

Current Zoning Single-Family Residential Permitted Uses Single-Family Dwelling

Conditional Uses Educational

Government Buildings

Non-Commercial Recreational

Bed & Breakfast

Other Uses Zoning change required

Parking Requirements

Proposed Uses	Required by	House	Barn	Combined	Combined
	code			total	total
				required	recommended
B&B	1 per guest	7	n/a	7	7
	room + 2				
Community	1 per 400 SF	13	10	23	45+
offices/meeting					
rooms					
Public Assembly	1 per 100 SF	24	37	61	100+
(Reception					
facility)					

Parking requirements above are for the house and carriage house only. Parking for additional uses on other areas of the site is not included above.

2. Building Code

All proposed uses require two means of egress from each floor.

Sprinklers are not required for any proposed use.

It is recommended that any kitchen space be limited to a serving pantry without cooking facilities to avoid a complicated and expensive flame-suppression installation. A warming-only appliance is allowed except for a bed & breakfast use.

Occupant loads and plumbing fixture requirements are based on anticipated actual occupancy, and may differ from those prescribed in the building code.

Existing Gross Areas	House	Barn		
Basement	2,650 SF	2,000 SF		
First Floor	2,980 SF	2,000 SF		
Second Floor	2,410 SF	2,000 SF		
Attic	2,410 SF	850 SF		
Porches	470 SF	850 SF		
Total Net Finished Space	4,650 SF	3,550 SF - 5,4	100 SF	
'	,			
Construction type:	IIIA	IIIA		
Construction type:	IIIA	IIIA		
Construction type: Occupant Load for	IIIA House	IIIA Carriage Hous	se	Square Feet (SF)
J.			se	Square Feet (SF) per person
Occupant Load for			Se	' '
Occupant Load for				' '
Occupant Load for Assembly Use	House	Carriage Hous	15 SF	_per person*
Occupant Load for Assembly Use Seated	House 56	Carriage Hous	15 SF 5 SF	per person
Occupant Load for Assembly Use Seated Standing	House 56 200	Carriage Hous 110/188 160/320	15 SF 5 SF 100 SF	per person* per person*

Note: Occupant loads are for proposed uses indicated on drawings.

Floor Design Live Loads:

Stairs and Corridors All Uses:	100 PSF
Assembly Use:	100 PSF
Office Use:	50 PSF
Residential Use:	40 PSF

3. ADA Requirements

Handicapped accessibility is required in all public buildings. Accessible restrooms are recommended for both the house and barn. Wheelchair access should be provided to the first floor of the house through the use of a ramp. A mechanical lift can be considered as an alternate solution. (See Drawing D9 in Appendix D.) One accessible bedroom would be required in a bed & breakfast use with more than five bedrooms.

The proposed uses do not require access to the second floor of the house. A small, limited-use, limited-access (LULA) lift may be added by adapting a closet in the kitchen to provide access to the second floor if desired and is considerably less expensive than a conventional elevator.

The first floor and basement of the carriage house have existing near-grade-level entrances that will require minimal modifications. The proposed uses do not require access to the second floor.

Occupant loads based on indicated table layout.

^{**} Occupant loads are maximum permitted per indicated plumbing fixtures.

4. Hazardous Materials

No hazardous-materials testing has been carried out. If exposed asbestos pipe insulation is found, it should be abated by a qualified contractor. Lead paint can be effectively encapsulated by careful surface preparation and over-painting. Any animal droppings found in the house or barn should be abated by a qualified contractor.

5. Energy Conservation

Historic buildings are somewhat limited as to how much can be done to reduce energy consumption without radically altering the historic fabric of the building. The main block of the house is constructed with two double-withe brick walls with an approximately four-inch air space between them. This early and unusual form of cavity wall construction already provides much better thermal performance than most historic masonry buildings. New HVAC systems are required for both buildings and are addressed in a separate section.

Insulation should be added to the house where possible. Fiberglass batt insulation can be easily added to the roof structure from the attic. The existing blown-in insulation in most of the floor joists of the attic and should be retained.

Insulation should also be added to the roof structure of the barn. The shallower rafters of the barn will only accommodate smaller insulation batts. Additional insulation may be added at a considerable expense if the existing rafters are supplemented with additional deeper framing members. An alternate solution would be to add rigid insulation above the roof deck in conjunction with replacing the shingles. The exposed brick of the interior walls of barn are an important feature of the structure and should be retained wherever possible. Where new spaces are portioned off from the main spaces it may be appropriate to fur out those exterior walls and add insulation.

Many of the existing windows of the house are fitted with aluminum storm windows. Some of these are in need of repair. It may be cost-effective to replace all storm windows rather than repair the existing storms. Interior storm panels may also be fitted if the appearance of exterior storms is objectionable. The color of any storm window selected should be carefully coordinated with the proposed color scheme of the building.

Operable storm windows will allow the option of taking advantage of natural ventilation when appropriate. Most of the original wood windows of the house remain, and should be repaired. Where they are missing, new windows should be fabricated to match the existing as closely as possible.

Most of the windows and doors of the barn are in fair to poor condition or are missing. New windows should be fabricated to match the existing as closely as possible. Some openings such as the large barn doors can be infilled with new door & window assemblies that have a compatible appearance with historic windows.

B. STRUCTURAL ANALYSIS

1. House

The existing structure of the first floor of the house is adequate to support an average load of approximately 70 pounds per square foot. This is adequate for all proposed uses except for an assembly use, where 100 pounds per square foot (PSF) is required. The first floor may be easily reinforced from the basement, or a special exemption from the building official may be granted. There are only a few limited areas of joist repair that are required in the basement.

The existing structure of the second floor of the house is adequate to support an average load of approximately 50 PSF. This is adequate for all proposed second floor uses. The joist size and spacing is assumed, as the second floor structure is not exposed.

The structure of the attic floor and roof is adequate for an unoccupied space. Some areas under the porches of the building are not easily accessible and were not inspected. The masonry of the house is adequate to support any load, only minor repairs are needed.

2. Carriage House

The beams supporting the first floor joists of the carriage house are undersized and are only capable of supporting 20 PSF. Additional columns or other beam reinforcement will be required for any use. If the first floor beams are reinforced, the existing first floor joists are adequate to support a load of between 45 PSF to 65 PSF. This may adequate for an office use, but not for an assembly use, where 100 PSF is required. The first floor may be easily reinforced from the basement with additional beams and columns. One of the existing support beams and one column is severely deteriorated and will need to be lifted and repaired for any use.

The existing beams of the second floor of the carriage house are undersized and are only capable of supporting 20 PSF. A makeshift truss was created to eliminate two original first floor columns, and has sagged several inches. This area cannot support any load. If the missing columns area replaced and the second floor beams reinforced, the existing second floor joists are adequate to support a load of between 45 PSF to 65 PSF. This is adequate for an office use, but not for an assembly use, where 100 PSF is required. Additional reinforcement of the floor joists would be required for an assembly use.

The masonry walls of the barn exhibit several areas of settlement and shifting. The large brick arch on the north side of the building will require extensive repair or rebuilding. A large crack on the west side of the barn will also require repair. The stone foundation of the barn appears to be in good condition. The concrete ramp on the north side of the barn is in severely deteriorated condition and should be removed.

Floor-Loading Information

Framing	Span	Allowable Load	Notes
House			
First Floor			
2" x 10" @ 16" o.c. 2" x 10" @ 16" o.c. 2" x 10" @ 14" o.c.	10'-0" 15'-0" 17'-0"	150 PSF 70 PSF 55 PSF	main stair hall only most first floor rooms kitchen area only
Second Floor			
2" x 9" @ 16" o.c. 2" x 9" @ 16" o.c. 2" x 9" @ 16" o.c.	10'-0" 15'-0" 15'-0"	150 PSF 50 PSF 40 PSF	main stair hall only most second floor rooms area above kitchen only
Carriage House			
First Floor Joists 2" x 10" @ 18" o.c. 2" x 10" @ 18" o.c.	15'-0" 17'-6"	65 PSF 45 PSF	both side bays center bay only
First Floor Beams 8" x 8"	11'-3"	20 PSF	
Second Floor Joists 2" x 10" @ 18" o.c. 2" x 10" @ 18" o.c.	15'-0" 17'-6"	65 PSF 45 PSF	both side bays center bay only
Second Floor Beams 8" x 8"	11′-3″	20 PSF	does not include trussed area

See further structural analysis by Pinnacle Engineering, Inc., in Appendix B.

C. MECHANICAL & ELECTRICAL SYSTEMS ANALYSIS

See Mechanical & Electrical Systems Analysis by Hal-PE Associates, Engineering Services, Inc., in Appendix C.

PART 4. FEASIBILITY OF POTENTIAL USES

A. USES CONSIDERED

The scope of work for this study included in-depth investigation of up to three new uses. Architectural drawings show how these uses could be accommodated in each of the spaces. Based on suitability of the spaces, the best potential new uses are:

- 1. Bed and breakfast inn
- 2. Community offices/meeting rooms
- 3. Reception facility

Additional uses that can be considered, the latter two in combination with the three major uses listed above include:

- 4. Corporate quest house
- 5. Museum
- 6. Caretaker's apartment

Other Uses

Several other uses for the King House and carriage house could be considered, including Community Arts Center, Recreation Facility, Government Offices, and a Restaurant.

B. PROPOSED USES, PROS AND CONS

1. Bed-and-Breakfast Inn

The King House could be renovated to accommodate a 5-room bed & breakfast inn. (See Drawings D1 & D2.) Five guest bedrooms with private baths could be located on the second floor, and an owner's apartment with two additional bedrooms with private baths could be located on the first floor. The first-floor rooms could be made handicapped accessible. Two public lounge rooms and a dining room could be located on the first floor in the existing formal rooms. A kitchen, handicapped bath, and a small office could be located at the rear of the house.

Considerations

- B&Bs are most successful when they are marketed as a high-end option for the pampered traveler.
- B&Bs owned by a non-profit organization tend not to be as successful as those owned by private individuals who "live and breathe" it because the business requires a substantial commitment to be successful.
- Contemporary expectations are that each bedroom will have a private bathroom.
- B&Bs with 5 guest rooms or less do not require a zoning variance.
- B&Bs with 5 guest rooms or less do not have to comply with ADA requirements.

Pros

- Location near public attractions (Little Miami Bike Trail and King's Island)
- High-style architecture offers historic experience and high-end ambience.
- B&Bs use provides tax incentives for use of a home as a business.
- The Township could contract with a private operator.
- A lease of 31.5 years provides federal tax credit for rehabilitation for adaptive reuse.

Cons

- High overhead and startup costs
 - o Requires at least 6 new full bathrooms and 1 lavatory.
 - o Staff needs—innkeeper, cleaners, etc.
 - o Purchase of linens, furniture, food, etc.
 - o Marketing costs—logo, advertising, and promotion
- The insertion of 6 new bathrooms represents a significant alteration of the original spaces.
- There is already a B&B (King's Manor B&B) operating in King's Mills, although it has less visibility than the Ahimaaz King House.
- A separate compatible use would have to be found for the Carriage House.

2. Community Offices/Meeting Rooms

The King House and carriage house could be renovated to provide approximately 9,000 gross square feet of office and meeting space for non-profit & charitable organizations. (See Drawings D3, D4, D11, D12 & D13.) (For-profit offices would not be compatible with the public purpose established for the property.) The house could provide 7 private offices and 1 shared office. The first floor could include an accessible entrance, a reception area, conference room, 2 offices, accessible restrooms, and a break room. The second floor could be devoted exclusively to offices, and would not be required to be handicapped accessible.

The carriage house could also be converted to office use, with a much more flexible layout. Each floor could be divided into smaller offices, or left as open floors, as shown in Drawings D11 and D12. The first floor of the carriage house could include an accessible entrance, accessible restrooms, and a break room. The second floor could be exclusively offices. The second floor would not be required to be handicapped accessible. Two new stairs would be required to provide adequate egress to the second floor.

Considerations

• The house and carriage house are suited for private professional offices, which would be more lucrative but limit public access.

Pros

- Community office use could provide community-oriented programming and activities.
- Community office use offers the most public access and flexibility of use.

Cons

- Community uses serve a public purpose but don't generate large revenue.
- The need for community offices in Deerfield Township is uncertain.
- Requires handicapped ramp and two new restrooms.

3. Reception Facility

The house could be renovated for use as a reception facility. (See Drawings D5 & D6.) The south portion of the house could house seating for up to approximately 56 people. A serving area, kitchen, and handicapped restroom could be located in the north portion of the house. The west porch could be remodeled to house two restrooms. The second floor of the house could house two small dressing rooms and several rental offices.

The carriage house could be used for a larger reception space, seating for up to 110 people on two floors, with additional seating for approximately 80 people under the porch and on a new exterior deck overlooking the north field and pond. (See Drawings D13, D14 & D15.) Accessible restrooms could be located on the first floor, with additional restrooms located in the basement. A large opening could be created between the first and second floors to create a dramatic volume as well as to provide a visual connection between the two floors.

Considerations

- Historic places for private parties, weddings, corporate events, are very desirable.
- Cincinnati has few tasteful historic rental venues—most are corporate or public buildings (museums etc.) or private clubs.
- Programming—arts, events, festivals—could potentially draw patrons.
- The Township could operate or contract with private operator.
- The Township already successfully operates the Snyder House in Cottell Park as a reception facility. (In 2006, there were 59 events at the Snyder House, which produced \$17,900 in gross revenue. After deducting the cost of cleaning (\$4,425), the facility produced \$13,475 in net revenue. All other costs associated with the Snyder House—landscaping, utilities, maintenance, and staff—are covered by the Parks & Recreation budget.)

Pros

- Low overhead and start-up costs
 - o Requires only one or two staff to take reservations, etc.
 - o Fewer code requirements without overnight accommodations
- Operator can provide catering and set-up services or can provide a list of "preferred" contractors to renters to do their own.
- Cleaning can be contracted out, staff not required.
- Potential for highest income and lowest operating costs of options researched.
- The carriage house can accommodate up to 190 people.
- The Township is already experienced in this type of operation.

Cons

- Use may be irregular and the buildings vacant at times.
- Requires handicapped ramp and 3 new restrooms in house.
- The spaces in the house are small for a rental hall. The first floor can accommodate 52 people seated or 260 standing.
- Second floor of the house would be usable only for offices.

4. Corporate guest house

An alternative related to B&B-use is a small corporate guest house for retreats and meetings. (See Drawings D7 & D8.) The first floor of the house could hold a conference room as well as two period rooms for interpretation and display of local history. A serving area, kitchen, and handicapped restroom could be located in the rear portion of the first floor. The west porch could be remodeled to house two restrooms. The second floor of the house could house three bedrooms.

Considerations

- Historic places for corporate events are very desirable. For example, NCR had a retreat at the Wright House in Dayton.
- Cincinnati has few tasteful historic rental venues—most are corporate or public buildings (museums, etc.) or private clubs.
- Increasing numbers of corporations are located in the area.
- The Township could operate or contract with private operator.

Pros

- A private operator could provide catering and set-up services or the Township could provide a list of "preferred" contractors to renters to do their own.
- Cleaning could be contracted out, staff not required.

Cons

- High startup costs
 - o Code requirements—fire escapes, sprinklers, kitchen upgrade, etc.
 - o Installation of 3 new full bathrooms and 2 lavatories
 - Purchase of linens and furnishings
 - Marketing costs—logo, advertising, and promotion
- Use may be irregular and the buildings vacant at times.
- Requires handicapped ramp.
- A separate compatible use would have to be found for the Carriage House.

5. Museum

A museum function could be accommodated on the first floor of the house and occupy as many rooms as is desirable and/or financially feasible. (Drawing D7 shows two rooms devoted to museum use.) A museum could also be accommodated in the carriage house, leaving the house for another use, or vice versa.

Considerations

- Most museums have low revenue potential; the majority of house museums charge low admission fees (\$5 average).
- Most museums do not attract repeat visits unless their exhibits change (unlike event rental or B&B uses).
- Display of certain artifacts may require special atmospheric and light conditions, as well as security.

Pros

- A museum offers high public access and educational value.
- The King House has a high degree of historic integrity of design and fabric.
- The King House has many original furnishings and objects.
- The King House offers a variety of themes for interpretation—the King Powder Company, the Peters Cartridge Company, the development of Kings Mills as a company town, mills, mining technology, history of firearms, etc.
- According to Tom Schiffer, author of Peters & King, the Annie Oakley Foundation is looking for a home. The collection, in the possession of Annie's grandniece, Bess Edwards, includes one of Ms. Oakley's shotguns and 250 books about her and Buffalo Bill. An Annie Oakley museum could offer a library, video presentation, equestrian acts, a rifle range and a trap range. The shooting experience could be simulated through video games.
- Rudy Prusok, past editor of a journal on guns and shooting, has a vast library of periodicals and books that may be available.

Cons

- Requires handicapped ramp and restrooms.
- Requires volunteer or paid staff.
- Would not be self-sustaining; would require compatible income-producing use, and public/private operating support, such as B&B, community office, or corporate quest house.
- Artifacts from the King Powder Company and the Peters Cartridge Company are already on display at the Warren County Historical Society.
- There are three other major museums related to firearms—The National Firearms Museum in Fairfax, VA; the Cody Firearms Museum in Cody, Wyoming; and the Frazier International History Museum in Louisville, KY.
- Guns and shooting, although of historical interest, have some negative social connotations.

6. Caretaker's apartment

The north half of the second floor of the house could be used as a caretaker's apartment (Drawing D10), which could be integrated with any of the proposed uses. The apartment could consist of 1 bedroom, kitchen, living room, bath and storage.

Considerations

• The caretaker would have to be mature, responsible, single person, preferably capable of minor repairs and maintenance.

Pros

- An on-site caretaker or tenant could provide a regular presence at the site to increase security as well as identify maintenance and other issues.
- An apartment could represent or augment compensation for staff at the house.

Cons

• The caretaker's apartment would reduce the income-producing space in the house.

C. ARCHITECTURAL DRAWINGS OF POTENTIAL USES

See architectural drawings in Appendix D.

D. CRITERIA FOR SELECTION OF USES

The feasibility of potential uses of the King House and Carriage House depends on a variety of criteria:

- 1. Suitability of the spaces
- 2. Degree of public access
- 3. Compatibility with zoning
- 4. Parking requirements
- 5. Capital costs
- 6. Financial sustainability

<u>Suitability of spaces</u> refers to how well the layout and size of the rooms and circulation spaces could accommodate the new uses. Uses that require a high degree of alteration of the spaces are less desirable because they will negatively affect the integrity of the historic buildings and features.

<u>Degree of public access</u> is extremely important because the King property was purchased with public tax dollars for the public purpose. The house and carriage house are located in a public park, and therefore uses that allow the highest degree of public access to the buildings are the most appropriate and desirable.

Compatibility with zoning is a factor because the King property is located in a small village, and all new uses need to be respectful of the neighborhood in terms of intensity of use—hours of operation, noise and visual compatibility. Some new uses may require a conditional use permit or a zone change. The historical use of the King property is residential, which is consistent with the underlying zoning (single-family residential).

<u>Financial sustainability</u> of each use is critical. Actual operating budgets for various uses are beyond the scope of this study; however, it is possible to predict generally which uses are the most likely to be viable based on similar uses in the area.

