

**Cultural Resources Assessment
for the Fort Lowell Park, the
Donaldson/Hardy Property, and
the Quartermaster and
Commissary Storehouse Property
within Historic Fort Lowell,
Tucson, Pima County, Arizona**

J. Homer Thiel



**Technical Report No. 2009-02
Desert Archaeology, Inc.**

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Submitted to

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Technical Report No. 2009-02
Desert Archaeology, Inc.

3975 North Tucson Boulevard, Tucson, Arizona 85716 • May 2009

ABSTRACT

DATE: 7 May 2009

AGENCY: Pima County

REPORT TITLE: Cultural Resources Assessment for the Fort Lowell Park, the Donaldson/Hardy Property, and the Quartermaster and Commissary Storehouse Property within Historic Fort Lowell, Tucson, Pima County, Arizona

PIMA COUNTY PROJECT NAME: Fort Lowell Property Inventory and Mapping

PIMA COUNTY CONTRACT NUMBER: 25-73-D-139578-0507/PO#070536

FUNDING LEVEL: County Bonds

PROJECT DESCRIPTION: Survey, mapping, and historical research on portions of Historic Fort Lowell

PERMIT NUMBER: Arizona Antiquities Act Blanket Permit No. 2007-0139ps, Arizona State Accession No. 2007-0361

LOCATION:

County: Pima

Description: Sections 35 and 36, Township 13 South, Range 14 East on the USGS 7.5-minute topographic quad Tucson North, Arizona (AZ BB:9 [SW]). Pima County Assessor's Parcel numbers 110-14-015A, 110-14-0140, 110-14-016B, 110-14-013B, 110-14-012C, and 110-09-006L

NUMBER OF SURVEYED ACRES: 63.5

NUMBER OF SITES: 2

LIST OF REGISTER-ELIGIBLE PROPERTIES: Historic Fort Lowell (AZ BB:9:40 [ASM]) and the Hardy Site (AZ BB:9:14 [ASM])

LIST OF INELIGIBLE SITES: 0

RECOMMENDATIONS: Fort Lowell Park contains cultural resources dating to the Prehistoric and Historic eras. Visible resources include fragments of Fort-era buildings and structures, some of which were incorporated into apartments built by the Bolsius family in the 1930s. Other Fort-era resources are hidden beneath the ground, as are many other historic and prehistoric features. All ground-disturbing activities within the Fort Lowell Park boundaries should be either monitored or mitigated through archaeological fieldwork guided by an approved treatment plan.

COMPLIANCE SUMMARY

Date: 7 May 2009

Report Title: Cultural Resources Assessment for the Fort Lowell Park, the Donaldson/Hardy Property, and the Quartermaster and Commissary Storehouse Property within Historic Fort Lowell, Tucson, Pima County, Arizona

Client: Pima County

Client Project Name: Fort Lowell Property Inventory and Mapping

Compliance Agency: Pima County

Compliance Level: Local

Applicable Laws/Regulations: Arizona Antiquities Act

Applicable Permits: Arizona Antiquities Act Blanket Permit No. 2007-139ps, Arizona State Accession No. 2007-0361

Tribal Consultation: None required

Project Description: An archaeological survey and archival research on three city-owned parcels within the boundaries of historic Fort Lowell

Fieldwork dates and crew person-days: Project Directors Homer Thiel and Michael Brack conducted the survey on 6 February 2009, 2 person-days

Final Disposition of project artifacts, field notes, data, and records: All artifacts were collected during this field survey. All project records will be curated at the Arizona State Museum as Accession number 2007-0361

Location:

County: Pima

Description: Sections 35 and 36, Township 13 South, Range 14 East on the USGS 7.5 minute topographic quad Tucson North, Arizona (AZ BB:9 [SW]). Pima County Assessor's Parcel numbers 110-14-015A, 110-14-0140, 110-14-016B, 110-14-013B, 110-14-012C, and 110-09-006L

Area of Potential Effect: The APE for the project is the City-owned properties within historic Fort Lowell. Resources relating to the fort era and the prehistoric Hardy site are present on all of the three properties, as well as the previously examined Fort Lowell-Adkins Steel Property. These resources also extend onto adjacent parcels. Pima County has contracted with Poster Frost Associates Inc. to prepare a Master Plan for the City-owned properties. Once the Master Plan is completed the APE should be reassessed.

Number of Surveyed Acres: 63.5

Number of Sites: 2

List of Register-Eligible Properties: Historic Fort Lowell (AZ BB:9:40 [ASM]) and the Hardy Site (AZ BB:9:14 [ASM])

List of Register-Ineligible Properties: 0

Summary of Results: Archaeological survey indicates prehistoric and historic period artifacts are scattered across the Quartermaster and Commissary Warehouse parcel, but are less visible on the Donaldson/Hardy and Fort Lowell parcels, but likely present below the modern ground surface. Historical research documented the pre- and post-fort use of the area and uncovered stories about the fort including the importance of the area to naturalists, the filming of silent movies in the 1910s, and the development of the modern park facilities.

Recommendations: Fort Lowell Park contains cultural resources dating to the Prehistoric and Historic eras. Visible resources include fragments of Fort-era buildings and structures, some of which were incorporated into apartments built by the Bolsius family in the 1930s. Other Fort-era resources are hidden beneath the ground, as are many other historic and prehistoric features. All ground-disturbing activities within the Fort Lowell Park boundaries should be either monitored or mitigated through archaeological fieldwork guided by an approved treatment plan.

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CULTURAL RESOURCES ASSESSMENT FOR THE FORT LOWELL PARK, THE DONALDSON/HARDY PROPERTY, AND THE QUARTERMASTER AND COMMISSARY STOREHOUSE PROPERTY WITHIN HISTORIC FORT LOWELL, TUCSON, PIMA COUNTY, ARIZONA

INTRODUCTION

The results of a Class 1 and Class 3 cultural resources survey of portions of historic Fort Lowell located at the northwestern, northeastern, and southeastern corners of Fort Lowell and Craycroft roads are presented in this report. Today, these properties are known as the Quartermaster and Commissary Storehouse Property, the Donaldson/Hardy Property, and the Fort Lowell Park. All three properties are owned by the City of Tucson. The Fort Lowell-Adkins Steel Property, located at the southwestern corner of the Fort Lowell/Craycroft intersection, has recently been studied, with the results presented in Thiel et al. (2008). The project area has previously been assigned Arizona State Museum (ASM) site numbers AZ BB:9:40 (ASM) for Historic Fort Lowell and AZ BB:9:14 (ASM) for the Hardy site, the prehistoric settlement that underlies the fort.

Project Background

The current project was funded by the Pima County Cultural Resources and Historic Preservation Office, using 2004 Pima County bond funds. Pima County contracted with Poster Frost Associates, Inc., to prepare a Master Plan for the expanded Fort Lowell Park. As part of that planning process, Desert Archaeology, Inc., was tasked with examining how the separate properties that now comprise Fort Lowell Park were used from prehistoric to modern times.

William H. Doelle, Ph.D., of Desert Archaeology, Inc., was the Principal Investigator for the project. J. Homer Thiel and Michael Brack of Desert Archaeology completed the field survey on 6 February 2009, working under the authority of Arizona Antiquities Act Project Specific Permit No. 2007-0139ps, Arizona State Museum Accession No. 2007-0361, and ASM Burial Agreement Case No. 07-45. Two person-days were expended in fieldwork. Michael Brack and

Tyler Theriot subsequently prepared the maps for this report.

The project area contains archaeological remains dating to the prehistoric Hohokam occupation of the area. The later Historic era included use of Fort Lowell by the United States military between 1873 and 1891, followed by settlers and sanatoriums, use of the area by the Boy Scouts in the 1940s and 1950s, construction of homes by the Bolsius and Donaldson families, development of Fort Lowell Park, and construction of a branch museum by the Arizona Historical Society in 1963.

All three properties were acquired by the City of Tucson from the mid-1980s onward. Cultural resources compliance for projects on City of Tucson land is mandated from several sources. On 3 October 1983, Tucson's Mayor and Council passed Resolution No. 12443, which first defined procedures for protecting Tucson's rich, multicultural heritage. In 1999, these procedures were formalized in an Administrative Directive titled *Protection of Archaeological and Historical Resources in City Projects*, issued by the City Manager. Updated in 2005, the Administrative Directive includes policies and procedures that apply to City employees, rights-of-way, and projects. It also specifies coordination with other environmental laws and regulations where applicable. This Administrative Directive, in addition to the State of Arizona statute related to human burials (ARS 41-844), are the primary cultural resources compliance mandates addressed in the current project.

Project Area Description and Location

The project area is located in Pima County in Sections 35 and 36 of Township 14 South, Range 13 East on the USGS 7.5-minute topographic quad Tucson North, Ariz. (AZ BB:9 [SW]) (Figure 1). Six separate parcels located at the northwestern, northeastern, and southeastern corners of East Fort Lowell Road and

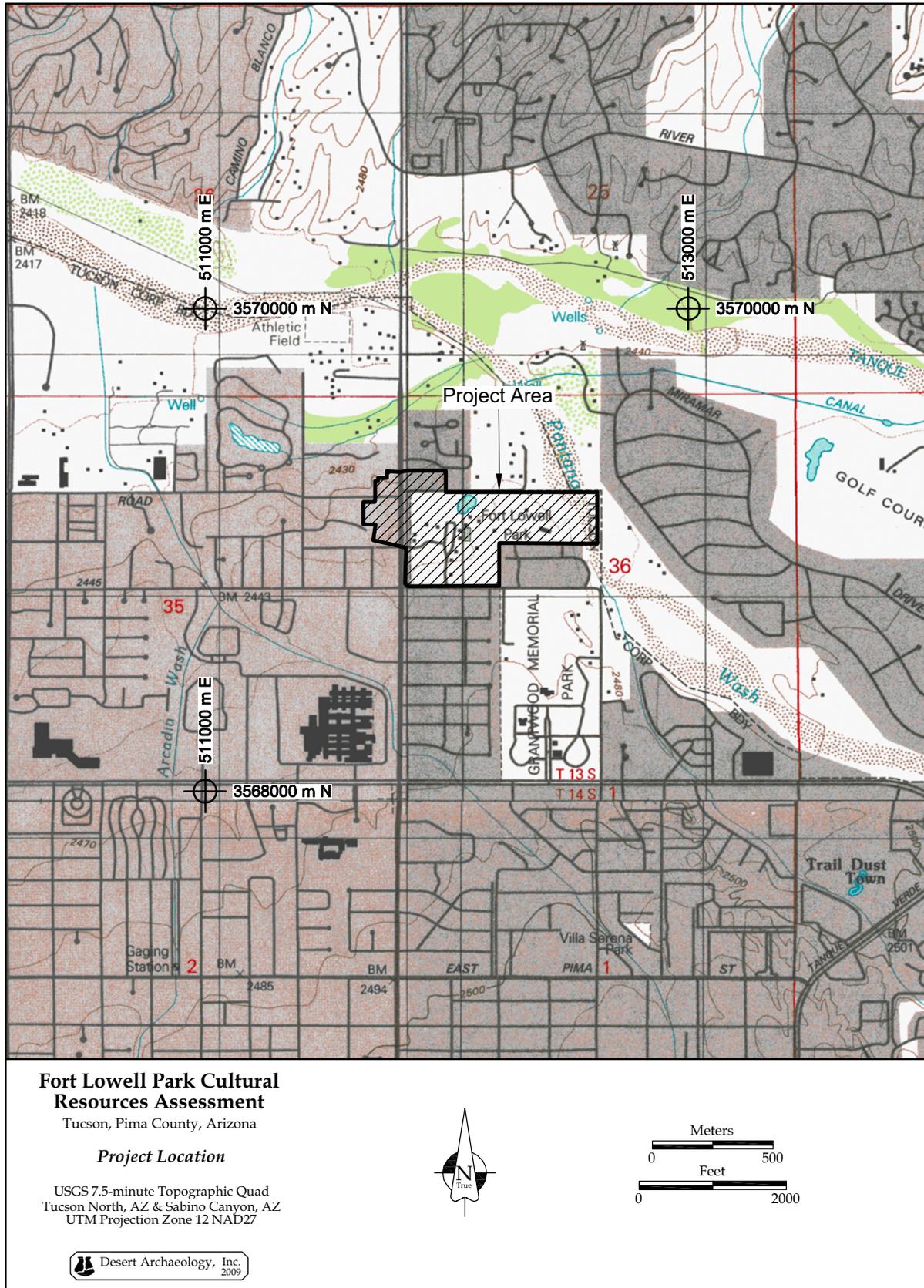


Figure 1. Reproduction of USGS 7.5-minute topographic quad Tucson North, Ariz. (AZ BB:9 [SW]), showing location of project area properties.

