1. NAME OF PROPERTY

Historic Name: Greenhills Historic District

Other Name/Site Number:

Designated a National Historic Landmark by the Secretary of the Interior December 23, 2016.

2. LOCATION

Street & Number: Roughly bounded by Damon and Ingram roads on the north, the corporate limit on the west and south, and Farragut Avenue on the east.

City/Town: Greenhills Vicinity: N/A

State: Ohio County: Hamilton Code: 061 Zip Code: 45218

3. CLASSIFICATION

Ownership of Property	Category of Property
Private: X	Building(s):
Public-Local: X	District: X
Public-State:	Site:
Public-Federal:	Structure:
	Object:

Number of Resources within Property

Contributing		Noncontributing	
buildings	316	buildings	116
sites	1	sites	0
structures	0	structures	0
objects	0	objects	0
Total	317	Total	116

Number of Contributing Resources Previously Listed in the National Register: 180

Name of Related Multiple Property Listing:

4. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ____ nomination ____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ____ meets ____ does not meet the National Register Criteria.

Signature of Certifying Official Date

State or Federal Agency and Bureau

In my opinion, the property ____ meets ____ does not meet the National Register criteria.

Signature of Commenting or Other Official Date

State or Federal Agency and Bureau

5. NATIONAL PARK SERVICE CERTIFICATION

I hereby certify that this property is:

___ Entered in the National Register
___ Determined eligible for the National Register
___ Determined not eligible for the National Register
___ Removed from the National Register

___ Other (explain): _____

Signature of Keeper Date of Action

6. FUNCTION OR USE

Historic:	DOMESTIC	Sub: single dwelling
	DOMESTIC	Sub: multiple dwelling
	COMMERCE	Sub: stores
	EDUCATION	Sub: school
	SOCIAL	Sub: meeting hall
	RECREATION AND CULTURE:	Sub: swimming pool, fieldhouse
	LANDSCAPE	Sub: plaza, greenbelt
Current:	DOMESTIC	Sub: single dwelling
	DOMESTIC	Sub: multiple dwelling
	COMMERCE	Sub: stores
	EDUCATION	Sub: school
	SOCIAL	Sub: meeting hall
	RECREATION AND CULTURE:	Sub: swimming pool, fieldhouse
	LANDSCAPE	Sub: plaza, greenbelt

7. DESCRIPTION

ARCHITECTURAL CLASSIFICATION: 1) Modern Movement/Moderne and International Style
2) Late 19th and 20th Century Revivals

MATERIALS:	BRICK, CONCRETE
Foundation:	CONCRETE
Walls:	BRICK; STUCCO; ASBESTOS; METAL: aluminum siding; SYNTHETICS: vinyl siding
Roof:	CONCRETE; ASPHALT; STONE, slate; CERAMIC TILE
Other:	GLASS BLOCK

Describe Present and Historic Physical Appearance.

DESCRIPTION

Greenhills is located in Hamilton County, Ohio, about thirteen miles north of downtown Cincinnati. As one of the three "greenbelt towns," named for the belt of parks and farmland that was to encircle each community, the site for the village was carefully selected for its natural topography, consisting of rolling farm fields dropping off into wooded ravines to the south and east, where the west branch of the Mill Creek ran in an eastward direction. The Hamilton County Park District (now known as Great Parks of Hamilton County), founded in 1930, envisioned the area along that part of Mill Creek as an integral part of a parkway system. Of the 5,930 acres acquired by the U.S. government in 1935, 800 acres were retained within the corporate boundaries of Greenhills and 1642 acres were eventually incorporated into a permanent greenbelt, developed by the park district as Winton Woods Park. That park adjoins 534 acres transferred to the Army Corps of Engineers in 1950 in order to create the West Fork Lake Flood Control Reservoir, which is used for recreation and managed as part of the county park. In 1954, 3488 acres of federally purchased land north of the village limits was sold to the Cincinnati Community Development Association and eventually developed by the Warner-Kantor Corporation as a middle-class community known as Forest Park.

The village of Greenhills lies south of the two-lane West Sharon Road and aligned along the north-south spine of Winton Road, a four-lane roadway. Both carry high volumes of traffic and connect with interstate highways serving the Cincinnati metropolitan area. Greenhills is the only one of the three greenbelt towns that remains surrounded by greenbelt. The historic district lies mostly on the west side of the village; there are several residential subdivisions built in the 1950s through 1970s on the east side of the village. In many areas, the woods that once marked the edges of the built-out area of the New Deal-era plan have grown into thick plantations that form a naturalistic boundary between the historic district and the surrounding newer development.

The historic core of the incorporated Village of Greenhills is illustrated by a plan drawn in 1938 under the Federal government's Suburban Resettlement Program. The village is characterized by a circuit road network bisected by Winton Road and joined by curving residential lanes, courts and cul-de-sacs occupied by semi-detached homes called "duplexes," and multiple-unit row dwellings, as well as detached single family houses; interspersed parks and recreational spaces; and a village center that integrates civic and commercial facilities.

Stylistically, the design and materials of all the major civic and commercial buildings reflect the influence of Stripped Classicism and International style, which provide the village center with a distinct, architectural unity and civic identity. Most prominent is the centrally located Community Building, which is set back on an extensive village green and features an asymmetrical plan and white-painted brick walls, classically inspired entrances and large multi-paned windows.

Most of the residential buildings also exhibit a functional, modernistic variant of the International Style, with flat-roofs, smooth surfaces and flat-roofed entry porches with simple supports. However, in the A and B sections, the first to be built, a simplified Colonial Revival style predominates, characterized by brick exteriors and gabled slate roofs. The architects were careful to provide a wide array of dwelling types by varying the number and type of interconnected units, experimenting with different roof types, adding porches and vestibules, and incorporating garages in different groupings and positions.

The Greenhills NHL district is roughly bounded by Damon and Ingram avenues on the north, the corporate limit on the west and south, and Farragut Avenue on the east, including the layout of the streets and development of blocks dating from the period of significance as well as the portion of the greenbelt within the corporate limits. (See Sketch Map.) The boundaries of the NHL district encompass about 375 acres and represent the historic

core of the incorporated Village of Greenhills as envisioned by the town's planners and developed as a model community during the New Deal era.

The 317 contributing resources the Greenhills National Historic Landmark include one contributing site that represents the overall landscape of the historic village with its roads, natural features, parks, yards, and greenbelt as well as the swimming pool and monuments on the green. The NHL district also includes the Community Building, Shopping Center, and all of the Federally-built houses and housing blocks that retain integrity to the period of significance.[1] The noncontributing resources include 116 buildings (two institutional buildings, four church-related buildings, twelve commercial buildings, and 98 residential buildings). Many of the original residential units were built with garages that were either physically connected to the associated dwelling or built as detached structures in compounds. Although due to their small size they are not counted separately, they are considered important elements of each house and block ensemble and contribute to the overall village plan and historic setting.

The Village Plan

The site of the original village lies south of the intersection of Winton Avenue and West Sharon Road (identified as Cameron Road on the 1936 regional map). In 1936 these roads were considered principal transportation routes. The proposed village site offered the potential for convenient automobile access to the region's major areas of employment at the same time it provided the topographic features conducive for creating a quiet and healthy, secluded village setting, where children would be safe from fast-moving traffic generated by peripheral roads. The topography of the site was mostly rolling, rising toward the north and west and leveling out on the east and south. The natural topography guided much of the land use distribution. A steep creek valley defined the southern edge of the entire village; lesser ravines bordered it on the east and west. Left natural, these areas served as the greenbelt. Clusters of housing were positioned on flat ground on ridge tops. The rest of the site consisted mostly of rolling farm fields with the occasional dip. Administrative, commercial, and institutional buildings were positioned in the center on flatter land.

The plan of the original section of Greenhills with its land use distribution and various features—vehicular circulation system, public parks and private yards, pedestrian circulation system, street trees, gardens, and other landscape improvements—is counted as one contributing site.

An article in *Pencil Points* in August 1936 illustrated the plan and noted its distinctive character:

> The third resettlement town at Greenhills, Ohio, is located on a site consisting of several large finger-like building areas separated by deep ravines. Two important roads already crossed this property and, together with the natural contours, governed the new road system for the town, which consists of gently curving roadways and cul-de-sacs. The town center and common lies [*sic*] near the junction of the main roads. The ravines, left largely in their natural state, provide recreation areas easily available from the residential groups.[2]

The layout of the original village is composed of a centrally located commercial and civic village center with outlying irregular residential areas and parks. The siting of the Community Building, offset by the

[1] While the 1988 National Register nomination counted each individual living unit as one contributing building, the current resource number is the result of counting each attached or semi-detached group of housing units, regardless of its size or number of units, as a single building.

[2] John Dreier, "Greenbelt Planning: Resettlement Administration Goes to Town," *Pencil Points* 17, no. 8 (August 1936): 404.

large town square is the most formal element. The plan for Greenhills incorporated a variety of street types that would become prototypes for neighborhood planning.

The roadways are hierarchical and consist of a broad circuit road and narrow residential lanes and courts, many in the form of cul-de-sacs. The circuit road, comprising several collector streets—Cromwell, Damon, Farragut and Ingram Roads—gives a unifying structure to the town plan, connecting the west and east sides of the community and connecting the community with the main outlying county via Winton Road. Residential lanes and cul-de-sacs of varying lengths and configurations run off the circuit roads and provide a variety of settings for single and multiple-unit dwellings. The circuit roads were originally planted with evenly spaced trees, including elms, oaks, and ashes while informal, less regular plantings graced the roadside and yards on the quiet residential streets, in many cases providing a transition to the naturally wooded greenbelt beyond.

Installation and construction of the community's infrastructure were guided by the scientific method and cost-saving economies of large-scale development that the greenbelt towns were intended to demonstrate. Streets were laid out according to the highest community building standards for safety and convenience, with drains and sewers for efficient drainage. Practical considerations as well as the aesthetics of the plan guided the siting of dwellings in groups either along broad collector streets or in clusters along courts or cul-de-sacs.

Under the direction of the chief engineer, William G. Powell, the new town was fully equipped with public utilities. After studying the alternatives for independent new utilities, planners opted to obtain water from the Cincinnati Water Works, electrical power from Cincinnati Electric and Gas Company, and telephone service from Cincinnati and Suburban Bell Telephone Company, and to connect its sanitary sewers to the county system as the most economical approach. In keeping with state-of-the-art best practices and the recommendations of the 1931 President's Conference on Home Building and Home Ownership, power and telephone lines were buried underground throughout the village, thus avoiding the unattractive clutter of overhead wires and utility poles. All streets were paved and equipped with street lamps and fire hydrants. Sidewalks lined both sides and granite curbs were provided in limited areas including the shopping center and at the ends of cul-de-sacs.[3]

The original village center built in the 1930s consisted of a small group of civic and commercial buildings on the east side of Winton Road. The municipal Management Building, which housed the town's management offices, police and fire services and a post office, faces south overlooking the town commons.[4] A second story provided space for doctors, dentists and businesses as well as a meeting room. Perpendicular to the Management Building, the retail faces a parking lot accessed by Eswin Street. The retail is highly visible from Winton Road, but safely set back from it and separated by a berm to avoid traffic conflicts. Enfield Street curves around the rear, where there is a second parking lot and an open gable-roofed shed to house a farmers' market. Most of the retail buildings are simple flat-roofed structures. To the north is a service station at the corner of Eswin and Enfield streets. The commercial center has expanded and evolved over time. Only the south portion and the service station on Eswin Street were completed by 1938, and later store blocks were added in the 1950s to complete the original plan as the population grew. As a whole the shopping center is mostly intact, although it has undergone some changes, the most recent being the circa-1995 renovation that introduced a new synthetic fascia accented by a gable above the original grocery store, now vacant. Non-contributing commercial buildings were added on side streets beyond the original shopping center from the 1950s through the 1980s.

[3] David Moore, personal interview, July 16, 2015.

[4] Early plans called it the "Common," but a 1949 plat labeled it as the "Commons." It was subsequently named "Nick Bates Commons" by ordinance in honor of the first maintenance director of Greenhills.

Along with the shopping center, the neighboring Commons, Community Building and swimming pool create a village center with a strong sense of place. The grouping reflects the modest scale, village-like character, and functionality intended in the original plan, and the highly important location off Winton Road at the center of the village. The town commons is an essentially square green space defined by Farragut Street, which is part of the main circuit road, Eswin Street on the west, Endicott Street on the north and Enfield street on the east. It is mostly open, with clustered trees at the southwest and southeast corners and more regularly spaced trees on the north edge. Benches are scattered around the perimeter and clustered around trees. A recently added gazebo in the southeast corner is used for outdoor concerts and activities. In addition to the generous town commons, there are parks on the interior of the superblocks and a few planted medians and several small green spaces created by "U" and "L"-shaped lanes and at the ends of cul-de-sacs. The streets are lined today with shade trees, including oaks, maples, and pear trees; in the original plan, the streets were lined with American elms, which are now gone.

The original planting plans were important in establishing a garden-city ambiance in the community. The planting plans for Greenhills softened the hard edges of the rectilinear buildings, helping them to blend with the landscape and to unify the different components of the village—dwellings of different types, public and commercial buildings, streets and public utilities—into a cohesive whole in which built elements merged smoothly with nearby parks and provided an overall ambience of a pleasant rural village.[5]

The planting plans for Greenhills provided for a variety of planting venues. These included unified plantings of street trees in planting strips, hedges along circuit roads, shrubs and flowering trees around buildings, and climbing vines on porches and garages. In addition to new plantings, a number of pre-existing trees were retained, particularly a beech woods in the southeast corner of the town site. In addition, much of the natural oak and maple woodland on the surrounding hillsides were designated part of the Greenbelt.

While many of the trees were native—oak, dogwood, redbud—the plans called for many plants and shrubs that were easy to maintain, familiar to residents and evocative of small town America, based on long years of use in the region. Regardless of whether such species were technically local in the Midwest, their use was rationalized on the basis that such old favorites were culturally appropriate, had popular appeal, and adapted well to local growing conditions.

Private yards and gardens were an essential component of the Greenhills plan and were a feature of all house types. Each yard was divided into separate areas, including a small entry garden or border on the street side of the house, and a lawn for recreation (and hanging laundry) and a large flower and vegetable garden on the garden side. Many yards faced public neighborhood parks. Planting plans called for vines, tall shrubs and small trees near the garages and hedges and trellises with vines on the street sides of houses. Honeysuckle vines were prominent, as were privet and *taxus* hedges. Today, mature trees, hedges, shrubs, and fencing placed along lot lines define many of the yards, separating them from each other and from adjacent parkland. Most yards contain typical backyard plantings and many homeowners have added porches, patios, or additional rooms to the rear of their houses; few of these changes are of a size or scale to detract from the historic character of the district.

In adapting the neighborhood unit formula, the Greenhills plan integrated numerous variations for residential streets, cul-de-sacs, places, and housing courts, and introduced innovations in small house design and housing groups, the layout of the suburban yard, and the arrangement of residential streets. All of the residences lie less than a mile of the Community Building and shopping center. Most of the homes are arranged on curving and looping secondary streets with a variety of housing types—single-family, duplexes and larger multi-unit row dwellings—sometimes in pairs or clusters but generally varied depending on the topography and layout of the

[5] "U.S. Dept. of Agriculture, FSA, Div. of Suburban Resettlement. "Final Report, Section I. Summary Description of the Greenhills Project." Nov. 1937, 16.

roads. The exceptions to this are Damon Road and Gambier Circle, developed in 1947 with nearly identical small single-family houses. The rest of the streets are cul-de-sacs with the occasional housing court. The cul-de-sacs tend to have more consistent housing types creating a symmetrical effect, especially on the terminating circles and provide a focal point for and reinforced the sense that each neighborhood grouping was its own private enclave.

Particularly innovative was the spacious layout of clusters of detached and semi-detached (duplexes) dwellings with driveways, porches, and attached garages on cul-de-sacs such as Avenell Lane and Alcott Lane. While similar in design and materials, the houses here were arranged with variations to create a unifying rhythm of street-facing gables, modest set-backs, and alternating single and attached dwellings, while avoiding the monotony often associated with grouped dwellings. The 1936 article in *Pencil Points* illustrated a perspective drawing of the typical cul-de-sac envisioned for Greenhills and praised the grouping of houses "to insure a maximum of sunlight, air, space, and privacy for each and giving the whole the character of a pleasant, semi-rural village."[6]

There are four distinctive examples of multi-family buildings grouped in a staggered symmetrical arrangement around open spaces and accessed only by walkways. Smaller groupings are found on Ashby and Cromwell while larger ones are located on Farragut Road. The group at 11 through 25 Ashby Road consists of two pairs of attached and staggered eight-family units flanking a common green space perpendicular to the street and accessed by a series of steps and a walkway. The group at 34 through 62 Cromwell likewise comprises two pairs of staggered eight-unit buildings flanking an open space on axis with Damon Road, which terminates there. Two eight-family units at 17 through 31 Flanders Lane flank a parking lot. The examples at 93 through 111 Farragut consist of two groups of ten-family units in five staggered flat-roofed sections flanking a green space with walkways on both the north and south side of the road in opposing "V" arrangements.

Another variation of the as-built 1937 plan were two housing courts—Chalmers Court and Dewitt Court—with symmetrical arrangements consisting of rectangular parking lots accessed from the street by a driveway with row buildings on three-sides. Chalmers Court remains in its original configuration with a 4-unit S-type row house flanked by two 6-unit row houses, but Dewitt Court, which also had three S-type row houses, was demolished in 2008. Very few streets or cul-de-sacs are limited to a single housing type, the exceptions being the concentrations of multiple-unit row dwellings along Andover Road and Burley Circle and small single-family houses on Damon Road developed in 1947 for veterans. On Gambier Circle, also built for veterans, the dwellings are consistent in size but have varied orientations and garage configurations—some attached directly, and others connected with a breezeway—likely intended to relieve monotony.

The residential lanes are very narrow, barely permitting two cars to pass one another. In some cases, such as Burley Circle, Belknap Place and Bradnor Place, the streets are one-way in order to allow for on-street parking. Most residential lanes run north-south, giving dwellings the best orientation to benefit from sunlight and prevailing breezes.

An Abundance of Open Space

As a greenbelt town, Greenhills was characterized by an abundance of green space, which was consistent with recommendations of the 1931 President's conference for the ideal community of the future. Public parks, tree-lined streets, grassy borders, off-street pedestrian paths, play areas and open spaces within the interiors of superblocks combined to give Greenhills a pervasive sense of spaciousness. Respect for the region's natural topography and a coordinated program of planting enhanced the community character identifying it as an attractive, healthy, and verdant community that drew from the English Garden City movement as well as

[6] Dreier, *Pencil Points,* 417.

American developments in naturalistic landscape architecture and town planning. Many trees and shrubs were selected and planted throughout the community for unity and harmony, giving the community a cohesive character. Diverse species and distinctive patterns of design differentiated the neighborhood streets and centrally located town commons from the wooded hillsides and commonly used informal open spaces. In some places existing trees were selectively retained, and in others plantings were deliberate and followed popular trends in landscape design. The quality of spaciousness and the unified harmony of the natural landscape and the built environment continue to define the Village of Greenhills today.

Topography played an essential role in the organization of parks and pedestrian pathways in Greenhills. The steep and wooded creek valley on the south and west was transferred to the county park district and developed as part of the Greenbelt with a parkway running through it. "Level and gently sloping terrain was used for building construction where as more rugged areas within and surround the community are designated as parks, playground, allotment gardens and surrounding protective greenbelt."[7] A small ravine northeast of the Community Building was reserved for recreation, eventually developed with tennis courts and a golf course. The reservation of lands that could not be easily built on was in keeping with the American nineteenth-century practices of the Frederick Law Olmsted firm and others.

The 1938 plan shows the retention of the beech woods on the south-facing slope on the east edge of the village. Pedestrian pathways ran through other wooded areas connecting the school and playing fields with residential streets. Today, as originally planned, the greenbelt provides a dense naturalistic border and strong sense of enclosure, shielding the village from later development, visual intrusions, and the noise and activity of nearby arterial roadways. It reflects nineteenth-century practices of park and estate design that called for the development of border plantations to screen external influences. Enjoyed and managed as a naturalistic park since the 1930s, the landscape remains in a naturally wooded condition in the form of a county park.

East of the Community Building, a large oval playground provided plenty of room for school children to play. The Commons, west of the Community Building, is a somewhat more formal green space that provides a vista of this pivotal public building from Winton Road. It also provides a setting for the World War II monument, which is on axis with the entrance to the Community Building. Although the footprint of the school has expanded since the 1950s, the spatial relationship and visual character of the school's semi-circular driveway and setting on the Commons remain intact and signify the prominence that the community building/school held in the town's planning and its history as a neighborhood-based community. East of the community building/school, a parking lot has expanded into the west end of the oval park, where play equipment once existed. Despite this, much of the green space, pedestrian paths, and border plantations remain and retain the woodland setting and sense of enclosure intended by the 1930s plans.

Paved pedestrian pathways wend their way through the community, connecting the residential groups with parks, schools, and the village center. The intent of the plan was to provide residents with safe and convenient access to a neighborhood park without crossing a collector street. This was particularly true for residents living in the southwest portions of the village; however, to reach the Commons they had to cross Winton Road, a busy thoroughfare.

The plan for Greenhills set all of the residential buildings close to the street to reduce utility construction cost and maximize open space within the blocks. The service entrances were designed to front on the streets so that the living quarters could face gardens, open spaces and play areas, away from street traffic. Aside from private yards and gardens, there were designated neighborhood gardens and neighborhood parks beyond the rear yards. Even so, a reasonably heavy concentration of planting was provided on street sides in order to avoid a stark

[7] U.S. Dept. of Agriculture, FSA, Div. of Suburban Resettlement. "Section I. Summary Description of the Greenhills Project.", 16.

functional appearance. The intent was to create "the effect of a pleasant rural village, through informality of design and landscape architectural treatment."[8]

The community's emphasis on the private yard and home gardening shifted the care of the space from the village to the individual tenant and allowed the residents a private space to hang their laundry, and to plant flower and vegetable gardens. Residents were responsible for cutting the lawn and caring for the yard and were instructed to plant their garden according "to a plan which has been prepared for each of the yards."[9] These plans specified certain plants, selected by the design team for beautification, screening, and ease of care. Residents were further cautioned that only flowers and small vegetables could be grown in the yard. Larger produce, such as corn, could only be grown at the allotment gardens, which were shown in the southeast part of the Village on the plan dated March 2, 1936. That location is now athletic fields for the adjacent school. Widespread interest in vegetable gardening grew with the onset of World War II, with residents planting victory gardens in designated plots and expanding the size of the vegetable gardens in their yards.

The original plan took into account the need for play areas. The play area for older children was located behind the Community Building/school, while areas for younger children were located for the residential clusters on the inside of superblocks.[10] The land in the northeast part of the village, along Ingram and Farragut east of the driveway to the athletic fields, was included in the original plan but developed after 1950 in a different configuration and so is not included in the district boundaries. By 1938, the athletic fields included a football field with a running track around it, bleachers (demolished) and a field house adapted from a small pre-existing house. A baseball diamond was located east of the football field, where the Winton Woods Middle School now stands. Swimming was available near the Community Building. A golf course was proposed within the greenbelt and built in the 1930s. A small par-3 golf course was also built in the village in a park east of the swimming pool in the early 1950s.

Pedestrian Circulation System

An important characteristic feature of the New Deal greenbelt towns is the network of sidewalks and pedestrian pathways that link residential streets with nearby parks, the village center, and community facilities. Greenhills' pedestrian circulation system consists of paved pathways that run from the residential streets between homes to parks on the interior of superblocks, and along streets to the village center and schools. This character-defining feature indicates the response of planners and designers of the 1930s in adapting the suburban ideal to the increasing presence and potential dangers of the automobile in American life. It became an essential component in the planning of the greenbelt towns and their demonstration of an ideal for modern suburban life.

However, because of the topography and bisection of the village by Winton Road, Greenhills did not have a fully independent pedestrian circulation plan. Although grade separations similar to those built at Radburn and Greenbelt were originally envisioned for Greenhills in the form of pedestrian tunnels to carry foot traffic safely across Winton Road they proved costly to build and were dropped from the plans when a major budget reduction occurred early in the construction phase.[11] Instead stop signs were placed where major roads intersected and at the crossings of the circuit roads at Winton Road. Buildings were set back from the intersections to provide both drivers and pedestrians with wide, unobstructed views.

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[8] Ibid.

[9] U.S. Department of Agriculture, FSA. *Greenhills Manual.* (Washington, DC: U.S. Government Printing Office, 1938).

[10] The Community Building is now used for only limited classes but the park behind it has a baseball diamond and play equipment for younger children. With the decline of the school-age population in Greenhills, play equipment has been removed from the residential areas except for Palma Park north of Andover Road.

[11] Radburn's grade separations were highly celebrated; although such structures were intended for all the greenbelt towns, the only one built is at Greenbelt.

Most pedestrian paths were concrete walkways. In addition to curving pedestrian paths in parks, there were linear sidewalks following the alignment of streets on both sides, even in narrow cul-de-sacs, and walks to front doors. These walkways, along with paved driveways, curbs, and garages on residential streets were just being recognized as essential amenities for well-planned subdivisions.

In the description of the pedestrian circulation system that follows, the system is divided into five residential blocks, with streets labeled A through F. The walkways are most prevalent in the A, B and F sections.

In the A block, a straight walkway runs from Ashby Street at the intersection with Alcott Lane into Ashby Park, which is located on the interior of the block and is surrounded by multi-unit row houses. Continuing through the park, this pathway connects to Avenell Lane. A second walkway through the center of a pair of symmetrically staggered row houses at 11 to 25 Ashby Avenue ends at Ashby Park. Between Alcott Lane and Andover Avenue a short pedestrian way known as Adelle Walk provides access to the fronts of two duplex buildings known as 1-2 and 3-4 Adelle Walk.

The B block has several walkways that lead to parks on the interior of blocks defined by Burley Circle, which is bisected by Bachman Street. There is also a small triangular park, known as Bachman Park, which is defined by Belknap Place, a dogleg street connecting with Bachman Street. Paved pathways into Big Burley Park on the west side of Burley Circle include one opposite Brompton Lane, a cul-de-sac, and two running from Bachman. These pathways all merge with a continuous walkway around the park onto which fronts a variety of multi-unit row houses. Another path runs east from Belknap Place diagonally through the center of Little Burley Park to the east side of Burley Circle.

Pathways in the C Block are limited to walkways linking the cul-de-sac of Chalmers Lane with Cromwell Avenue. Along the west side of Winton Road, a long mostly rectilinear, paved pedestrian path runs from Cromwell to Palma Park and to Andover Avenue. These walkways are not found in the D section, which was built later after the construction budget was repeatedly cut. On the east side of Winton Road pedestrian walks similar to those on Cromwell link large symmetrical complexes of row houses on Farragut, which are linked to each other and the street by a short series of walkways as well as to playgrounds behind them and the Community Center/School further west.

Pedestrian walkways also knit together the village center, including the Commons, Shopping Center, Community Building/School, and swimming pool. The Commons is mostly a simple open space, straight-edged on the west, north and east, but with a curving edge on the south. Sidewalks line the Commons on all sides, but also cut the corners with sweeping curves. Despite the fact that the Commons provides a vista of the Community Building/School, which symbolically constitutes the center of civic life, both lack the formality of symmetry. In the shopping district, wide walkways run under a canopy across the front of the shopping center, then turn corners and continue along the other commercial streets—Enfield and Endicott streets—that flank the center on north and south. The Commons continues to provide an uninterrupted view of the school and its design and spatial elements remain intact.

Vehicular Circulation System

The hierarchy of roads is a distinctive, character-defining feature of neighborhood unit planning. Developed in the 1920s at Mariemont and Radburn, it became a hallmark of the American Garden City movement and was adopted as a key tenet of several New Deal community planning programs. Justin Hartzog stressed the importance of the roadways in planning.

> The design of the system of roads and streets serving the town determines to a considerable degree the character of the community, and constitutes the first problem in development of the

> town plan…The relationship of streets to each other, as well as to the areas which they serve, is of directly significance to the character of the landscape and architectural treatment which may be employed to achieve attractiveness and thus directly affects the appearance of the community.[12]

This characteristic attention to roadways persisted when other elements of the Garden City movement lost favor and became one of the major influences on the design of postwar suburbs. At Greenhills, two main types of roads make up the vehicular circulation system: collector and residential (or service) streets. In turn, two major subtypes make up the community's residential roads: the long, narrow curvilinear lane that connects with two or more streets within the village and the short court that ends in a cul-de-sac.

The curvilinear sweep of groups of 1940s single-family homes on Damon Road contrasts markedly with the symmetrical arrangement of the occasional courts and cul-de-sacs. All of the streets in Greenhills were built to a width appropriate for their particular function, and had utilities placed underground (except for areas developed in the late 1940s on Damon, Drummond and Gambier Circle). The streets were paved, and equipped with street signs, fire hydrants, and electric street lamps. The plan included granite curbs and cuts for driveways but because of cost, these were not installed until 1999. All streets had sidewalks on both sides, which connected with paths to the dwellings.

Whether they are short Radburn-inspired courts that provide privacy and order to a small grouping of row buildings, or long, gently curving lanes with row buildings and duplexes laid out in a pleasing symmetrical or rhythmical progression, the streets of Greenhills were designed to the highest standards of suburban design. Each road was laid out in keeping with the best practices of the day. The collector streets carry traffic through the community and connect with the major roadway of Winton Road. Street development in the postwar period allowed further entry to the village from Sharon Road on the north. In the original section, the circuit road consisted of Cromwell, Damon, Farragut and Ingram roads, which connect to form a continuous but irregular oval bisected by Winton Road. They are all curvilinear streets, for the most part residential, although contiguous with churches and the Community Building where Cromwell and Farragut meet at Winton Road.

The design of four-way intersections known to cause traffic hazards in urban settings was avoided in favor of' "T" intersections, especially in the residential areas. The main exceptions are the two four-way crossings on Winton Road. The original plan called for underpasses in these locations but these were eliminated for budget reasons. Parking has always been an integral element of the village's vehicular circulation system with service lanes and parking placed in front of and behind the shopping center, behind the Community Building, and in off-street parking lots lined with compounds of garages.

In 1936, when the streets were initially named, they were merely numbered, but by 1938, they were given English surnames. Street names within the same block all began with the same letter, following the alphabet in the order of construction. The residential lanes in the southwest section begin with A (such as Andover and Alcott); those in the west section start with B (Burley and Burnham, and so on); those in the center begin with C (Cromwell and Chalmers); and those in the north section start with D (Damon, Drummond and Dewitt).

Inventory of Collector and Commercial Streets

The Winton Road is a centrally located, four-lane, tree-lined boulevard that runs north-south and divides the village into two unequal east and west sections. As a regional artery that pre-existed Greenhills and was widened, Winton forms an axial corridor that later connected to the beltway, I-275, which was built in the 1970s. Winton was treated as a parkway with limited controlled access to the community building, parks, and

[12] Justin R. Hartzog, quoted in Leach, 126-127.

shopping center via the circuit roads of Farragut and Ingram. The shopping center faces Winton Road but has no direct connection, rather it is accessed by a service road, Eswin Street, which runs parallel to Winton between the circuit roads and is offset from Winton by a wide berm and lower grade. Eswin widens into a parking lot in front of the shopping center.[13] No residential buildings face Winton Road; only one building within the historic district, the Greenhills Presbyterian Church, faces directly onto Winton Road at the corner of Cromwell.

The section containing streets beginning with "E" is composed of the shopping center, the community building and swimming pool. This section lies in a depression of land east of Winton Road, which continues to slope down east of the district boundaries. This grade change results in one and two-story façades on the Eswin side, with two and three stories on the rear parking lot side. The Eswin Street buildings are connected by a flat-roofed covered walkway supported by brick piers. Concrete stairways between the buildings lead to the rear parking lot. Eswin Street, which runs in front of the shopping center, originally had a green space between the street and Winton Road, but it was recently reduced to provide more parking spaces. Enfield and Endicott Street run perpendicular to Eswin with Enfield Street curving behind the rear parking lot and terminating in front of the Community Building. Molloy Lane runs east between the swimming pool and the Community Building and dead-ends in a parking lot.

The Commons is a roughly rectangular open space that sets the Community Building off from Winton Road. To the south, borders the Our Lady of the Rosary Church complex and to the south, the retail strip of Endicott Street. The shopping center has two entrances on Eswin Street, north and south. The Commons is sparsely planted with trees and has three monuments—a World War II memorial obelisk and two granite boulders with bronze plaques—one dedicating the Commons to Nicholas G. Bates for faithful years of service to the Greenhills from 1936 to 1973, the other describing the *Greenhills-Forest Park Journal's* commemorative issue on the history of the community for the U.S. Bicentennial in 1976. It also has a circular wood gazebo at the southeast corner and 35 wood and concrete benches grouped around trees and facing into the square from the perimeter.

Greenhills is distinctive for the convergence of its collector streets into a circuit road that connects secondary residential lanes, cul-de-sacs and courts with the major artery of Winton Road as well as the civic and commercial center of the community. In the original section, the circuit roads are Cromwell, Damon, Farragut and Ingram streets, which form an irregular oval bisected by Winton Road. They are all curvilinear streets, for the most part residential, although contiguous with churches and the Community Building where Cromwell and Farragut meet at Winton Road. Street development after 1950 allowed further entry to the village from Sharon Road into new subdivisions in the northeast.

Cromwell Road begins at Winton Road and curves to the southwest where it merges in a four-way stop into Burley Circle at the intersection with Andover Road. Cromwell is exclusively residential except at the corner of Winton Road where the Presbyterian Church is located, and connects with Chalmers Lane, Drummond and Damon roads. Damon Road arcs northeast from Cromwell Road and carries traffic to and from Springdale Road, a major east-west arterial to Winton Road. Damon Road also provides access to Deerhill Lane, which was built in the 1960s, after the period of significance and not included in the NHL district. Ingram Road, which runs east from Winton Road skirts the shopping center and then becomes exclusively residential and merges with Farragut Road. Ingram Road was shown on the 1938 plan but housing was not developed there until after the village was sold in 1950; therefore it and the dwellings that line it are also not included in the NHL district. Ingram becomes Farragut Road at the T intersection with Gambier Circle. Farragut is the most important segment of the circuit road because it provides access to the Community Building/School, the Commons, and

[13] This follows the practice of community builders and the FHA prototype of Arthur Heaton's Colonial Revival Park and Shop in Washington D.C.

the shopping center. It also runs by Our Lady of the Rosary Church complex. Only the first building of this complex, the school, built in 1942, with additions in 1952 and 1963, is contributing to the district. Two cul-de-sacs, Falcon Lane and Flanders Lane, extend southward from Farragut. Hadley Road, a residential street that runs southeast from Farragut, was built in stages. A short section of Hadley Road was completed in 1938 to access the athletic fields. In the 1950s, it was extended when additional residential construction was developed there. At that time, a driveway was installed just west of Hadley to reach the athletic fields and school buildings that were built after 1950 to avoid traffic on a residential street.

Inventory of Neighborhood Streets

In Greenhills, neighborhood streets are strictly curving residential lanes, circles, cul-de-sacs, and courts. All housing units have two stories unless described otherwise. The genius of the Greenhills design lies in the ability of all the constituent parts to gracefully dovetail with each other. Multiple-family dwellings, or group housing, are identified as three-unit, four-unit, six-unit, or eight-unit row houses. The streets and residential groups are laid out to follow the natural topography which gradually slopes southward toward the Mill Creek, which lies outside the district. Mill Creek flows west to east in a slightly southerly direction and forms the principal drainage for the lands within the NHL district. The residential streets in the district are located in seven general groups, each labeled alphabetically “A” through “G”. The “A”, “B”, “C”, and “D” streets are all located west of Winton Road, with the “A” streets at the south end, “B” streets west of the “A” streets; “C” streets near the center and “D” streets at the north end. The “E”, “F”, and “G” streets are on the east side. The “E” streets define the village center on the near east side, while the “F” streets are located at the south end and the one “G” street, Gambier Circle, is east of the village center.

Andover Road is the major entrance into the A and B sections from Winton Road. The street commences with a central island containing seasonal plantings. Two-story row houses comprise the most common type of housing on the road; there is only one single-family house. The buildings nearest to Winton Road have entirely brick exteriors with slate gable roofs. The interior buildings are sheathed in stucco and brick, with newer siding covering most of the stucco exteriors. On the north is a large commons, known as Palma Park, which is accessed by two public walkways from Andover Road.

Adelle Walk is basically a concrete pathway through an open grassy lawn from Andover to Alcott. Two brick duplexes face east on to it. The rear, or garden, side of 2-12 Ashby Street is adjacent to this area on the west.

Alcott Lane is a small curving street off of Ashby Street which terminates in a cul-de-sac in the form of a turning circle centered on a raised, grassy lawn. Half a dozen gable-roofed, 1 ½-story single-family homes and three duplexes line this street.

Ashby Street curves to the southwest and connects Andover and Avenell roads. It is occupied by duplexes and row buildings. A courtyard created by two staggered four-unit brick row buildings facing each other is located on the west side of the street. Accessed by concrete steps and a central walkway, the courtyard’s elevation on a rise above the street and plantings provide privacy and a sense of enclosure. A narrow concrete pedestrian path leads west from Ashby to Avenell Lane providing access to a small park in the interior of the block.

Avenell Lane curves to the southeast from Andover, crosses with Ashby and ends in a large cul-de-sac with a circular grassy lawn in the center. Single-family, duplexes and row buildings occupy this street. As previously mentioned a paved pedestrian path connects Avenell Lane with Ashby and provides access to a small inner-block park.

Burley Circle is a one-way circular collector street that connects all of the other roads in the B section to the A and C sections. The inner ring, or odd-numbered, residences are all three-story and of the same basic type, with

variations seen in windows and location of entrances. A pedestrian path leads from the southwest side of Burley Circle into Big Burley Park, while a second path provides access to Little Burley Park from the northeast side.

Bradnor Place is a short, angled street with both ends connecting with Burley Circle. Three multiple-family row buildings are located there. All have slate-covered gable roofs and asbestos siding.

Briarwood Lane is a short cul-de-sac off of Burley Circle; it contains two row buildings, two duplexes and some newer garages. All of the buildings on Briarwood originally had flat roofs and asbestos siding.

Brompton Lane is a relatively long street that ends in a cul-de-sac. A variety of residences are present on the street, including single-family homes, duplexes and multiple-family row buildings, all of which were originally flat-roofed. Buildings are either brick or covered with asbestos siding. An unpaved pedestrian path leads from the circle into the inner greenbelt.

Burnham Street takes the form of a loop with two entrances onto Burley Circle. It is lined with duplexes, single-family homes and row buildings. Buildings are brick and asbestos-sided and both flat roofs and slate-covered gable roofs are seen. A pedestrian path at the southwest side connects the street with the inner greenbelt.

Burwood Court, a small cul-de-sac that extends from Burley Circle, was originally a garage compound. Three buildings, two rectangular apartment buildings and a garage, replaced the garages in the 1960s. The apartment buildings, which were formed into condos in 1985, have face brick and mansard roofs. All three are noncontributing.

Bachman Street is a relatively short street that bisects Burley Circle. The topography rises in the center of Bachman Street's length, resulting in stepped massing of multiple-unit row buildings. A single-family residence, duplexes and row buildings are clad in stucco, brick veneer or asbestos siding. An abundance of mature oak trees adds pastoral ambience to the street.

Belknap Place is a small angled street that connects to Bachman at two points and one-way going south. Bachman Park, a grassy triangle of open space with majestic oak trees, separates Belknap from Bachman. The residences are all multi-family brick row buildings with slate-covered gable roofs. A concrete walk leads northeast from Belknap Place through Little Burley Park to the east side of Burley Circle.

Cromwell Road intersects with Winton Road and curves southwest down a hill to connect with Burley Circle and Andover Road. All of the original buildings are located on the southeast side of Cromwell Road and consist of two-story S-type row buildings with asbestos siding, which had originally had flat roofs, as well as a pair of 8-unit flats with staggered footprints flanking Cromwell Park. A pedestrian path leads from Cromwell Road through Cromwell Park to the cul-de-sac of Chalmers Lane, and another leads east into Palma Park. The south end of Cromwell contains a large apartment complex on the west side and some mid-1950s single-family houses, which are not included in the district. A 1950s single-family house at 19 Cromwell at the intersection with Drummond Street is included as a noncontributing resource.