<u>Parking requirements</u> vary by code depending on the use, but a 100-car parking lot is recommended to serve the park regardless of the use of the house and carriage house.

A possibly layout for a 100-car parking lot is shown on the Proposed Site Plan (Drawing D16 in Appendix D).

<u>Capital costs</u> for construction of handicapped ramps, reconfiguration of partitions, new kitchen and restrooms are about the same for all uses.

E. RECOMMENDED POTENTIAL USES

Rating of Potential Uses on a scale of 1 (poor) to 5 (excellent)

Potential Uses	Suitability of the spaces	Degree of public access	Compatibility with zoning	Financial sustainability	Total rating
Bed and breakfast	3	2	5	1	17
Community offices	5	4	1	2	18
Reception facility	4	5	1	5	21
Museum	4	5	5	1	21

Based on all the factors considered, we recommend a combination of uses for the King House and carriage house focusing on a reception facility and museum, with some community offices and a caretaker's apartment.

The house is best suited for a reception facility and museum on the first floor and offices on the second floor. A caretaker's apartment is recommended for the second floor of the house for added security. The carriage house offers the opportunity for a larger reception facility and community meeting space.

These combined uses require the least alteration of significant spaces and materials in the buildings, the highest degree of public access, compatibility with zoning and the neighborhood, and together offer the greatest potential for financial sustainability.

The fact that these buildings are publicly owned and located in a public park affords them the benefit of tax-exempt status, shared cost of staff and insurance. Deerfield Township also has had previous success with the Snyder House in Cottell Park as a reception facility. The King House and carriage house can provide an educational historic asset for Deerfield Township and the surrounding community.

PART 5. RECOMMENDED TREATMENT AND COST

A. CONDITIONS SURVEY AND RECOMMENDED TREATMENT

1. House Exterior

Concrete

All of the exterior steps of the house constructed of concrete are in good condition. Most of the concrete sidewalks surrounding the house are in poor condition.

Stone Masonry

The stone masonry is generally in excellent condition. Gentle cleaning is recommended as well as spot tuck-pointing.

Brick Masonry

The brick masonry is generally in good condition throughout the building. Gentle cleaning is recommended as well as spot tuck-pointing. Some isolated areas where bricks have cracked and spalled require brick replacement. Several areas of water-damaged bricks are visible around each downspout, indicating past or current leaks. The area around the east porch downspout is visibly damp, indicating an ongoing leak. These areas will require some brick replacement, but do not affect the overall integrity of the structure.

The six brick chimneys are in fair to poor condition, and have had poor-quality repairs made. The northeast chimney of the main block of the house has several missing and deteriorated bricks and the flues are visible through these voids. Although the chimneys are not a currently a hazard, it is recommended that they be scheduled to be rebuilt when other major masonry and/or roofing work is scheduled, within five years. Stainless steel caps should be included for all unused flues.

Metals

The standing-seam metal roof, box gutters, and flashing over the kitchen wing and rear porch is deteriorated and should be replaced. The flat-seam metal roof, box gutters, and flashing over the front porch and angled bay, side porch, and west sun porch, are deteriorated and should be replaced. All of the metal roofing areas appear to be the original painted galvanized sheet-metal materials and have exceeded their reasonable service life. Most areas are severely rusted and are not salvageable. All of these roof areas should be replaced with similar compatible materials to retain the historic appearance of the building. All downspouts should be replaced at the same time. This work should be carried out as soon as possible.

The galvanized sheet-metal cornice and other miscellaneous metal trim on the house is generally in good condition. Some minor areas of repair are needed, especially where several of the large brackets have small missing pieces or open joints. Although there are several layers of paint on many areas, the paint is generally in good condition and complete paint removal is not required at this time. The northeast

corner of the main roof shows evidence of some minor damage, perhaps from a falling tree limb.

The galvanized sheet-metal widow's walk has many layers of paint and tar that are peeling and unsightly. The underlying metal appears to be in serviceable condition with only a few minor areas of repair needed. Chemical paint removers can be used with caution to remove all existing coatings. Careful surface preparation is required to create a suitable base for new paint application.

The original iron cellar door and the small round iron coal chute cover show light surface rust. These items should be wire brushed, primed and painted.

Several remnants of the original lighting rod system are still attached to the building and should be removed.

Wood

The wood window frames and sills are generally in good condition, but should be repainted soon. Most of the wood window sills should be caulked, primed, and repainted.

The wood exterior doors of the house are generally in good condition, and require only minor repair and painting. The screen doors of the front door and east porches have torn screens and the finish is in fair to poor condition. These screen doors may not be original to the house, and may be removed if they are not to be repaired.

The wood porches are in fair to poor condition. The front porch is missing several railing spindles that should be duplicated and installed. Some of the lattice screens are missing, and those remaining are in poor condition and should be replaced. The floor joists show evidence of termite infestation and should be replaced with pressure-treated lumber. The porch floor appears to be in salvageable condition, but may also be termite damaged. The porch needs to be completely repainted after repairs are made. The porch floor should be painted with suitable, oil-based enamel paint.

The east porch is in similar condition, although no termite damage was found in the preliminary inspection. The lattice screens are in poor condition and should be replaced. The porch needs to be completely repainted after repairs are made. The porch floor should be painted with suitable, oil-based enamel paint.

The northeast porch is in poor condition and requires a comprehensive restoration. The two columns have been replaced with modern treated lumber with inadequate footings. The columns and footings should be replaced with a more compatible design. An inappropriate lattice has been attached to the porch and should be removed. Several parts of the decorative trim are loose or missing.

An original porch connecting the main house with the summer kitchen has been enclosed on the east side with siding and on the west side with plywood. The east side is in good condition and only requires painting. The plywood of the east side appears to be a temporary repair that should be replaced with correctly fastened

sheathing and siding. A new footing may be required below the wall at the area. This spot is a likely entry point for raccoons and other animals.

The box gutter and soffit of the summer kitchen is in poor condition with several rotted and missing boards as well as large holes. This is a likely entry point for animals. The soffit needs to be completely rebuilt.

The west porch is generally in good condition and requires only minor repair and painting.

The window and door frames are all in excellent condition and require only caulking and painting. The window sills have been protected by the storm windows.

The door at the east side of the summer kitchen is modern replacement door and does not match the remaining historic doors of the house.

Windows & Glass

Most of the original wood windows of the house are in good condition. Most of the windows on the first and second floors have double-hung sashes, with the basement and attic windows being casement sash. The double-hung window sashes should be carefully removed, any broken or cracked glass replaced, repairs made to the glazing and paint, sash cords replaced and carefully reinstalled.

Most of the double-hung windows have aluminum storm windows, which are in fair condition.

The two windows in the former summer kitchen have been replaced with vinyl windows that do not match the masonry openings and are not properly installed. These two windows should be replaced with wood windows and frames that are fabricated to match the remaining windows of the house.

Many of the basement windows have been boarded over or removed. All of the existing sash should be repaired and reinstalled. Any missing sashes should be replaced with matching wood sash. Storm windows should be added where missing.

The stained-glass sidelights and transom of the front door appear to be in fair condition and should be evaluated by a stained-glass expert and any needed repairs made.

Roofing

The main roof of the house has an asphalt shingle roof that is approximately 15-years-old. The box gutter linings of the main roof as well as the flat roof at the widow's walk have several layers of various coatings including fiberglass matting coated in tar. This coating is cracked in several locations. Water puddles in several locations in the box gutters. The northwest chimney of the main house block has a cricket made partially from rubber roofing applied in a substandard way. The roof shows no sign of leaking at this time, but the roof and gutter linings are reaching the end of their service lives, and replacement should be planned within five years.

Vegetation

There are several large trees on the property that are in poor condition or are dangerously close to existing buildings. Healthy trees should be trimmed clear of all buildings. Trees in poor condition should be removed as soon as possible.

There are some areas where vines have grown onto the building. These vines should be removed as they trap moisture against the building as well mechanically damaging the brick and mortar.

2. House Interior

Concrete

The basement concrete floor slab has been sawcut to install new drain piping. These areas have been filled in with gravel and are a tripping hazard. These areas should be prepared for placing new concrete patches to create a flat floor surface. There is also a large pile of gravel in the southeast room (009) that should be removed.

The floor of the west porch/solarium (103) is in excellent condition.

Stone Masonry

The visible stone masonry of the basement is in good condition. Only minor tuck-pointing is needed.

Brick Masonry

The visible brick masonry is generally in good condition. Some isolated areas require brick repair or replacement, usually around where ducts or pipes have been added through existing walls.

An isolated area of the brick masonry in the attic has been water-damaged and should be repaired. Some brick replacement is needed as well as spot-repointing throughout the attic.

Wood

The majority of the wood trim in the house is in excellent condition and requires only careful cleaning. The wood trim of the rear stair (110 & 209) may have its original finish and is somewhat dark and discolored with some areas where the finish is worn off.

A majority of the flooring in the house is hardwood added on top of the original floor. This flooring is in excellent condition. Floors in two of the bedrooms (205 & 213) should be lightly sanded and a clear finish applied. The second-floor, rear stairhall (209) floor is original and has been sanded and finished. Some of the board boards have been filled with caulk or other filling, which is loose in some areas. The floor of the current kitchen (105) is wide pine boards added on top of the original floor. It is unknown if this flooring is continuous under the kitchen cabinets.

The floor of the enclosed porch at the summer kitchen (106) is unpainted and in fair condition. The floor of the kitchen wing (107) has been covered in tile and its condition is unknown.

The beadboard walls and ceiling of the kitchen and rear bathroom have a low gloss finish and are in good condition.

The wood lintel over the basement stair (109) window has been damaged by termites and should be replaced.

Plaster

Most plaster wall surfaces in the house are covered in wallpaper. The wallpaper throughout the first floor is in good condition. The wallpaper throughout the second floor and the main stairhall is beginning to peel. The condition of the plaster underneath the wallpaper is unknown. If wallpaper is to be removed, samples from each room should be retained and documented.

Most of the plaster ceilings throughout the house are in excellent condition. There are some isolated areas of water damage. The ceiling of the second-floor bathroom (211) is severely deteriorated and requires complete replacement. The area directly below this bathroom in the dining room (104) is somewhat deteriorated and requires partial replacement. It is not clear what the cause of this damage is.

Cracked plaster and other minor defects are visible in several areas of the house such as closets, the two small bathrooms (114 & 215), and in the basement (109) and attic stair halls (210).

Tile

The large second floor bathroom (211) has a marble slab floor and wainscot in excellent condition that requires only careful cleaning. The smaller second floor bath has a small marble floor slab in good condition. The modern tile floor in the first floor rear bathroom (107) is in good condition.

Specialties & Fixtures

The Lincrusta-style wainscot in the main stair hall (100 & 200) is in excellent condition.

The historic plumbing fixtures located in the two second-floor bathrooms (211 & 215) are in restorable condition. They may need to be removed and the valves and drains removed and cleaned or replaced. If any historic bathrooms are to be retained, the cast-iron drains should be replaced. Several modern plumbing fixtures throughout the house are in good condition.

The modern kitchen cabinets, fixtures, and appliances (105) are in good condition. The modern plumbing fixtures in the kitchen wing bathroom (107) are in fair condition.

The crawl space below the enclosed porch connecting the main house to the rear wing is currently inaccessible. Evidence of some termite damage is visible through a small hole from the adjacent basement. The attic above the kitchen wing (107) was not accessed for inspection. An obvious odor of raccoon droppings suggests that this space will need to be professionally abated prior to a complete inspection. Roof structures above the front and west porches are not accessible.

3. Carriage House Exterior

Concrete

All of the exterior retaining walls on the east and west sides of the carriage house constructed of concrete are in poor condition. The walls are cracked and have shifted several inches and should be removed. The concrete paving under the canopy is in fair condition with several cracks and areas where the slab has settled. The concrete ramp on the north side of the carriage house is in deteriorated condition and the supporting wall has partially collapsed. This slab should be removed as soon as possible.

Stone Masonry

The stone masonry is generally in excellent condition. Gentle cleaning is recommended as well as spot tuck-pointing. The stone wall supporting the ramp on the north side of the building has partially collapsed and should be removed or rebuilt.

Brick Masonry

The brick masonry exterior walls of the carriage house are in various conditions. The south and east walls require only cleaning, tuck-pointing, and minor repair. The west wall has a large settlement crack at approximately the center of the elevation which will require careful repair. The crack ends in an area where a historic hayloft door was modified and enlarged. A small area of mismatched brick in this location should be repaired or rebuilt. The north wall has several settlement cracks originating from a partially failed brick arch over the center doorway of the main floor. Repair of this area will require substantial reconstruction of the arch as well as the wall above the arch.

Metals

The standing-seam metal roof, gutters, and flashing over the west hayloft dormer are deteriorated and should be replaced. All of the downspouts and gutters on the main roof are missing and should be replaced. The gutters of the canopy roof are modern ogee gutters that do not appear to drain properly. It appears the original box gutter of the porch has been covered with sheet-metal and have been somewhat modified. Destructive probing is required to recommend a solution for this area. A sheet-metal ventilator on the main roof is deteriorated and should be repaired or removed.

Several of the basement windows have steel or iron lintels which have been covered in stucco or concrete parging. There are several iron stars on each side of the building that are rusty. These items should be wire brushed, primed and painted if exposed.

Several remnants of the original lighting rod system are still attached to the building and should be removed.

Wood

The eaves and gutter boards of the main roof are in poor condition with many rotted and missing boards as well as large holes. The soffits and eaves will need to be completely rebuilt.

The eaves and gutter boards of the canopy roof are in fair to poor condition. There is evidence that some makeshift repairs have been made to soffit area, indicating that the box gutter will likely need to be completely rebuilt. A wood wall has been built at the west side of the canopy to support a sagging beam. A makeshift repair has been made to the east beam including two added posts and an added beam. Both of these beams will require repair or replacement. Two of the canopy columns have had makeshift repairs made to the column bases. Permanent repairs using pressure-treated wood should be made to all the canopy columns. The ceiling of the canopy is painted plywood.

The window and door frames are all in good to fair condition with some requiring minor repair as well as caulking and painting. The window sills are in poor condition and will need to be replaced.

The three man-doors of the main level are in good to fair condition and will need to be removed and restored or replaced. The large sliding doors are in fair condition and will require some repair if they are to be retained. The hayloft doors are in fair to poor condition and will need to be removed and restored or replaced. The basement doors on the north side of the building are in poor condition and will require complete restoration or replacement.

All of the exterior wood of the carriage house needs to be comprehensively repainted.

Windows & Glass

Most of the original wood windows of the carriage house are in poor condition. Most of the windows on the first floor have double-hung sashes, while the basement and attic windows have casement sashes. All window sashes should be carefully removed, any rotted sashes repaired, any missing or cracked glass replaced, repairs made to the glazing and paint, sash cords replaced and carefully reinstalled.

Several windows have been replaced with ill-fitting wood windows that do match the masonry openings and are not properly installed. These windows should be replaced with wood windows and frames that are fabricated to match the remaining windows of the building.

The small windows of the horse stall area are missing any type of sash. New windows should be fabricated to fit.

Roofing

The main roof of the carriage house has several layers of asphalt shingles that are at least 15-years-old. The roof shows no sign of leaking at this time, but the roof is reaching the end of their service life, and replacement should be planned within five years.

Vegetation

There are several large trees on the property that are in poor condition or are dangerously close to existing buildings. Healthy trees should be trimmed clear of all buildings. Trees in poor condition should removed as soon as possible.

There are some areas where vines have grown onto the building. These vines should be removed as they trap moisture against the building as well mechanically damaging the brick and mortar.

4. Carriage House Interior

Concrete

An area of animal feeding stalls and troughs made of concrete is in fair condition. If the basement is to be used, these will need to be removed. There is dirt flooring in the remaining basement.

Stone Masonry

The visible stone masonry of the basement is in good condition. Only minor repair and tuck-pointing is needed.

Brick Masonry

The visible brick masonry is generally in good condition except for the major areas already listed for repair on the exterior.

Metals

The iron bars and straps of the truss beam are lightly rusted but otherwise in good condition. If they are to be retained they should be wire-brushed, primed, and painted.

Wood

There are several wood-board partitions in the basement that directly contact the dirt floor and are deteriorated. These partitions should be repaired or removed. The interior stair to the basement is rotted and should be replaced.

The exposed wood first-floor joists are generally in good condition. Some isolated areas require some repair. The west main beam as it bears on the south wall is completely rotted and is temporarily shored up. One column supporting this beam has shifted and is also temporarily shored.

There are several board partitions on the main floor that are in good to fair condition that will require minor repair as well as painting or finishing. One remaining horse stall has been partly modified. The floor of the horse stall area has a layer of thick boards added on top of the original flooring. These boards are worn and uneven. The balance of the flooring of the main level is in fair condition with some missing boards as well as numerous small holes and gaps.

The exposed wood attic floor joists are generally in good condition. Some isolated areas require some repair. The west main beam as it bears on the south wall is completely rotted and is partially collapsed. Two columns of the east main beam have been removed and replaced with a makeshift timber and iron truss. This truss is sagging noticeably.

Several low, board railings at the attic hay chutes are in fair to poor condition with missing and broken boards. The flooring of the attic has many missing and rotten boards and requires extensive repair to be safe. There are several areas of roof framing that have been patched that will require additional repair.

B. ITEMIZED COST ESTIMATE

Item	House	Carriage House
Retaining Walls & Concrete	\$ 10,000	\$ 50,000
Masonry	117,690	84,272
Carpentry	170,310	162,478
Roofing & Gutters	92,500	77,500
Doors (6+4 @ \$1,000 ea.)	6,000	4,000
Large Doors (6 @ \$2,000 ea.)		12,000
Windows (53+16 @ \$750 ea.)	39,750	12,000
Small Windows (14+7 @ \$500 ea.)	7,000	3,500
Storm Windows (53+16 @ \$500 ea.)	26,500	8,000
Insulation	10,000	20,000
Plaster Repair, Drywall & Painting	69,750	53,250
Flooring Repair & Refinishing	23,250	17,750
Tile	10,000	10,000
Cabinet & Appliance Allowance	20,000	20,000
Heating & Air Conditioning	98,000	36,000
Electric	55,000	23,500
Plumbing	48,000	17,000
Communications	10,000	10,000
Subtotal	\$813,750	\$621,250
(approximately \$175/sf)		<u> </u>
Design Fees	\$81,375	\$62,125
Construction Contingency	81,375	62,125
Sitework	75,000	02,120
Permits	10,000	
Terrines	10,000	
Total \$	51,817,000	
Optional Items		
Handicannod Lift	¢25 000	
Handicapped Lift Geothermal System Option	\$25,000 \$77,000	¢30 000
	φ <i>11</i> ,000	\$30,000
Furnishings & Equipment Carriago House Resoment Popovation		\$100,000
Carriage House Basement Renovation		φ100,000

Add approximately 20% for prevailing wage requirements if publicly funded.

C. HISTORIC PRESERVATION RELATED FUNDING SOURCES

See list of Historic Preservation Related Funding Sources in Appendix E.