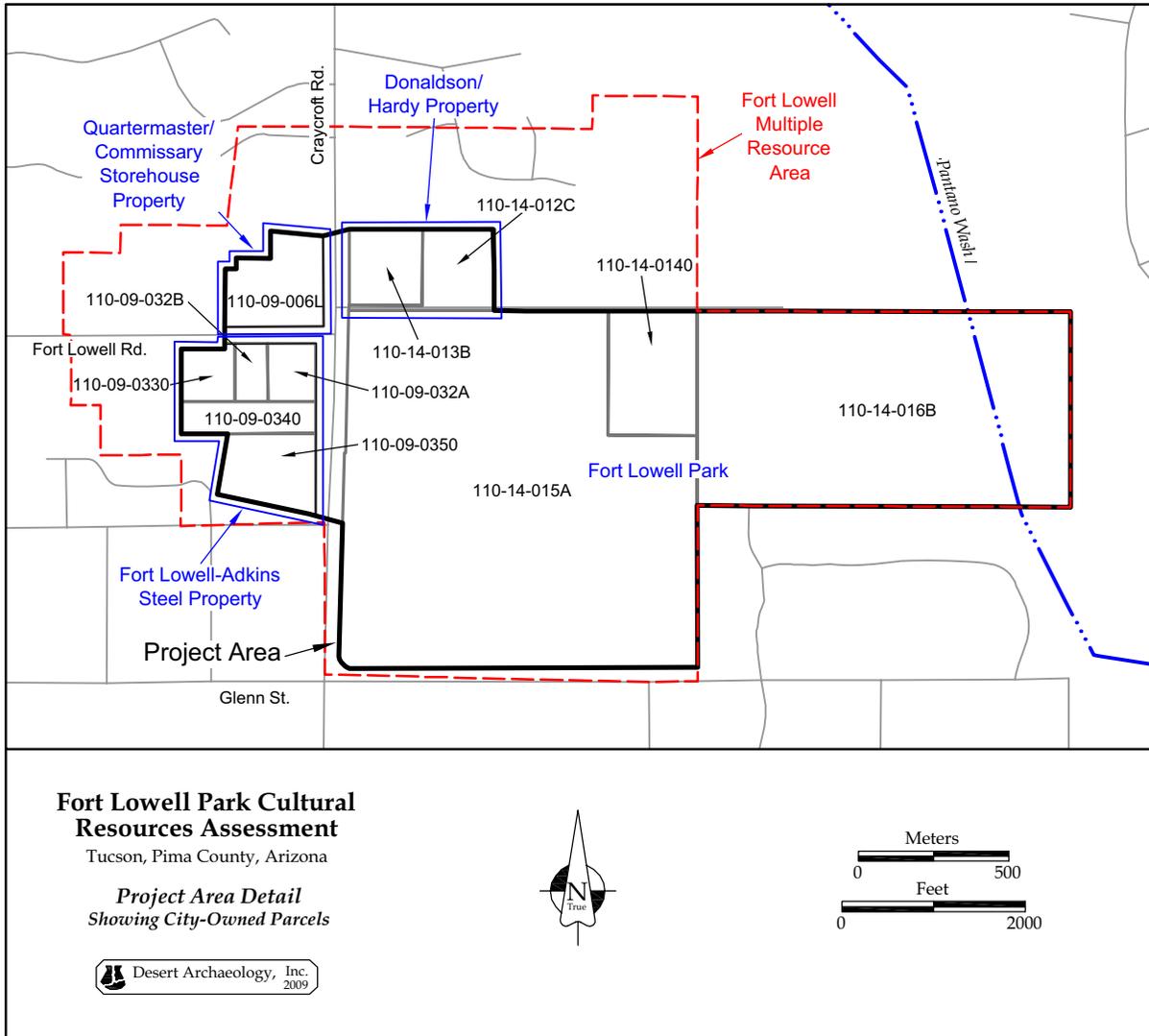


Figure 2. Pima County Assessor's Parcel Numbers for the City-owned parcels within Historic Fort Lowell.

North Craycroft Road are included within the project area. All are owned by the City of Tucson, and their Pima County Assessor's Parcel numbers are: 110-14-015A, 110-14-0140, 110-14-016B, 110-14-013B, 110-14-012C, and 110-09-006L (Figure 2). The total area of these parcels is 63.5 acres.

Three parcels, 110-14-015A, 110-14-0140, and 110-14-016B, are currently in use as Fort Lowell Park. These parcels include a prehistoric pithouse display and interpretive area, Fort-era adobe ruins, a modern-era house used as a maintenance facility, a reconstructed officers' quarters, a pecan grove, a water feature, and a variety of sports facilities and other park amenities.

Two parcels, 110-14-013B and 110-14-012C, have a 1940s house and adobe ruins of a corral wall that are covered by a modern roof. These are referred to as the Donaldson/Hardy Property in this report, re-

flecting past ownership. The last parcel, 110-09-006L, the Quartermaster and Commissary Warehouse Property, includes remnants of the Quartermaster's Complex that were incorporated into apartments by members of the Bolsius family in the 1930s. Fort-era ruins are also present on this parcel.

The Area of Potential Effects (APE) refers to the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist" (36 CFR 800.16[d]). For the purposes of the present study, the APE for the project includes six City-owned parcels, three of which comprise the current Fort Lowell Park, two of which were the former Donaldson/Hardy Property, and one of which is the Quartermaster and Commissary Storehouse Property. These areas, and the adjacent Fort Lowell-Adkins Steel Property are being studied as

part of the Fort Lowell Master Plan. The final result of this planning will be known in the spring of 2009. The purpose of the current study is to provide baseline information for that planning, including an understanding of the prehistoric and historic usage of the parcels.

Summary of Results

Archival research, an archaeological survey, and mapping of the six City-owned parcels reveal a variety of prehistoric and historic resources are either likely or known to be present. Most prominent are the 1930s Bolsius apartments at the northwestern corner of North Craycroft Road and East Fort Lowell Road. Also visible are the Fort-era ruins of the hospital, barracks, and the cavalry corral. Prehistoric resources are hidden beneath the ground, and are likely to be present throughout the project area.

Desert Archaeology, Inc., personnel recommend that any ground-disturbing activity either be monitored by a qualified archaeologist for small undertakings, such as the replacement of existing utilities, or should be preceded by archaeological testing for larger undertakings, such as the placement of new utilities or construction of new buildings.

Additional project records created as part of the current project are curated at the ASM under Accession Number 2007-0361.

ENVIRONMENTAL AND CULTURAL BACKGROUND

The Fort Lowell area has been occupied for more than 1,000 years. Humans were drawn to the area by water in the Rillito, as well as the plant life and animals present in the vicinity.

Environmental Setting

The project area is located within the eastern portion of the Tucson Basin, a short distance south of the Rillito River and immediately west of Pantano Wash (Figures 3 and 4). Much of the surrounding area is now covered by residential housing, although it once supported vegetation typical of the Arizona Uplands subdivision of the Sonoran Desert Scrub series (Hansen 1996). Spicer (2004) recently prepared a lengthy list of plants and wildlife present in the Fort Lowell area during historic and modern times. In 1895, the area around the fort was described as: "On the south, the great plain of Tucson, bare or covered with brushy *Larrea* (creosotebush) or mesquite,

stretches away for scores of miles; on the north rise gravelly hills which slope up to the mountains. These hills are covered with giant cacti and other desert shrubs. Along the bed of the Rillito grow cottonwood, willow, mesquite, walnut and ash trees (Price 1895: 197).

The vegetation within the project area currently is a combination of plantings and natural growth. The most prominent landscaping element is a double row of cottonwood trees originally planted in the early 1960s to replicate Officers' Row, although at a different alignment than the original trees. The current rows include some of the 1960s trees, as well as more recent replacements. Scattered throughout the current Fort Lowell Park area are a variety of other trees, including nonnative species. A pecan orchard is present on the eastern side of the park. More natural vegetation, including mesquite and palo verde trees, is also present on the eastern side of the park, adjacent to Pantano Wash, as well as on the Donaldson/Hardy Property and the Quartermaster and Commissary Storehouse Property.

The vegetation, along with a man-made pond and a nearby small water feature provide habitat for a variety of animals. Among those observed during visits to the project area in 2007 were egrets, several species of ducks, vermilion flycatchers, ground squirrels, and small lizards.

The elevation of the project area averages approximately 2,390 ft above sea level. The area slopes downward to the north, and during times of heavy precipitation, water runs across the Fort Lowell Park area in broad sheets toward the Rillito.

Portions of the project area, including Fort Lowell Park, have been heavily disturbed by the construction of roads and recreational facilities. Much of this work occurred in the 1960s and 1970s, prior to the enactment of the cultural resource ordinance by the City of Tucson. The depth of ground disturbance is unknown, and intact cultural resources may be present beneath existing roads, parking lots, and facilities. Other areas have been less intensely disturbed, including the Quartermaster and Commissary Storehouse Property and the Donaldson/Hardy Property; thus, the likelihood of undisturbed subsurface cultural resources is much higher in these areas.

Cultural Background

The history of the Southwest and of the Tucson Basin is marked by a close relationship between people and the natural environment. Environmental conditions have strongly influenced subsistence practices and social organization, and social and cultural changes have, in turn, made it possible to

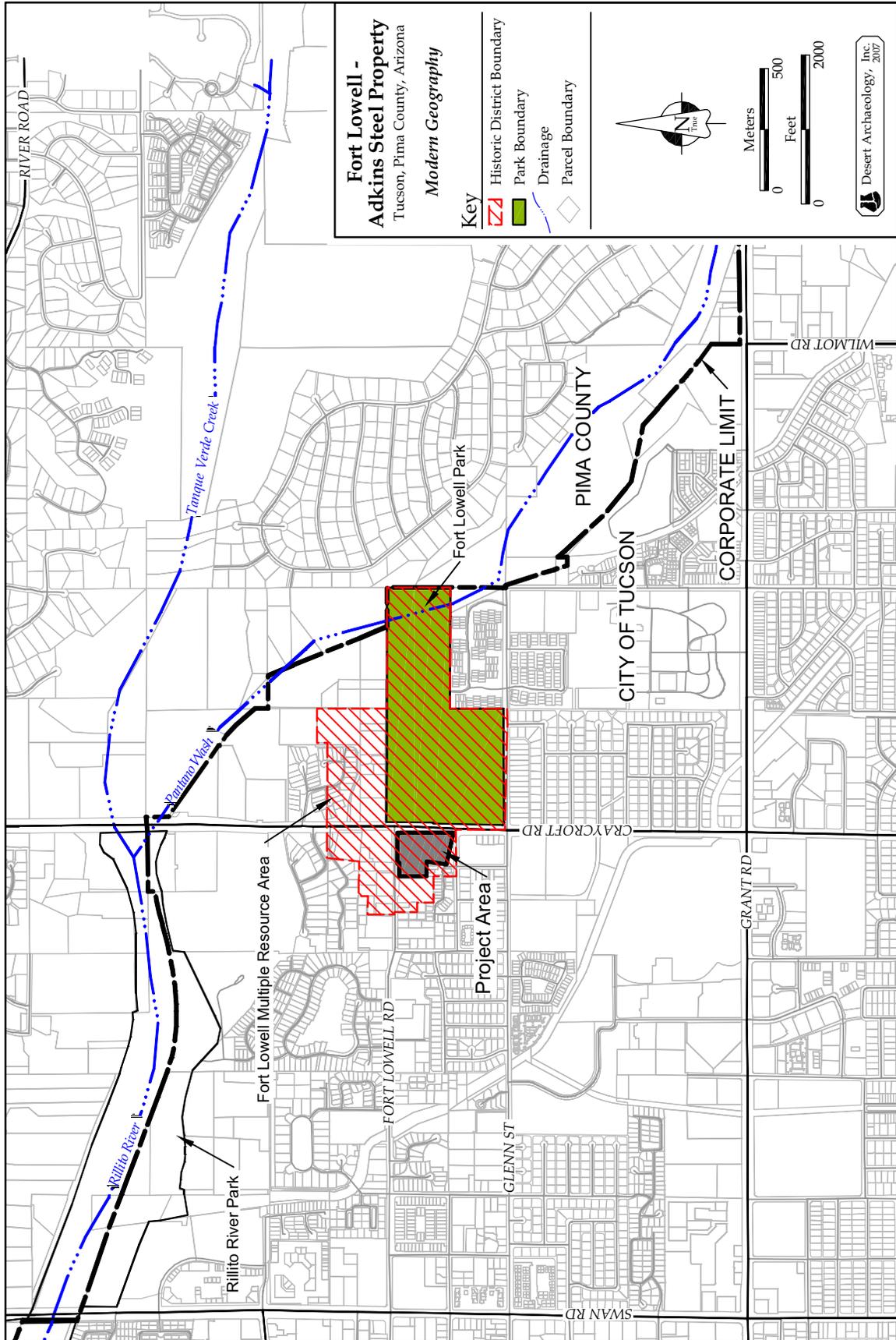


Figure 3. Modern geography of the Fort Lowell area.

more efficiently exploit environmental resources. Through time, specialized adaptations to the arid region distinguished people living in the Southwest from those in other areas. Development of cultural and social conventions also became more regionally specific, and by A.D. 650, groups living in the Tucson Basin can be readily differentiated from those living in other areas of the Southwest. Today, the harsh desert climate no longer isolates Tucson and its inhabitants, but life remains closely tied to the unique resources of the Southwest. The chronology of the Tucson Basin is summarized in Table 1.

Paleoindian Period (11,500?-7500 B.C.)

Archaeological investigations suggest the Tucson Basin was initially occupied some 13,000 years ago, a time much wetter and cooler than today. The Paleoindian period is characterized by small, mobile groups of hunter-gatherers who briefly occupied temporary campsites as they moved across the countryside in search of food and other resources (Cordell 1997:67). The hunting of large mammals, such as mammoth and bison, was a particular focus of the subsistence economy. A Clovis point characteristic of the Paleoindian period (circa 9500 B.C.) was collected from the Valencia site, AZ BB:13:74

(ASM), located along the Santa Cruz River in the southern Tucson Basin (Doelle 1985:183). Another Paleoindian point was found in Rattlesnake Pass, in the northern Tucson Basin (Huckell 1982). These rare finds suggest prehistoric use of the Tucson area probably began at this time. Paleoindian use of the Tucson Basin is supported by archaeological investigations in the nearby San Pedro Valley and elsewhere in southern Arizona, where Clovis points have been discovered in association with extinct mammoth and bison remains (Huckell 1993, 1995). However, because Paleoindian sites have yet to be found in the Tucson Basin, the extent and intensity of this occupation are unknown.

