

PERMANENT HISTORIC DESIGNATION STUDY REPORT

I. NAME

Historic: Lustron House/Zander House
Common Name: Lustron House

II. LOCATION 3645 S. 20th Place

Legal Description - Tax Key No. 552-1238-000
Wilson Park Manor Add'n
IN SW ¼ 18-6-22
BLOCK 6 LOT 12

III. CLASSIFICATION Site

IV. OWNER North Shore Bank FSB 15700 W. Bluemound Road Brookfield, WI 53005

Ronica Pozdol
1000 S. 108th Street #A18
West Allis, WI 53214

ALDERMAN Ald. Terry Witkowski 13th Aldermanic District

NOMINATOR Catherine B. Cooper

V. YEAR BUILT 1948-1949 (Milwaukee Permit No. 40107 dated December 2, 1948)

ARCHITECT: Roy Blass and Morris Beckman prototype (NR Nomination p. 5)
Carl Koch consultant 1949-1950 (NR Nomination p. 7)
Staff of stylists many from automotive industry (NR Nomination p. 7)

CONTRACTOR: J. Salstein(Milwaukee Permit No. 40107 dated December 2, 1948)

**NOTE: MUCH OF THIS REPORT IS TAKEN FROM
THE NATIONAL REGISTER OF HISTORIC PLACES
MULTIPLE PROPERTY DOCUMENTATION FORM
LUSTRON HOUSES IN GEORGIA
PREPARED BY LISA RAFLO
NATIONAL REGISTER COORDINATOR
HISTORIC PRESERVATION DIVISION
GEORGIA DEPARTMENT OF NATURAL RESOURCES
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VI. PHYSICAL DESCRIPTION

The Lustron House at 3645 S. 20th Place is located on the city's south side two blocks south of W. Morgan Avenue and just a few blocks east of bustling South 27th Street. It is on a short cul-de-sac occupied by twelve single family houses. Permit records show they were all built between 1947 and 1951. Most are one or one-and-a-half story in height and vary from front gable to side gable forms. To the north of the cul-de-sac is a development containing seven apartment buildings along a curved stretch of W. Warnimont Avenue. To the east, south and west are regular blocks of modest single family houses and some duplexes. Most of the area was built up after World War II.

The house at 3645 S. 20th Place is the only known Lustron House on the south side. It occupies an irregular shaped lot measuring 144-feet by 109.35-feet by 45-feet by 147.01-feet. The house is a ranch style structure oriented east-west on the lot so that the gable ends face the neighboring dwelling units. To the east of the house and set back on the lot is a two-car garage. The garage is approached by a long concrete driveway that accesses the cul-de-sac. There is no alley behind the house due to the apartment complex as mentioned above. There is a broad lawn and foundation plantings at the front of the house along with a front concrete walk that parallels the house. This walk comes off the driveway rather the city sidewalk. There is a grassy rear yard with mature trees.

The Lustron built on S. 20th Place is the 2-bedroom Westchester model, one of three models (along with the Newport and the Meadowbrook) and several floor plans available from the manufacturer. The house measures 31-feet by 35-feet with just over a thousand square feet on one floor. There is no basement and the house sits on a concrete slab so the house appears low to the ground. The house's main entrance is located at the west end of the front façade, and is set back at the recessed corner. The overhanging roof is visually supported by a tapered metal post with scrolled detail. A similar post is located at the northeast corner of the building.

The cladding of the house walls and roof is what distinguishes the Lustron house and makes it instantly recognizable. The exterior is characterized by two foot square smooth steel panels that have an enamel glazed porcelain finish. There were seven pastel colors available: blue, yellow, gray, tan, rose-tan, aqua, and green. This particular example is clad in yellow panels with light gray trim. The roof is clad in porcelain steel panels as well, designed to look like tiles and came in a variety of colors including brown, gray, light or dark green and dark blue. In this example the roof is gray.

Two large picture windows dominate the front façade. The one at the west or left is located in a shallow projecting bay and corresponds to the living room. The one at the right or east illuminates a bedroom. Both windows consist of a large fixed center pane flanked by narrower four-light casement windows.

The east elevation features two pairs of small square windows set high in the wall. They illuminate the bedrooms.

The north or rear elevation features one large picture window, matching those on the front, as well as a small three-light window illuminating the bathroom. There is also a rear door, in this instance wood, and another window, six-light, positioned over the kitchen sink. There is a brick patio off the rear entrance and a large oil tank is placed near the wall to the right or east of the entrance.

The west elevation features one large picture window matching those on the front which lights the dinette. There is also a small square covered vent positioned high in the wall near the northwest corner of this elevation.

All surfaces are metal clad and windows are aluminum.

Permit records show that the garage was under construction in September, 1949. The garage is a one-story, side gabled structure with two individual door openings that front the driveway. The east or right opening has a 16 panel wood door without windows. The west or left opening has been converted into a cold frame/greenhouse with slanted multi-paned top and glass sides. There is a six-light casement window on the west elevation that appears to match those on the house. Another opening on this elevation has been boarded over. There are no window openings on the north or east facades. The garage is clad in plywood that is cut to mimic the grid of the house. The dark red paint is currently peeling. Lustron garages were available from the manufacturer, however, the porcelain clad steel panels were applied to a traditional wood framing rather than metal studs. There are one or two other examples of this type of "faux Lustron garage" in Milwaukee. Most Lustrons owners built traditional wood frame garages here.

Alterations/Current Condition

Before the current owner took possession, the Lustron house was in a remarkable state of preservation aside from some areas of rust at the panels. Prior owners did not enclose the porch, add vinyl siding or faux stone, replace windows or construct any addition. They did, however, alter the garage by enclosing one of the openings as indicated above but the change looks reversible. The rear patio appears to be a later addition and there may have been some form of enclosure. A portion of the patio has been disassembled so it is difficult to tell at this point. Additional metal decorative elements were added to the front porch at some point in the past but do not compromise the building.

Under the recent new ownership the house was in the process of being disassembled, without permits. The activity was stopped by the Department of Neighborhood Services. All of the roof panels have been removed from the rear slope of the roof. Approximately 34 panels have been removed from the rear and west elevations. The sill of the window on the west has been removed. The gutters remain intact. The sheathing in the gable ends remains intact.

The owner has been advertising Lustron parts on the Lustron Preservation website. These are two postings. Steve Hyland is the fiancé or associate of the new owner Ronica Pozdol and has been the person in contact with the Department of Neighborhood Services.

July 13, 2011 2:27 PM—I am considering buying a piece of land that has a two bedroom lustron [sic] home on it. I would like to sell the home to someone as a whole unit or piece it out as replacement parts. Call me at 765-470-2343 for questions. I need this worked out before I close on the land. Thanks Steve

August 8, 2011 9:52 AM—I have an esquire model that we will be disassembling here in Wisconsin in the next two weeks. I have a working pocket door and closet doors. I have one of the latches that the floor locks on to as well that I have been offered 70 dollars for it because it is original and hard to come by. I may find the other two as we disassemble it. I will part out the whole house or sell what is left if it to one person for 5K. I will need your parts or the entire house to be removed from the property asap once we get the demo permit from the city. There are some parts missing already. 16 of the outside tiles have been sold and 33 pieces of the roof have been sold as well. The existing bathroom [sic] sink is now broken due to vandals. There are still lots of original parts of this home for sale. Call for pics and I can email them to you. 765-470-2343 ask for Steve.

The activities at this house came to the attention of Alderman Witkowski, and his assistant filed the petition for interim historic designation in order to stop the disassembly and demolition of the Lustron house while alternatives are being considered.

