The Barnes (Conway) House, located at 1203 South Ash Avenue, has been nominated for historic designation and listing in the Tempe Historic Property Register by owners Matthew and Jacqueline Conway. The house is significant for its association with the Park Tract Subdivision, one of Tempe’s oldest surviving residential subdivisions, and for its association with the families of Florence D. Skeels, Arthur and Wanda Meredith, Alvah and Lora Oakley, and Michael and Dottie Barnes. Built in 1940, the house is in the upper ninety-ninth percentile (99.5%) of all Tempe properties in terms of age and provides an excellent example of Early Ranch-style residential architecture.
RESEARCH
Upon completion of a nomination for historic property designation, staff shall compile and transmit to the commission a report on the property. Property research prepared for the neighborhood meeting addresses location, condition, age, significance and integrity of historic features and other relevant information along with a staff recommendation with respect to commission action on the nomination. This information is subsequently condensed to produce summary reports for public hearings. Research in this preliminary report develops the significance of the property in the context of Residential Architecture in Tempe, Arizona, 1940, and other relevant historic contexts.²

LOCATION
The historic 1940 Barnes (Conway) House is located at the southern extent of the original Townsite, in the 1924 Park Tract subdivision. Tempe had been experiencing a housing shortage for some time and development of Park Tract was intended to provide comfortable and modern family housing to meet this pent-up demand. Similarly, the Early Ranch style house was designed to help fulfill requirements for affordable and efficient housing. The historic 1940 Barnes (Conway) House is located on Lot 7 of Block 6 of the Park Tract Subdivision. Block 6 is a full-block located at the southern edge of the subdivision at the boundary extent of the original 1888 townsite. Lot 7 is at the northwest corner of Block 6 in the very heart of Park Tract.³

Park Tract Subdivision is identified as a Cultural Resource Area in Tempe General Plan 2030. These areas are considered culturally significant to the character of Tempe and General Plan 2030 states that it is desirable to maintain the character of these areas. General Plan 2030 further states that the underlying zoning in place at the time the plan was adopted should remain as the highest appropriate density for Cultural Resource Areas. Accordingly, Cultural Resource Areas are indicated on the GP2030 Projected Land Use Map with the density of the zoning in place at the time the plan was adopted on December 4, 2003. The subdivision of Park Tract predated adoption of a zoning ordinance by the Tempe Town Council. This property is zoned R-3R: Multi-Family Residential (height) Restricted.⁴ ⁵

Park Tract today is part of Tempe's Maple Ash Neighborhood, which consists of three subdivisions: Gage Addition (1909), Park Tract (1924), and College View (1945). This area contains the largest concentration of historic resources in the city. The area is adjacent to downtown Tempe, Arizona State University, and Tempe St. Luke's Hospital, each of which have exerted pressure on the historic integrity of the neighborhood at various times in the past. Today these properties are zoned multi-family and many of the owners are interested in redeveloping their properties. Without some kind of control, local preservation advocates see the historic character of the neighborhood eroding and the potential for listing Tempe's oldest remaining residential neighborhood in National Register of Historic Places in jeopardy. After an attempt at creating an historic district failed in 2006, in 2007 the Arizona Preservation Foundation placed Tempe's Maple Ash Neighborhood on Arizona's Most Endangered Historic Places List. Subsequently, many property owners have acted to list their properties individually on the Tempe and National historic registers.⁶
CONDITION
The historic 1940 Barnes (Conway) House has been meticulously maintained. The historic front façade has been carefully preserved and remains intact. In addition, the historic flood irrigated landscape is thoughtfully tended, and the property makes a positive contribution to the streetscape of the historic subdivision. Changes made to the property are visible on the exterior at the north and east (rear) elevations. Modifications have occurred over time, yet these have been sensitively designed and skillfully executed to achieve a comfortable balance of differentiation from, and compatibility with, the historic form and fabric of the Early Ranch style house.

AGE
The historic 1940 Barnes (Conway) House is in the upper ninety-ninth percentile (n = 251/53,665 = 99.53) of Tempe properties in terms of age. HPO records indicate 84 extant properties date to 1940 (60 percent more than the number of properties in any single prior year of the 64 years for which records exist). In Tempe, 1935 marked the first occurrence of the Early Ranch as a residential style; by 1940 the style had largely yielded to the more evolved expression of the ranch form. The Barnes (Conway) House is one of only two Early Ranch style residences believed by the Tempe Historic Preservation Office to survive from 1940. Based on data from Tempe HPO files corroborated by Maricopa County Assessor’s Office data, 250 standing properties are believed to predate the historic 1940 Barnes (Conway) House having year-built dates in Tempe of 1939 or earlier. Statistically, this property is in the top 99.5% of all Tempe properties in terms of age and therefore can be considered to survive as a rare example of early residential construction in Tempe.7

SIGNIFICANCE
The historic 1940 Barnes (Conway) House survives as a significant representative of a once common type—the Early Ranch style house. Ranch style residences became ubiquitous throughout the American Southwest in the era following World War II. The historic 1940 Barnes (Conway) House, however, was constructed before the style became widely popular. The property is significant as one of the few 1940 Early Ranch style houses in Tempe.8

Built on the eve of U.S. involvement in World War II, the house exemplifies characteristic features of the early form, combining elements of both past and future styles. This house is a good example of the Transitional or Early Ranch due to its raised floor and the dominant chimney, something not seen on many of the later houses in the area. The small box-like house has the characteristic L-shaped plan with a low pitched gable end asphalt shingle roof, raised wood floor with crawlspace, covered front porch, rectangular window openings with steel casement windows divided to emphasize the horizontal dimension, and stucco siding and gable ends. Typical of the type, ornamental detailing is minimal and limited to the dominant chimney, along with typically modest detailing of wood framing of the porch. Also true to the type, stylistic treatment of materials and details occurs evenly on all sides of the building. The public faces of the property have changed little from their original configuration, when this Early Ranch style house first made an important addition to the neighborhood. The historic 1940 Barnes (Conway) House continues to convey the architectural qualities of design, workmanship, materials, and feeling.9
A basis for historic designation and listing in the Tempe Historic Property Register is provided by Tempe City Code Section 14A-4(a)(1) – Designation of landmarks, historic properties and historic districts: the following criteria are established for designation of an individual property, building, structure, or archeological site: It meets the criteria for listing on the Arizona or national register of historic places.\(^\text{10}\)