Chalmers Lane, a J-shaped street, curves from its entrance from Cromwell Road and ends in a circle. A court of three rows of garages was originally located off the circle, but the buildings have been removed and the court is now an open parking lot. To the south of the street is a large park, known as Palma Park that adjoins buildings facing south on Andover Road. All of the residences on this street are the S-type road building with asbestos siding and flat roofs; almost all have new gable roofs. Paved geometric pathways lead northwest into Chalmers Park, which is flanked by staggered row houses.

Chalmers Court comprises three two-story asbestos-sided row buildings grouped in a U-shaped formation around the original courtyard, which is a surface parking lot. Concrete walks run around the perimeter of the courtyard and lead to each dwelling unit. Oak trees stand in the planting strip and in the rear of the row houses.

Dewitt Street curves in a semicircle on the west side of Drummond Street. It has four 1930s row houses on the west sides, all of which have asbestos siding and were originally flat roofed. However, the treatment of porches varies between one type with an enclosed projecting section adjacent to the porch like many of the row buildings in the C and D sections, while the other has a porch flanking a wood tool shed with a balcony on top of it. The east side of the street is part of Dewitt Landing, which was redeveloped beginning in 2004 after being reconfigured with single-family lots.

Damon Road is a curving street that comprises the northwest part of the circuit road and connects with Springdale Road, which runs off in a southwesterly direction. Damon is lined with small single-family Cape Cod houses built in 1947 for veterans. The portion at 70 Damon Road, where a former school built in 1955 was adapted for use as the Alois Alzheimer Center.

Dewitt Court is a rectangular paved court which was originally developed with three S-type row houses—a four-unit building in the center flanked by two five-unit buildings. These row houses were razed in 2007 and 2009, but the paved court lined with oak trees remains and could receive new housing in the future.

Drummond Street connects Cromwell and the north section of Damon Road, the latter meeting Cromwell Road at its south end. Drummond is unusual in that its buildings reflect construction of various types and different times. The original plans called for it to be lined all with two-story row buildings but only five were built out of which three remain. Instead Drummond is mostly characterized by small 1 ½-story single-family houses with attached garages including five at the north end built in 1947 and 17 on the east side built in 1953. A 1962-vintage two-story gabled-roofed brown brick apartment building is located on the west side of Drummond, between the entrances to Dewitt Street.

Drummond Court no longer exists in its original form. It was originally an elongated semicircular block with four staggered apartment buildings flanking a rectangular green space edged with pedestrian walks. Beginning in 2004, this block was reconfigured with single-family lots and redeveloped with two-story, front-gabled houses and is now known as Dewitt Landing. Four homes at 39, 43, 47 and 51 Drummond Street are part of this recent development.

The F section is the only original residential block on the east side of Winton Road. The area is characterized by the long staggered blocks of multi-unit flats which are sited in a perpendicular axis to Farragut Road. These housing groups have open spaces between them, which is partly devoted to parking lots as shown on the original plans. A number of row buildings in the S-type design are found on all of the F streets. All of the buildings are two-story and are seen both in brick and with the original asbestos siding. Farragut Road, the circuit road on this side of Winton Road, abruptly changes to residential at the driveway to the high school and athletic fields. Newer single-family houses then line the street to the east, with a number of typical subdivision roads off of Farragut. The F section has the highest concentration of pedestrian pathways, which connect dwellings to each other and the open spaces around them.

Farragut Road, which is part of the circuit road network, is the main entrance to the commercial and civic center of the village and the only through street in the F section. The road contains a variety of housing types, most of them situated with a perpendicular axis to the street, originally with green spaces between. The Our Lady of the Rosary church complex of buildings is located at the west end where Farragut intersects with Winton Road. It includes the school building, as well as the church, rectory and former convent—all two-story brick buildings built in the 1960s.

Falcon Lane is a short straight lane ending in a cul-de-sac. It has three 4-unit and one 5-unit S-type row buildings with asbestos siding and one single-family house, as well as two 3-car garage groupings.

Flanders Lane is a relatively long curving street ending in a cul-de-sac. It also has two smaller cul-de-sacs running east from it at right angles. Housing on the street is composed of mostly S-type row buildings; a brick duplex at the end of the street faces an identical building at the end of Funston. There is a recent cul-de-sac named FDR Walk running west with three duplexes and three single-family homes; all are noncontributing. FDR Walk was subdivided in circa 1999 and is structured as a Planned Unit Development of landominiums.[14] It is a small circle with six two-story buildings—three duplexes and three single-family dwellings.

Foxworth Lane is a cul-de-sac with three large row buildings in the S-type design. A large common space lies to the north of the street with walks leading out to Farragut Road. Foxworth Lane adjoins Foxworth Park to the north. A pedestrian path once led from the end of the lane to the athletics fields to the east. A chain-link fence now encloses the fields.

Funston Lane is a very short street at the end of Flanders Lane. The residences on the street are two duplexes, one with brick veneer, the other covered with asbestos siding and a row building with asbestos and vinyl siding.

Gambier Circle is a loop that runs west from Ingram/Farragut roads lined on both sides with small single-family houses with attached garages and varied orientations. The circle was drawn in the 1938 plan with multi-unit row houses but because it was not developed until after World War II, the buyers' preference for single-family homes led to this departure in building type from the original layout. The west end of the loop is connected by a concrete walk running southwest to the adjoining oval park behind the Community Building/School. On the north side of the circle, former parkland that was developed into a nine-hole golf course in the 1950s adjoins the rear yards of the houses. Gambier Circle was originally lined with ash trees, which are mostly gone now because of the Emerald Ashborer infestation.

Ingram Road, which is the northeast component of the circuit road network, provides access to the north end of the shopping center via Eswin Street, but beyond that is a residential street lined with one-story single-family houses. Built in the 1950s, these homes are mostly brick-clad ranches and Cape Cods sited parallel to the street.

Housing Types and Construction

The original plan, as begun in 1935 and completed in 1938, included a variety of housing types—detached single-family, semi-detached duplexes, row houses containing from three to six units, and multi-family apartment buildings. While surveys of potential tenants indicated a marked preference for single-family homes, they simply were not affordable after the project was forced to absorb several rounds of budget cuts. While the grouping of houses was recognized by a number of housing analysts, including Henry Wright, Catherine Bauer, and Thomas Adams, as a major way of reducing construction costs and allowing greater area for yards and open parkland, it also provided the social advantages of neighborhood living. The placement of homes close to the street with little setback represents a striking departure from nineteenth- and early twentieth-century preferences for spacious front lawns in the upper-middle income suburbs derived from Olmsted and Vaux's archetypal suburb of 1869, Riverside. By the 1920s, the planning profession and zoning advocates were promoting mandatory setbacks. The approach in Greenhills was modeled after Radburn and Mariemont. The arrangement

[14] A landominium is a type of residential property in which the owner owns both the home and the land on which the home is built. The home is a part of a community, like a condominium, where the landscaping, maintenance and other services are provided by a homeowners' association.

of the residential buildings on courts and cul-de-sacs created a sense of enclosure to the street, limited traffic and provided an intimacy intended to encourage neighborliness among residents.

Like the other Greenbelt communities, Greenhills was intended as a demonstration of innovative methods of home-building and the cost-reducing methods of large-scale construction. The overall emphasis was on providing a comfortable and convenient living arrangement for lower-income Americans, while offering the amenities and spaciousness commonly associated with upper-income neighborhoods or higher priced apartments built by developers in the 1920s. Building upon the successful innovations presented in previous Garden City communities, such as Mariemont and Radburn, the greenbelt communities were intended to demonstrate 1) the usefulness of cost analyses prior to design, and 2) the savings inherent in the grouping of houses for economy, large-scale construction, and the use of less expensive building materials and methods of construction. Essential appliances and utilities provided modern standards of comfort and convenience and scientifically-derived house plans were created in which interior space was carefully calculated for function, life style, and efficiency.

The 676 dwelling units built in 1935 to 1938 were distributed among 185 buildings. Originally, 1,000 units were planned, but reduced funding resulted in the lower number.[18] Of the 676 units that were constructed, twenty-four (3.5 percent of the total number of units) are single-family detached houses, eighty are in two-unit duplexes (12 percent), ninety-six are in three-unit row houses (14 percent), 180 are in four-unit row houses (27 percent), sixty are in five-unit row houses (9 percent), eighty-four are in six-unit row houses (12 percent); 112 are in eight-unit buildings (16.5 percent); and forty are in ten-unit buildings (6 percent).

The designers produced thirty-three variations of floor plans. The two-bedroom configuration is most common, with 300 such units. Some 214 dwellings have three bedrooms, while 112 have one bedroom and fifty have four bedrooms. Every unit also incorporates a good-sized kitchen (ranging from ten by twelve feet to nine by seven-and-one-half feet), living room, and bathroom. All units had dining rooms except the one-bedroom flats.[15]

Residential buildings were built of insulated wood-panel construction, with exterior walls of brick veneer, stucco over hollow clay tile and light gray asbestos weatherboard siding. About fifty percent of the dwellings have full basements, and the rest are without. Originally about twenty-five percent had gabled roofs with slate, tile or asphalt shingles, and the rest had flat roofs with tar and gravel. Numerous housing units retain original elements such as steel awning windows with three horizontal panes, flat or shed-roofed entry porches, and slate or red tile roofs. However, the addition of gabled roofs and even a few mansards to flat roofs, replacement windows and enclosed breezeways are not unusual.

On the interior of a typical unit, the first floor typically consists of a living room, kitchen, dining alcove, and utility room, each with asphalt tile flooring. A straight, wooden staircase with a streamlined wooden handrail provides access to the second-story hall and bedrooms which have maple or oak board flooring. Each unit has a single bathroom, typically located on the second floor. Many units now have carpeting or other materials on top of the original flooring. The walls are finished with plaster. Interior woodwork includes simple baseboards, wood picture moldings, and door and window surrounds. Other typical features were drapery tracks in doorways to the living room and large closets in bedrooms.

When Greenhills opened to tenants in 1938, each unit came with an electric stove and refrigerator, an enameled steel or cast iron sink with drain board, and metal base and wall cabinets in the kitchen and sink, recessed medicine cabinet, tub and toilet in the bathroom. Most units had individual steam heating systems with a coal-fired boiler, while large buildings of flats had central heating provided by the village and deep sinks for laundry.

[15] "Farm Security Administration announces Greenhills Rentals," USDA Press release, Jan 26, 1938. Village of Greenhills, Ohio.

Units without basements had hot-water systems.[16] In dwellings with basements, utility rooms were provided there and included a large coal bin, electric water heater and a double concrete laundry sink along with the furnace. Many units retain original sinks, bathtubs and toilets.

The designers of Greenhills had intended to furnish all the dwelling units with furniture designed by the RA's Special Skills Division. The simple, functional wooden furniture, published in *House Beautiful,* was "specifically made to scale for the homes. All of the pieces matched in style to add ease in decorating. The furniture was built well and offered at an inexpensive rate."[17] However, furnishings had to be eliminated from the budget due to a lack of funds, and the furniture proved too expensive for tenants to buy themselves.

Just thirty-three percent of the residential units were planned with an integral or attached garage. The garages are incorporated into the design of single-family and duplex houses but less common in multi-unit row houses, some of which have grouped garages that are attached. Detached garages were typically provided in compounds consisting of opposing rows flanking a driveway off the street. The grouped garages are built of concrete block and most originally had flat-roofs and slag floors. All of the garages accommodated one car, and closed with a pair of wooden doors that opened outward. Throughout the village, most garage doors have been replaced and many slag floors are now paved with asphalt or concrete. Synthetic siding and a sloped roof have been installed on some examples and others have been demolished.

Of the original 185 residential buildings (676 dwelling units) in Greenhills, just twenty-four are single-family detached houses, forty are duplexes; thirty-two are three-unit row houses; forty-five are four-unit row houses; twelve are five-unit row houses; fourteen are six-unit row houses; fourteen are eight-unit buildings; and four are ten-unit buildings. Of the single-family homes, six have four bedrooms and eighteen have three bedrooms; the row houses have two, three, or four-bedrooms; the eight-unit buildings have one bedroom flats; and the ten-unit buildings have two-bedroom flats.

Single-family houses in Greenhills built by 1938 typically fall into two categories. The most common is a three-bedroom dwelling, one-and-a-half stories tall, ell-shaped in plan, and capped with a cross-gabled slate roof. The principal entrance is typically on the inside corner where the gable front meets the wing. Each house has a brick chimney and a breezeway connecting it with an integral garage. Some had a flat-roofed porch on the side facing away from the street. Another less frequent type of single-family dwelling is a four-bedroom house, two stories, rectangular in plan, with a side-gabled roof and an attached garage. An example at 18 Brompton is a Moderne style design with irregularly sized and placed windows, a curved canopy over the front door and a garage that projects from the front elevation. However, its red brick exterior and side-gabled roof are reminiscent of Colonial Revival.

The layouts of the single-family houses vary, but each features the reverse-front plan introduced at Radburn with the utility room and the kitchen on the street or service side of the house, and the living room and dining alcove away from the street on the garden side. In the cross-gabled example, two bedrooms are included on the first floor and two additional bedrooms and single bathroom are located on the second floor. In the side-gabled example, the four bedrooms are all on the second floor along with the bathroom.

Duplexes

The village's original forty duplexes contain 80 housing units. There are two types—either one-and-a-half-story or two-story dwellings—both with four-bedroom units and integral garages. The housing units that make up each duplex are arranged as mirror images with the garages side-to-side. They are essentially semi-detached

[16] Debbie Mills and Margo Warminski, *Images of Greenhills* (Charleston, SC: Arcadia Publishing, 2013), 69.
[17] Ibid., 71.

single-family units connected as mirror images with garages in the center. The one-and-a-half story dwellings, located in the A Section, have a front-gable and ell plan with two bedrooms on the first floor and two bedrooms on the second. Examples are located at 33-35 and 36-37 Avenell. Two-story duplexes, located in the B Section, are rectangular in plan, with side-gabled roofs and symmetrical three-bay elevations.

Each unit has two entrances, one on the service side overlooking the street and the other on the garden side. Each living room extends the full width of the house to either side of the kitchen and utility room. Each living room is afforded the maximum amount of privacy and in part faces the garden.

Multiple-Unit Row Houses

The original section of Greenhills includes 32 three-unit row or group dwellings, forty-five four-unit row dwellings, twelve five-unit row dwellings, and fourteen six-unit row dwellings with a combination of two- and three- and four-bedroom units. The two-story housing unit is the basic component of each multi-unit row, in various configurations throughout the community to suit families of various sizes and life styles. Many dwellings have integral garages while others have detached garages nearby. All have individual entrances and yards. Row dwellings vary in plan; some have simple rectangular footprints, while others have end units that are set back or front-gabled. Still others have staggered fronts or stepping grades where they are built on sloping ground. Roofs were either side gabled or flat; flat roofs retrofitted with gabled ones are not unusual. Unlike the single and duplexes, the principal entrance of each unit faces the street. Details include flat entrance porches with pole or brick supports and interior brick chimneys.

There are various types of multiple-unit row dwellings in the village, which fall into two basic categories. Examples in the A and B Sections, the first to be built, are more traditional, with brick or stucco exteriors, slate roofs, garages and basements. In subsequent sections, federal budget cuts required a cheaper approach to housing construction, resulting in the design of S-type row houses. Instead of brick facing and slate roofs used in the initial construction on the A and B blocks, S-type houses, which appear in the C, D and F sections, were built of wood frame with asbestos siding and flat roofs.

Examples of the earlier type with garages appear in various rhythms, with garages in pairs or groups corresponding to the number of units. Three-unit row houses have a variety of two-bedroom and three-bedroom units, sometimes mixed and other times consistent. Most three-unit row houses, such as 13-15-17 Andover don’t have integral garages, although a few examples have a single garage attached to an end unit that is larger. An example is 1-3-5 Andover, in which unit 1 has four bedrooms and a garage, while 3 and 5 are two-bedroom units without garages.

The four-unit row house at 7-9-11-13 Brompton comprises a pair of two-story duplex buildings connected by a projecting one-story group of four garages. Other examples, such as 10-12-14-16 Brompton, are arranged with three two-story units on one side of the projecting garages and a single two-story unit on the other side. There are also variations with two pairs of projecting garages with a duplex in the center and single houses on the ends (14-16-18-20 Ashby). Four-unit row houses without garages, such as 11-13-15-17 Ashby and 19-21-23-25 Ashby, consist of two pairs of staggered rectangular-plan, side-gabled duplexes facing a Common central green space.

Four-unit buildings also house varying numbers of bedrooms; some have identical three-bedroom units (19-21-23-25 Brompton) or all two-bedroom units (112-114-116-118 Burley Circle), while others have a combination of two- and three-bedroom units in various rhythms, i.e. 3-2-2-3 (30-32-24-26 Burley Circle); 3-3-2-2 (59-61-63-65 Burley Circle) or 3-3-2-3 (8-9-10-11 Belknap), often with the larger units on the ends. Wherever possible, four-unit row dwellings are arranged so that the utilities and plumbing are located back to back in each

pair of units. Each house unit has a private yard and a porch on the garden side. The layout of the house units in the five- and six-unit buildings with built-in garages is similar to the three- and four-unit row houses.

Multiple-unit S-type Row Houses in the C, D and F sections

S-type row houses were developed after budget cuts required a cheaper approach to housing construction. Instead of brick facing and slate roofs used in the initial construction on the A and B blocks, S-type houses, which appear in the C, D and F sections, were built of wood frame with asbestos siding and flat roofs. Basements were eliminated. Garages, when included, were not attached, but in most cases built in gangs and located off-site. They are easily recognizable by their projecting utility rooms and entrance porches, which provided two doors—one for the front entrance and the other directly into the utility room. All S-type row houses had two- and three-bedrooms grouped in various combinations of three, four, five and six units. The number of bedrooms can be easily identified by the number of windows on the street-side elevation. The interior layout exhibits economy of plan by arranging bathrooms and kitchens in each pair of units back-to-back.

Multiple-unit Flats

Multiple-unit Flats, which were built in the C, D and F sections, consist of two-story dwellings with one- and two-bedroom units on a single floor, with eight or ten units in each building. The eight-unit buildings, all with one-bedroom flats, are arranged in two rectangular modules that are connected but offset. There is an entrance porch on each side of every module with two doors—one leading to the first-floor flat and the other to the second floor—so that all flats have doors on both sides. The entrance porches all include a balcony above. For the sake of economy, the plans arranged kitchens in each pair of units set back-to-back. Fourteen eight-family units were built along Cromwell, Drummond Court and Farragut Road, however eight now remain.

The ten-unit buildings, all with two-bedroom flats, consist of five square modules, also connected but staggered, with flat roofs and brick facing. There were four ten-unit flats built, all in one group on Farragut Road with opposing pairs on each side of the street. Like with the eight-unit examples, the ten-unit also have an apartment entrance on one side of each module articulated by an entrance porch which provides a balcony above. The eight-unit flats were originally clad in asbestos siding; some are now covered with aluminum or vinyl siding. The ten-unit flats are clad in face brick, which provides a more upscale appearance. Apartments are arranged with stairways in between units, which would enhance soundproofing and privacy.

The Dillon Subdivisions (1947)

The street layouts of Damon Road and Gambier Circle were included in the 1937 plan but envisioned with multi-unit row houses of various sizes. The streets were built by 1938 although a semicircular lane off Damon Road, labeled Darien Place, was not, nor were the row houses. The undeveloped areas were originally divided into parcels of similar size to those developed in the original village. In 1947, these areas were replatted by Justin Hartzog with seventy-two small (.2-acre or smaller) parcels on Damon Road (with the exception of an eight-acre lot at seventy Damon reserved for a school built in 1955 and not included in the district) and forty-nine similarly sized lots on Gambier Circle. Five small parcels on Drummond were also created. These parcels were sold to developers known as The Dillons, who built small single-family homes backed by federal insurance and marketed to war veterans. These parcels were the first ones privately sold, in anticipation of the eventual sale of all the federally owned housing in Greenhills (which occurred in 1950). County auditor's records indicate these homes were built in 1947.

The houses are generally six-room brick-faced Cape Cod-style dwellings, in the range of 1300 to 1400 square feet. Although small, they have four bedrooms—two on the ground floor and two in a finished attic. These

dwellings are typically set parallel to the street and have garages connected with a breezeway or attached directly. On Gambier Circle, the monotony of long rows of like houses is relieved by setting some with the gable-end facing the street on wedge-shaped lots created by the curve of the street. Front-facing gable ends are treated with half-timbering reminiscent of Tudor Revival. The Dillon subdivisions also included five lots on the upper west end of Drummond Road, which was only partially built out by 1938 with four S-type row houses (two of which have since been demolished). Also built in 1947, these homes—at 67, 71, 75, 79, and 99 Drummond Road—are the same type as those erected by the Dillons on Damon and Gambier. The design of the houses and their arrangement along curving neighborhood streets reflect the revised FHA standards first published in 1940. The houses in these 1947 subdivisions fall within the period of significance and are considered contributing.

Later Housing

Eighty-four residential buildings were constructed within the historic district after 1950, which marks the end of the period of significance, and are thus considered noncontributing. These include seventeen single-family Cape Cod houses built on Drummond Road in 1953, nineteen single-family ranch and Cape Cod homes built on Farragut Road in 1952 through 1958, a brick Modern single-family house at 119 ½ Farragut Road built in 1956, thirty single-family ranch and Cape Cod homes built on Ingram Road in 1952 through 1954, five brick ranches built on Cromwell Road in 1954 through 1964, a four-building Modern apartment complex (counted as one non-contributing building) at 63 Cromwell Road built in 1962, a single-family house at 11 Falcon Lane built in 1966, a four-unit apartment house at 89-95 Burley Circle built in 1968, two six-unit apartment buildings on Burwood Court built in the 1960s, another 1960s six-unit apartment house at 25 Cromwell Road, and nine units in six buildings built in 1999-2001 on FDR Walk off of Falcon.

The Village Center

The Greenhills plan locates the civic and commercial center on level ground east of Winton Road, the major north-south corridor, roughly in the physical center of the circuit roads. As built between 1936 and 1939, the center included two administrative/institutional buildings, two commercial buildings, a farmers' market shed and a swimming pool. All were freestanding buildings, although the commercial buildings were envisioned for eventual expansion into a multi-unit shopping center. The Greenhills Management Building combined the village offices, police and fire stations, while the Community Building/School served both school children and adults. The shopping center was designed to include a co-op food store, a food storage locker plant, and other consumer services, such as a valet shop, barber shop, and beauty parlor. The second commercial building was an automobile service station, located at the north end of the current shopping center.

Administrative and Community Buildings

The original Greenhills Management Building (1938, contributing) is situated at 14 Endicott Street, on the north side of the Commons and at a right angle to the shopping center. It was built to house the village management offices and the police and fire departments. Another example of the International Style, the concrete-block building is two-stories (three stories on the rear), rectangular, and flat-roofed with a band of windows at the second floor. Originally, the fire Station occupied the projecting east end of the building. Village management and a credit union were located on the first floor and offices for doctors, dentists and businesses were on the second floor. The east end, which housed the fire department, was originally one-story and had two garage bays for fire trucks. The Greenhills branch library, which was located in the Community Building/School beginning in 1939, moved into the former Management Building in 1954 and expanded to its present size in 1956.[18] After

[18] Carol Lippmeier, *Act of Congress, Book I, Greenhills, Ohio, 1938-1976* (Greenhills: Greenhills Civic Foundation History, 1976), 17.

village offices moved to a Colonial-inspired two-story brick building (noncontributing) at 11000 Winton Road in 1959, the rest of the Management Building was converted to commercial use; the garage bays were filled in with storefronts and a second floor with aluminum and glass window wall, was added. Otherwise, the building is intact except for alterations to windows on the first floor. The post office moved into the Management Building in 1956. Initially it was located at One Alcott Lane and moved to the shopping center by 1940.

The Greenhills Community Building and School (contributing), now known as the Winton Woods Alternative School Center, faces west at 8 Enfield Street overlooking the Commons. It was designed for 800 children with classrooms, a library and a gymnasium/auditorium with a seating capacity of 1200. In the early years, an adult education program and a youth center operated in the building, and social events and Sunday church services were held there. The building's rectilinear massing, irregular plan, smooth white stucco exterior, banded multi-pane windows exemplify the International style. Though flat-roofed for the most part, the streamlined five-bay temple front, which provides access to the gymnasium/auditorium, gives it the monumental character appropriate for a civic building, yet its off-center placement makes it less formal. A two-story, flat-roofed wing added to the south end in 1970 is consistent with its original character. The building retains a high degree of historic integrity befitting its stylistic prominence and location.

On the interior, the Community Building features several works of New Deal art. The gymnasium has a bas relief sculpture and decorative frieze above the stage, and WPA murals remain in the former library and music room. The sculpture in the gymnasium, entitled "Community Life," depicts a farmer and a factory worker. This terra cotta bas relief was created by Whitney Atchley. The frieze above the gymnasium stage comprises eighteen small black earthenware panels with white stylized symbols of the arts, industries, and sports. In the library, a frieze of murals by Richard Zoellner illustrates "The Ohio River Influence". The largest work of art is a mural covering the south wall of the second-floor music room, now known as the Pioneer Room. Entitled, "The Joy of Music," it was painted by Paul Chidlaw and features musicians and dancers of various genres. Another mural, eight-feet-high and 180-feet-long, painted around the perimeter of the cafeteria by Leo Murphy, has been painted over.

As previously mentioned, the Commons is a roughly rectangular green space with concrete pedestrian pathways around the perimeter, mature trees around the edges, benches around the trees, four memorials, and a recent gazebo in the southeast corner. A World War II monument stands on the west side of the Commons on axis with the entrance to the Community Building. The initial wooden mockup of the monument, dedicated on June 2, 1944 was replaced in 1950 with the current geometric concrete obelisk with a stepped base and bronze plaque listing the names of seven residents who perished in the war.[19] There are two granite boulders with bronze plaques—one dedicating the Commons to Nicholas G. Bates, longtime chief of the Greenhills Volunteer Fire Department, for faithful years of service to the Greenhills from 1936 to 1973; the other describing the *Greenhills-Forest Park Journal*'s commemorative issue on the history of the community for the U.S. Bicentennial in 1976. The gazebo is a circular wood structure at the southeast corner. There are 35 wood and concrete benches grouped around trees and facing into the square from the perimeter. On the east side of the Commons, also aligned with the Community Building, there is a tapered steel pole dedicated on July 2, 1986, which represents the "Shadows of Freedom." At certain dates and times the pole casts a shadow on each of ten plaques set in the ground at various spots to highlight various patriotic events—Independence Day, Memorial Day, Constitution Day, the end of the Civil War, Veterans Day, the founding of Greenhills, the attack on Pearl Harbor, Korean War cease-fire, the end of the Vietnam War, and the day that Ohio was granted Statehood.[20]

The swimming pool complex (contributing) at 10 Enfield Street includes a pool, an Art Deco concrete-block bathhouse at the south end, and a Moderne style reinforced concrete canopy on flared supports at the north end.

[19] Ibid., 52
[20] Lippmeier, *Act of Congress, Book II, Greenhills, Ohio, 1938-1997*, n.p.

The bathhouse features a flat roof, porthole windows in the upper part of the walls, and a flat-roofed semicircular porch. The bathhouse originally had symmetrical wings containing changing rooms; these were removed in 1986 because they were collapsing, and glass block was used to fill in the openings in the porch. In 1995, the pool was renovated and enlarged, including the addition of a large water slide. The original baby pool was removed in 2014. The geometric roadways providing access to the pool areas from the west are still intact. The pool, bathhouse and canopy still retain enough of their original character to be considered together as a contributing resource.

The Whallon House (NR#73001473, listed May 17, 1973), immediately north of the current municipal building at 11000 Winton Road is also included in the NHL district. Built in 1816, the Whallon House is a two-story, brick, former dwelling with a five-bay front façade. A fine example of the Federal style, this house was one of only two historic structures that were saved in construction of the new town.[21] During construction, it was used as an office for senior planners and after 1938 it was used successively for council meetings and other town functions, and as offices for the American Legion. It is still owned by the town.

Commercial Buildings

The original plans envisioned an E-shaped shopping center with a large parking lot in the rear, where a farmers' market shed was planned. The shopping center would be developed in stages as the population of Greenhills gradually grew large enough to support the businesses. By 1938, the first commercial block was erected at the south end of the site designated for the center, the service station was built at the north end, and the farmer's market shed was put up in the rear parking lot.

The initial commercial block (1938, contributing), flat-roofed building finished with brick, remains at the south end of the current shopping center. Like all the commercial blocks to follow, the building was one-story on the front and two stories on the rear. The front was originally lined with large storefronts composed of grouped, multi-pane display windows and transoms. The first tenants were the Greenhills Co-operative Grocery, a food storage locker plant, a drug store, a valet shop, barber shop, and beauty parlor. The shopping center, which was one of the first examples of a strip mall in the country, was unified by a covered walkway with slender square brick piers topped by a narrow sign band. The canopy of the walkway was curved at the south end where it turned the corner to connect with the original Management Building.

The original layout provided angled parking in front on both sides of Eswin Street, which was one-way to simplify traffic flow. A second aisle was added to the parking lot in 1986, adding forty-two more spaces of angled parking.[22] The rear of the buildings faced a much larger parking lot, which provided access to the food storage locker plant. The parking lot is original to the plan and represents a continuation of the separation of vehicular and pedestrian traffic. The farmers' market shed (1938, contributing) is a simple structure with a gabled corrugated fiberglass roof supported by steel pipe columns on a raised concrete plinth. The shed retains all its original elements except the roof, which was originally corrugated metal, and replaced by the Kiwanis Club in late 1976 for the national bicentennial.[23]

The former Greenhills Cooperative Service Station (1938, noncontributing) still stands at 48 Eswin Street at the corner of Enfield, at the north end of the shopping center. A sixty-foot setback from the front of the shopping center provides a parking lot, where originally there were gas pumps. This simple, concrete-block structure has three garage bays and a small office and continues to be used for car repairs. A remodeling by the Shell Oil

[21] The second building is the James L. Baker Homestead, which was adapted as a comfort station for the athletic field.
[22] David Moore, email to Beth Sullebarger, 17 Aug. 2015.
[23] Ibid.

Company in 1966 added face brick and a wood-shingled mansard over the formerly flat roof.[24] Upon removal of the brick facing and shingled parapet, the integrity of the building could be reevaluated and its contributing/noncontributing status reconsidered.

Athletic Fields

As previously mentioned, by 1938 the athletic fields in the southeast portion of the village included a football field with a running track around it, bleachers (demolished) and a field house/comfort station. A baseball diamond and four tennis courts shown to the east of the football field on the original plan, no longer exist, having been replaced by the Winton Woods Middle School. The athletic fields are included in the overall site, which is contributing. The field house (contributing) consists of a small one-story brick side-gabled core with concrete block wings containing rest rooms, unified by a shallow hip-roofed porch across the front and sides. The brick core, which now has two wide window openings in the center flanked by two flush doors, has a plaque placed there by the Greenhills Historical Society naming it the James L. Baker Homestead, and stating that Mr. Baker resided there with his family from 1932 to 1935. Along with the Whallon House, this building is one of two resources in the district that pre-existed the Greenhills development.

An Expanding Village Center (1950 to the present)

It was not until the 1950s that the shopping center was fully built as envisioned, with the addition of three more buildings. The central commercial block (noncontributing), the keystone of the center, is a concrete-block building that extends deeply to the rear and is flanked by concrete walkways with stairs connecting the front walkway with the parking lot in the rear. This building was envisioned as a movie theater in the original plan but was not built for that use. Instead, movies were shown in the auditorium of the Community Building and the center building was erected in 1953 for an IGA supermarket and a bowling alley, which remained for many years.[25] The next commercial block at 28-40 Eswin (noncontributing), its design and construction similar to the first commercial block, was added on the north side of the IGA in 1953. This was followed by the two-story Eswin Building at 42-44-46 Eswin (noncontributing), built to house a bank, stores and offices. The Eswin Building is distinguished by its additional story, brick facing on front and back and a projecting bay on the left side of its front elevation. The second floor has a band of windows with aluminum spandrels. Together, this group of commercial buildings creates a continuous strip from the Management Building on Endicott Street to the service station at the corner of Eswin and Enfield. The entire shopping complex is unified by the extension of the covered walkway up to the projecting portion at 46 Eswin. This last space, which was occupied by a bank, is now a café. The entire shopping center was remodeled circa 1995 and refaced with synthetic stucco and a new taller sign band. The back and side elevations retain much of their original appearance.[26]

Several commercial buildings were built in the 1950s and 1960s. On Endicott Street, these include three noncontributing one-story buildings at 4-6, 8, and 12 Endicott. 4-6 Endicott was built as a laundry store and restaurant circa 1962. 8 Endicott is a one-story wood-frame office building with a cross-gabled roof and large wood multi-pane windows giving it a domestic appearance. 12 Endicott is a simple rectangular, flat-roofed building with brick facing retrofitted with vinyl infill on the front. On Enfield, three noncontributing commercial buildings were added—a one-story concrete-block building at 1 Enfield (noncontributing) built in 1960 as a state liquor store; a one-and-one-half-story brick building at 3-5 Enfield (noncontributing) erected in 1986, and a one-story concrete-block warehouse at 20 Enfield (noncontributing) built circa 1980.[27] North of the

[24] Records of the Village of Greenhills, Ohio.
[25] Movie screenings in the Community Building ended in 1947. The bowling alley closed circa 2012.
[26] Records of the Village of Greenhills, Ohio.
[27] Ibid.

shopping center, at 50 Eswin Street, a noncontributing concrete-block retail building was built for Albert's Supermarket and occupied by Johnny's Toys from 1976 to 2009.

Five church-related buildings were built near the civic center of Greenhills. Although land was set aside for this purpose in the early plans, only one of these buildings was built during the period of significance—Our Lady of the Rosary School (contributing) built in 1942, with additions in 1952 and 1963, at 17-19 Farragut Road. This Catholic congregation was established by 1940, and initially met in the Community Building. Today the complex consists of the church, rectory, school and convent. The church (15 Farragut) and rectory, connected by a breezeway, were built in 1960, the convent was built in 1968; all three are noncontributing.[28] The School is a long, rectangular two-story brick building on a high basement set parallel to the street. The entrance on the east end is dramatized by a squat square tower ornamented by a frieze of decorative tile mosaic and topped by a pyramidal roof. The church is a tall one-story brick building with a steeply pitched front-gabled roof with low eaves. The front has a single arched stone surround with double doors and above, an arched window with stone mullions forming a cross. Eight bays of small stained glass windows table on the side elevations extend from the roofline to the stone water table. The rectory, which is connected by a breezeway on the west side of the church, is a two-story, side-gabled brick building, and four-bays-wide. The gabled roof of the breezeway extends across the two left bays of the rectory and over a projecting front porch in the second bay. The convent is a simple rectangular brick building with a side-gabled roof. Set back behind the church, the convent has a six-bay front elevation, with paired aluminum windows.

The Greenhills Community Presbyterian Church, 21 Cromwell Road (noncontributing), stands at the northwest corner of Winton and Cromwell roads, opposite the village Commons. The church complex is a brick, Neo-Colonial-style building with a U-shaped footprint. The front elevation facing Winton Road has a gable front at each end joined by a gable-roofed connector. The south wing, completed in 1956, houses the worship space while the north wing, completed in 1957, holds classrooms. The south wing is more prominent, with a large expanse of geometric stained glass windows in the east wall and a modest copper spire on the ridge near the east end. The remaining fenestration consists mainly of two-story bays of windows with stone spandrels. The north wing was extended in 1967 with an addition on the rear.[29]

INTEGRITY

The historic integrity of Greenhills is reflected in the general layout of its plan as developed by Justin Hartzog and Roland Wank and the enduring character of the village, with its innovative and varied treatment of streets, integral pedestrian pathways, low-scale buildings, sense of openness, and ubiquitous parks. Secondary but also significant is the design of its buildings, primarily residential but with important public buildings that are very much intact. To appreciate the historic integrity of the village, it is necessary to consider not just aspects of bricks and mortar but also the full array of design principles and social values that underlie the town's planning and realization. As an entire ensemble, the community remains a unique and irreplaceable national treasure.

The original core of Greenhills retains a high degree of historic integrity overall. The site displays excellent integrity—the plan, its response to the natural topography, and land use distribution remain unchanged, and vehicular and pedestrian circulation systems have changed only slightly. The roadways, considered to be the most important part of the plan by Hartzog, have been widened slightly. Because of cost factors, granite curbs envisioned throughout the village in the original plan were installed only in the village center and the circles of cul-de-sacs by 1938. To improve the appearance of the street edges, the village installed rolled concrete curbs

[28] "Histories of Our First Churches," Scrapbook, Public Library of Cincinnati and Hamilton County, Forest Park Branch, n.d., Records of the Hamilton County Auditor.
[29] Ibid.

on the circuit roads over the years; on residential lanes, however, the village fulfilled the original design intent by installing continuous gray granite curbs matching existing examples in 1999.[30]

The village's residential units generally show very good integrity. While synthetic siding, replacement windows, and conversion of flat roofs to gabled ones are not unusual, all the original dwellings are easily recognizable. There has been some loss of housing—all of them S-type buildings, for which the designers predicted a sixty-year life expectancy because of their cheaper construction. A number of S-Type buildings have been removed at the north end of the village between 2002 and 2009, including two five-unit row houses at 84-86-88-90-92 and 94-96-98-100-102 Drummond Street; an end unit, 82 Drummond, of a six-unit row house; four four-unit row houses at 1-2-3-4, 5-6-7-8, 9-10-11-12 and 13-14-15-16 Drummond Court; another four-unit row house at 45-47-49-51 Dewitt Street and two five-unit and one four-unit row house at Dewitt Court: 1-2-3-4-5, 6-7-8-9, and 10-11-12-13-14. Fortunately, Chalmers Court remains very much intact. In total, forty-five out of 676 original housing units or less than ten percent have been lost. The loss of three 1947-era houses on Damon Road for expansion of the Alois Alzheimer Center and a similar house at 65 Damon Road destroyed by fire, did not significantly impact the integrity of the village.

Despite the loss of some housing units, residential streetscapes still retain a considerable degree of physical integrity with relatively little infill. A few garages were replaced with housing, such as at 25 Cromwell Road, 11 Falcon Lane, and Burwood Court but the presence of these developments is less noticeable because they are set back farther from the street than original dwellings or sited perpendicular rather than parallel to the street. On Funston Lane, a dwelling was added above a row of three garages, with the central garage converted to an entrance hall; however, its location on a deep cul-de-sac and setback from adjacent houses reduces its visibility.

A small one-story single-family Modern-story brick house was built at 119 ½ Farragut Road in 1956. Circa 2000, a new subdivision west of Falcon Lane, known as FDR Walk, added six buildings containing nine landominiums; however it is a tight cul-de-sac on a site planned for garages that were never built, and represents a treatment somewhat similar to the original plan.

The development known as Dewitt Landing has resulted in fourteen new single-family homes being built between 2005 and 2015 on Dewitt and Drummond; two more are planned. These new homes occupy single-family lots carved out of the semicircular superblock after multi-family S buildings were demolished. The new two-story Craftsman-style homes differ in size and style from the more modest single-family homes built on surrounding streets in the 1950s. However, the latter were also a departure from the 1930s plan, which envisioned all S-type residences on larger lots.

The commercial center still retains its essential historic character. Although only partially completed by 1938, the shopping center along Eswin Street was built out according to the original plan after the period of significance. Although it was remodeled circa 1995, its basic massing, flat-roof profile, covered walkway with brick columns and pedestrian passages through the building to the rear parking lot all remain. Storefront windows have been covered but transoms are intact. The parking lot in front was expanded but retains the angled parking arrangement of the original. The Greenhills Cooperative Service Station has been remodeled but still reflects its historic character. Like most business districts, the commercial center of Greenhills continued to grow in response to market forces, but expansions that occurred after 1950 are limited to two low-scale buildings on Enfield and four one-story buildings on Endicott, filling out the blocks on the north and south ends of the center. Although noncontributing, these buildings do not detract from the historic shopping center because of their location on side streets and their low scale.