Archaic Period (7500-2100 B.C.)

The transition from the Paleoindian period to the Archaic period was accompanied by marked climatic changes. During this time, the environment came to look much like it does today. Archaic period groups pursued a mixed subsistence strategy, characterized by intensive wild plant gathering and the hunting of small animals. The only early Archaic period (7500-6500 B.C.) site known from the Tucson Basin is found in Ruelas Canyon, south of the Tortolita Mountains (Swartz 1998:24). However, middle

Table 1. Periodization and chronology of the Santa Cruz Valley-Tucson Basin prehistory.

Era/Period	Phase	Date Range
Historic		
American Statehood	-	A.D. 1912-present
American Territorial	-	A.D. 1856-1912
Mexican	-	A.D. 1821-1856
Spanish	-	A.D. 1694-1821
Protohistoric	-	A.D. 1450-1694
Prehistoric		
Hohokam Classic	Tucson	A.D. 1300-1450
	Tanque Verde	A.D. 1150-1300
	Late Rincon	A.D. 1100-1150
Hohokam Sedentary	Middle Rincon	A.D. 1000-1100
	Early Rincon	A.D. 950-1000
Hohokam Colonial	Rillito	A.D. 850-950
	Cañada del Oro	A.D. 750-850
Hohokam Pioneer	Snaketown	A.D. 700-750
	Tortolita	A.D. 500-700
Early Ceramic	Late Agua Caliente	A.D. 350-500
	Early Agua Caliente	A.D. 50-350
Early Agricultural	Late Cienega	400 B.C.-A.D. 50
	Early Cienega	800-400 B.C.
	San Pedro	1200-800 B.C.
	(Unnamed)	2100-1200 B.C.
	Chiricahua	3500-2100 B.C.
Archaic	(Occupation gap?)	6500-3500 B.C.
	Sulphur Springs-Ventana	7500-6500 B.C.
Paleoindian		11,500?-7500 B.C.

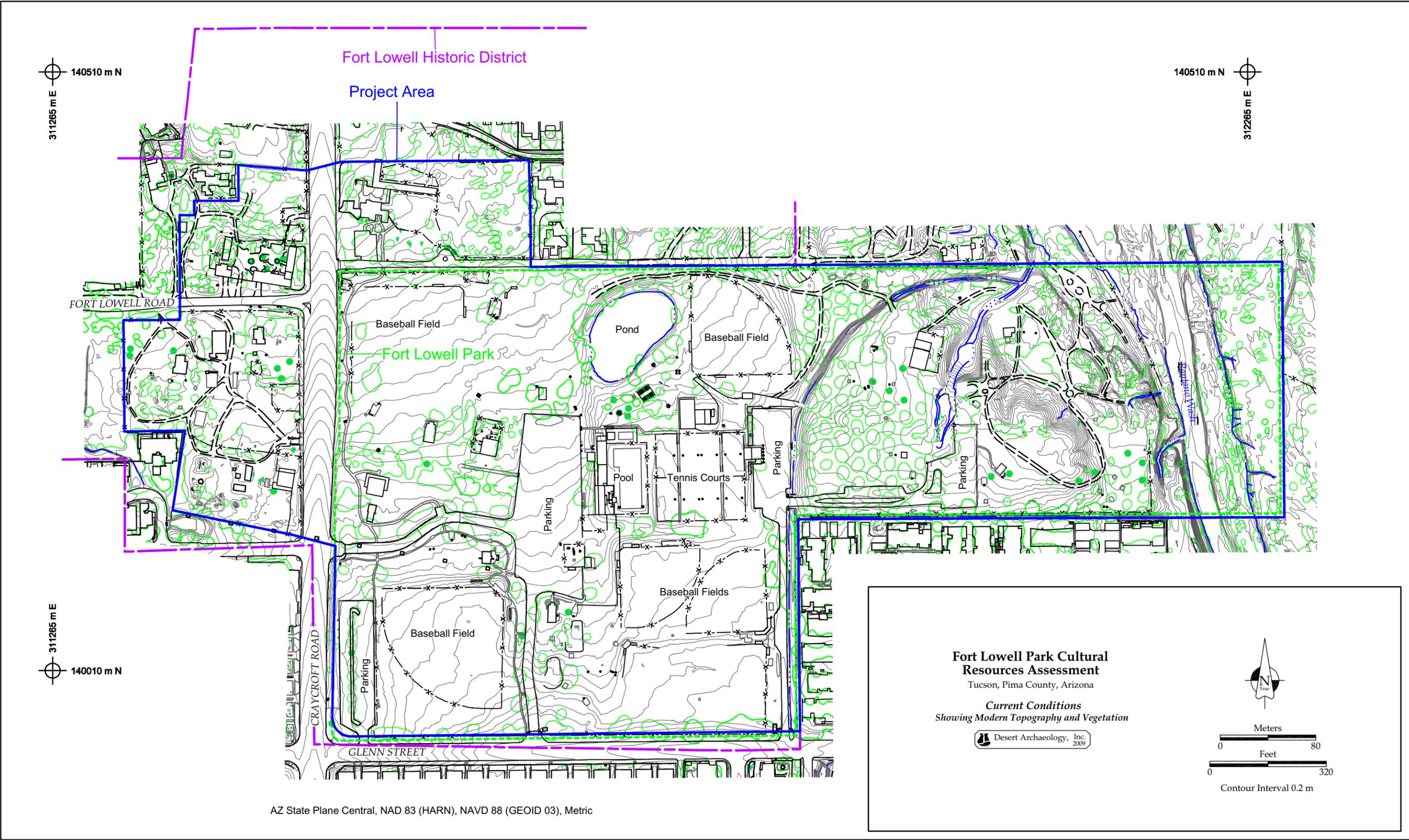


Figure 4. Topography and vegetation on the City-owned portions of Fort Lowell.

Archaic period sites dating between 3500 and 2100 B.C. are known from the bajada zone surrounding Tucson, and, to a lesser extent, from floodplain and mountain areas. Investigations conducted at middle Archaic period sites include excavations along the Santa Cruz River (Gregory 1999), in the northern Tucson Basin (Roth 1989), at the La Paloma development (Dart 1986), and along Ventana Canyon Wash and Sabino Creek (Dart 1984; Douglas and Craig 1986). Archaic period sites in the Santa Cruz floodplain were found to be deeply buried by alluvial sediments, suggesting more of these sites are present, but undiscovered, due to the lack of surface evidence.

Early Agricultural Period (2100 B.C.-A.D. 50)

The Early Agricultural period (previously identified as the Late Archaic period) was the period when domesticated plant species were first cultivated in the Greater Southwest. The precise timing of the introduction of cultigens from Mexico is not known, although direct radiocarbon dates on maize indicate it was being cultivated in the Tucson Basin and several other parts of the Southwest by 2100 B.C. (Mabry 2008). By at least 400 B.C., groups were living in substantial agricultural settlements in the floodplain of the Santa Cruz River. Recent archaeological investigations suggest canal irrigation also began sometime during this period.

Several Early Agricultural period sites are known from the Tucson Basin and its vicinity (Diehl 1997; Ezzo and Deaver 1998; Freeman 1998; Gregory 2001; Huckell and Huckell 1984; Huckell et al. 1995; Mabry 1998, 2008; Roth 1989). While there is variability among these sites, probably due to the 2,150 years included in the period, all excavated sites to date contain small, round, or oval semisubterranean pithouses, many with large internal storage pits. At some sites, a larger round structure is also present, which is thought to have been for communal or ritual purposes.

Stylistically distinctive Cienega, Cortaro, and San Pedro type projectile points are common at Early Agricultural sites, as are a range of ground stone and flaked stone tools, ornaments, and shell jewelry (Diehl 1997; Mabry 1998). The fact that shell and some of the material used for stone tools and ornaments were not locally available in the Tucson area suggests trade networks were operating. Agriculture, particularly the cultivation of corn, was important in the diet and increased in importance through time. However, gathered wild plants, such as tansy mustard and amaranth seeds, mesquite seeds and pods, and agave hearts, were also frequently used resources. As in the preceding Archaic period, the hunting of animals such as deer, cottontail rabbits,

and jackrabbits, continued to provide an important source of protein.

Early Ceramic Period (A.D. 50-500)

Although ceramic artifacts, including figurines and crude pottery, were first produced in the Tucson Basin during the Early Agricultural period (Heidke and Ferg 2001; Heidke et al. 1998), the widespread use of ceramic containers marks the transition to the Early Ceramic period (Huckell 1993). Undecorated plain ware pottery was widely used in the Tucson Basin by about A.D. 50, marking the start of the Early Agua Caliente phase (A.D. 50-350).

Architectural features became more formalized and substantial during the Early Ceramic period, representing a greater investment of effort in construction, and perhaps, more permanent settlement. A number of pithouse styles were present, including small, round, and basin-shaped houses, as well as slightly larger subrectangular structures. As during the Early Agricultural period, a class of significantly larger structures may have functioned in a communal or ritual manner.

Reliance on agricultural crops continued to increase, and a wide variety of cultigens, including maize, beans, squash, cotton, and agave, were an integral part of the subsistence economy. Populations grew as farmers expanded their crop production to floodplain land near permanently flowing streams, and canal irrigation systems are also assumed to have expanded. Evidence from archaeological excavations indicates that trade in shell, turquoise, obsidian, and other materials intensified and that new trade networks developed.

Hohokam Sequence (A.D. 500-1450)

The Hohokam tradition developed in the deserts of central and southern Arizona sometime around A.D. 500, and it is characterized by the introduction of red ware and decorated ceramics: red-on-buff wares in the Phoenix Basin and red-on-brown wares in the Tucson Basin (Doyel 1991; Wallace et al. 1995). Red ware pottery was introduced to the ceramic assemblage during the Tortolita phase (A.D. 500-700). The addition of a number of new vessel forms suggests that, by this time, ceramics were utilized for a multitude of purposes.

Through time, Hohokam artisans embellished their pottery with highly distinctive geometric figures and life forms such as birds, humans, and reptiles. The Hohokam diverged from the preceding periods in a number of other important ways: (1) pithouses were clustered into formalized courtyard groups, which, in turn, were organized into larger village segments, each with their own roasting area

and cemetery; (2) new burial practices appeared (cremation instead of inhumation), in conjunction with special artifacts associated with death rituals; (3) canal irrigation systems were expanded and, particularly in the Phoenix Basin, represented huge investments of organized labor and time; and (4) large communal or ritual features, such as ballcourts and platform mounds, were constructed at many village sites.

The Hohokam sequence is divided into the pre-Classic (A.D. 500-1150) and Classic (A.D. 1150-1450). At the start of the pre-Classic, small pithouse hamlets and villages were clustered around the Santa Cruz River. However, beginning about A.D. 750, large, nucleated villages were established along the river or its major tributaries, with smaller settlements in outlying areas serving as seasonal camps for functionally specific tasks such as hunting, gathering, or limited agriculture (Doelle and Wallace 1991). At this time, large, basin-shaped features with earthen embankments, called ballcourts, were constructed at a number of the riverine villages. Although the exact function of these features is unknown, they probably served as arenas for playing a type of ball game, as well as places for holding religious ceremonies and for bringing different groups together for trade and other communal purposes (Wilcox 1991; Wilcox and Sternberg 1983).

Between A.D. 950 and 1150, Hohokam settlement in the Tucson area became even more dispersed, with people utilizing the extensive bajada zone as well as the valley floor (Doelle and Wallace 1986). An increase in population is apparent, and both functionally specific seasonal sites, as well as more permanent habitations, were now situated away from the river; however, the largest sites were still on the terraces just above the Santa Cruz. There is strong archaeological evidence for increasing specialization in ceramic manufacture at this time, with some village sites producing decorated red-on-brown ceramics for trade throughout the Tucson area (Harry 1995; Heidke 1988, 1996; Huntington 1986).

The Classic period is marked by dramatic changes in settlement patterns and possibly in social organization. Aboveground adobe compound architecture appeared for the first time, supplementing, but not replacing, the traditional semisubterranean pithouse architecture (Haury 1928; Wallace 1995). Although corn agriculture was still the primary subsistence focus, extremely large Classic period rock-pile field systems associated with the cultivation of agave have been found in both the northern and southern portions of the Tucson Basin (Doelle and Wallace 1991; Fish et al. 1992).

Platform mounds were also constructed at a number of Tucson Basin villages sometime around A.D. 1275-1300 (Gabel 1931). These features are

found throughout southern and central Arizona, and consist of a central structure deliberately filled to support an elevated room upon a platform. The function of the elevated room is unclear; some were undoubtedly used for habitation, whereas others may have been primarily ceremonial. Building a platform mound took organized and directed labor, and the mounds are thought to be symbols of a socially differentiated society (Doelle et al. 1995; Elson 1998; Fish et al. 1992; Gregory 1987). By the time platform mounds were constructed, most smaller sites had been abandoned, and Tucson Basin settlement was largely concentrated at only a half-dozen large, aggregated communities. Recent research suggests that aggregation and abandonment in the Tucson area may be related to an increase in conflict and possibly warfare (Wallace and Doelle 1998). By A.D. 1450, the Hohokam tradition, as presently known, disappeared from the archaeological record.