Tempe Historic Preservation Ordinance language agrees with National Register of Historic Places eligibility criteria C, which states:

“The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

C. “That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.”\(^\text{11}\)

The historic 1940 Barnes (Conway) House is significant as one of the best remaining examples of Early Ranch style houses in Tempe. The property embodies the distinctive characteristics of the historically significant Early Ranch style of residential construction which foreshadowed the fully evolved style that became widely popular during the post-World War II period and remained a ubiquitous housing form in Arizona for decades thereafter. This property is considered eligible for listing in the National Register of Historic Places under Criterion C, at the local level of significance as an excellent example of the Early Ranch style houses constructed in Tempe.\(^\text{12}\)

**INTEGRITY**

Integrity is the ability of a property to convey its significance. To be listed in the Tempe Historic Property Register, a property must be significant under ordinance criteria and it must also possess sufficient integrity to communicate its significance to persons familiar with the property or to the community at large. The integrity of a property is evaluated according to aspects which must be present in different combinations depending on the criteria from which historic significance is derived. For the case at hand, a building derives significance because it embodies the distinctive characteristics of a type of construction. Accordingly, (under Criterion C) the property must maintain integrity of **design, workmanship, materials, and feeling** in order to convey its significance. As seen in the following discussion, the property exceeds this minimum requirement and retains more than adequate integrity to qualify for designation and listing.\(^\text{13}\)

**Location** – The Barnes (Conway) House exists in its original location. The Park Tract Subdivision encompasses a collection of historic resources directly associated with the early growth and development of Tempe and the Salt River Valley. The evolution of Tempe over the past 140 years holds national, state, and local significance for its role in the development of the Salt River Valley as a center of commerce and education, as a critical link in the transportation networks during settlement of the Territory, and for its associations with important political figures. These aspects of historical significance and association exist today at the subject property and throughout Park Tract as manifestations of those Arizona pioneers who transformed the desert environment of the Salt River Valley into a community of enduring consequence.\(^\text{14}\)
Situated prominently in the 1200 block of South Ash Avenue, the Barnes (Conway) House occupies land that was included in the boundaries of the original Tempe Townsite in 1894. Although not subdivided until thirty years later, the Park Tract subdivision was never annexed into the corporate limits of Tempe. Rather uniquely it was an integral (yet undeveloped) part of the Tempe from the onset. Today the southern portion of the original Townsite, the historic Park Tract subdivision, is a busy and vibrant residential neighborhood. The City is currently experimenting with various traffic-calming features in the right-of-way, yet the clear and present landmark status of Tempe’s oldest residential neighborhood, Maple Ash, retains its historic identity throughout the community and beyond.\(^{15 \, 16}\)

**Design** – Design is the composition of elements that constitute the form, plan, space, structure, and style of a property. Because properties change through time, changes may acquire significance in their own right and may not necessarily constitute a loss of design integrity. Although additions have been made to the side and rear of the Barnes (Conway) House, the property maintains the original spatial relationships between major features, visual rhythms, layout and materials, and other features as originally constructed and developed. Design aspects typical of the Early Ranch style remain present in abundance and help maintain this aspect of integrity.\(^{17}\)

**Setting** – Setting is the physical environment of an historic property that illustrates the character of the place. Although integrity of setting is not a condition precedent to designation in this case, the Barnes (Conway) House nevertheless retains connections to the physical environment of its surroundings. The relationship of the house to its surrounding streetscape and landscape, the form and function of adjacent alleyways and walks, and the use of flood irrigation all persist with integrity intact.\(^{18}\)

**Materials** – An historic property must retain key exterior materials dating from the period of its historic significance. Integrity of materials determines whether or not an authentic historic resource still exists. The Barnes (Conway) House retains key physical elements as they were originally configured to reveal the preferences, to indicate the availability of particular types of materials, and to exemplify technologies characteristic of the Early Ranch style house form. The dominant brick chimney distinguishes the property as a step in the evolution of the ranch house form; this feature and these materials were, relatively speaking, quite rare.\(^{19}\)

**Workmanship** – Workmanship is the physical evidence of the crafts of a particular culture or people during any given period of history. Workmanship is important because it can furnish evidence of the technology of the craft, illustrate the aesthetic principles of an historic period, and reveal individual, local, regional, or national applications of both technological practices and aesthetic principles. This property conveys physical evidence of the crafts attendant upon the frame construction form of the Early Ranch style house in the early 1940s American Southwest.\(^{20}\)
**Feeling** – Feeling is a property's expression of the aesthetic or historical sense of a particular period of time. This property expresses an aesthetic sense of its prewar period of significance. The physical features of the property, taken together, are sufficiently intact to convey their significance to someone familiar with the original property as well as to persons throughout the community to whom the property distinguishes itself as historic. Retention and good maintenance of original design, materials, workmanship, and setting as described above is sufficient to create a discernable sense of place or feeling at the historic property.²¹

**Association** – Association is the direct link between an important historic event or person and a historic property. Although integrity of association is not a condition precedent to designation in this case, this property nonetheless maintains direct links between important events in community history and remains emblematic of consecutive waves of suburbanization outward from Tempe's original settlement at the Salt River. Now standing as an anchor at the edge of the historic 1924 Park Tract subdivision, the Barnes (Conway) House recalls the last wave of pre-war development that radiated in bands from the core of the original Townsite.²²

Careful evaluation of integrity has been made to inform an opinion of eligibility based on guidance provided in National Register Bulletin 15 “How to Apply the National Register Criteria for Evaluation”. Bulletin 15 states the older or rarer a property becomes, the less integrity must be present for eligibility.²³

The Secretary of the Interior's Standards for Rehabilitation provide a framework for evaluating the effects of changes on the integrity of a property. The Standards for Rehabilitation define Rehabilitation as "the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values."²⁴

Finally, we are fortunate to also have policy available from the Arizona State Historic Preservation Office that addresses continued eligibility of a property in consideration of changes in integrity over time. Tempe HPO previously prepared a case study of the proximate Douglass/Gitlis Residence at 1206 South Ash, which developed a detailed evaluation of the cumulative effect of changes on property integrity using criteria provided by the National Park Service and the Arizona State Historic Preservation Office. This work has direct relevance on the evaluation of integrity at the Barnes (Conway) House and has been relied upon to help establish this recommendation.²⁵ ²⁶