PART 6. SOURCES

Primary Sources

- Deed Transfers of Warren County, Ohio. Amanda King, 19 September 1885. Vol. 64, p. 597.
- Deed Transfers of Warren County, Ohio. Ahimaaz King. 3 April 1890. Vol. 70, p. 50.
- Deed Transfers of Warren County, Ohio. Robert King. 19 July 1917. Vol. 101, p. 600.
- Deed Transfers of Warren County, Ohio. Robert King Jr. & Joseph King. 1 September 1944. Vol. 154, p.321.
- Deed Transfers of Warren County, Ohio. J.W. King & Lucille King. 16 May 1970. Vol. 415, p. 617.
- Deed Transfers of Warren County, Ohio. Robert & Betty Carter. 13 October 1988. Vol. 502, p. 382.
- The King Powder Company, Illustrated, 1896, in the collection of the Warren County Historical Society, Lebanon, Ohio.
- U.S. Census Records, 1840, 1850, 1860, 1870. Warren County Historical Society.

Atlases

- Bone, Frank. *Complete Atlas of Warren County, Ohio, Lebanon, Ohio*: Rand McNally, 1891.
- Bone. *Centennial Atlas of Warren County, Ohio*, Lebanon, Ohio: Centennial Atlas Association, 1903.
- Everts, L.H. *Combination Atlas and Map of Warren County, Ohio,* 1875, reproduction by Unigraphic, Inc., Evansville, IN, 1972.
- <u>Map of Warren County, Ohio,</u> P.O. Oberine, surveyor, C.E., Anthony D. Byles, Publisher, Philadelphia, PA, 1856, Warren County Historical Society.
- Plat Map of Kings Mills, Ohio, 1910. Map Room, Warren County Administration Building, Lebanon, Ohio.
- Plat Map of Kings Mills from the National Register Nomination Form for the Peters Cartridge Company, October 10, 1985.
- Sanford, G. P., J. Sillman Higgins and R. H. Harrison. *Map of Warren County, Ohio*, Philadelphia: A. Warner, 1867.

Architectural Drawings

- Peters & Burns, Architects. "Residence for Mr. A. King, S. Lebanon, O." Dwg. #128, June 1884.
- Samuel Hannaford & Sons. "Sleeping Porch and Sun Room for Mr. R. A. King, Kings Mills, OH," signed HFH Jr., August 16, 1917, Sheets 1-6.

Secondary Sources

- Adams, Elva R. Warren *County Revisited.* Lebanon, Ohio: Warren County Historical Society, 1989.
- "Ahimaaz King," Obituary, Western Star on April 27, 1909.
- Biographical Sketches of Montgomery County. Joseph Peters, pg. 231. http://www.heritagepursuit.com/Montgomery/Dayton chapter
- Bogosian, Don. ""The King Powder Company". Little Miami, Inc. Deed Warren County Auditors Records.
- The History of Warren County, Ohio. Chicago: W. H. Beers & Co., 1882, rpt by WCHS, Lebanon, OH, 1992.
- "Judge Keys' Decision, Warren Probate Court, The State of Ohio on Relation of Albert Stubbs against Isaac Stubbs," Western Star, August 7, 1873.
- "Warren Probate Court, in the matter of the Last Will of Isaac Stubbs, dec'd.," Western *Star*, June 4, 1874.
- Kline, Benjamin, "Visiting the House "Poppo" designed; Pretzinger Family tours building for First Time," *Dayton Daily News*, Dec. 7, 1989.
- "Last Will of Isaac Stubbs," Western Star, June 4, 1874.
- Lukens, Miriam. "Highlights and Holidays: An Oral History of Warren County, Ohio," Lebanon, Ohio: Warren County Historical Society. 1976-86.
- Records of the Warren County Historical Society.
- Schiffer, Thomas D. *Peters and King: The Birth & Evolution of the Peters Cartridge Co. & the King Powder Co..* Iola, WI: Krause Publications, 2002.
- Schiffer. "The King Powder Co." *Muzzle Blasts Magazine*, April, 1986, Pg-5-10.
- Snyder, Marion. "Who's credited with putting the 'King' into Kings Mills?" *Lebanon Star*, 12 April 1992.
- Springman, Rose Marie. *Around Mason, Ohio: A Story.* Cincinnati, Ohio: C. J. Krehbiel Company, 1982.

- Withey, Elsie Rathbum and Withey, Henry, A.I.A. *Biographical Dictionary of American Architects (Deceased)*. Los Angeles, CA: Hennessey & Ingalls, Inc 1970.
- Who's who in the Pacific Southwest: a compilation of authentic biographical sketches of citizens of Southern California and Arizona. Los Angeles: Times-Mirror Print & Binding House, 1913.
- Joseph W. King, Interview, in "Kings Mills, Ohio, Families," compiled by Constance Witt under the direction of Elva R. Adams, Director, Warren County Historical Society, 1981.
- Witt, Constance. "Kings Mills, Ohio: Buildings, Church, Companies, Groups, Scenes," compiled by Constance Witt under the direction of Elva R. Adams, Director, Warren County Historical Society, 1981.
- Young, Roz. "Architect's Grandson, drug store clerk recall earlier times," *Dayton Daily News*, Mar, 25, 2000.

Unpublished Sources

- Ambrosius, Brian, Nancy Edwards, & Kathleen Luhn. "Ahimaaz King House, 1720 East King Avenue, Mason, Ohio," TS, June 6, 2005.
- Cleveland, Betty A. "Ohio & Pennsylvania Hotel at the Sign of the Golden Lamb, Bradley House, Stubbs House, Lebanon House," Nomination to the National Register of Historic Places, Aug. 1, 1977.
- Luhn, Kathleen. "Ahimaaz King Mansion, 1720 East King Avenue, Mason, Warren County, Ohio," TS, May 12, 2006.

Interviews

Bobby and Betty Lou Carter, owners of the house from 1988 until 1999; personal interview in the King House, September 10, 2007.

Walter Langsam, interview and walk-through of the King House, April 26, 2005 (DVD), Deerfield Township, OH.

Websites

www.forgottenoh.com

www.freepages.genealogy.rootsweb.com

www.nationalregisterofhistoricplaces.com/OH/Montgomery

www.ohiohistorycentral.org, Ohio History Central, an Online Encyclopedia.

http://en.wikipedia.org/wiki/Gunpowder

NOTES (PART 1)

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¹ Interview with Louis T. Romohr, by Mrs. Miriam Lukens, in "Interviews and Articles about Kings Mills, Ohio," p. 54.

², Interview with Alice C. Pelle, June 4, 1975, by Miriam Lukens, Alma Kintzel and Constance Witt, in "Interviews and Articles about Kings Mills, Ohio," Warren County Historical Society Museum, 1976, p. 47.

³ "Isaac Stubbs," in Personal Sketches, Everts, L.H. *Combination 1875 Atlas and Map of Warren County, Ohio*, p. 22 ½.

⁴ Cleveland, Betty A., "Ohio & Pennsylvania Hotel at the Sign of the Golden Lamb, Bradley House, Stubbs House, Lebanon House," Nomination to the National Register of Historic Places, Aug. 1, 1977.

⁵ Judge Keys' Decision, Warren Probate Court, The State of Ohio on Relation of Albert Stubbs against Isaac Stubbs," *Western Star*, August 7, 1873.

against Isaac Stubbs," *Western Star*, August 7, 1873.

⁶ "Warren Probate Court, in the matter of the Last Will of Isaac Stubbs, dec'd.," Western *Star*, June 4, 1874.

⁷ From *The History of Warren County Ohio Part, V. Biographical Sketches Union Township* (Chicago, IL: W. H. Beers Co, 1882; reprint. Mt. Vernon, IN: Windmill Publications, 1992) ⁸ *History of the Explosives Industry in America*, by Arthur P. Van Gelder and Hugo Schlatter, Columbia University Press, New York, 1927, quoted in Schiffer, "King Powder Co.," *Muzzle Blasts*, April 1986, p. 4.

⁹ Ibid., p. 5.

¹⁰ Schiffer, "The King Powder Co.," *Muzzle Blasts*, April 1986, p 5.

¹¹ Amanda Luck King, Obituary, Western Star, May 17, 1917.

¹² Western Star, April 27, 1909 in "Kings Mills, Ohio: Families," compiled by Constance Witt under the direction of Elva R. Adams, Director, Warren County Historical Society Museum, 1981. ¹³ Ibid.

¹⁴ Amanda Luck King, Obituary, *Western Star*, May 17, 1917.

¹⁵ Bone, Frank, Centennial Atlas of Warren County, Ohio, Lebanon, Ohio: Centennial Atlas Association, 1903.

¹⁶ Schiffer, "King Powder Co.," Muzzle Blasts, p. 8.

¹⁷ Leading Manufacturers of Cincinnati, quoted in Schiffer, Peters and King. Iola, WI: Krause Publications, 2002, p. 241.

¹⁸ Schiffer, *Peters and King*, p. 73.

¹⁹ Bone.

²⁰ Ibid.

²¹ Schiffer, *Peters & King*, p. 166,167,247.

²² Ibid., p. 251.

²³ Ibid, p. 30.

²⁴ "History of the Explosives Industry," p. 276, in Witt, 1981, p. 23.

²⁵ Schiffer, p. 35, 242.

²⁶ Schiffer, p. 51.

²⁷ Schiffer, p. 50.

²⁸Sharpe quoted in Schiffer, p. 108,

²⁹Interview with Paul B. Harbaugh, Jan. 1976, by Miriam Lukens, Alma Kintzel and Constance Witt "Interviews and Articles about Kings Mills, Ohio," Warren County Historical Society Museum, 1976, p. 18.

Bone, Frank, *Centennial Atlas of Warren County, Ohio*, Lebanon, Ohio, Centennial Atlas Association, 1903.
 Interview with Louis T. Romohr, Aug. 1975, by Miriam Lukens and Constance Witt "Interviews

Interview with Louis T. Romohr, Aug. 1975, by Miriam Lukens and Constance Witt "Interviews and Articles about Kings Mills, Ohio," Warren County Historical Society Museum, 1976, p. 54.

³² Interview with Alice C. Pelle, recorded June 4, 1975 by Mrs. Miriam Lukens, in "Interviews and Articles about Kings Mills, Ohio," p. 49.

³³ Interview with R, Eugene King, recorded May 14,1975, by Mrs. Miriam Lukens, in "Interviews and Articles about Kings Mills, Ohio," p. 32.

Rose Marie Springman, *Around Mason, Ohio: A Story*, p. 89.
 McAlester & McAlester, *A Field Guide to American Houses*, 212-214.
 Young, Roz, "Architect's Grandson, drug store clerk recall earlier times," *Dayton Daily News*, Mar, 25, 2000; Kline, Benjamin, "Visiting the House "Poppo" designed; Pretzinger Family tours building for First Time," *Dayton Daily News*, Dec. 7, 1989.

Luhn, Kathleen, "Ahimaaz King Mansion, 1720 East King Avenue, Mason, Warren County, Ohio," TS, May 12, 2006.

38 Ibid.

³⁹ Ibid.

⁴⁰ Ibid.

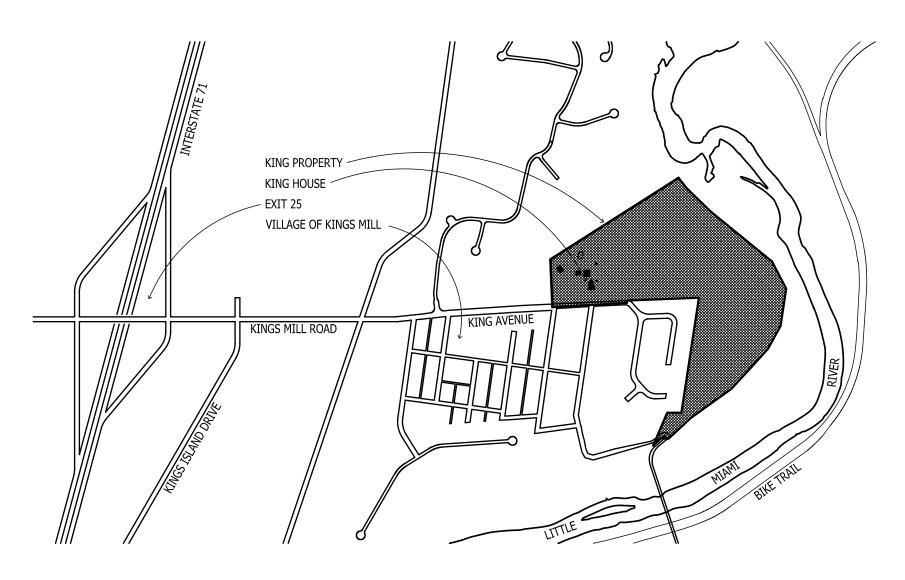
⁴¹ Ibid. ⁴² Ibid. ⁴³ Ibid.

⁴⁴ Ibid.

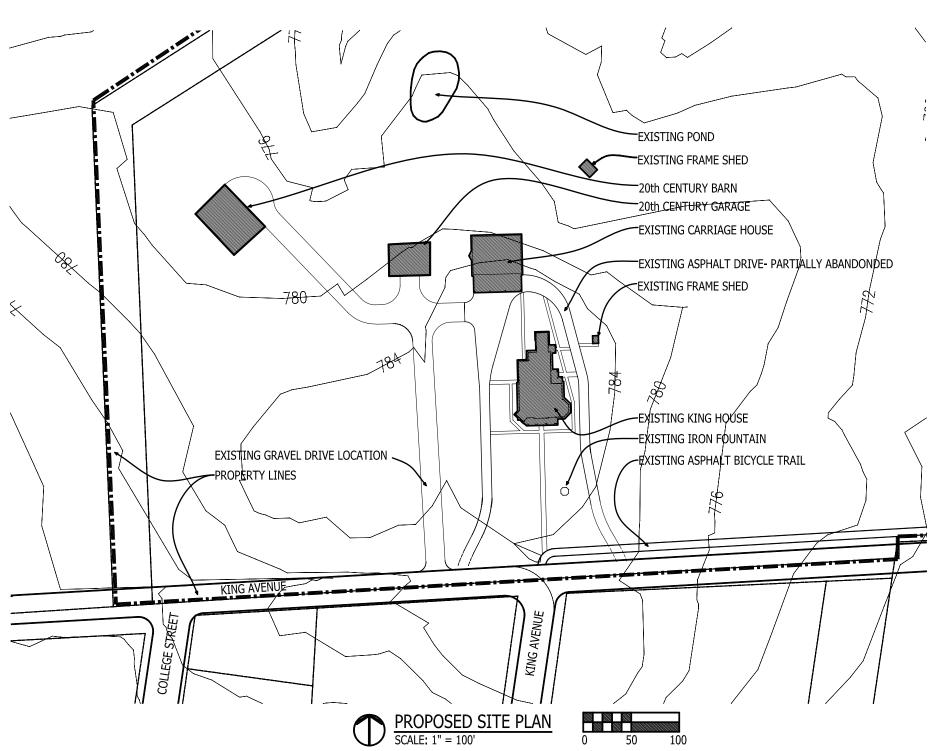
⁴⁵ Thomas D Schiffer, telephone interview, Oct., 18, 2007, and *Peters & King,* p. 9.