[30] Records of the Village of Greenhills, Ohio.

Among the original public buildings, the old Management Building at 14 Endicott Street is still relatively intact and continues to house the post office and the Greenhills branch of the public library. The Community Building/School retains excellent integrity of design and materials, and while it was expanded in the 1950s with a flat-roofed south wing, that addition is very compatible with the original building. The swimming pool continues to reflect its period character despite alteration of the bathhouse and expansion of the pool. Most of the parks in the 1938 plan remain, including their paved pedestrian pathways, although original play equipment is gone and so are most plantings except for now stately oak trees. The village commons remains at the heart of the village. The large greensward northeast of the pool was converted to a golf course in the mid-1950s, but importantly it remains a green space. The golf course was developed as part of the Greenhills Country Club, which formed in January 1950 and disbanded in 1976.[31] The country club also took over the management of the pool, installed two tennis courts in a ravine formerly used as an outdoor amphitheater and built a wood-frame clubhouse in 1955-56 just east of the pool. Enlarged in 1973, the clubhouse is now operated as Molloy's on the Green catering hall, and considered noncontributing.[32]

Other changes near the civic center after 1938—specifically the construction of two churches and related buildings—occurred on land on the south and west sides set aside for this purpose in the early plans. One of these buildings, Our Lady of the Rosary School, was built on Farragut Street in 1947 during the period of significance and is considered contributing. During the early days of the village, newly formed religious congregations were invited to meet in the Community Building and it was understood that construction of church buildings would eventually occur once sufficient numbers of congregants and financial resources were amassed. Our Lady of the Rosary church, rectory, and convent, were built in the 1960s and are thus noncontributing, but they are not incompatible with the character of the village. The 1955 Greenhills Community Presbyterian Church is similarly set on a site that the original plan reserved for a church on Winton Road opposite the Commons.

While the historic core of Greenhills has seen alteration of and removal of historic buildings as well as the addition of new ones, most changes since 1950 have occurred on the periphery of the historic village and have been excluded from the NHL boundaries. However, in order to include more of the inner greenbelt, ten additional non-contributing buildings were included. Specifically, these are a former school at 70 Damon Road that was built in 1955, enlarged in 1967 and subsequently converted to a nursing home in 1982; a cluster of apartments built in 1962 at 63 Cromwell Road; and five single-family homes built in the 1950s and 1960s at 64, 66, 68, 70, and 72 Cromwell Road. Two clusters of cul-de-sacs built in the 1960s in the "B" and "D" sections were excluded; they are Beckford and Bayham drives, Deerhill Lane and Dayspring Terrace. Although these later subdivisions have larger lots and larger homes, their cul-de-sac arrangement is consistent with the original plan. In order to include the complete circuit road system within the NHL boundary, thirty additional non-contributing one-story homes built between 1952 and 1958 on Farragut Road and Ingram Road were included. Other residential subdivisions developed after 1950 beyond the circuit road in the northeast quadrant of the village were also excluded.

At the north end of Winton Road, there are a few noncontributing institutional buildings including the two-story brick municipal building at 11000 Winton Road (1959) and the concrete-block hall of the Hugh Watson Post 530 of the American Legion (1959) at 11100 Winton Road, which together flank the historic 1816 James Whallon House (NR#73001473, listed May 17, 1973). Farther north, the First Baptist Church was completed in 1961 at 11195 Winton Road at the southwest corner of Sharon Road. A classroom wing was added in 1966.[33] North of the shopping center, a noncontributing concrete-block retail building built in 1953 at 50 Eswin Street for Albert's Supermarket and occupied by Johnny's Toys from 1976 to 2009 was included in order to allow the

[31] David Moore, email to Beth Sullebarger, 17 Aug. 2015.
[32] Lippmeier, *Act of Congress, Book I, Greenhills, Ohio, 1938-1976*, 17.
[33] Ibid., 42.

northern boundary of the district to include the Whallon House, which was used in the 1930s to house planners during construction.[34]

The exceptionally high integrity of the overall plan and setting—including the network of roadways, system of pedestrian pathways, residential streetscapes, and prominently sited Community Building/School— outweigh the loss of the integrity throughout the village. Despite architectural alterations, loss of some housing units, and new infill construction, the village-like scale and character of the residential streets civic and commercial center remain intact and continue to function as important defining elements of the overall historic plan.

Most important, however, is the retention and even expansion of the greenbelt lands, a defining element of the garden city concept. Of the three greenbelt towns, Greenhills is still surrounded by its greenbelt mostly because of its rough topography and its transfer to the Hamilton County Park District, which preserved it as Winton Woods Park. In addition, the inner greenbelt was saved by the Village, which went to court to save it from development. While these park reservations fall outside the NHL district boundaries, they provide undeveloped parkland, recreational areas, and other compatible land uses that echo the original greenbelt purpose and the then-current ideas about regional planning.

Residential subdivisions after 1950 in Greenhills are somewhat different but compatible with the original 1938 village. Justin Hartzog, who was hired by the federal government in 1946 to help the village draft a plan and zoning ordinance to guide future private development in anticipation of the sale of Greenhills, essentially redrew the 1937 plan. Shortly after buying the village, the Greenhills Homeowners Corporation found a developer, Kenneth Hammond, who was interested in building homes on the undeveloped property but only detached homes set on small lots set on more conventional curvilinear streets Common to subdivisions of the time.[35]

Despite their initial disagreement, Hammond hired Hartzog, who laid out lanes in long curvilinear loops with small lots. As in the original sections, Hartzog included paved pedestrian pathways to allow residents to cut through the long blocks and connect with the village center, at least in the “I” and “J” sections. New single-family residences were erected there and on the “H” blocks with setbacks typical of 1950s subdivisions, yet the spacious character and naturalistic setting typical of Greenhills neighborhoods of the 1950s and 1960s imply this influence, while also reflecting a new generation’s ideas about land-use planning and design of garden suburbs. The new residential development provides a compatible addition to the village and appears to compliment rather than detract from the suburban ideals of 1930s planning.

CONTRIBUTING RESOURCES: INVENTORY

Address	Building Type	Construction Date
1-3-5 Andover Road	3-unit row house	1938
7 Andover Road	single-family house	1938
13-15-17 Andover Road	3-unit row house	1938
19-21-23-25 Andover Road	4-unit row house	1938
27-29-31 Andover Road	3-unit row house	1938
47-49-51 Andover Road	3-unit row house	1938
2-4-6 Andover Road	3-unit row house	1938
8-10-12 Andover Road	3-unit row house	1938
14-16-18 Andover Road	3-unit row house	1938

[34] Ibid., 69.
[35] Leach, 268, 282.

Address	Building Type	Construction Date
20-22-24-26-28 Andover Road	5-unit row house	1938
30-32-34 Andover Road	3-unit row house	1938
36-38-40 Andover Road	3-unit row house	1938
42-44-46-48-50-52 Andover Road	6-unit row house	1938
1-2 Adele Walk	2-unit duplex	1938
3-4 Adele Walk	2-unit duplex	1938
1 Alcott Lane	single-family house	1938
3 Alcott Lane	single-family house	1938
5-7 Alcott Lane	2-unit duplex	1938
9 Alcott Lane	single-family house	1938
11-12 Alcott Lane	2-unit duplex	1938
2 Alcott Lane	single-family house	1938
4 Alcott Lane	single-family house	1938
6-8 Alcott Lane	2-unit duplex	1938
10 Alcott Lane	single-family house	1938
3 Ashby Street	single-family house	1938
11-13-15-17 Ashby Street	4-unit row house	1938
19-21-23-25 Ashby Street	4-unit row house	1938
27-29 Ashby Street	2-unit duplex	1938
2-4-6-8-10-12 Ashby Street	6-unit row house	1938
14-16-18-20 Ashby Street	4-unit row house	1938
22-24 Ashby Street	2-unit duplex	1938
1-3-5-7-9 Avenell Lane	5-unit row house	1938
11 Avenell Lane	single-family house	1938
13-15-17 Avenell Lane	3-unit row house	1938
19-21-23 Avenell Lane	3-unit row house	1938
25 Avenell Lane	single-family house	1938
27 Avenell Lane	single-family house	1938
29 Avenell Lane	single-family house	1938
31 Avenell Lane	single-family house	1938
33-35 Avenell Lane	2-unit duplex	1938
2 Avenell Lane	single-family house	1938
10 Avenell Lane	single-family house	1938
12-14-16-18-20-22 Avenell Lane	6-unit row house	1938
30 Avenell Lane	single-family house	1938
32-34 Avenell Lane	2-unit duplex	1938
36-37 Avenell Lane	2-unit duplex	1938
1-3-5 Burley Circle	3-unit row house	1938
7-9-11 Burley Circle	3-unit row house	1938
13-15-17 Burley Circle	3-unit row house	1938
35-37-39 Burley Circle	3-unit row house	1938
41-43-45 Burley Circle	3-unit row house	1938
47-49-51 Burley Circle	3-unit row house	1938
53-55-57 Burley Circle	3-unit row house	1938
59-61-63-65 Burley Circle	4-unit row house	1938
67-69-71-73 Burley Circle	4-unit row house	1938

Address	Building Type	Construction Date
75-77-79-81 Burley Circle	4-unit row house	1938
83-85-87 Burley Circle	3-unit row house	1938
101-103 Burley Circle	2-unit duplex	1938
105-107-109-111 Burley Circle	4-unit row house	1938
113-115 Burley Circle	2-unit duplex	1938
117-119-121-123-125-127 Burley Circle	6-unit row house	1938
2-4-6 Burley Circle	3-unit row house	1938
8-10-12 Burley Circle	3-unit row house	1938
14-16-18-20 Burley Circle	4-unit row house	1938
22-24-26-28 Burley Circle	4-unit row house	1938
30-32-34-36 Burley Circle	4-unit row house	1938
54 Burley Circle	single-family house	1938
56-58-60-62-64-66 Burley Circle	3-unit row house	1938
76-78 Burley Circle	2-unit duplex	1938
80-82 Burley Circle	2-unit duplex	1938
84 Burley Circle	single-family house	1938
86-88 Burley Circle	2-unit duplex	1938
90-92-94 Burley Circle	3-unit row house	1938
96-98 Burley Circle	2-unit duplex	1938
100-102 Burley Circle	2-unit duplex	1938
104-106 Burley Circle	2-unit duplex	1938
108-110 Burley Circle	2-unit duplex	1938
112-114-116-118 Burley Circle	4-unit row house	1938
120-122 Burley Circle	2-unit duplex	1938
124-126 Burley Circle	2-unit duplex	1938
1-2-3-4 Bradnor Place	4-unit row house	1938
5-6-7-8-9-10 Bradnor Place	6-unit row house	1938
11-12 Bradnor Place	2-unit duplex	1938
1-3-5-7 Briarwood Lane	Two 2-unit duplexes	1938
9-11 Briarwood Lane	2-unit duplex	1938
13-15-17-19 Briarwood Lane	4-unit row house	1938
21-23 Briarwood Lane	2-unit duplex	1938
7-9-11-13 Brompton Lane	Two 2-unit duplexes	1938
15-17 Brompton Lane	2-unit duplex	1938
19-21-23-25 Brompton Lane	4-unit row house	1938
27-29 Brompton Lane	2-unit duplex	1938
31-33 Brompton Lane	2-unit duplex	1938
34-35 Brompton Lane	2-unit duplex	1938
2-4-6-8 Brompton Lane	4-unit row house	1938
10-12-14-16 Brompton Lane	4-unit row house	1938
18 Brompton Lane	single-family house	1938
22-24 Brompton Lane	2-unit duplex	1938
28 Brompton Lane	single-family house	1938
30-32 Brompton Lane	2-unit duplex	1938
3-5 Burnham Street	2-unit duplex	1938
7-9 Burnham Street	2-unit duplex	1938

Address	Building Type	Construction Date
11-13 Burnham Street	2-unit duplex	1938
15 Burnham Street	single-family house	1938
17 Burnham Street	single-family house	1938
19-21 Burnham Street	2-unit duplex	1938
23 Burnham Street	single-family house	1938
25-27-29-31 Burnham Street	4-unit row house	1938
2-4-6-8 Burnham Street	4-unit row house	1938
10 Burnham Street	single-family house	1938
22 Burnham Street	single-family house	1938
24-26-28-30 Burnham Street	4-unit row house	1938
1-3-5 Bachman Street	3-unit row house	1938
7-9-11 Bachman Street	3-unit row house	1938
13-15-17-19-21 Bachman Street	5-unit row house	1938
23 Bachman Street	single-family house	1938
25-27-29-31 Bachman Street	4-unit row house	1938
2-4 Bachman Street	2-unit duplex	1938
6-8 Bachman Street	2-unit duplex	1938
24-26-28-30 Bachman Street	4-unit row house	1938
1-2-3-4 Belknap Place	4-unit row house	1938
5-6-7 Belknap Place	3-unit row house	1938
8-9-10-11 Belknap Place	4-unit row house	1938
10-12-14 Cromwell Road	3-unit S-type row house	1938
16-18-20-22 Cromwell Road	4-unit S-type row house	1938
24-26-28-30 Cromwell Road	4-unit S-type row house	1938
32-34-36-38-40-42-44-46 Cromwell Road	8-unit flats	1938
48-50-52-54-56-58-60-62 Cromwell Road	8-unit flats	1938
1-3-5-7-9 Chalmers Lane	5-unit S-type row house	1938
11-13-15 Chalmers Lane	3-unit S-type row house	1938
17-19-21-23 Chalmers Lane	4-unit S-type row house	1938
25-27-29-31-33-35 Chalmers Lane	6-unit S-type row house	1938
14-16-18-20 Chalmers Lane	4-unit S-type row house	1938
26-28-30-32 Chalmers Lane	4-unit S-type row house	1938
1-2-3-4-5-6 Chalmers Court	6-unit S-type row house	1938
7-8-9-10 Chalmers Court	4-unit S-type row house	1938
11-12-13-14-15-16 Chalmers Court	6-unit S-type row house	1938
1-3-5 Drummond Road	3-unit S-type row house	1938
59-61-63-65 Drummond Road	4-unit S-type row house	1938
72-74-76-78-80 Drummond Road	5-unit S-type row house	1938
67 Drummond Road	single-family house	1947
71 Drummond Road	single-family house	1947
75 Drummond Road	single-family house	1947
79 Drummond Road	single-family house	1947
99 Drummond Road	single-family house	1947
1-3-5-7-9-11 Dewitt Street	6-unit S-type row house	1938
13-15-17-19-21 Dewitt Street	5-unit S-type row house	1938
23-25-27 Dewitt Street	3-unit S-type row house	1938

Address	Building Type	Construction Date
37-39-41-43 Dewitt Street	4-unit S-type row house	1939
14 Endicott Street	Former Management Building	1938
Enfield Street	Farmers' market shed	1938
8 Enfield Street	Community Building & School	1938
10 Enfield Street	Swimming pool, bathhouse, canopy	1938
1-24 Eswin Street	Shopping Center	1938
17-19 Farragut Road	Our Lady of the Rosary School	1942, 1952,1967
25-27-29-31-33 Farragut Road	5-unit S-type row house	1938
35-37-39 Farragut Road	3-unit S-type row house	1938
41-43-45 Farragut Road	3-unit S-type row house	1938
83-85-87-89-91 Farragut Road	5-unit brick row house	1938
93-95-97-99-101-103-105-107-109-111 Farragut Road	10-unit flats	1938
113-115-117-119-121-123-125-127 Farragut Road	8-unit flats	1938
129-131-133-135-137-139-141-143 Farragut Road	8-unit flats	1938
42-44-46-48-50-52-54-56 Farragut Road	8-unit flats	1938
58-60-62-64-66-68-70-72 Farragut Road	8-unit flats	1938
74-76-78-80-82-84-86-88-90-92 Farragut Road	10-unit flats	1938
94-96-98-100-102-104-106-108-110-112 Farragut Road	10-unit flats	1938
114-116-118-120-122-124-126-128 Farragut Road	8-unit flats	1938
130-132-134-136-138-140-142-144 Farragut Road	8-unit flats	1938
1-3-5-7-9 Falcon Lane	4-unit S-type row house	1938
2-4-6-8-10 Falcon Lane	4-unit S-type row house	1938
12-14-16-18 Falcon Lane	4-unit S-type row house	1938
20-22-24-26 Falcon Lane	4-unit S-type row house	1938
1-3-5-7-9-11-13-15 Flanders Lane	8-unit flats	1938
17-19-21-23-25-27-29-31 Flanders Lane	8-unit flats	1938
33-35-37 Flanders Lane	3-unit S-type row house	1938
39-41-43-45 Flanders Lane	4-unit S-type row house	1938
47-49-51 Flanders Lane	3-unit S-type row house	1938
53-55 Flanders Lane	2-unit duplex	1938
57-59 Flanders Lane	2-unit duplex	1938
61-63-65-67 Flanders Lane	4-unit row house	1938
2-4-6-8-10 Flanders Lane	5-unit row house	1938
30-32-34-36-38-40 Flanders Lane	6-unit S-type row house	1938
44-46-48-50 Flanders Lane	4-unit S-type row house	1938
52-54-56 Flanders Lane	3-unit row house	1938
1-3-5-7-9-11 Foxworth Lane	6-unit S-type row house	1938
13-15-17-19 Foxworth Lane	4-unit S-type row house	1938
21-23-25-27-29-31 Foxworth Lane	6-unit S-type row house	1938
1-3-5-7 Funston Lane	4-unit row house	1938

Address	Building Type	Construction Date
9-11 Funston Lane	2-unit duplex	1938
6-8 Funston Lane	2-unit duplex	1938
Fridman Field	Fieldhouse	1938
6 Damon Road	single-family house	1947
8 Damon Road	single-family house	1947
10 Damon Road	single-family house	1947
12 Damon Road	single-family house	1947
14 Damon Road	single-family house	1947
15 Damon Road	single-family house	1947
16 Damon Road	single-family house	1947
18 Damon Road	single-family house	1947
19 Damon Road	single-family house	1947
20 Damon Road	single-family house	1947
21 Damon Road	single-family house	1947
22 Damon Road	single-family house	1947
23 Damon Road	single-family house	1947
24 Damon Road	single-family house	1947
25 Damon Road	single-family house	1947
26 Damon Road	single-family house	1947
27 Damon Road	single-family house	1947
28 Damon Road	single-family house	1947
29 Damon Road	single-family house	1947
29 Damon Road	single-family house	1947
30 Damon Road	single-family house	1947
31 Damon Road	single-family house	1947
32 Damon Road	single-family house	1947
32 Damon Road	single-family house	1947
33 Damon Road	single-family house	1947
34 Damon Road	single-family house	1947
35 Damon Road	single-family house	1947
36 Damon Road	single-family house	1947
37 Damon Road	single-family house	1947
38 Damon Road	single-family house	1947
39 Damon Road	single-family house	1947
40 Damon Road	single-family house	1947
41 Damon Road	single-family house	1947
28 Damon Road	single-family house	1947
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29 Damon Road	single-family house	1947
30 Damon Road	single-family house	1947
31 Damon Road	single-family house	1947
32 Damon Road	single-family house	1947

Address	Building Type	Construction Date
33 Damon Road	single-family house	1947
34 Damon Road	single-family house	1947
35 Damon Road	single-family house	1947
37 Damon Road	single-family house	1947
38 Damon Road	single-family house	1947
39 Damon Road	single-family house	1947
40 Damon Road	single-family house	1947
41 Damon Road	single-family house	1947
42 Damon Road	single-family house	1947
43 Damon Road	single-family house	1947
44 Damon Road	single-family house	1947
45 Damon Road	single-family house	1947
46 Damon Road	single-family house	1947
48 Damon Road	single-family house	1947
49 Damon Road	single-family house	1947
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61 Damon Road	single-family house	1947
62 Damon Road	single-family house	1947
63 Damon Road	single-family house	1947
67 Damon Road	single-family house	1947
69 Damon Road	single-family house	1947
71 Damon Road	single-family house	1947
73 Damon Road	single-family house	1947
75 Damon Road	single-family house	1947
76 Damon Road	single-family house	1947
77 Damon Road	single-family house	1947
78 Damon Road	single-family house	1947
79 Damon Road	single-family house	1947
80 Damon Road	single-family house	1947
4 Gambier Circle	single-family house	1947
5 Gambier Circle	single-family house	1947
6 Gambier Circle	single-family house	1947
8 Gambier Circle	single-family house	1947
10 Gambier Circle	single-family house	1947
11 Gambier Circle	single-family house	1947
12 Gambier Circle	single-family house	1947

Address	Building Type	Construction Date
13 Gambier Circle	single-family house	1947
14 Gambier Circle	single-family house	1947
15 Gambier Circle	single-family house	1947
16 Gambier Circle	single-family house	1947
17 Gambier Circle	single-family house	1947
18 Gambier Circle	single-family house	1947
19 Gambier Circle	single-family house	1947
20 Gambier Circle	single-family house	1947
22 Gambier Circle	single-family house	1947
24 Gambier Circle	single-family house	1947
26 Gambier Circle	single-family house	1947
27 Gambier Circle	single-family house	1947
28 Gambier Circle	single-family house	1947
30 Gambier Circle	single-family house	1947
32 Gambier Circle	single-family house	1947
33 Gambier Circle	single-family house	1947
34 Gambier Circle	single-family house	1947
36 Gambier Circle	single-family house	1947
37 Gambier Circle	single-family house	1947
38 Gambier Circle	single-family house	1947
40 Gambier Circle	single-family house	1947
42 Gambier Circle	single-family house	1947
43 Gambier Circle	single-family house	1947
44 Gambier Circle	single-family house	1947
46 Gambier Circle	single-family house	1947
47 Gambier Circle	single-family house	1947
48 Gambier Circle	single-family house	1947
50 Gambier Circle	single-family house	1947
51 Gambier Circle	single-family house	1947
52 Gambier Circle	single-family house	1947
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57 Gambier Circle	single-family house	1947
58 Gambier Circle	single-family house	1947
60 Gambier Circle	single-family house	1947
61 Gambier Circle	single-family house	1947
62 Gambier Circle	single-family house	1947
64 Gambier Circle	single-family house	1947
65 Gambier Circle	single-family house	1947
66 Gambier Circle	single-family house	1947
68 Gambier Circle	single-family house	1947
11000 Winton Road	James Whallon House	1816

NONCONTRIBUTING RESOURCES: INVENTORY

Address	Building Type	Construction Date
89-91-93-95 Burley Circle	4-unit apartment house	1968
2-4-6-8-10-12 Burwood Court	6-unit apartment house	1960s
14-16-18-20-22-24 Burwood Court	6-unit apartment house	1960s
19 Cromwell Road	single-family house	1954
25 Cromwell Road	6-unit apartment house	1969
21 Cromwell Road	Greenhills Community Presbyterian Church	1956-57-67
63 Cromwell Road	5-building apartment complex	1962
64 Cromwell Road	Single-family house	1950
66 Cromwell Road	single-family house	1964
68 Cromwell Road	single-family house	1956
70 Cromwell Road	single-family house	1958
72 Cromwell Road	single-family house	1955
65 Damon Road	single-family house	2001
70 Damon Road	Nursing home/former school	1960,1967,1982
2 Dewitt Street	single-family house	2014
10 Dewitt Street	single-family house	2015
18 Dewitt Street	single-family house	2014
22 Dewitt Street	single-family house	2007
26 Dewitt Street	single-family house	2007
30 Dewitt Street	single-family house	2007
34 Dewitt Street	single-family house	2007
38 Dewitt Street	single-family house	2006
42 Dewitt Street	single-family house	2014
46 Dewitt Street	single-family house	2009
6 Drummond Road	Single-family house	1953
10 Drummond Road	Single-family house	1953
14 Drummond Road	Single-family house	1953
18 Drummond Road	Single-family house	1953
22 Drummond Road	Single-family house	1953
26 Drummond Road	Single-family house	1953
30 Drummond Road	Single-family house	1953
34 Drummond Road	Single-family house	1953
38 Drummond Road	Single-family house	1953
39 Drummond Road	Single-family house	2005
42 Drummond Road	Single-family house	1953
43 Drummond Road	Single-family house	2005
46 Drummond Road	Single-family house	1953
47 Drummond Road	Single-family house	2005
50 Drummond Road	Single-family house	1953
51 Drummond Road	Single-family house	2005
54 Drummond Road	Single-family house	1953
58 Drummond Road	Single-family house	1953
62 Drummond Road	Single-family house	1953

Address	Building Type	Construction Date
66 Drummond Road	Single-family house	1953
70 Drummond Road	Single-family house	1953
4-6 Endicott Street	Laundromat/restaurant	1962
8 Endicott Street	Office	c 1960
12 Endicott Street	Store	c 1955
1 Enfield Street	Restaurant/store	c 1955
3-5 Enfield Street	Stores block	1986
10 Enfield Street	Molloy's on the Green	1955, 1973
20 Enfield Street	Warehouse	c. 1980
28-40 Eswin Street	shopping center	1953
42-44-46 Eswin Street	Eswin Building	c 1955
48 Eswin Street	Service Station	1938, 1966
50 Eswin Street	Retail	1959
130 Eswin Street	Former IGA/Bowling Lanes	c 1952
11 Falcon Lane	single-family house	1966
1-2 FDR Walk	duplex rowhouse	2001
3 FDR Walk	single-family house	2000
4 FDR Walk	single-family house	2000
5-6 FDR Walk	duplex rowhouse	2000
7 FDR Walk	single-family house	2000
8-9 FDR Walk	duplex rowhouse	1999
15 Farragut Road	Our Lady of the Rosary Church	1960
15 Farragut Road	2S brick rectory	1960
15 Farragut Road	2S convent	1968
119 1/2 Farragut Road	Single-family house	1956
150 Farragut Road	single-family house	1957
154 Farragut Road	single-family house	1956
158 Farragut Road	single-family house	1956
162 Farragut Road	single-family house	1958
166 Farragut Road	single-family house	1952
170 Farragut Road	single-family house	1954
174 Farragut Road	single-family house	1955
178 Farragut Road	single-family house	1955
182 Farragut Road	single-family house	1952
186 Farragut Road	single-family house	1952
190 Farragut Road	single-family house	1953
194 Farragut Road	single-family house	1952
198 Farragut Road	single-family house	1952
202 Farragut Road	single-family house	1952
206 Farragut Road	single-family house	1952
210 Farragut Road	single-family house	1952
214 Farragut Road	single-family house	1952
218 Farragut Road	single-family house	1952
300 Ingram Road	single-family house	1953
304 Ingram Road	single-family house	1953
308 Ingram Road	single-family house	1953

Address	Building Type	Construction Date
312Ingram Road	single-family house	1953
316 Ingram Road	single-family house	1954
320 Ingram Road	single-family house	1954
324 Ingram Road	single-family house	1953
328 Ingram Road	single-family house	1953
332 Ingram Road	single-family house	1953
336 Ingram Road	single-family house	1953
340 Ingram Road	single-family house	1953
344 Ingram Road	single-family house	1953
348 Ingram Road	single-family house	1953
352 Ingram Road	single-family house	1953
356 Ingram Road	single-family house	1953
360 Ingram Road	single-family house	1953
364 Ingram Road	single-family house	1953
368 Ingram Road	single-family house	1953
372 Ingram Road	single-family house	1953
376 Ingram Road	single-family house	1953
380 Ingram Road	single-family house	1952
384 Ingram Road	single-family house	1959
388 Ingram Road	single-family house	1952
392Ingram Road	single-family house	1952
396 Ingram Road	single-family house	1952
400 Ingram Road	single-family house	1952
404 Ingram Road	single-family house	1952
408 Ingram Road	single-family house	1952
412 Ingram Road	single-family house	1952
11000 Winton Road	Municipal Building	1959

8. STATEMENT OF SIGNIFICANCE

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

Nationally: X Statewide:__ Locally:__

Applicable National Register Criteria: A X B__ C X D__

Criteria Considerations (Exceptions): A__ B__ C__ D__ E__ F__ G__

NHL Criteria: 1 and 4

NHL Theme(s): I. Peopling Places
4. Community and Neighborhood
III. Expressing Cultural Values
5. Architecture, Landscape Architecture and Urban Planning

Areas of Significance: Community Planning and Development
Politics/Government
Architecture
Landscape Architecture

Period(s) of Significance: 1935-1950

Significant Dates: 1935-1938

Significant Person(s): N/A

Cultural Affiliation: N/A

Architect/Builder: Hartzog, Justin R. (Chief Planner); Strong, William A. (Assistant Planner); Wank, Roland A. (Principal Architect); G. Frank Cordner (Assistant and Principal Architect)

Historic Contexts: XVI. Architecture
W. Regional and Urban Planning
VII. Political and Military Affairs, 1865-1939
H. The Great Depression and the New Deal, 1929-1941
XXXI. Social and Humanitarian Movements
A. Communitarianism and Utopianism
XXX. American Ways of Life
H. Suburban Life

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

SUMMARY STATEMENT OF SIGNIFICANCE

The Village of Greenhills represents highly important aspects of New Deal policy, an important period in the evolution of the American suburb, and pioneering innovations in house and neighborhood design. An adaptation of American garden-city planning to the climate, topography, and cultural preferences of the Midwestern United States, the Village of Greenhills meets NHL Criteria 1 and 4 under the NHL themes, Peopling Places (community and neighborhood) and Expressing Cultural Values (architecture, landscape architecture, and urban planning). As one of the three New Deal greenbelt towns built by the Resettlement Administration's Division of Suburban Resettlement, it is nationally significant under NHL Criterion 1 for its association with highly significant activities that shaped the Federal response to the Great Depression by providing economic relief in the form of employment for skilled and unskilled labor and making use of modern principles of design and lower-cost methods and materials of home construction in an effort to stimulate the building industry and raise the quality of life for working-class Americans. The village meets NHL Criterion 4 for its artistic merit and outstanding representation of the American Garden City movement, the widely acclaimed Neighborhood Unit Plan, and the innovative, cost-saving measures of group housing and large-scale home construction. Originally built as a demonstration of garden-city planning and a model suburb for lower-income Americans, the Village of Greenhills is a nationally significant historic residential suburb as defined in the nationwide Historic Residential Suburbs in the United States, 1830 to 1960, Multiple Property Submission (MPS). The original section of Greenhills retains a high degree of integrity of location, setting, design, workmanship, materials, feeling, and association.

The NHL district as proposed enlarges the 1988 National Register boundaries, which included only those resources built through the original construction period ending in 1938. The NHL boundaries include additional contributing resources that date to the period of significance, 1935 to 1950. In addition, the NHL boundaries encompass the complete circuit road system, which was of primary importance in the original plan. This involved including non-contributing homes on Farragut and Ingram built in the 1950s, but not the larger area beyond those roads that was sold and developed with residential subdivisions in the 1950s and 1960s. The period of significance extends from 1935, when construction began, to 1950, when the period of Federal management ended and homes were sold to private ownership. Like the other two completed greenbelt towns, Greenhills had dozens of single-family homes built shortly after World War II to accommodate veterans. This later development reflected the desire of its working-class residents for single-family dwellings with garages and private yards versus the earlier attached housing on superblocks with grouped garages.

The Suburban Resettlement program and the design of Greenhills reflect maturing ideas about American town planning, as well as government-supported efforts to provide employment, stimulate the construction economy, and, in doing so, demonstrate fundamental improvements to the quality of housing and community life for working-class Americans. This program was fueled by an optimism that social problems could be remedied and urban blight eliminated through the planning and design of safe, healthy, and affordable communities set apart from the center city. It was also based on the possibilities that economies of scale, new materials, and new approaches to design offered in reducing the cost of construction. Such planning entailed regional and community planning, the careful selection of a decentralized site with transportation access to employment and recreational areas, the large-scale development of efficient modern homes using new materials and methods of construction, and the arrangement of streets, pedestrian pathways, housing, and community buildings to form a spacious and healthy village environment.

Greenhills and the other greenbelt towns exemplify the goals of the New Deal, not only as models of scientifically and aesthetically planned communities, but as responses to the desperate unemployment and housing crises of the era. Finally, the greenbelt towns represent social, economic, and political experimentation unparalleled in American history. The Federal government built and retained ownership of each town yet encouraged the residents to govern themselves and to work together through cooperative associations to establish and operate the town's businesses and institutions. Planned and constructed in a relatively brief and unprecedented period of government sponsorship, Greenhills and the other greenbelt towns made a bold statement about community planning and presented a radical challenge to the individualistic capitalism and entrepreneurism that characterized American society, traditional patterns of growth, and the home-building industry.

Greenhills was built as a model suburb for lower-income Americans and a demonstration of American garden-city planning and large-scale home building.[36] It reflects the collaboration of town planners Justin R. Hartzog and William A. Strong and principal architects Roland A. Wank and F. Frank Cordner. Together the four designers headed a collaborative team of more than 150 persons who helped design Greenhills. The design team interpreted garden-city principles and American planning traditions, modified by environmental conditions and target population preferences, to create a community with an innovative site plan that safely accommodated the automobile while conserving natural features, and that incorporated abundant parks, and high-quality housing that was modern yet economical in layout and materials.

Greenhills reflects the influence of the 1931 President's Conference on Home Building and Home Ownership, advances in professional theories for home construction and community planning, and the development of national standards for subdivision design, large-scale development housing, and community enhancement. The community represents one of the most comprehensive New Deal housing programs and reflects one of several alternatives for deterring urban blight and solving the nation's shortage of low-cost housing. The 1930s represented a brief but intense period of experimentation in which the Federal government assumed leadership for promoting community development and housing reform in suburban, rural, and urban areas of the country. Other New Deal housing programs included the small house and large-scale rental housing programs of the Housing Division of the Public Works Administration (1933-1935), Federal Home Loan Administration, Subsistence Homestead Division of the Public Works Administration (1933-1935), Tennessee Valley Authority (est. 1933), Federal Housing Administration (est. 1934), Reconstruction Finance Corporation, the Resettlement Administration's Rural Resettlement program (1935-1944) and United States Housing Authority (est. 1938). A Central Housing Committee was established in 1935 within the National Resources Planning Board to coordinate the activities of the various housing agencies.

PEOPLING PLACES: THE GREENBELT TOWN PROGRAM AND THE DEVELOPMENT OF GREENHILLS

The greenbelt town program was unique among the Federal initiatives undertaken during the Depression and was intended to address three major problems worsened by the economic conditions of the era: widespread unemployment, expanding urban slums, and the shortage of decent housing.

The economic collapse of the Depression found 14 million Americans out of work and 4 million families receiving public assistance by 1933. Some 273,000 families would lose their homes to foreclosure that year. The building industry was especially hard hit as one-third of the unemployed had worked in the building trades. Housing construction fell to one-tenth of its 1925 figure, exacerbating a pre-existing housing shortage and forcing the urban poor and the rural migrants, drawn to cities in search of work, to crowd into the deteriorated

[36] Charles Bradley Leach, "Greenhills, Ohio: The Evolution of an American New Town," Ph.D. diss. Case Western Reserve University 1978, 170. "Planning Official J. R. Hartzog Dies," *Cincinnati Enquirer*, 23 Dec 1963: 24:2.

housing in city slums. Franklin Delano Roosevelt, swept into office with his pledge of economic recovery, was inaugurated in March 1933. Within the first few months of Roosevelt's New Deal administration, Congress had enacted the National Industrial Recovery Act and the Agricultural Adjustment Act. The creation of the Federal Emergency Relief Administration, the Civilian Conservation Corps, the Tennessee Valley Authority and the Subsistence Homesteads Development Division, among others, followed.[37] The purpose of these agencies and programs was perhaps best articulated by Harold L. Ickes, Secretary of the Interior and director of the Federal Emergency Administration of Public Works (PWA), who stated, "Our business is to put men to work, to do it quickly, and to do it intelligently."[38]

Historically, the Federal government had only intervened in the housing market during wartime, but the desperate situation encouraged the President to support Federal initiatives that would build housing, raze slums and otherwise improve living conditions for the 63 percent of the population that was considered low-income (making less than $1,500 annually). The Subsistence Homesteads Development Division relocated farm families from depressed areas to experimental agricultural communities, such as the Penderlea Homesteads (North Carolina) and Matanuska Valley (Alaska) Colony. Jobless industrial workers were resettled in government-created rural towns such as Arthurdale, West Virginia (for former coal miners), Aberdeen Gardens, Virginia (for African American families), and Jersey Homesteads, New Jersey (for Jewish garment workers), where residents could supplement farming with part-time employment in a cooperative factory. The PWA, through its short-lived Housing Division, bought land in urban slums, cleared each site, and attempted to build new, low-cost housing; headed by architect Robert Kohn of the Regional Planning Association of America (RPAA), this program resulted in the nation's first low-income public housing developments such as Carl Mackley Homes in Philadelphia, Lockefield Gardens in Indianapolis, Hillside Homes (designed by Clarence Stein) in New York City, and Techwood Homes in Atlanta, Georgia. However, acquiring urban parcels proved expensive and time-consuming. Ultimately, very little public housing was built.[39] The Housing Division was dismantled in 1935, and the dialogue over how to fund housing for the nation's poorest groups continued until 1937 when the Wagner Act established a program of Federal funding for housing projects carried out by local housing authorities.

The nation's first town to incorporate a complete greenbelt was Norris, Tennessee, a community completed by the Tennessee Valley Authority (TVA) in early 1935. Established by Congress in May 1933, the TVA was the federal government's first regional planning agency and remains the largest. It was conceived to bring electrical power, flood control, and economic development to the poverty-stricken watershed of the Tennessee River. In area, it covered most of Tennessee as well as parts of Alabama, Mississippi, and Kentucky, and small slices of Georgia, North Carolina, and Virginia.

The enterprise resulted from the efforts of Senator George W. Norris of Nebraska and used federal experts and electricity to modernize the region's economy and society. The TVA concept was shaped by four key individuals—Arthur E. Morgan, chief engineer of the TVA dams and its first appointed director; Frederick Gutheim, a regional planning prodigy connected with the Regional Planning Association; John Nolen, Jr., the

[37] Robinson & Associates, Inc. and Jeffrey Shrimpton, "Historic Context: Public Housing in the United States, 1933-1949," Draft Report Prepared for the U.S. Department of Housing and Urban Development and the U.S. Department of the Interior, National Park Service, National Register, 14 August 1997, p. 19; Gwendolyn Wright, *Building the Dream: A Social History of Housing in America,* (Cambridge: M.I.T. Press, 1983), p. 220. Portions of the historic context for the theme Peopling Places have been adapted or reproduced from the Statement of Significance that previously appeared in Linda Flint McClelland, Daina Penkiunas, and Elizabeth L. Miller. "Greendale, Wisconsin, NHL Nomination," 19 April 2012.

[38] Harold Ickes, "Public Works in the New Deal," *Architectural Forum* 59 (September 1933): 151.