Protohistoric Period (A.D. 1450-1697)

Little is known of the period from A.D. 1450, when the Hohokam disappeared from view, to A.D. 1697, when Father Kino first traveled to the Tucson Basin (Doelle and Wallace 1990). By that time, the Tohono O'odham people were living in the arid desert regions west of the Santa Cruz River, and groups who lived in the San Pedro and Santa Cruz valleys were known as the Sobaipuri (Doelle and Wallace 1990; Masse 1981). Both groups spoke the O'odham language and, according to historic accounts and archaeological investigations, lived in oval jacal surface dwellings rather than pithouses. One of the larger Sobaipuri communities was located at Bac, where the Spanish Jesuits, and later the Franciscans, constructed the mission of San Xavier del Bac (Huckell 1993; Ravesloot 1987). However, due to the paucity of historic documents and archaeological research, little can be said regarding this inadequately understood period.

Spanish and Mexican Periods (A.D. 1697-1856)

Spanish exploration of southern Arizona began at the end of the seventeenth century A.D. Early Spanish explorers in the Southwest noted the presence of Native Americans living in what is now the Tucson area. These groups comprised the largest concentration of population in southern Arizona (Doelle and Wallace 1990). In 1757, Father Bernard Middendorf arrived in the Tucson area, establishing the first local Spanish presence. Fifteen years later, construction of the San Agustín Mission near a Native American village at the base of A-Mountain was initiated, and by 1773, a church was completed (Dobyns 1976:33).

In 1775, the site for the Tucson Presidio was selected on the eastern margin of the Santa Cruz River floodplain. In 1776, Spanish soldiers from the older presidio at Tubac moved north to Tucson, and construction of defensive and residential structures began. The Tucson Presidio was one of several forts built to counter the threat of Apache raiding groups who had entered the region at about the same time as the Spanish (Thiel et al. 1995; Wilcox 1981). Spanish colonists soon arrived to farm the relatively lush banks of the Santa Cruz River, to mine the surrounding hills, and to graze cattle. Many indigenous settlers were attracted to the area by the availability of Spanish products and the relative safety provided by the presidio. The Spanish and Native American farmers grew corn, wheat, and vegetables, and cultivated fruit orchards. The San Agustín Mission was known for its impressive gardens (Williams 1986).

In 1821, Mexico gained independence from Spain, and Mexican settlers continued farming, ranching, and mining activities in the Tucson Basin. By 1831, the San Agustín Mission had been abandoned (Elson and Doelle 1987; Hard and Doelle 1978), although settlers continued to seek the protection of the presidio walls.

American Period (1856-Present)

Through the 1848 settlement of the Mexican-American War and the 1853 Gadsden Purchase, Mexico ceded much of the Greater Southwest to the United States, establishing the international boundary at its present location. The U.S. Army established its first outpost in Tucson in 1856, and in 1873, founded Fort Lowell at the confluence of the Tanque Verde Creek and Pantano Wash, to guard against continued Apache raiding.

Railroads arrived in Tucson and the surrounding areas in the 1880s, opening the floodgates of Anglo-American settlement. With the surrender of Geronimo in 1886, Apache raiding ended, and settlement in the region boomed. Local industries associated with mining and manufacturing continued to fuel growth, and the railroad supplied the Santa Cruz River Valley with the commodities it could not produce locally. Meanwhile, homesteaders established numerous cattle ranches in outlying areas, bringing additional residents and income to the area (Mabry et al. 1994).

By the turn of the twentieth century, municipal improvements to water and sewer service, and the eventual introduction of electricity, made life in southern Arizona more hospitable. New residences and businesses continued to appear within an ever-widening perimeter around Tucson, and city limits stretched to accommodate the growing population. Tourism, the health industry, and activities centered

around the University of Arizona and Davis-Monthan Air Force Base have contributed significantly to growth and development in the Tucson Basin in the twentieth century (Sonnichsen 1982).

HISTORICAL RESEARCH

The history of the military usage of Fort Lowell has been well documented in many books and articles. In contrast, little archival research has been published on the pre- and post-fort occupation of the Fort Lowell area. Previous accounts provide scant details and rely on oral histories, some of which may not be completely accurate.

Research was conducted at the Arizona Historical Society in Tucson, the Fort Lowell branch museum of the Arizona Historical Society, the Special Collections of the University of Arizona, the Pima County Public Library, the National Archives in Washington, D.C., and several newspaper databases available on the internet (<NewspaperArchives.com> and <GenealogyBank.com>). Names are spelled as they appear in respective documents, and spelling often differs (for example, Donaldson vs. Donaldsen).

Camp Lowell and Fort Lowell

A military post was initially established by the U.S. Army in the downtown portion of Tucson in 1856, following the departure of the Mexican military in March of that year. The post was not permanent, and the soldiers occasionally left the community unprotected when, for example, they were stationed elsewhere, or when the Confederate Army took control of the village for a few months in 1862 (Peterson 1976).

On 29 August 1866, the military post at Tucson was made permanent, with the post officially named Camp Lowell on 11 September 1866 (Peterson 1976; Post Returns, NARA microfilm 63, roll 942). The camp was located south of modern-day Broadway Boulevard, and remained at that location until 1873. It served as a supply depot for other camps in Arizona until 1871. Soldiers occasionally left the fort to patrol or to pursue Apaches (Peterson 1976).

For various reasons, such as the need for expansion, poor living conditions (soldiers bunked in tents), the prevalence of malaria in the Santa Cruz River environs, and civilian complaints about drunken soldiers, commanders recommended that the camp be relocated near the Rillito, at a point along the creek approximately 9.5 km northeast of Tucson. On 10 March 1873, the decision to move the camp reached Tucson, and near the end of March

1873, the troops were relocated, initially living in canvas tents (Peterson 1976).

Construction of permanent buildings soon began. Contracts for the production of adobe bricks were assigned to the lowest bidder. In October 1873, Lord & Williams won, with a bid of \$30.60 per 1,000 bricks "in the wall" (*Arizona Citizen* 1873a). Work was well underway in September 1873, when it was reported that:

We were out at Camp Lowell Wednesday and found about forty men, citizens and soldiers, employed putting a roof on the commanding officer's building and the guard-house. These buildings are well constructed as far as they have gone. Gen. Carr and Maj. Furey are much embarrassed in prosecuting the work, by not having any means to work with. They have not even transportation and of course until they are better supplied, but little progress can be hoped for. In exploring the country a few days since for the purpose of laying off a military reserve, they discovered a few miles north of the post a beautiful little lake of pure water, filled with fish" (*Arizona Citizen* 1873b).

The project area was mapped by the Surveyor General's Office (later, the Government Land Office), and a map was completed on 31 December 1873 (Figure 5). At that time, the northeast quarter of Section 35 had some trees, a house near the northwestern corner, and a small canal running off Rillito Creek (or perhaps a road, the map is not clear). The commanding officer's building at Camp Lowell is depicted on the map, suggesting it was completed by that time.

Work paused in 1874, when construction funds were withheld. Soldiers were also out following raiding Apaches. In December, the commander of the fort went to Prescott, and his complaints led to the provision of funding to complete the fort (Peterson 1976:8-9). Initial construction continued into 1875.

Building Camp Lowell

The building of this camp has been in slow progress for about two years. We learn that only about \$19,000 have been expended so far in the work, and that it will require \$10,000 more to complete the post in proper shape. We are pleased to learn by this dispatch of the present advancement of the work.

CAMP LOWELL, June 22. - The construction of Camp Lowell is now nearly completed. In all, there are seven sets of officers quarters, two sets of quarters for infantry and one for cavalry companies, and one for regimental band, besides suitable and well built offices for the post adjutant and quartermaster, also guard house, store-houses, corrals, etc. Considering the limited means for its construc-

tion and the lack of their seasonable availability, the post has been well and cheaply built, and is now among the best of the Territory... (*Arizona Citizen* 1875a).

In August it was reported that:

Col. John N. Andrews, Eighth Infantry, showed us around during our short stay, and we were surprised to see the many good buildings, and the air of comfort on every hand...The quarters of the officers and men are substantially finished, although much is to be done in the way of putting the grounds around including the parade ground, in nice order... (*Arizona Citizen* 1875b).

At completion, the fort was centered around a large parade ground with a flagstaff in its center southern side. The seven officers' quarters were located along the southern edge, with a double row of cottonwood trees along their front, known as Officer's Row. In April 1885, it was reported that the officers' quarters were shaded and screened by "a beautiful paling of living ocotillos" (Mearns 1907:109). The commanding officer's quarters was in the center, with three officers' quarters on each side. Adobe walls enclosed the backyards of each of the houses, and a picket fence framed their front (Peterson 1976:13). A map drafted in 1876 shows the layout of the post (Figure 6). A clearer version was re-drawn for publication in 1976 (Figure 7), although some errors were introduced in this version.

On the western side of the parade ground were the adjutant's office, bake house, guardhouse, quartermaster and commissary offices, and the post trader's store. The quartermaster and commissary's warehouse, quartermaster corral, blacksmith shop, cavalry band headquarters, cavalry company quarters, infantry company quarters, three company kitchens, cavalry corral, and at least two privies were on the northern side of the parade ground. The infantry company quarters, a kitchen, a privy, the hospital and its kitchen, and at least eight married non-commissioned officers' quarters were on the eastern side of the parade ground (Peterson 1976). A telegraph office was also present, but is not depicted on the 1876 map (AHS photo 12880). Additional wooden structures, barracks, sheds, and equipment buildings, were constructed in the mid-1880s, when the fort was at full capacity (Peterson 1976:15). Two additional non-commissioned officers' quarters were built along the eastern side of Officer's Row in the late 1880s.

The original buildings at the fort had adobe brick walls. Pine beams brought from the Santa Catalina Mountains were laid across the tops of the walls. Over these beams, saguaro ribs were positioned, and earth was packed on top. During the rainy seasons

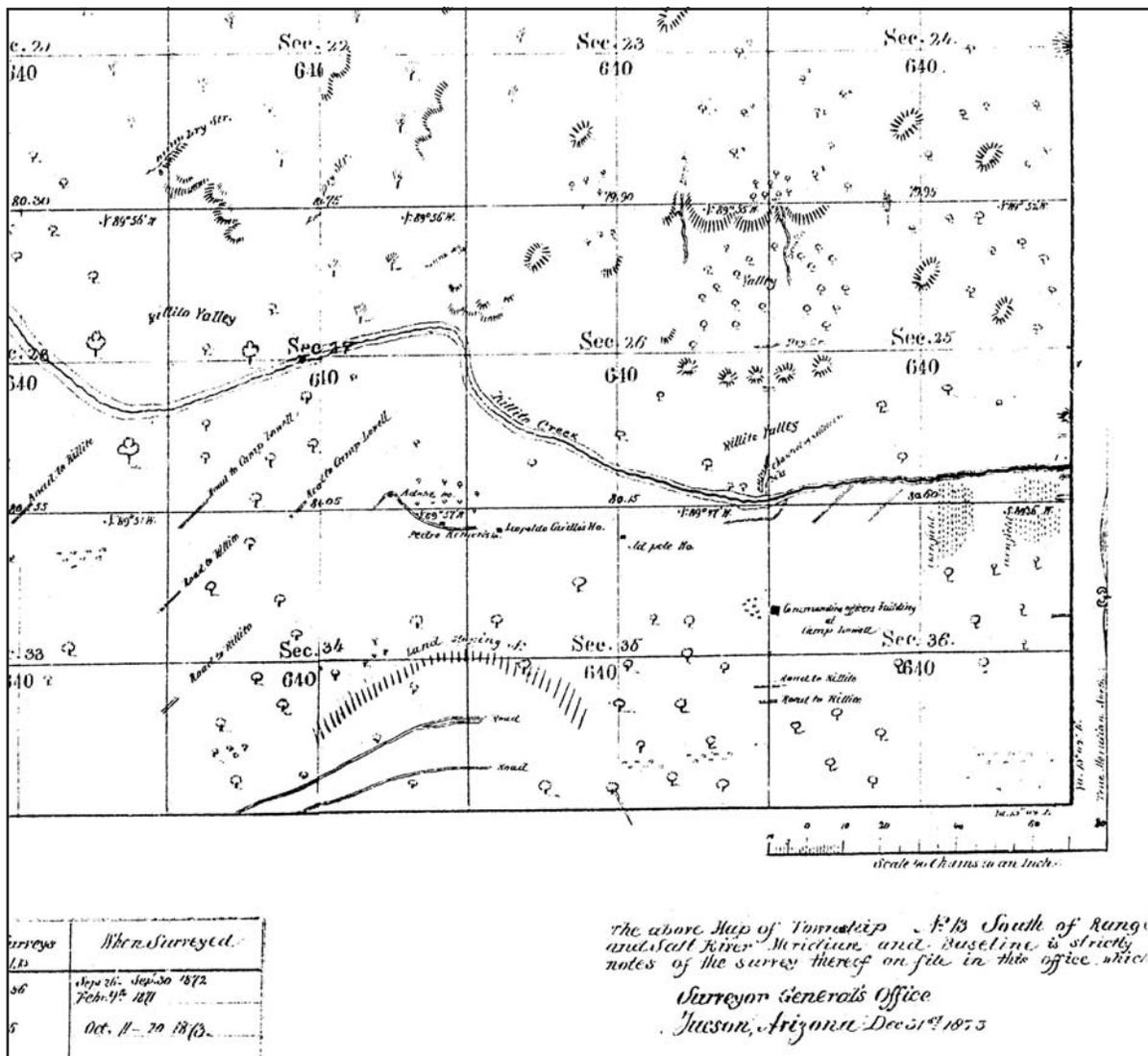


Figure 5. A portion of the Surveyor General's Office map completed in 1873, including Sections 35 and 36 of Township 13 South, Range 14 East, the location of historic Fort Lowell.

of 1876, 1877, and 1878 the roofs leaked, and earth and mud fell into the rooms (Weaver 1947:73). Tin roofs were not installed until sometime after mid-1879. Porches and screen doors were added in 1882; the milled lumber and other materials required were easier to transport after the 1880 railroad arrival in Tucson. Overall, little money was spent for maintenance, repair, and new construction at the fort (Peterson 1976:10).