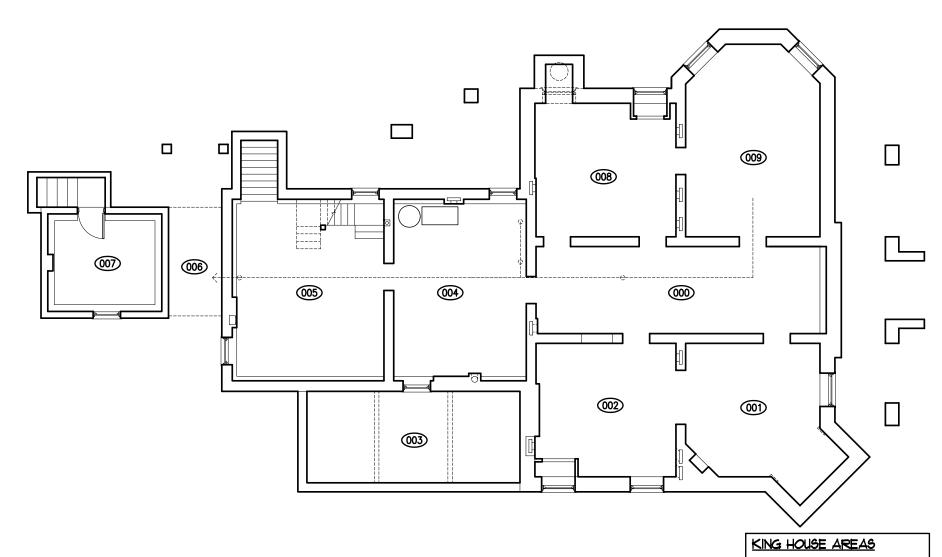
APPENDIX A

ARCHITECTURAL DRAWINGS OF EXISTING BUILDINGS BY PAST ARCHITECTS





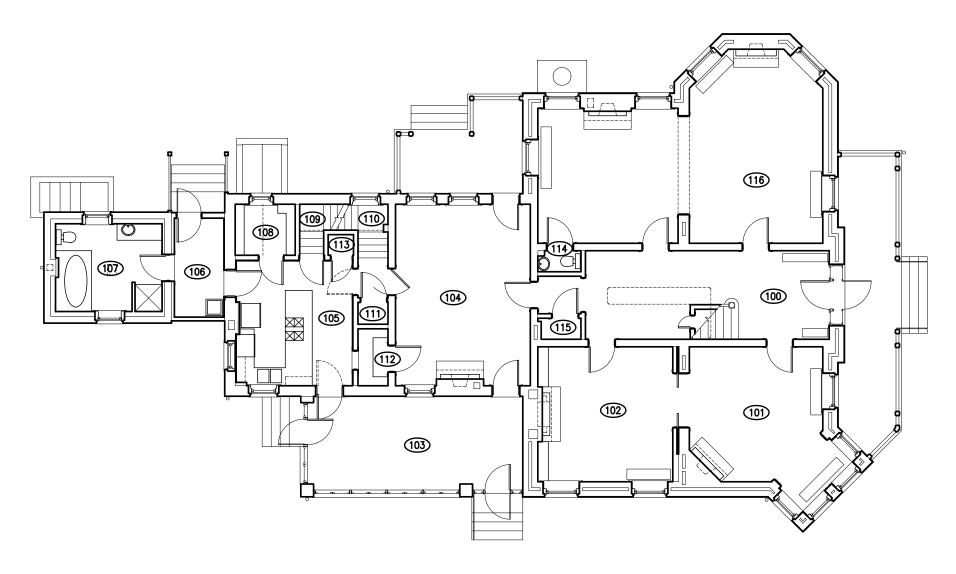






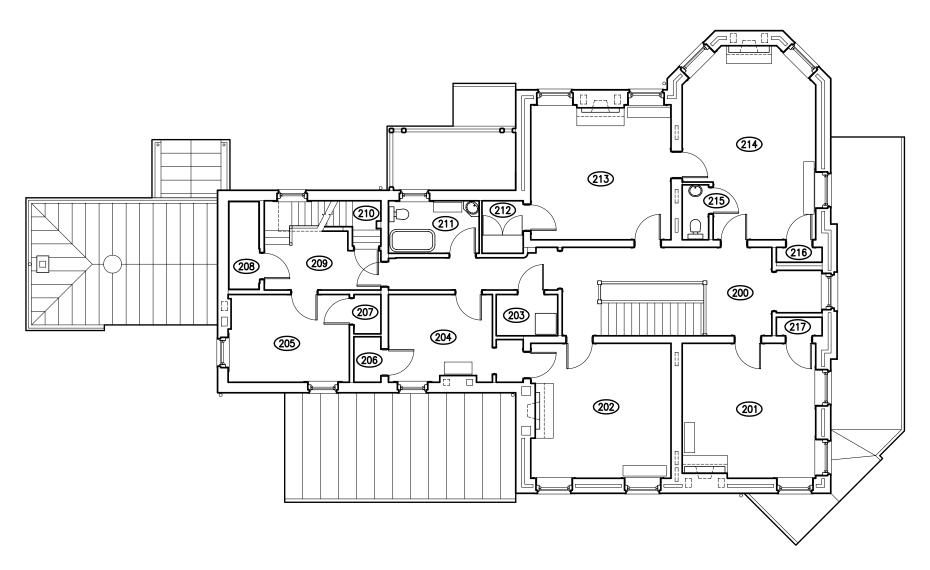


BASEMENT 2,650 SF FIRST FLOOR 2,980 SF SECOND FLOOR 2,410 SF ATTIC 2,410 SF

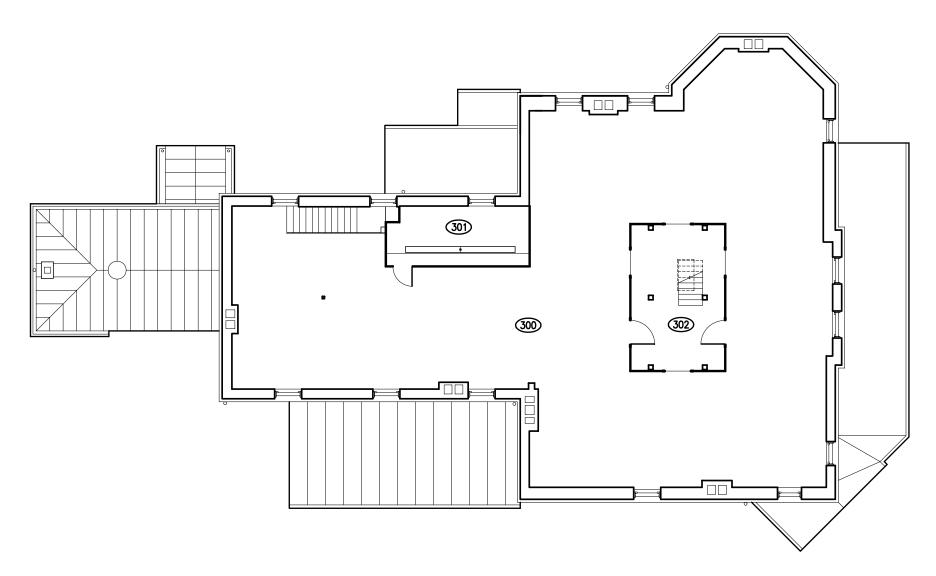




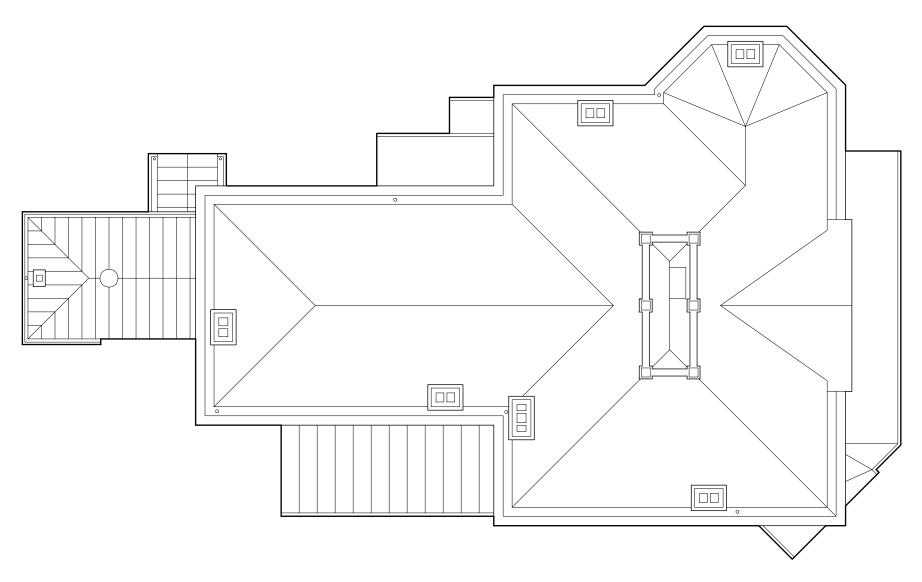












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KING HOUSE EXISTING SOUTH ELEVATION SCALE: $\frac{3}{20}$ " = 1'-0"





KING HOUSE EXISTING
WEST ELEVATION
SCALE & = 1'-0"





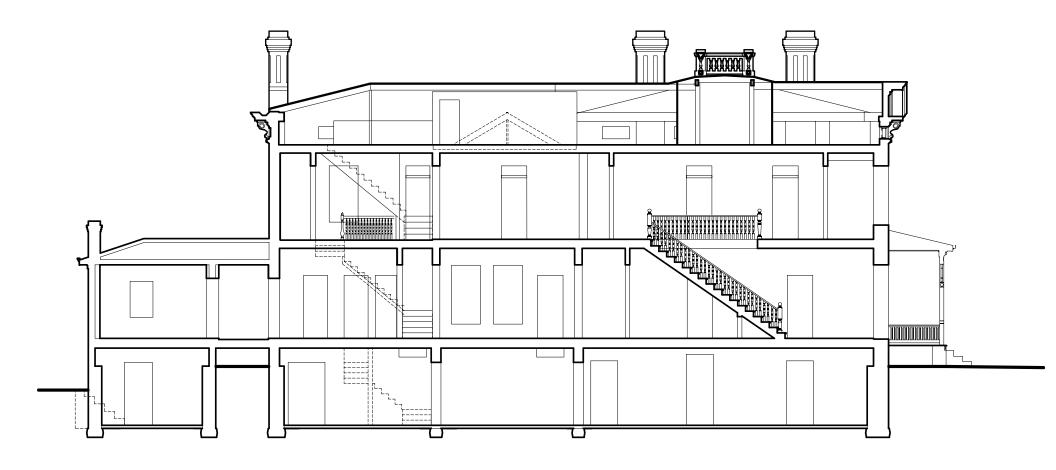
KING HOUSE EXISTING NORTH ELEVATION SCALE: \$ " = 1'-0"



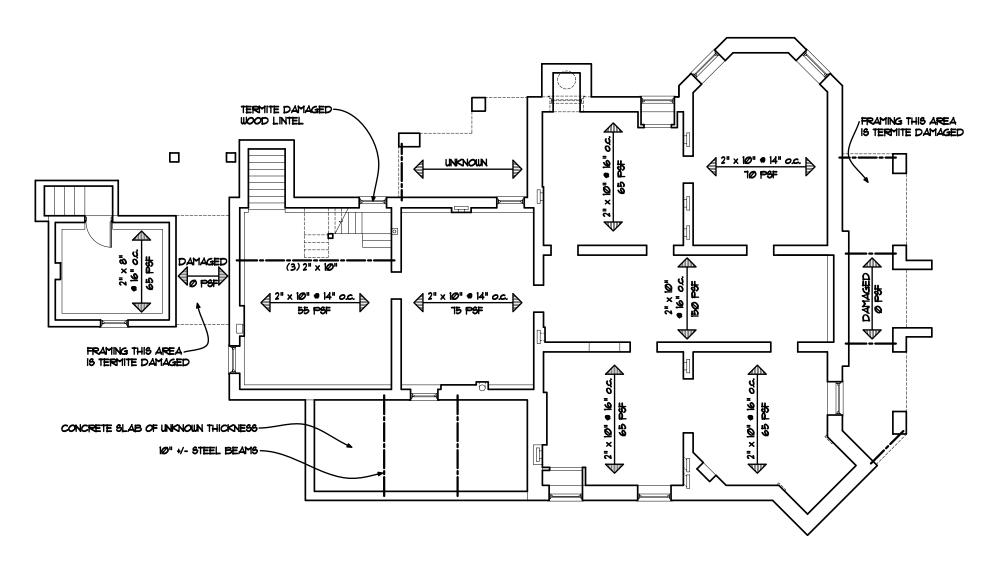




KING HOUSE EXISTING EAST ELEVATION SCALE: $\frac{3}{20}$ " = 1'-0"

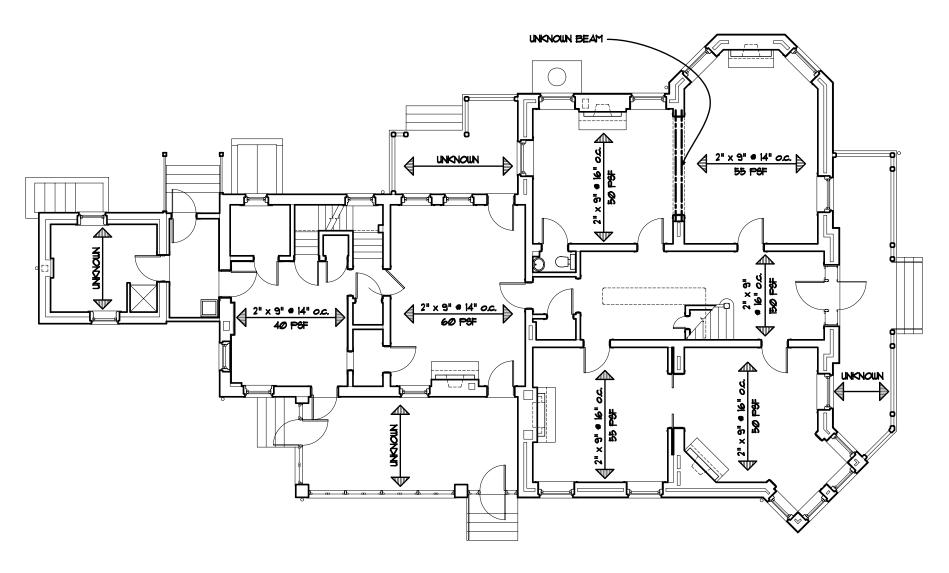








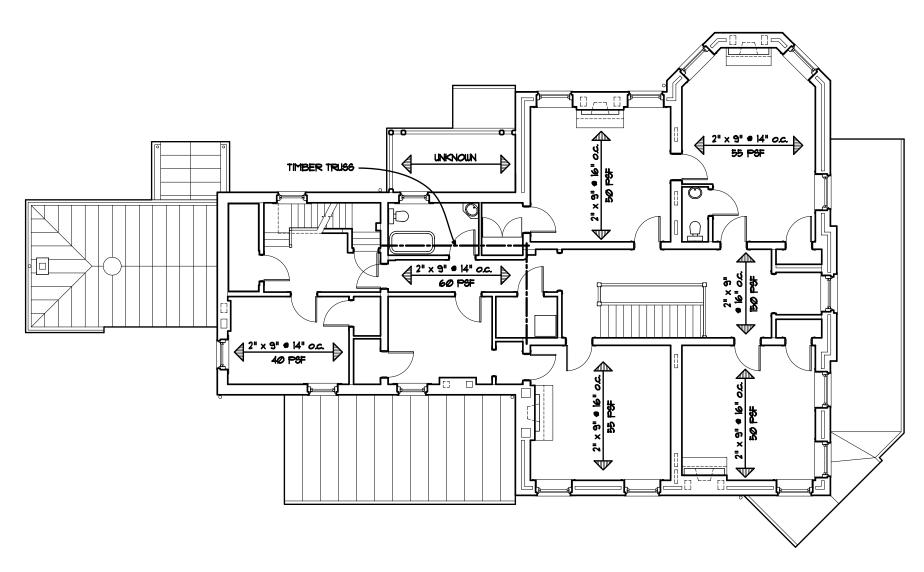
NOTE:
FRAMING INDICATED IS FOR FLOOR ABOVE
AREAS MARKED UNKNOWN ARE INACCESSIBLE
WITHOUT DESTRUCTIVE PROBING



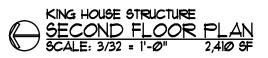




NOTE:
FRAMING INDICATED IS FOR FLOOR ABOVE
AREAS MARKED UNKNOWN ARE INACCESSIBLE
WITHOUT DESTRUCTIVE PROBING

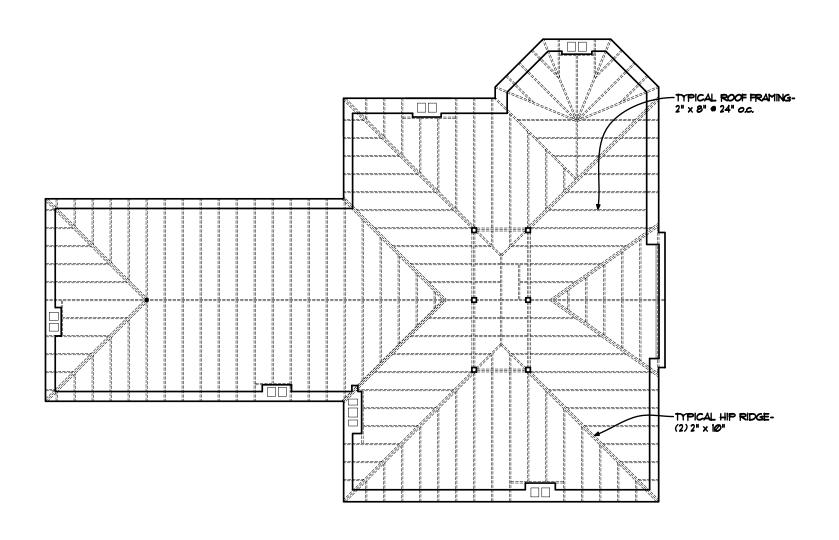






NOTE:

FRAMING INDICATED IS FOR FLOOR ABOVE AREAS MARKED UNKNOWN ARE INACCESSIBLE WITHOUT DESTRUCTIVE PROBING

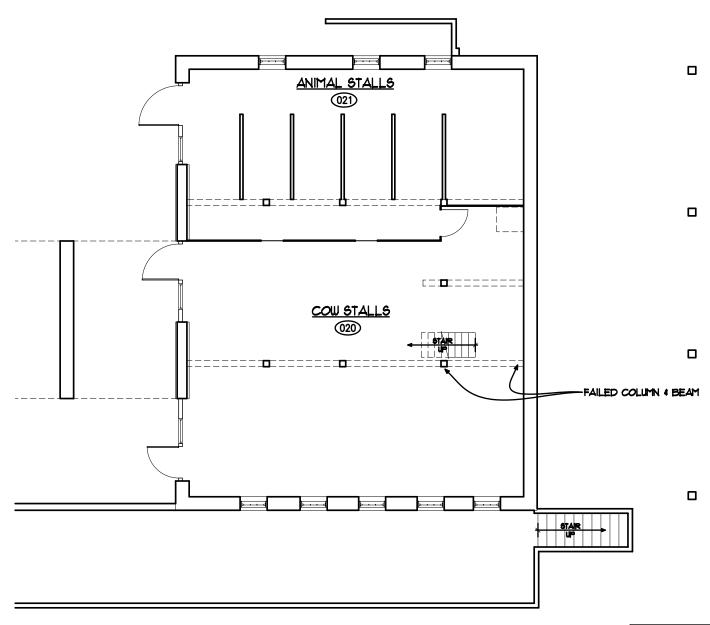


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NOTE: FRAMING INDICATED IS FOR FLOOR ABOVE AREAS MARKED UNKNOWN ARE INACCESSIBLE WITHOUT DESTRUCTIVE PROBING







EXISTING CARRIAGE HOUSE

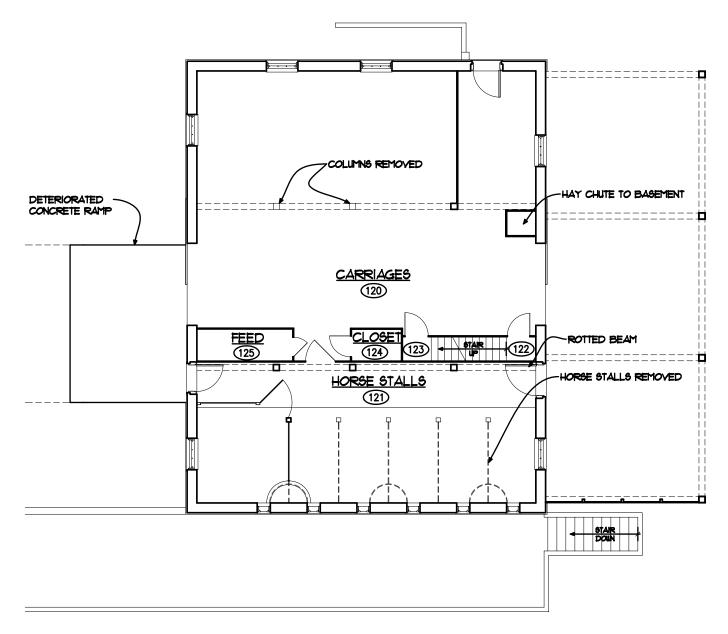
BASEMENT FLOOR PLAN

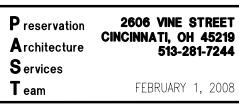
SCALE: 3/2" = 1'-0" 2000 SF

CARRIAGE HOUSE AREAS

BASEMENT 2,000 SF FIRST FLOOR 2,000 SF SECOND FLOOR 000 SF

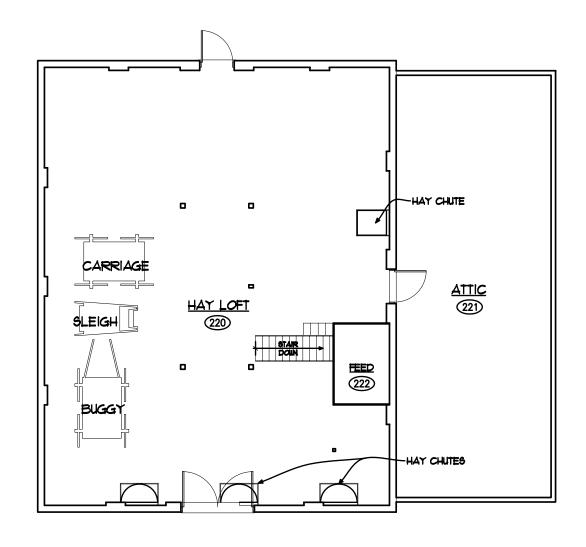
TOTAL 6,000 SF





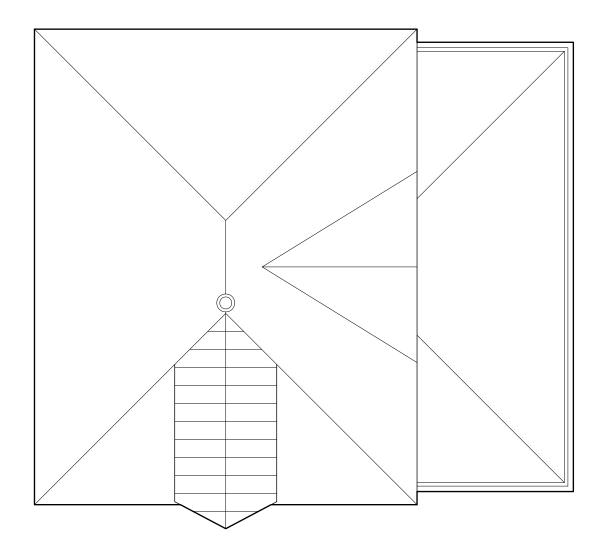






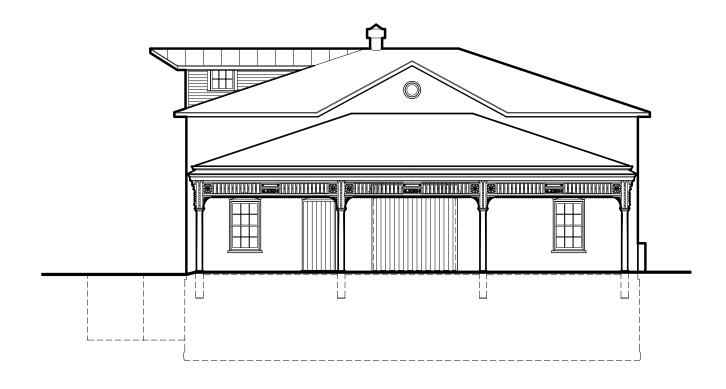








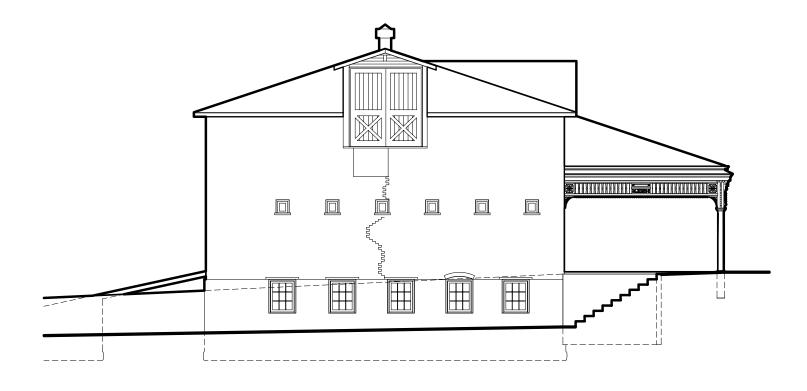
EXISTING CARRIAGE HOUSE ROOF PLAN SCALE: 3/2" = 1'-0"