[39] Wright, *Building the Dream,* 220-22.

nation's foremost town planner; and Charles W. Eliot II, a landscape architect who had been director of the National Capital Park and Planning Commission and later the National Resources Planning Board.[40]

The TVA resulted in construction of dozens of dams, including twenty-nine hydro-electric plants, and other projects. The first dam, built on the Clinch River, was named the Norris Dam after the program's sponsor. In planning housing for the dam workers, it was decided to build a permanent new town, also known as Norris, rather than a temporary construction camp. To accomplish the TVA's ambitious program, Morgan hired Earle Sumner Draper as Director of Land Planning and Housing, Roland Wank as Chief Architect, and Tracy Augur as Chief Town Planner.[41]

The Norris town plan was designed specifically for the mountainous terrain around Knoxville. In their approach, the planners considered both Kingsport, TN—a company town laid out by John Nolen in 1915 with the assistance of Earle Sumner Draper—and Radburn, NJ, designed by Clarence Stein and Henry Wright and completed in 1929. From Kingsport, the planners adopted a protective belt of Government-owned land as an essential part of the town plan. Besides its function of permanently preserving open land within easy reach of the residents, it helped to preserve the unity of the town itself by establishing a recognizable boundary between it and any other urban development that might take place nearby. It would also provide recreation area for townspeople and visitors to the dam and space for garden areas and farms. Because the greenbelt at Radburn was somewhat limited, the planners considered Norris to be "the first self-contained new town in this county to use it completely."[42]

From considering the plan of Radburn, it became apparent that its tight street layout would not work in the case of Norris. Instead, Draper, Augur and Wank decided that "a more protracted and less geometric pattern was appropriate to a landscape which was nearly fifty percent steep slopes."[43] The new town of Norris was "an adept and clever plan, with an unprecedented variety of superblocks, loops and cul-de-sacs," arranged in response to the mountainous topography. Another innovative feature was the creation of Norris Parkway, a dedicated green corridor laid out according to the natural topography and designed to provide scenic and efficient access to, from, and around the town.[44]

In February 1935, Rexford Guy Tugwell (1891-1979), then Undersecretary of Agriculture, approached John Lansill, the director of the Land Utilization Division of the Federal Emergency Relief Administration, about acquiring 15,000 acres of sub-marginal land adjacent to the National Agricultural Research Station at Beltsville, Maryland, not far from Washington D. C. Tugwell, an agricultural economist who had left Columbia University to advise Roosevelt as a member of his "Brain Trust," proposed to reclaim the land for reforestation and recreation and possibly build a town for employees of the research station on the site. Reputedly the most radical of Roosevelt's advisors, Tugwell was an outspoken proponent of land use reform and the cooperatives movement. Tugwell held a realistic view of the hardships of farm life and did not see relocating the urban poor to farms as the solution to their poverty. He was also familiar with contemporary ideas in urban and regional planning, such as that of the self-supporting, decentralized garden city promoted by members of the RPAA. Tugwell saw the garden city as the solution to several of the problems confronting the nation. In the short run, building the new town would create hundreds of jobs. In the long run, the satellite community would provide jobs and decent housing for the poor in a suburban setting, surrounded by a greenbelt of farms and parkland, with municipal governance and businesses operated by consumer cooperatives. In addition, the town would illustrate the benefits of community planning, and serve as a counterpoint to the low-quality subdivisions and

[40] Creese, 75.
[41] Leach, 109
[42] Augur, 22.
[43] Leach, 109
[44] Creese 242.

speculative land purchasing that was causing urban blight and spreading outward from the cities. Lansill endorsed Tugwell's proposal and the Federal Emergency Relief Administration began securing options on the land at Beltsville (Berwyn, Maryland) in March 1935.[45]

On April 8, 1935, Congress enacted the Emergency Relief Appropriations Act, providing over $4 billion (the largest single appropriation in American history) for public works projects that would provide work for the unemployed. The President was given the authority to allocate the funds, sparking a competition among the various Federal agencies for a share of the monies. Tugwell pitched his idea for a new town at Beltsville, Maryland, to the President. Roosevelt, a firm believer in the benefits of country living, responded so enthusiastically, Tugwell expanded his proposal to encompass the construction of new towns outside large industrial cities across the nation.[46] This was the genesis of the greenbelt town program. Tugwell later stated: "My idea [was] to go just outside centers of population, pick up cheap land, build a whole community, and entice people into it. Then go back into the cities and tear down whole slums and make parks of them."[47]

To facilitate the greenbelt town program, Roosevelt and Tugwell created the Resettlement Administration (RA), authorized by Executive Order 7027, signed by Roosevelt on April 30, 1935.[48] Tugwell was made director of the new agency, and several existing rehabilitation and conservation programs were transferred to it, including the Subsistence Homesteads Development Division. Within the RA, Tugwell immediately organized the Suburban Resettlement Division (SRD), appointed John Lansill director, and charged the division with the task of developing the greenbelt town program. The executive order gave the RA the power to "administer approved projects including resettlement of destitute or low-income families from rural and urban areas, including the establishment, maintenance, and operation in such connection, of communities in rural and suburban areas."[49]

Plans for the greenbelt town program evolved over the summer of 1935, guided by four men: John Lansill; Warren J. Vinton, economist and chief of SRD's Research Section; Frederick J. Bigger, an architect and planner who was a former member of the RPAA and had been tapped to provide a designer's perspective; and Tugwell himself, who convened a panel of distinguished experts such as Ernest J. Bohn, president of the National Association of Housing Officials; educator John Dewey; and economist Stuart Chase as well as representatives of disciplines such as child care and social work.[50]

The greenbelt town program placed major emphasis on suburban land-planning, large-scale construction, and the safety issues posed by increasing automobile ownership. Warren Vinton wrote:

> We stand on the threshold of all the new potentialities of large-scale planned developments. Great and extraordinary congestion on the land is no longer a necessity; rapid transit and the automobile have made possible an almost indefinite expansion of metropolitan areas. Housing may now, more easily than in the past, be located in open spaces, affording ample fresh air, sunlight, and areas for recreation. With the automobile there has come a necessity for changed types of urban land planning. New and even radical innovations are in the offing, such as

[45] Alanen and Eden, pp. 3-5; Joseph L. Arnold, *The New Deal in the Suburbs: A History of the Greenbelt Town Program, 1935-1954,* (Columbus, Ohio: Ohio State University Press, 1971), 31; Elizabeth Jo Lampl, "Greenbelt NHL Nomination," 22 March 1996, 25-26.

[46] Arnold, 31; Alanen and Eden, 5; Lampl, 26.

[47] Stanley Buder, *Visionaries and Planners: The Garden City Movement and the Modern Community* (New York: Oxford University Press, 1990), 176.

[48] Lampl, pp. 24-25, quotes Tugwell's diary as reading, "The President and I between us invented the RA."

[49] Executive Order No. 7027, 30 April 1935, reprinted in U.S. Resettlement Administration, *First Annual Report, 1936,* (Washington, D.C.: U. S. Government Printing Office, 1936), 1-2.

[50] Alanen and Eden, pp. 6-8. The authors relied heavily on an unpublished report of the program prepared by Henry Churchill, John S. Lansill Papers, University of Kentucky Special Collections, Lexington, Kentucky.

> superblocks, open spaces penetrating housing areas, and the complete separation of pedestrian and vehicular traffic. The three great Greenbelt towns now being built by the Resettlement Administration of the Department of Agriculture are experiments in these new and modem techniques of land planning.[51]

Vinton and the staff of the SRD's Research Section studied 100 major industrial cities to determine where to locate greenbelt towns. The principal criteria used in selecting these cities were a stable and diverse manufacturing sector, inexpensive land available on the outskirts of the city, and a progressive political climate likely to support public works. Twenty-five cities met these criteria. Further consideration narrowed the list to eight: St. Louis, Missouri; Cincinnati, Ohio; Milwaukee, Wisconsin; Chicago, Illinois; New Brunswick, New Jersey; Dayton, Ohio; Chattanooga, Tennessee; and Washington, D.C.[52]

Meanwhile, Frederick Bigger had brought in housing expert Catherine Bauer and several planning consultants, many of whom were experienced in garden-city planning or were RPAA members, including Henry Wright, Clarence Stein, Tracy Augur, Earle Draper, John Nolen and Jacob Crane. These individuals convinced Lansill that the quality of the design was crucial and should not be left to engineers (which Tugwell had done initially, with predictably unimaginative results). Through their influence, Tugwell was persuaded to refocus the program with the purpose of creating four state-of-the-art greenbelt towns that would serve as models of community planning.[53]

On September 12, 1935, President Roosevelt allocated $31 million to the RA for the greenbelt town program, with the implication that an additional $38 million might be granted in the future. The smaller-than-hoped-for budget was encumbered with the requirements that all the land for the towns must be purchased by December 15, 1935 and that the towns must be completed by June 30, 1936. By November 1, 1935, the locations selected for the four greenbelt towns were Washington, D.C. (Greenbelt, Maryland); Cincinnati, Ohio (Greenhills); New Brunswick, New Jersey (Greenbrook, which was dropped in May 1936 as the result of a pending law suit); and Milwaukee, Wisconsin (Greendale).[54]

In October 1935, Bigger was named Chief of Planning for the SRD. With the assistance of the prominent urban planner John Nolen, Bigger selected a team of planners, architects, engineers and other staff for each town.[55] Shortly after his appointment Bigger articulated the purpose of the greenbelt town program, as follows:

> (a) To secure a large tract of land, and thus avoid the complications ordinarily due to diverse ownerships; in this tract to create a community, protected by an encircling green belt; the community to be designed for families of predominantly modest income, and arranged and administered (managed) so as to encourage that kind of family and community life which will be better than they now enjoy, but which will not involve subjecting them to coercion or theoretical and untested discipline; the dwellings and the land upon which they are located to be held in one ownership, preferably a corporate entity to which the Federal Government will transfer title, and which entity or corporation will rent or lease the dwellings but will not sell them; a municipal government to be set up in character with such governments now existing or possible in that region; coordination to be established, in relation to the local and state governments, so that there

[51] Vinton, Warren Jay. "A Survey of Approaches to the Housing Problem," *Annals of the American Academy of Political and Social Science* 190, Current Developments in Housing (March 1937), 12. This article encourages large-scale housing operations. Vinton was formerly director of his own development company in Detroit.

[52] Alanen and Eden, 12; Arnold, 39.

[53] Alanen and Eden, 7.

[54] Ibid, 43.

[55] Ibid, 7.

> may be provided those public services of educational and other character which the community will require; and, finally, to accomplish these purposes in such a way that the community may be a tax paying participant in the region, that extravagant outlays from the individual family income will not be a necessity, and that the rents will be suitable to families of modest income.
>
> (b) To develop a land use plan for the entire tract; to devise, under the direction of the Administrator, a system of rural economy coordinated with the land use plan for the rural portions of the tract surrounding the Suburban community; and to integrate both the physical plans and the economies of the rural area and the Suburban community.[56]

The RA's suburban resettlement program was conceived as an adjunct to the rural resettlement program that had begun as the Subsistence Homestead Program under Ickes's PWA program. As many of the Federal housing initiatives, the impetus for this program came from the 1931 President's conference, specifically, the recommendations of the Committee on Farm and Village Housing, which had closely examined the living conditions of the nation's rural population and called attention to the need for immediate reform. The committee identified the need for the development of housing standards within reach of different groups of people in rural villages—standards that considered the type of architecture, the structural plan, and the methods of financing and reflected the "growing interest in village planning for individual comfort and social efficiency." These common considerations justified the extension of the agency's work into the area of suburban resettlement according to E. L. Kirkpatrick, the professor of rural sociology who was a member of the committee in 1931 and became the assistant regional director for the RA's Midwest office.[57]

Following Tugwell's departure, the program redefined its focus, dropping the more controversial aspects of cooperative land use and linking it instead to the more popular programs of the Federal Housing Administration (established 1934), which offered mortgage insurance and technical assistance for new privately financed and constructed subdivisions. As Kirkpatrick explained in 1937:

> Suburban Resettlement is trying to demonstrate a feasible method of providing adequate low-rental or reasonable-cost dwellings in home-like surroundings. It is attempting to show that urban workers as well as farmers have access to homes that are equipped with the essentials for healthful and satisfactory living. In doing this, it hopes to open a new road for America's builders and money lending institutions.[58]

Although short-lived and falling short of the RA's original ideal, the greenbelt town program succeeded in creating three model communities, planned and built with Federal relief funds and labor in the course of a three-year period. These communities took form at a time when numerous Federal programs were seeking ways to stimulate the building industry, put people to work, stave off urban blight, provide a template for healthy and safe communities, and control future urban growth through land-use planning. Taken together the greenbelt towns provide an ideal of neighborhood planning, garden-city design, and low-cost housing design that was endorsed by the Federal government, with the input of some of the nation's leading planners and designers, as a model for future town planning and suburban development. Viewed individually, each of the three towns is a unique and enduring record of 1930s ideas about land-use planning, highly important advances in the housing

[56] Arnold, pp. 84-85; reproduced from U.S. Resettlement Administration, *Greenbelt Towns: A Demonstration in Suburban Planning,* (Washington, D.C.: U.S. Government Printing Office, 1936), 1.

[57] E. L. Kirkpatrick, "Housing Aspects of Resettlement," *Annals of the American Academy of Political and Social Science* 190, Current Developments in Housing (March 1937), 98-99.

[58] Ibid., 99; the inner quotation comes from RA, *Greenbelt Towns.*

field, and the interdisciplinary collaboration of some of the nation's finest designers and most forward-looking theorists.

Greenhills: Origin and Progress

Cincinnati was selected as the location of a greenbelt town project for a variety of reasons. It had a historically and geographically sound economy with a diverse industrial base. With its "combination of river and rail transportation, low cost fuel resources, accessibility to various ore deposits and a large reserve of available labor," it was expected to become a leading center of industry. A high percentage of its population was already employed in a large diversity of manufacturing jobs.[59] Hamilton County had a substantial agricultural sector. The area was "well adapted to profitable farming, but intensive and largely unplanned use of the land has resulted in serious depletion of soils over large areas; prosperous farms are interspersed with run-down properties."[60] Local farmers could benefit from training and a demonstration of modern land planning and farm management. Moreover, there was extensive farm land that could be acquired economically. The city had a serious housing problem affecting moderate-income families and a need for employment.

Cincinnati's greatest advantage, however, may have been its demonstrated interest in planning and public housing. In 1925, Cincinnati became the first city in the nation to adopt a comprehensive master plan by city council.[61] Cincinnati housing advocates had participated in the President's Conference on Home Building and Home Ownership in 1931. These included Bleecker Marquette, head of the Better Housing League, and Murray Seasongood, attorney, civic reformer, and mayor of Cincinnati elected in 1925, who served as president of the National Municipal League. Both participated in a committee on Blighted Areas and Slums. Walter S. Schmidt, president of Frederick A. Schmidt Company, Cincinnati's leading real estate firm, participated in the committee on large scale operations.[62]

In September 1935, the Frederick A. Schmidt Company had begun optioning land for the RA in northern Hamilton County. Despite resistance from a number of landowners, by early December 1935, when purchasing began, Schmidt's company had optioned over 10,000 acres in the vicinity of the rural community of Mount Healthy, an exurb about 13 miles north of downtown Cincinnati. The RA eventually bought 6,846 acres at a total cost of $1.8 million, making the average price per acre $268, which was about $100 higher than that paid at Greenbelt but $100 less than the price per acre in Greendale.[63]

Each greenbelt town project had its own design team. The Greenhills staff was led by Justin R. Hartzog, chief planner; William A. Strong, assistant chief planner; Roland A. Wank, principal architect; and G. Frank Cordner, who began as assistant architect and became principal architect after Wank returned to his job with the Tennessee Valley Authority (TVA). Over 150 people were a part of the Greenhills team including support personnel and consultants in diverse fields such as wildlife management, real estate analysis and agricultural practices. RA advisors included Tracy Augur (on planning), Earle Draper (on planning) Catherine Bauer (on housing), and Clarence Stein (on cost analysis). The Greenhills team was headquartered with the other project teams in the Washington mansion of socialite Evelyn Walsh McLean. The Greenhills project opened a local office in Mount Healthy directed by Cincinnati architect Harry M. Price as the Chief Planners Representative.[64] The field research for the project, including topographic surveys and social research on blue-collar families in

[59] Summary Description of the Greenhills Project, Nov. 1937, 7.
[60] Ibid.
[61] Cincinnati's Planning History, 21, https://www.cincinnati-oh.gov/planning/news/planning-history-spotlight-the-official-plan-of-the-city-of-cincinnati-1925/.
[62] President's Conference on Home Building and Home Ownership in 1931, p vii and viii.
[63] Leach, 93.
[64] List of Personnel to September 1, 1937, Hartzog Papers.

Cincinnati, were carried out from the Ohio office. The Greenhills team shared offices in Washington with the designers working on the other greenbelt towns, including Henry Wright, co-designer of Radburn, educator, and author of *Rehousing Urban America* (1936), who headed the team designing the Greenbrook New Jersey, project.

Justin R. Hartzog (1892-1963), who served as the chief planner and the titular head of the Greenhills team that included site planners, architects, landscape architects and engineers, brought extensive experience and knowledge in town planning, vehicular and pedestrian circulation, and development of parks and parkways. Hartzog was born in Ada, Ohio, a tiny university town and grew up in various places in northern Ohio and southeastern Michigan. In 1910, he entered Denison University in Granville, Ohio, where he studied botany and engineering, and earned a B.S. degree in 1914. From there he went to Cornell University for a Master's Degree in Landscape Design. After graduating from Cornell in 1917, Hartzog joined the Army as a second lieutenant in the Construction Division as a "camp planner."[65]

After the war, Hartzog travelled in Europe and Mexico. In 1921, he went to work as a draftsman for the eminent planner John Nolen in Cambridge, Massachusetts. Nolen is reputed to have operated the largest and most proficient of the consulting firms engaged in city planning during the 1920s and many of the better-known planners began in the profession by working under him. In 1926, Nolen made Hartzog an associate of the firm. After Nolen's death in 1937, Hartzog opened his own office in Harvard Square, Cambridge, where he practiced until 1954. In that year, he moved to Fayetteville, Ohio, where his wife, the former Margaret McCafferty, was from. He lived there until his death in 1963.[66]

Simultaneously with his private consulting, Hartzog held many government positions, particularly after the start of the Depression. Between 1933 and 1939, he served in many positions on the National Resources Committee of the National Planning Board, as a consultant to Maine, New Hampshire and Rhode Island, and as a member of the New England Regional Planning Commission. Between 1938 and 1942, Hartzog was a consultant with the United States Housing Authority and served as regional coordinator in New England for the Office of Defense Housing Coordination from 1940-1941. Also, in the 1940s, he was a consultant to the Federal Public Housing Authority and Chief Consultant for City Planning for the National Housing Agency. Hartzog was recognized professionally as a fellow in the American Society of Engineers, American Society of Landscape Architects, and the Royal Society of Landscape architects. In addition, from 1939 to 1943, he was an Assistant Professor and Visiting Critic at M.I.T. and Cornell.[67]

As Nolen's associate, Hartzog designed several new towns, including Venice and Clewiston, Florida, and Happy Valley, Tennessee. He designed the parks for Mariemont, Ohio. He also drew plans and wrote planning reports for a large number of small and medium-sized cities throughout the East and Midwest, in Nolen's office and on his own. The new towns of Mariemont, Venice and Clewiston, while undeniably among the finest examples of planning for their time, were very formal arrangements, like most of John Nolen's new town schemes, and had none of the rambling features of Greenhills. Happy Valley, on the other hand, south of Knoxville on the Little Tennessee River, was little more than a small collection of houses, and would hardly qualify as a "town" for design purposes. Therefore, the design for Greenhills must have come from some other source than Hartzog's previous work in the area of new town design.[68]

Hartzog's primary concerns in the field of planning were highways and parks. Hartzog believed that streets determined other land-uses, and that the location of highways were therefore of prime importance. Once the

[65] Leach, 109-110.
[66] Ibid., 110.
[67] Ibid., 111.
[68] Ibid., 111-112.

fundamental arteries of a town had been laid out, the rest would more naturally fall into place. Hartzog's interest in parks was somewhat limited, in that he believed all parks, including "wilderness" areas, needed a design in order to be functional in a human context, and park design was the extent of Hartzog's concern with nature. Although he felt it was unfortunate that waterfronts in urban areas had been generally preempted by industry, he believed this was an economic necessity. Parks were naturally created from the lands deemed unusable for commercial purposes. Hartzog thought parks should be designed to bring the land into accord with the desired purposes for the tract. The function was settled upon after the acquisition of the property. Despite these attitudes, Hartzog believed that outdoor recreation was a necessity and not a luxury, and that insufficient park space existed within most urban settings. He thought that metropolitan park commissions should be formed with the mandate to purchase and improve park lands within an hour's drive of city residents.[69]

Based on these opinions, Hartzog saw the planning process as functioning within the following priorities: 1) circulation, 2) living and working areas, 3) recreation. Like his mentor, John Nolen who considered himself a town planner, he valued small towns and promoted industrial decentralization. Overcrowded cities, in his view, were created with the influx of industrial works and their families. Longview, Washington, a new community designed in 1922 by George Kessler, was cited by Hartzog as an ideal example of an industrial community.[70]

William A. Strong (1892-1980) went to work for the Cleveland City Planning Commission in 1920 after receiving his master's degree in city planning from Harvard University. Born in Joliet, Illinois, he was a graduate of the University of Illinois. From 1925 to 1977, he was in private business, first as a partner with Arthur Hadden Alexander, another Harvard-educated landscape architect, then on his own from 1944 until 1961, and then with Strong & Hill.

By the time he joined with Greenhills planning staff in November 1935 as Assistant Chief Town Planner, he had fifteen years of experience. After leaving the Greenhills project, Strong continued his involvement with public housing by planning the landscaping for Woodhill Homes and Carver Park in Cleveland. Both were developed in 1939-1941 for the Cleveland Metropolitan Housing Authority and resembled Greenhills with their row houses, curving streets and cul-de-sacs. His other major projects were serving as landscape architect for Kent State University for more than thirty years, from 1937 to 1968; for the Holden Arboretum from 1956 to 1977; and the Fine Arts Garden during the latter period. Strong was named a fellow of the American Society of Landscape Architects and served that organization as a trustee. From 1948 to 1962 he chaired the publication board of *Landscape Architecture* magazine and received a medal for outstanding service in 1975.

His civic life included serving as chair of the Cleveland Heights Planning Commission and the Forest Hill Park Commission, as a trustee of the Cleveland Regional Association from 1937 to 1971 and as a member of the Cuyahoga County Planning commission from 1934 to 1947. According to Strong and other members of the staff, the town plan for Greenhills was primarily a collaboration of Hartzog and Roland Wank.[71]

Roland A. Wank (1898-1970), who served as Chief Architect, was a modernist who brought experience with building new towns and dams for the Tennessee Valley Authority. He was concerned with providing a complete community for the public benefit and an aesthetic of functional simplicity.[72] Wank was among the first generation of European-trained Modernist architects to immigrate to the United States. Born in Budapest, Hungary, in 1898, he attended the Academy of Fine arts and the Royal Technical University in Budapest but in 1919 he transferred to the Technical University at Brno, Czechoslovakia. Brno was a hotbed for ideas related to the "new" architecture, particularly with respect to cubism, functionalism and nationalism, and Wank was there

[69] Ibid. 113.
[70] Ibid.
[71] Leach, 108.
[72] George S. Koyl, ed., *American Architects Directory* (New York: R.R. Bowker Co., 1955), 556.

in the same year Walter Gropius organized the Bauhaus, an institution dedicated to modern architecture. The Bauhaus in Weimar, Germany, is just a short distance from Brno.[73]

After serving as an officer in the Austro-Hungarian army during World War I, he worked for various engineering and construction firms before coming to New York in 1924. There, Wank initially joined Fellheimer and Wagner in 1927, but took a brief hiatus to work with Springsteen & Goldhammer on two public housing projects—the Consumer's Cooperative Association housing and the Amalgamated Dwellings on Grand Street, both completed in 1929. The latter was built for the Amalgamated Housing Corporation, a cooperative society established by a garment-workers union, and was considered "a resounding success, marrying modernist aesthetics to a socially progressive program of cooperative housing. It was awarded an American Institute of architects (AIA) New York Chapter Gold Medal in 1930, and Wank was reaffirmed in his vision of modern architecture's role in social reform."[74]

Wank soon returned to Fellheimer and Wagner to work on two transportation projects that reflected his flair for industrial aesthetics: a railway station (1932) in Hamilton, Ontario, and the magnificent Union Terminal (1929-33) in Cincinnati, Ohio, for which he was project architect, in collaboration with principal design consultant, Paul Philippe Cret. Wank's role in the magnificent Art Deco Union Terminal, which earned an AIA Gold Medal, helped him obtain a lead position with the Tennessee Valley Authority (TVA). As the TVA's principal architect from 1933 to 1944 he was responsible for designing fifteen dams, powerhouses, employee towns, and recreational projects that won him wide acclaim, especially when the TVA was featured in a comprehensive exhibition at the Museum of Modern Art in 1941. He continued to work for the TVA while assigned to the Greenhills project, and by the late 1930s was recognized as the nation's expert on the construction of prefabricated and demountable housing. At the onset of World War II, he designed a series of prefabricated dwellings for the Clinton Engineering Works in Oak Ridge, Tennessee, where thousands of men and women were secretly employed in developing the atomic bomb. His work for the TVA and Atomic Energy Commission brought him in contact with industrial architect Albert Kahn and for two years he led the Design Department of Albert Kahn Associates (1944-45). Subsequently he rejoined Fellheimer & Wagner as a partner in the firm. He continued to design in the Modernist style, as exemplified by noteworthy structures such as the International Paper Company (Sterling Forrest, NY) and structures for the New Jersey Turnpike. His other major works include designs for the New Jersey Turnpike Authority (1950-1954), Hoffmann-LaRoche Laboratories, Nutley, N.J.; and Eastman Kodak Laboratories, Rochester, N.Y. In 1961, the firm's name was changed to Wank Adams Slavin Associates to reflect the new partnership, and the firm continues to this day.[75]

Wank taught postgraduate seminars as a visiting professor of architecture at MIT and Princeton, Cornell, Columbia, and Harvard universities. He received an honorary doctorate from Fairleigh Dickinson University and contributed articles to technical journals. He won three AIA gold medals for Cincinnati Union Station and the Grand Street Apartments and Ford Plant in St. Louis and was named a Fellow of the AIA.[76]

Wank has been hailed by historian Reyner Banham as one of the most consequential American practitioners in the International Style, and he is justifiably celebrated for the powerful modernist expression he contributed to the dams and powerhouses constructed by the TVA from 1933 to 1944. Throughout his career, Wank showed a willingness to cooperate with engineers and landscape architects on large-scale projects that had a strong commitment to social betterment… While in the office of Fellheimer and Wagner, he worked on the Union

[73] Christine Macy. "The Architect's Office of the Tennessee Valley Authority." In *The Tennessee Valley Authority: Design and Persuasion*. Ed. Tim Culvahouse (New York: Princeton Architectural Press, 2007), 30.
[74] Macy, 32.
[75] http://www.wasallp.com/#/firm/history, accessed August 13, 2015; Macy, 40.
[76] Obituary, *N.Y. Times* (4/24/1970).

Terminal in Cincinnati, demonstrating his ability to integrate architectural design with demanding engineering in a very complex project."[77]

On October 6, 1935, G. Frank Cordner, who had previously occupied the position of assistant Chief of the Architectural Section, was appointed Principal Architect and Project Principal to serve in conjunction with Wank. On November 20, 1936, Wank withdrew and returned to the TVA. Born in New Jersey in 1888, G. Frank Cordner was an architect who specialized in government housing for low-income residents. Little is known about his childhood or education. Early in his career he worked on construction of the Panama Canal (circa 1910-1914). While in Panama, he met his wife, Shellie Dunn, whose father served as chief veterinarian for the canal project. Cordner and Shellie married in Detroit, her birthplace, in 1916, and were living there in 1930, according to the U.S. Census, with his mother Delia and daughter Jane. Cordner practiced architecture in Detroit as a partner of Lancelot Sukert and as an individual.[78] Cordner served several terms as an officer of the Michigan Society of Architects.

By the early 1930s, Cordner had become a pioneer in low-cost housing in Michigan.[79] His participation as an adviser to the President's Conference on Home Building and Home Ownership in 1931 gave him the chance to confer with players at the national level, including housing advocate Bleecker Marquette, head of the Better Housing League in Cincinnati, and reflects that Cordner was already an expert in that field. His lecture on the topic of "Detroit's slum clearance and housing project" at the University of Michigan during the academic year of 1933-1934 also infers his experience in that area.

After Greenhills, Cordner continued with government employment and worked for the Federal Public Housing Authority (FPHA) in Washington, and from there was sent to Puerto Rico in charge of the Government's large housing program there. His experiments with tropical housing there were reported in the *Journal of Housing* in December 1947. In 1948, he became engaged in general contracting as Steinbach & Cordner in Santa Fe. Most of his work was concentrated at Los Alamos, home of the Los Alamos National Laboratory, which was founded to undertake the Manhattan Project.[80] After World War II, he went to work on low-income rental housing in the Philippines.[81]

Planning Greenhills

Topography, housing type, cost of materials and local wage schedules determined the number of dwellings planned for the initial section of each greenbelt town. The first neighborhood units at Greenhills and Greenbelt were to have 1000 dwellings each, while Greendale and Greenbrook were to have 750 dwellings. By the end of January 1936, the preliminary study for the first neighborhood unit in Greenhills was approved by John Lansill. The design team hoped that four more sections could be added to the town later, providing homes for about 25,000 people.[82]

While the designers labored to prepare the plans, a study was undertaken by Milton Lowenthal, Associate Economic Analyst in the Research Section, in consultation with Warren Jay Vinton, Chief of Research, Roland Wank and Cordner. The study's purpose was to understand the characteristics, customs and living habits of local residents who were potential tenants and how these concerns might affect the planning, design,

[77] *American Architect and Architecture*, II, 2 (February 1938); Frederick Gutheim, article on Wank in *Architectural Forum* (9/1970), 58-59.

[78] *Weekly Bulletin*, Michigan Society of Architects, 1954.

[79] "Mass to be said Today for Mr. Shellie D. Cordner," ProQuest Historical Newspapers: *The Washington Post*, Aug. 19, 1942, 18.

[80] *Weekly Bulletin*, Michigan Society of Architects, 6, December 7, 1948.

[81] *Journal of Housing*, 1952, v. 9, 145-46.

[82] Leach, 3.

construction and equipment of the dwelling units to be built.[83] Questionnaires were distributed to families who visited the office but most of the data was obtained from individuals and groups familiar with the subject matter—mostly heads of agencies, churches and charities involved in housing, health, and education. Based on 760 questionnaires, the data showed that families in the target annual income range of $1,000 to $2,000 spent an average of between $17 and $24 per month in rent, so the rents at Greenhills would have to match this range.[84]

The surveys showed that sixty-nine percent of the respondents preferred a single-family house to an apartment or row house. But this was not considered an economically feasible type of housing for families with modest incomes. The initial plans for Greenhills, which were quickly reduced from 1,000 to 676 units, called for just twenty-four single-family detached houses, and all the rest in multiple-family dwellings. The latter group was to consist of eighty duplexes, 420 units grouped in rows of three to six units, and 152 flats. Some 300 of the dwelling units were to have two bedrooms, 208 of the dwelling units were to have three bedrooms, 112 were to have one bedroom, and fifty-six were to have four bedrooms.

The survey returns indicated that a typical Greenhills family would be composed of a husband, a wife, and two children. The principal (male) wage earner would hold a skilled manufacturing job paying $1400 a year. The questionnaires also suggested that the projected population in Greenhills would be a youthful one, as close to seventy-eight percent of the members of the families that responded were younger than thirty-eight years of age, and thirty-eight percent were sixteen and under.[85] Consequently, educational and recreational facilities would be especially important. Larger homes were desirable for growing families, and a majority of the residences would have two or three bedrooms. Public transit was not a part of Greenhills' plan mostly because Cincinnati industry was widely dispersed. About ninety percent of suburban and rural families owned a car, thus garages were planned for sixty-seven percent of the homes.[86]

The surveys also listed the community amenities future Greenhills residents hoped to enjoy. Most popular were a library (eighty-two percent), a swimming pool (seventy-seven percent), and baseball diamonds (sixty-three percent). Playgrounds for small children (fifty-eight percent) and a community hall (fifty-two percent) were also valued. Many desired a beauty parlor (forty-five percent), a bowling alley (thirty-seven percent), tennis courts (thirty-five percent) and a tavern (twenty-nine percent). Other amenities that were provided included a football field, an automobile service station, a drug store, health services, a barber shop, and village fire and police services. Although a high proportion requested a church of their denomination, constitutional law prohibited the government from building churches. Instead, church services could be held in the community building and the plan set aside several sites for future church construction.[87]

Once the greenbelt program was authorized, work began at a furious pace. By mid-October 1935, 8,473 acres of land in the Mount Healthy area were under option and Justin Hartzog and Roland Wank were hired. On November 26 a general plan was released for Greenhills calling for the eventual construction of five neighborhood units containing either 5000 people or 1500 dwelling units with housing arranged on superblocks. The official groundbreaking on the first town section of 1,000 units occurred on December 18, 1935, but the first topographical data was not received in the Washington office until December 30.[88] Even so, by February 21, 1936, the main circulatory road system was staked out and adjustments were made in house siting plans in

[83] Field Study by M. Lowenthal, Introduction.
[84] Leach, 307.
[85] Ibid., 304.
[86] Lowenthal, "Living Habits Report," 19, Final Report, 1937.
[87] Leach, 312.
[88] Ibid, 117.

response to field conditions. By May 28, 1936 a crew of 1000 men was on the job. Employment on site reached a peak at about 1200 in June 1936, when working drawings for houses were completed.

As summer moved into fall, the project lagged far behind schedule while the man-hours expended mounted alarmingly, in part due to an intense and prolonged heat wave. A bigger cause was the conflict inherent in the dual purposes of the greenbelt town program: to demonstrate that a model community for moderate-income families could be built efficiently and economically and at the same time to create jobs. Most of the laborers were paid through the Works Progress Administration (WPA), which provided the men with rudimentary, labor-intensive equipment such as picks, shovels and horse-drawn wagons. A frustrated Tugwell reportedly suggested to President Roosevelt that the laborers should be issued spoons.

In August 1936, unit cost figures from the field indicated that construction costs would far exceed the preliminary estimates. Wank responded by substituting S-type units in the form of multi-family rowhouses. He described them as being "inferior in layout, accommodations, construction and equipment" relative to the standard house, and "less convenient (although still livable)." He hoped that if the character of the town were well established before the S-houses were finished the negative effect of their inferior design would be minimized. The S-houses, which had only four different plans as opposed to thirty-one plans for the previous houses, had to be built on flat ground. Designed without basements, porches, terraces or garages; the S-type houses would also have flat roofs and use less insulation. The coal storage areas would be smaller, heating pipes exposed, and rooms made narrower and deeper.[89] Significantly, the need to economize on materials and methods of construction, led to innovation. The exteriors were clad with asbestos-cement siding, which represented the first large-scale use of that material in the United States.[90] On September 19, 1936, the project was ordered to revise its plans and provide for only 784 dwellings in this first phase. Even with inclusion of the S-type units, this number was further revised downward in November to 770 units, and finally in February 1937 to 676 units.[91]

Due to cost overruns, the number of residences in the other greenbelt towns was to be reduced as well: Greenbelt to 885 dwelling units and Greendale to 572. This meant that the towns could not be turned over to a local cooperative housing authority because they would have too few residents and businesses to generate sufficient rents to support necessary municipal services and amortize the debt. The Federal government would have to retain ownership of all three towns for the foreseeable future. The Bankhead-Black Act, adopted June 29, 1936, allowed this, and permitted each greenbelt town to incorporate and operate as a municipal government, supported by "sums in lieu of taxes" paid by the Federal government. Retaining ownership of the towns had the added advantage of protecting the undeveloped land in each community from unscrupulous developers; it also left open the possibility that the communities could be completed as originally intended should the funds become available in the future.

Progress in the greenbelt towns was further complicated by the resignation of Tugwell on November 18, 1936. He had been the lightning rod for anti-New Deal sentiment during the 1936 presidential campaign. An editorial in the *New York Times* had proclaimed Tugwell "a visible and personal link…between the *Comintem* in Moscow and the aspiring young reformers in Washington."[92] Inflammatory accounts in the press labeling the greenbelt projects "Tugwell Towns" convinced many Americans that the program was anti-American and a communist experiment.[93]

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[89] Leach, 156.
[90] Cordner, "Architectural Planning," November 1937, 25.
[91] Leach, 161.
[92] *New York Times,* 19 November 1936, quoted in Arnold, 31.
[93] Arnold, 31; Lampl, 39.

Following Tugwell's departure, the RA was absorbed into the Department of Agriculture. The RA was subsequently dissolved and the greenbelt programs transferred to a new agency in the Department of Agriculture, the Farm Security Administration (FSA), in September 1937. The FSA took over the RA's resettlement communities as well, of which thirty-eight had been completed, and eighty-four were unfinished. The greenbelt town program staff was reduced to a minimum and transferred to the FSA. Will W. Alexander, who had been Deputy Director of the RA under Tugwell, was named to head the new agency. New emphasis was placed on the three communities' purpose as low-cost demonstrations of the principles of large-scale planned development, home construction, and neighborhood planning.[94]

On October 3, 1936, the Greenhills project was opened to the public for tours. A model house, with furnishings designed especially for the project, was on view at 7 Andover Road (extant). In anticipation of the official opening in April 1938, the Federal government set up a Tenant Selection Committee to start screening applications. As many as 10,000 people had visited the site on a single Sunday in January 1938. Applicants were required to fill out as many as 14 separate forms and submit to a credit report and security check. Social workers inspected the applicant's current housing to "ascertain the adequacy of the existing living conditions, the relationship of income to rent at the existing home, and the family's attitude toward financial obligations, work, care of property, and the desire to locate permanently." The committee also sought out families who had a capacity for active citizenship, were interested in home life and children, and were suited for life in a close-knit community. Families also needed to be appropriately sized for available housing. Two-income families were excluded (wives were expected to stay home and take care of the children), and priority was given to families whose employment was near the project. Families with more than eight members could not be accommodated because only two persons per bedroom were allowed.[95]

When the first tenants moved into Greenhills on April 1, 1938, rents ranged from $18 a month (for a one-bedroom unit) to $42 a month (for a four-bedroom, single-family house). The Federal government established the rent schedule by calculating that each family should pay no more than twenty-five percent of its income in rent and utilities (which included water, heat, and electricity). Thus, family income ranged between $1080 and $2,520 per year.[96]

The planners of Greenhills envisioned it as a well-rounded modern community and strove to provide all the essential facilities and services to make it so. The new town featured a management building, fire and police station and school/community building. The latter incorporated classrooms for kindergarten through eighth grade, a public library, and a gymnasium with an auditorium where public social events and church services could be held. The commercial area included a service station, doctor and dentist offices, and retail spaces for a grocery, a variety store, a drug store, a barbershop, a beauty parlor, a tailor, and a shoe repair shop. Sites were set aside for the expansion of the commercial area, as well as for the erection of churches.

In addition, there were softball courts, horseshoe courts, hockey field, five playgrounds, and a baseball diamond. Most of the parks were left in a natural state or landscaped to look like the fields or pastures one might find on the edge of a rural area. To enhance the pastoral character of the community, electrical and telephone cables were installed underground. Finally, the historic 1816 James Whallon House (NR#73001473, listed May 17, 1973) at 11000 Winton Road, which served as an office for the RA field staff, was retained as a hall for the local chapter of the American Legion.