An average of 10 officers and 140 enlisted men were stationed at Fort Lowell, with the number of men increasing in 1883, from one company to three companies, due to the increased military efforts against the Apache (Schuler 2000; Weaver 1947:76). The highest number of officers stationed at one time at the fort was 18. There was usually more than one officer living in each of the seven officers' quarters

at the post. The number of rooms allotted varied by rank, with a lieutenant receiving one room, a captain two rooms, a major three rooms, and a colonel four rooms (David Faust, personal communication 2007). Enlisted men lived in barracks along the northern side of the parade ground. Despite the physical separation of Tucson and the post, soldiers and civilians frequently traveled between the two, often participating in social and sporting events.

During the 1870s and 1880s, the post was a supply depot for other camps and forts in Arizona. The Fort Lowell military reservation was increased in size in the early 1880s, to ensure a good supply of water. Seventeen ranches were expropriated by the government, with the owners complaining they were not fully compensated. During this process, three maps were prepared by fort employees, show-

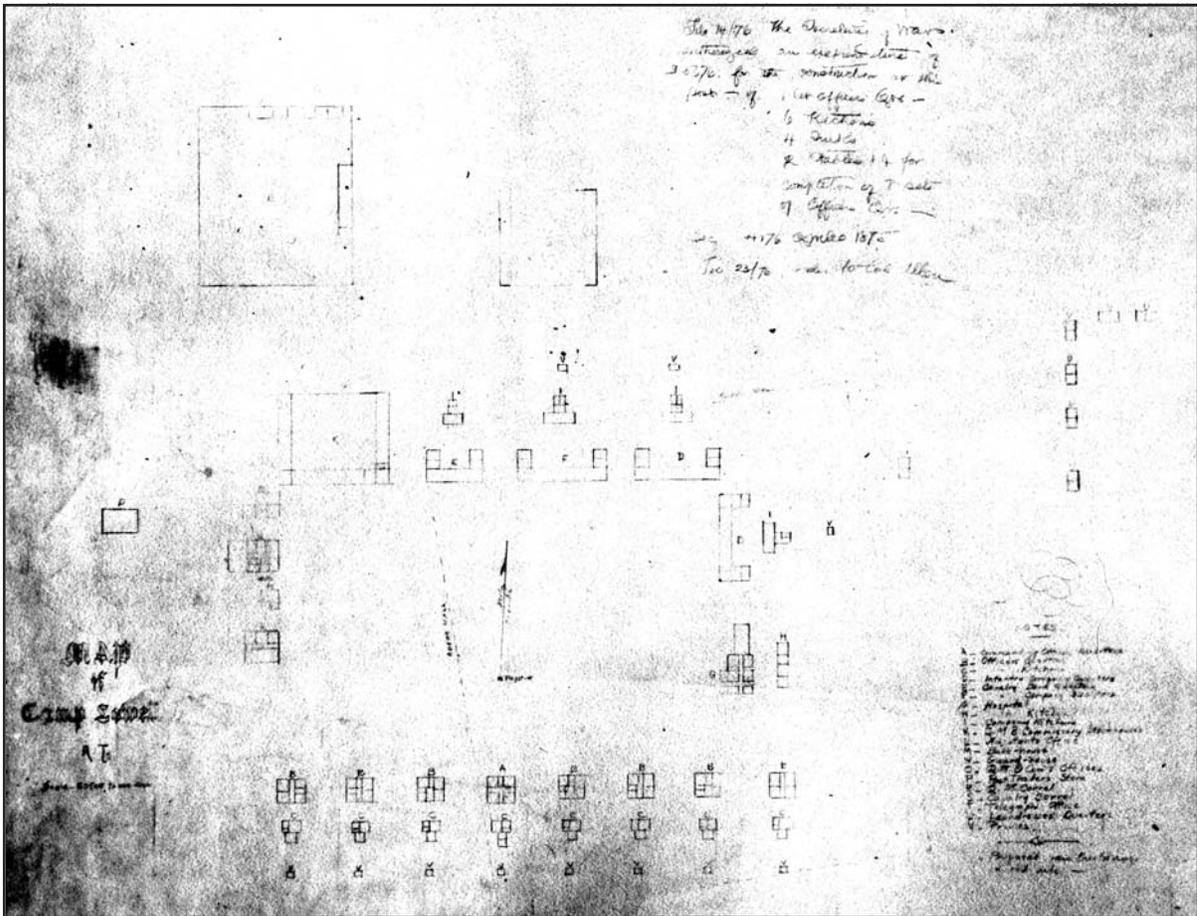


Figure 6. The 1876 map of Fort Lowell (AHS/SAD 12880).

ing the location of ranches and water sources (Figures 8-10) (NARA Record Group 49, Division K, Boxes 13 and 14).

Many of the people living on the reservation refused to leave. A list prepared in June 1887 contains 56 household, with a total of 55 men, 58 woman, and 157 children. The majority were Mexican-Americans, but a few Euro-Americans, an African-American woman, and several Chinese men were counted (NARA Record Group 49, Division K, Box 14).

Soldiers at the post participated in sorties against hostile Native Americans, most commonly, various groups of Apaches. Camp Lowell officially became Fort Lowell in 1879. The mid-1880s saw the final subjugation of the Apaches, with the surrender of Geronimo in 1886. As Apache issues decreased in the next few years, the U.S. Army shifted its focus to efforts along the U.S.-Mexico border. It became increasingly apparent that the number of military posts in Arizona could be reduced. The decision was made to abandon Fort Lowell, and, on 14 February 1891, the last soldiers left the fort. In April 1891, the fort was transferred to the Department of the Interior to be sold as surplus property (Peterson 1976:14-17).

Fort Lowell Buildings and Structures

Fort Lowell was arranged around a central parade ground. Dozens of buildings and structures were present (28 are listed in the 1887 and 1888 inspection reports and 33 in the 1889 report). Those buildings within the modern-day Fort Lowell-Adkins Steel Property (the guardhouse, bakery, adjutant's office, and Officers' Quarters 1 through 3, with their respective kitchens and privies) have previously been examined (Thiel et al. 2008). The remaining buildings and structures are briefly summarized here. Unless noted, the information is from a set of inspection reports for 1879, 1882, 1883, 1884, 1886, 1887, 1888, and 1889, in addition to other documents requesting repairs (Fort Lowell collection, MS 266, Folders 1 through 4, AHS/SAD).

Hospital

The hospital stood on the eastern side of the parade ground, and its ruins stand today beneath a roofed shelter, originally built in the 1950s by the Boy Scouts.

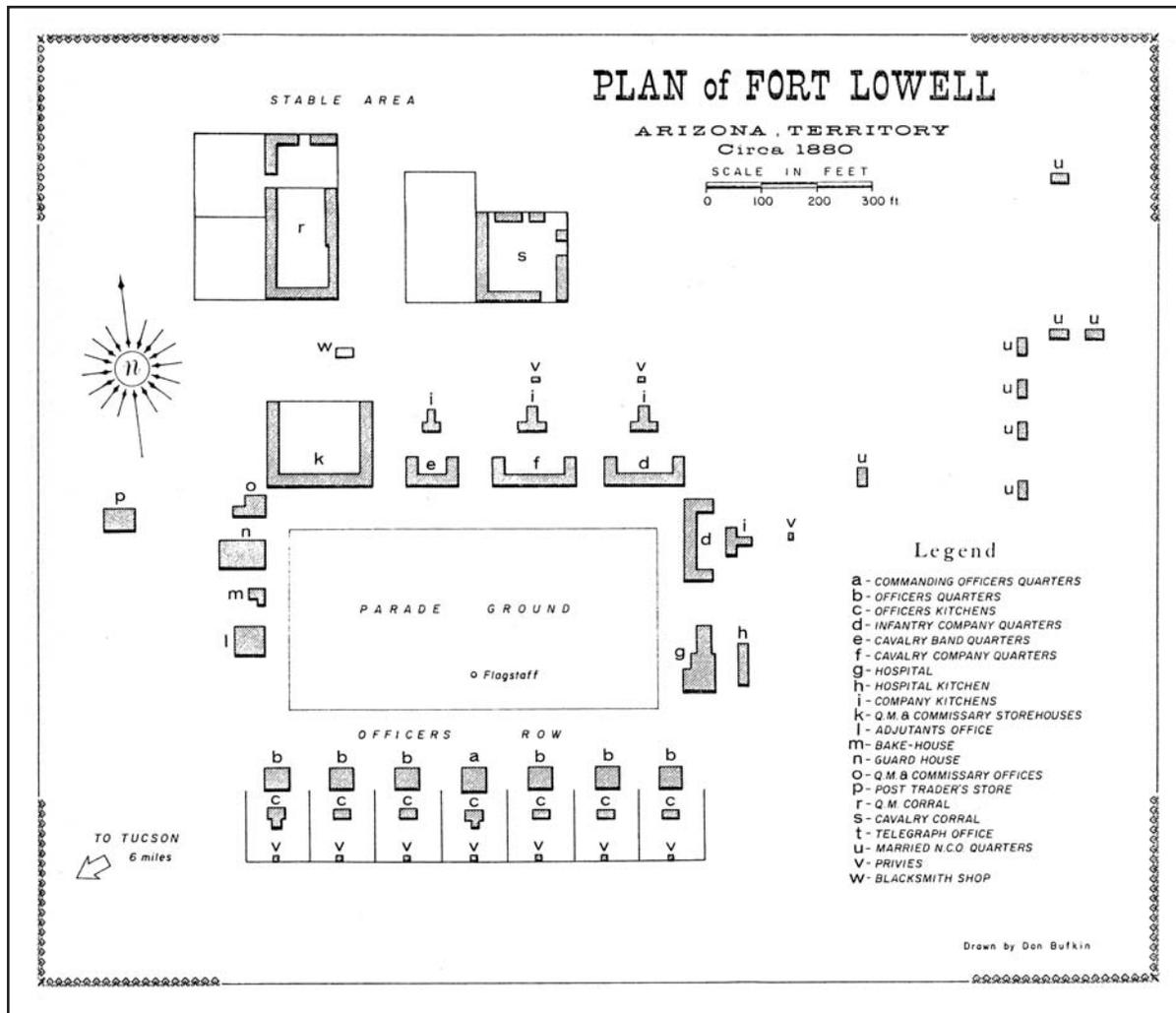


Figure 7. The 1876 map of Fort Lowell, redrawn by Don Bufkin (Peterson 1976).

The building “is essentially the regulation plan published in Circulars No. 2 S.G.O. July 27, 1871, modified to a certain extent” (Fort Lowell collection, MS 266, folder 1, AHS/SAD). It was not complete in March 1875, and it was reported that

the Patients are crowded in three rooms fifteen feet square each, and totally unadapted to that purpose... The completion of the ward is therefore almost indispensable for the proper treatment of the sick. The necessity for board floors, Shelving, Counters, &c., in the Hospital is so clear that I need not enlarge upon it” (Fort Lowell collection, MS 266, folder 1, AHS/SAD).

The hospital had 13 rooms, including a kitchen, hall, mess hall, matron’s room, and steward’s room. The building contained 5,600 ft² of floor space. It had adobe walls, which were plastered on the interior. The 1887 inspection report indicates it was about 80 ft by 65 ft, with a 50 ft by 18 ft extension. The hospi-

tal kitchen was located behind the hospital, was 60 ft by 15 ft, and contained four rooms.

An inspection in 1879 noted that the mess hall, matron’s room, and steward’s room needed to be floored and the woodwork required painting. During the previous year, a ramada or verandah had been installed around most of the exterior. Wooden floors had also been put in place in the halls (probably patients’ wards) and the kitchen.

The hospital had a tin roof by 1882. An inspection report noted that ventilators were needed for the main ward.