**CULTURAL CHARACTERISTICS OF THE EARLY RANCH STYLE HOUSE**

The preceding discussion of significance identified architectural and construction features typical of the Early Ranch style house. The historic 1940 Barnes (Conway) House exemplifies these characteristic features of design, materials, and workmanship while simultaneously illustrating more abstract cultural characteristics of the Early Ranch style house.
The earth-hugging Prairie style houses pioneered by Frank Lloyd Wright, along with the informal Bungalow styles of the early 20th century, paved the way for Early Ranch style houses. California Architect Cliff May is credited with building the first Ranch style house in San Diego in 1932. After World War II, simple, economical Ranch houses were mass-produced to meet the housing needs of returning soldiers and their families. With time, so many Ranch style homes were built in seemingly “cookie-cutter” fashion that the style came to be dismissed as ordinary or slipshod. Nevertheless, many Early Ranch style homes have some of the endearing characteristics of the elegant Cliff May originals: livability, flexibility, and unpretentious character.27

Livability is manifested in the openness of the floor plan of the Early Ranch style home. Instead of the smaller divided rooms of previous styles, major rooms flow together while large windows bring in outside light and connect with nature. Doors open to patios in the back of the home in a direct fusion of the Spanish Colonial Ranchería and the Modernist house. When land was less expensive, ranch houses abandoned the compact plan and were allowed to stretch out across large lots. Spatial connection between the house and the lot—the essence of livability—is clearly evidenced in the subject property, where views of the grounds are carefully composed, framed for effect, and screened to emphasize a natural setting.28

Flexibility is addressed in the Ranch style home by open floor plans that allow rooms to be rearranged to serve multiple purposes. Ranch houses often include separate living and family rooms and formal dining rooms that all could be redressed for other purposes as needed. In addition, the simple trim and style could be made to work with a range of interior decorating schemes, from American Colonial to ultramodern to contemporary casual. Integrated patios serve as extended living space, allowing a continuous functional relationship with the outdoors. Spatial dynamics and adaptability are showcased in the subject property where the modern lifestyle is supported in a setting of understated elegance.29

Finally, unpretentious character was addressed in the Ranch style house by the simple, clean lines of the houses themselves. Ranch style houses, with their low roof lines and simple rustic trim, maintained a casual feel and did not dominate their neighborhoods. Entry was not into a grand foyer, but into a simple, disarming and pedestrian space. Interiors designed for ease of movement felt like "home." This was place-making at its most essential expression. The subject property embodies the charm and character that would evolve to distinguish the Ranch style as the predominant residential expression of the American Sunbelt for decades to come. The historic 1940 Barnes (Conway) House exemplifies all of the prominent character defining features of Ranch house design, materials, and workmanship as well as more abstract cultural characteristics that define the essence of the style.30
HISTORIC CONTEXTS
The significance of community cultural resources is related to historic contexts. This research report for historic property designation looks at various contexts to synthesize information about the period, the place, and the events that created, influenced, or formed the backdrop of the historic resources. Cultural and environmental contexts provide an awareness of the property and aid in the analysis and understanding of the resource. The following contexts help explain the cultural development and historic significance of the property and substantiate a recommendation for designation. Tempe Preservation uses two primary sources for historic contexts; City of Tempe Multiple Resource Area Update (Ryden 1997), and Post World War II Subdivisions Tempe Arizona: 1945-1960 (Solliday 2001).

Selected Biographies
The earliest known occupants of the Barnes (Conway) House were Michael R. and Dottie A. Barnes, residents of 108 West 8th Street (now University Avenue) who purchased undeveloped Lot 7, Block 6 of Park Tract in February 1940 from Alvah and Lora Oakley. The Barnes couple mortgaged the property to First National Bank of Arizona, Phoenix for $3,400 in April 1940 and built the house at 1203 South Ash Avenue soon thereafter. Michael and Dottie remained at the address until at least 1952; a 1955 city directory lists Michael and wife Martha (either Dottie’s given name or perhaps a different woman) as having relocated to a new house on Encanto Drive near Daley Park. By 1958 the family seems to have disappeared from Tempe altogether. Michael Barnes served as clerk and assistant postmaster at the Tempe Post Office from approximately 1939 through 1955.

Residential Architecture in Tempe, Arizona 1940
Residential and nonresidential structures within the area of the Park Tract subdivision were built primarily between 1900 and 1960, with 1940 being the median year-built value (69 years old) and 1940 the most frequently occurring construction date (20 occurrences). Solliday (2001) identified 100 lots in the Park Tract subdivision adding 17 properties built between 1948 and 1960, to the 80 properties previously identified in the Tempe MRA (1997) as potentially contributing to an historic district. The Barnes (Conway) House is one of 26 properties constructed in Park Tract during what would be an unprecedented year for construction in the subdivision and throughout Tempe. In the ten-year period beginning with subdivision in 1924, Park Tract added an average of 2 residences each year, compared to an annual average of 7 residences constructed city-wide during the same period. In ten years from the opening of the subdivision, Park Tract saw 15 residences constructed. Based on data from the Maricopa County Assessor’s Office and Tempe HPO files, 250 standing properties are thought to predate the historic 1940 Barnes (Conway) House having year-built dates of 1939 or earlier. Statistically, this property is in the top 99.5% of all Tempe properties in terms of age and can only be considered to survive as a rare example of early residential construction in Tempe.
Architectural styles varied city-wide during the ten-year period ending in 1940 with the evolved Ranch style achieving dominance late in the period. Ranch style (n=41) being the most popular by far left the Bungalow style (n=16) a distant second, and National Folk style (n=14), Southwest style (n=12) and our subject Early Ranch style (n=8) rounding out the top five most popular house-types city-wide in the ten year period ending in 1940. Park Tract followed the city-wide trend closely with a preponderance of Ranch style houses constructed, followed in order of popularity by National Folk, Spanish Colonial Revival, Southwest, and Early Ranch style.34