THE ARCHITECTURE OF THE LUSTRON HOUSE

Lustron Houses were a unique architectural experiment that attempted to create, sell, and erect prefabricated metal houses based on proven technology from the assembly line. In production between 1948 and 1950 the Lustron House consisted of over 3,300 parts. “The 1 million-square-foot factory (about the size of 22 football fields) contained about 8 miles of automated conveyors, 163 presses, 11 furnaces and the largest porcelain enameling set-up in the world. Lustron parts were manufactured on an assembly line – a process developed by Henry Ford for the Model-T, and used for cars and other products to this day. At the Lustron factory, huge, specially designed truck trailers, served as the assembly line “package.” As the trailer rolled along the assembly line, parts were loaded on in the inverse order that they would be removed at the site. Once all the parts were loaded, the trailer, could be stored on the factory site until delivery, obviating the need for a storage warehouse. The very same trailer that wound its way through the Lustron assembly line would be used to deliver the house to the building site. By the end of 1949, the company operated 800 trailers and 200 tractors which were “brightly colored in blue and yellow to permit ready visibility and an appearance of neatness and cleanliness, which is evident in the house.” If it was necessary to ship a house by train rather than by truck, the trailers were loaded on a specially modified flatbed railcar. The homes were distributed through a network of Lustron builder-dealers franchised to erect houses within a given geographical area. At the end of 1949, Lustron had 234 dealers, located in 35 states. The dealers were responsible for selling and construction, including acquiring the land and preparing the site. (Lustron Preservation DETAILED DESCRIPTION OF LUSTRON SYSTEM)

The foundation, consisting of a concrete slab, and utilities connections were the responsibility of the local builder-dealer. All was to be ready by the time the house arrived. “The company estimated that that the typical erection took two weeks. This pace, however, assumed an experienced team; the first time through, it often took up to 1,500 hours. Lustron operated an “Erection Training School” at the factory to teach supervisors and foremen how to speed up the process. Lustron engineers hoped, with some modification to the design and an experienced crew, to reduce erection time to 130 to 140 man-hours.” (Lustron Preservation DETAILED DESCRIPTION OF LUSTRON SYSTEM) The company supplied printed materials including a Master Specifications, Erection Manual and Daily House Erection Cost and Progress Form to help crew assemble the house.

THE DESIGN

Both the exterior style of the Lustron and its interior floor plan were designed to convey a sense of modernism, convenience and permanence.

In deciding what style of house would best be produced through prefabrication and yet appeal to a mass market of house-starved Americans, Lustron leaders settled on the ranch house. The ranch style was popular at the time and symbolized modernity yet without the faddishness or scary futuristic forms that were sometimes being produced by other prefabrication companies. The simple gable roof and side walls were traditional in size and shape and also easy to produce. It could blend into a more traditional neighborhood or newer suburban developments with other ranch houses.

Architects Roy Blass and Morris Beckman (Beckman and Blass, Wilmette, Illinois) were responsible for the prototype Lustron. It was named the Esquire. Company founder Carl Strandlund worked hands on with the architects and other designers to come up with the right look. Some early conceptual drawings showed that the designers were looking at flat roofs, a curved wall and very open floor plans. These more adventurous designs were set aside in favor of the ranch style house due to its popularity with the public and the fact that the ranch

could be based on the tooling already existing with the company from the war years and used on filling stations and hamburger stands and other commercial buildings. Strandlund was said to have seen the Lustron as a variation on the popular bungalow form, once considered the epitome of compact, efficient and affordable housing. Strandlund took the Beckman and Blass design and had Carl Rolan and Macomber Steel in Canton, Ohio do final design work and frame out the house. Chicago Vit, Carl Strandlund's previous employer, meanwhile finalized the gasket material needed to keep the assembly of panels "watertight, weather-tight, long-lasting, termite-proof, and fireproof." Polyvinylchloride was chosen, the material still used today in bottle cap gaskets for food products. It was said that the planning behind the Lustron took some 200,000 hours of planning. (The Lustron Home p. 18; Lustron Preservation WHAT MODEL IS IT?)

The design came to fruition as the Esquire, a prototype to demonstrate to the public and to federal agencies the feasibility of the project and to thereby secure the necessary materials and financing. The Esquire was erected in the fall of 1946 at 7210 South Madison Street in Hinsdale, Illinois on the grounds of the Hinsdale Nursery, a commercial supplier of plants, shrubs and trees. The 31-foot by 35-foot house (approx. 990 square feet of floor space) was placed in the middle of a large formal garden near the entrance to the business. Interior partition walls were of wood and plywood but designed to give viewers a sense of what the actual steel panels would look like. The demonstration house consisted of a living room, dining area, kitchen, two bedrooms, a bathroom and utility room. (The Lustron Home p. 18, 20)

Later designs in production kept pretty much to the prototype but the 2-foot offset at the rear was eliminated to make the house a simple rectangle. The later models included the Westchester, the Newport and the Meadowbrook. The Westchester was the most popular of the three and is the model under consideration for this interim historic designation.

The Westchester two-bedroom model measures 31-feet by 35-feet with a corner recess 6-feet by 12-feet that serves as an entrance porch. The three-bedroom Westchester measures 31-feet by 39-feet and does not have a recessed corner. The entrance is at the gable end. The Westchester with built-in amenities was later called the Westchester Deluxe and included a bay window, a dining room pass-through to the kitchen, and a living room bookshelf on the other side of which was a bedroom vanity. The Westchester Standard was the same size but lacked the bay window and built-ins. (NR Nomination p. 16)

The Newport was introduced in 1949. The two-bedroom version measures 23-feet by 31-feet with 713 square feet of living space. The three-bedroom version measures 31-feet square and has 916 square feet of living space. (NR Nomination p. 16)

The Meadowbrook is a larger version of the Newport. The two-bedroom model measure 25-feet by 31-feet for 775 square feet of living space. The three-bedroom measures 33-feet by 31-feet with 1,023 square feet of living space. (NR Nomination p. 16)

In addition to the choice of three models, number of bedrooms and the color, buyers could pick from a number of accessories including aluminum storms, aluminum storm door inserts, aluminum combination storm and screen doors, aluminum screen doors, ivory-colored venetian blinds, a picture hanger kit and an attic fan. By 1949 there were two garage options available, one measuring 15-feet by 23-feet and one measuring 23-feet square. The garage design matched the house with a simple gable roof. Panels were available in the same colors as the house. However, steel framing and roof trusses did not come with the package so the panels had to be attached to traditional wood framing. By 1950 breezeway, screened porches, carports and patios were available as well. (Lustron Preservation WHAT MODEL IS IT?)

PANELS AND COLOR

The panels of the Lustron house, its most obvious hallmark, were the result of advancing technology in the twentieth century both in steel production and porcelain-enameling. The 2-foot by 2-foot light weight metal panels that clad the Lustron's exterior consist of 20-gauge, structural-quality, flat, rolled automobile body carbon steel stamped into panels. The size and shape of the panels was dictated by whether the panels would clad the interior, exterior, or garage.

The liquid porcelain coating was sprayed on or applied through dipping. The enamel coating consisted of silica sand, and smaller amounts of other ingredients such as borax and feldspar. "These are ground, heated to a liquid state, and poured through chilled rollers that produce thin flakes of glass. The flakes are then ground into a fine powder known as "frit," mixed with clay and water, and tinted with ceramic pigments to create the liquid "slip" that is applied to the metal panels." Once coated, the panels are dried then fired in massive ovens at temperatures of 1,300 and 1,600 degrees Fahrenheit for three to five minutes. The result is a surface that is incredibly hard and a surface that protects the steel from corrosion. Such panels were popular as architectural cladding (filling stations, White Castle Hamburgers, movie theaters) and for bathtubs and kitchen appliances. Lustron had the largest porcelain enameling setup in the world. Innovations included firing the porcelain at lower temperatures that cut fuel costs and decreased warpage and reduced tooling. Also revolutionary advance was the application of the porcelain enamel directly to the steel without the need for a base or ground coat. (Lustron Preservation THE PANELS; NR Nomination Exhibit C p. 2-3)

The panels could be made in any color and were promoted as having a lifetime finish and for being coated on both sides. Lustron's limited selection was the result of hiring consultant Howard Ketchum, Inc., one of the country's foremost color experts. The soft colors selected included Maize Yellow, Desert Tan, Dove Gray, Surf Blue, rose-tan, aqua and green for the exterior. Roof panels simulating tile came in brown, gray, light or dark green, and dark blue. The interior color palette offered white, gray, rose, yellow, blue and tan panels. Promotional material indicated that the neutral tones would go with any décor and emphasized that they would never need painting. Interior features such as closets, vanities, interior doors and cabinets were all of enameled porcelain steel panels as well. Interior panels were typically 2 feet wide by 8 feet tall to cover the entire wall height. Four-foot panels covered the ceiling. The bath and kitchen walls had 2-foot square panels. Door jambs were steel as well. (National Register nomination p. 9, 15, Exhibit C page 1 of 6; Lustron Preservation THE PANELS)

The panels, interior and exterior, were attached to steel framing that was welded into 8-foot by 8-foot wall panels and roof trusses. The framing was "anchored to the concrete foundation through the metal sill plates, [16-gauge rolled steel] with a continuous horizontal metal spacer bar both a[t] mid-wall height and the top of the wall to provide stability to the entire structural frame. When the series of interconnected metal spacer panels is attached to the studs, it creates a taut inner and outer skin that makes the entire structure even more rigid." (Lustron Preservation THE PANELS)

The interlocking panels were attached to the framing with concealed screws and a permanent plastic sealing strip was used as a gasket compressed between panels. It was said to make the structure air and moisture proof. Because the panels interlock, they must be installed in a specific progression usually starting at the upper left hand corner of each façade and working from top to bottom and left to right. (National Register nomination Exhibit C page 1 of 6; Lustron Preservation THE PANELS)

The greatest benefit of these panels were their durability and low maintenance. The panels were promoted as never needing painting. They could be hosed down with water to clean.