In 1884, repair of the detached kitchen and mess room were proposed to include replacing the doors and door frames. New cloth ceilings were proposed “in several apartments of the Hospital, where the old ceilings have either given way & been removed, one was torn, stained and unsightly” (“Repairs on Post Hospital,” Fort Lowell collection, MS 266, folder 3, AHS/SAD). It was also recommended that a

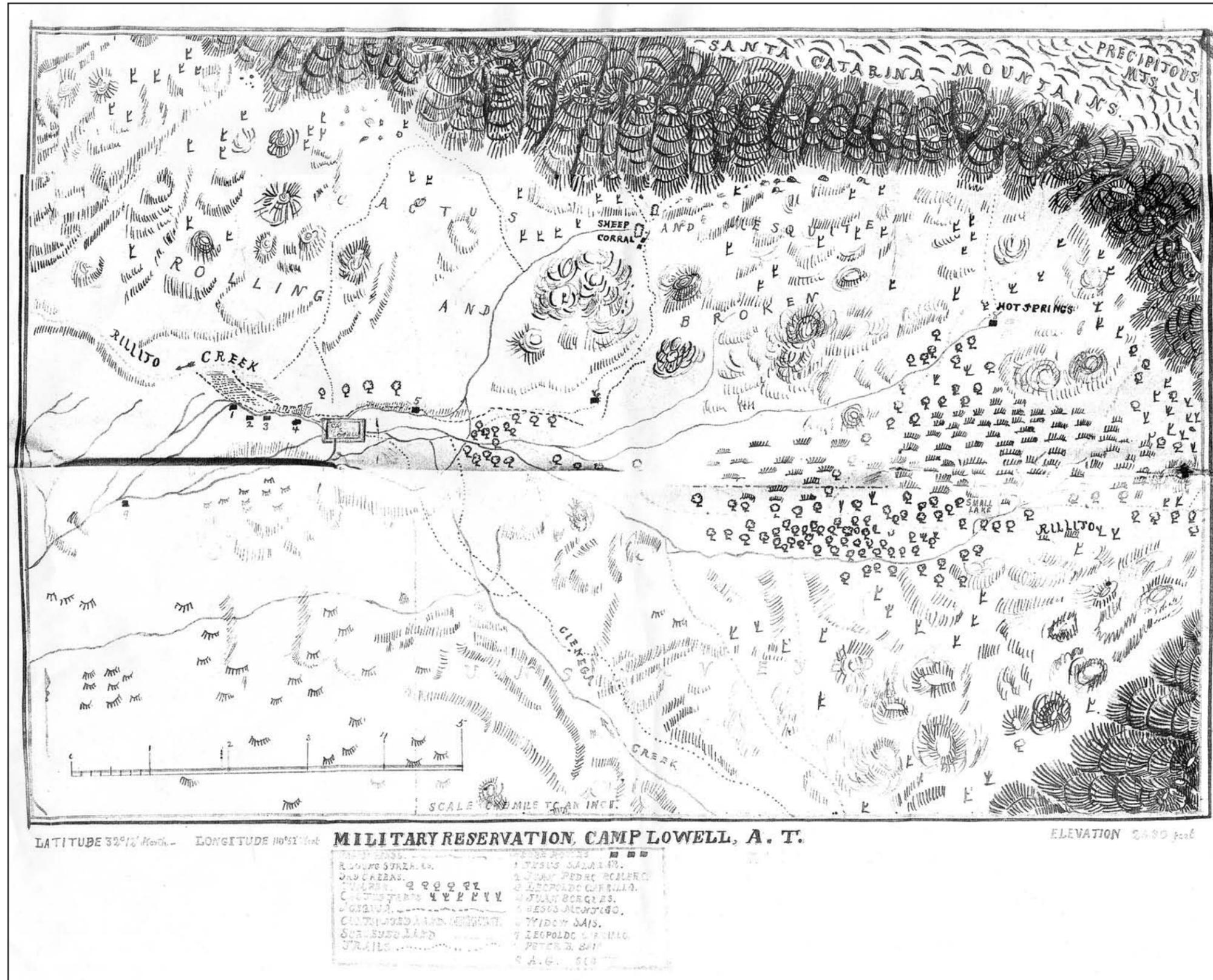


Figure 8. Military Reservation, Camp Lowell, A. T. (circa 1873-1879) (NARA Record Group 49, Division K, Box 14).

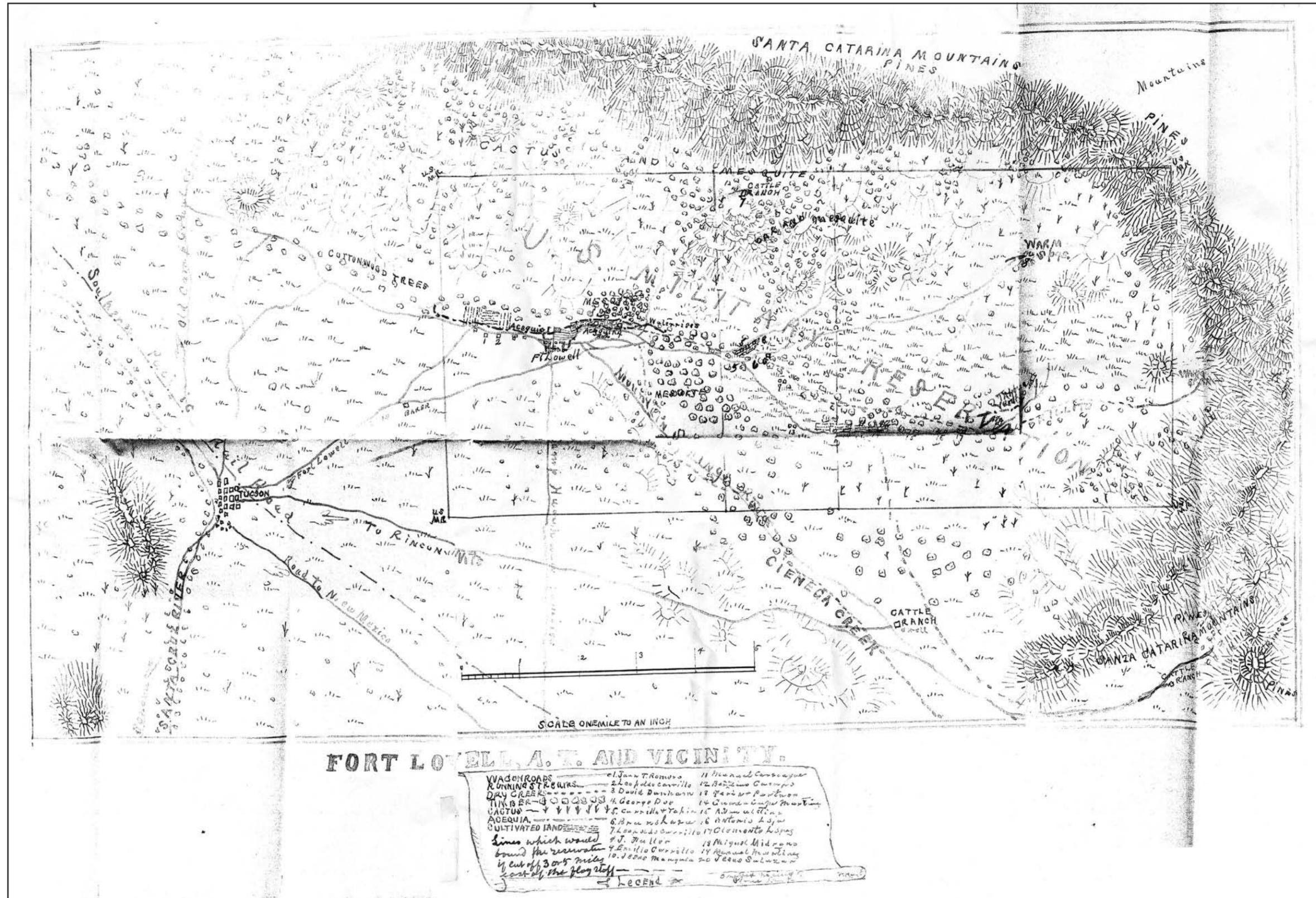


Figure 9. Fort Lowell, A. T. and vicinity (circa 1879-1886) (NARA Record Group 49, Division K, Box 14).

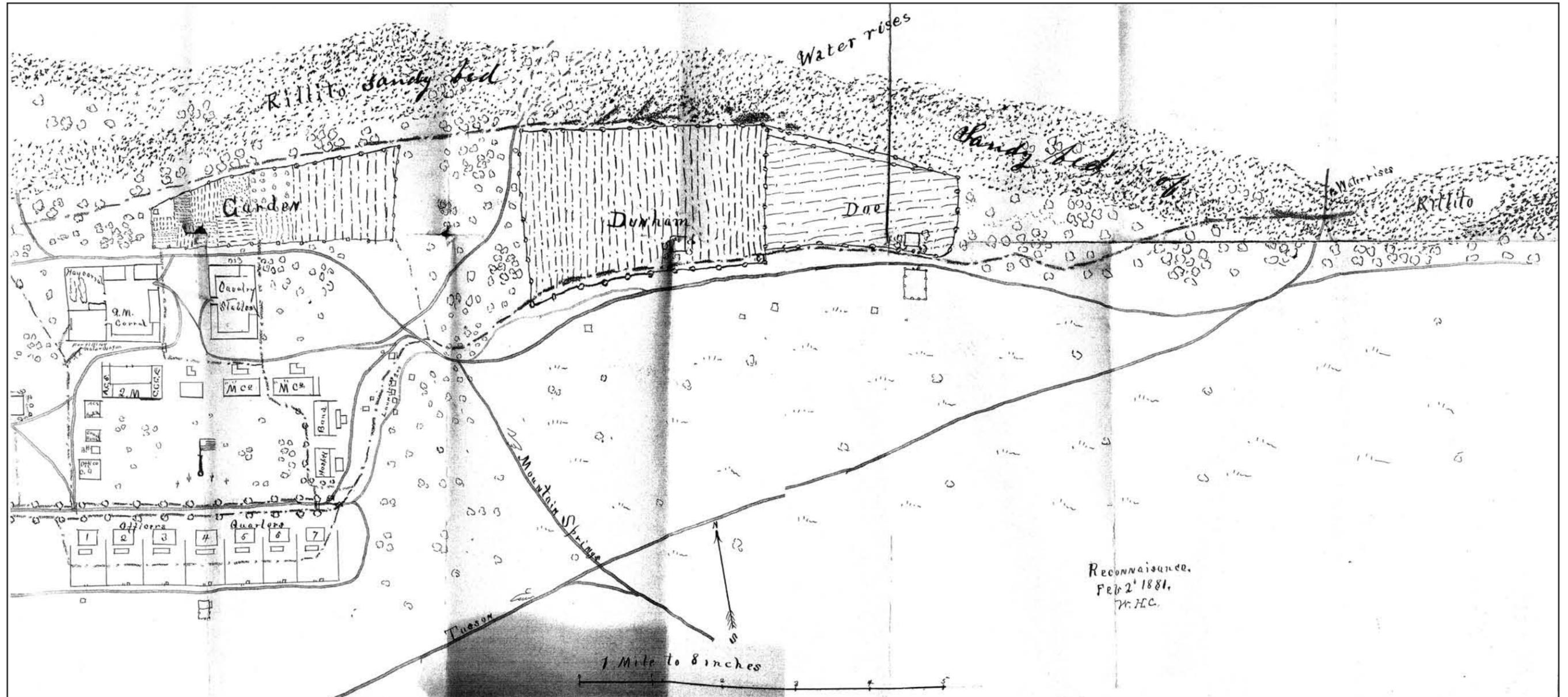


Figure 10. A portion of the map created by "W.H.C." on 2 February 1881 (NARA Record Group 49, Division K, Box 13).

board fence be built around the hospital to reduce traffic and create some privacy for the patients. Of interest was the request for white, yellow, green, and black paint for the hospital buildings.

In 1887, the hospital was described as being in good condition. In 1889, a one-story frame "Dead House" was present next to the hospital.

The hospital was photographed in 1937 and 1940 for the Historic American Buildings Survey (photographs are available <<http://memory.loc.gov>>) (Figure 11). A photograph from December 1937

shows rows of newly made adobe bricks next to the building. These were later used to help stabilize the hospital ruin.

Portions of the hospital walls are still standing, with about half of the structure beneath the metal roof erected by the Boy Scouts in the mid-1950s.

Commandant's House

The Commandant's House (also called Officers' Quarters 4) lay on the southern side of the parade ground and was the first building completed at the fort. Today, any remnants of the structure lie beneath Craycroft Road.

The building had 10 rooms, including a kitchen and storerooms. It had a small cellar, which was an unusual feature, measuring 9 ft by 12 ft. The building had 2,600 ft² of floor space. In 1882, it was reported that the dining room and kitchen lacked wooden floors.

A kitchen and a privy were present behind the house. According to the 1889 inspection report, the separate kitchen had five rooms, including a dining room, pantry, kitchen, and two bedrooms. The privies for officers were "earth closets," according to the 1889 inspection report.

The Commandant's House was partially excavated in 1960 by Al Johnson. He located an interior privy, corner fireplaces, and other architectural details. The associated kitchen had five rooms, and a privy was also found in the backyard (Fort Lowell property and archaeological survey, MS 0265, AHS/SAD).

Officers' Quarters 5, 6, and 7

Officers' Quarters 5, 6, and 7 were located on the eastern side of the Commanding Officer's Quarters,



Figure 11. Photograph of the western side of the hospital taken in December 1937, by Frederick D. Nichols (courtesy Library of Congress).

on the southern side of the parade ground. Today, these lie within Fort Lowell Park and Officers' Quarters 5 lies partially within the footprint of the 1963 reconstructed quarters.

Each quarters contained seven rooms, including a kitchen and hall, and measured about 1,930 ft². An 1887 inspection report described these of the quarters as being 40 ft by 43 ft. An inspection report for July 1879 noted that Officers' Quarters 5 needed flooring in two rooms and that all three needed flooring in their kitchens. At the time, they apparently had tamped earth floors. Some of the quarters had ocotillo screening along the front porch. In 1882, the three officers' quarters still needed flooring in their kitchen. Porches were also requested, and the door and window frames needed re-setting. In 1889, Officers' Quarters 5 housed three officers, Officers' Quarters 6 had two bathrooms and was occupied by one officer, and Officers' Quarters 7 housed the post doctor.

The backyard for each of the officers' quarters contained a two-room summer kitchen/servants quarters. Behind that structure, to the south, was a backyard privy. Adobe walls surrounded the sides and back of the backyard.

Al Johnson completely excavated Officers' Quarters 5 in 1960. He found that a ramada had linked the building with the two-room kitchen. He also excavated the privy, and noted the presence of the backyard wall separating this quarters from its neighbors. Johnson conducted test excavations in Officers' Quarters 7, and excavated the privies for Officers' Quarters 6 and 7. The field notes and maps for this work are housed at the Arizona Historical Society (Fort Lowell property and archaeological survey, MS 0265, AHS/SAD), and the artifacts are curated at ASM.