The ancient Roman architect Vitruvius famously wrote that a building should have "firmness, commodity, and delight." Architecture is much more than style of course, and an important factor in the sustained popularity of these style houses was their ability to meet owners' functional requirements while giving them an enhanced connection to the outdoors in a house-form that was new and authentically American. So there it was, "firmness, commodity, and delight" available for a price that was more affordable than most previously popular house styles—except that in Tempe, as in communities across America before the end of WWII, the typical home mortgage required a down payment of 50% of the total property value and was offered for only a 10-year term.35

The historic 1940 Barnes (Conway) House, along with an unprecedented 51 other properties, was constructed during the Great Depression after the failed banking system caused a drastic decrease in home loans and ownership. In 1934 the federal banking system was restructured when the National Housing Act passed and the Federal Housing Administration was created. FHA regulated the rate of interest and the terms of mortgages that it insured. These new lending practices opened new lines of credit to Americans who could not previously afford a down payment on a house or make monthly debt service payments on a mortgage. Although FHA financing increased the market for single-family homes nationwide and indirectly improved all residential financing, Tempe banks did not begin lending money through Federal Housing Administration programs until after WWII.36 37

**Early Ranch House Style Architecture in Tempe 1935-1947**

The Early Ranch style is the emerging form of a style that went on to account for nine out of every ten new houses throughout the American Southwest and eventually spread nation-wide as an authentic artifact of American culture. The Early Ranch House style is not the Ranch House of postwar America but rather a nascent form coming into existence with as many references to historical antecedents as it had elements of the ultimate pure form. Early Ranch House style is obscured in the literature as it is largely overwhelmed by the ubiquitous final form. Contemporaneous amalgamations of house-types featuring the ranch style observed in the Tempe Historic Preservation Office data include; Late Bungalow/Early Ranch style, Transitional Ranch style, Ranch with Spanish Colonial influence style, and Spanish Colonial Ranch style. Architect Cliff May is credited with building the first Ranch Style house in San Diego, California in 1932. May had little architectural training and little building experience, but he succeeded in bringing his vision to life and to national acclaim throughout the 1930s, 1940s, and 1950s. Considered by many to be the father of the California Ranch style house, May is noted for combining the western ranch house and Hispanic hacienda styles with elements of modernism. A uniquely American invention, May’s Ranch Style houses built out instead of up, with his continual goal to bring the outdoors in.38 39 40
Living areas in the Early Ranch style house began to diversify, multi-task, and become flexible spaces geared to casual entertaining at home. This complimented the indoor/outdoor living promised by the one-story layout which more and more came to feature both visual and circulatory connections to designed outdoor spaces.\(^41\)\(^42\)

In the Southwest, California and Craftsman Bungalow styles were common affordable house types that preceded introduction of the Early Ranch style. The modest forms of the National Folk styles often referred to simply as “the Economical Small House” or the “Basically FHA House” sought similar markets. Many of the cost-saving materials and methods that would become hallmarks of post-war Ranch style houses would not appear until after WWII. In this regard, the Early Ranch style continued building traditions from earlier styles, but adapted new and distinctive configurations. Rooted in the Spanish colonial architecture of the 17th to 19th century North America, the Early Ranch style used single story floor plans and native materials in a simple style to meet the needs of their inhabitants. These low slung, thick walled, rustic working ranches were common in the Southwestern states. The California bungalow of the early 20th century also served as a precedent with its simple one story outline, ample porch, and garden orientation.\(^43\)

Constructed at the very beginning of the stylistic period, the historic 1940 Barnes (Conway) House possesses many character-defining features of the Early Ranch style house-type which remain in excellent condition today. The roofline of the asymmetrical L-shaped plan is elongated and lowered and uses large overhanging eaves to further emphasize the horizontal form and its connection to the site. The typical stucco or brick exterior is shown here in with the characteristic simple trim. Throwbacks to earlier styles include the stem wall footing with crawlspace under hardwood floors, the absence of a garage or carport attached to the house, and the beautiful veneer plaster finishes on gypsum lath.

**Community Planning & Development in Tempe 1924~1945 (Park Track)**
The Barnes (Conway) House is significant for its association with the Park Track subdivision. Tempe’s growth since its beginning circa 1870 is most conveniently viewed as a series of developmental periods corresponding to both local and national economic and political trends. During the Settlement Period (c.1870~1887) Tempe evolved from a small river crossing site into a recognizable town with distinct residential, commercial, and farming areas. The Development Period (1888~1909) was a time of organization, land speculation, and major growth stimulated by the Tempe Land & Improvement Company’s speculative town-building, by the arrival of the railroad, and by the establishment of the Territorial Normal School. Tempe’s Growth Period (1909~1930) saw the completion of Roosevelt Dam, Arizona statehood, tremendous expansion of the agricultural economy, increased development of subdivisions, of city services, of the Normal School, and of transportation systems. The Post-Automobile Period (1931~1945), was marked by increasing automobile ownership and the introduction of air conditioning. These conveniences changed the form of residential development and, accompanied by slow but steady growth, set the stage for the rapid expansion of the community following World War II. Broad patterns of development established during each of these historic periods remain visible today amidst the contemporary suburban fabric of Tempe.\(^44\)
The development of Park Tract becomes comprehensible when considered within the context of Tempe’s social and economic history during the interwar period of 1918-1941. The post-WWI era opened with great promise in Arizona, as Tempe, like other Valley towns and cities, prospered amidst a cotton boom fueled by global demand for long staple Pima cotton, a high-quality strand developed by E. W. Hudson at Sacaton Station during the 1910s. With prosperity and growth came scores of newcomers to fill job openings. By 1920 the town’s population neared 2,000 and an acute housing shortage became evident. In March of that year, ten Tempe businessmen bought shares in the nine undeveloped city blocks between 10th Street, Mill Avenue, 13th Street, and the Arizona Eastern railroad right-of-way. Pledging $18,000 in total, the businessmen arranged for the preparation of a residential subdivision, including an extension of city services, and recruited three of their co-investors—E. W. Hudson, Hugh E. Laird, and Fred J. Joyce—as trustees to administer the sale of lots. The neighborhood would be called “Park Tract.”