ROOFS

The 2-foot by 4-foot Lustron roof panels were attached to ten steel roof trusses set at four-foot intervals. They were made to look like Spanish tile and were criticized by some as not keeping in the spirit of the modern ranch style. The embossed design, however, stiffened the panels. They had to span four feet between roof trusses and needed to sustain snow and wind loads and had to fit tightly without gaskets. For flat panels, thicker steel would have been required. This would have been more expensive, requiring heavier roof trusses and stronger vertical supports or else the additional roof trusses at added cost. The 4-inch by 4-inch porcelain enameled gutters were praised for their generous size and resistance to rusting. Surviving erection manuals give details on attaching the roof trusses to the structure, the installation of truss spacers, the location of wind bracing and wall tie-ins. Assembly consisted of placing the trusses then paneling the gable ends. The gutters were attached to the roof trusses. Roof panels started with the lowest point on the left end of each slope and worked across horizontally then returned to the left end and across horizontally for each row until they reached the ridge. The roof panels had molded edges designed to fit the edge of the adjacent panel to form a watertight seal. Ridge roll panels capped the roof. Metal panels also clad the soffits.(Lustron Preservation ROOFS AND GUTTERS; NR Nomination p. 9))

Roof trusses “were insulated with rigid laminated board comprising alternating layers of corrugated and flat sheets of asbestos paper, bonded with an inorganic adhesive. The sides and top of the plenum were continuous walls of 3/16”-thick rigid cement-asbestos board-about 85% Portland cement and 15% asbestos fiber. Six inched of fiberglass, mineral wool, or ‘insulwool’ insulation was later positioned above the plenum. Steel enamel ceiling panels served as the base of the plenum.” (Lustron Preservation DETAILED DESCRIPTION OF LUSTRON SYSTEM)

WINDOWS

There were several styles of windows on Lustron Houses. Theses consisted of picture windows, bottom-opening awning windows and multi-light casement windows. Most windows were flush with the façade but some, like the nominated building, had slightly projecting box bays. Airplane production during World War II ramped up the American aluminum industry which after the war, began production of aluminum building materials. Windows were an early product and seen as a lightweight, modern-looking, and lower maintenance alternative to wood and steel windows. Lustron window frames and sashes were all extruded aluminum. There were no color options on the windows; all were mill finished. Storms and venetian blinds could be purchased as accessories but interior screens were standard. Screens were made of aluminum extrusions or rolled aluminum sections. Screening was aluminum or bronze wire cloth. Glass was held in the frame with polyvinylchloride (PVC). (Lustron Preservation WINDOWS)

LUSTRON DEALERSHIPS

Since the prefabrication of the Lustron was likened to the production of an automobile, dealerships were established across the country, each having an exclusive sales territory much

like those in the auto industry. Houses were sold directly to the owner-occupant and not to middlemen. Large distributorships were set up east of the Rockies in New York, Florida, New Jersey, and Connecticut. In early 1948, the company began its promotional campaign and model homes were constructed in eastern and midwestern cities including New York, Chicago, Detroit and Milwaukee.

Dealers had to foot the expense of each house before it left the factory, pay for transportation to the site, and pay for on site assembly. The dealers had to carry the costs or find buyers with up front financing. The company also set the price limits without regard for the local market conditions so the profit margin varied regionally. Dealers were not allowed to subcontract work on the foundations and assembly.

Assembly time also did not match up with the forecasts. The company estimated that assembly could be accomplished between 150 and 350 man-hours. The inexperienced crews had to become familiar with the precise assembly required and often took more than 1,000 hours to assemble the building, closer to the 1,600 man-hours typical for a wood frame house of comparable size.

Despite problems with production that could not keep up with sales, by the spring of 1949 the network of dealerships had grown to between 140 and 230 dealers (sources vary in the exact number) in 35 states and one in Venezuela. Dealers and builders were offered training at the headquarters in Columbus, Ohio. "The Lustron Planning Guide" was also supplied to assist the dealers and customers with site planning, landscaping, and interior decoration. Lustron was promoting not just a new house but a "New Standard for Living." (NR Nomination p. 10-13, Exhibit A p.1, Exhibit C p. 3)

VII. SIGNIFICANCE

The Lustron House /Zander House at 3645 S. 20th Place is significant for a number of reasons. It is associated with important developments in post-World War II prefabricated housing. It is an excellent example of the merging of assembly line technology with the production of all metal building components in a closed system that produced a house with parts that were not interchangeable with any other than a Lustron. In the Lustron house, the individual components are as significant as the completed house. In many ways the Lustron was the ultimate machine for living since the removal of any component as the roof, the side wall panels or the windows destroys the essence of what make the house special, much like dismantling a machine. The Lustron was the most successful attempt to use technology to alleviate a housing shortage. Even though the experiment was short lived, it was instructive for later generations on the complexity of financing, production and distribution of a product as complex as a house and raises questions about the efficacy of mass production applied to the building industry. Lustron was also significant for its innovative marketing strategies were tried in the housing industry for the first time. Dealers and buyers were provided with examples of how to site the Lustron, how to landscape the property and how to care for the house through an owner's manual. The ranch house design was modern enough to appeal to buyers looking forward after World War II yet was not so risky as to be thought a fad or an oddity.

Milwaukee's and Wisconsin's role in the history of the Lustron is still being researched. Over 100 were built in the state, the fourth largest concentration in the country. That Milwaukee was chosen for a dealership was likely due to the city's size, importance to the state's economy and concentration of a skilled workforce. Even with its proximity to Chicago, Milwaukee was seen an important sales center for Lustrons and the number of houses constructed here bear this out.

The period of construction of the Lustrons was brief. The numbers of this building type are finite. Of the 2,680 or so built (sources vary) maybe 1,500 survive today. The example at 3645

S. 20th Place in Milwaukee tells us about the aspirations of the post-war population looking for a new way to live.

VII. HISTORY

PREFABRICATED HOUSING

Lustron Houses represent the culmination of decades of efforts to merge the house building process with industrialized assembly line techniques. Prefabricated building components had been used since the beginning of the Industrial Revolution. Factory-made metal houses date to the early 19th century and it is known that the first cast-iron house was built in Staffordshire, England before 1830. By “the 1840s, iron foundries in England and America were shipping metal houses in component form to the California goldfields, to pioneer settlements in Australia, and to British colonies in Africa. These metal houses provided cheap, temporary shelter.” (NR Nomination p. 2)

Such factory made housing was not considered suitable for everyday permanent housing, however and traditional building supplies and construction methods were viewed as economical. Traditional methods were also seen as a way to carry on the craft tradition and keep craftsmen employed. (NR Nomination p. 2)

Dramatic housing shortages after World War I forced builders both in England and the U.S. to reevaluate the place of prefabrication in the production of single-family homes. The housing shortage and surplus of steel in England following World War I led to the development of several factory-made models. Two steel-clad timber-frame structures in 1924 that proved popular were the Weir and the Atholl. Another was the Dorlonco, made in the 1920s that utilized a steel frame that was clad with metal panels that were sprayed with cement. The cost and the experimental nature of the houses resulted in only several thousand being produced before the housing crisis was over. (NR Nomination p. 2)

In Germany, one Bauhaus design with enameled steel wall panels and rubber gasket joints was built in 1926 and known as the Muche-Paulick steel house. In 1931 the Hirsch house was made with exterior and interior copper cladding. The Great Depression curtailed further work on these prototypes. (NR Nomination p. 2)