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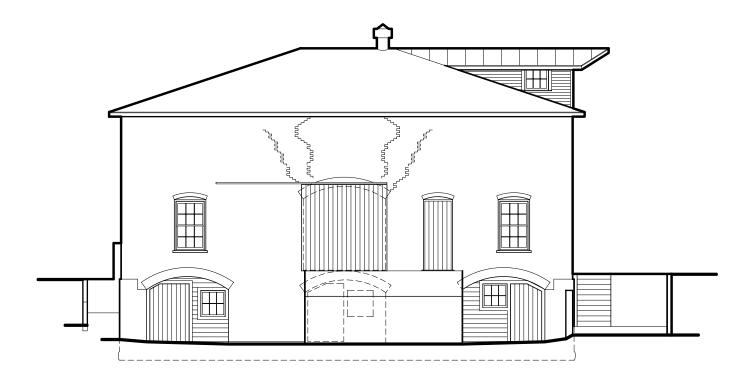


EXISTING CARRIAGE HOUSE SOUTH ELEVATION SCALE: 3/2" = 1'-0"





EXISTING CARRIAGE HOUSE WEST ELEVATION SCALE: 3/2" = 1'-0"

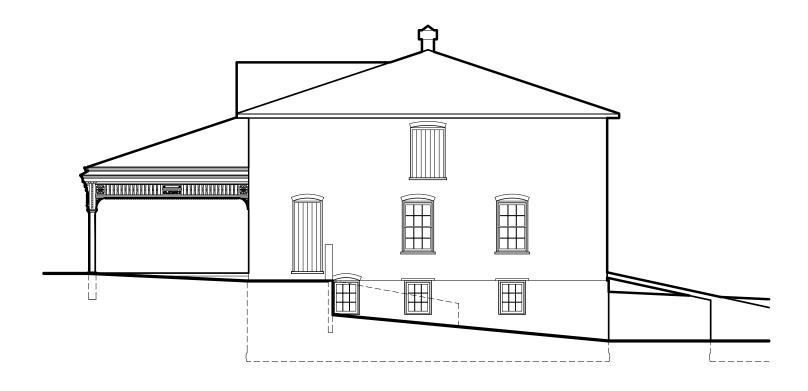


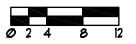
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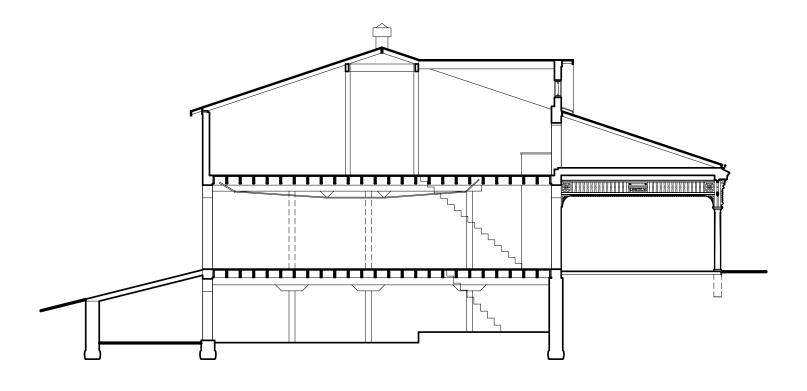


EXISTING CARRIAGE HOUSE NORTH ELEVATION SCALE: 3/2" = 1'-0"



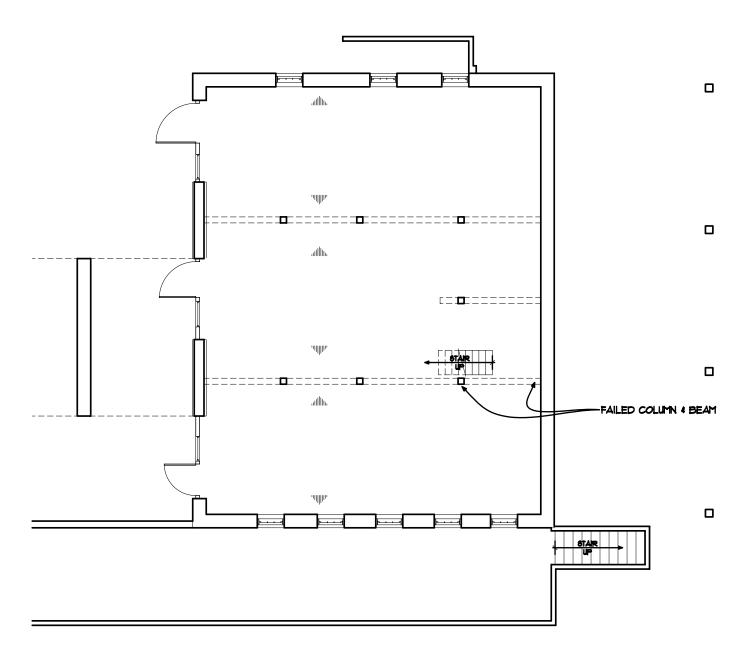


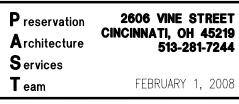
EXISTING CARRIAGE HOUSE EAST ELEVATION SCALE: 3/2" = 1'-0"



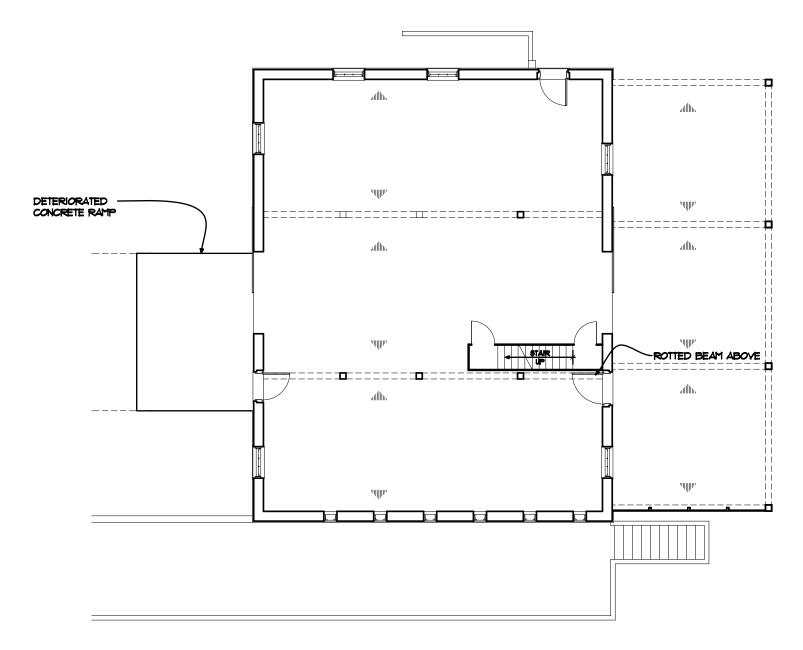


EXISTING CARRIAGE HOUSE BUILDING SECTION SCALE: 3/2" = 1'-0"

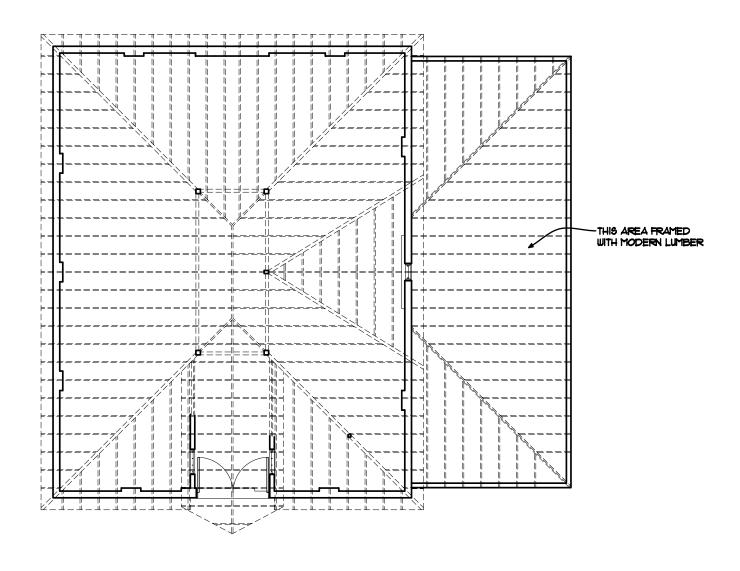












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CARRIAGE HOUSE STRUCTURE ROOF FRAMING PLAN SCALE: 3/32" = 1'-0"

APPENDIX B

STRUCTURAL ANALYSIS BY PINNACLE ENGINEERING, INC.

February 8, 2008

PAST 2606 Vine Street Cincinnati, OH 45219

RE: King House (PEI Proj. No. 07394.00)

Dear Mr. Scheidt,

Per your request, a limited structural review of the King's House and associated carriage barn, located at 1720 East King Avenue, Kings Mills, Ohio, has been completed. The review was limited to an evaluation of the live load capacity of the floor framing systems for both buildings. The carriage barn evaluation includes results for both the floor joists and floor beams, as both were readily accessible for measurement and documentation. For the main house, live load capacities were limited to the floor joists at the first floor, second floor, and attic, since no information was available regarding headers and beams. The results included in this report must be considered preliminary since a thorough evaluation of existing joist end bearing conditions, existing framing irregularities or deviations, condition of the joists, stability and soundness of the existing brick walls as well as structural headers and beams (in the case of the house) has not yet been completed.

The main house is brick structure with wood floor joists spanning between interior and exterior multiwythe brick walls. The first floor joists are composed of 2x10's (nominal) and the second floor and attic joists were constructed using 2x9's (nominal). The typical floor joist spacing, at each floor level, is 16 inches on center. The design procedure incorporates an assumed, allowable bending stress of 1200 psi. This allowable bending stress value is commonly used for the buildings of this vintage and type of construction. The allowable live loads for the first floor joists are as follows:

- 1. The minimum floor live load capacity occurs at the kitchen and is limited to 55 psf.
- 2. The maximum floor live load capacity occurs at the main hallway and has a value of 150 psf.
- 3. The remainder of the floor has an allowable live load that ranges between 65 psf to 75 psf.

The second floor and attic floor joist allowable live loads are as follows:

- 1. The minimum floor live load capacity occurs above the kitchen and is limited to 40 psf.
- 2. The maximum floor live load capacity occurs at the main hallway and has a value of 150 psf.
- 3. The remainder of the floor has an allowable live load that ranges between 50 psf to 65 psf.

The carriage barn is also a brick structure with the masonry walls defining the perimeter of the building. The main, elevated floor is composed of 2x10 (nominal) floor joists spaced at 18" on center. These

floor joists are supported by the exterior masonry walls (East and West walls) and two intermediate timber beam lines spaced at 15'-0" and 33'-0" respectively from the west wall of the building. (The overall width of the building is approximately 49'-0"). The architectural field notes indicated at least one rotted timber beam at the bearing location along the south wall of the structure. The load values listed below would require either the replacement or repair of that beam member to a state that would match its original condition and capacities. The design calculations for the carriage barn floor frame components used the same presumptive allowable bending stress values that were used for the main house components. The allowable live loads for the main floor of the carriage barn are as follows:

- 1. The floor joists located adjacent to the east and west exterior walls: 65 psf
- 2. The floor joists located at the center span, between the two timber beam lines: 45 psf
- 3. The timber beams:
 - a. Beam spanning 11'-0": 20 psf
 - b. Beam spanning 8'-6" or 9'-0": 40 psf

Please note that this letter does not express or imply any warranty of the structure. Observation of existing conditions for this project were documented by the Architect and were limited to visual observations of representative areas of major structural components. The results of this evaluation are based solely on these documented visual observations and the subsequent calculations to establish floor framing live load capacities. No physical testing was performed. The results, as stated above, have not considered existing framing deficiencies that may exist or could be discovered at the time of demolition and must be considered when a final evaluation of the live load capacities of all of the framing is concluded.

If you have any questious or need further assistance, please feel free to call me.

Sincerely,

Pinnacle Engineering, Inc.

Kurt J. Verhoff, P.E. Structural Engineer

APPENDIX C

MECHANICAL & ELECTRICAL SYSTEMS ANALYSIS BY HAL-PE ASSOCIATES ENGINEERING SERVICES, INC.



HAL-PE ASSOCIATES / ENGINEERING SERVICES, INC.

KING HOUSE MECHANICAL/ELECTRICAL EVALUATION

Existing Systems Evaluation

Main House

Water Service

The existing water service appears to be ¾" entering the main house on the side of the basement with the meter box at the street. Existing pipe material is unknown.

Sanitary Sewer

The existing 4" sanitary sewer appears to be a municipal public sewer exiting the south side of the main house towards Kings Court. All under floor sanitary piping in the basement appears to have been replaced with PVC piping. There are two floor drains roughed-in approximately 4" above the present basement floor elevation.

Storm Sewer

Existing roof gutters and downspouts drain on grade.

Gas Service

The existing gas service appears to be 3/4" copper with the meter located above grade on the west side of the main house. Gas service appears to be standard pressure in good condition with 11/4" gas from the meter entering the basement at the boiler room.

Heating System

Two hydronic cast iron gas fired boilers serving cast iron radiators provide the heating in the main house. One boiler appears to be approximately 30 years old while the other appears to have been replaced recently, as does the system circulator. The heating system including the radiators appears to be in fair condition.

One forced warm air gas fired furnace provides the heating for the kitchen wing. The furnace appears to be in poor condition. The manufacture and model number are unknown.

Air Conditioning System

The existing main house and kitchen wing are not air-conditioned.

Electric Service

The existing overhead 120/240-volt electric service entrance and meter are located at the northeast corner of the main house with a 200-amp electric panel located in the basement. The electric panel and wiring are approximately 35 years old and appear to be in fair condition.

Carriage House

Water Service

Does not exist.

Sanitary Sewer

Does not exist.

Storm Sewer

Does not exist.

Gas Service

Does not exist.



HAL-PE ASSOCIATES / ENGINEERING SERVICES, INC.

Page 2 of 3 Carriage House (continued)

Heating System Does not exist.

Air Conditioning System Does not exist.

Electric Service

The existing overhead 120/240-volt electric service entrance is located at the southeast corner of the carriage house with a 100-amp panel sub fed from the main house electric panel. An overhead feed to the maintenance shop and an underground feed to the barn are sub fed from the carriage house electric panel. The electric panel and wiring appear to be in fair condition.

Preliminary Design

Main House

Water Service

Recommend 11/2" tap and meter with 2" water service.

Sanitary Sewer

Recommend a 4" building sanitary with 6" sewer 5'-0" beyond building to new 6" municipal public sewer tap.

Storm Sewer

Recommend underground storm system to headwall or swale with riprap.

Gas Service

Reuse existing gas service.

HVAC System - Option 'A'

Recommend replacing the existing boilers with 90+ high efficiency gas fired modular boilers with new piping and zone controls to reconditioned existing radiators. Provide new high velocity air handling units with outdoor ventilation air and 25 tons of split system air conditioning units located on the west exterior of the main house.

HVAC System - Option 'B'

Remove existing hydronic heating system and provide new high velocity air handling units with outdoor ventilation air and 25 tons of split system geothermal units with 25 vertical ground loop borings on 20-foot centers by 200 feet depth.

HVAC System - Option 'C'

Remove existing hydronic heating system and provide new 90+ high efficiency gas fired furnaces with outdoor ventilation air and 25 tons of split system air conditioning units.

HVAC System - Option 'A, B, C'

Recommend 1-5 ton and 2-3 ton air handlers located in the basement to serve the first floor with 2-5 ton and 1-4 ton air handlers located on the third floor to serve the second floor.



HAL-PE ASSOCIATES / ENGINEERING SERVICES, INC.

Electric Service

Provide new 600-amp 120/240-volt underground electric service from pole mounted utility company transformer.

Carriage House

Water Service

Recommend 11/4" water service from main house.

Sanitary Sewer

Recommend a 4" building sanitary for the first floor with 6" sewer 5'-0" beyond building to main house sewer tap. Recommend a duplex sewage ejector with 2" discharge to 4" building sanitary for plumbing fixtures in the basement

Gas Service

None.

HVAC System - Option 'A'

Provide split system air handling units with outdoor ventilation air and 10 tons of split system high efficiency heat pump units located on the north exterior of the carriage house.

HVAC System - Option 'B'

Provide split system air handling units with outdoor ventilation air and 10 tons of split system geothermal units and 10 vertical ground loop borings.