Development of the neighborhood stalled, however, when the Valley’s “cotton bubble” burst in the fall of 1920. The early 1920s marked a period of prolonged economic hardship for America’s agricultural communities, and Tempe was no exception. In 1923 the area’s irrigators joined the Salt River Project to combat deterioration of local farmlands by over-irrigation, and gradually the town’s economy recovered as the fortunes of its farming families stabilized. In April 1924 Hudson, Laird, and Joyce revived Park Tract by filing a plat map with the County Recorder and initiating a sale of town lots. The neighborhood was intended to provide Tempe’s upwardly-mobile residents with a haven of modern housing in a “wholesome” setting far removed from the din and vice of the town’s older quarters. Restrictive covenants limited Park Tract’s development to residential units exclusively; property values were to exceed $3,000 and homes were to be set back twenty-five feet from the street to allow for lushly landscaped front yards; garages and outbuildings were to be set back seventy-five feet. Restrictions also prohibited racial minorities from owning or renting property in the neighborhood, a provision that remained in place through the late 1940s.

Despite Tempe’s booming late-1920s economy, Park Tract developed slowly. By 1930 homes appeared on only eleven of the neighborhood’s one-hundred lots. Development slowed even further during the early 1930s with the collapse of the American banking system. Homebuilding activity in Park Tract did not fully resume until the Federal Housing Authority arrived in Tempe in 1937 with Transamerica’s takeover of Phoenix National Bank. With its insurance against defaults and regulated rates of interest, the FHA helped stabilize lending industries in Tempe and elsewhere. This seems to have had a positive effect on the development of Park Tract, as the years 1937-1941 marked the neighborhood’s most rapid period of build-out. In 1938 another New Deal program, the Works Progress Administration, arrived in Tempe and provided Park Tract with paved sidewalks; in 1939 WPA workers widened and beautified Mill Avenue along Park Tract’s eastern boundary. On the eve of U.S. involvement in World War II much of Park Tract had achieved build-out. Only through a series of late-twentieth-century multi-family redevelopment projects accomplished in the wake of 1960s up-zoning did the neighborhood’s basic pre-World War II suburban form sustain significant alterations.
Residential Flood Irrigation: Tempe 1924~1958

The Tempe historic context “Residential Flood Irrigation: Tempe 1909-1958” begins with the premise that historic sites include historic landscape features as integral parts of their identity. This context recognizes that preservation of the perceived and actual integrity of flood irrigated neighborhoods requires protection of historically accurate landscapes and landscape elements contained therein. The study of these historic landscapes and their elements provides an understanding of the cultural and social significance of other common visible features in these neighborhoods. Historic landscapes also reveal much about our evolving relationship with the natural world.

To a large extent, historic landscapes are representative of the time and era when they were originally established. Many architectural periods are closely linked to specific landscape patterns and plant palettes. Much of the mental imagery we conjure up when reflecting on Tempe’s historic neighborhoods includes recollections of their lush, flood irrigated landscapes. Although there are a variety of plants that have evolved to become associated with these historic landscapes, caution is necessary to avoid developing a false or created sense of history. Long-term effects of the systematic elimination or preservation of historic landscape elements and features will only become more apparent over time.52

Conservation of water and energy are important aspects of sustainable desert living. From the onset, development of Tempe’s irrigated neighborhoods was linked to flood irrigation from Valley canals. The shade trees and mesic vegetation create a microclimate effect in these neighborhoods by shading structures and grounds. Ultimately, this can cool neighborhoods by as much as ten degrees, thereby decreasing energy demand for air conditioning. Shade also decreases the evapotranspiration rate, allowing vital ground water to stay where it is needed d of being pulled from the ground by the desert sun.53

The City of Phoenix has recognized the unique character and richness of associated historic landscapes and exempts historic districts and individual properties from its landscape ordinance, which requires all new development to establish a xeriscape design to better manage water use. The term ‘xeriscape’ originated in the early 80s and refers to the regulation and use of water on site. Over the past decade, xeriscape landscapes have increased in number and popularity as they help to inform the public about how designed and built landscapes can be made more sustainable.

While this conservation and education effort is appropriate to desert living, xeriscape landscapes are not associatively or historically appropriate in the setting of historically flood irrigated districts. Although neighbors will spend considerable time and resources on the betterment of their community through various efforts to conserve and enhance neighborhood quality of life, they often fail to understand that protection and preservation of the rich historic character of special neighborhoods that are candidate historic districts is integrally linked to continued maintenance of the integrity of historically accurate landscapes and landscape elements contained therein.54

Tempe Preservation is working with Tempe Water Utility Department to implement incentives for water conservation strategies appropriate to historic preservation
objectives in Cultural Resource Areas. The goal of this process is to address conservation principals common to overall neighborhood enhancement and environmental quality.

The intent of this research is to inform an opinion of eligibility as the basis for a recommendation for historic designation. In preparing this preliminary determination of eligibility for consideration by the Commission, HPO finds this nomination to be complete and considers the historic 1940 Barnes (Conway) House to be eligible for historic designation and listing in the Tempe Historic Property Register. Staff recommends that the Tempe Historic Preservation Commission reach consensus to hold a public hearing on September 8, 2011, to approve, deny, conditionally approve or continue this nomination.
ENDNOTES


3  City of Tempe, Tempe Historic Preservation Office Gage Addition, Park Tract, College View Subdivisions Historic Property Nomination Information accessed 11/25/2009 10:49 AM online at: http://www.tempe.gov/historicpres/mapleash.htm “The 1995 Maple Ash Neighborhood Plan recognized the unique shape of the neighborhood, roughly a 3:1 ratio of length to width. Because of the long and narrow configuration, over 40% of the parcels occur at the perimeter of the neighborhood. As these edges have developed as part of the neighborhood over time, perimeter parcels are integral to the historic core. A significant number of these edge parcels have taken on non-residential uses and zoning over time, their continued integration with the neighborhood is compromised by intensification through redevelopment. The Plan recognized the vulnerability of perimeter parcels and the importance of maintaining neighborhood scale and character at these fragile edges. The Plan emphasizes preservation of the borders for both historic and contemporary properties as a key to maintaining a buffer or transition zone to the historic neighborhood core.”

4  City of Tempe, Tempe General Plan 2030 Adopted: December 4, 2003, Chapter 3, Land Use, Design + Development, Land Use Element, accessed online 08/15/2011 at: http://www.tempe.gov/generalplan/FinalDocument/chapter3.pdf Cultural Resource Area (existing density allowed by zoning) Areas identified on the density map, which are considered culturally significant to the character of Tempe, based on the 2001 Post World War II Subdivision Study. It is desirable to maintain the character of these areas. The underlying zoning should remain the highest appropriate density for these areas. These areas are shown as Cultural Resource Areas, with a projected density to match the zoning at the time this plan is adopted.