In America, Buckminster Fuller's first Dymaxion House of 1927 showed that designers here were looking into alternative forms and materials. This factory-made steel podlike “livable dwelling unit” never reached full production, however. (NR Nomination p. 2)

The attitude toward prefabricated metal housing began to change by the mid 1930s. Housing starts in America had dropped 84 per cent. Seventy-nine per cent of American families could not even afford the cheapest house. In response, several American manufacturers began to seriously study the matter. The first American prototype of a house with interlocking exterior enameled steel panels was designed by Charles Bacon Rowley in 1932. American Rolling Mills Co. produced the Armco-Ferro house the same year. It was a frameless structure built of load-bearing enameled steel panels. Other companies that joined in included General Houses, Inc., American Houses Inc., and National Houses Inc. They produced variations on load bearing steel panels, steel framed asbestos-clad houses and steel frames with steel panel cladding. (NR Nomination p.3)

Prefabricated steel houses were showcased by more than a dozen firms at the 1933 Century of Progress Exposition in Chicago. By 1935 steel became the major component in the products made by twenty-one of the nation's thirty-three prefabricated housing companies. No one business was able to overcome the problems associated with large scale manufacture, however. This type of product required major investments of cash and materials and equipment and there were still issues

involving corrosion, insulation and condensation not to mention distribution of the product. (NR Nomination p.3)

Things began to change with the advent of World War II and the need for immediate shelter for the thousands of soldiers now entering the Army. The federal government began to support prefabricated housing and public funds were made available under the Lanham Act of 1940. Some 200,000 units were produced during the war by as many as seventy companies. Several models were known to have used steel and taken advantage of standardized parts and modular designs. (NR Nomination p.3)

The Georgia Lustron National Register Multiple Property Nomination provides an excellent summary of these efforts.

When the war ended, the civilian housing crisis exploded, exacerbated by the building hiatus of the Great Depression and the war years. The government estimated that 3 million homes were needed in 1946 and 1947 and another 12 million over the next decade. Faced with this crisis, Congress voted in 1946 to fund research and help subsidize production of prefabricated housing. The Veterans Emergency Housing Act of 1946 granted surplus war plants to prefab firms, allocated them scarce resources, and promised government loans through the Reconstruction Finance Corporation (RFC). Prefab housing became a peacetime priority.

Under the stimulus of government support, nearly three hundred firms entered the prefab housing industry in the late 1940s. Of these three were chosen to receive direct federal loans; two of these—General Panel Corporation (1942-1951) and the Lustron Corporation (1946-1950)—were subsidized to produce steel houses. General Panel, established in 1942, produced the Package House designed by German émigrés Walter Gropius and Konrad Wachsmann. The house used interchangeable, standardized parts that led to a variety of designs. But by 1946, despite professional acclaim and government funding, only a few Package Houses had been built. Design and production changes plagued the project. Without a return on the investment, financing dissolved and the firm was liquidated in 1951. In six years, the company built fewer than two hundred homes. (NR Nomination p.3-4)

THE LUSTRON CORPORATION 1946-1950

Industrialist/inventor Carl Strandlund (1899-1975) was the leading figure behind the Lustron Corporation. Born in Sweden, Strandlund was raised in Moline, Illinois. His grandfather and father were engineers with hundreds of patents to their names and Carl likewise took to the field. Carl worked for Minneapolis Moline Power Implement Company then the Oliver Farm Equipment Company and became a wealthy man. By the 1930s he was working for Chicago Vitreous Enamel Products Company which produced enameled steel panels that were used in a variety of products from refrigerator doors to storefronts. His innovations helped the company in its war production and he became vice president and general manager in September 1943. After the war the company geared up to handle domestic production.

In the summer of 1946 Strandlund went to Washington, D.C. to request material to produce five hundred enameled steel gas stations for Standard Oil of Indiana. His request was denied by the Civilian Production Administration since it had been determined by the government that the priority would be housing, a priority made official through the passage of the Veterans' Emergency Housing Act in May 1946. The private sector would not and had not been able to keep up with the demands for housing despite their complaints to the contrary. Census records showed that around 500,000 new families were being formed every year while only half a million non-farm houses had been built annually over the past 25 years. The federal government would help to alleviate the crisis by allocating materials, former wartime factories and providing loans through the Reconstruction Finance Corporation. Since the government had been successful in the use of prefabricated houses during the war, sponsoring prefabrication was seen to be a way to provide modern and economical housing in large quantities. The goal was to erect 250,000 prefabricated houses in

1946 and 600,000 in 1947. (NR Nomination p. 405; Lustron Preservation POST-WAR HOUSING CRISIS)

Strandlund returned to Washington three months later with plans and drawings for a house built of enameled steel panels to be constructed by Porcelain Products Company, an affiliate business to Chicago Vitreous. "The name was soon changed to Lustron Corporation, as a contraction of "luster on." Lustron was also derived from "Lusterlite," a type of frit which Chicago Vitreous manufactured and the Porcelain Products Company applied to iron." (NR Nomination p. 5; Lustron Preservation MEET CARL STRANDLUND)

Strandlund was given initial approvals for financing the manufacture of the house and for the huge wartime Dodge plant in Chicago. By 1947, however, the Dodge plant had been give to Preston Tucker (for the ill-fated Tucker automobile) and the original loan amount dwindled from \$52 million to \$15 ½ million, still the largest financial commitment made by the federal government to a housing firm. Ultimately, Lustron was able to lease the giant Curtiss-Wright aircraft plant in Columbus, Ohio at a cost of \$35,000 per month. (NR Nomination p. 5)

The first Lustron 2-bedroom prototype, the Esquire, was produced at a plant in Cicero, Illinois under the supervision of Chicago Vitreous. It was erected in Hinsdale, Illinois in 1946. Architects Roy Blass and Morris Beckman designed the prototype but not the later models.

1948

Actual production of Lustrons began at the Columbus plant in 1948. Lustron received additional federal funding in 1948 consisting of a loan for \$10 million. Material shortages and set-up delays had cost the company time and momentum.

The 1 million square feet of floor space at the plant (equivalent to 22 football fields), its 107 acres of land, 23 acres of presses, welding machines and furnaces seemed to have been a guarantee for success. The plant was also close to steel suppliers and the so-called "prefab belt" of the upper midwest where there appeared to be a strong market for this kind of housing. Everything was state-of-the-art. "Custom-designed trucks traveled through the factory on a conveyor belt; as each truck moved through the factory, it was loaded with the 12 ½ tons of parts that composed a single house. The parts were packed in a manner that enabled on-site workers to unload them in the proper sequential order. According to Lustron plans, a fully equipped trailer would roll through the factory doors every seven minutes. Each trailer was then trucked to a building location where it served as an on-site warehouse until the house was assembled. The complete package was composed of 3,000 parts including clips for mounting wall decorations, a front door key, and an owner's operating manual." The company fact sheet indicated that their best production record was 27 houses in a single eight-hour shift and they were able to ship forty-two houses on one day. All employees were union members. (NR Nomination p. 6, Exhibit C p.2-3)

The first enameled steel was produced at the plant in the summer of 1948 and the first house was not completed until November. By this time the company had been promoted in numerous architectural and popular periodicals, won concessions from the American Federation of Labor craft unions and there were model homes in 100 eastern and midwestern cities. By the time the factory was in full production there was a backlog of 20,000 unfilled orders. The delays had been expensive and Lustron missed the peak of the housing crisis. (NR Nomination p. 5)

1949

A third loan was awarded the company in the amount of \$7 million in 1949. Although the goal was to produce 17,000 houses a year, only 268 units were produced in July of that year.

1950

By 1950 the company was able to expand its product line and offer three bedroom models in addition to the two-bedroom units. Plans were even made for a more luxury model and there was talk of regional warehouse-assembly plants located across the country. The company also wanted to establish a market for used Lustron parts and form a system for built-in furniture. These goals were never achieved.

The concept that houses could be produced like automobiles and sold through dealer franchises proved unattainable. The company lost up to \$1 million a month and the Reconstruction Finance Corporation foreclosed on its loans. There was also a federal investigation and the Lustron corporation declared bankruptcy. It was sold at auction in June 1950. It had shipped fewer than 2,680 houses during its operation. The Cleveland manufacturing plant was still extant, having been used by an airline company in later years, but was vacant at the time the National Register nomination was prepared in 1995. (NR Nomination p. 8)

Why Did Lustron Fail?