As they moved into Greenhills, all new tenants received a copy of the *Greenhills Manual,* which provided instructions on how to be a good neighbor and care for their new home and yard. In an attempt to instill in the

[94] Alanen and Eden, 52-53.
[95] Leach, 239-241.
[96] Ibid, 239.

residents pride in their home, as well as to protect the government's investment, the regulations prohibited such things as driving nails into the walls, installing exterior radio aerials, and planting corn in the yard, and asked "that parents instruct their children not to cut corners over the grass." The manual explained that a plan for the garden had been thoughtfully prepared for each yard and asked residents not to move or change the plants or create new beds. Other rules required that families with children of both sexes must live in a three-bedroom (or larger) home to prevent boys and girls from sleeping in the same room.[97] The first residents of Greenhills were aware that they were "guinea pigs" in a social experiment to test the "benefits to be gained through an organized community life" and often referred to themselves as "pioneers."[98]

Besides getting the school operational, obtaining essential goods and services was a challenge. The first community initiative undertaken by Carleton Sharpe, the first village manager, was setting up Greenhills Consumer Services, Inc. (GCS) to manage the neighborhood shopping center, as had been done at Greenbelt. This was a cooperative, non-profit corporation with shares available for purchase in the community. At the time it was proposed, fewer than 100 families were living in Greenhills, but they were enthusiastic about the idea. On June 1, 1938, GCS leased the shopping center from the government with a loan from the Consumer Distribution Corporation, which also underwrote cooperatives in Greenbelt and Greendale, and took steps to open a general merchandise store, a food store, automobile service station, beauty parlor, barber shop and valet shop. Residents paid $10 to participate in GCS and by 1940, there were about 400 members. Other cooperative enterprises established in 1938-39 included the Greenhills Credit Union, a local weekly newspaper—the *Greenhills News-Bulletin,* (still in publication), and the Greenhills Dairy Cooperative, which was made up of local farmers.[99]

Before the village was incorporated, the RA created a Community Council in the summer of 1938 to fill the need for some form of democratic governance over the community's affairs. The Council had nine members elected by the residents, with seven from the town and two from among the farmers. The Community Council served as the governing body, establishing police, fire, sanitation and health regulations. It also set up committees to set up religious services, secure revision of bus scheduling and rates and to select a doctor and dentist.[100]

After the Village of Greenhills was incorporated on August 29, 1939 and a new village council sworn in on November 26, 1939, the Community Council turned to organizing community activities and clubs with the support of Carleton Sharpe, the community's first manager. With an M.A. degree in political science from Syracuse University, he was well-qualified for the job. Before coming to Greenhills, he had served as an Assistant City Manager for Cincinnati and City Manager of St. Petersburg, Florida.[101] The many social and civic organizations formed included a garden club, Boy Scouts, Girl Scouts, and clubs for those interested in bowling, music, singing, handicrafts, dancing, drama, baseball, basketball, radio, philately, singing and chess.[102]

School opened in the Greenhills Community Building and School in September 1938, with some 430 students and 18 teachers under the direction of R.K. Salisbury. Initially, the Greenhills school was part of the Science Hall Rural School District, which had a one-room schoolhouse known as Science Hall, located south of the town. In May 1939, the Hamilton County Board of Education created the Greenhills Rural School District, including just the area owned by the federal government.[103] Planning advisor Tracy Augur had recommended that greenbelt communities should never be placed in whole or in part in school districts outside the towns in

[97] U.S. Department of Agriculture, Farm Security Administration, *Greenhills Manual,* p. 1.
[98] Leach, 220.
[99] Ibid, 231-232.
[100] Lippmeier, Act of Congress, Book II, Greenhills, Ohio 1938-1997, n.p.
[101] Leach, 118.
[102] Greenhills, Second Anniversary, 1940 (Greenhills: Greenhills News Bulletin Association, 1940).
[103] Greenhills, Eighth Anniversary, 1946, (Greenhills: Greenhills News Bulletin Association, 1946).

order to maintain their cohesion as social units.[104] From 1938 through 1947, student enrollment in Greenhills more than doubled to 900, and the number of teachers grew to thirty. During federal ownership, residents paid no school taxes because the federal government made payments to the district in lieu of taxes and carried custodians and maintenance workers directly on its payroll. However, in 1947, as the federal government prepared to divest of the greenbelt towns, the school district was reorganized as the "Greenhills Exempted Village School District", which was dependent on the financial support of local citizens.

The Greenhills schools offered a complete curriculum for school-age children, from kindergarten through high school. The scholastic program offered many courses found only in larger schools, or private institutions. Other offerings holistically addressed the child's growth through the physical education departments, creative abilities through the Manual Arts and Home Economics departments, and artistic talents and appreciation through the Arts and Music departments. Training in good citizenship and government was developed through a Student Council, with faculty supervision.[105]

The school helped strengthen a sense of community by offering evening classes for adults in commercial and vocational education, the fine arts, music, parent education and home-making. Catholic and Protestant religious services were held regularly in the gymnasium/auditorium on the weekends until separate church buildings were erected, beginning in 1942. Two church groups were formed—one for Catholics and the other a Community Church consisting of 18 protestant denominations.[106] The public library, located in the Community Building and intended for both public and school use, opened on October 17, 1938. It remained in the building until 1954 when it moved to the Management Building.

Dwelling units in Greenhills filled up more slowly and turnover was higher than expected, but by 1940, all units were rented and the population of Greenhills stood at 2,677.[107] Families who came to Greenhills to take advantage of lower rents and save for a home of their own had been moving on. Even so, the Federal policy that removed families once their income exceeded the upper limit by twenty-five percent encountered resistance among dedicated residents who wanted to stay. In 1938, the Farm Security Administration (FSA) raised the top permissible income limit from $2500 to $3215, but even this was insufficient. In January 1940, rent schedules were revised to allow people who exceeded the maximum incomes to pay higher rents rather than forcing them out.[108]

In the 1940s, there was increasing interest in sale of the village by the government. As early as July 1940, the Farm Security Administration announced that it would allow privately financed housing in the three greenbelt communities. In 1942, the Federal Public Housing Authority (FPHA) succeeded the FSA in the management of the greenbelt towns. In 1944, Oliver Winston, director of the General Field Office of the FPHA, began investigating approaches for expanding the greenbelt towns so that they would be large enough to be self-sufficient. The FPHA could then transfer the towns to a local homeowners association or public housing authority that could continue to operate them as planned communities, in accordance with the program's original intention. It was also anticipated that remaining lands would be privately developed.

A strong sense of community endured at Greenhills through the war years and continued to shape life in the town. In 1946, the eighth anniversary publication celebrated its public amenities and many civic

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[104] Leach, 226.
[105] Greenhills, Eighth Anniversary Booklet, 1946.
[106] Ibid.
[107] *The WPA guide to Cincinnati* [compiled by workers of the Writers' Project of the Work Projects Administration in the State of Ohio]; 1943, rpt. with a new introduction by Zane L. Miller and a new preface by Harry Graff. (Cincinnati: Cincinnati Historical Society, 1987), 498.
[108] Leach, 251.

organizations, such as its volunteer fire department, Parent-Teacher Association, VFW, American Legion, masonic club, boy scout and girl scout troops, and political clubs—Republican, Democrat and even Non-Partisan. The demographic trends and long tenure of families within the community indicated that once accepted as Greenhills residents, most were content to stay in the community. Families often moved from one rental unit to another as their family needs or preferences changed. When new lots came up for sale on Damon and Drummond roads and Gambier Circle in the late 1940s, Greenhills residents were among the first to buy. When the original houses were finally sold in the early 1950s, many renters purchased the homes where they had been living, some since 1938.

Lawrence H. Tucker, who became village manager of Greenhills in 1942 after Carleton Sharpe left to head federal public housing in Cleveland, asked the FHPA for help with zoning within the corporate limits to prepare for new development.[109] FHPA hired Justin Hartzog in August 1946 to prepare a study for expansion within the entire 5,930 acres. "Hartzog redrew the plan of 1937 for the Greenhills tract. It showed five neighborhoods (one was actually planned as an extension of the village of Greenhills) separated by strips of open land."[110] The first neighborhood was to receive 500 new homes, and an extension to the east would add 1,099 housing units on 160 acres. Hartzog's new plan also included 250 acres for an airport with an adjacent industrial park but also reserved 550 acres of farmland on the northern border with Butler County. The new plan maintained the hierarchical street system and pedestrian pathways of the original section. Rather than cul-de-sacs, the new residential lanes were in the form of loops that began and ended at the collector streets.

While sale of the village as a whole was planned, sales of lots already platted in the first neighborhood moved forward. The federal government offered 120+ empty parcels on Damon, Drummond and Gambier Circle for sale in 1946. The intended result was the eventual sale of residential lots to private homeowners—primarily veterans. Attorney Charles Taft handled negotiations of the sale on behalf of the builders, known as The Dillons, who agreed to respect the spirit of the original plan even though they intended to build freestanding single-family houses for sale to veterans.[111]

In April 1947, a committee of the American Institute of Planners assembled to watch the disposition of the greenbelt towns. Led by Sherwood Reader, the committee included many of the prominent planners who had been responsible for planning the greenbelt towns—Hartzog, Bigger, Augur, Stein, Jacob Crane (Greendale), and Hale Walker (Greenbelt). The marketing options considered were: 1 leasing to a non-profit group for operation and further development; 2. Soliciting for purchase among insurance companies or other large estate developers; or 3. Selling to the highest bidder. The committee advocated that the greenbelt areas be donated to the appropriate parks department, dedication of streets and utilities to the respective villages and raising rents to market rates. They also suggested sales requirements that the towns be sold as a unit, that the character of the town plans be followed, and a condition that 1000 housing units were to be built within five years of the sale.[112]

When the FPHA dissolved in May 1947, management of the greenbelt communities was transferred to a new agency, the Public Housing Administration (PHA). The head of the PHA was John Taylor Egan, who had served as a senior architect on the design team that originally planned Greendale. Egan was given the task of disposing of the greenbelt towns. Congress also took a strong interest in the final disposition of the existing

[109] Greenhills, Eighth Anniversary Booklet, 1946.
[110] Leach, 275.
[111] "120 Moderate Cost Houses to be Built," *Greenhills Journal*, 13 April 1946, 1:1.
[112] Leach, 277-278.

homes. The Housing and Home Finance Agency decided that priority in any sale of existing homes should be given to veterans who intended to occupy them.[113]

In early 1948, a group of village residents, who included veterans as well as non-veterans, formed the Greenhills Home Owners Corporation with the intention of buying the town as a unit. On behalf of the GHOC, Charles Taft, an attorney who had represented the building in the first sale of lots at Greenhills, petitioned Congress to obtain approval of the sale. Taft, whose brother was Senator Robert A. Taft, was able to obtain passage of a bill in August 1948 to provide FHA insurance of mortgages at four percent for up to twenty-five years. The GHOC found banks unwilling to lend because of potential negative publicity that would be associated with any foreclosure on a veteran, so additional measures were taken. Senator Joseph McCarthy of Wisconsin, prompted by Arthur Marcus, the head of the American Legion Community Development Corporation, which wanted to buy Greendale, submitted a bill that allowed sale of the towns through negotiation. Passed in May 1949, the law authorized a negotiated sale, allowed the purchasers to pay 10% down and the balance over a period of twenty-five years at 4% interest, and provided the present occupants to remain in their homes by joining the veterans groups.[114]

The GHOC sought to purchase the entire expanse of 5,049 acres (less the 881 acres occupied by the Hamilton County Park Board) but succeeded in raising only enough money to buy the land and buildings within the corporate limits. At $3,511,300, the price was considerably less than the federal government's cost of $11,508.000, but the latter included the purchase of all 5,930 acres, construction of 676 dwelling units and installation of streets and utilities for 1,000 units. In January 1950, GHOC took title, which included the shopping center. The cooperative, which had been operating twelve businesses there, agreed to pay rent to GHOC and continued operating. The GHOC immediately started to sell the housing to individual homeowners. The 676 units sold in 312 parcels; some residents bought several units in a rowhouse or apartment block they lived in while other tenants opted not to buy.[115]

It wasn't long, however, before the GHOC encountered financial challenges. Because all of the funds GHOC received from the sales had to be used to repay its low-interest loan, it had no funds to pay dividends to its investors. As GHOC faced bankruptcy, Charles Stamm, its vice president, managed to obtain a refinancing package from the Connecticut General Life Insurance Company. This enabled the GHOC to pay off the government loan in October 1951, and while it had a higher interest rate, it permitted the GHOC to keep fifty percent of any sales for the purpose of future development. The GHOC used these newly available funds to redevelop the shopping center. It built a new building on the north end of the complex and opened spaces on the back of the center, which up to then had been used as storage. This brought the number of stores operated by GHOC to thirty-five.[116]

For further residential development, GHOC negotiated with Kenneth Hammond, a Buick dealer turned developer, about building homes in the eastern part of the village. In June 1951, Hammond's corporation agreed to build at least fifty homes every eighteen months in exchange for option rights. The FHA, Veterans Administration, and local lending institutions that had an interest in the future development of Greenhills all saw Hammond as a responsible builder; however, he was traditional in his approach and objected to Hartzog's plan, with its sparse and irregular lanes and cul-de-sacs. Hammond wanted a plan with a more "standard curvilinear street pattern common to subdivisions of the time, a good deal of cut and fill work, use of much of

[113] Ibid, 279.
[114] Ibid, 279-280.
[115] Ibid, 280.
[116] Ibid, 281.

the area preserved as greenbelt for residences [*sic*], and the building of only detached homes set on small lots."[117]

Hammond approached the Greenhills planning commission and village council asking for a blanket approval of a general plan for what he wanted to build but was rebuffed. The commission and council wanted more specific plans and gave the impression that no plans would be approved without Hartzog's involvement. Hammond approached Hartzog, who asserted that his 1947 plan would permit Hammond to achieve his development goals for the most part. Having no other option, Hammond hired Hartzog, who continued to defend his street layout and other aspects of his plan. Eventually, however, Hammond and Stamm persuaded Hartzog that such a layout was not economically viable in that post-war period.[118]

Hartzog eventually laid out lanes in long curvilinear loops with small lots. As in the original sections, he included paved pedestrian pathways to allow residents to cut through the long blocks and connect with the village center, at least in the "I" and "J" sections. New single-family residences were erected there and on the "H" blocks with setbacks typical of 1950s subdivisions, yet the spacious character and naturalistic setting typical of Greenhills neighborhoods of the 1950s and 1960s imply his influence, while also reflecting a new generation's ideas about land-use planning and design of garden suburbs. The new residential development provides a compatible addition to the village and appears to compliment rather than detract from the suburban ideals of 1930s planning.

EXPRESSING CULTURAL VALUES: GARDEN CITY PLANNING AND THE NEIGHBORHOOD UNIT PLAN

Greenhills embodies the foremost principles of architectural design and urban planning of the 1930s. These principles had developed over a twenty-five-year period and built on the synthesizing of the American planning traditions of naturalistic residential areas and City Beautiful urban centers with English garden-city planning principles, which first appeared in the U.S. circa 1908. Refined through the defense housing projects developed for the Federal government during World War I, this synthesis was reinvigorated through the work of notable designers John Nolen, the town planner of Mariemont, Ohio, and Henry Wright and Clarence Stein, the designers of Sunnyside Garden, in Queens, New York, and Radburn, New Jersey.

Greenhills and the other greenbelt towns integrated Ebenezer Howard's garden-city principles with American planning traditions, following many of the conventions that planners Clarence Stein and Henry Wright had introduced in the design of Radburn, New Jersey, and planner John Nolen had incorporated in the design of Mariemont, Ohio, a Cincinnati suburb. The Resettlement Administration's brochure, *Greenbelt Towns: A Demonstration in Suburban Planning,* testifies to these influences by featuring photographs of Welwyn (1919), the British garden city, and by highlighting Radburn as "America's first scientifically planned garden town."[119] In the case of Greenhills, its design was also influenced by the example of Norris, Tennessee, which designers Earle Sumner Draper, Tracy Augur, and Roland Wank integrated the Radburn Idea with advanced principles of subdivision planning and landscape design plan.

Ebenezer Howard's Garden City of Tomorrow

Ebenezer Howard (1850-1928) was an English social reformer who worked as a court stenographer in his native London. Howard was moved by the dreadful living conditions of the urban poor, illustrated in publications such

[117] Ibid, 282.
[118] Ibid, 283.
[119] Portions of the historic context for the NHL theme Expressing Cultural Values have been reproduced or adapted from "Greendale, Wisconsin, NHL Nomination."

as *The Bitter Cry of Outcast London* (Andrew Mearns, 1883), and *How the Other Half Lives: Studies among the Tenements of New York* (Jacob Riis, 1890). Influenced by the Utopian views of Benjamin Ward Richardson *(Hygeia, or the City of Health,* 1876) and Edward Bellamy *(Looking Backward: 2000-1887,* 1888), and the single-tax model developed by Henry George *(Progress and Poverty,* 1881), Howard proposed decentralizing London by creating a series of satellite cities around the metropolis, each of which would integrate the cultural advantages of the town with the healthful benefits of the country. Howard described his proposed garden cities in the treatise, *To-morrow: A Peaceful Path to Real Reform* (1898), re-issued in 1902 under the title, *Garden Cities of To-morrow.* Like many radicals of his day, Howard believed that the antisocial problems of the urban poor—alcoholism, violence, and crime—would disappear, and social cooperation naturally develop, if the poor were relocated to a better physical environment (this was the "peaceful path to real reform" hinted at in the title of his treatise). The garden city was to be comprehensively planned, self-sustaining, and limited in size (to 6000 acres with development confined to 1000 acres) and population (to 32,000 inhabitants). Howard's simple diagram showed a commercial center and central park, ringed with six mixed-income residential areas (each with a public school) and interspersed with parks and community facilities. Industry was to be concentrated along a railroad corridor around the edges of development, and the whole city was to be encircled with a broad "greenbelt" in agricultural and recreational use. The garden city was to be held in trust; its property never sold but rather leased to tenants. The community was to have a municipal government, while businesses and industries were to be administered by cooperatives. Finally, as property increased in value, this unearned increment was to be reinvested in the community for the benefit of the tenants.[120]

The Garden City Association organized in Britain in 1899 in hopes of building a garden city. In 1903, Letchworth was erected outside of London, its construction financed by the Garden City Pioneer Company Limited, a subsidiary of the Garden City Association. Planners Barry Parker and Raymond Unwin designed Letchworth as a mixed-income community, with a formal town center and central park, clustered housing alternating with parks, land set aside for industrial use on the outskirts, and an agricultural greenbelt. In fleshing out Howard's diagram, Parker and Unwin drew inspiration from two English company towns, constructed by benevolent factory owners concerned about their employees living conditions: Port Sunlight and Bournville. Port Sunlight was developed in 1887 for the workers at the Lever Brothers soap-making firm, outside of Liverpool. Port Sunlight displays row housing clustered on the outer edges of each irregular-sized block, leaving the interior of the block in communal allotment gardens (a motif that would be picked up in later developments). George Cadbury of the Cadbury Brothers chocolate-manufacturing company established Bournville near Birmingham in 1894. Bournville was notable for its abundant greenspace, and for providing a private garden for each dwelling unit. The plan of Letchworth shows a variation of the Port Sunlight's residential blocks with interior green space, composed of larger blocks, each cut with a cul-de-sac. In 1906, Parker and Unwin designed the suburb of Hampstead Gardens (near London), which in keeping with garden city principles featured small commercial areas at the entrances into the plat, cul-de-sacs, and slightly curving residential lanes.[121]

Welwyn, a later garden city project, had substantial influence on American designers. The town was financed by a joint stock company and constructed near London in 1919. Designed by Louis de Soissons, Welwyn displays a town center with axial streets, slightly-curving residential lanes laid out in such a way as to preserve natural features, residential blocks of varying sizes each displaying several cul-de-sacs, and an encircling

[120] Kermit C. Parsons and David Schuyler, eds., *From Garden City to Green City: The Legacy of Ebenezer Howard* (Baltimore: Johns Hopkins University Press, 2002), 3-4 & 40-41; David Barry Cady, "The Influence of the Garden City Ideal on American Housing and Planning Reform, 1900-1940," (Ph.D. diss., University of Wisconsin-Madison, 1970), 7-15.

[121] Parsons and Schuyler, 41-42; Cady, 8-9; Ames and McClelland, 42; Norman T. Newton, *Design on the Land: The Development of Landscape Architecture* (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 1971), 448-52 & 456-60; Bruce E. Lynch and Cynthia D. Lynch, "Washington Highlands Historic District National Register Nomination," 28 September 1988, 8-6.

agricultural greenbelt. Although both Letchworth and Welwyn conformed to Howard's principles of physical design, neither was able to fulfill his critical social reform elements of communal ownership, cooperative management and reinvestment of the unearned increment. In the case of Letchworth, the directors of the Garden City Pioneer Company (who included W.H. Lever and George Cadbury) had promised investors a return of five percent. This proved too little to attract many investors, raising the cost of housing and making it too expensive for the low-income families Howard had hoped to serve. The housing at Welwyn was more affordable, thanks to a government subsidy. At both Letchworth and Welwyn, farming the greenbelts failed due to the poor quality of the soil. Finally, both communities experienced only limited success in attracting industry. Given this, it is perhaps not surprising that the Garden City movement, which became an international phenomenon, emphasized the physical design aspects of Howard's concept and generally ignored his social reform ideas. Garden-city planning principles were employed in the design of suburbs and subdivisions throughout the western world, due in large part to Unwin's popular book, *Town Planning in Practice* (1909), and his subsequent speaking tours. An entertaining lecturer, Unwin advocated designs composed of a formal town center surrounded by residential zones of slightly-curving streets, studded with parks.[122]

American Garden City Planning

In the United States, planners and landscape architects had been designing residential subdivisions in the naturalistic tradition with curvilinear streets, oddly-shaped blocks, and limited linear, green space since the mid-nineteenth century. Most influential was the example of Riverside (NHL), Illinois, designed in 1869 by (Frederick Law) Olmsted, (Calvert) Vaux & Co. Most of these were upper-income neighborhoods designed for the professional and entrepreneurial classes. The Chicago World's Columbian Exposition of 1893 had popularized City Beautiful principles for downtown plans, featuring broad, axial streets, formal gardens with statuary, and tree-lined parkways, and formal Beaux-Arts design principles soon after dominated the training of aspiring young designers in the fields of architecture and landscape architecture. American planners began blending garden city principles into the naturalistic and City Beautiful models around 1910, creating suburbs and subdivisions that integrated residential areas with naturalistic, irregularly-shaped blocks and curvilinear streets, with the more abundant and interior-block parks of the garden city projects and the formal town center present in both City Beautiful and Garden City design. Frederick Law Olmsted Jr., John Nolen, and Werner Hegemann and Elbert Peets were among the leaders of this trend. In the United States, the Garden City concept was embraced by the emerging fields of city and regional planning and, in addition to architects and landscape architects, attracted the attention of philanthropists, housing advocates, and real estate developers.[123]

The Russell Sage Foundation, a philanthropic organization, constructed America's first Garden City-influenced suburb, Forest Hills Gardens (New York), for working class families in 1910-11. The plan, prepared by Frederick Law Olmsted, Jr., incorporated a small commercial area adjacent to the train station, curvilinear residential lanes including several blocks with interior parks, a public school, several playgrounds, and a large recreational area along one end of the development. Another early Garden City-influenced suburb was Washington Highlands (NR), designed by Hegemann and Peets in 1916. Situated west of Milwaukee in Wauwatosa, the suburb exhibits an axial, tree-lined principal thoroughfare ringed by sweeping residential lanes, an existing stream preserved as a linear parkway, and numerous small parks. In addition to the physical example provided by projects such as Forest Hills Gardens and Washington Highlands, the Garden City ideal and garden suburb design were widely publicized in architectural journals, technical publications and popular magazines in the 1910s. In addition, the National Conference on City Planning and the National Housing Association (both organized in 1910), endorsed garden-city principles and hosted conferences at which papers on garden suburbs,

[122] Parsons and Schuyler, eds., 8 & 43-44; Newton, pp. 460-61; Ames and McClelland, 42.
[123] Newton, 364-70 & 466-68; Ames and McClelland, 43.

the Garden City model, and England's experiments with cooperatively-owned housing were prominently featured.[124]

During World War I, the United States was suddenly faced with a housing shortage for workers in cities where defense industries such as shipbuilding and ammunition production were located. In 1918, two Federal agencies were created to alleviate the shortage: the U.S. Shipping Board Emergency Fleet Corporation (EFC) and the U.S. Housing Corporation (USHC). Led by John Nolen, Frederick Law Olmsted, Jr., and Robert D. Kohn, the planners, architects and landscape architects in these programs worked collaboratively, employed Garden City ideas, and prepared comprehensive plans for their projects. Twenty-eight housing projects were erected through the EFC, while the USHC built twenty-seven new communities. Many incorporated elements of Garden City design, including formal commercial centers, curvilinear residential lanes arranged around the public school, and interior-block parks. The architecture, although low-cost, was attractive. Yorkship (Camden, New Jersey), Seaside Village (Bridgeport, Connecticut), Atlantic Heights (Portsmouth, New Hampshire), Hilton Village (Newport News, Virginia), and Union Gardens (Wilmington, Delaware) were among the most admired, inspiring higher standards in residential construction and subdivision site planning, at least in suburbs for the well-to-do, in the years following World War I. The two World War I agencies also provided a new generation of design professionals the opportunity to experiment with garden-city principles and other state-of-the-art ideas. Several of these architects, planners and landscape architects would go on to form organizations that would transform planning in the United States.[125]

The most widely admired Garden City-influenced suburb of the era was John Nolen's Mariemont (NHL), outside of Cincinnati, Ohio. Philanthropist Mary (Mrs. Thomas J.) Emery intended to create a wholesome and self-sustaining community for working-class families at Mariemont. Nolen's final (1921) plan connected an octagonal-shaped town center with residential blocks featuring a few cul-de-sac roads and interior parks as well as a variety of housing types. The plan maintained existing topographic features in the Naturalistic tradition, creating a park along the banks of an existing stream. It also displayed a hierarchical street system, with a wide, central boulevard, wide cross streets, and narrow, residential lanes. Mariemont was designed as an "exemplar" of American small house design and initially well-known architects from several major American cities were invited to develop clusters of single and multi-unit houses within the town plan. Reflecting the leading landscape theories of the day, the planned community blended the influences of the English garden city and American naturalistic tradition into a cohesive whole. Mariemont was designed to serve the residential needs of a range of income groups and offered a wide range of housing types in including interconnected row houses, multiple-unit dwellings called "flats," clusters of small houses on short courts and cu-de-sacs, and larger detached dwellings on spacious lots. Mariemont was unable to attract industry until the late 1930s, leaving much of the plan to be built out after World War II.[126]

The Rise of Community Builders

Concerns over the expanding urban environment brought about an alliance between city planners and real estate developers, represented by the National Association of Real Estate Boards, and resulted in the emergence of a group of community builders intent on creating planned suburbs of upper middle class homes. Community builders incorporated amenities such as shopping centers, schools, churches, parks and playgrounds, and golf courses, into their planned communities and relied upon professional landscape architects to lay out streets, subdivide the lots, and provide planting plans to create an attractive neighborhood. The designers of these suburbs applied the principles of landscape design that had evolved in the United States since Frederick Law Olmsted's pioneering work, characterized the mainstream practice, and

[124] Newton, 474-76; Ames and McClelland, 42; Cady, 34-36.
[125] Robinson and Associates, Inc., and Shrimpton, 8; Ames and McClelland, 44; Cady, 45.
[126] Ames and McClelland, 45. See also Millard Rogers, "Village of Mariemont NHL Nomination," 29 March 2007.

were being taught at Harvard and Cornell, the nation's leading institutions, as well as the nation's land grant colleges. The character of these neighborhoods was controlled by deed restrictions (later called protective covenants) that excluded nonconforming land uses and requirements that homes be architect-designed, meet setback guidelines, and exceed a minimum threshold on the cost of construction. The stabilization of real estate values was further controlled by the attachment of restrictive covenants that excluded certain groups from ownership on the basis of race, religion, or income. Due to the initiative of Lee J. Ninde of Fort Wayne, Indiana, who hired Boston landscape architect Arthur Shurcliff to design Lafayette Place in Fort Wayne, a number of these developers attended the General Committee meeting of the National Conference on City Planning in 1915 and became involved in the political, economic, and zoning issues of the times. The most influential of the community builders of the early twentieth century included Edward H. Bouton, who relied upon the design talents of George Kessler and the Olmsted Brothers in developing Roland Park in Baltimore, Maryland; King Thompson, the developer of Upper Arlington, outside Columbus, Ohio; Paul A. Harsch, the developer of Ottawa Hills in Toledo, Ohio; Duncan McDuffie of St. Francis Wood, San Francisco; J. C. Nichols, known for the extensive County Club District laid out as a series of interconnected subdivisions by the landscape architectural firm Hare (Sidney J.) and Hare (S. Herbert) and covered large portions of Kansas City, Kansas, and Kansas City, Missouri. These developers understood the added economic benefits and the long-term stabilization possible when high standards of design were applied to homes, subdivision design, and community amenities, such as schools, parks, community buildings, and nearby shopping centers.[127]

According to planning historian Jon A. Peterson who has traced the emergence of city planning as a profession in the United States:

> The formula underlying this new market for suburban environments relied on three major ideas. First, consistent reliance was placed on professional landscape design, to impart a suave, parklike integrity to the entire tract…Second, all sites were marketed as finished packages, complete with presale installation of streets, utilities, and community features, all built in fulfillment of the era's heightened engineering and civic standards… Finally, and most definitively, each lot buyer submitted to uniform, tract-wide deed restrictions.[128]

The offices of John Nolen and Frederick Law Olmsted Jr. were particularly in demand for a broad range of services extending from quality subdivision design to the technical aspects of town planning and subdivision regulation. A younger generation of designers, including Earle Sumner Draper and Justin Hartzog, gained experience working for Nolen on projects such as Kingsport, Tennessee; Mariemont, Ohio; and Myers Park in Charlotte, North Carolina, which is admired by Peterson for the "parklike integrity of the entire tract." Likewise the Olmsted firm built its reputation on higher income projects such as Druid Hills, Atlanta, Georgia; Roland Park in Baltimore; St. Francis Wood in San Francisco; and Palos Verdes overlooking the California coast north of Los Angeles.[129]

Laid out in stages beginning in 1891, Edward Bouton's Roland Park in Baltimore immediately gained recognition as an ideal community and became a "mecca" for real estate developers. The first section was laid out by George Kessler, and the later sections by the Olmsted Brothers, who also worked with Bouton on Forest Hills. In both design and through the introduction of deed restrictions, the community influenced the design of upper income suburbs elsewhere in the United States and perfected design conventions such as curvilinear roadways and cul-de-sacs that were central to accepted subdivision practices of the landscape

[127] Jon A. Peterson, *The Birth of City Planning in the United States, 1840-1917* (Baltimore: The John Hopkins University Press, 2003), 277, 280-282. See also Marc Weiss, *The Rise of the Community Builders: The American Real Estate Industry and Urban Land Use Planning* (New York: Columbia University Press, 1987).

[128] Peterson, 278.

[129] Ibid.

architecture profession. Practitioners and community builders alike admired the designers' "close observance of topography" and praised the treatment of several ridges and valleys which were "penetrated by a series of cul-de-sacs each following in succession …and creating interesting and varied home sites."[130]

Influence of the Regional Planning Association of America

Foremost in the efforts to establish a garden city in the United States and to promulgate the planning ideas of Ebenezer Howard was the Regional Planning Association of America. Several of its members would play crucial roles in the greenbelt town program. In 1923, Charles Harris Whitaker, editor of the *Journal of the American Institute of Architects,* invited several progressive designers and social scientists to his office in New York City to exchange ideas. From this meeting, the Regional Planning Association of America (RPAA), an interdisciplinary "think tank," was born. Founding members included: architects and planners Clarence S. Stein, Frederick L. Ackerman, John Bright, Robert D. Kohn, Henry Wright and Frederick Bigger; realtor Alexander M. Bing; economist Stuart Chase; forester Benton McKaye; social critic Lewis Mumford; and Whitaker. Housing experts Edith Elmer Wood and Catherine Bauer, as well as landscape architects Tracy B. Augur and Russell Van Nest Black, soon joined the group.

Education was the primary goal of the RPAA. Meeting two or three times a week for informal discussions, members strove to educate themselves about topics as diverse as Thorstein Veblen's economics, John Dewey's child-centered education, Scottish planner Patrick Geddes' "geotechnics," regional resource conservation, and social welfare theories. Experts on the given subject were often invited to participate. RPAA members became outspoken proponents of government-built affordable housing (inspired by the American experience during World War I and public housing projects then underway in Europe), regional comprehensive planning incorporating industrial decentralization (possible because electrical power could be extended anywhere, and automobiles could transport people wherever electricity could reach), and both the social reform and design facets of Howard's ideal. The RPAA endeavored to educate others by serving on many planning and housing committees and publishing numerous articles in professional magazines including *Architectural Record, Architectural Forum,* and the *Journal of the American Institute of Architects,* as well as popular publications such as the *Nation* and *New Republic.* Subgroups of the RPAA also collaborated on a variety of projects. Following a visit to Howard and Unwin in 1924, Bing, Stein, and Wright formed the City Housing Corporation (CHC), a limited dividend company established to build a complete garden city. The CHC would produce two highly-influential developments: Sunnyside Gardens and Radburn.[131]

In 1924, the CHC purchased a site in Queens, near New York City, and began developing Sunnyside Gardens (NR) as a residential suburb for moderate-income families. Wright and Stein were obliged to conform to the grid-iron street pattern surrounding the site but were able to design each of the project's ten blocks as a unit (rather than subdividing them into small lots) due to the property's industrial zoning classification. Row housing and cooperative apartments lined the outer edges of each block, enclosing a common green space for gardening and recreation. Wright and Stein included a community center, cooperative apartments and common green space in their plan for Sunnyside Gardens, in part, to promote positive social interactions between residents and

[130] Peterson, 278. The quote comes from Garnett Laidlaw Eskew, Of *Land and Men: The Birth and Growth of an Idea* (Washington, DC: Urban Land Institute, 1959), 100.

[131] Cady, 134-35 & 142; Dirk Schubert, "The Neighbourhood [*sic*] Paradigm: From Garden Cities to Gated Communities," in *Urban Planning in a Changing World: The Twentieth Century Experience,* Robert Freestone, ed. (New York: E & FN Spon, 2000), 121-23. See also, Roy Lubove, *Community Planning in the 1920s: The Contribution of the Regional Planning Association of America* (Pittsburgh: University of Pittsburgh Press, 1963), 58-66.

encourage the development of communal feeling. Sunnyside Gardens was completed in 1928. The CHC viewed Sunnyside as an experiment, and a step toward their goal of a fully-realized garden city.[132]

The CHC found a suitable tract for its next project, Radburn (NHL), in 1928. Located in the Borough of Fairlawn, New Jersey, about sixteen miles from New York City, the site lay near a highway and along a branch of the Erie Railroad. The parcel itself encompassed nearly two square miles of farmland and had only one major road running through it. Wright and Stein initially envisioned Radburn as a garden city for moderate-income families with a total population of 25,000. It was to be divided into three neighborhoods, in keeping with the "neighborhood unit" concept articulated by Clarence Perry in the *Regional Survey of New York and Its Environs* (in process for several years prior to its publication in 1929). Perry contended that the size of a neighborhood unit should be tied to the number of households needed to support an elementary school, somewhere between 4,000 and 7,000 people. He recommended that all housing in a neighborhood be located within one-half mile of the school and that at least ten percent of the land be set aside for parks and recreation. Perry also argued that traffic should be directed around, rather than through, the neighborhood. Finally, he maintained that the commercial area should be placed at the periphery yet be within easy walking distance of all residents' homes.[133]

Stein and Wright quickly realized that they did not have enough land to provide a greenbelt around Radburn, and that the location was unlikely to attract industry, but they decided to proceed, planning Radburn as a garden suburb and satellite of New York City. The concept of a greenbelt was supplanted by a central green that formed the interior of each superblock. Wright's and Stein's design for Radburn was an Americanized variant of Howard's model, reflecting garden-city principles while incorporating Perry's neighborhood unit formula and innovations that recognized that the automobile, with its attendant dangers to pedestrians, had become an essential part of life in the United States.

Three major design elements distinguished the Radburn plan, earned it the nickname, "the town for the motor age," and made it a landmark example of American city planning. The first element was the superblock, more than ten times the size of a typical American city block, with a four to six-acre interior park, bordered by narrow, cul-de-sacs along which housing was clustered. The measures taken to accommodate the automobile while protecting pedestrians comprise the second distinguishing element of the Radburn plan. These measures include separate circulation systems for vehicular and pedestrian traffic, and off-street parking. The vehicular circulation system employed a hierarchy of roads from narrow, residential cul-de-sacs; wider, collector streets that carried cars around the perimeter of each superblock, unifying groups of superblocks into neighborhoods; and broad, through streets intended to connect Radburn's neighborhoods with each other and with major arterials leading to other communities. The pedestrian circulation system consisted of footpaths, within each superblock, which led from housing to the park, as well as to underpasses that allowed pedestrians to reach schools, recreational areas and the shopping center without crossing a single street. Off-street parking consisted of garages and car-length driveways in the residential areas, and a strip of diagonal parking spaces across the front of Radburn's shopping center. The latter represented an early use of off-street customer parking, which was first seen in J.C. Nichols' Country Club District, a Kansas City, Missouri suburb developed between 1919

[132] Schubert, 122; Ames and McClelland, 44; Newton, 489-90.

[133] Newton, 490-93; Daniel Schaffer, *Garden Cities for America: The Radburn Experience* (Philadelphia: Temple University Press, 1982), 157; Clarence A. Perry, "The Neighborhood Unit," *Neighborhood and Community Planning,* vol. 7, *Regions/Survey of New York and Its Environs* (New York: Regional Plan of New York, 1929), 20-89. Although no formal relationship existed between the RPAA and the Sage Foundation which sponsored the *New York Regional Survey* and *New York Regional Plan,* both Perry and Thomas Adams, the plan's general director, participated in meetings where Radburn was being planned. They both recognized Radburn's importance as a model for residential planning in the age of automobiles and as an antidote to the typical pattern of unplanned, speculative home building.

and 1931.[134] The third distinguishing element of the Radburn plan was the reverse-front floor plan of the housing, with the kitchen and utility room facing the cul-de-sac (the "service" side), and the family spaces such as the living room and bedrooms overlooking the park (the "garden" side). The Radburn plan focused on families and children, its physical design promoting their health and safety, and facilitating social interactions within and between families.[135]

Unfortunately, only a portion of Radburn's first neighborhood unit had been completed when the stock market crashed in October 1929. The CHC hoped to resume construction, but was forced to declare bankruptcy in 1933, and Radburn was never finished.[136] Lewis Mumford dubbed the plan's distinguishing design elements the "Radburn Idea." The Radburn Idea was integral in the planning of the greenbelt towns, and continues to resonate with planners, architects and landscape architects today.

Emerging Federal Policies and the Neighborhood Unit Plan

The design of each of the RA's greenbelt towns embodied land-use planning principles, social concerns, construction methods, and architectural concepts that coalesced in the 1930s and were at the forefront of Federal policy during a highly pivotal period in the history of American housing. This was the period when the basic tenets of Federal involvement were being defined and far-reaching measures for improving the nation's housing conditions and stimulating the home-building industry were being formulated. In the long-term, the events of the Great Depression, including the measures implemented by a variety of New Deal programs, would help shape the massive suburbanization of American cities in the second half of the twentieth century.

The earliest and one of the decade's most far-reaching, federally sponsored measures was the President's Conference on Home Building and Home Ownership, convened in December 1931 by President Herbert Hoover. To Hoover, who had championed the Better Homes movement in the 1920s while Secretary of Commerce, the American home was the "foundation of our national life" and a subject meriting Federal attention. In the foreword to the conference's multi-volume proceedings, he stated: "The next great lift in elevating the living conditions of the American family must come from a concerted and nationwide movement to provide new and better homes." Hoover looked to the private building industry to lead this movement and encouraged business groups to support wisely planned large-scale housing efforts. He acknowledged that architects, engineers, inventors and manufacturers had all made possible the building of houses that were beautiful, convenient, and healthy, but recognized that new methods of extending credit were needed.[137]

The conference brought together several thousand participants representing private industry, public agencies, and professional organizations. Many were the nation's leading experts in home financing, neighborhood planning, zoning, home design and construction, domestic science, and methods of prefabrication. Prominent planners, who were involved in the discussion and research of the various committees, included Henry Wright, Harland Bartholomew of St. Louis, Jacob Crane of Chicago who was then president of the American Institute of City Planning, and Thomas Adams who headed the New York Regional Survey, and Harlean James who headed the American Civic Association. Numerous architects were involved, including a number who had been involved in small house movement, such as William Stanley Parker of Boston's Small House Service Bureau, or had worked collaboratively on garden-city projects, including Radburn's architect Frederick L. Ackerman,

[134] Richard Longstreth, *The Drive-in, the Supermarket, and the Transformation of Commercial Space in Los Angeles, 1914-1941,* (Cambridge, Massachusetts: M.I.T. Press, 1999), 136.

[135] Schaffer, 152 & 160; Newton, 490-93; Schubert, 122-24; Ames and McClelland, 47. See also Paula S. Reed and Edith B. Wallace, "Radburn NHL Nomination," April 5, 2005.

[136] Shaffer, 12.

[137] Herbert Hoover, Foreword, in *Planning for Residential Districts,* ed. John M. Gries and James Ford, vol. 1 (Washington, D.C: President's Conference on Home Building and Home Ownership, 1932), xi-xii.

and Charles Cellarius of Cincinnati, Edmund B. Gilchrist of Philadelphia, and Eleanor Manning of Boston who had all designed housing groups for Mariemont. The conference focused on all aspects of housing reform, including advances in professional theories for home construction and community planning, and the development of national standards for subdivision design, large-scale development housing, and community enhancement. The greenbelt towns would become the proving grounds for many of its recommendations.