6  Arizona Preservation Foundation - Arizona's Most Endangered Historic Places List: online at: http://www.azpreservation.org/c_endangered.php “MAPLE ASH NEIGHBORHOOD Tempe – Tempe's Maple Ash Neighborhood consists of three subdivisions in proximity to Arizona State University. In this area is the largest concentration of historic resources in the city. The Gage Addition, Park Tract, and College View subdivisions are significant as one of the oldest surviving neighborhoods in Tempe. The area is adjacent to downtown Tempe, Arizona State University, and Tempe St. Luke's Hospital, each of which have exerted pressure on the neighborhood at various times in the past. While the city historic preservation office and a majority of the homeowners in the neighborhood would like to have a historic district zoning overlay placed on the neighborhood, the property is zoned multi-family and many of the owners would prefer to develop their properties.”
The other example is the Redden Rental, located at 922 South Farmer Avenue, in the Mitchell Park East neighborhood, which has lost significant integrity due to alterations and multiple additions.


Sec. 14A-4. Designation of landmarks, historic properties and historic districts. (a) The following criteria are established for designation of an individual property, building, structure or archeological site:

(1) It meets the criteria for listing on the Arizona or national register of historic places;
(2) It is found to be of exceptional significance and expresses a distinctive character, resulting from:
   a. A significant portion of it is at least fifty (50) years old; is reflective of the city's cultural, social, political or economic past; and is associated with a person or event significant in local, state or national history; or
   b. It represents an established and familiar visual feature of an area of the city, due to a prominent location or singular physical feature; or
(3) If it has achieved significance within the past fifty (50) years, it shall be considered eligible for designation as a landmark if it is an integral and critical part of an historic district or demonstrates exceptional individual importance by otherwise meeting or exceeding the criteria specified in paragraphs (1) or (2) of this subsection above. At such time as a landmark becomes fifty (50) years old, it will automatically be reclassified as an historic property.


“The National Register's standards for evaluating the significance of properties were developed to recognize the accomplishments of all peoples who have made a significant contribution to our country's history and heritage. The criteria are designed to guide State and local governments, Federal agencies, and others in evaluating potential entries in the National Register.”
Tempe Historic Preservation Office – HPO Staff Opinion – preliminary determination of eligibility provided in accordance with Tempe City Code Chapter 14A – Historic Preservation Sect. 4A-4(c)(4) “Upon receipt of an application and placement on the next available commission agenda, the HPO shall compile and transmit to the commission a complete report on the subject property or district. This report shall address the location, condition, age, significance and integrity of historic features and identify potential contributing and noncontributing properties and other relevant information, together with a recommendation to grant or deny the application and the reasons for the recommendation.”

Garrison, James, 1999; Aspects of Integrity: Generalized Application [http://www.tempe.gov/historicpres/Centennial[SampsonTupper]House.html] [State Historic Preservation Officer Jim Garrison created a matrix titled “Aspects of Integrity: Generalized Application” to illustrate how to evaluate the integrity of a property. This chart indicates those aspects of integrity that must be present for different property types to remain eligible. For example, to identify aspects necessary for a District to maintain eligibility under criteria C (Design/Construction) enter the chart criteria column at “C – Design/Construction” and move across to the property type column for “District”, to see that four of the seven aspects of integrity must be present to maintain the integrity of a district that has significance under criteria C, they are; Setting, Design, Feeling, and Materials. (see chart below)]

J. Garrison 1989

### Aspects of Integrity: Generalized Application

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Building</th>
<th>District</th>
<th>Site</th>
<th>Structure</th>
<th>Object</th>
</tr>
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<tbody>
<tr>
<td><strong>A. Event/History</strong></td>
<td>Location</td>
<td>Location</td>
<td>Location</td>
<td>Location</td>
<td>Materials</td>
</tr>
<tr>
<td></td>
<td>Materials</td>
<td>Setting</td>
<td>Setting</td>
<td>Materials</td>
<td>Feeling</td>
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<tr>
<td></td>
<td>Feeling</td>
<td>Association</td>
<td>Association</td>
<td>Association</td>
<td>Association</td>
</tr>
<tr>
<td><strong>B. Person</strong></td>
<td>Materials</td>
<td>Location</td>
<td>Location</td>
<td>Materials</td>
<td>Feeling</td>
</tr>
<tr>
<td></td>
<td>Feeling</td>
<td>Setting</td>
<td>Setting</td>
<td>Feeling</td>
<td>Association</td>
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<tr>
<td></td>
<td>Association</td>
<td>Materials</td>
<td>Materials</td>
<td>Association</td>
<td></td>
</tr>
<tr>
<td><strong>C. Design/Construction</strong></td>
<td>Design</td>
<td>Setting</td>
<td>Setting</td>
<td>Design</td>
<td>Materials</td>
</tr>
<tr>
<td></td>
<td>Workmanship</td>
<td>Design</td>
<td>Design</td>
<td>Workmanship</td>
<td>Feeling</td>
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<td></td>
<td>Materials</td>
<td>Feeling</td>
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<tr>
<td></td>
<td>Feeling</td>
<td>Association</td>
<td>Association</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>D. Likely to Yeild/Has Yeilded</strong></td>
<td>Workmanship</td>
<td>Location</td>
<td>Location</td>
<td>Workmanship</td>
<td>Materials</td>
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<td></td>
<td>Materials</td>
<td>Materials</td>
<td>Materials</td>
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</tr>
</tbody>
</table>

Aspects of Integrity: Location, Design, Setting, Materials, Workmanship, Feeling, Association
Janus Associates, Inc., and the Tempe Historical Society, 1983 Tempe Historic Property Survey Tempe History Museum http://www.tempe.gov/museum/Tempe_history/properties/ahpsfile.htm “The survey was a collaborative project produced by, and funded by a grant from the Arizona State Historic Preservation Office. Phase I of the survey (1980-1981) involved identifying more than 350 buildings and structures in Tempe that exhibited potential historical and/or architectural significance. Phase II (1982-1983) involved research and documentation of the 150 most significant resources. More than a dozen volunteers completed most of the research under the direction of Museum Director Susan Wilcox and Cindy Myers of Janus Associates. The research collection that was compiled as a result of this project includes individual files on 158 historic properties. Of those most important buildings and structures that were studied in 1983, only 60% are still standing today.”