A number of reasons contributed to the company's demise including internal business decisions and exterior market forces. The company underestimated the money and time needed for mass production. It also did not establish a distribution system that was able to handle high-volume sales. "These miscalculations were critical: by the time Lustron was producing homes on a regular basis, the housing crisis had largely passed and the house was competing in a rebounded market. Moreover, because production levels remained low, the cost of each house steadily escalated. Soon, the proposed \$6,000 house was selling for \$11,000 —a price greater than that of many traditional small houses. Finally, because Lustron sold houses on an individual basis through franchised dealers, the company never achieved the sales volume that characterized the large-scale housing developments of the period like those of Levitt and Sons, Inc." Thomas T. Fetters book, The Lustron Home, documents another possible cause for the business's failure: potential investors who were thwarted at gaining control of the company. They had allies in Congress and instigated investigations and public criticism of the company. (NR Nomination p. 6-7; Fetters, pages 85-115)

The Lustron house could simply not compete in the marketplace. Escalating costs made traditional houses more affordable. Since the Lustron was a closed system, where all parts were made specifically for their house and were not interchangeable with traditional houses, buyers were locked into a limited variety of options. There were difficulties getting mortgages from lending institutions skittish about the novelty of the prefabricated house although that problem was somewhat fixed by approval from the Federal Housing Authority. Local building codes varied and some did not allow features that were part of the Lustron's innovative design. Building material suppliers and the construction trades also saw the Lustron as taking away their livelihood. (NR Nomination p. 6-8)

The National Register nomination continues: "but the collapse of Lustron should not overshadow the firm's achievements. The popular acceptance of the design challenged the notion that American buyers would never live in factory-made houses or that prefabs could succeed only as temporary solutions in crisis situations. Nor had any venture so thoroughly applied the methods of the assembly line in the construction of houses. Lustron's limited success caused some regulatory agencies to reevaluate existing housing codes. But from its failure, the housing industry learned that a successful prefabricated housing venture depended not only on a well-designed product but also on the effective manipulation of all facets of the American housing market." (NR Nomination p. 8)

Legal issues plagued Carl Strandlund and Lustron after the business closed. Strandlund had been something of a golden boy who was exceedingly successful in all of his business ventures and made a lot of money for both his employers and himself in the process. With his typical confidence, Strandlund had staked some of his own wealth to create Lustron houses and lost it all. The federal Reconstruction Finance Corporation finally dropped its suit against Strandlund and received all of his

Lustron stock in return. Strandlund went on to work as the president of a steel parts manufacturer in 1953. Strandlund and his wife Clara would leave Cleveland and went on to live in Chicago, New York and Florida, ultimately settling in the Minneapolis area in 1973. This had been Clara's birthplace and where they had met so it was an area special to the couple. Strandlund died at the age of 75 in 1974. (NR Nomination p. 8; Lustron Preservation MEET CARL STRANDLUND)

LUSTRONS IN MILWAUKEE

There were thought to be two two Lustron distributors in the state of Wisconsin, one located in Madison and one in Milwaukee. The Milwaukee location may have been a branch of the Madison dealer since the model house was constructed by Cecil E. White of Madison. Lustrons were constructed in some 34 states as well as the District of Columbia. The popularity of the Lustron varied from state to state. Only two were built in South Carolina while 307 were built in Illinois. Only seven states exceeded 100 Lustrons built and Wisconsin was among them. The tally includes: New York (103), Iowa (112), Pennsylvania (116), Wisconsin (129), Indiana (142), Ohio (275) and Illinois (307). (National Register nomination Exhibit C page 5 of 6)

The model home in Milwaukee was constructed at 3802 W. Capitol Drive in 1948. Two businesses were associated with the company here, Advance Homes Inc. and Midland Homes Association. Research on these businesses is ongoing. They do not appear in the Milwaukee city directories. At the present time there are 16 documented Lustrons in Milwaukee. Five had permits taken out in 1948 and eleven in 1949. Their locations are scattered throughout the city's west/northwest side. The Lustron at S. 20th Place appears to be the only known Lustron on the city's south side. Some of the Milwaukee Lustrons are built in more traditional and older neighborhoods of brick and Lannon stone houses while others are in neighborhoods defined by modest Cape Cods, front and side gabled cottages and small ranch houses built in the late 1930s through the early 1950s. Most of the Milwaukee Lustrons were built on corner lots affording good visibility in their respective neighborhoods. The following is a listing of known examples in Milwaukee.

ADDRESS	PERMIT DATE	COST	COLOR	BUILDER	ORIGINAL OWNER
3802 W. Capitol Drive	05/03/1948	\$7,800	Aqua, white trim/now painted and windows replaced	Cecil E. White 4137 Iroquois Madison, WI	Cecil E. White/ in 1950 Bernard F. Brainerd (Goldie) salesman
5516 W. Phillip Place	10/07/1948	\$7,800	Aqua with yellow trim	Advanced [sic] Homes Inc.	Carl Brunke* (Ottillie) machine op Allen-Bradley Ottillie is Secretary Star Dust Publishing Co.
4259 N Sercombe Road	11/18/1948	\$8,000	Aqua yellow trim/now painted tan	Advanced [sic] Homes Inc//Dan Schramka	Elizabeth M. Kerr Instructor State Teachers College
3825 W. Marion Street	11/18/1948	\$8,000	Aqua yellow trim/now painted cream with white gable	Advanced [sic]Homes Inc//Dan Schramka	Edward C. Reuter* (Vera) City tax assessor
3645 S. 20 th Place	12/02/1948	\$8,500	Maize yellow	J. Salstein	Oliver E. Zander*

					(Amanda) Draftsman WI Tel Co.
2777 N. 82 nd Street	01/05/1949 Not in CD 1949-1950	\$8,000	Vinyl sided/was aqua/ chimney still aqua	Advance Homes Inc.//Dan Schramka	Carl D. Rapps (Verna) Clerk PO
3474 N. 93 rd Street	03/31/1949	\$8,000	Vinyl sided/has rose chimney	Advance Homes Inc.//Dan Schramka	Wilbur A. Schlei (Leola M.) Serv mgr John Lubotsky Motor Sales
4276 N. 36 th Street AKA 3535 W. Marion Street	03/31/1949	\$7,800	Maize yellow now painted white/now vinyl sided	Advance Homes Inc.//Dan Schramka	Raymond B. Pahle Serv eng Blatz
2746 N. 81 st Street	07/01/1949	\$8,000	Aqua with white trim	Midland Homes Assn//R.P. Panler	Donald C. Thompson (Isabel E.) Park supr County
3014 N. 83 rd Street	07/20/1949	\$7,800	Aqua white trim	Midland Homes Assn//R.P. Panler	James Battoni* (Emily) Prod wrkr Cramer-Krasselt
4412 N. 42 nd Street	08/15/1949	\$8,000	Rose white trim/now painted tan with brown trim	Midland Homes Assn	Howard G. Beck* Teller M & I Bank
3205 N. 82 nd Street	08/25/1949	\$8,000	Aqua white trim	Midland Homes Assn//Joseph Geier	Elmer Bublitz* (Lucille C.) Prsmn Milw Journal
4964 N. 27 th Street	08/26/1949	\$7,800	Aqua	Midland Homes Assn	George Appleby Jr.*/in 1950 Vernon J. Reilly (Ruth) Art welder Falk Corp
4956 N. 27 th Street	08/26/1949	\$7,800	Rose/with matching Lustron garage	Midland Homes Assn	Walter S. Barr* (Bertha E.) S-T Independent Typesetting Co.
2971 N. 91 st Street	11/23/1949	\$7,500	Tan with white trim	Midland Homes Assn	Carl J. Hertel* (Kathryn H.) Draftsman Johnson Service
4433 N. Sherman Boulevard	12/13/1949	\$7,800	Rose with white trim	Midland Homes Assoc.	Fred W. Ebert*/ in 1950 Ottley C. Schwartz Acct City Comptroller
* denotes name actually on permit					

In the years since the initial inventory of Lustrons in Milwaukee, many have been altered with the removal of original windows, enclosure of the entry porch, painting the exterior panels and trim, and covering the original panels with vinyl siding. To date, the Lustron on S. 20th Place is the only example where the owner has begun to dismantle the building. It is the only Milwaukee Lustron where the owners are planning to demolish what they cannot sell off the house.