Officers' Quarters 8 and 9

Two additional officers' quarters were constructed on the eastern side of Officer's Row in the late 1880s, southeast of the parade ground; today, these lie within Fort Lowell Park. Little is known about these structures. They had adobe brick walls that had largely melted away by the 1940s, when an aerial photograph of the fort shows the outlines of the two buildings. In 1960, Alfred Johnson excavated portions of both adobe brick structures. He reported that the two had river rock foundations held together by cement, a detail not seen in the other Fort Lowell buildings. Both buildings had at least four rooms. Officers' Quarters 9 had a pair of corner fireplaces. No privies were located in the backyard of either dwelling (Fort Lowell property and archaeological survey, MS 0265, AHS/SAD).

Soldiers' Quarters

Soldiers' quarters were located on the eastern and northern sides of the parade ground. There were four different quarters, each with a kitchen at the rear and privies behind the kitchen. Today, these are located within Fort Lowell Park, with a portion of the westernmost quarters (once the Regimental Band Quarters) lying beneath the Craycroft Road right-of-way.

The band quarters had one main room, six small rooms (probably for bunks), storerooms, and an interior kitchen. This building totaled 3,600 ft². In 1882, it was used as a quartermaster storehouse. The 1887 report indicates it measured 92 ft by 18 ft, with extensions measuring 31 ft by 17 ft.

The other three quarters contained one main room, eight smaller rooms, a kitchen, and storerooms. Each was approximately 4,800 ft². One measured 140 ft by 18 ft, a second 140 ft by 18 ft, and the third 150 ft by 18 ft. Each held a company of soldiers.

In 1879, it was reported that none of these buildings had wooden floors. All were reported to have roofs in bad conditions. The *vigas* were reported to be small round poles instead of sawed timbers. The *vigas* were deteriorating, and the roofs leaked during rainstorms.

In 1882, porches were recommended to be built in front of each of the quarters to provide shade from the sun. The buildings still lacked wooden floors and needed relatively minor repairs, including the installation of cloth *manta* ceilings to keep dirt from the roofs from falling on the soldiers.

In 1883, it was reported that the band quarters had been floored in the previous year. The kitchen for this building had been damaged by rain and had

also been floored. The other quarters had been floored and received ceilings in the last year. The cavalry quarters each had a saddlers room, an orderly room, and a storeroom.

The 1887 inspection report noted the band quarters was in bad condition, one of the soldiers' quarters was in fair condition, and two were in poor condition. All four were reported to need plastered ceilings and new flooring at that time. The 1889 inspection report noted that the soldiers' privies were "pits dug in the ground." That report also noted that one of the quarters had the following rooms: 1st sergeants room, storeroom, barracks, billiards room, barber shop, library, and bathroom. The increase in the number of soldiers stationed at the fort in 1889 led to great crowding: "cavalry barracks are too small & narrow for this purpose there being barely sufficient space to pass between the bunks" (1889 Inspection Report, MS 266, AMS).

Fragments of the band quarters, one of the cavalry quarters, and a cavalry quarters kitchen are present within the modern Fort Lowell Park, enclosed within a chain-link fence. All of these are in poor condition and are exposed to the elements, contributing to the erosion of the remaining adobe walls.

Quartermaster and Commissary Office

The quartermaster and commissary office lay along the northwestern side of the parade ground. Today, it is within the Quartermaster and Commissary Storehouse Property, with perhaps a portion lying within the right-of-way of East Fort Lowell Road.

The office had five rooms and a total of 1,770 ft² of space. This structure had adobe walls and a flat roof constructed of wood *vigas* covered with *latillas* and then packed earth.

In 1879, the building was described as being in good condition, but needing flooring and a coat of paint on the woodwork. Flooring was still not present in 1882, and the building's tin roof was reported to be in good condition. In 1883, the building was used as quarters for the sergeant major and quartermaster sergeant 6th Cavalry, and as a non-commissioned staff mess. In 1884, the building was in good order and had recently had a *portico*, or porch, built on its eastern, southern, and western sides.

Quartermaster and Commissary Storehouse

The quartermaster and commissary storehouse stood at the northwestern side of the parade ground. Today, portions of the storehouse are incorporated into apartments created by members of the Bolsius family in the 1940s.

The building contained six rooms and 6,000 ft². It was used to store provisions, ammunition, and other goods. The front of the building measured about 240 ft by 18 ft, with extensions running to the north measuring 100 ft by 18 ft.

In 1879, it was noted that roofing of the building leaked “considerably during rainy weather” and that 80 “new vegas” were needed to repair this problem (1879 Inspection Report, MS 266, AMS). The commissary issue room, which measured 35 ft by 18 ft, had received a wooden floor in the previous year, and other rooms remained unfloored. One wing of the storehouse had a cellar that was 18 ft wide by 63 ft long. This was used by the Subsistence Department to store food. Today, the cellar is visible as a partially filled depression with portions of its rock walls still visible.

In 1882, the tin roof for this building was reported to be in bad repair. It was also recommended that a cloth *manta* ceiling be installed in the commissary rooms. In 1883, new window sashes were required in some of the storerooms and issue rooms. The storerooms had been floored in the previous year.

The 1887 inspection report noted that the ceilings needed to be plastered but that the building was in fair condition. The 1889 inspection noted that the building had four quartermaster storerooms, two rooms used by the ordinance officer, and two rooms and a cellar used for storage and issue by the Subsistence Department. A storage yard with 15-ft-tall adobe walls was present behind the building.

Ordinance Storerooms

The ordinance storerooms are not depicted on the 1876 map. In 1887, it was reported to measure 28 ft by 30 ft and in bad condition, needing floors, lathing, and plastering. These may actually be part of the quartermaster and commissary storehouse complex.

Quartermaster and Commissary Corral

The quartermaster and commissary corral was located north of the quartermaster and commissary storehouse. Today, these lie on the Quartermaster and Commissary Storehouse Property and the privately owned property to the north.

The corral consisted of three separate parts. One, measuring 295 ft by 163 ft (the 1887 inspection says 300 ft by 170 ft), contained 302 linear feet of shed roofing that was 16 ft wide and used for protection of animals and vehicles from the sun. The shops, grain storehouse, and employee rooms were located within this area. The second part was a hay yard measuring 172 ft by 130 ft. The third part of the corral contained watering troughs and measured 120 ft by

123 ft. This latter enclosure was used for “loose stock.” All the corrals had 8-ft-high walls, which were reported to be in fair condition in 1879. The shed roofing was in need of repair in 1882. These corrals were used by K Troop of the 6th Cavalry in 1883. The inspector for that year requested new gates for the corral and hayyard, as well as a water pipe to bring water to the corral from a nearby *acequia*. The dirt roofs of the stables were in poor condition in 1884, and a new wagon shed was needed. In 1887, it was still in fair condition, with a suggestion that additional stalls be built. In 1889, the corral was described as having adobe walls and frame sheds for stalls that were covered with shingles. Three adobe rooms were present, a sleeping room, a grain room, and a harness room.

Grain House

The grain house does not appear on the 1876 map of the fort. It likely lay along the northern or western side of the parade ground. The building had one room and contained 1,800 ft² of space. In 1879, the building was described as having adobe walls, a roof that did not leak much, and no wooden floors. The 1882 inspection report indicates the building still lacked flooring. A new floor was being added in 1884. In 1889, the building was described as 18 ft by 99 ft.

Shops and Employees Rooms

This building appears on the 1879 inspection report but is not on the 1876 map. It is reported to have four rooms, totaling 3,000 ft². In 1879, the roof was reported to be leaking badly. It lacked wooden floors, and the adobe walls were reported to be in good condition. One of the employee rooms lacked flooring in 1882, and the roof had been repaired in the previous year, although it was “liable to leak.”

Cavalry Corrals

The cavalry corrals were located on the northern side of the parade ground, north of the soldiers’ quarters. The corrals are located on present-day Donaldson/Hardy Property. These corrals were 159 ft by 158 ft, with 8-ft-tall adobe walls. The inside of the corral contained 300 linear feet of roofing that extended 18 ft from the wall. These served as protection from the sun for horses and mules. In 1883, the inspector noted the need for new water troughs and some pipe, probably to carry water from a nearby *acequia* to the corral. In 1884, some of the horses were reported to lack shelter. In 1887, two separate corrals were present, one measuring 145 ft by 108 ft and the other 170 ft by 170 ft, both described as being in bad condition.

The 1889 inspection report indicates there were three separate corrals. All had adobe walls and frame sheds for stalls. One corral had three adobe rooms: one for sleeping, a grain room, and a saddle room. This corral had a capacity of 66 animals. The second corral had four adobe rooms: a sleeping room, saddle shop, grain room, and saddle room, with a capacity of 50 animals. The third corral had five rooms: a saddle room, two sleeping rooms, a farrier's room, and a grain room. This corral had a capacity of 74 animals.

A portion of the southern wall of the corrals is standing today, and is covered by a roof installed in the 1990s.

Laundresses/Non-commissioned Quarters

Eight small houses were present northeast of the parade ground. Today these are located within Fort Lowell Park. One is apparently at the location of the small pond, and any subsurface remains are almost certainly destroyed.

Seven are depicted on the 1876 map as "laundresses quarters," and they are called the same in the 1882 inspection report. In that year, there were eight 2-room quarters, each with 420 ft² of floor space. The roofs were not covered with tin, and were reported to be leaking and "needing continued repairs."

By 1887, these were being used by non-commissioned staff, civilian employees, and married soldiers. Six were 28 ft by 30 ft, and one was 45 ft by 60 ft. The 1887 report indicates they ranged in condition from good to bad, with some needing extension work, such as new flooring, doors, locks, painting, and window glass. In 1889, all eight were used as quarters for married enlisted men.

Library and Schoolhouse

The library and schoolhouse is not depicted on the 1876 map, but was noted as being a necessary addition in the 1883 inspection report. It is listed on the 1887 inspection report as 20 ft by 30 ft, and in fair condition.

Blacksmith/Carpenter Shop

The blacksmith or carpenter shop (it is uncertain if these are actually the same building) was located between the quartermaster and commissary storehouse and the corrals. The 1887 inspection report, in which it is called the "carpenter shop," states that it was 70 ft by 20 ft and in bad condition, needing floors, new windows, and new doors. In 1888, the carpenter's shop was noted to have a foundation damaged by recent floods "so that it is in a dangerous condition and beyond repair." In 1889, it was described as

having five rooms: a sleeping room, carriage room, blacksmith shop, carpenter and wheelwright shop, and paint room. A new corrugated iron roof was scheduled to be installed soon after.

Pump House

This two-room building was constructed in 1888. The building was 23 ft 6 inches wide by (apparently) 40 ft 6 inches long. It contained an engine room, an ice machine, and a cover for a well.

Tank House

The 1889 report described a 57-ft-tall tank tower with a 14 ft 6 inches by 24 ft base. It held three iron tanks with a combined capacity of 17,800 gallons of water. It was built in 1888.

Other Water Supply Features

When constructed, the fort relied on wells and *acequias* for water. One well was situated next to the bake house. *Acequias* ran south from the Rillito, and one was present along Officer's Row. In 1880, it was reported that

The quality of the principal water supply of this Post, is very bad. The main *Acequia*, whose branches are distributed through the garrison, passes through Cattle ranches, and by houses inhabited by the lower classes of Mexicans, who do their washing, more Mexicans, while sitting on its banks. Slops are thrown into it, Cattle stand in it and hogs revel in its mud (Fort Lowell collection, MS 266, folder 2, AHS/SAD).

In 1885, it was noted that drinking water was obtained from two shallow wells (32 ft and 36 ft deep) and irrigation and bathing water from several *acequias*. The Assistant Surgeon, William Hopknit, had examined the well water under a microscope and noted the presence of "vegetable matter." The drinking water was boiled, but occasionally it was unusable (Fort Lowell collection, MS 266, folders 1 and 3, AHS/SAD). The following year, it was noted that the windmills were unable to provide sufficient water ("Fort Lowell Drinking Water," Fort Lowell collection, MS 266, folder 3, AHS/SAD). An undated, but probably circa 1885, map of the water supply indicates the location of windmills at the fort (Figure 12).