As evidenced by the abandoned effort to designate the Maple Ash area historic whereby over 100 letters in support of the designation and listing were received by the city from concerned citizens throughout the community.

“Location is the place where the historic property was constructed or the place where the historic event occurred. The relationship between the property and its location is often important to understanding why the property was created or why something happened. The actual location of a historic property, complemented by its setting, is particularly important in recapturing the sense of historic events and persons.” Integrity of location need not be present for the nomination as proposed.

“Design is the combination of elements that create the form, plan, space, structure, and style of a property. It results from conscious decisions made during the original conception and planning of a property (or its significant alteration) and applies to activities as diverse as community planning, engineering, architecture, and landscape architecture. Design includes such elements as organization of space, proportion, scale, technology, ornamentation, and materials.” Integrity of design is a condition precedent to the nomination as proposed.

“Setting is the physical environment of a historic property. Whereas location refers to the specific place where a property was built or an event occurred, setting refers to the character of the place in which the property played its historical role. It involves how, not just where, the property is situated and its relationship to surrounding features and open space.” Integrity of setting need not be present for the nomination as proposed.

“Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. The choice and combination of materials reveal the preferences of those who created the property and indicate the availability of particular types of materials and technologies. Indigenous materials are often the focus of regional building traditions and thereby help define an area's sense of time and place.” Integrity of materials is a condition precedent to the nomination as proposed.
Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. It is the evidence of artisans' labor and skill in constructing or altering a building, structure, object, or site. Workmanship can apply to the property as a whole or to its individual components. It can be expressed in vernacular methods of construction and plain finishes or in highly sophisticated configurations and ornamental detailing. It can be based on common traditions or innovative period techniques.” Integrity of workmanship is a condition precedent to the nomination as proposed.

Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, taken together, convey the property's historic character.” For example, an early ranch-style house retaining original design, workmanship, and materials will relate the feeling of hand craftsmanship and onsite construction methods in residential construction before World War II. Integrity of feeling is a condition precedent to the nomination as proposed.

Association is the direct link between an important historic event or person and a historic property. A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer. Like feeling, association requires the presence of physical features that convey a property's historic character.” For example, an early ranch-style house on a property whose natural and manmade elements have remained intact since the 1930s will retain its quality of association with the initial development of the subdivision and early suburban expansion within the original townsite. Integrity of association need not be present for the nomination as proposed.

Comparative information is particularly important to consider when evaluating the integrity of a property that is a rare surviving example of its type. The property must have the essential physical features that enable it to convey its historic character or information. The rarity and poor condition, however, of other extant examples of the type may justify accepting a greater degree of alteration or fewer features, provided that enough of the property survives for it to be a significant resource.”

The intent of the Standards is to assist the long-term preservation of a property's significance through the preservation of historic materials and features. As stated in the definition, the treatment "rehabilitation" assumes that at least some repair or alteration of the historic building will be needed in order to provide for an efficient contemporary use; however, these repairs and alterations must not damage or destroy materials, features or finishes that are important in defining the building's historic character.”

"Because the AFIF initiative allows funds to be awarded to properties listed or determined eligible, the question arises as to how and by whom can these determinations be made, and under what conditions can these determinations be applied to properties with questionable integrity: but demonstrable restorability? This question becomes more complex as one evaluates the wide range of integrity of listed properties, the evolution of the sheathing issue, and variations in viewpoint between National Register policy, Tax Act review. policy, and Certified Local Government (CLG) Design Review Ordinance policy.”
26 Tempe Historic Preservation Office – Supplemental Research Regarding Property Changes :: 01/14/10 Public Hearing at HPC accessed 07/07/2011 online at – http://www.tempe.gov/historicpres/Designations/DouglassGitlisResidence/SRR-DGR-PublicHearingHPC.pdf “Tempe Preservation assists owners with managing change to their historic properties in ways that balance preservation objectives with continued viability and enhancement of value. The Douglass/Gitlis Residence is a case study of this balanced change. The property provides a model for determining impact of proposed additions to historic buildings and establishes important precedent for evaluating effects of change on properties nominated for historic designation and listing in the Tempe Historic Property Register.”

27 May, Cliff and Sunset Magazine Editorial Staff 1947 – Lane Publishing, San Francisco “The form called the ranch house has many roots. They go deep into the Western soil. Some feed directly on the Spanish period. Some draw upon the pioneer years. But the ranch-house growth has never been limited to its roots. It has never known a set style. It was shaped by needs for a special way of living – informal, yet gracious.”

28 Hess, Alan 2004 – The Ranch House, Harry N. Abrams, New York “A uniquely American Invention, the twentieth-century Ranch House …had come to be one of the most dominant architectural forms of the suburban landscape of the nation. From Los Angeles to Houston to Fort Lauderdale, there are entire communities where Ranch is the only architecture.”

29 Samon, Katherine Ann Ranch House Style 2003 – Clarkson Potter New York “The things we loved about ranches when we liked Ike are still attractive – perhaps more so – today: the liberation that comes with open-plan living, the casual feel of easy kitchen access, the comfort of having bedrooms and children near at hand, the convenience of one-level living, and the everyday luxury of smooth indoor-outdoor flow.”

30 Johnson, Paul C., 1958 – Western Ranch Houses by Cliff May, Lane Publishing Menlo Park, CA “Cliff May in the 1930s was building small homes in San Diego and Los Angeles – and he was building for the Southern California climate and for people who thought living would different there. Twenty years ahead of its time, one of his homes was featured in a 1936 issue of the San Diego Union under this heading: ‘Home with a garden in every room.’ The open plan became part of his thinking as building costs rose and living space had to do double duty. Increasing attention to the need for a house to make full use of its surroundings resulted in his teamwork with the West’s leading landscape architects. His use of daylight as a design tool brought about a completely experimental house.”