Electric Service

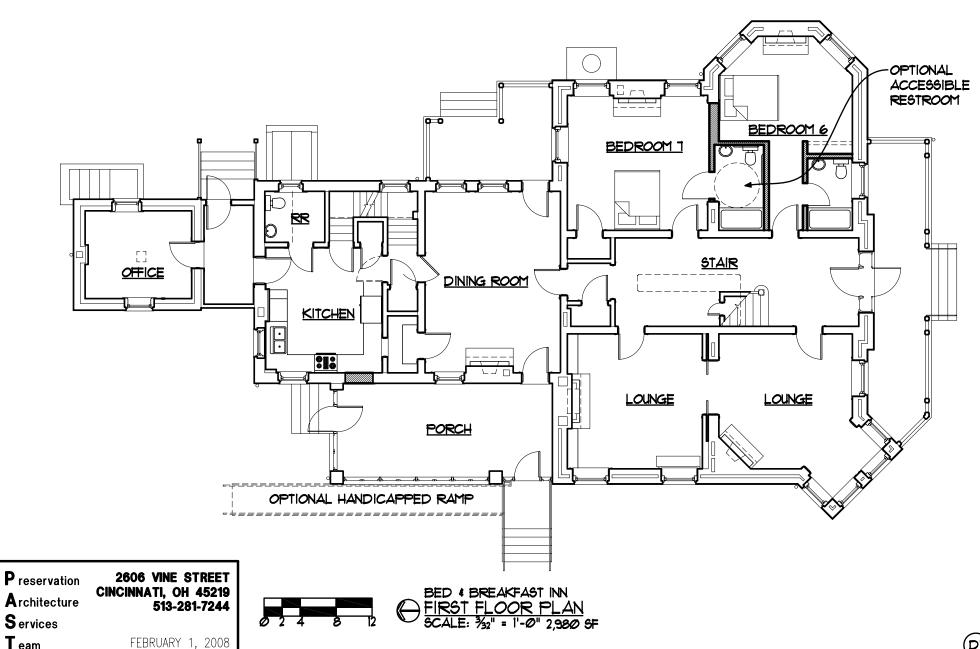
Provide new 250-amp 120/240-volt underground electric service from main house and reconnect maintenance shop and barn.

Preliminary Budget

Main H	louse		Carriag	e House	
	Water Service	\$ 25,000	_	Water Service	\$ 4,000
	Sanitary Sewer	\$ 15,000		Sanitary Sewer	\$ 10,000
	Storm Sewer	\$ 8,000		Storm Sewer	\$ 3,000
	Gas Service	\$ 00,000		Gas Service	\$ 00,000
	HVAC – Option 'A'	\$ 98,000		HVAC – Option 'A'	\$ 36,000
	HVAC - Option 'B'	\$175,000		HVAC - Option 'B'	\$ 66,000
	HVAC – Option 'C'	\$ 72,000		Electric Service	\$ 18,000
	Electric Service	<u>\$ 46,000</u>			
Total		\$439,000	Total		\$137,000

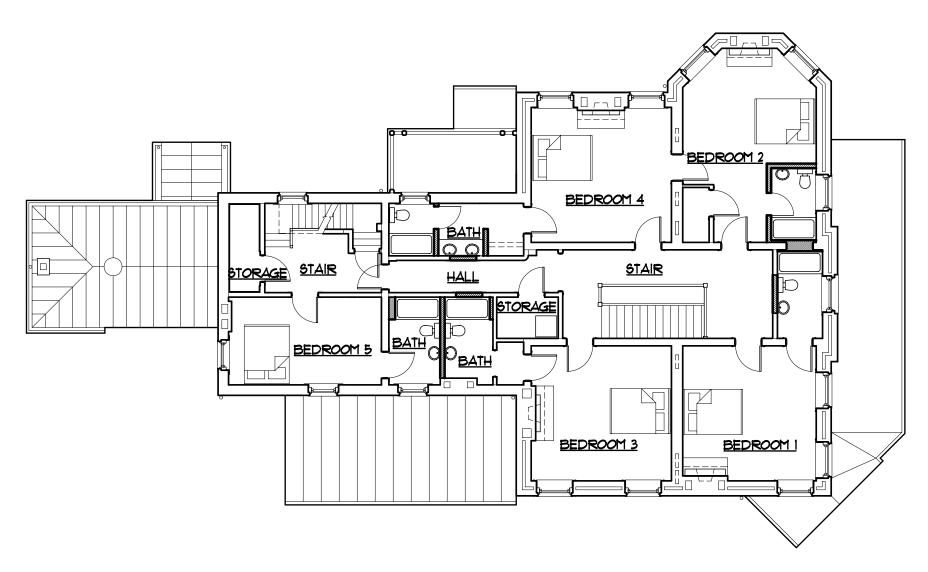
APPENDIX D

ARCHITECTURAL DRAWINGS OF POTENTIAL USES BY PAST ARCHITECTS

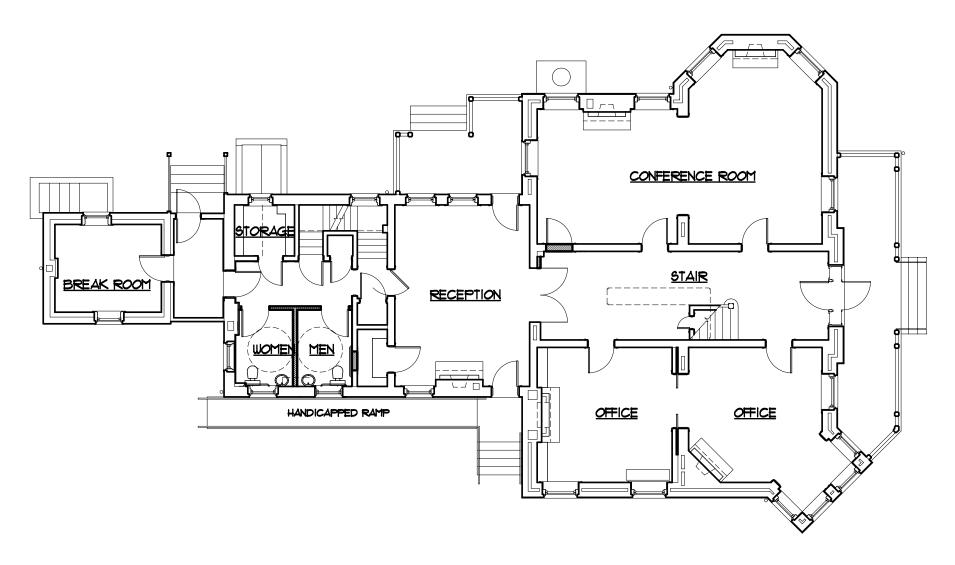


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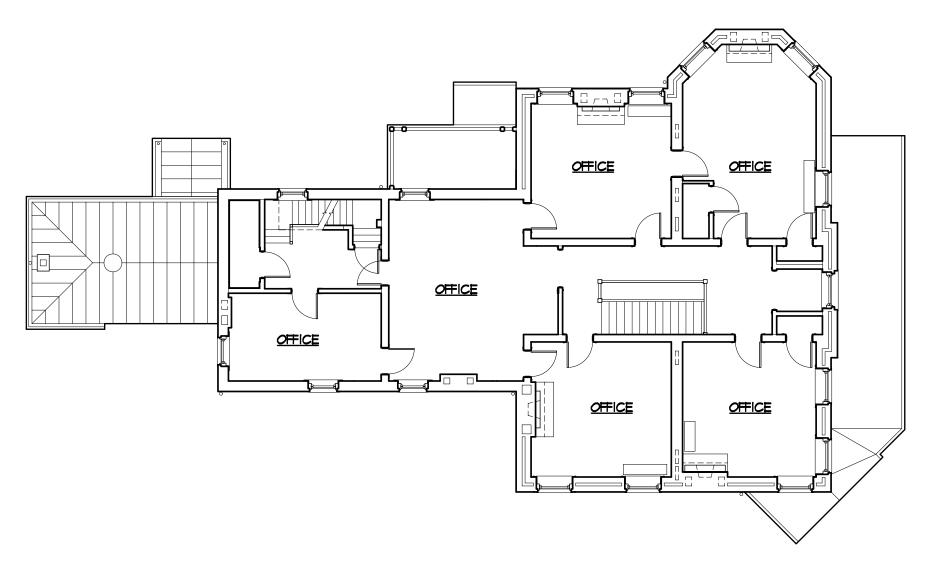
COMMUNITY OFFICES & MEETING ROOMS
FIRST FLOOR PLAN
SCALE: 3/2" = 1'-0" 2,700 SF

OFFICE AREA GROSS

FIRST FLOOR 2,700 SF SECOND FLOOR 2,400 SF

5,100 SF

TOTAL

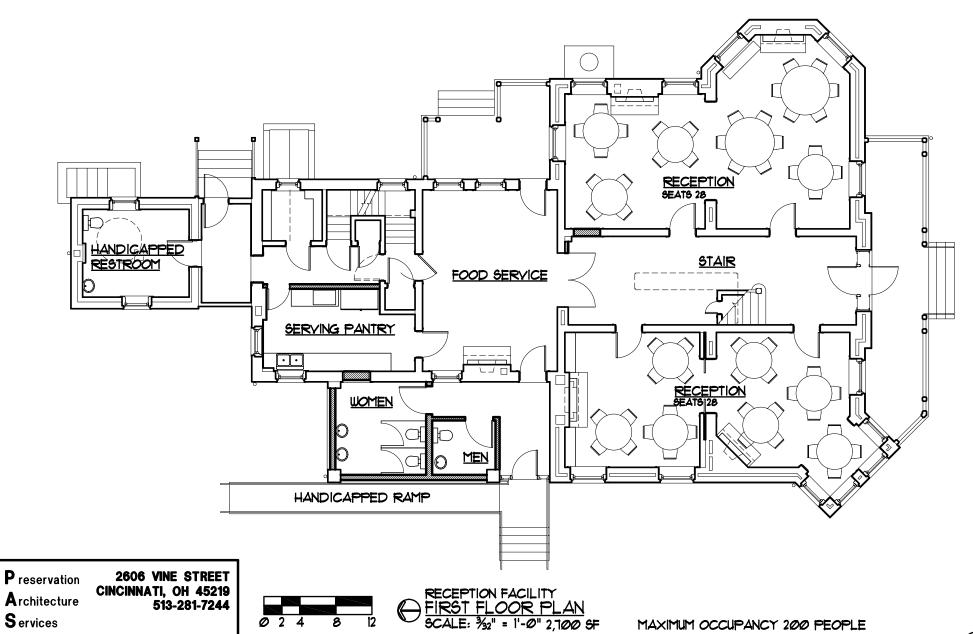


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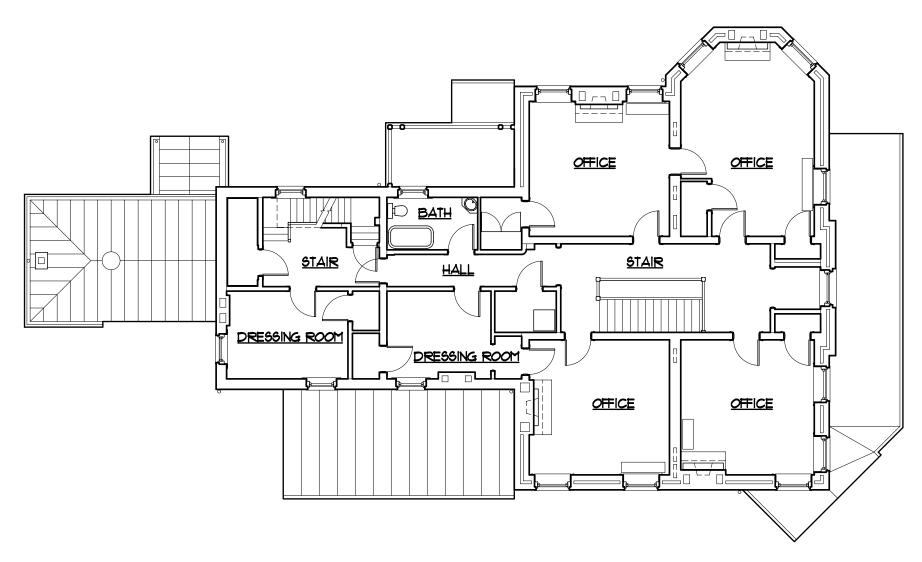


COMMUNITY OFFICES & MEETING ROOMS
SECOND FLOOR PLAN
SCALE: 3/32" = 1'-0" 2,410 SF



T eam

FEBRUARY 1, 2008

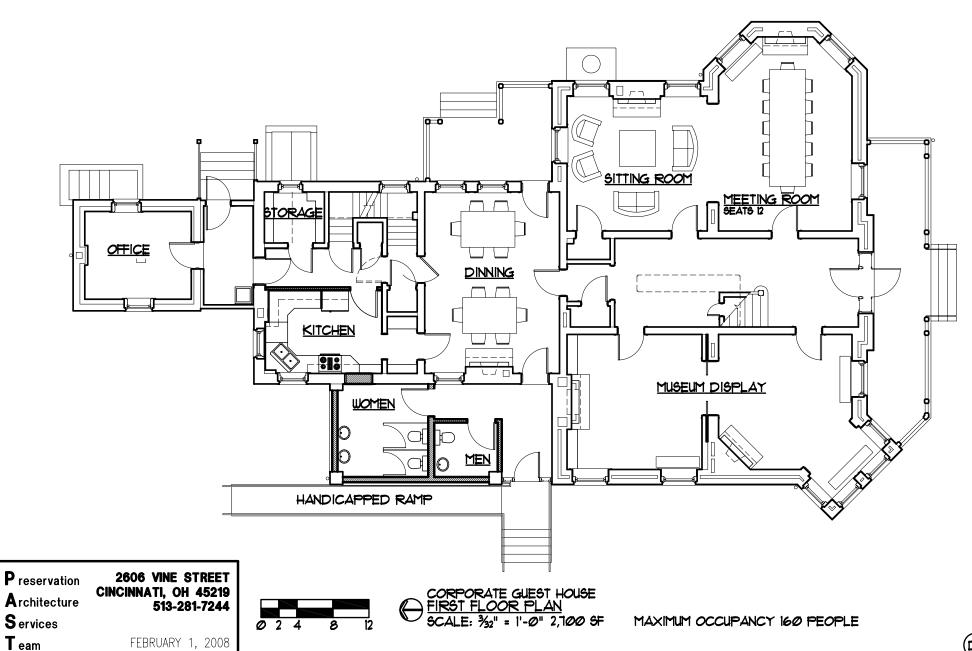


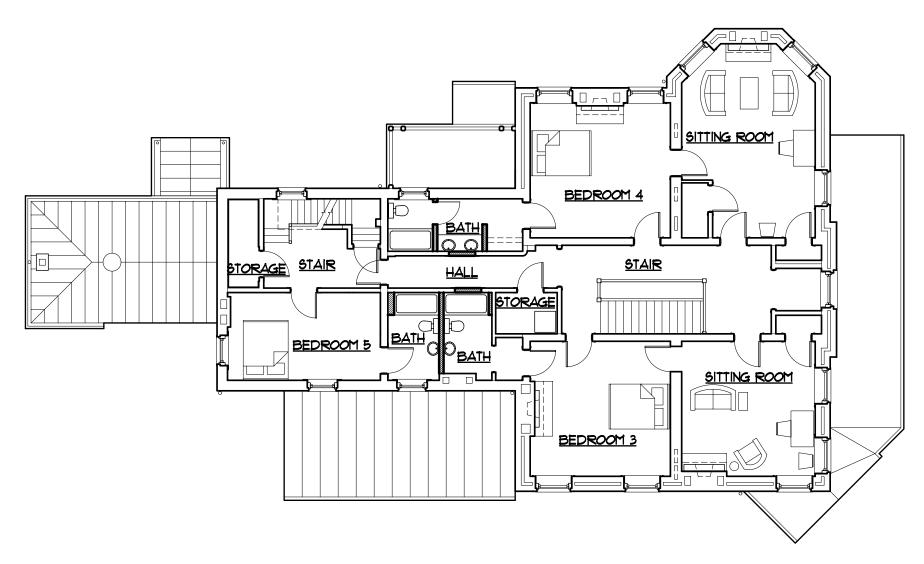
Preservation Architecture Services
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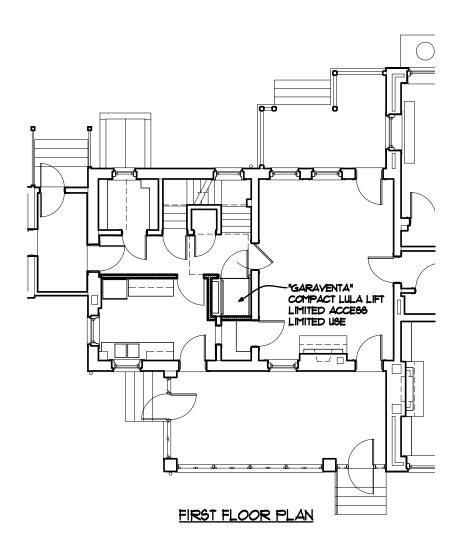


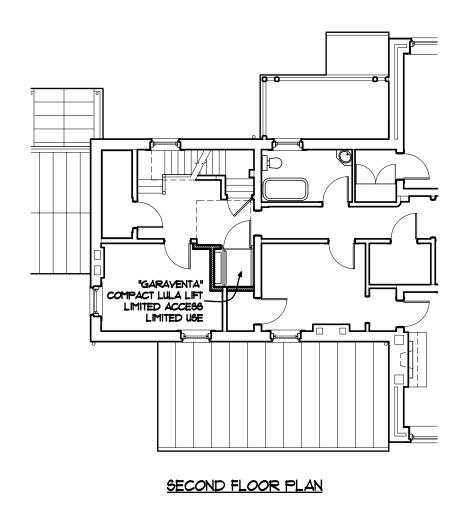






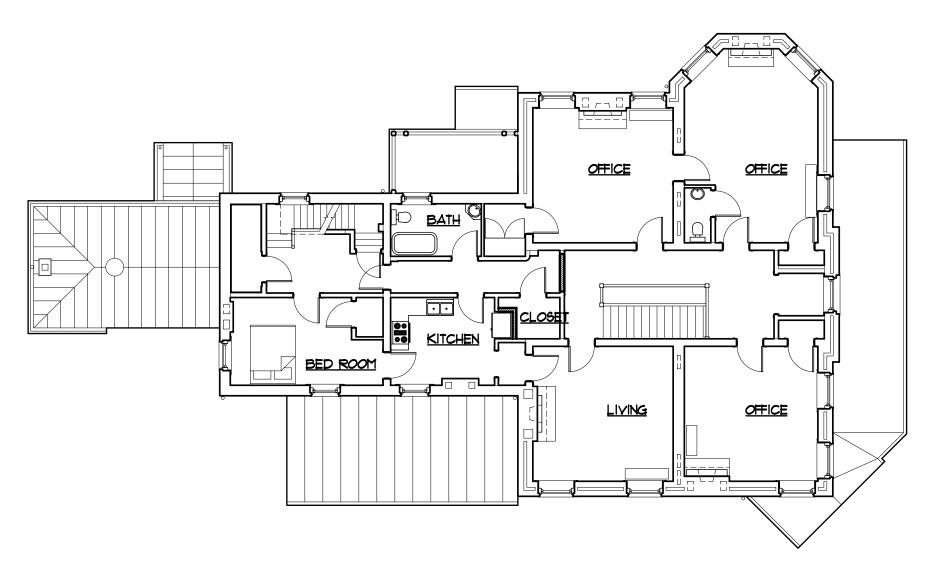










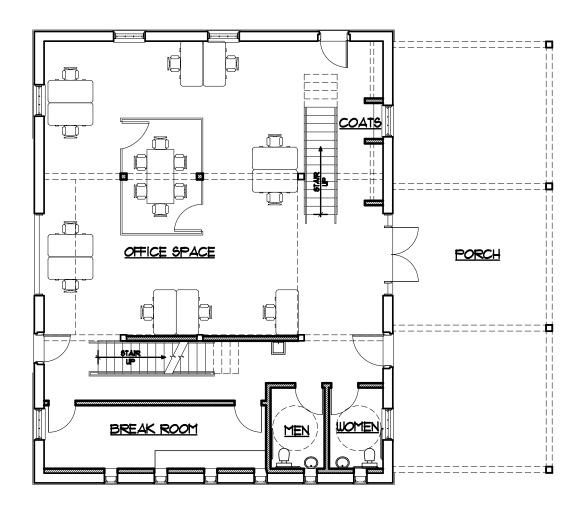


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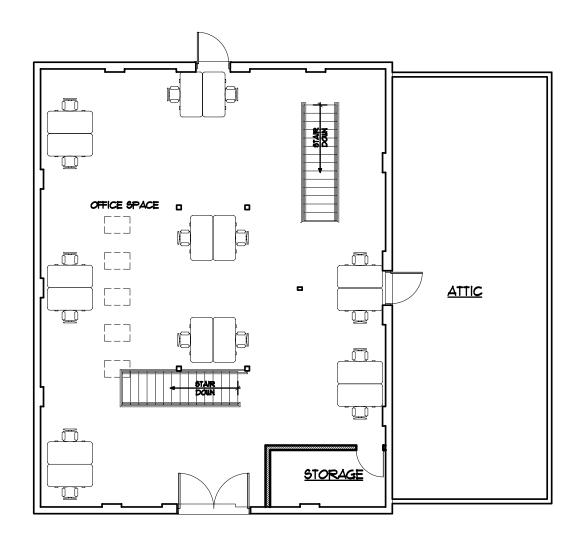