HISTORY OF 3645 S. 20th PLACE

The permit to construct 3645 S. 20th Place was taken out on December 2, 1948. Inspectors' notes show that no work had started yet in January 1949 but that the foundation was in and the walls were going up by February 28th. The house was completed in May. Oliver E. Zander was listed as the owner. Zander was the son of Joseph and Catherine (McLaughlin) Zander and was born September 10, 1905. City directories show his first wife as Margaret. It is not known if she died or they divorced. He later married Amanda Jelinski in 1944. Zander worked as a draftsman for Wisconsin Telephone Company. For many years he lived at 904 S. 6th Street but at the time he purchased the Lustron house he was living at 2512 W. Becher Street in one of a row of nearly matching Arts and Crafts style houses on that block. City directories continue to show Zander as a draftsman after his move into the new home. He died on June 13, 1956 and was buried at Calvary Cemetery. Widow Amanda continued living in the house into the late 1960s. She had moved to E. Knapp Street by 1970. She died on September 28, 1986 at the age of 85 and was also buried at Calvary Cemetery. (familytreemaker.genealogy.com, Oliver Zander and Amanda Jelinski; Milwaukee Permit Records; Milwaukee City Directories)

Gene M. and Charlotte Smars were the next owners of the south side Lustron. Gene was a factory worker at Miller Brewing Company. The property was put in Charlotte's name in 2002 and in 2007 she sold to Thomas Nieman. North Shore Bank acquired the property on June 16, 2010. The current owner, Ronica Pozdol, acquired the property on July 29, 2011. (Milwaukee City Directories; Milwaukee Assessor's information; Property Recording Information Department of Neighborhood Services)

THE ARCHITECTS

The Chicago area firm of Beckman and Blass were responsible for the design of the Lustron prototype. Roy Burton Blass met Carl Strandlund through projects Blass had done using porcelain enamel panels in the remodeling of several Chicago area theaters. Morris Beckman had graduated from the Massachusetts Institute of Technology and had worked as a draftsman for Skidmore, Owings and Merrill.

While Beckman and Blass worked on the Esquire prototype Lustron, other stylists, some of whom came from the auto industry, worked out the finished look of the house and the various models.

Carl Koch and Associates was hired in 1949 to design a more upscale luxury model of the Lustron. There was to be a more flexible interior plan, attached garage and even a fireplace. His plans and recommendations were never carried out as the company went into bankruptcy.

VIII. SOURCES

Familytreemaker.genealogy.com. Information about Oliver Zander.

Fetters, Thomas T. and Kohler, Vincent. The Lustron Home: The History of a Postwar Prefabricated Housing Experiment. Jefferson, N.C.: McFarland, c. 2002.

"Lustron Houses in Georgia." National Register of Historic Places Multiple Property Documentation Form. United States Department of the Interior, National Park Service. 1995.

Lustron Preservation. Website www.lustronpreservation.org

Milwaukee Assessor's Department.

Milwaukee City Building Permits.

Milwaukee City Directories.

Milwaukee Department of Neighborhood Services. Property Recording Information

IX. STAFF RECOMMENDATION

Staff recommends that the Lustron House/Zander House be given interim historic designation as a City of Milwaukee Historic Structure as a result of its fulfillment of criteria e-1, e-5, and e-7, of the Historic Preservation Ordinance, Section 320-21 of the Milwaukee Code of Ordinances.

- e-1. **Its exemplification of the development of the cultural, economic, social, or historic heritage of the City of Milwaukee, State of Wisconsin, or of the United States.**

Rationale: The Lustron house at 3645 S. 20th Place is one of a finite number of unique prefabricated houses clad in porcelain enamel steel panels. Only 2, 680 were ever erected. Produced by the Lustron Corporation of Columbus, Ohio between 1948 and 1950, they were an attempt to solve the nation's severe housing crisis following World War II by applying the materials and technology of the assembly line to the construction of houses. The Lustron house symbolizes the aspirations of the post war economy that had boundless confidence in new technologies and new ways of solving problems. The population wanted a new way to live, a lifestyle that allowed for convenience, simplicity and more leisure time to spend with the family.

- e-5 **Its embodiment of distinguishing characteristics of an architectural type or specimen**

Rationale: The Lustron house is an excellent example of the simple ranch style that was becoming popular after World War II. The Lustron married a forward looking technology (steel housing) and innovative production methods (assembly line) with a form that was acceptable to the general public. The Lustron was on the beginning curve of the ranch house's popularity. It became ubiquitous in the 1950s as federal agencies approved loans for such houses and popular periodicals espoused the benefits of living in a modern home. In many ways, the simplicity of the exterior, the compact and efficient interiors and emphasis on windows as a major design feature are natural progressions from the bungalow, itself the ubiquitous housing type of the nineteen teens and 1920s.

e-7 **Its embodiment of elements of architectural design, detail, materials, or craftsmanship which represent a significant architectural innovation.**

Rationale: Lustron Houses are instantly recognizable from the material with which they were constructed. They were a "brand" of housing before such marketing took hold in recent decades and Lustrons can be picked out no matter what state they were built in. Lustron took the pre-cut mail-order house concept (which had a history in this country) to a new level with state of the art materials, furnishings and assembly methods. Innovations by Carl Strandlund and his predecessors made the production of lighter weight porcelain enamel clad steel panels both practical and economical. Their use on the interior of the house as well as the exterior has had little precedent and even fewer followers. In many ways the Lustron house *is* the material from which it is built. Removing the cladding, the roofing, and the windows would relegate the simple ranch to the status of just another house. The Lustrons were produced as a closed system of over 3,000 parts. They were not interchangeable with any other type of dwelling. Innovations in production and the assembly line, the use of specially designed trucks to haul the components to the building site, the extensive use of prefabricated metal built-ins, the unique dishwasher-clothes washer among other things, made the Lustron appear viable as a house for the future. It was a new way to construct a traditional building type.

**X. PRESERVATION GUIDELINES FOR
THE LUSTRON HOUSE AT 3645 S. 20th PLACE**

The Lustron House is a phenomenon of mid-Twentieth century residential architecture. These guidelines are intended to preserve the physical characteristics and appearance of the metal roof, windows and sidewalls. Any exterior alteration requires a Certificate of Appropriateness from the Historic Preservation Commission. Most repairs are handled through a staff approval process meaning that approval of the full Historic Preservation commission is usually not needed. For general information on the preservation of the house, please consult the website www.lustronpreservation.org

Any existing exterior features can remain and that includes the non-original metal decorative elements added to the front porch. Any changes from the point of designation on, however, must be compatible with the original designs of the house.

The following preservation guidelines represent the principal concerns of the Historic Preservation Commission regarding this historic designation. However, the Commission reserves the right to make final decisions based upon particular design submissions. Building maintenance and restoration must follow accepted preservation practices as outlined below. The intent of the guidelines are to preserve the house as closely as possible to its original form and details.

A. Roofs

Retain the roof shape and material. The Lustron House was fitted with an enameled metal roof and this is an important feature of its design. Alterations to the pitch of the roof are not permitted. Skylights are discouraged on the front elevation, and given the difficulty of installing a skylight in this type of decorative metal roof on the Lustron House; they are generally discouraged anywhere on the roof. Repairs to the roof should be made with matching pieces of salvaged metal roofing from other Lustron houses and must match the existing color and texture.

No major changes can be made to the roof shape of the house, including dormers, which would alter the building height, roofline or pitch. Locate mechanical systems and vents on the rear slope of the roof and paint them out to minimize impact.

A satellite dish or solar panels, if installed, must be reviewed by HPC staff, and must be located on the rear half of the roof or on the back of the house as far to the rear as possible. No rooftop construction is allowed, as this would compromise the appearance of the house.

B. Materials

1. Masonry

- a. Masonry was limited to the poured concrete slab on grade foundation of the Lustron House and is not visible. Any repairs to the foundation of the Lustron house should be done in a manner that will not alter the house above grade.

2. Wood/Metal

- a. Retain original material, whenever possible. The original metal siding panels are a key part of the building's history and architecture and

should not be removed. Drilling holes into the siding material is discouraged as this can lead to deterioration of the enamel cladding and pre-mature rusting.

- b. Retain or replace deteriorated material with new material that duplicates the appearance of the old as closely as possible. The metal panels cannot be painted although repair of the metal panels where they are rusted can be done with modern epoxy materials where needed. Stopping any existing rust in the metal panels is important to preserve the house and stop further deterioration.
- c. Covering metal walls with aluminum, vinyl or wood lap siding is not permitted. The exterior walls of the Lustron House are vital to its character and history. Any replacements or substitutes for the wall panels must match the originals exactly in terms of size, finish and color.