32 Solliday, Scott, 2001 - City of Tempe, Tempe Historic Preservation Office, 2001 - Post World War II Subdivisions Tempe, http://www.tempe.gov/historicpres/PostWWII/PostWWIISubdivisionsBrochure.pdf “The Tempe Post-World War II Context Study builds on previous key studies of the history of the built environment in Tempe. The field survey examined approximately 4,500 Tempe properties built between 1945 and 1960. From this survey, inventory forms were completed for 62 subdivisions containing nearly 1,800 individual properties. Only those houses that conveyed a high level of architectural integrity (i.e., that still possess all elements of their original design) were inventoried in detail.”

33 City of Tempe, Tempe Historic Preservation Office data accessed 11/24/2009 12:14 PM “Similarly, in ten years prior to 1935, 74 properties were developed city-wide, only 22 more properties than were constructed city-wide in 1935.”

34 Ibid. Architectural styles in Tempe during the ten-year period ending in 1940
University of Hawai‘i at Manoa School of Architecture, Cultural Force, accessed online at http://www.arch.hawaii.edu/site/fileadmin/user_upload/Files/arch518/2._Cultural_Force.pdf 11/24/2009 3:31 PM “Architecture and Culture • How does Architecture reflect or inflect Culture?—Provide a defined context for Cultural Practices.—Express the History and Mythology of the Culture—Represent and Present the embodiment of Cultural values in Built form: Spatial Definition, Spatial Arrangement, Relation Built to Natural, Material Choices (historical lineage, “nature” of place, symbolic), Building forms and typologies.”

Garvin, Alexander. The American City: What Works, What Doesn’t. 2nd Edition. McGraw-Hill, New York. 2002. “The banking crisis of the 1930’s forced all lenders to retrieve due mortgages. Refinancing was not available, and many borrowers, now unemployed, were unable to make mortgage payments. Consequently, many homes were foreclosed, causing the housing market to plummet. Banks collected the loan collateral (foreclosed homes) but the low property values resulted in a relative lack of assets. Because there was little faith in the backing of the U.S. government, few loans were issued and few new homes were purchased. The FHA calculated appraisal value based on eight criteria and directed its agents to lend more for higher appraised projects, up to a maximum cap. The two most important were "Relative Economic Stability," which constituted 40% of appraisal value, and "Protection from adverse influences," which made up another 20%.”

Solliday, Scott, 2001 - City of Tempe, Tempe Historic Preservation Office, 2001 - Post World War II Subdivisions Tempe, http://www.tempe.gov/historicpres/PostWWII/PostWWIISubdivisionsBrochure.pdf “An agricultural depression in the 1920s and the Great Depression of the ’30s had curtailed residential construction long before the war. Tempe's population grew by only 15% in the 1930s despite a modest expansion of Arizona State Teachers College. The city's stagnant growth was largely due to the lack of available financing -- Tempe banks did not offer home mortgages. This was a common problem throughout the country during the Depression. The Federal Housing Administration (FHA) was created in 1934 to reform lending practices and insure home mortgages, with the goal of boosting construction and creating jobs. This had an immediate impact on homebuilding in Arizona, as Valley National Bank began aggressively promoting home mortgages in Phoenix, Mesa, and other cities, but Tempe banks did not participate in FHA-insured loans until after World War II.”

City of Tempe, Tempe Historic Preservation Office data accessed 11/24/2009 5:05 PM.
Craven, Jackie - About.com Guide, Picture Dictionary of House Styles in North America and Beyond: Ranch Style accessed 11/24/2009 2:58 PM, http://architecture.about.com/od/periodstyles/ig/House-Styles/Ranch-Style.htm “Known as American Ranch, Western Ranch, or California Rambler, Ranch Style houses can be found in nearly every part of the United States. California real estate developer Joseph Eichler popularized his own version of the Ranch Style, and Eichler Ranches were imitated across the USA. After World War II, simple, economical Ranch houses were mass-produced to meet the housing needs of returning soldiers and their families. Because so many Ranch Style homes were quickly built according to a cookie-cutter formula, the Ranch Style is often dismissed as ordinary or slipshod. Nevertheless, many homes built today have characteristics of the elegantly informal Ranch houses that Cliff May originated.”

Cliff May Library accessed 11/24/2009 2:58 PM, at http://www.ranchoestyle.com/cliffnotes.html “May loved wide open spaces. No wonder. A descendant of an early California Spanish family, he was raised on a San Diego ranch. Considered by many to be the father of the California ranch-style house, May is noted for combining the western ranch house and Hispanic hacienda styles with elements of modernism. His approach called for houses to be built out instead of up, with the continual goal of bringing the outdoors in.”


May, Cliff 1947 quoted in Sunset Western Ranch Houses, Lane Publishing, San Francisco, CA.

Wikipedia, the free encyclopedia text of this article is licensed under the GFDL accessed 12/01/2009 1:17:00 PM online at: http://www.absoluteastronomy.com/topics/Ranch-style_house “Walls were often built of adobe brick and covered with plaster, or more simply used board and batten wood siding as in the case at hand. Roofs were low and simple and usually had wide eaves to help shade the windows from the Southwestern heat. Houses often had interior courtyards which were surrounded by an L or U shaped floor plan. Large front porches were also common.”

Janus Associates, 1983; Tempe Historic Property Survey and Multiple Resource Area Nomination to the National Register of Historic Places, Tempe Historical Society, ASU GOV DOCS CALL NO I 29.76/3-2:Ar 4i/T 4 [The Tempe Historic Property Survey was a collaborative project produced by Janus Associates, Inc., and the Tempe Historical Society, and funded by a grant from the Arizona State Historic Preservation Office. Phase I of the survey (1980-1981) involved identifying more than 350 buildings and structures in Tempe that exhibited potential historical and/or architectural significance. Phase II (1982-1983) involved research and documentation of the 150 most significant resources. As a result of this effort, 30 Tempe historic properties were listed on the National Register of Historic Places.] 1999.0000.404


50 The WPA reportedly laid 80.6 miles of new sidewalks in Maricopa County prior to 1940. *Summary of Inventory of Physical Accomplishments by the Work Projects Administration: From July 1, 1935 to January 1, 1940* (Phoenix: Federal Works Agency, Works Progress Administration, 1940), 16, 22. See also *Arizona Highways*, March 1939, 38.


53 Davis, Robinson, 2005; The Urban Forest; a study of the value and application of trees in an urban environment, Arizona State University College of Architecture and Landscape Architecture (Professor Joseph Ewan, ASLA).

54 Hansen, Eric M., 1999