CARETAKER'S APARTMENT
SECOND FLOOR PLAN
SCALE: 3/32" = 1'-0" 2,410 SF





CARRIAGE HOUSE COMMUNITY OFFICES & MEETING ROOMS FIRST FLOOR PLAN SCALE: 3/2" = 1'-0" 2000 SF GROSS OFFICE AREA
BASEMENT Ø SF
FIRST FLOOR 2,000 SF
SECOND FLOOR 2,000 SF
TOTAL 4,000 SF





CARRIAGE HOUSE
COMMUNITY OFFICES & MEETING ROOMS
SECOND FLOOR PLAN
SCALE: 3/2" = 1'-0"2000 SF

OCCUPANCY

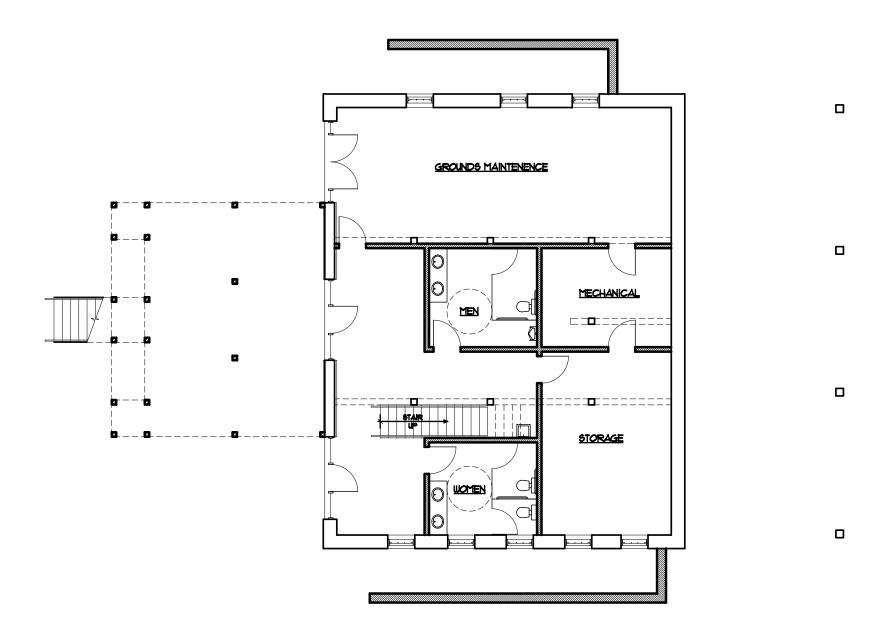
100 SF PER PERSON NET

32 PEOPLE

PLUMBING FIXTURES

MEN I FIXT

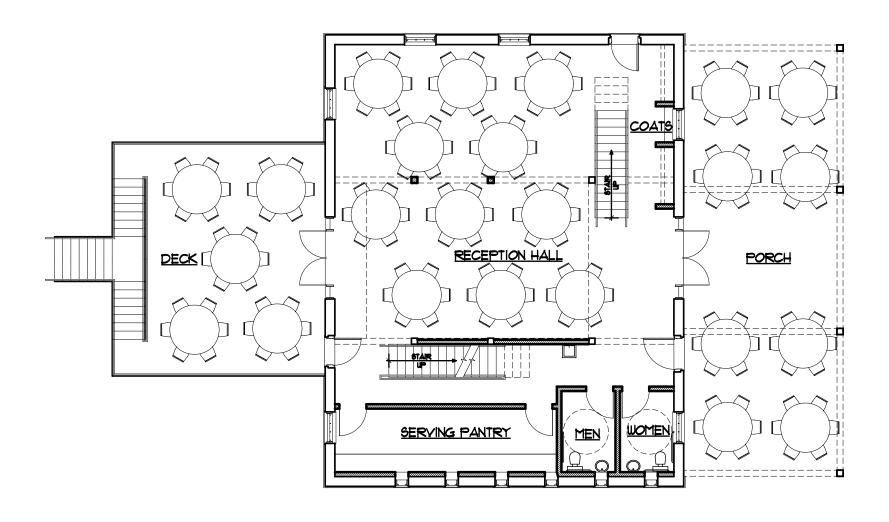
WOMEN I FIXT













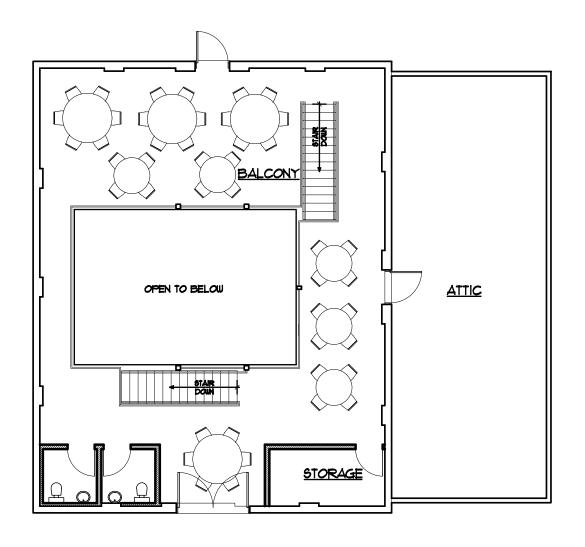
CARRIAGE HOUSE- RECEPTION FACILITY
FIRST FLOOR PLAN
SCALE: 3/2" = 1'-0" 2000 SF

ASSEMBLY AREAS

FIRST FLOOR 1,000 SF DECK 500 SF PORCH 850 SF SECOND FLOOR 1,300 SF

TOTAL 3,650 SF





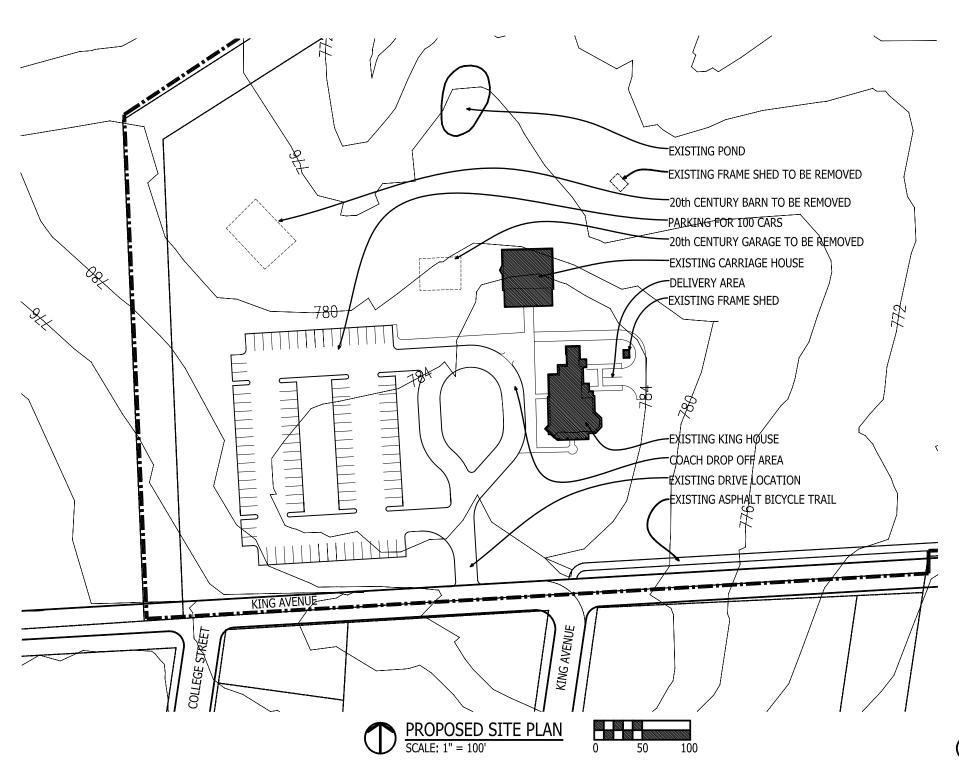


CARRIAGE HOUSE- RECEPTION FACILITY
SECOND FLOOR PLAN
SCALE: 3/32" = 1'-0" 2000 SF

<u>OCCUPANCY</u>

TABLES AND CHAIRS 188 PP STANDING ROOM 320 PP PLUMBING FIXTURES

BASEMENT 4 FIXT FIRST FLOOR 2 FIXT SECOND FLOOR 2 FIXT



APPENDIX E SOURCES OF FUNDING FOR HISTORIC PRESERVATION-RELATED PROJECTS

Ohio Historic Preservation Office

Historic Preservation Related Funding Sources Program and Application Information

Organization/Grant Program	Preliminary Final Application Due Application	Due Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name
STATE PROGRAMS						
Ohio Historical Society/ Ohio Historic Preservatio	n Office					
Certified Local Government	Encouraged Oct. 27 not required	Projects to develop comprehensive plans for the preservation of historic, architectural, and archaeological resources, to survey and/or nominate properties to the NRHP, to develop master plans and/or feasibility studies for NRHP properties, to acquire and to develop properties listed on the NRHP, and conduct public education programs related to historic preservation.	Average	1.5:1	CLG	Grants Manager Ohio Historic Preservation Office Ohio Historical Society 567 East Hudson Street Columbus, OH 43211-1030 (614) 298-2000 (614) 298-2037 (Fax) http://ohiohistory.org/resource/histpres
Acquisition & Development Projects	No funds available currently. Address inquiries to contact.	To acquire and/or develop properties listed on the NRHP.	\$12,000- 30,000 Average	1.5:1	Owner/tenant of NRHP property	Grants Manager Same as Above
Survey & Planning Projects	No funds available currently. Address inquiries to contact.	Projects to develop comprehensive plans for the preservation of cultural resources, to survey and/or nominate to the NRHP historic and prehistoric cultural resources to develop master plans and/or feasibility studies for NRHP properties, to acquire and to develop properties listed on the NRHP, and public education.	Average) 1.5:1	CLG, GE, GI HE, HS	Grants Manager Same as above
Ohio State Legislature						
State Capital Appropriations bill		Biennial state capital appropriations bill funds acquisitions, rehabilitation, restoration, and exhibit curation for local historical organization improvement projects sponsored by state legislators. Bill enacted spring of even numbered years.	Varies	None	НО	State Legislator from your district Page 1 of 18

Organization/Grant Program	Preliminary Application Due	Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name
STATE PROGRAMS con	<u>nt.</u>						
Downtown Ohio, Inc.							
Main Street Program	August workshop mandatory	Nov.	A three year program of intense training or technical assistance provided for revitalizing and preserving historic neighborhoods and central businees districts.	noncash - technical assistance		LG	Pauline Eaton Downtown Ohio, Inc. 846 1/2 East Main Street Columbus, OH 43205 (614) 258-6200 (614) 258-6400 (Fax)
Ohio Department of Deve	elopment						
Ohio Heritage Area Program		Funds not currently available	Grants for planning, development and marketing proposals that encourage preservation of historical, cultural and natural resources for tourism and other economic opportunities.	Varies	1:1	CE, GE	Coleen May, Manager Heritage Tourism Development 77 S. High Street Columbus, OH 43215 (614) 466-2844 (614) 466-6744 (FAX) www.ohiotourism.com/industry/heritage
Downtown Revitalization Competitive Grant Program		Dependent upon reauthoriza- tion. Call or see website	Grants are awarded to local or county governments for façade and sign improvements, streetscape improvement, and other eligible CDBG rehabilitation and infrastructure activities in central business districts. Funds can be used to finance downtown revitalization activities administered by public, nonprofit or private for-profit entities.	Up to \$400,000	1:1	LG	Susan Miller Office of Housing and Community Partnerships Ohio Dept. of Development 77 S. High Street Columbus, OH 43216 (614) 466-2285 www.odod.state.oh.us
Ohio Department of Natu	ıral Resources						
Nature Works Projects; Ohio Parks and Natural Resources Fund		July 1	Nature Works program provides up to 75% state reimbursement funds for acquisitions, development or rehabilitation of outdoor recreation areas. The federal Land & Water Conservation Fund provides up to 50% for acquisition and development of outdoor recreation areas	3:1 state funds 1:1 federal funds	S	LG, JRD, PD, CD	Michael Cook ODNR, Office of Real Estate Management 1855 Fountain Square Columbus, OH 43224-1387 (614) 265-6395

Organization/Grant Program	Preliminary Application Due	Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name
STATE PROGRAMS con	<u></u>						
Ohio Department of Tran	sportation						
Transportation Equity Adenhancement program ar 1.) Historic & Archaeolo 2.) Scenic & Environmen 3.) Bicycle/Pedestrian	eas: ogical	Dependent upon reauthoriza- tion (check website)	Must be directly related to the intermodel transportation systems. Project to stimulate additional activities that go beyond the customary cutlural or environmental mitigation requires when developing a transportation improvement project. The intent is to creatively integrate transportation facilities into their surounding communities and natural environment structures, sites must be on or eligible for the National Register of Historic Places to qualify for program 1.		1:4 of construc- tion/imp- lementa- tion costs cash match only	GE, MPD	David Seech Transportation Enhancement Coordinator Office of Lead Assistance Ohio Dept. of Transportation 1980 W. Broad Street Columbus, OH 43223 (614) 752-4686 www.dot.state.oh.us (transportation enhancement)
Ohio Arts Council (OAC))						
 Applicants informs OAC of their intent to apply no later than 6 weeks before their application deadline, (by letter, telephone, or personal visit to appropriate coordinator in OAC offices). Draft application to program coordinator for review-provinces assistance in drafting as well as explains application to staff, (one month before deadline). Organization's Board of Directors must approve application. 			Request a copy of OAC Guidelines for detailed information about grant applications in each program area.				Ohio Arts Council 727 East Main Street Columbus, OH 43205-1796 (614) 466-2613 or (614) 466-4541 TDD (614) 466-4479 (FAX) www.oac.state.ohio.us
Operating Support II Design Arts	1, 2, 3 Listed above	Jan 15	Projects which support excellence in the fields of architecture, landscape architecture, urban design and planning, interior space design, product and industrial design, graphic and clothing design. Can include National Register nominations and limited assistance with construction projects.	Varies	1:1	CAC, NPG, HS, USP	Kristy Fainbaugh Same as above

Organization/Grant Program	Preliminary Application Due	Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name
STATE PROGRAMS con	<u>nt.</u>						
Ohio Arts Council (OAC) cont.						
Art in Public Places	1, 2, 3 Listed Above	April 1	Helps organizations plan and commission permanent and temporary works of art and temporary outdoor exhibits. The OAC wants to create a working relationship between the community and artist.	Varies	1:1	NP	Patricia Henahan Same as above
Multi-Arts	1, 2, 3 Listed above	Jan 15	Projects which encourage cooperative efforts to develop professionally managed staffed arts organizations by promoting professional activities combining two or more arts disciplines.	Varies	1:1	NPG	Judith Chalker Same as above
Visual Arts & Crafts	1, 2, 3 Listed above	Jan 15	Funding for Ohio organizations that present high quality visual arts programs. Grants may cover publications, education, symposia and workshop projects, exhibitions, conservation projects, performances and operating support.	Up to \$10,000	1:1	NPG	Susan de Pasquale Same as above
Building Diversity Audiences	1, 2, 3 Listed above	Mar 1	Seed money to arts organizations to involve audiences from the following populations within their communities: African-American, Appalachian, Asian, Hispanic, Native American, Indian, and people with disabilities. This program promotes planning with a community, not for a community.	Up to \$10,000 for planning \$25,000 for new expanded programming	required on 1st year grant	NP	Phyllis Hairston Same as above

Organization/Grant Program	Preliminary Application Due	Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name
STATE PROGRAMS con	nt.						
Ohio Arts Council (OAC)	cont.						
Information & Resource Assistance		Feb. 1 May 1 Nov. 1	Supports organizations through managerial and artistic consultancies. Can also assist in cost of attending workshops, conferences, or seminars on topics relative to art program administration or organizational management. May apply for up to 3 workshops each fiscal year.	Workshops: registration fees up to \$750 Consultants: up to \$2,000	No match required	NPG	Same as above
Community Traditional Arts & Festivals Includes Operating Support II, Project Support and Festivals	1, 2, 3 Listed above	Feb. 1	Supports projects which help preserve and present communities' traditional arts. Supports projects which identify, support an honor Ohioans with traditional and ethnic arts/skills, increasing the skills of the performing group.	Up to \$10,000	1:1	NPG	Barbara Bayless Same as above
Appalachian Arts Program		Jan. 15 July 1	The Appalachian Arts Program (AAP) is designed to serve artists, arts organizations, and the citizens of Ohio's 29 Appalachian counties, as well as urban Appalachians living in Columbus, Cincinnati and Dayton. The program supports projects that place the arts at the heart of community and economic development efforts in their communities.			CAC, CE	Dan Katona Same as above