C. Windows and Doors

- 1. Retain original window and door openings as they are essential to the architectural character of the house. Retain the existing configuration of panes, sash, surrounds and sills, except as necessary to restore to the original condition. Do not make additional openings or changes to existing window or door openings by making them larger or smaller to fit new stock window sash or new stock door sizes. Do not change the size or configuration of the original windowpanes or sash. Any replacement windows must match the originals in terms of material (extruded aluminum), finish and hardware.
- 2. Respect the building's stylistic period. If the replacement of a door or window sash is necessary, the replacement should duplicate the appearance and design, and material of the original. The installation of vinyl or fiberglass windows in the house is not permitted. In the event new windows are needed, they must match the originals in terms of material, glass size and configuration of the panes. The installation of insulating-glass windows is permitted. Any changes to doors and windows, including installation of new doors and windows, require consultation with Historic Preservation staff and a Certificate of Appropriateness.
- 3. Steel bar security doors should not be installed on the front elevation of the house. Although some designs may be appropriate but must be reviewed and approved by HPC staff.

D. Trim and Ornamentation

There is relatively little trim on the Lustron house, but any original trim must be preserved. There should be no changes to the existing historic trim or ornamentation except as necessary to restore the building to its original condition. Replacement features must match the original member in scale, design, color and appearance. Consultation with Historic Preservation staff is required before any changes or repairs are made to the building.

E. Additions

No additions will be permitted on the front or sides of the houses as this would destroy the character defining features of the buildings. Any other addition requires the approval of the Commission. Ideally an addition should either compliment or have a neutral effect upon the historic character of the building. Approval shall be based upon the addition's design compatibility with the building in terms of window size and placement, building height, roof configuration, scale, design, color, and materials, and the degree to which it visually intrudes upon the principal elevations or is visible from the public right of way. Additions must be smaller than the building and not obscure the historic building.

F. Exterior Lighting

The installation of any permanent exterior light fixture on the front elevation requires the approval of the HPC staff. Approval will be based on the compatibility of the proposed light with the historic and architectural character of the building. Consultation with Historic Preservation staff is encouraged to assist in the selection of exterior fixtures.

G. Site Features

New plant materials, paving, fencing, or accessory structures (garden sheds, storage sheds, and gazebos) must be compatible with the historic architectural character of the house and requires a Certificate of Appropriateness. A raised, rear deck installation requires a Certificate of Appropriateness. The existing garage and greenhouse addition can remain but their replacement will require consultation with Historic Preservation staff and a Certificate of Appropriateness.

The installation of retaining walls along the front of the property is not encouraged and generally not allowed. If replacement fencing is considered, new fencing must follow the examples in Living With History and As Good As New. The driveway may be replaced with new concrete or asphalt. Any changes to the location of the drive will require consultation with Historic Preservation staff and a Certificate of Appropriateness. A new garage may be constructed at the rear and must be generally compatible with the overall design of the house.

H. Guidelines for New Construction

It is important that new construction be designed so it is as sympathetic as possible with the character of the Lustron House. Small-scale accessory structures, like a gazebo or fountain, are generally permitted in the rear yards depending on their size, scale and form and the property's ability to accommodate such a structure.

1. Site

New construction must respect the historic site of the building. It should be done in a manner that maintains the appearance of the building from the street as a freestanding structure.

2. Scale

Overall building height and bulk, the expression of major building divisions, overhangs and window size and must be compatible to and sympathetic with the design of the original building. A secondary building such as a garage or an outbuilding must be smaller in size and shorter than or no

more than equal to the height of the Lustron House. While there are many possible designs for new garages, the Historic Preservation office has plans for new garages that are available to owners of historic houses and can also assist in the design of a new garage that would be uniquely tailored to the design of the Lustron House.

3. Form

The massing of the new construction must be compatible with the goal of maintaining the integrity of the original building as a freestanding structure.

4. Materials

The building materials which are visible from the public right-of-way should be consistent with the colors, textures, proportions, cladding materials used on the Lustron House. A garage could be clad in materials made to look like enameled panels on the house.

I. Guidelines for Demolition

Although demolition is not encouraged and is generally not permissible, there may be instances when demolition may be acceptable if approved by the Historic Preservation Commission. The following guidelines, with those found in subsection 11(h) of the ordinance, shall be taken into consideration by the Commission when reviewing demolition requests.

1. Condition

Demolition requests may be granted when it can be clearly demonstrated that the condition of a building or a portion thereof is such that it constitutes an immediate threat to health and safety and is beyond hope of repair.

2. Importance

Consideration will be given to whether or not the building is of historical or architectural significance or displays a quality of material and craftsmanship that does not exist in other structures in the area.

3. Location

In general a secondary building on the lot such as a garage can be demolished if it is beyond repair.

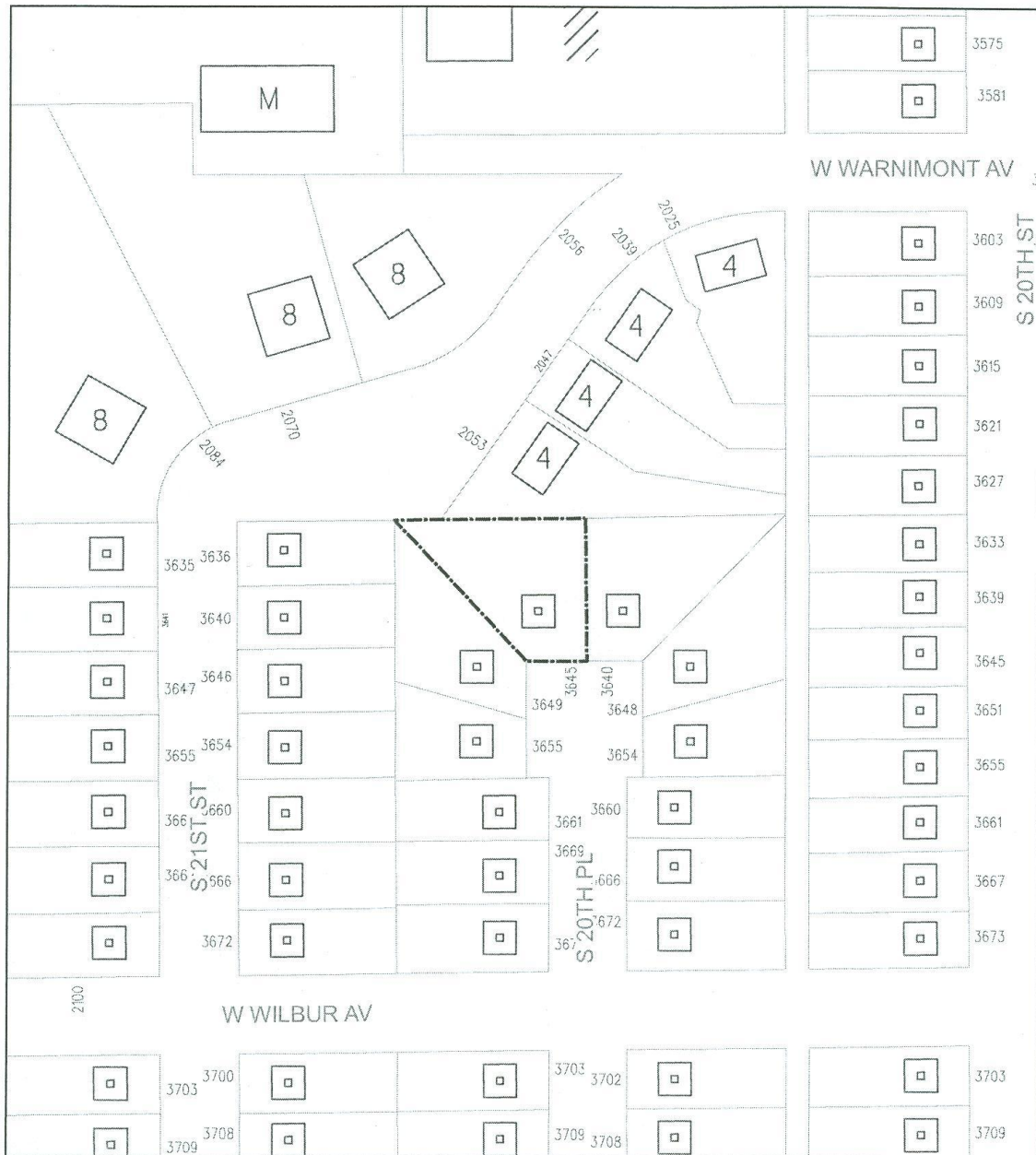
4. Potential for Restoration

Consideration will be given, on a case-by-case basis as to whether or not the building is beyond economically feasible repair.