One of the major outcomes of the conference was the overwhelming endorsement of Clarence A. Perry's Neighborhood Unit Plan by several committees, particularly those concerned with planning and zoning issues and subdivision layout. Perry underscored the importance of community planning and called for decentralization of residential development into neighborhood units having four essential neighborhood functions: an elementary school, parks and playgrounds, local shops, and residential environment. He recognized a number of successful models of planned communities, including Forest Hills, the Russell Sage Foundation-supported community where he lived; Kohler, Wisconsin, a company town the initial planning of which involved Peets and Hegemann; Roland Park in Baltimore, a streetcar suburb developed by Edward Bouton; the expansive Country Club District in Kansas City developed by community builder J.C. Nichols; Mariemont, Ohio, the planned garden community designed by John Nolen; and Palos Verdes, California, a residential community of upper-income homes planned by the Olmsted firm. In his 1929 monograph, Perry drew special attention to the new town of Radburn, New Jersey, which was to become a "town for the motor age" and whose planners had seized upon the concept of planning in neighborhood units as a way to safely accommodate the automobile and create a pedestrian-scale community for mixed-income residents.[138]

Perry's Neighborhood Unit Plan (NUP) would become the common denominator that linked the design of the four greenbelt towns to the Radburn plan, the seminal town for the motor age. Furthermore, in giving material form to Perry's theoretical model, the greenbelt towns would exert their greatest influence on American community planning. The design team for each greenbelt town would interpret Perry's concept and, to varying degrees, draw from the Radburn Plan. Outlined in great detail in the seventh volume of the *Regional Survey of New York and Its Environs* (1929), Perry's plan called for communities large enough to support an elementary school, preferably about 160 acres with ten percent reserved for recreation and park space. Interior streets were to be no wider than required for their use with cul-de-sacs and side streets being relatively narrow. Community facilities were to be centrally located. Instead of placing the shopping district at the edge of the village, however, the planners of Greenhills gave the commercial center central prominence more in keeping with the model of the American small town.

As far as the President's conference was concerned, the development of Radburn in the several years preceding the conference was particularly timely, offering solutions to many of the problems facing planners, developers, and builders, at a time of great economic uncertainty. The community was still under construction in December 1931, although sales and plans for future expansion had slowed due to the economic depression. Radburn provided a tangible demonstration of Perry's neighborhood formula and was praised as a dynamic and highly successful model of a self-contained garden community offering a wide variety of moderately priced homes. Its innovative plan, called the Radburn Idea, involved laying out the community in superblocks, turning the external agricultural belt into an internal green, on which homes fronted, and creating a hierarchy of roads and paths accommodating automobiles and pedestrians on separate circulation systems. Although the plan received international acclaim as an ideal model of garden-city planning and attracted the attention of the officials overseeing the design of the government-sponsored greenbelt towns during the New Deal, it was not readily embraced by the entrepreneurial and professional interests that made up the nation's real estate community. Instead, it was Radburn's practical demonstration of the economies of building a suburban community as a large-scale enterprise, with attractive small dwellings, parks and yards of native trees and shrubs, and

[138] Scott, 284; Perry, "The Neighborhood Unit," 31-32.

community facilities that would capture the imagination of the conference attendees and influence the FHA's earliest standards. The greenbelt towns offered a venue for incorporating and advancing the Radburn Idea at the same time demonstrating a wider range of design options, including those being formulated for the privately-funded and -financed FHA-approved subdivisions.[139]

The conference involved a wide range of professional interests through the assignment of committees to study the nation's most pressing housing issues. Numerous recommendations were made for long-term reform and the committee reports were published in a series of volumes addressing concerns such as planning for residential districts and house design and construction. The Committee on City Planning and Zoning, chaired by Frederic A. Delano, a Chicago industrialist and the former chairman of the Regional Plan of New York, endorsed Perry's neighborhood unit as a self-contained community within boundaries formed by major streets to maintain desirable housing standards and real estate values. It pointed out the importance of the community having as its focal point a group of community facilities centering about the elementary school and that multiple-family dwellings, shopping centers, and commercial establishments be located on or immediately adjacent to boundary thoroughfares. The committee endorsed deed restrictions as the primary means for controlling the physical character of a neighborhood, excluding nonresidential activities, and maintaining real estate values. By 1930 this tool had been widely used by community builders, who were well organized in the National Association of Real Estate Boards, to ensure the long-term preservation of neighborhood values in the communities.[140]

With an emphasis on planned communities, the Committee on Subdivision Layout, chaired by St. Louis planner Harland Bartholomew, defined the ideal neighborhood as one protected by proper zoning regulations, where trees and the natural beauty of the landscape were preserved, and where streets were gently curving and adjusted to the contour of the ground. Jacob Crane, Henry V. Hubbard, Henry Wright, and John Nolen were members of this committee. Radburn was offered as an innovative example and the joint report of the committees on city planning, subdivision design and landscape planning and planting was prefaced with a caption of an unidentified picture of Radburn announcing: "Recent developments in subdivision practices are producing desirable homes with ample open spaces at reasonable low cost."[141]

Spaciousness was viewed as an essential quality of subdivision design and a leading factor in support of the decentralization of residential communities beyond the central core of the nation's cities. The committee concerned with subdivisions stated:

> Spaciousness is a controlling principle in good land development for American homes. City conditions have robbed most of us of the great satisfactions once derived from the big yards and public commons of even the primitive early village, and now every good citizen is trying to help us regain some of that lost spaciousness. It can be regained in large measure, without undue cost, if subdivisions are planned carefully to that end. Large lots, or lots large as is economically feasible, are always desirable. The introduction of open spaces is equally important, and they may range from the smallest garden or play areas to huge parks. Any tract of land will, by careful

[139] Linda Flint McClelland, Paula S. Reed, and Edith B, Wallace, "Revisiting Radburn: 'Where Art and Nature Combine to Make Good Living Conditions,'" *New Jersey History* 123, nos. 1-2 (spring/summer 2005): 89-90.

[140] Report of the Committee on City Planning and Zoning, in *Planning for Residential Districts,* Gries and Ford, eds., 6-11, & 42-44. Delano, a railroad executive from Chicago, had been supportive of Daniel Burnham's Chicago Plan of 1906 and in 1931 chaired the National Capital Park and Planning Commission; he was an advocate for broad regional planning and would be called upon in the New Deal era by his nephew, President Roosevelt, to chair the National Resources Planning; in this capacity he would set up the Central Housing Committee. Thomas Adams, Harlean James, Harland Bartholemew, Charles W. Eliot 2nd, and James Ford were members of this committee.

[141] Report of the Committee for Subdivision Layout, in *Planning for Residential Districts,* Gries and Ford, eds., 52-54, 59, & 76. The photograph and quotation appeared opposite the volume's title page.

> design, yield far more spaciousness in effect and in use than thoughtless layout makes possible.[142]

The best practice in designing a subdivision, according to this committee, was coordinating the following in one cohesive plan: the streets, parks, school sites and playgrounds, business districts, public buildings, service garages, as well as a variety of types and sizes of lots. "Each prospective building site should be adjusted to the topography and should be oriented to the sunlight and should preserve and enhance the elements of natural attractiveness." The committee recommended a hierarchy of streets, consisting of major roads, such as those in the business district, that were wide and secondary roads that were comparatively narrow. Water and sewer mains were to be placed under the road way. Above all, neighborhood planning offered many advantages—for the residents it provided amenities for a satisfying home environment and community life, and for the sub-dividers it offered opportunities to capitalize on the economies of design and establish a "permanent monument to the sub-dividers' work."[143]

The profession of landscape architecture was well-represented at the conference, both by planners who had been trained in this discipline and by practitioners with specialized interests in horticulture and gardens. The recommendations of the Committee on Landscape Planning and Planting, chaired by Josephine S. Morgan, acknowledged the involvement of these designers in building the nation's most desirable suburbs and designing civic improvements, such as parks and parkways, which provided pleasure, order, and recreation for those living in or near the nation's burgeoning metropolises. The committee included illustrious members of the landscape architecture profession, many concerned with the planting of suburban home grounds and neighborhoods, including Arthur A. Shurcliff, Myrl E. Bottomley, Rose Greeley, Jens Jensen, Albert D. Taylor, Bremer Whidden Pond, J. Horace McFarland, Warren H. Manning, Earle Summer Draper, and representatives of the American Civic Association, Garden Club of America, Woman's National Farm and Garden Association, National Council of State Garden Club Federations, and government horticulturalists and extension agents. The committee pointed out the value of attractive yard design and landscape plantings for increasing a homeowner's pleasure as well as property values. The text celebrated the beauty of trees and advocated for preserving existing trees and recommended that new plantings along streets and highways be compatible with existing vegetation and be "made of the same materials, native to the soil and climate, and still better, native to the locality, so that it expresses the locality."[144]

The Committee on Design, chaired by William Stanley Parker, president of the Boston Architects' Small House Bureau, examined housing conditions nationwide and called for improvements in small house design, the greater involvement of architects in sound house design, and the arrangement of houses in well-planned groups that benefited from fresh air, sunlight, and outdoor space and avoided the monotonous repetition of houses placed uniformly on crowded narrow lots. Members of the committee were for the most part architects who represented diverse sections of the nation. A number had considerable experience in the design of small houses and garden-city principles, including Frederick Ackerman, Henry Wright, Edmund Gilchrist, Charles Cellarius, and Philip Small. The committee stressed the importance of neighborhood and endorsed the concept of group housing, suggesting that a variety of dwelling designs be offered to suit differing family needs and that several different stock plans be offered for each type. Such variation had been at the root of the success of the small house movement. The committee called attention to the group housing built at Mariemont, Sunnyside Gardens, Radburn and the World War I communities as guideposts for future design. The committee disparaged home building on long narrow lots, as well as the two-family houses where one unit was placed above the other and the dwelling extended deeply into a city lot. Instead the committee encouraged the construction of multiple-unit rows and methods of lowering construction costs while providing for sound design. The committee's

[142] Ibid, 52 & 53.
[143] Ibid,53 & 58.
[144] Report of the Committee on Landscape Planning and Planting, in *Planning/or Residential Districts,* Gries and Ford, eds., 194.

recommendations were highly critical of building practices and crowded neighborhoods which resulted from speculative interests and in time would contribute to urban decay and blight.

As a counterpoint to such practices, the committee's report called attention to the advantages of sound architectural design:

> A higher standard of design, consistent with economy, exerts a powerful influence for the better on family life. It opens up new vistas in domestic living, contributes towards increased pleasures and happiness, and furnishes a strong incentive towards home ownership. By providing a permanent, finer, and more convenient environment, better design helps to relieve the pressure of life in our towns and cities, rendered discordant as so many of them are by the complexities of industrial activity. In particular, we must plan our districts of low-priced residences properly to take care of the automobile, with regard to its storage and its movement, as is already being done in a few developments.[145]

The Committee on Design was not alone in promoting the merits of group housing. The Committee on Large-Scale Operations, chaired by Alfred K. Stern, director of the Julius Rosenwald Fund, examined the design and economics of multi-story apartment houses such as Michigan Boulevard Garden Apartments in Chicago which the Rosenwald Fund had financed to provide moderate-priced housing for African American families, the grouped row houses at Chatham Village sponsored by the Buhl Foundation, as well as the efficiently arranged small houses designed by Henry Wright and Frederick L. Ackerman at Radburn. This committee was largely concerned with housing reform for the nation's poorest groups, and its meetings became a sounding board for the growing concerns for forestalling and eliminating urban blight—concerns that the housing reformers and the social minded New Dealers would continue to debate and attempt to tackle in the years that followed. To a greater extent than other committees, this committee aggressively examined the issue of reducing construction costs while maintaining a healthy standard of housing and encouraged the construction of housing on a large scale for both owner-occupied dwellings and rental housing, including row housing groups and apartment buildings. In the volume of the conference proceedings entitled *Slums, Large-Scale Operations, and Decentralization,* editors John M. Gries and James Ford wrote that the principles of constructing multi-family dwellings were "just as applicable to the production of single-family houses in groups," and were "matters of moment to all developers." The "heavy responsibility for housing," they claimed rested on the "shoulders of business" being essential for "its own security and continued growth" not just the "common good."[146]

With an emphasis on cost-analysis, this committee considered a wide range of successful multiple-unit developments that had accommodations for lower-income, working-class residents, including Mariemont, Radburn, Sunnyside, Chatham Village, and even one of the most highly respected World War I examples—Seaside Village. Appended to the committee report were several useful studies, including "Experience with Large-Scale Operations," which examined the nation's experience with large-scale operations and included Henry Wright's exhaustive cost analyses for Radburn demonstrating the advantages inherent in designing a large-scale community on garden-city principles. These cost reductions were shown to result not from mass production or improved techniques of construction, but instead from the orderly layout of a community with only twenty-one per cent of the land being covered by streets and lanes (a reduction of ten percent over the

[145] Report of the Committee on Design, in *House Design, Construction and Equipment,* John M. Gries and James Ford, eds., vol. 5 (Washington, DC: President's Conference on Home Building and Home Ownership, 1932), 5, 10 & 11. Henry Wright was the committee's research secretary, and it is no coincidence that the committee's report reflected his own analyses and opinions on the matter—many appeared several years later in Wright's *Rehousing Urban America* (1935).

[146] *Slums, Large-Scale Operations, and Decentralization,* vol. 3, John Gries and James Ford, eds. President's Conference on Home Building and Home Ownership (Washington, D.C.: National Capital Press, 1932), xv. Many of these issues would be addressed in Wright's *Rehousing Urban America* (1935).

normal amount of land used for roads). Additional savings stemmed from the completion of one part of the community before building up another. Another appendix provided the cost analysis for Chatham Village in Pittsburgh, a housing development for clerical workers financed by the charitable Buhl Foundation.[147]

Other committees made recommendations aimed at raising the quality of the nation's housing and encouraging community enhancements. The Committee on Construction devised a score card, which provided the foundation for the rating process later used by architects, realtors, underwriters, and appraisers in determining whether or not a property qualified for Federal mortgage insurance. The Committee on Utilities pointed out the "attractiveness" of a residential area would be marred unless electric and telephone wires and poles were placed underground. The Committee on Farm and Village Housing drew attention to the desperate need for better rural housing and "village planning for individual comfort and social efficiency."[148]

The Federal government's interest and involvement in matters relating to housing increased in the years following the President's conference. The creation of the Federal Home Loan Board under President Hoover in 1932 was the first step towards organizing the banking industry to make long-term home mortgages available. It was under the Roosevelt Administration and the New Deal that a number of programs aimed at closing the housing gap were launched. Foremost was the creation of the Federal Housing Administration, which established national housing and neighborhood standards and provided mortgage insurance on privately funded loans to developers and prospective homeowners and was one of the most enduring outcomes of the President's Conference on Home Building and Home Ownership.

Economists of the day and members of Roosevelt's Brain Trust understood the value of stimulating the home building industry and encouraging private investment in modernizing existing homes, as well as new construction. Measures were introduced to solve the short-term economic crisis by funding civic improvements and engaging various sectors of the unemployed public in meaningful constructive work. Alongside these efforts the Federal government initiated major solutions to the long-term problems of home financing, eliminating urban blight, and creating communities that mirrored the best practices and ideals that had been examined in the 1931 conference. To some degree each of these projects incorporated neighborhood unit planning and was concerned with providing a healthy, sun-filled, environment and establishing community amenities that would bring people together and provide for recreation. Several pieces of legislation affected lasting solutions and became cornerstones of American twentieth-century public policy. Other programs, including suburban resettlement, became controversial and sparked concerns over the legality and constitutionality of their activities.

Despite the favorable terms offered by the new FHA-insured mortgages, few developers were able to invest in large-scale development. Implementing these ideas and demonstrating that the creation of ideal decentralized communities for lower-income Americans was possible became the goal of the Suburban Resettlement program. The design and construction of greenbelt towns occurred at the same time that the FHA was perfecting national standards for neighborhood and small house design, and was promoting its own program of privately financed but federally approved large-scale developments of rental apartments. As a result Greenhills and the other greenbelt towns became the nation's first large-scale residential developments to reflect this formative

[147] John M. Gries and James Ford, eds.. *Slums, Large-Scale Operations, and Decentralization.* The study on large-scale construction appeared in Appendix I, 96-105. The Chatham Village analysis appeared in Appendix VI, 138-42.

[148] *House Design, Construction, and Utilities,*135, plates facing, 13.; Bruce Melvin, "Report of the Committee on Farm and Village Housing," in *Farm & Village Housing,* John Gries and James Ford, eds., vol. 7. (Washington, D.C: President's Conference on Home Building and Home Ownership, 1932). The recommendations of this committee led to the Subsistence Homesteads program of the PWA which was absorbed into the RA's Rural Resettlement program.

period in the development of national standards for neighborhood planning and lower-cost, small house development.

The Design of Greenhills and the Other Greenbelt Towns

In 1940, Carleton Sharpe, community manager of Greenhills, reaffirmed the RA's purposes for planning this new town. In addition to putting men to work, those purposes were:

> (1) To provide good houses in healthful and pleasant surroundings at reasonable rents for moderate income families, (2) To provide facilities offering better opportunities for those families to lead a wholesome social, educational and civic life, and (3) To demonstrate a kind of community which would combine many of the advantages of both city and country life, so protected from nuisance encroachment that time would not produce another run-down neighborhood.[149]

In fulfilling these purposes, Greenhills and the other greenbelt towns represent one of the most significant and controlled American experiments in garden-city planning. Incorporating most of Ebenezer Howard's recommendations for physical design as well as social reform, these towns conformed more closely to the garden-city ideal than any other planned communities in the United States. Each town was comprehensively planned and limited in size and population. The general layout of each greenbelt town was in keeping with Howard's diagram, composed of an administrative and commercial core surrounded by residential areas, interspersed with parks, and encircled with a greenbelt. Each town was held in trust by a single land owner (the Federal government) and its properties rented to tenants until the towns were sold in the 1950s. The people governed each town through municipal incorporation and numerous citizen committees. Finally, the residents organized cooperatives to create and maintain the early businesses and institutions. All of these elements combined to create three towns whose existence presented a radical challenge to fundamental patterns of growth, real estate practice and political organization, in a country where growth and development had historically been based on private investment, initiative, and individualism.

Although all three towns reflect Howard's ideal to a great extent, Greenhills was able to preserve more of its greenbelt than Greenbelt and Greendale. Like Greendale, Greenhills had active farming operations mostly in dairy, poultry and small farming until the Federal government sold the land for development in 1954. Cooperative organizations flourished initially in all three greenbelt towns. The Greenhills Consumers Services opened and operated several businesses in the shopping center until 1950 when the Greenhills Homeowners Corporation purchased the town and took over the management. Other cooperative efforts included the Greenhills Credit Union, the Greenhills Health Association, and the Greenhills Cooperative Dairy. Unfortunately, the cooperative dairy operations at Greenhills were short-lived, but Greenhills Consumer Services was still in operation as late as 1971, although in much diminished form.[150]

The Greenhills Plan

The plan of Greenhills reflects several distinct but related currents in the design of new towns. These currents include principles of Clarence Perry's Neighborhood Unit Plan and the English Garden City as interpreted at Radburn, and Norris, Tennessee, the new town built by the Tennessee Valley Authority in 1933. In keeping

[149] Greenhills, Second Anniversary, 1940 (Greenhills: Greenhills News-Bulletin Association, 1940).

[150] Arnold, 181. In 1940 Greenhills had sixty-two farms, while Greendale had sixty-five farms and Greenbelt had seven, according to "Greenbelt Communities," (Washington, DC: U.S. Department of Agriculture, Farm Security Administration, 1940), 5. Per the Greenhills 8th Anniversary Booklet, in 1946 Greenhills still had 61 farms; these included 36 full-time farms comprising about 4,000 acres, varying in size from 40 to 216 acres, and 25 home units consisting of 1 to 16 acres, tended by families who had other employment to supplement their incomes.

with Clarence Perry's neighborhood unit concept, the Greenhills plan focused on family safety and convenience, placing all the housing in the original section within one-half mile of both the school and the village center and setting aside one-third of the land in the original section for parks and recreation (a figure that has been maintained as the village has expanded). Justin Hartzog took into account the site conditions and the population characteristics of Greenhills in his interpretation of the three major elements of the Radburn Idea: measures to safely accommodate the car and provide for pedestrian circulation, cul-de-sacs, and the reverse-front house plans. However, the Greenhills layout could easily be construed as a combination of the Radburn Plan and the pattern developed at Norris, which was a much looser arrangement of curving roads, loops and cul-de-sacs because of its mountainous topography. Norris also had a complete greenbelt, which was only partially realized at Radburn.

The topography of Greenhills was a major factor in its location and the layout of the roads. The site was characterized by rolling terrain but interrupted in places by ravines and punctuated by points of land adjoining the valley of the West Fork of the Mill Creek along the southern edge. However, first the planners had to consider how to deal with existing roads. These were Winton Road, a minor north-south highway, which bisected the site, and Springdale Road, which ran from the southwest directly into the center of the selected area, terminating at Winton Road. The neighborhood unit plan recommended that arterial roads be routed around communities rather than through them. The Greenhills planning staff had assumed it had the freedom to redirect roads on the property to suit their purposes as long as their plan didn't impede regional traffic flow. The December 7, 1935 sketch plan retained the existing Winton Road because it was well-paved, it provided a direct route to both Cincinnati to the south and Hamilton to the north, and topography would not allow it to be moved. Springdale Road was also left in the plan but altered to slow traffic entering the neighborhood and redirected to by-pass the town. In addition, the plan included several new freeways, uniting the five neighborhood units and carrying traffic around them.[151]

The Hamilton County Regional Planning Commission had other ideas for these roads in its *Main Thoroughfare Plan*. Although not heavily traveled at the time, Winton Road was to be widened to four lanes and Springdale Road was planned to be extended through the town site to become a regional arterial highway in a northeast-southwest orientation. Prior to the construction of I-275, a beltway built in 1958-1979, Springdale Road was viewed as the only existing road suited to bypass downtown Cincinnati in a northeasterly direction. If Springdale Road were extended, it would completely disrupt the neighborhood unit concept by bringing heavy traffic into the center of the community. Greenhills's planners initially sought to create a by-pass for Springdale Road up to Sharon (FKA Cameron) Road, an east-west road north of the neighborhood unit. The commission at first strongly opposed this, but ultimately a compromise was worked out connecting Springdale Road with Damon Road, directing traffic northeast toward Winton Road. At the same time, the regional planning commission was given the right-of-way to building a by-pass in the future which was never completed.[152] Eventually, the county deeded this right-of-way back to the village.

Another issue presented by Winton Road was how to locate the town center. In early plans, the shopping center was located on the west side of Winton Road and the school was on the east side south of a ravine that was reserved for a park. Earle Sumner Draper, town planner and landscape designer, and Tracy Augur, both advisors to the project, advocated for a new road to be built to take traffic around the business and civic buildings, which would remove high volumes of vehicles from passing directly in front. They also urged that the business center and school be grouped together. Wank, who was responsible for these two elements, had wanted this all along but Hartzog had to be persuaded. Eventually he agreed, and the town center was located on the east of Winton

[151] Leach, 137.
[152] Ibid, 142-143.

Road. On the west side of Winton Road, a wide buffer of greenspace was provided to separate housing from this busy artery.

The Greenhills plan has a hierarchical system consisting of a circuit road network connecting both sides of Winton Road, collector streets and narrow residential lanes, many of them cul-de-sacs, which extend outward from the collector streets. The street plan draws from the best practices of subdivision design of the day and integrates a combination of influences—including the cul-de-sacs of Radburn and Norris and long curvilinear blocks that had been inspired by the nineteenth-century designs of Frederick Law Olmsted and had been improved upon by prominent landscape architects Henry Hubbard, Arthur Shurcliff, Charles Robinson, Herbert Hare, and Sidney Hare in the twentieth century. The more formal setting of the Community Building and symmetry of the shopping center reflect the principles of the City Beautiful movement.

The Greenhills plan provides pedestrian pathways but the town does not have a network completely exclusive of the automobile circulation system as Radburn does. Sidewalks are found along both sides of all roads and lanes while paved pedestrian pathways lead between yards to small parks and playgrounds on the interior of blocks and also into the greenbelt. These pedestrian pathways provide shortcuts through blocks, but do not provide a traffic-free walk to the school, and village center. Underpasses shown on early plans for Greenhills were not built because Draper believed children would not use them at the locations where they were shown, but more so because of cost. Instead stop signs were placed where collector streets intersect with Winton Road, and buildings were set back from the intersections, providing drivers and pedestrians with wide open views.

Solutions for the design of safe neighborhood streets took on critical importance in the 1930s as public agencies promoted neighborhood unit planning and endorsed designs that, while accommodating increasing automobile use, were deemed safe and convenient for pedestrians. Special provisions for the automobile resulted in special areas designated for parking. The village center provided off-street parking in front of and behind the shopping center on the west side of Enfield Street, while garages and car-length driveways provided parking on residential streets. At the same time Hartzog was working out the street layout for Greenhills, Seward Mott, the chief planner of the Federal Housing Administration's small house program had just published the first standards for neighborhoods that would qualify for FHA mortgage insurance—standards that emphasized a hierarchy of streets, roads built to follow the natural topography, and a carefully planned web of long, curvilinear streets and short cul-de-sacs and courts.

The Greenhills plan is significant for how its residential lanes and courts flow off the collector streets and create quiet enclaves of homes interspersed with land reserved for common parks on the inside of blocks, islands at the ends of cul-de-sacs, and the surrounding greenbelt. Greenhills made use of superblocks in the A, B, and D sections on the west side of Winton Road but the topography caused the plan to be characterized also by numerous cul-de-sacs on ridges in the A and F sections, while flat areas along Farragut had symmetrical terraces of flats. Thus, the community displays a highly varied array of streetscapes, parks, and private yards. Housing is arranged along the residential lanes, leaving spacious yards and broad swathes of open space between housing groups or islands created by "U" shaped and "L"-shaped lanes. Parks are located on the interior of residential blocks made accessible through a network of pedestrian paths.

While the landscape design was not illuminated in Hartzog's final reports, the planting plans produced for Greenhills by landscape architect Joseph Whitney reflect a careful program designed to complement the architectural design, curving streets, and pedestrian paths and create a country-like setting. A Farm Security Administration pamphlet declared: "With the help of time and planting we trust that a charming but very simple village atmosphere will be attained."[153] The planting plans specified the construction of trellises, fences, and the

[153] Farm Security Administration, "Greenbelt Communities," 3.

planting of vines, shrubs, hedges, and ornamental fruit trees to beautify the houses and camouflage the garages. There was also a decision made in late 1937 to plant larger trees on house lots to soften the severity of the boxy, flat-roofed S-type rowhouses.[154]

The placement of housing in Greenhills derived in part from the recommendations of the 1931 President's conference and was spurred by the increasing interest by landscape architects in designing the grounds of small American homes as the Depression worsened and estate commissions disappeared. The portion of the design visible from the street consisted of a small setback from which a projecting one-story vestibule provided entry to the interior of the utility room and kitchen. Single- and two-family houses also had driveways for their integral garages. Like Radburn, Greenhills used reverse-front house plans for all of its housing types, orienting the service rooms toward the street and living rooms toward parks and open space on the rear. To the rear of each house lay a private yard with space for a vegetable garden, a lawn, and fruit trees. Hedges were used only along the sidewalks on the circuit roads to provide a bit of privacy on these busier streets.

Planning techniques such as situating homes on long narrow lanes, reducing the distance that houses were set back from the street (and therefore reducing the cost of installing utilities), and limiting the width of sidewalks to four feet served also to lower the cost of development. Other measures to reduce costs included clustering courts and cul-de-sacs of various lengths at the edge of parkland, and placing pedestrian paths at the end of the courts rather than along the rear of each private yard. In this way Hartzog ingeniously molded the streets to the natural topography of the site.

Peopling Places: Reducing Costs and Architectural Innovation

In addressing the economic situation and shortage of housing in 1935, Lewis Mumford wrote:

> America faces today both a quantitative and a qualitative deficiency in housing. Part of this deficiency is due directly to poverty and can be remedied only by the industry's provision for a higher income for lower-wage groups, or by governmental subsidy that will meet the difference. The remaining deficiencies are due chiefly to the attempt to make out of the essentially cooperative, communal task of housing, a field for individualistic enterprise and private pro fit... Nothing but a concentrated effort, in a direction exactly opposite to that taken before the depression by business enterprise and realty speculation and urban engineering can overcome our vital deficiencies in housing.[155]

Mumford's words reflected the ideology of the RPAA and especially its leader Clarence Stein. To a large extent RA Administrator Rexford Tugwell shared this philosophy, finding it compatible with his own opinion about the necessity of Federal intervention in matters concerning housing and residential development. In the early years of the New Deal, Stein visited many offices seeking support for a Federal Garden City policy and for support for several of his projects. In June of 1935 Stein was invited to meet with government housing officials at Buck Hill Falls in Pennsylvania where he had the opportunity to garner support for his ideas. In the autumn of that year, 1935, Stein was in Washington as a consultant to the Resettlement Administration laying the groundwork for the rapid execution of the greenbelt towns. He developed a series of reports containing cost analyses relative to the construction and improvement costs for various house grouping schemes, community facilities, and shopping center. He also examined the overall costs of operating and maintaining the community over time and addressed budgetary concerns that affected residents, such as rents and amortization charges. According to Stein, "The purpose of the studies was to indicate a broad and practical method of approach to inter-related problems of social, economic and physical planning. It was felt that they were needed because the

[154] FSA, Summary Chronological History of Project Development, Greenhills, Ohio, Nov. 1937.
[155] Lewis Mumford, Foreword, *Rehousing Urban America,* by Henry Wright (New York: Columbia University Press, 1935).

conception and design of a complete town to be built quickly were new subjects to most of the technicians involved." This effort was directed toward keeping costs within the scope of the allotted funds for each town, as well as fostering a collaborative relationship in which architects and planners could work together and where architectural concerns were better integrated with the planning concerns of the entire community.[156]

Stein's report on the capital costs of house construction included comparative data on relative costs that were highly specific and based on actual floor plans, room dimensions, and interior amenities. The basic dwelling was to consist of the kitchen, bathroom, stairs, dining and living space, one or more one- or two-person bedrooms, and space for heating and storage (e.g. closets). Housing units were to be designed with adequate ventilation, light, sanitation, and cleanliness, and offer space for personal privacy as well as family activities. The cost appraisals took into consideration all aspects of house and yard design, including materials, labor, equipment for the house (e.g. furnace, lighting fixtures, and kitchen appliances), utilities, roads, walks, and gardens to serve the house when arranged in typical groupings. Underscoring the social and practical purposes of the model communities as demonstrations of moderate cost housing, Stein's instructions emphasized the necessity of containing capital costs to "take care of as many as families and persons as possible within the appropriation" and "set standards of planning and building that will be sufficiently economical to serve as a guide to others building in the near future."[157]

Realizing the economies inherent in grouping houses was central to the success of the greenbelt town program. Stein examined the relative improvement costs of various schemes of house grouping in a second report to John Lansill. At Radburn, savings resulted from the grouping of houses, staging the construction in phases, reducing the amount of street pavement, and utilizing economies in the installation of utilities. These measures would be set forth and expanded upon in the design and construction of the greenbelt towns. Stein wrote Lansill: "The purpose of these studies is to measure the comparative efficiency of various methods of grouping houses as affecting street, yard, and park improvement costs....We have compared houses facing on main roads and on lanes with and without vehicular roads; similar lanes of different widths; houses in groups of different lengths with and without garages attached, as well as free-standing houses; houses with [the] long and with [the] narrow side towards the road."[158] These improvements constituted the basic infrastructure of street paving, sidewalk construction, curbing, underground utilities and light standards, water mains and fire hydrants, and landscape planting.

Based on his experience at Sunnyside, Radburn, and Chatham Village, Stein offered some general observations about relative costs that help explain the design standards on which each of the greenbelt towns was to be planned. As well as being least desirable for living, the cost per house of improvements was greatest when houses were built facing a main road. The improvement cost for houses built on lanes was thirty-eight percent less than on main roads and decreased even more as the length of the lane increased. Typically, superblocks 1000 feet in width offered savings over blocks half that width, and generally the greatest savings came from the arrangement of row houses on lanes that had grouped garages at the entrance and did not allow vehicles on the lane. Stein recognized, however, that the planners might "prefer to sacrifice these advantages for the convenience of direct access to each house by automobile and greater ease in the delivery of bulky goods and fuel, and easier fire protection."[159]

The Greenhills planners used Stein's analysis and design standards as a guide for sizing rooms within dwelling units and arranging housing on long lanes and superblocks. The Greenhills plan provided integral garages for

[156] Clarence Stein, "Appraisal of Plans," 23 November 1935, as reproduced in Appendix, *Toward New Towns,* 228.
[157] Ibid*,* 232.
[158] Ibid.
[159] Stein, in Memorandum to John Lansill, "studies of the relative improvement costs of various 228 schemes of house groups, 19 November 1935, reproduced in Stein, Appendix, *Toward New Towns*, 232-234.

single- and two-family dwellings and a combination of small groups of garages positioned on the street to eliminate the need for driveways and large blocks of garages accessed by non-vehicular lanes. In the complexes of flats on Farragut Lane, the Greenhills planners employed the use of service courts with parking and pedestrian walkways on one side and garden courts on the other, a concept employed by Stein in Radburn; however, the geometric layouts in Greenhills were a free interpretation dictated by site topography and curvilinear roadways rather than directly imitative. And rather than follow the strictly rectilinear and symmetrical layouts Stein outlined in his analysis, Greenhills displays a diverse variety of housing groups on courts, lanes, and streets of different types and lengths, indicating the flexibility the greenbelt town planners had in modifying and combining the schemes and even introducing new schemes if they promised cost-savings. Stein's involvement in the preliminary planning for the greenbelt towns was not the only direct connection between the work of the RPAA and the RA. Stein's studies were made at the end of 1935 and presented to the teams when the actual design work got underway shortly afterwards. By December 1935, ground had been broken for Greenhills and by January 1936, progress was well under way on the actual plans, drawings and models that would guide the early stages of decision-making and lead to the actual construction plans and specifications. Within each team the designers worked collaboratively with the advice of consultants much as Stein and Wright had worked in the design of Radburn and in consulting on the design of Chatham Village.[154] While Stein's work was completed and he was away traveling in Europe, Henry Wright and two other members of the RPAA, Albert Mayer and Henry Churchill, served respectively as chief planner and principal architects for the Greenbrook, New Jersey, project.

The economies of design and construction inherent in large-scale development had been demonstrated by Clarence Stein and Henry Wright in the City Housing Corporation projects at Sunnyside Gardens and Radburn and the University of Pittsburgh study for the Buhl Foundation Project at Chatham Village, in Pittsburgh. Costs could be minimized through advance planning and cost-analysis and utilizing the economies of acquiring land and procuring materials on a large scale. Wright, whose early work for the WW I housing agencies entailed cost analyses, had just completed his monumental treatise, *Rehousing Urban America* (1935), in which he presented a scientific approach to cost-efficient housing based on his career-long experience, his admiration for the garden city designs of his contemporaries, as well as his recent analysis of European housing developments. Wright's treatise called for an entirely new approach to residential design—one that was deemed comprehensive, "scientific" in its technical details, and ready for implementation.

After their collaboration on Radburn and Chatham Village, the partnership dissolved and Wright began teaching at Columbia University and, with Catherine Bauer, formed the Housing Study Guild, which in the early 1930s engaged him in a study of European developments in high-density, low-income housing. To him the most interesting possibilities were offered by the work of Ernst May at the Praunheim and Romerstadt projects in Frankfurt, the Neubuhl Houses in Zurich, and the *siedlungs* of Berlin. In *Rehousing Urban America,* he brought together his comprehensive understanding of the evolution of the multiple-unit dwelling in the American garden-city planning with the prospects suggested by the wave of modernism and innovation abroad.

Large-scale projects could be carried out with concentrated effort expended over a relatively brief period of time. A large project could be broken into phased stages so that future construction costs could be offset with income from the sale or rent of completed units. Under ideal circumstances, builders and developers (called "operative builders") could rapidly retire construction loans and move on to new projects. This was the type of development the FHA wanted to encourage through its long-term amortized loans. But in the first few years of its operation, the FHA had few, if any, truly large-scale proposals for neighborhoods of small houses. Instead, the FHA turned its attention to working with developers in the creation of large-scale rental housing projects that were privately financed (many by insurance companies) but federally insured. Eventually, with more favorable terms for FHA insured loans (under the Act of 1938), an improving economic situation, and the increasing demand for housing in critical defense areas (under the Lanham Act of 1941), the prospects for

private investment in home building on a large scale greatly improved. After the war, with a new G.I. housing bill, private investment in housing and activity in the home-building industry finally gained momentum paving the way for the emergence of large-scale developers, such as Joseph Eichler and William Levitt, who in the 1950s became known as merchant builders.

In the 1930s, the greenbelt towns offered planners, architects, and landscape architects the opportunity to expand on the lessons learned at Forest Hills, Sunnyside Gardens, Mariemont, Radburn, and Chatham Village and give material form to the ideas raised at the 1931 President's conference and the theories of master designers such as Stein and Wright. The designers of the new towns set out to experiment with and demonstrate what would become one of the most important institutions of American life, the comfortable, convenient, and well-equipped suburban home. At Greenhills efforts were directed to two basic housing types—the multiple-unit row dwelling and the detached or semi-detached single-family home.

The Multiple Unit Row Dwelling

The economics of house design and planning had equated large-scale operations with the development of group housing. During the 1920s there was a growing dissatisfaction with the design of ordinary apartment houses due to the sharing of entrances, stairways, and corridors and concerns for maintaining common spaces. Designers such as Henry Wright and Clarence Stein sought low-cost alternatives that could offer residents the privacy of a single home while gaining the economic benefits of multiple-unit construction. Many of the World War 1 defense housing communities had explored variations in two-unit dwellings, called duplexes, and multiple unit rows. But it was the innovations in multiple-unit dwellings introduced in the American Garden City communities—Sunnyside Gardens, Mariemont, Radburn, and Chatham Village—that sparked interest in perfecting "twin" and group rows. The earliest section of Mariemont incorporated row house designs by noted architects Edmund B. Gilchrist of Philadelphia, and Richard B. Dana of New York City and clusters of detached and semi-detached houses by a variety of accomplished architects, including Grosvenor Atterbury of New York (who had designed the houses at Forest Hills, New York), Charles F. Cellarius of Cincinnati, Lois L. Howe and Eleanor Manning of Boston, and Carl Zeigler of Pittsburgh.

In the *Design of Residential Areas* (1934), planner Thomas Adams who had written the Regional Plan for New York and participated in the 1931 President's conference, encouraged further investigation into the development of the row house based on an appraisal of three related factors: "the prevailing demand; the relative costs per room; and the necessity that each home have equally good conditions in regard to light, air, and yards for play." He saw the group or row house as a compromise between the detached house and the apartment house, and he acknowledged that there was "much prejudice against group or row houses." Despite the preference for the single home with its gardens on a park-like street, he argued the merits of the row housing type, saying that with proper landscape and architectural design, such houses could be made more attractive than a group of free-standing single homes. He cited the economic advantages: "the group house may occupy a narrower lot without being undesirable from the point of healthful occupation. This should mean a first saving of fifteen to twenty percent in cost of land and local improvements as compared with a free-standing house providing the same amount of living space." He further estimated that a connected group of six houses having only two exterior walls, one at each end as compared with twelve exterior walls of six detached houses, would save an additional savings of five to ten percent.[160]

Henry Wright was the strongest advocate for group housing, having been involved for many years in designing many variations in the form of small apartment houses and multiple-unit housing in the context of a garden suburb. In making his case for group housing, Wright argued: "Group planning assembles buildings and land

[160] Thomas Adams, *The Design of Residential Areas: Basic Considerations, Principles, and Methods* (Cambridge: Harvard University Press, 1934), 89-91.

for effective openness without extravagance." He called for a completely different type of arrangement of subdivision in which lots became longer and shallower to accommodate the grouped row and give each unit exposure to sunlight, fresh air, and pleasing garden views. This meant eliminating dark, narrow alleys between buildings, limiting the depth of each dwelling to two rooms, and placing the dwelling in a garden-like environment. He remarked:

> The choice of kinds of dwelling space provided should be dictated primarily by considerations of privacy, safety, and good exposure. None of the family dwelling types of the past has met all these requirements satisfactorily. Group housing on the contrary is capable of meeting them under intelligent evolutionary development, and only asks to be freed from artificial restrictions whether of law or mental outlook.[161]

With an aesthetic basis in garden-city planning and practical emphasis in cost-reduction and large-scale development, the greenbelt towns became one of several proving grounds sponsored by the New Deal government for the development of multiple-unit housing. The others were the projects of the PWA Housing Division in 1933-35, the large-scale rental housing division of the Federal Housing Administration established in 1935, and the developments by local public housing authorities under the Housing Act of 1937.[162] The European modernism espoused by Wright and Bauer can be seen interpreted in the modest row dwellings at Greenhills and Greenbelt, while Greendale houses were highly conventional with their simple references to the Colonial Revival style and orderly, symmetrical appearance.