Organization/Grant Program	Preliminary Application Due	Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name
STATE PROGRAMS con	<u>ıt.</u>						
Ohio Arts Council/Ohio I	Iumanities Counci	1					
<u>Joint Program</u> New Works & New Ideas	Oct 15	Dec 1	The goal is innovation in the arts and humanities. Projects must integrate arts and humanities; the presentation and interpretation of culture; show that artists, scholars, and knowledgeable members of the public work together, resulting in at least one public program. Possible preservation applicability for public education projects is through tours, publications, workshops, museum/library displays, and conferences increasing the public understanding of historic contributions of groups.	Up to \$10,000	1:1 minimum	NPO	Ohio Joint Program in the Arts & Humanities 695 Bryden Road Columbus, OH 43205 (614) 461-1132
Ohio Humanities Council Major Grants	(OHC) Applications accepted year-round (minimum of 54 weeks prior to project start) (Preliminary consultation with OHS staff is strongly encouraged).	<u>Draft Final</u> 12/15 2/1 7/15 9/1	Humanities must be the central focus. Best suited for projects with regional or statewide impact; those which atract layer & diverse audiences, humanities institutes for teachers and professionals, film/video documentaries and media projects.		1:1	NP	Jack Shortlidge Ohio Humanities Council 471 E. Broad Street, Suite 1620 Columbus, OH 43215-3857 (614) 461-7802 (800) 293-9774 (614) 461-4651 (FAX)

Organization/Grant Program	Preliminary Application Due	Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name
STATE PROGRAMS c			•			**	
Ohio Humanities Counc	cil (OHC) cont.						
Regular Grants	(minimum 8 weeks prior to project start)	First of each month	Supports public programs which increase public appreciation of the humanities can make toward understanding current issues of public policy. Only educational projects considered (non-college credits, no tuition). Humanities scholars must be directly and substantially involved in the project development, implementation, and evaluation. Large programs with several components, attracting large & diverse audiences.		1:1	NPO	Frank Dunkle Same as above
Mini-Grant	Applications acc (minimum of 54 project start) (P consultation wit strongley encour	reliminary h OHS staff is	Short term projects of limited scope; one component of a larger project which receives funding from several sources, lectures for special occassions, panel discussion, and other singe-site programs. Conferences & forums for rapid response to a community concerns, innovative projects to stimulate interaction between scholars and citizens, programs which utilize materials from previous OHC projects, short term and limited scope projects, lectures, panel discussions. single-site programs. One component of a large project which may be receiving funds from other sources.		1:1	NPO	Same as above

Organization/Grant Program	Preliminary Application Due	Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name
STATE PROGRAMS con	nt.						
Ohio Humanities Council	l (OHC) cont.						
Community History Grants Program	Rough draft required for review	First of each month	Designed to support a community's effort to record, preserve, and publically share important aspects of its history. Humanities professional required in planning the project.	\$5,000 minimum	1:1	NPO	Same as above
LOCAL PROGRAMS							
Cleveland Restoration So	ociety (CRS)						
Heritage Home Loan Pro	ogram		Program allows owners of older and historic homes (built before 1950) to maintain, repair and improve their property with a loan of 3.5% interest rate. House must have three units or less, be located in an eligible area and a visible improvement must be made on the exterior. Programs offered and coordinated by CRS and KeyBank	\$3,000- \$15,000 Up to 10 years 2% fee	home- owners in eligible areas of Cuyahoga County		Sara Wolf Cleveland Restoration Society 3751 Prospect Avenue Cleveland, OH 44115 (216) 426-3116 (216) 426-1975 (FAX) www.clevelandrestoration.org
Neighborhood Historic I Program	Preservation		Technical assistance is available free of charge to any homeowner in the City of Cleveland. Financial assistant is available in the form of reduced rate loans with KeyBank. House must have three units built before 1950 and be in an eligible ward.	Maximum loan amount determined by lender 10-12 year term			Jennifer Cali Same as above

Organization/Grant Program	Preliminary Application Due	Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name
FEDERAL PROGRAMS	1						
National Center for Prese	ervation Technolog	y and Training					
Preservation Technology & Training Grants		Feb. 1	NCPTT will support research, training workshops, meetings and conferences, and publications that involve the application of technology to the preservation of cultural resources.	Up to \$40,000) Varies	GA, HE, NP	Andrew Feller National Center for Preservation Technology & Training - NSY 645 College Avenue Natchitoshes, LA 71457 (318) 356-7444 http://www.ncptt.nps.gov
National Maritime Allian	ice						
National Maritime Heritage Grants	No funds currently available. Check with contact.		Funds for maritime heritage education and preservation projects designed to reach a broad audience and enhance public awareness and appreciation for U.S. maritime heritage	\$2,500-50,000) 1:1	GE, NPO	Hallie Brooker National Park Service National Maritime Initiative 1849 C Street, NW Rm NC 400 Washington, D.C. 20240 (202) 343-8170 (202) 343-1244 FAX hallie_brooker@nps.gov http://www.cr.nps.gov/history/ maritime/NMI.html
National Trust for Histor	ric Preservation (N	ГНР)					
Preservation Services Fund	To National Trust Regional Offices	Feb 1 June 1 Oct 1	Provides nonprofit organizations and public agencies matching grants for preservation planning & education efforts. Funds may be used to obtain professional expertise in areas such as architecture, archaeology, engineering, preservation planning, land-use planning, fund raising, organizational development, law and preservation education activities		1:1	NP, PA	Jim Guelcher, Program Assitance National Trust for Historic Preservation 1785 Massachusetts Ave, NW Washington, DC 20036 (312)-939-5547 ext. 229 www.nationaltrust.org

Organization/Grant Program	Preliminary Application Due	Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name
FEDERAL PROGRAMS	S cont.						
National Trust for Histor	ric Preservation (N	ΓHP) cont.					
Consultants Services		Feb 1 June 1 Oct 1	Offers assistance to nonprofit organizations, universities and public agencies to help initiate preservation projects. Grants designed to assist organizations seeking consultants with professional expertise in areas such as architecture, law, planning, economics, archaeology, and graphic design. Grants are made for conferences that address subjects of particular importance to historic preservation or for curriculum development.	Up to \$5,000	1:1	PNP, HE	NTHP Midwest Regional Office 53 West Jackson Blvd., Suite 350 Chicago, IL 60604 (312) 939-5547 (312) 939-5651 FAX
Cynthia Woods Mitchel Interiors	ll Fund for Historic	Feb 1	The fund provides nonprofit organizations and public agencies grants ranging from \$2,500 to \$10,000 to assist in the preservation, restoration, and interpretation of historic interiors. Structures must be a National Historic Landmark. Funds may be used for professional expertise, print and video communications materials, and education programs.	\$2,500 - 10,000	1:1	NP, PA, GI	NTHP Same as above
Co-sponsored conference	ces	Jan 31 Mar 31 Sept 30	Conferences that address subjects of particular importance to historic preservation	Up to \$1,000	1:1	PNP	NTHP Same as above

Organization/Grant Program	Preliminary Application Due A	Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name
FEDERAL PROGRAM	S cont.						
National Trust for Histo	oric Preservation (NT	HP) cont.					
Critical Issues Fund	Letter of Intent	May 31	NTHP works in partnership with other organizations to foster innovative research, problem solving and efforts to change policy at the local, state, and national levels. Fund-supported activities may include the preparation of analytical research papers, data analysis, conferences and publications.	Varies	1:1	GE, PNP	NTHP Same as above
Inner City Ventures Fund	No deadlines for a	application	Loans may be used for acquisition, construction, and working capital up to \$150,000 for site-specific projects. Revolving lines of credit up to \$200,000 may be available for multiple short-term credit needs. Terms up to 5 years, interest rate prime minus 1% per annum. Collateral required, but flexible. Priority is furthing objectives of the Community Partners Program including revitalization activities; rehabilitatate landmark buildings reflecting diverse cultures.	Up to \$200,000		NPG, PNP	NTHP Same as above
Joanna Favrot Fund		Feb. 1	Funds projects for nonprofit organizations and public agencies to preserve or recapture an authentic sense of place. Structures must be a National Register Landmark to be eligible. Funds may be used for professional advice, conferences, workshops and education programs.	\$2,500 - \$10,000		NP, GE	NTHP Same as above

Organization/Grant Program FEDERAL PROGRAMS	Preliminary Final Application Due Application Due cont.	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name			
National Trust for Historic Preservation (NTHP) cont.									
National Preservation Loan Fund	Letters-of-intent to apply accepted year-round; initial consultation with Trust Regional Office.	Awards below-market rate loans to non-profit organizations and public agencies to help preserve properties listed or eligible for NRHP. Loans can be used to acquire, stabilize, rehabilitate or restore an historic property for use, lease or resale; establish or expand a revolving fund; purchase easements or options to acquire historic properties; or finance predevelopment activities. Interest rate, collateral requirements vary depending or project and type of credit requested. Terms range 1-7 years, interest rate prime minus one percent.	1		NTO, PA	NTHP Same as above			
The Great American Stat	ion Foundation								
Financial and Technical Assistance Grants	No current grant program	Subgrants (planning and design business plans, public involvement activities, historic structure reports, etc.) Captial grants for station rehabilitation, station area specific planning or capital improvements around a station. Funds cannot establish rail service, support forprofit activity associated with stations, or be used to convert stations to non-transportation purposes.	Varies	1:1 required for capital funding; More required for project seed funding	GE, CDC, TA	Great American Station Foundation 615 E. Lincoln Avenue Las Vegas, NM 87701 (505) 426-8055 (505) 426-8057 (FAX) Jvarela@transact.org www.stationfoundation.org			

Organization/Grant Program	Preliminary Application Due	Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name	
FEDERAL PROGRAMS	cont.							
National Endowment for	the Arts (NEA)							
Design Arts Program		Semiannual: June, Dec	Program awards grants in the design disciplines: architecture, landscape architecture, urban design, historic preservation, and planning; interior design, industrial design, graphic design, and fashion design. This grant supports preservation planning and methodology, archival conservation, and a variety of design history & documentation projects.	\$5,000-50,000	1:1	GE, NE, NPO	National Endowment for the Arts 1100 Pennsylvania Ave., N.W. Washington, D.C. 20506 (202) 682-5400 http://arts.endow.gov/	
National Endowment for	National Endowment for the Humanities (NEH)							
Preservation Programs	Discuss proposal with staff prior to deadline	Semiannual: June, Dec	To help institutions stabilize material cultural collections important to the humanities through support for improved storage & housing; establish national training programs for conservators; develop a permanent capacity to preserve their cultural holdings.	Varies	1:1	LI	Office of Preservation National Endowment for the Humanities 1100 Pennsylvania Avenue, N.W. Washington, DC 20506 (202) 606-8400 or (800) NEH-1121 email: info@neh.gov www.neh.gov	
Public Humanities Projects		Semiannual: Mar, Sept	Supports projects to increase public understanding of the humanities via public programs and model humanities projects of potential national significance (public symposia, debates, or combination of formats).	Varies	Varies	CE, GE, NE, NPG, NPO	Same as above Room 426 (202) 786-0271	
Humanities Projects in Libraries & Archives Planning Grants		Quarterly: Feb, May, Aug, Nov	Supports programs designed to increase public understanding of the humanities through the discovery, interpretation, and greater appreciation of books and other resources in library archival collections.	Varies	Varies	LI, NPO	Same as above	

Organization/Grant Program	Preliminary Application Due A	Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name	
FEDERAL PROGRAMS	S cont.							
National Endowment for the Humanities (NEH) cont.								
Division of Research Pro	ograms:							
Archaeology Projects		Oct 15	Support archaeology projects that promise to strengthen understanding of history & culture including survey, excavation, analysis, and write up of results.	Up to \$15,000	1:1	GI, HE, NPO	Same as above Office of Preservation Room 318 (202) 786-0210	
Challenge Grant		Nov. 3, 03 May 3, 04	NEH Challenge grants help institutions and organizations secure long-term improvements in and support for their humanities programs and resources. Grants are to improve the quality of humanities activities and the financial stability of the applicants	\$20,000 - \$500,000	1:1	CAC, CE, HE, HS, M, NP	Office of Challenge Grants National Endowment for the Humanities Room 420 1100 Pennsylvania Avenue N.W. Washington, DC 20506 (202) 606-8487 email: challenge@neh.gov	
U.S. Department of Agric	culture							
Rural Housing Preservation Grants		March 27	To assist very low- and low-income rural residents individual homeowners, rental property owners (single/multi-unit) or by providing the consumer cooperative housing projects (co-ops) the necessary assistance to repair or rehabilitate their dwellings. This program is intended to make use of and leverage any other available housing programs which provide resources to very low and low-income rural residents to bring their dwellings up to development standards.	e	Varies	NPG	Multiple Family Housing Processing Division Rural Housing Service Department of Agriculture Washington DC 20250 (202) 720-1660	

Organization/Grant Program		Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name	
FEDERAL PROGRAMS cont.								
U.S. Department of the Ir	nterior							
Recreation & Cultural Resource Management			To manage and preserve recreational and cultural resources on public lands and to increase public awareness and appreciation of these resources. All projects are restricted to lands administered by the Bureau of Land Management.	\$200-125,000	None	GI, NP, GE	Cultural Resources Chief, Branch of Cultural Heritage Bureau of Land Management 1849 C Street, N.W. Washington, D.C. 20240 (202) 653-9183	
U.S. Department of Housing & Urban Development								
Community Developmer (Entitlement)	nt Block Grants		Activities to benefit low and moderate income persons, and projects related to the prevention or elimination of slums and blight; address other community needs that present a threat to health or welfare in the community. Can include acquisition of real property; rehabilitation of residential and non-residential properties.	cities and urba		ds to metropolitan	Local government officials; or HUD - Field Office 200 North High Street Columbus, OH 43215-2499 (614) 469-7345 FTS Telephone - 943-7345	
Community Developmer (Non-Entitlement) for stacities			Grants to carry out a wide range of community development activities directed toward neighborhood revitalization, economic development, improved community facilities and services. Maximum feasible priority to activities which benefit low-moderate income families, and/or in the prevention or elimination of slums and blight.	-		which distribute cal government.	E. Rioden Ohio Department of Development Office of Community Services 77 South High Street Columbus, OH 43215 (614) 466-6014	

Organization/Grant Program FEDERAL PROGRAMS		Final Application Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name		
U.S. Department of Housing & Urban Development cont.									
Community Developme (Section 108 Loan Guar			Loan-guarantee program providing communities with front-end financing for large-scale community and economic development projects that cannot be financed from annual grants. Eligible activities include: acquisition of real property; rehabilitation of publicly owned real property; housing rehabilitation, etc. Subject to statutory maximum equal to three times applicant's annual entitlement	receive entitl		an counties that	HUD Headquarters Asst. Secretary for Community Planning & Development Dept. of Housing & Urban Development Washington, D.C. 20410-7000, or HUD-Field Office, (614) 469-7345		
Rental Rehabilitation			Grants to cities and states to encourage rental housing rehabilitation. Designed to attract private financing to rehabilitation. Funds may meet up to 50% of project rehab costs. Eligible rehab activities limited to those to correct substandard conditions, make essential improvements, repair major systems, energy related and handicap accessibility repairs.	states	a cities and urb	an countries and	HUD - Field Office (614) 469-7345 ODOD (614) 466-2285 or Local community development agencies		
Rehabilitation Loans (S	ection 312)		Loans to assist rehabilitation in federally aided Community Block Grant and Urbar Homesteading areas. To prevent unnecessary demolition of basically sound structures by financing rehab to bring the property up to applicable local code.		ners in federall	y aided areas	HUD - Field Office Same as above		
Urban Homesteading			A national program to revitalize declining neighborhoods and reduce the inventory of federally owned properties to new homeowners for rehabilitation.		-		HUD - Headquarters, or HUD - Field Office Same as above		

Organization/Grant Program	Preliminary Application Due A	Final pplication Due	Description	Grant Amounts	Match Ratio	Eligible Applicants	Contact Name	
FEDERAL PROGRAMS cont.								
U.S. Department of Hous	ing & Urban Develo	pment cont.						
Property Improvement L (Title I)	oan Insurance		HUD issues loans to finance property improvements, alterations, and repairs of individual homes, buildings, and nonresidential structures. May also finance new construction of nonresidential buildings.	Determined b	oy lender		HUD - Regional Office 300 South Wacker Drive Chicago, Illinois 60606-6765 (312) 353-5680 FTS (312) 353-5680	
Rehabilitation Mortgage (Section 203 [k])	Insurance		Mortgage insurance to finance the rehabilitation of existing property; finance rehabilitation and refinancing of the outstanding indebtedness of a property; or finance purchase and rehabilitation of a property. An eligible rehabilitation loan must involve a principal obligation not exceeding the amount allowed under section 203 (b) home mortgage insurance.	-	aal able to mak nd mortgage p		HUD - Field Office Same as above	
Supportive Housing Den Program - Transitional F Component			Project grants to public and private non-profit entities to defray the costs of acquiring and rehabilitating, or for moderate rehabilitation, existing buildings to house homeless persons. Direct payments to fund a portion of annual operating costs for 5 years; and technical assistance related to awarding o grant funds.	of such entiti homeless		ofit combination the benefit of the	HUD - Headquarters Same as above	
Supportive Housing Den Housing Component	nonstration Program -	Permanent	Assist in development community-based, long-term housing with supportive services for handicapped and/or homeless persons.	organization operate the p	(project spons	or), which will sing for the benefi	HUD - Headquarters Same as above t	

Organization/Grant	Preliminary Final		Grant	Match	Eligible			
Program	Application Due Application Due	Description	Amounts	Ratio	Applicants	Contact Name		
		LEGEND						
CAC	Community Arts Councils		NPS	National Par	rk Service			
CD	Conservancy districts		NRHP	National Re	gister of Historic	Places		
CDC	Community Development Corporations		NTFM	National Tr	ust Forum Memb	er		
CE	Cultural and Community organizations		NTHP	National Tr	ust for Historic Pr	reservation		
CLG	Certified Local Government		NTP	PNP as below or public agency NTHP member; for endangered property				
DOI	Downtown Ohio Inc.		OAC	Ohio Arts Council				
GE	Government entity		OHC	Ohio Humanities Council				
GI	Group or individual		ODOD	Ohio Department of Development				
HE	Institutions of higher education		ODOT	Ohio Department of Transportation				
HS	Historical Societies		OHPO/OHS	Ohio Historic Preservation Office/Ohio Historical Society				
HUD	United States Department of Housing and Urban	Development	PA	Public agencies				
LI	Library and other institutions with collections		PD	Park district	S			
LG	Local governments		PNP	50 1(c) (3) d	organization whic	h is member of the NTHP; Organization may		
MPD	Metropolitan Park Districts		SO	Service Organizations				
NEA	National Endowment for the Arts		TA	Transit Agencies				
NEH	National Endowment for the Humanities		TBA	To be annou	ınced			
NP	501(c) (3) non-profit organization		USP	Universities	with special proj	ects		
NPO	Non-profit organization		VG	Volunteer C	broups			

SOURCES

Catalog of Federal Domestic Assistance and Federal Register Programs

National Endowment for the Arts; Design Arts Guidelines

National Endowment for the Humanities: Overview of Endowment Program National Maritime Heritage Program subsite, July 1990

National Trust for Historic Preservation: Financial Assistance Programs Report

Ohio Arts Council: Guidelines

Ohio Arts Council/Ohio Historic Council Joint Program in the Arts and Humanities: New Works and New Ideas; Human Values and the Built Environment

Ohio Humanities Council: A Guide to Grants for Public Humanities Programs

Ohio Historical Society, Ohio Historic Preservation Office: Certified Local Government Subgrant Management Manual

U.S. Department of Housing and Urban Development: Programs of HUD

When looking for private foundation funding opportunities, please refer to Charitable Foundations Directory published by Ohio's Attorney General Office. Also, check with the reference librarian at your local library for grant information.

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