5. Additions

Consideration will be given to whether or not the proposed demolition is a later addition that is not in keeping with the original design of the house or does not contribute to its character.

Lustron House - Interim Designation 3645 S. 20th Pl.

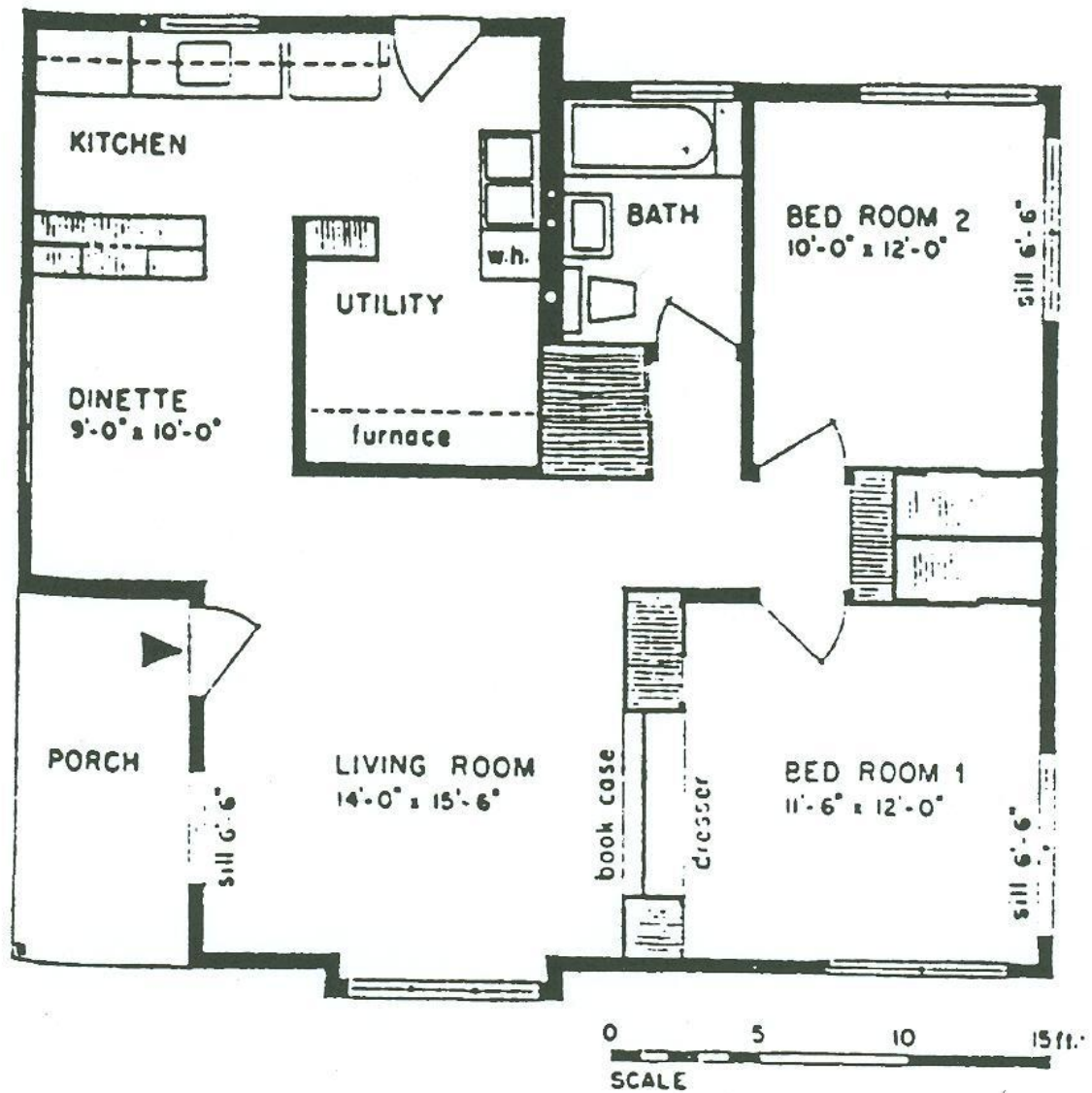


Parcel Boundary

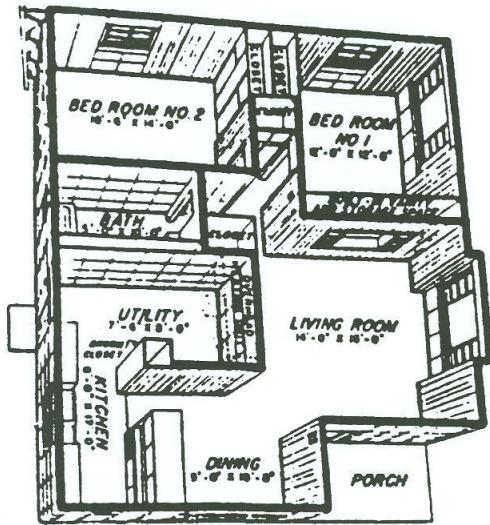
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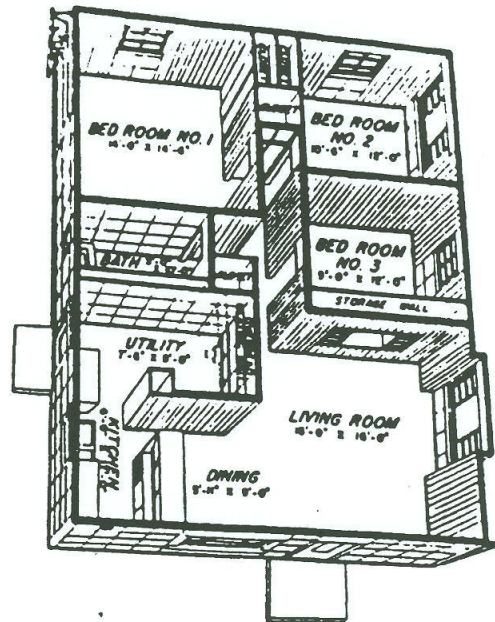
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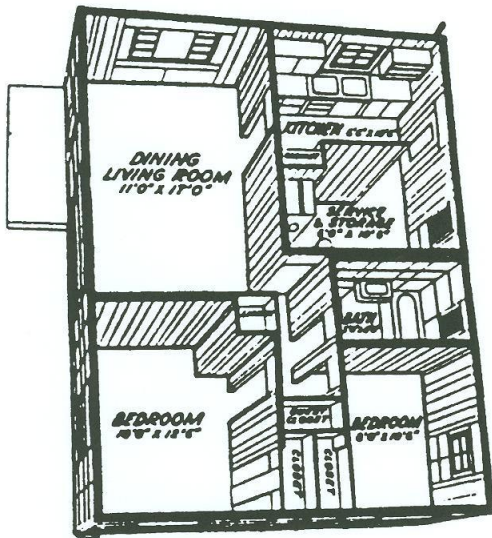
Blass & Beckman, proposed floor plan (Architectural Forum).



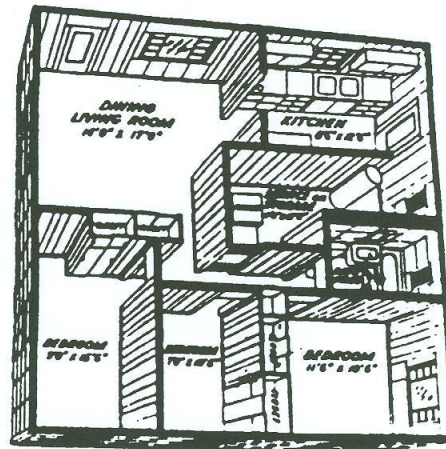
Floor plan,
Westchester two-bedroom
model.



Floor plan,
Westchester three-bedroom
model.



Floor plan,
Newport two-bedroom
model.



Floor plan,
Newport three-bedroom
model.

(Lustron Corporation Records Collection).