From the perspective of modern innovation, the designs adhered to the simple principles of reversed design to allow the utilities to be stacked economically to create a variety of dwellings whose principal elevations (service side and garden side) were either symmetrically ordered or informally balanced. The efficient small houses, whether detached or connected in groups, were equipped with the amenities that had become equated with contemporary standards of American life—a modern kitchen (with an electric range and refrigerator), plumbing and electricity, a whole house heating system, provisions for piped-in and softened water, and mechanisms for waste disposal. What appeared as a simplification of form and a minimization of size, in fact resulted from a careful process of planning and analysis of how the modern house was to be used—the groundwork of which had been established by Stein and Wright as well as a group of private research organizations, such as the Albert Farwell Bemis Foundation and John Pierce Foundation.

Two things account for this simplicity—search for low-cost alternatives to traditional house construction, and an emphasis on sound construction, low maintenance, and essential functions of interior space. In his comments at the 1931 President's conference, Secretary of Interior Ray Lyman Wilbur stated: "Beauty is not a veneer to be applied at added cost, but lies rather in the lines of a house, its proportions, the relations of its parts to one another, and of the whole to its setting. It is demonstrable that quality pays, both by endearing the home to the family and by the enhancement of property and community values."[163] Style had driven the small house movement of the 1920s, resulting in period revival embellishments to basic floor plans and a variety of house sizes. It had also fostered the growth of allied building industries, such as Curtiss Woodworking which could produce for a substantial cost an architect-designed Colonial or Federal period entrance and doorway

[161] Wright, *Rehousing Urban America,* 30.

[162] The fullest expression of Henry Wright's ideas is probably best represented by the variety of multiple housing dwellings at Greenbelt and the FHA-approved and -insured apartments at Buckingham Communities (NR) in Arlington County, Virginia. Wright consulted on the early planning for the first section of the garden apartment community just before his untimely death in 1936.

[163] Ray Lyman Wilbur, as quoted in *House Design, Construction and Equipment,* caption opposite title page.

frontispiece rendered in finely cut pine.[164] Such practices led to housing costs that were well beyond what the average working-class family could afford.

At the other extreme were shoddily-constructed houses on the small lots of crowded streets in undesirable sections of the urban core, where design was driven by land speculation and profit-seeking interests. Such developments were the object of Mumford's attacks on the building industry and gave impetus to the urgent plea for housing reform by Henry Wright, Catherine Bauer, and Edith Elmer Wood. Participants of the 1931 conference clearly recognized that deteriorating, inadequate older urban housing, as well as poorly built, unplanned new housing, contributed to urban blight which, if left unchecked, would exacerbate the already serious presence of slums in American cities. With the New Deal in place in 1933, the search was on for innovations to reduce housing costs and to bring the comfort of living in a sound house in a healthy, garden-like setting within the realm of the largest sector of Americans—the working class.

Greenbelt, the first town to take form, was almost entirely made up of multiple-unit dwellings laid out in rows, and with longer dwellings often staggered to adjust to hillside sites according to innovations introduced at Chatham Village. The smallest consisted of two semi-detached units arranged side by side as mirror images, called "duplexes." Greendale dwellings of similar function and scale were laid out on the formal courts and rectilinear lanes that made up the flatter areas of the town plan. The two-story, two-unit rows at Greendale were called "twins," and could be expanded to form a three-unit grouping that included a small second-floor apartment. Greenhills had a combination of the two approaches—like Greenbelt the vast majority of its dwelling units were in multiple-unit rowhouses, and with only 24 single-family houses, its resemblance to Greendale was limited.

While numerous floor plans existed, the housing was broken down into basic two- and three-bedroom units that could be arranged in pairs as mirror images and then in multiple sets to form four-, six-, and eight-unit rows. While the floor plans and amenities of each multiple-house unit were similar from one greenbelt town to another, the exterior design and ornamentation varied from town to town. In Greendale, the houses were small, two-story single-family dwellings of concrete block with gabled roofs and Colonial Revival elements. In Greenbelt, the houses were attached two-story dwellings typically arranged in rows of two to eight units. They varied between gable-roofed units with brick facing reminiscent of Colonial Revival and flat-roofed concrete block dwellings with Moderne style details such as horizontal banding and flat-roofed porches with pipe column supports. In Greenhills, there is a mix of styles similar to Greenbelt, but the massing and siting are more varied.

There is no question that the multiple-unit dwellings represented a short-lived phenomenon, in response to a specific set of economic conditions, first the uncertainty of the Great Depression and then the urgency for speed of production to meet wartime needs. Stemming from Wright's analyses, the development of the multiple-row houses in the greenbelt towns represents a formative period in what by the end of the decade would be known as unit-planning. Unit-planning was the basis of much of the modern housing in Europe. Its adoption in the United States substantially reduced the cost of American apartment design and construction.

The greenbelt demonstration projects along with privately funded FHA-insured projects (Buckingham Communities, Colonial Village, and Arlington Forest) provided prototypes for the expansive program of defense housing after 1940 and set the stage for massive suburban development nationwide in the post-war period. The design of the multiple-unit row in many parts of the country ultimately became negatively associated with the low-cost public housing sponsored by local housing authorities. By the end of the 1940s, the

[164] David Gebhard, "The American Colonial Revival in the 1930s," *Winterthur Portfolio* 22, no2/3 (Summer/Autumn 1987), 109-148; Linda Flint McClelland, "Gardens for Suburbia: The Colonial Revival, Community Planning, and the National Housing Act of 1934," paper delivered at the Colonial Revival in America Conference, Charlottesville, VA, 2000.

multiple-unit dwelling that Adams and Wright espoused would fall from favor as a moderate-priced alternative for housing and was supplanted in the postwar period by complexes of garden apartments and neighborhoods of privately-owned small houses. Unit-planning persisted and radically transformed the home-building industry in the following decades of the twentieth century.[165]

Single-family Housing at Greenhills

In contrast to Greendale, in which nearly half (274) of its dwelling units were single-family detached houses, Greenhills had twenty-four single-family homes out of the original 676 dwelling units, while Greenbelt had only six single-family residences out of 885 dwelling units.[166] Local surveys in Cincinnati indicated that two-thirds of those surveyed preferred a single-family home.[167] However, cost prevented the construction of more single-family homes and rowhouses were considered to be more economical. Frank Cordner remarked that "The Divisional objective of providing homes for the occupancy of low income families has limited, in part, the freedom of the architectural staff in planning the design, grouping, construction materials, and methods and equipment of units at Greenhills."[168]

The single-family detached (as well as semi-detached duplex) residences "add to variety and attractiveness" of the A and B sections. They are larger than the other units—most with four bedrooms—and were intended for families with several children.[169] As previously mentioned, the original single-family houses in Greenhills consist of two types, both in a simplified Colonial mode. The most common is ell-shaped in plan, one-and-a-half stories tall, and capped with a cross-gabled slate roof. The principal entrance is on the inside corner where the gable front meets the wing. Each house has an integral garage connected by an enclosed porch. The second type is rectangular in plan, two stories, with a side-gabled roof and an attached garage. They share the reverse-front plan introduced at Radburn with the utility room and the kitchen on the street or service side of the house, and the living room and dining alcove away from the street on the garden side. In the cross-gabled example, two bedrooms are included on the first floor and two additional bedrooms and single bathroom are located on the second floor. In the side-gabled example, the four bedrooms are all on the second floor along with the bathroom.

The original steel windows were unusually large and numerous in order to provide good light and ventilation. The upper sash swings outward, awning fashion, to provide air circulation without worrying about rain. The bottom member swings inward, hopper style, to direct drafts over the heads of seated occupants.

The houses reflect modern ideas about the cost-efficient design, economic use of space, and the effects of rotating or reversing a plan to achieve variety and unity, while achieving a sense of order and permanence. The use of efficient floor plans and the treatment of exterior design reflect emerging ideas about the modern house and changing attitudes about what was essential in a safe, efficient, comfortable, and convenient home. At the forefront of this movement, New Deal-era designers had the opportunity to apply their professional skills in a collaborative and interdisciplinary climate. Free of the conventional practices and market pressures of the

[165] Methods of unit-planning were first introduced in 1934/1935 in standards published by the PWA's short-lived Housing Division (under the direction of leading RPAA member Robert Kohn). They were expanded upon by architect and RPAA member Eugene "Henry" Klaber, who had worked for Kohn at the PWA and became the lead designer for the FHA's influential large-scale rental housing program. The FHA-insured Buckingham Communities (1935-1938) in Arlington County, Virginia, was the first rental development to implement unit-planning on a large-scale. Included in Stein's *Toward New Towns,* Baldwin Village (NHL) in Los Angeles was one of the finest rental projects to combine garden-city principles with the practical FHA requirements.

[166] U.S. Department of Agriculture, Farm Security Administration, "Greenbelt Communities," 12.

[167] Cordner, Architectural Planning, 12.

[168] Ibid, 4.

[169] Ibid, 13.

profit-driven homebuilding industry, architects were able to experiment with new ideas and work out new solutions.

To a large extent, government architects were inventing the modern house. Within the context of New Deal programs, "modern" was not a reference to the work of European designers such as Le Corbusier, Walter Gropius or Ernst May. Instead the term referred to a process of design based on function, practicality, and efficiency. As explained in the FHA's bulletin *Modern Design* (1936):

> The basic characteristics of Modern design lie in the attempt made to (1) create a plan which will provide a functional relation between rooms arranged to suit present day modes of living, to facilitate efficient housekeeping, and to permit an economical use of materials; (2) to permit the exterior treatment to be dictated primarily by the plan and to be an expression, thereof, with little or no regard to traditional concepts; (3) to use materials efficiently, economically, and directly, boldly eliminating decorative features and relying upon texture and color of materials together with skillful arrangement of masses and openings to produce an aesthetic effect.[170]

Inevitably the quest for lower-cost construction precipitated a definite trend toward the simplification of house forms and the elimination of the period flourishes that added cost and placed adherence to formal stylistic principles over those of a more practical and functional nature. The Great Depression of the 1930s and the rising social concerns for housing lower-income Americans brought about new strategies to simplify and find inexpensive alternatives to the well-crafted but expensive house forms and embellishments that characterized the small houses of the 1920s. The process of streamlining the American Colonial Revival house began in the World War I defense housing projects and continued at Mariemont and Radburn. The single-family house designs in Greenhills were radically simplified through the use of alternative materials for construction, a program of minimal decoration, and the development of floor plans that followed present day functions and expectations for comfort and functionality. This helped redefine the meaning of "small house" and ushered in a new era in home-building.[171]

The most innovative change to the design of the single-family homes at Greenhills was the adoption of the reverse-front plan that had been introduced at Radburn. Like the rowhouses, all the single-family detached and semi-detached duplex houses exhibit reverse-front house plan. The living quarters face rear gardens which are accessed through porches or terraces. Kitchens, delivery entrances and main entrances are reached from the street side. This design feature combined with the elimination of a wide setback from the street resulted in reduced construction costs and gave each Greendale house a larger yard with gardens which could be viewed from the living room.

According to Henry Wright the reversal of the house front was an important step towards the creation of moderate-priced dwellings. He looked at this from a social, as well as a practical standpoint, explaining:

> The street is used for service. In the days of leisurely carriages it was pleasant to look up and down the street to follow the town's social life. This is a dubious advantage in these days of the automobile. The street-fronting entrance that began as a convenience survives mainly as useless

[170] FHA, *Modern Design*, Technical Bulletin no. 2 (Washington, D.C.: Government Printing Office, 1936), 2.

[171] For a discussion of the small house movement of the 1920s, see Ames and McClelland, 59-60. In addition to Stein and Wright, the highly renowned architect of small houses, Frederick Ackerman, also worked on house design at Radburn. Both Wright and Ackerman were influential members of the Committee on Design at the 1931 President's Conference (Wright served as secretary).

> display… The usual house with its front to the street wastes its opportunity to be well connected with the garden.[172]

The reverse-front design lowered the cost of installing utilities by placing the kitchen, utility room, and bathroom on the service side of the house near the street where the water mains, electric wires, and sewer mains were located. Moreover, it had freed designers from the conventions of traditional home-building and allowed for radical redesign of the American home. In Wright's experience what started out as a simple process of "turning the free-standing house around to face the garden instead of the street," actually proved to be rather complicated, requiring lengthy study and evoking considerable resistance from both prospective homeowners as well as bankers. The acceptance of this innovation by the greenbelt town program was a major *tour-de-force* that would radically magnify the design possibilities for moderate-cost housing and by the end of the decade would dramatically influence the FHA standards for small house design.[173]

Greenhills reflects experimentation with the neighborhood of small houses concept being promoted by the FHA and consistent with the standard real estate practices of community builders. At Greenhills the garden-city ideal merges with the conventional building practices of community builders, even though modified into a more economical form. The houses on Alcott and Avenell are set within a neighborhood context with amenities such as turning circles, sidewalks, setbacks deep enough to accommodate a car-length driveway and small lawns. In this small unified grouping of detached and semi-detached houses the designers achieved a practical and aesthetic synthesis of community builders' and garden city ideals. Spaciousness is an overriding characteristic here, reflecting the FHA's interpretation of the moderately priced garden suburb. These streetscapes stand out for their innovative solution that combines the ideas for small houses emerging from the newly established FHA ideas and the vision of garden city proponents. These cul-de-sacs convey a village like atmosphere, sense of spaciousness, and a pleasing arrangement while meeting the needs for privacy, safety, convenience and comfort. It is not surprising that Stein selected the photograph taken by FSA of children on bicycles approaching the end of Alcott Lane.

Innovations in the Use of Prefabricated Components and Manufactured Building Materials

The 1930s was an important period of innovation in the use of prefabricated building components and alternative building materials. The New Deal programs, particularly the rural and industrial communities designed by the Subsistence Homestead program (later the Resettlement Administration) and the Tennessee Valley Authority, were noted for their experimentation with prefabricated materials and methods. Concerned primarily with progress in this area and its application to the private-building industry, the FHA reported:

> The present is still largely a period of experiment. Urged on by the desire to meet the demand for new homes, manufacturers are steadily putting out new forms of materials and new methods of using them. These are still in the exploratory stage…. Recent progress in the prefabrication field and evidence of increasing effort toward the development of low-cost houses indicates a recognition by capital interests of the possibility for development of this market by large-scale mass production.[174]

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[172] Wright, *Rehousing Urban America*, 45.

[173] Ibid.

[174] Federal Housing Administration, *Recent Developments in Dwelling Construction*, revision (Washington, D.C.: 1940), 4-5. This bulletin was initially published in 1936 and revised annually; its listing of approved new materials and methods would become especially relevant with the passage of the Lanham Act in 1940…which provided incentives for the private construction of housing in the critical defense areas identified to support industrial production related to World War II.

Roland Wank was especially sympathetic to the goals of housing lower-income and acutely understood the opportunity presented by new materials and methods, in combination with modernistic principles of design, in lowering the material costs of construction, making the construction process more efficient, and improving the quality of lower-cost house design. Shortly after he joined the TVA design team in 1933 and was working on the new town of Norris, he shared his personal philosophy with a local reporter:

> I could never become interested in designing grand homes for the few who can afford them. I always wanted to feel my work was of some public interest and that it will add to the comfort and enjoyment of many… It seems that only well-organized mass production will bring the "model" house within the means of "the forgotten man, and mass production can only exist when balanced by mass purchasing power."[175]

The need to economize on building costs combined with the need to build as many units as possible in order to reach the population required to make Greenhills work as a complete community necessitated efficiency and innovation not only of building design, but also of materials. In Greendale and Greenbelt, the architects turned to concrete block, which is amply discussed in the Greendale NHL nomination. Greenhills did make some use of stuccoed concrete block for multiple-family units, but the cost-saving response in Greenhills was primarily to use a wood frame structural system clad with asbestos-cement siding in the S-Type houses. According to architect Frank Cordner, this was the first large-scale use of asbestos-cement siding in the United States. The pioneering use of asbestos siding in the late 1930s at Greenhills assumes special importance when viewed in the context of the expansive use of these materials during World War II for military housing as well as rental housing developments in critical defense areas in the early 1940s.[176] According to Amy Lamb Woods in "Keeping a Lid on It: Asbestos-Cement Building Materials," asbestos-cement is a composite material made of Portland cement reinforced with asbestos fibers. While asbestos and cement were each used separately for commercial purposes, asbestos tended to be too coarse and abrasive to be very useful alone. Beginning in the 1880s, experimentation with asbestos fibers resulted in many diverse mixtures, but the pairing of asbestos and cement (typically Portland) proved the best for the building industry.[177]

Keen on using modern construction materials and techniques, Wank was likely familiar with asbestos-cement products from his European origins and education. The asbestos-cement shingle was created by Czech-born inventor Ludwig Hatschek. Naming his product, "Eternit," he patented the manufacturing process in Europe in 1901, and the patent was reissued in the United States in 1907. In the early 1920s, American roofing material manufacturers—Johns-Manville, Carey, Eternit and Century—were all selling some sort of asbestos-cement roofing shingle. The incorporation of pigments to create a range of color choices caused sales to explode.[178]

Asbestos-cement products had many attractive qualities; they were rigid, durable and fireproof. They would not warp or rot and were resistant to insect damage. Asbestos shingles were valued for being fireproof, especially among those living in turn of the century communities where fire spread was a common concern. While not able to match the endurance of slate, asbestos shingles were expected to last a minimum of 30 years, enhancing their desirability. Their light weight significantly reduced the costs involved with shipping and installation. For

[175] John T. Montour, "R.A. Wank, TVA architect, Sees Workers' Housing as Great Challenge of Tennessee Basin's New Deal," *Knoxville News-Sentinel* (2 December 1933) as quoted and cited in Macy, 37; fn. 34, 49.

[176] Frank Cordner, Architectural Planning, Nov 1937, 25.

[177] Amy Lamb Woods in "Keeping a Lid on It: Asbestos-Cement Building Materials," *Recent Past Revealed: The On-Line Architectural Style Guide and Glossary!*

[178] Christophor Jurin, "The Rise and Fall of Asbestos Shingles," http://roofing.about.com/od/Roofing-Construction-Basics/fl/The-Rise-and-Fall-of-Asbestos-Shingles.htm, accessed September 1, 2015.

decades asbestos roof shingles were considered an invaluable resource offering a superior, inexpensive alternative to traditional roof coverings.[179]

Asbestos-cement products were used for exterior cladding and roofing, mostly in the form of individual shingles in square, rectangular, and hexagonal shapes. Long planks resembling clapboards of the type used at Greenhills were offered in the 1930s. The surface of siding produced in the 1920s and early 1930s was smooth, but textured finishes, especially wood-grain patterns, became available starting in 1937. Sears, Roebuck and Co. was one of the first suppliers to introduce asbestos-cement siding with a wavy bottom edge. Before the 1950s, colors were limited to white, gray-pink, and gray-green, and many structures with asbestos-cement siding were eventually painted.[180]

Installing asbestos-cement shingles, whether on roofs or walls, was relatively easy, and therefore suited for non-skilled labor used to build Greenhills. Most shingles, typically 12 by 24 inches, were easy to handle and came drilled for nailing. Often, they were applied over existing materials using furring strips. Because of their low cost, easy application, and fireproof properties, asbestos-cement products were considered a miracle building product. However, by the 1940s the harmful effects of asbestos on human health were starting to be recognized and the introduction of asphalt-based shingles in the late 1950s began dominating. In 1989, asbestos became illegal when The Environmental Protection Agency (EPA) issued a ban and phase out rule.

Many buildings in Greenhills retain the original gray-green asbestos siding in good condition and much of it has been painted. The presence of asbestos is not necessarily hazardous unless the material is damaged, thereby releasing fibers into the air. In the demolition of some S-type buildings, the Village of Greenhills has complied with laws governing the removal and disposal of asbestos siding and hired licensed and certified asbestos contractors to do the work.

National Significance and a Comparative View of the Greenbelt Towns

Despite resistance encountered by the Roosevelt Administration's efforts to promote better housing in the nation through the rural and suburban resettlement programs, the greenbelt towns succeeded in their purpose to provide a new model of suburban living for working-class Americans. Despite the long-term failure of these communities to achieve Howard's ideal of a garden city complete with an agricultural belt and industrial components, Greenhills, with Greendale, Wisconsin, and Greenbelt, Maryland, demonstrated advanced ideas of neighborhood planning and home construction. They provided successful models of large-scale, residential development at a pivotal time in the evolution of the American home and suburb when the design professions—architecture, landscape architecture, and city planning—had reached maturity. The imperative that professional methodologies coalesce and collaborative strategies be developed for civic improvement and social betterment had never before been realized on such a large-scale.

Since the creation of the greenbelt towns, planners, architects, historians, and architectural critics have recognized the unique achievement of the three greenbelt towns. In 1955, renowned professor of planning Carl Feiss of the University of Pennsylvania was one of the first scholars to recognize the importance of Greenbelt and call for its recognition and preservation as one of the century's most important undertakings. Planning theorist Mel Scott described the great popularity and interest afforded the government-sponsored Garden City projects:

> No projects of the Federal government...had aroused so much curiosity or attracted such hordes of visitors as these three towns and the TVA town of Norris. Above all else, foreigners wanted to

[179] Ibid.
[180] Amy Lamb Woods.

> see Norris, and above all else, Americans wanted to damn or praise the greenbelt towns. In New Deal days almost no one was neutral. As for city planners, all those who had any part in designing or developing these communities are still starry-eyed at the very mention of them.[181]

In *Tomorrow a New World* (1959), Paul Conkin called the greenbelt towns "the most daring, original, and ambitious experiments in public housing in the history of the United States." Recognizing their international influence, he said: "They rank high among New Deal accomplishments. In the field of public works, they were hardly excelled...in imagination, in breaking with precedent, and in social objective."[182]

Likely more than 100 planned housing developments of varying sizes were sponsored by the U.S. Government during the New Deal. These ranged from the numerous rural resettlement communities which although scattered across the nation, were concentrated in those states most adversely affected by environmental degradation due to overuse of the land, drought, and the dust storms, to the first urban housing projects built under the Public Works Administration (PWA). In *The American City: What Works, What Doesn't* (1997), Alexander Garvin has stated that of these only the three greenbelt towns were "genuine, planned new towns," and, unlike the others "most of which have long since faded into obscurity..., they continue to serve as object lessons in the use of public open space and community facilities to create superior living environments."[183]

The full scope of the greenbelt program can only be fully understood and appreciated by looking at all three communities from two perspectives—collectively as a group sharing common goals and influences, and individually as each reflects a unique collaboration of designers and a distinct response to local and regional needs and conditions. Each greenbelt town had its own multi-disciplinary design team led by design professionals and supplemented by experts in diverse fields such as housing, education, social welfare, agricultural economics and wildlife management.

Each greenbelt town was scientifically planned according to methods of cost analysis recommended by Stein and Wright and a variety of surveys that as Scottish planner Patrick Geddes advocated included topography, soil types, wind direction, and weather conditions. The preferences and demographic characteristics of potential tenants figured importantly in the planning of the greenbelt towns, reflecting the growing interest in the United States in regional planning as well as the socioeconomic aspects of housing policy. Each design team employed their collective expertise to address the site conditions and the characteristics of the target population. The result was the creation of three towns, each of which displayed an innovative site plan, abundant parks, and high-quality housing that was modern yet economical in layout and materials. The differences between the greenbelt towns reflect not only differences in site and target population, but also differences in the views and sensibilities of the design team (especially the chief planner), which made each greenbelt town unique.

When Clarence Stein visited the three completed towns in the late 1940s, he singled out Greendale as "superbly related to its natural site," and proclaimed that, "Greendale is destined to play an important part in American history." In his book, *Toward New Towns,* a retrospective account of the American Garden City communities for which he had been either a designer or planning consultant, he affirmed his approval of Greendale and wrote positively about Greenbelt. When it came to Greenhills, however, he offered this faint praise:

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[181] Carl Feiss, "Historic Town Keeping," *Journal of the American Society of Architectural Historians* 15, no. 4 (December 1956), 2-6; Scott, 335. Although Stein did not include it among his new towns, Norris (NR), which was designed by planners Earle S. Draper and Tracy Augur for the Tennessee Valley Authority, is considered by many to be as significant a Garden City design as the three greenbelt towns.

[182] Paul K. Conkin, *Tomorrow a New World: The New Deal Community Program.* 1959. Reprint (New York: DaCapo Press, 1976), 303 & 305.

[183] Alexander Garvin, *The American City-What Works, What Doesn't.* (New York: McGraw-Hill, 1996), 344.

> The form of the plan was suggested and limited by the rolling ground and many ravines. The latter have been preserved in the open space system as delightful and naturally wooded parks. In Greenhills, the Radburn Idea has been followed but not as completely as at Greenbelt. The turn-arounds of the dead end lanes are better than those at Greenbelt, Greendale or Radburn. Cars entering the lanes may easily return without backing or maneuvering. The arrangement of the elements in the community Center is noteworthy.[184]

Stein did not explain specifically how Greenhills had not fully followed the Radburn idea, but his perspective reflects his own bias. When organizing the planning teams for the three greenbelt towns, Frederick Bigger deliberately encouraged each team to approach their project as a unique experiment. Greenhills is its own unique interpretation of suburban planning and the neighborhood plan—the result of the designers' training and ideas about ideal suburban living. The influence of Nolen is key here, as well as the alliance between professional landscape architects and community builders that had been strengthening since the mid-1910s (as seen in the development of the garden suburbs such as Forest Hills and Roland Park and country club districts being developed.

Albert Mayer, who designed the ill-fated Greenbrook with Henry Wright, asserted in his article "Greenbelt Towns Revisited," published in the *Journal of Housing* in 1967, that the Radburn plan was not fully worked out in Greenhills because 1) the lack of dividing hedges caused a lack of privacy; 2) the interior path system was not fully realized, and 3) the interior parks were occluded and therefore did not allow a direct system of pedestrian communication and casual surveillance by passers-by of children's activities.[185]

As a committed follower of super-block planning and the Radburn idea, Mayer would also have seen Greenhills as inferior. On the plus side, however, he recognized that, "Even at Greenhills, which is possibly the least over-all satisfying of the towns, there is a special quality noted by residents," and that was the greenbelt, which is most intact in Greenhills. Mayer cites a letter from an "excellently qualified judge, who has known Greenhills intimately over a long period." Hamilton County Juvenile Court Judge, B. Schwartz, wrote about his sense that the close contact youngsters have with nature provided by the greenbelt correlated with a lack of juvenile delinquency and also with the success of adults who had grown up there.[186]

The greenbelt is an outstanding feature of Greenhills and the one aspect in which it is superior to the other two greenbelt towns. Mayer recognizes that in Greenhills, "there is a special situation worth noting. Greenhills is almost completely surrounded by a large park system—what might be called its conventional or "standard" greenbelt, a substantial portion of which was made available by the federal government and lies outside the city limits." Much of the outer greenbelt is today protected open space due to its designation as a Hamilton County park. No longer in agricultural use, the county park land is not included within the NHL boundaries. Its presence does, however, provide rural character and recreational uses commensurate with the community's garden city origins; for these reasons, it enhances the significance of the historic district and strongly contributes to its integrity of setting.

Inside this major park area, within the city's corporate limits, there is a narrow "inner" greenbelt. Its outer edge abuts the main greenbelt or park land and its inner edge abuts the outer limits of the town's built-up area (mostly, the individual rear garden areas of houses.)" This inner greenbelt is highly valued by the residents as a buffer between them and urban users of the surrounding park system."[187]

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[184] Stein, *Toward New Towns,* 162.
[185] Albert Mayer, "Greenbelt Towns Revisited (part 2)," *The Journal of Housing* (February 1967), 16.
[186] Ibid., 17.
[187] Ibid., 19.

The inner greenbelt became the subject of a legal battle considered by Mayer to be of "landmark significance." The 360 acres of inner greenbelt were included in the land sold in 1950 by the federal government to the Greenhills Homeowners Corporation, subject to zoning as an inviolable greenbelt. FIENCO, the successor of the GHOC, saddled with paying taxes on this permanently restricted greenbelt area, persuaded the city of Greenhills to rezone 85 acres of the inner greenbelt and built houses on it. It then applied to do the same with 125 additional acres. This time, the city objected and brought legal action. In May 1966, the Ohio Supreme Court decided against FIENCO, declaring that the zoning was valid, specifically on the ground that FIENCO's predecessor had been aware of this zoning and that this land had been taken into account in the original purchase price of the whole complex. In Mayer's eyes, "…this recognition of greenbelt zoning may well be a landmark in land development policy in this country."[188]

Greenhills is distinguished by the International-style influence in its architecture, particularly the S-type rowhouses and shopping center. Architect Henry Churchill, who had been an architect on the Greenbrook team, admired the Greendale buildings but considered the architecture at Greenbelt and Greenhills undistinguished. A nostalgic fondness for the Colonial Revival cottages of Greendale and a dislike of International-style architecture was expressed by other scholars as well, including Joseph L. Arnold. Not being an RPAA member or closely connected with the greenbelt towns (like Churchill, Mayer, and Stein), Arnold was one of the first to consider the greenbelt towns from a more neutral position. In *New Deal in the Suburbs* (1971), Arnold said: "... Greenbelt and Greenhills are recognizable as institutional type structures while Greendale, even with row houses, looks like a collection of individual homes which happened to grow together into a lovely village."[189] He considered the flat-roofed buildings in Greenhills to be "poor reflections" of the European Bauhaus designs that inspired their exterior appearance.[190]

The decision to design buildings in the International Style reflects the influence of architect Roland Wank. In the residential construction, this was mainly reflected in the use of flat roofs on the S-type row houses and flats. The style was more fully realized in the shopping center, with its long horizontal lines expressed in its flat roof and bands of large storefront windows and transoms. In the case of Greenhills, the necessity of controlling construction cost and the functionality of the International Style were congruent.

By comparison, Wank's dams and powerhouses for the TVA, were magnificent examples of Moderne style public works. Earle S. Draper, then head planner of the TVA, had hired Wank because of his imagination and design capabilities displayed in the Cincinnati's 1931 Union Terminal, which he designed while working for the New York firm of Fellheimer and Wagner. Positioned at the end of a long landscaped mall, the half-domed terminal "symbolized steam power produced from coal, much as the TVA structures would be intended to represent electrical power produced from water." Its monumental rotunda recalled the same cavernous volume of the TVA's future turbine halls. Set off by the village commons, Wank's Community Building in Greenhills shares some of the scale and presence of his other public works.[191] It is particularly noteworthy—not only as the work of the nationally acclaimed architect, but also for its public art sponsored by the WPA. Furthermore, it represents the social vision and importance of public education in New Deal ideology. The fact that the building has been little changed indicates the continuing usefulness and value of the facility as center of community education and recreation. Its scale, geographical prominence, and spacious layout and design distinguish it from the community buildings in the other Greenbelt towns; Greendale's has been heavily altered and Greenbelt's is smaller and less dynamic from an architectural perspective.

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[188] Ibid, 17.
[189] Arnold, 103.
[190] Ibid.
[191] Walter L. Creese, *The Search for Environment: The Search for Environment: The Garden City, Before and After,* 1966, expanded ed. (Baltimore: Johns Hopkins University Press, 1992), 162.

Upholding the importance of the American experience in community planning, Eugenie L. Birch has identified five distinct stages of the Garden City movement in the United States. She classifies Sunnyside, Radburn, and Chatham Village as the first generation, and the three greenbelt towns and Norris, Tennessee (built by the TVA) as the second generation. She sees the new towns of the 1960s, including Columbia, Maryland, and Reston, Virginia, as the third generation, and the popular Planning Unit Developments (PUDS) of the 1960s as the fourth generation. Finally, she places the town planning of New Urbanists Andres Duany and Elizabeth Plater-Zyberk, such as Seaside, Florida, as the fifth and most recent expression of what seems to be a persistent need among the design profession to define and redefine Ebenezer Howard's 1898 theories.[192]

Reston, like most other American new towns of the post-World War II era, was financed by a private developer. Robert E. Simon, whose father had been an investor in Radburn, erected Reston outside of Washington, D.C., in 1961-64. Planned by Albert Mayer, and Julian Whittlesey (a draftsman on the original design of Greenbelt and a consultant on Greenbelt's 1955 master plan), Reston displays numerous features clearly inspired by the greenbelt towns and Radburn.[193] It is made up of seven villages arranged around a commercial and administrative center. Each village was intended to house about 10,000 people, divided into five or six neighborhoods. An elementary school is the focus of each neighborhood. Housing is clustered, and naturalistic green space follows stream valleys through the plan, just as it does at Greendale. The other notable new town of the 1960s, Columbia, Maryland, also exhibits villages composed of school-centered neighborhoods, with clustered housing and linear open space laid out along existing stream valleys. Columbia, located half-way between Washington, D.C. and Baltimore, Maryland, was built by developer James W. Rouse in 1963-65.[194]

Neither Reston nor Columbia was an immediate financial success. Perhaps for this reason, a lull in the construction of new towns followed until the erection of Seaside, Florida. Seaside, planned by Miami architects Andres Duany and Elizabeth Plater-Zyberk in 1982, was the first manifestation of what would become known as the New Urbanism. In contrast to the greenbelt towns and Radburn, New Urbanist communities are formal in layout and reverse the "turned-around" house plan, substituting streets for pedestrian pathways, and alleys for residential service lanes.[195] New Urbanists draw inspiration from the work of two planners who were very much a part of the Garden City movement, Raymond Unwin and John Nolen.[196] The Charter of New Urbanism, ratified in 1996 at the annual meeting of the Congress for the New Urbanism, shows that New Urbanism shares many of the design principles of the Neighborhood Unit Plan and the American Garden City movement, as represented by the greenbelt towns and Radburn. These common principles can be summarized as follows: first, that development should be based on compact, pedestrian-oriented neighborhoods that have clearly defined centers and edges; second, that the neighborhood should accommodate a diverse mix of activities including residences, shops, schools, workplaces and parks; third, that the neighborhood should be no more than one-quarter mile from center to edge and laid out so as to encourage pedestrian activity; fourth, that the neighborhood should incorporate a wide range of housing types to attract families of different incomes and compositions; fifth, that parks, playgrounds, squares and greenbelts should be provided in convenient locations throughout the community; sixth, that the neighborhood center should include a public space, such as a library, church or community center, as well as a transit stop and retail businesses; and seventh, that civic buildings, such as government offices, churches and libraries, should be sited in prominent locations.[197]

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[192] Eugenie L. Birch, "Five Generations of the Garden City: Tracing Howard's Legacy in Twentieth-Century Residential Planning," in Parsons and Schuyler, eds., 177-79.

[193] Schubert, p. 132; Kermit C. Parsons, "British and American Community Design: Clarence Stem's Manhattan Transfer, 1924-74," in Parsons and Schuyler, eds., 152-53; Stein, *Toward New Towns,* 9. See also "Radburn NHL Nomination" and "Greenbelt NHL Nomination."

[194] Parsons, "British and American Community Design," 153.

[195] William Fulton, "The Garden City and the New Urbanism," in Parsons and Schuyler, eds., 166.

[196] Ibid, 165.

[197] Birch, 185-86.

From the Greenbelt Towns to Postwar Suburbs

Greenhills and the other greenbelt towns represent the highest expression of the ideal in suburban and neighborhood planning principles of the 1930s. Tugwell's vision of hundreds of well-designed government-built and cooperatively-owned towns ringing America's urban centers, providing better homes for low-income families and promoting participatory democratic communities, remained unfulfilled. This failure turned on a pivotal question of the twentieth century: What should be the role of the Federal government in housing? Before the Great Depression and the 1931 President's conference, the role of the Federal government was limited to providing emergency wartime housing, establishing technical standards for building materials, and recommending the use of standard planning and zoning statutes. Previously it had not intervened in either the home-building industry or the process of mortgage lending and had not provided housing assistance to the needy. The American system of *laissez-faire* capitalism looked to private industry to provide housing, and to private and religious charities to help the poor. By the early 1930s, it had become evident that private industry could not build adequate housing for everyone; there was no profit in erecting housing for the poor, and there were too many low-income families competing for the older housing that "trickled down" as those with higher incomes moved into better units. It had also become clear that local and state government efforts to improve slum housing through zoning ordinances and other regulations were not working.

In June 1933, President Roosevelt's New Deal administration initiated two distinctly different approaches to address the housing crisis. The first was to intervene in the housing market indirectly by creating the Home Owners' Loan Corporation, which introduced long-term, low-interest, self-amortizing loans for existing homeowners. The second approach followed the European model of low-cost housing built or funded directly by the government; this was Title II of the National Industrial Recovery Act, which created the Federal Emergency Administration of Public Works (PWA), which set up both urban and rural housing programs. The National Housing Act of 1934 (48 Stat. 1246) built on indirect intervention, by establishing the Federal Housing Administration (FHA), which established national housing standards as a basis for providing Federal insurance for privately financed, long-term, self-amortizing mortgages for owner-occupied houses, residential subdivisions, and rental housing. Amendments to the NHA in 1938 (52 Stat. 8) and 1941 (55 Stat. 31) together broadened the incentives for home building and home ownership by making low-interest, long-term mortgages affordable for an increasing segment of the population. With planning assistance from the FHA, the first private large-scale housing developments took form prior to World War II. In contrast, the creation of the Resettlement Division in 1935 expanded on the direct intervention approach, and the greenbelt town program, intended for working families with moderately low incomes, represented the government's greatest encroachment into the housing market. Public housing drew vocal opposition from the powerful real estate lobby, and the greenbelt town program, the New Deal's most visible housing program, was the lightening rod.[198]

The National Association of Real Estate Boards (NAREB), the Chamber of Commerce of the U.S., and the U.S. Building and Loan League, leaders in the real estate lobby, argued that public housing in general, and the greenbelt towns in particular, represented unfair competition to private efforts and were not only unnecessary, but detrimental to the real estate market, because the low rents of public housing would reduce demand for new construction and delay the recovery of the private homebuilding industry. Walter S. Schmidt, president of NAREB, articulated this view: "It is contrary to the genius of the American people and the ideals they have established that government become landlord to its citizens... There is sound logic in the continuance of the

[198] Ames and McClelland, 30-31; Robinson and Associates, Inc. and Shrimpton, 20 & 58-62. The issue of home financing was treated in the second volume of the proceedings of the 1931 President's Conference on Home Building and Home Ownership. The Hoover Administration created the Federal Home Loan Bank (47 Stat. 725) in 1932, which served as a credit reserve and provided advanced funding secured by home mortgages to banks and savings and loan associations. The 1941 law was also known as the Lanham Act.

practice under which those who have initiative and the will to save acquire better living facilities and yield their former quarters at modest rents to the group below."[199]

Opponents also denounced the greenbelt towns as socialist, their unsubstantiated charges convincing many Americans that the towns, with their cooperatives and their communitarian spirit, were exercises in state socialism. The Chamber of Commerce of the U.S. declared the greenbelt town program "an experiment in state control of far-reaching proportions," while NAREB called the program "undiluted socialism."[200] Others criticized the overall construction costs. Some members of the press added fuel to the fire, printing articles about the towns under headlines such as, "First Communist Town in U.S. Nears Completion," "Tugwell Abolishes Private Property," and "The Sweetheart of the Regimenters: Dr. Tugwell Makes America Over."[201] The last article inspired a nickname for New Deal planners, "the Make-America-Over Corps."[202]

The negative publicity Tugwell and the greenbelt towns engendered aroused public sentiment against direct government intervention in the housing market. Subsequent public housing legislation was enacted only with great difficulty, and with severe restrictions placed on the role of the Federal government and the cost of the program. The United States Housing Act of 1937 (also known as the Wagner Act) established the U.S. Housing Authority (USHA) as a permanent public housing program for very low-income families but did not permit the USHA to directly build or manage public housing. The USHA was to act as the financial agent and to provide technical advice, but all other responsibilities were given to local housing authorities. Senator Harry Byrd, demanding assurances that the public housing program would not duplicate the "extravagant" expenses of the greenbelt towns, attached a rider to the Act that prevented the USHA from spending more than $5,000 per dwelling unit.[203] The debate over the role of Federal government in the housing market had ended. Thereafter, government policy was primarily one of indirect intervention, promoting and protecting capitalist investment by guaranteeing mortgages and providing building credit for developers through the FHA and the Veterans Administration loan programs.[204]

The physical design of Greenhills and the other greenbelt communities is their most enduring legacy. Even the National Association of Real Estate Boards, which supported both the private building industry and high standards for community building, lauded the three towns for their "excellent design," at the same time it was condemning all public housing projects.[205] On this front, the communities overwhelmingly succeeded in their demonstration of desirable standards for neighborhood planning, efficient large-scale methods of construction, accommodations for increasing automobile ownership and use, and the design of convenient and comfortable low-cost dwellings. These communities provided an immediate response to the housing crisis and need for employment. In the process they entered a previously uncharted field—the design and construction of an entire community of neighborhoods, and a successful residential suburb built on innovative principles of large-scale construction. For designers—planners, architects, and landscape architects—they offered an unprecedented opportunity to perfect the American suburb, to employ new methods and materials of construction, and to apply their skills and knowledge on a grand scale. They succeeded in providing a model for regional planning by locating towns outside the urban center, preserving natural systems (woodlands and streams), and linking the communities with metropolitan systems of parks and parkways—which provided access to places of employment as well as expanded areas for recreation and conservation.

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[199] Quoted in Robinson and Associates, Inc., and Shrimpton, 51.

[200] Quoted in Cady, 298.

[201] Articles in the *Chicago American,* 28 October 1936; *New York American,* 29 October 1936; *American Mercury* 9 (September 1936), 78; all quoted in Arnold, 197

[202] Wright, *Building the Dream,* 222.

[203] Robinson & Associates, Inc., and Shrimpton, 56-57.

[204] Schaffer, 226.

[205] Quoted in Arnold, 104.

The greenbelt town demonstration projects became one of the most comprehensive proving grounds for the Federal standards of neighborhood planning, large-scale development, and durable low-cost suburban housing that became the basis for project approval by the Federal Housing Administration's program of Federal mortgage insurance. Most important they established an ideal in the form of what became FHA's "most desirable" standards for neighborhood planning and small house construction at a time when few private development interests could find the down-payment to qualify for long-term amortized mortgages that could be insured by the U.S. government. From the beginning the FHA standards emphasized the importance of planning residential neighborhoods, suggesting measures for developers to follow based on many of the recommendations of the 1931 President's conference, the best practices of community builders of the 1920s, who were closely allied with the NAREB, and to some extent the Radburn innovations.

Advance planning provided economic advantages for the developer and the home owner, but it was also seen as essential for the stability of long-term real estate values. The first edition of FHA's *Planning Neighborhoods for Small Houses* (1936) stated:

> In the building and owning of a house, land is the first item of cost; environment is the final source of value. Whether from the point of view of economy, or of satisfaction with a property, or of marketability, no individual dwelling or class of dwellings may be considered apart from the land they occupy and the surrounding features which tend to make the land retain its value for residential purposes.[206]

These standards set forth general principles of design; many parallel the principles followed by in the greenbelt towns, including Greenhills. These include the need to ascertain the need for housing; selecting a site suitable for the proposed type of development; insuring accessibility to transportation, schools, commercial centers, and places of employment; and planning for the installation of utilities and street improvements. Neighborhood character, for the first time, was defined as an important aspect of blight-resistant residential design. Large-scale operations were encouraged for their economic advantages but also their potential in supporting nearby commercial services.

At the FHA, Seward H. Mott, formerly of Pitkin and Mott, a Cleveland landscape design firm that specialized in subdivision design, was responsible for devising the neighborhood standards as well as perfecting the design of streets for neighborhoods of detached, small houses that would qualify for FHA loan approval. For cost-efficiency, attractiveness, and safety, neighborhoods were to have a hierarchy of streets and a variety of street types. Major and minor roads were to be differentiated. Minor residential lanes and cul-de-sacs were to be incorporated and designed to closely fit the natural topography (avoiding costly cut-and-fill construction). In hilly areas, such streets offered multiple advantages "with the result that an attractive and unforced curvilinear layout is secured at reduced improvement cost, creating interesting vistas and doing away with the monotony of long, straight rows of houses." Blocks were to follow the flow of traffic, four-way intersections were to be avoided, and minor streets were to meet major streets at right angles. The planting of street trees was encouraged, and the services of a landscape architect were to be secured to obtain attractive landscape effects.

It is not surprising that FHA's *Successful Subdivisions*—the first of a set of land planning bulletins the agency introduced in 1938—advised developers and builders that streets should fit the contours of irregular land, traffic should flow toward thoroughfares, minor streets should enter major streets at right angles, and residential lots should be protected from major street traffic. Parks were to be viewed as a neighborhood asset and were to be placed in "rough wooded areas that are difficult to develop." On the value of the natural attributes of a building site, the bulletin stated: "Natural features of the site should be preserved... Each lot within a new subdivision

[206] FHA, *Planning Neighborhoods for Small Houses,* Technical Bulletin no. 5 (Washington, D.C.: Government Printing Office, 1936), l.

should constitute a good house site, planned as to size, shape, and orientation to take full advantage of desirable views, slope of land, sunlight, prevailing winds, shade trees, and adjoining public spaces."[207]

Although the relationship between the RA and FHA designers who were working on similar design problems has not been determined, it is evident that a closer relationship than previously recognized existed between the designers of the Suburban Resettlement program and those of the FHA. For the designers of both agencies, the mid-1930s was a period of experimentation with many of the ideas that had coalesced in the 1931 President's conference and stemmed from the mandate for better lower-cost housing and safe, healthy neighborhoods. The initial purpose of the greenbelt towns, spurred in large part by Tugwell's visionary ideas as well as the deeply held principles of the RPAA, was to present a new paradigm of town planning and community development; the FHA from the beginning set out to pursue more modest goals. Although these are similarities in their adoption of the Neighborhood Unit Plan and innovative principles of small house design, the essential distinction exists that the Suburban Resettlement program was focused on creating an entire community, while the FHA's purview extended only to house design and the planning of residential subdivisions.[208]

The two programs started out with two vastly different approaches to house design and construction. Providing a counterpoint to PWA's housing program that had been disbanded the previous year, the first publication of FHA standards *Principles of Planning Small Houses* (1936) was prefaced by the caveat that the bulletin did not "presume to offer a solution to the housing problem" or "infer that under existing conditions suitable new dwellings may be produced for all classes of families." Instead, it clarified: "It seeks only to demonstrate...what is presently possible, without resort to change in methods or materials, or other wide diversion from customary traditions in the home building field." Five basic house designs were suggested ranging from a minimal one-story house to a larger two-story, three-bedroom house. Likely as a result of its overwhelming endorsement by the 1931 President's conference, the innovations introduced at Radburn appeared in the standards among other more traditional practices for house and neighborhood design.[209]

Once they were built, the FHA officials could hardly ignore the successful innovations of the greenbelt towns. This influence would find its way into the revision of its standards for planning small houses in 1940. The revised edition of *Principles of Planning Small Houses* emphasized the goals of livability and low cost, the importance of beginning with a plan, and the necessity of a well-balanced design where "a maximum amount of usable space, with as much comfort, convenience, and privacy as possible, must be obtained for a minimum amount of money." Simple, expandable floor plans were suggested and an entirely new system of house design was introduced designing each home with an efficient interior layout and siting it on a cul-de-sac, taking into account the orientation of each room to sunlight, prevailing winds, and the view. Design of single, detached houses was not to be repetitive, but varied within a streetscape. Variations were encouraged by varying the roof types, and alternately orienting or revolving houses to the side of each lot or to front on the streets. [The houses in the Dillon Subdivisions of Greenhills conform to the one-and-one-half story model, which could accommodate two additional bedrooms in the attic.] Small additions could be added as porches, vestibules, utility rooms, dens, or additional small rooms. Versatility, variety and expandability became underlying principles for FHA-approved house design. Any plan could be oriented to take advantage of sunlight, prevailing

[207] *Successful Subdivisions,* 14-18.

[208] Special considerations for the presence of local zoning regulations and the requirement that protective covenants and deed restrictions be attached to the sale of homes gave the FHA leverage and control over potential deteriorating influences; because of the initial government-ownership, these factors were not considered in the planning of the greenbelt towns.

[209] FHA, *Principles of Planning Small Houses,* Technical Bulletin no. 4 (Washington, DC: Government Printing Office, 1936), 1. The PWA's Housing Division had already been disbanded.

winds, or garden views, simply by rotating the plan or reversing it and relocating the entrance door and living room windows.[210]

Greenhills was particularly noteworthy for its demonstration of a variety of solutions for safe, convenient, and attractive neighborhood streets with access to nearby parks. Greenhills gained special praise in *Pencil Points* in 1936 for two aspects of design that distinguished it from the other greenbelt towns. The first was the layout of the town with naturalistic curvilinear streets that followed the natural contours of the land. The second was the innovative design of cul-de-sacs of detached and semi-detached homes proposed for terminal points where the roads extended along ridges and above wooded slopes. These innovations were in large part derived from principles of landscape architecture long practiced in the design of upper-income suburbs—many like Roland Park in Baltimore and Myers Park in Charlotte, North Carolina, were the product of collaboration of developers and prominent designers who considered themselves town planners as well as landscape architects. More importantly, however, they fulfilled the requirements of spaciousness, cost-effectiveness, and safety called for in the President's 1931 conference. The cul-de-sacs designed for Greenhills were among the first successful designs of their type to apply high *quality* of professional standards to the design of neighborhoods of moderate-cost dwellings. As innovative prototypes they would inform the FHA standards for neighborhoods of small houses that would qualify for government-insured mortgages, shaping the design of American neighborhoods of moderate-priced homes for decades to come.[211]

Many have asked why the greenbelt towns have not been emulated more widely. Stein succeeded in publicizing the greenbelt towns along with other projects he had had a definite hand in the making, including Sunnyside Gardens, Radburn, Hillside Homes, Chatham Village, and Baldwin Hills (A FHA insured large-scale apartment community). Drawing international attention to the achievements of the American Garden City movement, Stein's book *Toward New Towns for America* was published first in England in 1950, and then in America several years later. While advocates Bauer and Mumford continued to call for garden-city planning, Stein continued to seek Federal support for new towns legislation, unsuccessfully in a country where private business interests once again flourished. Many argue with good reason that suburbs flourished in the 1950s due to the increasingly favorable terms of the FHA and G.I.-insured mortgages. In the process of becoming successful, the large-scale housing industry adopted standards that became formulaic and produced neighborhoods that were attractive but commonplace. Such efforts lacked the professional involvement, concerns for coordination on a regional scale, and the idealistic direction of the 1930s, which had been a golden decade as far as housing was concerned—a time when designers and policymakers embraced the Neighborhood Unit Plan and looked to new methods of construction to solve the Nation's most serious social issue, the housing of its citizens. Architect Robert Stem has reminded us of what was possible when the highest professional standards and the nation's finest designers were involved in the design of America's suburbs. In 1978, bemoaning the triviality of what had become the ubiquitous modern American suburb, he stated: "Our best architects have abandoned the suburbs to the ordinary practitioner and to the speculative builder. And the discipline of town planning has been allowed to die. For the past thirty years, there have been very few efforts made towards understanding the suburb and suburban architecture."[212]

Conclusion

Greenhills is a physical expression of the aspiration of American urban planners of the New Deal era to provide a humane, pedestrian- and family-oriented environment that would encourage the residents to form a

[210] FHA, *Principles of Planning Small* Houses, Technical Bulletin no. 4, revised ed. (Washington, DC: Government Printing Office, 1940), pp. 3 and 13.

[211] Dreier, 404, 417.

[212] Robert Stern, "The Suburban Alternative for the 'Middle City,'" *Architectural Record (August* 1978), 98-100, as quoted in Creese, 359-360.

democratic and cooperative community. Greenhills, Greendale, and Greenbelt are as important for the model they continue to provide to urban planners as they are for their importance in American urban history.

Greenhills and the other greenbelt towns embodied the influence of the garden city model yet were uniquely American. The towns embodied the foremost principles of architectural design, landscape architecture and town planning of the 1930s, which had developed over a twenty-five-year period and built on the synthesizing of the American planning traditions of informal, naturalistic subdivision design and formal City Beautiful urban centers with garden-city planning principles, which had first appeared in the U.S. in 1908. This synthesis was refined through the defense housing projects developed for the Federal government during World War I, and reinvigorated through the work of the RPAA, as exemplified by the plan for Radburn, New Jersey.

The greenbelt towns were experimental in so far as they were one of a set of previously untried approaches for stimulating the economy during the Great Depression and finding a solution for financing the development and long-term management of pleasing communities of low-cost small homes. The range of arrangements for funding, ownership, and managing public and private New Deal housing developments through the various Federal housing initiatives can be viewed as experimental. The experimental nature of building, financing, and managing large-scale housing development was indicative of Roosevelt's willingness to consult many of the nation's experts and implement a number of different approaches in hopes that collectively they could provide employment for a wide spectrum of skilled and unskilled workers. At the same time, these efforts would foster economic stability and advance progressive national goals, such as resource utilization, land-use planning, rural betterment, community development, the elimination of urban blight, and public recreation. That the nation's professional talents were tapped for their professional expertise, skill, and knowledge indicates a deep respect for the societal values as well as pragmatic skills and expertise shared by architects, landscape architects, planners, and artists and a willingness on the part of government officials to work with the professional organizations such as the American Civic Association, the American Society of Landscape Architects, the American Institute of City Planning, as well as the Regional Planning Association of America.

The 1930s reflects a period in which garden-city planning and improved house design were seen as venues for reducing urban blight (and the subsequent need for slum clearance) and solving urban social and economic problems. Rexford Tugwell's Utopian vision for self-sustaining, cooperative communities was perceived as radical and failed, and efforts to institutionalize the Neighborhood Unit Plan through state-approved planning statutes proposed by Clarence Perry and Harland Bartholomew failed. Despite persistent efforts, Clarence Stein failed to affect long-term Federal support for garden-city town planning. These failures were the result of a number of factors. Economic factors forced the original community plans to be scaled back and modified to remain within budget; the average income of those able to afford the rents in greenbelt towns exceeded that projected by the early planners. Opposition to what critics perceived as New Deal paternalism and Tugwell's radical views resulted in his departure from Washington and the reassignment of the RA programs to the Farm Security Administration at the U.S. Department of Agriculture. Legal challenges to the government's acquisition of land resulted in the abandonment of the Greenbrook (New Jersey) project and threatened the legality and constitutionality of the whole resettlement idea. Finally, it was the challenge issued from the home-building industry itself and the powerful leaders of the National Association of Real Estate Boards, with their allies in the Federal Housing Administration, which marginalized the government-supported, greenbelt town model in favor of long-term Federally-insured housing investments that were privately owned, mortgaged, constructed, and managed. Such projects, whether designed for large-scale rental purposes or to be sold as private homes, would conform to Federal standards and benefit from the terms of long-term Federally insured mortgages.

Whether viewed as experimental, visionary, or practical demonstrations, the greenbelt towns represent to an unprecedented degree what was possible when the minds and talents of the nation's brightest and most

visionary designers, economists, and social reformers were brought together with public backing, funding, and labor. The suburban resettlement program provided an unprecedented opportunity for designers to work in an environment free of profit-driven motives and to respond to the call for better housing as a means for promoting social welfare and creating wholesome communities at a time when the home building industry, which had flourished in the 1920s, came to an abrupt halt. This was a time when the interdisciplinary talents that had convened in 1931 to forge a bright future for home building and home ownership found themselves unemployed and their recommendations unheeded.

Timely lessons sprang from the experience of designing and constructing the greenbelt towns; the story of Greenhills' creation and its continuing role as a model Garden City community are testaments to a multitude of important factors that coalesced in the mid-1930s and would help define the American suburb of the mid-twentieth century. These include professional collaboration, a multitude of ideas for methods of large-scale development, the value of economic studies and interdisciplinary planning, coordination with regional and state planning, increasing influence of the automobile on American life, and increasing recognition of the socio-economic values of suburban living. By putting all these factors into play, the greenbelt towns, each unique in character but dedicated to a common set of ideals, form an irreplaceable legacy—model communities that still attract scholars and students, planners, architects, historians, sociologists, and economists who ponder the question of whether good and thoughtful design can make both a healthy home and a livable community.

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Previous documentation on file (NPS):

__ Preliminary Determination of Individual Listing (36 CFR 67) has been requested.
X Previously Listed in the National Register. NR#88003066; Listed January 12, 1989
__ Previously Determined Eligible by the National Register.
__ Designated a National Historic Landmark.
__ Recorded by Historic American Buildings Survey: #
__ Recorded by Historic American Engineering Record: #

Primary Location of Additional Data:

X State Historic Preservation Office
__ Other State Agency
__ Federal Agency
__ Local Government
__ University
X Other: Village of Greenhills, Ohio

10. GEOGRAPHICAL DATA

Acreage of Property: ~375

UTM References:	**Zone**	**Easting**	**Northing**
A	16N	713602	4349898
B	16N	714455	4349929
C	16N	714463	4348501
D	16N	712659	4348449
E	16N	712707	4349229

Verbal Boundary Description:

Beginning at a point on the north lot line of 6 Damon Road 30 west of the northeast corner of said lot, the boundary runs west following the rear lot lines of the properties on Damon Road. At the southwest corner of the lot associated with Damon, the boundary crosses Springdale Road and continues along the rear lot lines of properties on Damon to a point on the north lot line of 70 Damon Road and corporate limit of Greenhills; continuing west along that corporate limit to the side lot line of 141 Bayham Drive, then south to a point on the rear lot line of 5 Bradnor Place, then west along the rear lot lines of Bradnor Place to the northwest corner of the lot associated with 10 Bradnor Place, then southeast to the northwest corner of the lot associated with 11 Bradnor Place, then southwest along the rear lot line of that property. At the west corner of the lot associated with 11 Bradnor Place, the boundary continues straight across Beckford Drive along the rear lot line associated with 54 Burley Circle, continuing to a point on the rear lot line of 22-23 Briarwood Place, then west along rear lot lines associated with Briarwood Lane to the west corner of 13 Briarwood Lane. From this point, the boundary continues west along the rear lot lines associated with Bayham Drive to a point on the rear lot line associated with 57 Bayham Drive, then northwest to the southwest corner of the lot associated with 53 Bayham Drive, then southwest to the corporate limit of Greenhills, then southeast, southwest, south, southeast and east, south, east, north and east across Winton Road following the corporate limit of Greenhills along the southern boundaries of parcels 597-0040-0038-90 and 597-0040-0030-90 to the southeast corner of 597-0030-0028-90, then west approximately 573 feet, then north to the southeast corner of the lot associated with 7 Hadley Road, then northwest along the rear lot lines on Hadley Road. From here the boundary crosses to the north curb line of Farragut Road at the southwest corner of the lot associated with 154 Farragut, then continues along the curb line of Farragut Road to Gambier Circle, where it crosses the street and continues along the west curb line of Ingram Road to the southeast corner of Ingram Road and Enfield Street. From here, the boundary crosses to the north curb line of Ingram Road and continues along the side lot line associated with 449 Ingram Road, then east along the rear lot lines associated with 449-437 Ingram Road, to the northeast corner of the lot associated with 437 Ingram Road, then north along the rear lot line associated with 11000 Winton Road to a point approximately 20 feet north of the southwest corner of the rear lot line associated with 13 Ireland Avenue, then west along the south line of parcel 597-0010-0254-00 across Winton Road to the west curb line of Winton Road, then north approximately 73 feet along the curb line of Winton Road, then west 170.81 feet along the north lot line of parcel 597-0060-0179-90 to the northeast corner of the lot associated with 42 Dayspring Terrace, then south to the rear lot line of 6 Damon, then east and south along the rear and side lot lines of 6 Damon Road to the north curb of Damon Road.

Boundary Justification:

The boundaries of the Greenhills National Historic Landmark District enclose all the resources that are historically associated with the development of Greenhills during the period of Federal ownership, 1935 to

1950, and lie within the Village of Greenhills plan as designed by Hartzog and Wank in 1936 and laid out between 1936 and 1938. These resources include the complete circuit road network—Cromwell, Damon, Farragut and Ingram, which was a defining feature of the plan and set in place with pavement, curbs and utilities in the community's initial phase of construction from 1936 to 1938. In order to include the circuit road, it was necessary to include 49 additional noncontributing homes and commercial buildings on the inside of Farragut and Ingram that were built in 1952 to 1958. Other residential subdivisions developed after 1950 beyond the circuit road in the northeast quadrant of the village were excluded. On the north, the boundary ends with the 1816 Whallon House at 11000 Winton Road, which was used as a field office by the RA planning staff. On the west, the boundaries include contiguous portions of the inner greenbelt as much as possible, which involved including seven noncontributing resources—a former school at 70 Damon Road built in 1955, enlarged in 1967 and subsequently converted to a nursing home in 1982; a cluster of apartments built in 1962 at 63 Cromwell Road; and five single-family homes built in the 1950s and 1960s at 64, 66, 68, 70, and 72 Cromwell Road. Two clusters of cul-de-sacs built in the 1960s in the "B" and "D" sections were excluded; they are Beckford and Bayham drives, Deerhill Lane and Dayspring Terrace.

11. FORM PREPARED BY

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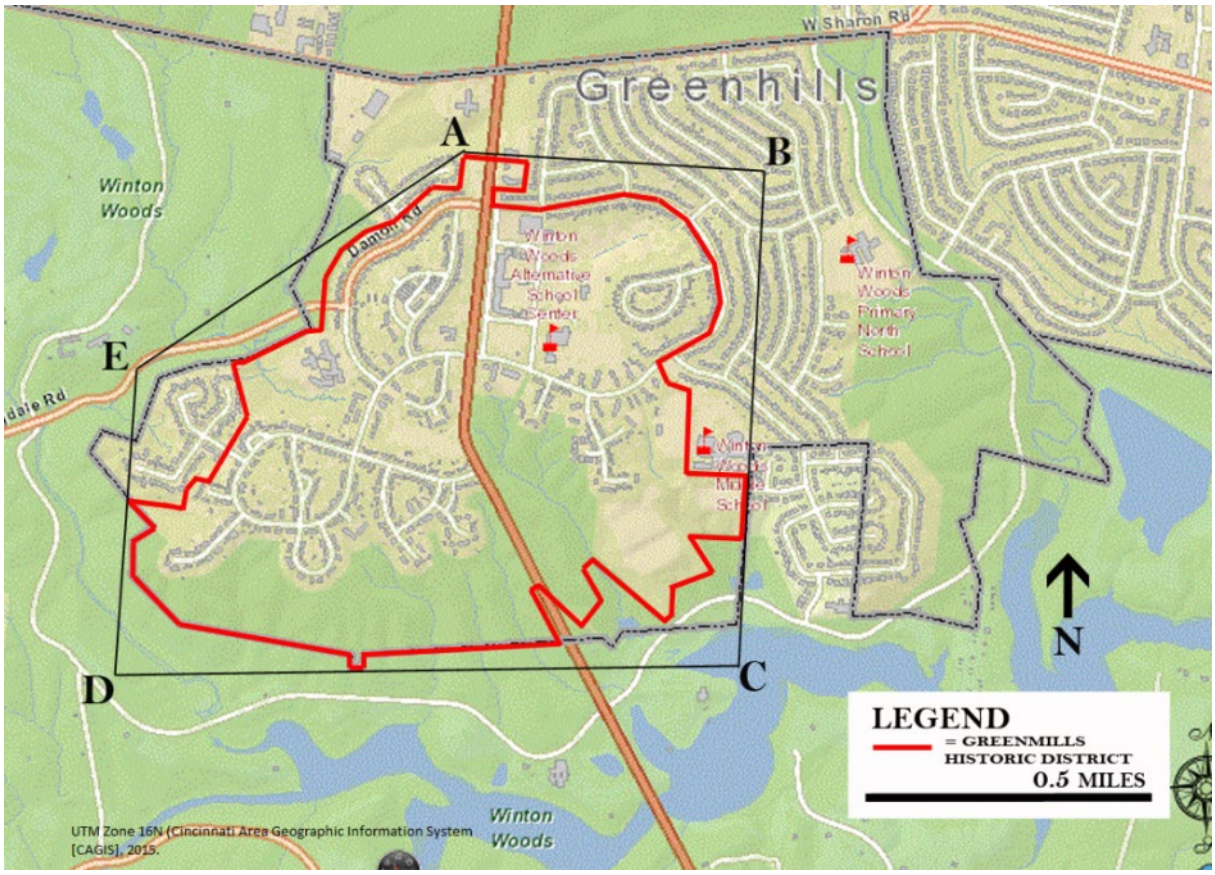
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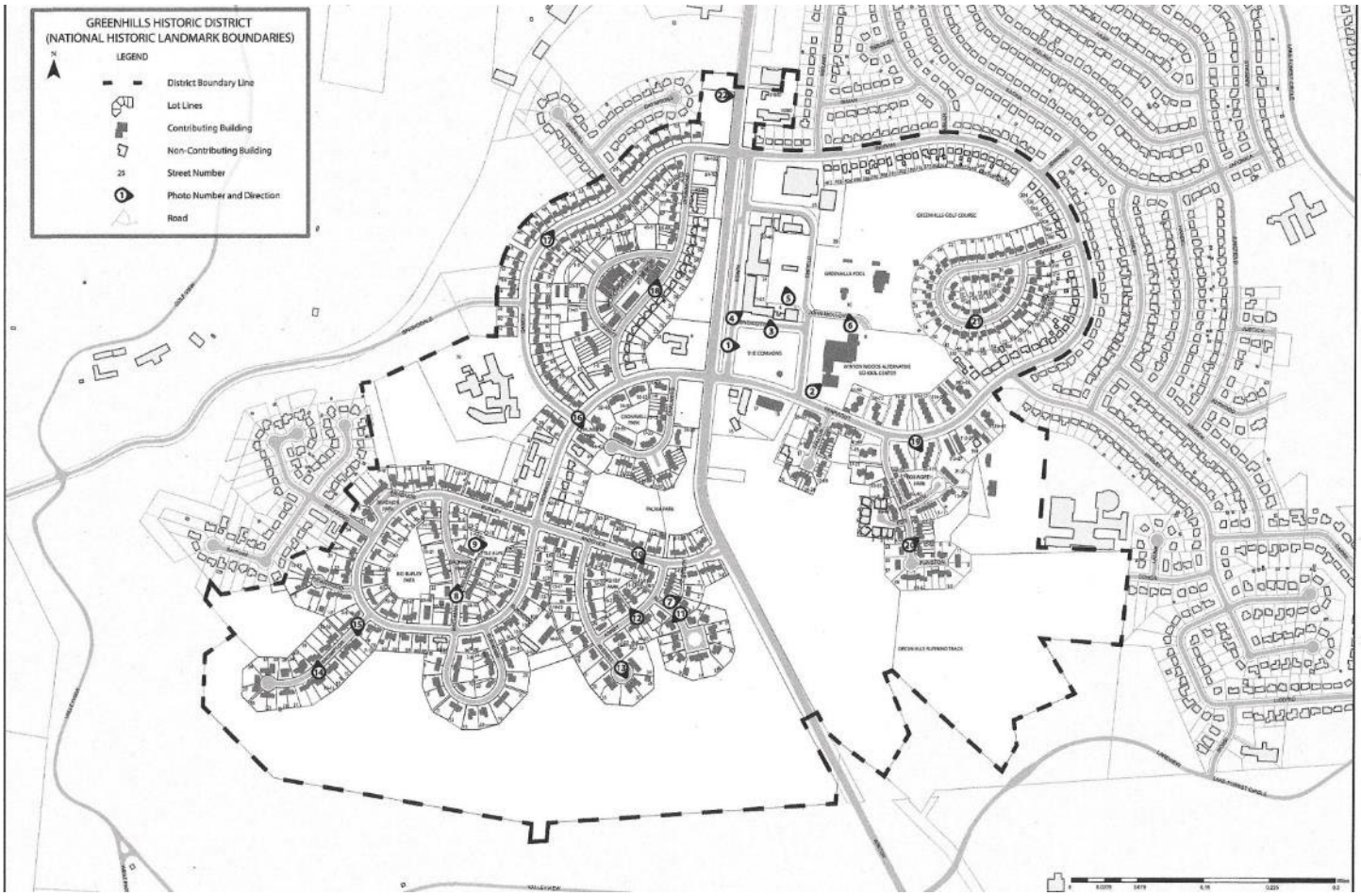
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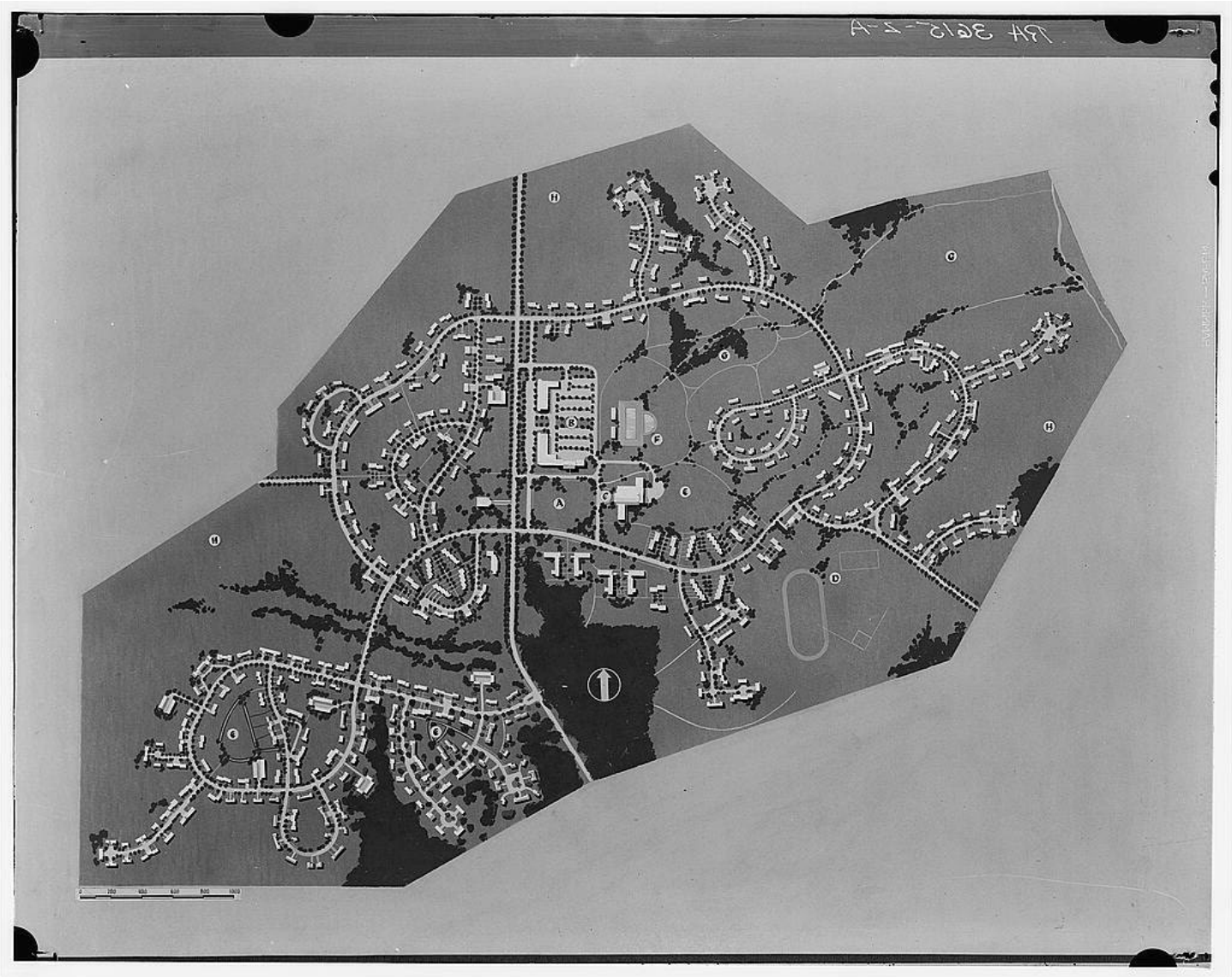
Greenhills Historic District Map
Greenhills, Ohio

UTM References:	**Zone**	**Easting**	**Northing**
A	16N	713602	4349898
B	16N	714455	4349929
C	16N	714463	4348501
D	16N	712659	4348449
E	16N	712707	4349229

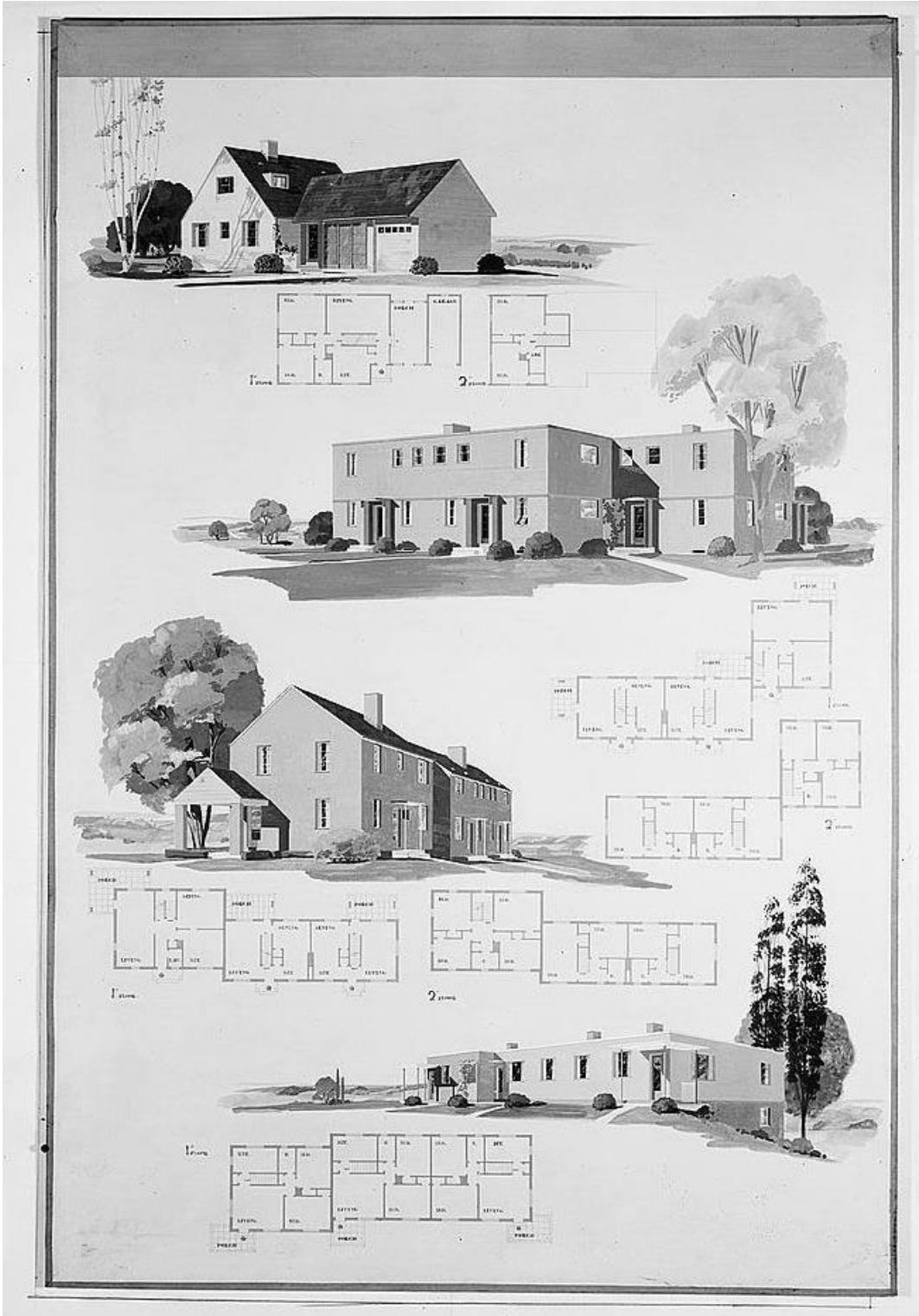
DATUM: NAD27



Greenhills Historic District Map w/photo angles
Greenhills, Ohio



"Greenhills, Ohio, a community planned by the suburban division of the U.S. Resettlement Administration"
1936 scale model courtesy Library of Congress (LC-USF345-003615-2A)



"House plans for resettlement project Greenhills, Ohio"
1936, courtesy Library of Congress (LC-USF3434-003513-2B)



Ashby at Andover Road, Greenhills, Ohio
John Vachon photographer, September 1939
Courtesy of Library of Congress (LC-USF33-T01-001598-M3)



Unidentified street, Greenhills, Ohio
John Vachon photographer, September 1939
Courtesy Library of Congress (LC-USDF33-T01-001596-M3)



Alcott Lane cul-de-sac, Greenhills, Ohio
John Vachon photographer, October 1939
Photographs such as this were used by FHA as representing the ideal development.
Courtesy Library of Congress (LC-USF33-T01-001628-M3)



Community Building and Town Commons looking east.
B. Sullebarger photographer, 2015



Community Building looking northeast.
B. Sullebarger photographer, 2015



1-4 Adelle Walk looking northeast
Two-unit duplexes built in 1938
Walkway provides access to units between Andover and Alcott streets.
B. Sullebarger photographer, 2015



1-4 Belknap and Bachman Park
Four-unit row house built in 1938.
B. Sullebarger photographer, 2015



Little Burley Park from northeast showing typical interior walkway.
B. Sullebarger photographer, 2015



13-15-17 Andover looking southwest
Three-unit row house with International Style characteristics built in 1938.
B. Sullebarger photographer, 2015



3 Alcott Lane looking southwest
Single-family constructed with garage in 1938.
B. Sullebarger photographer, 2015



11-17 and 19-25 Ashby Street looking northwest
Pairs of attached and staggered eight-family units built in 1938.
B. Sullebarger photographer, 2015



36-37 Avenell Lane looking southeast
Avenell Lane connects with Ashby and provides a small inner-block park for these 1938 units.
B. Sullebarger photographer, 2015



18 Brompton Lane looking north
Four-bedroom single-family with Moderne style characteristics in red brick.
B. Sullebarger photographer, 2015



7-13 Brompton Lane looking southwest
B. Sullebarger photographer, 2015



48-62 Cromwell Road looking southeast
Staggered eight-unit buildings fronting walkways built in 1938.
B. Sullebarger photographer, 2015



42-38 Damon Road looking northeast
Houses built for veterans, 1947.
B. Sullebarger photographer, 2015



93-111 Farragut Road looking south
Two groups of ten-family homes part of east group facing greenspace with walkways at either end built in 1938.
B. Sullebarger photographer, 2015



44-50 Flanders Lane looking north
Four-unit “S” type row house built in 1938.
B. Sullebarger photographer, 2015



38-52 Gambier Circle looking west
Planed in 1938 for duplexes, built in 1947 as single-family homes for veterans.
B. Sullebarger photographer, 2015



11000 Winton east with the 1816 Whallon House (NR 1973) on left and the Greenhills Municipal Building on right constructed in 1959 and noncontributing.
B. Sullebarger photographer, 2015



39-51 Drummond Road looking north
Houses built in 2005 that are noncontributing.
B. Sullebarger photographer, 2015



Original Management Building, 14 Endicott Street
Constructed in 1938, enlarged for library in 1956, and commercial use in 1959.
B. Sullebarger photographer, 2015



Shopping Center, 1-24 Eswin Street, looking northeast
Begun in 1938 with later alterations including reduction of greenspace for expanded parking.
B. Sullebarger photographer, 2015



October, 1938 photo of shopping center by Robert Vachon
Courtesy Library of Congress (LC-USF33-T01-001627 M-3)



Rear of Shopping Center with farmer's market shed constructed in 1938
Rear Enfield Street looking northwest
B. Sullebarger photographer, 2015



Swimming Pool Complex, 1938 (wings removed from bathhouse 1986)
10 Enfield Street, looking northwest
B. Sullebarger photographer, 2015