The Fort Lowell Reservation was enlarged in 1886 to provide an adequate supply of water. In 1889, it was reported that

...water is pumped from a well sixty (60) feet deep into iron tanks, and distributed through the garrison

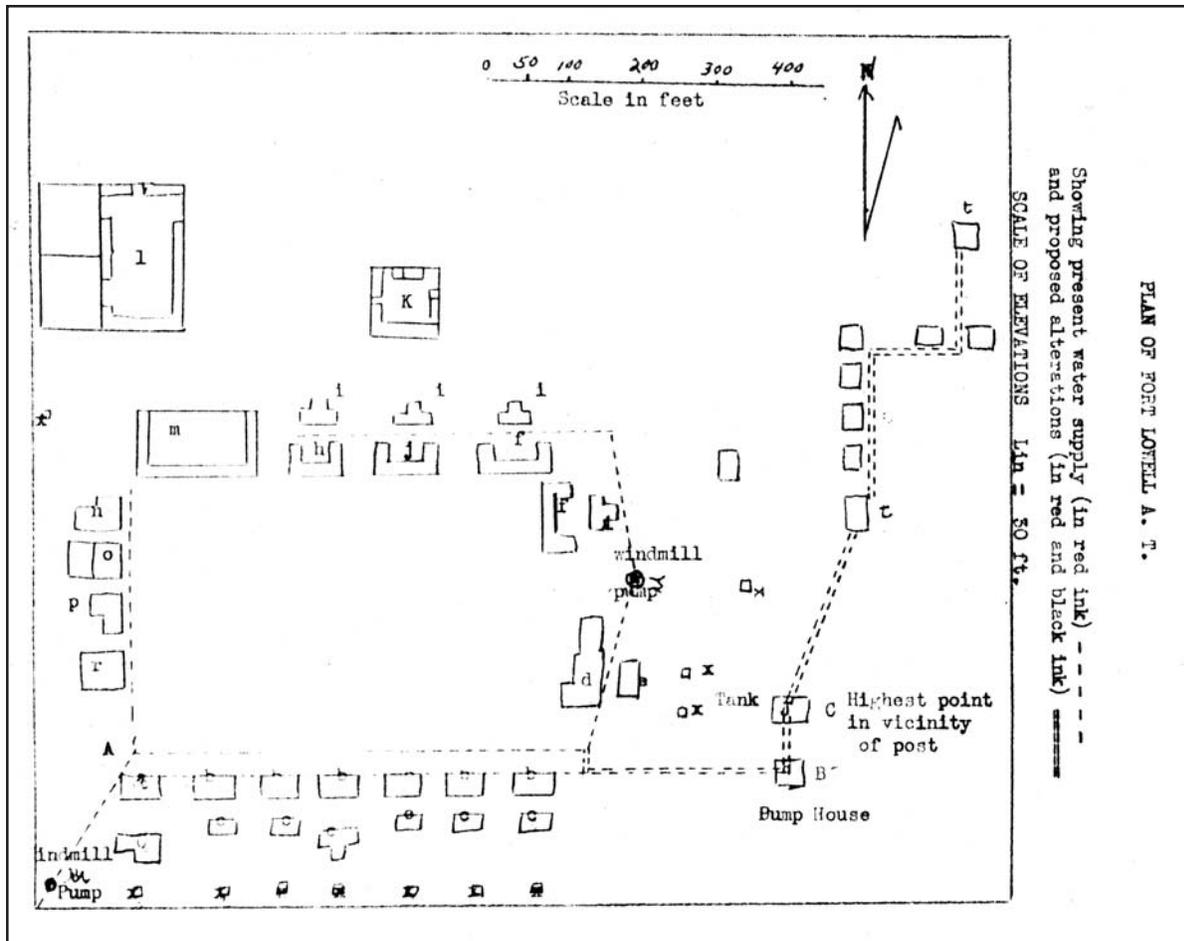


Figure 12. Plan of Fort Lowell, A. T., showing present water supply; the map appears to have been redrawn from the original (Fort Lowell collection, MS 255, folder 1, AHS/SAD).

by one and one half (1½) inch galv iron pipes, with one (1) inch and three quarter (¾) inch laterals. The well at present is supplying abundance of water for the garrison, the water for the corrals bath rooms of the enlisted men is taken from the acequia, when the supply in the well is not sufficient, the pipe is laid underground at a depth of from 4 to 6 inches. The sewerage [sic] system is for the purpose of carrying off water from kitchens and bath rooms, it consists of 4 and 6 inch terra cotta pipe laid from six (6) to eight (8) inches under ground, the sewer empties into the acequia a short distance before latter empties into the Rillito (Inspection Report 1889, Fort Lowell collection, MS 266, folder 4, AHS/SAD).

Fort Lowell in the 1890s

The removal of soldiers from the fort probably led to the systematic salvaging of furniture, ordnance, and other useful items by the U.S. military. Some of the building materials were apparently stripped from structures and taken to Fort Yuma for

reuse (David Faust, personal communication 2007). Immediately after the abandonment, various individuals made claims for land taken by the government in 1886 to enlarge the military reservation. Among these were Mary A. Miller, the widow of Edwin Miller, who had purchased the land from William Kirkland in the early 1870s, and the heirs of J. P. Fuller, who had purchased Agua Caliente in 1873 (NARA Record Group 49, Division K, Boxes 13 and 14).

A caretaker, W. C. Dunn, was appointed to watch over the abandoned fort, apparently in 1892. Dunn was a former soldier in Company B of the 3rd U.S. Cavalry and had been wounded in the recently concluded Indian wars (NARA Record Group 49, Division K, Boxes 13 and 14; William C. Dunn Civil War Pension Index, online at <www.ancestry.com>). William Crawford Dunn was born on 25 January 1836, in Warwick, Virginia. He was in Tucson when the census was taken on 7 June 1870, living in the household of James Hunt and working as a carpenter (James C. Hunt household, 1870 U.S. census, AZ

Territory, Pima County, Tucson, page 22). He was married in Tucson in 1876, to Margarita Vasquez (the couple was apparently remarried on 26 November 1904). In June 1880, the couple and two children, Charlotte and one-month-old William, lived at Fort Lowell, with William working as a wheelwright (W. C. Dunn household, 1880 U.S. census, AZ Territory, Pima County, Fort Lowell, ED 6, page 1). By June 1900, the couple and four children, Charlota, William, Margaret, and Dolores, lived at 56 McCormick Street in Tucson. William no longer worked (William C. Dunn household, 1900 U.S. census, AZ Territory, Pima County, Tucson, ED 48, sheet 15A). William died on 11 December 1912, at 906 South 6th Avenue from “artero scherosum” and is buried in Evergreen Cemetery (William Crawford Dunn, Original Certificate of Death, online at <<http://genealogy.az.gov>>).

Dunn sent a series of letters to the U.S. Government Land Office detailing happenings on the fort reservation. In December 1892, the six laundresses quarters were reported to be useless, other buildings were in good repair although some needed roof work, and the adjutant’s office was in use as a schoolhouse. In February 1893, a military officer asked to salvage the flagpole for reuse elsewhere. In June, he noted that Dr. C. N. Goff wanted to occupy two of the buildings and that David Dunham had dug a well on fort land.

In one letter on 8 November 1893, to the commissioner of the Government Land Office, Dunn reported:

Domingo Valencia unlawfully occupying government buildings and a corral, I notified him to leave, but he pays no attention to the order, he says for me to put him out if I have the authority. He has set at defiance all my authority, and by example and advise are citing others of his nationality to do the same, if he is allowed to remain I cannot be responsible, for my own life is not secure, I could be murdered and the murderer across the line into Mexico before the authorities in Tucson would know anything about it. This man is not a citizen of the U.S. Government, consequently I must respectfully request his removal... (NARA Record Group 49, Division K, Box 13).

Mr. Valencia was born in Banamichi, Sonora, in December 1850 or 1856, son of Rafael Valencia and Idelfonsa (–?–), and was married circa 1876, to Maria Garcia, who was born circa May 1862, in Sonora, daughter of Juan Manuel Garcia and Venida Valenzuela (Maria Garcia de Valencia, Original Certificate of Death, online at <<http://genealogy.az.gov>>). The family moved to Arizona around 1890 and had eight children: Jose M., Manuel, Lucia, Angelita, Rafael, Maria, Guadalupe, and Refugia. By

2 July 1900, the Valencias had left Fort Lowell and were living at San Xavier, where Domingo worked as a farmer (Domingo Valencia household, 1900 U.S. census, AZ Territory, Pima County, San Xavier Precinct No. 2, ED 46, sheet 19A). Domingo Valencia died at San Xavier on 22 October 1934, from a heart attack (Domingo Valencia Standard Certificate of Death, online at <<http://genealogy.az.gov>>; there are two certificates, although the certificate filed 22 October 1934 appears to be more accurate).

Interest in obtaining the land of Fort Lowell arose in the mid-1890s. Henry Ransom, an African-American resident of Tucson, attempted to claim 160 acres of the fort in 1895 (apparently unsuccessfully) (*Arizona Daily Citizen* 1895). Many others were successful in obtaining land within the greater Fort Lowell reservation, including George Doe, Chesley Aldrich, Bradford Daily, Alexander Wilkins, Carmen Romero, Jesus Salazar, and Tomas Gonzales (NARA Record Group 49, Division K, Box 13). The main core of the fort, however, remained within federal ownership.

In 1896, the *Arizona Daily Citizen* reported that the Department of the Interior, General Land Office, had authorized the sale of buildings and the land for the NE $\frac{1}{4}$ of NE $\frac{1}{4}$ and the SE $\frac{1}{4}$ of NE $\frac{1}{4}$ of Section 35 (west of modern-day Craycroft Road). The buildings located on the NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 36 were also to be sold, but the land was to be kept for school purposes, with the buildings to be removed, or the land leased by the purchaser (*Arizona Daily Citizen* 1896).

An auction was held on 18 November 1896, and many of the buildings were sold. Records held at the National Archives in Washington, D.C., include a list of these buildings and who purchased them (Table 2) (NARA Record Group 49, Division K, Box 13). The auction raised a total of \$1,080.00. The purchasers stripped the windows, doors, and their frames, beams, tin roofing, and wood flooring. Many items were later incorporated as materials in homes built in downtown Tucson (Fort Lowell ephemera file, AHS). Afterwards, some buildings became the residences of local Mexican-American families, although little is known about these individuals. Other buildings decayed due to neglect and vandalism. More detailed histories of portions of the fort are reported below.

Fort Lowell’s Contribution to Natural History

The fort area was known for its mammals, birds, reptiles, insects, and plants, and as early as 1870, was visited by naturalists on collecting expeditions. Dr. Edgar Mearns, who collected at the fort in 1885 and 1893, reported that the fort was a “well known col-

Table 2. List of purchasers at the 1896 Fort Lowell auction (NARA Record Group 49, Division K, Box 13).

Purchaser	Amount Paid (Dollars)	Building Number	Description
Mariano Samaniego	25	12	Barracks and kitchen, 5 rooms
Alexander J. Davidson	25	11	Barracks and kitchen, 4 rooms
Bernabe Robles	15	10	Barracks and kitchen, 3 rooms
Mariano Samaniego	10	34	Hospital steward's quarters, 4 rooms
George H. Doe	10	33	Officers' quarters, 3 rooms
George H. Doe	25	9	Barracks and kitchen, 2 rooms
Lyman W. Wakefield	25	8	Post hospital, 8 rooms
George H. Doe	29	33	Cavalry corral
Chesley G. Aldridge	7	25	Quarters for married men
Bradford Daily	2	26	Quarters for married men, 2 rooms
James B. Glover	2	27	Quarters for married men, 2 rooms and kitchen
James B. Glover	1	28	Quarters for married men, 2 rooms and kitchen
James B. Glover	1	29	Quarters for married men, 2 rooms
James B. Glover	1	30	Quarters for married men, 2 rooms
James B. Glover	1	31	Quarters for married men, 2 rooms
James B. Glover	5	32	Quarters for married men, 3 rooms
Severin Rambaud	10	34	Ice house
Lyman W. Wakefield	46	38	5,000 ft of 2-inch water pipe
Farrand Benedict	75	4	Officers' quarters
Filiberto Aguirre	50	5	Officers' quarters
Pedro C. Pellon	40	6	Officers' quarters
Severin Rambaud	50	7	Officers' quarters
Mariano Samaniego	10	36	Tank house
Mariano Samaniego	10	39	Fencing picket
Mariano Samaniego	5	41	10 planks measuring 2 inches by 12 inches by 14 ft

lecting ground of Messrs. Bendire, Henshaw, Nelson, F. Stephens, Brown, Scott and Price" (Mearns 1907:110). Mearns sent the Smithsonian an example of the common side-blotched lizard in a jar of alcohol. H. W. Henshaw and J. H. Rutter sent specimens of two species of horned lizard to the Smithsonian in 1874 (U.S. Government Printing Office 1900:311, 414, 436). Herbert Brown sent information about hummingbirds at Fort Lowell to the Smithsonian in 1889-1890 (U.S. Government Printing Office 1891:333). Brown (b. 1848, d. 1913) was a Tucson resident who befriended ornithologist E. W. Nelson in 1883, and afterwards, became known as the local bird expert, corresponding with and sending specimens to professional ornithologists, as well as identifying as least one previously unknown bird species, *Colinus ridgwayi*, the masked bob-white quail (Brown 1892; Nelson 1913; Scott 1888). Frank Stephens identified the first blue-throated hummingbird in the United States at Fort Lowell in 1884 (Fischer 2001:154). Insects were collected at the fort in 1891, by Professor F. A. Gulley of the University of Arizona and A. B. Cordley (University of Arizona 1892:47).

In 1893 and 1894, William Wightman Price, a student from Stanford University, collected at least 700 specimens of bird skins, eggs, nests, and mammals in the area around the fort (*Tombstone Epitaph Prospector* 1894). At least 14 different species of reptiles were among these collections, including an example of a box turtle (California Academy of Sciences 1897). In 1894, Price was assisted by B. C. Condit, M. P. Anderson, and L. H. Miller (Price 1895:161).

The type species of *Bouteloua micrantha*, a type of grama grass, was collected at Fort Lowell (New York Botanical Garden 1909:620). The type species *Coreocarpus Arizonicus*, a shrubby herb with small, yellow flowers, was collected at Fort Lowell by botanist J. G. Lemmon in 1880 (Crosswhite 1979). The type specimens for Miller's skunk (*Mephitis milleri*, collected 1897) and the white-throated woodrat (*Neotoma intermedia albigula*, collected 1894) were also found at Fort Lowell (Elliot 1905:217, 410; Miller and Rehn 1901:105, 214).

Specimens collected at Fort Lowell were deposited in the collections of the University of Arizona, Smithsonian Institution, Stanford University, Harvard University, the Field Museum in Chicago

(Elliot 1905), and the British Museum in London (Hargit 1890:17).

The wildlife drew hunters as well as naturalists. In October 1904, Tom Herndon and William Dunn were reported to have shot 32 ducks at Fort Lowell, including mallard, teal, and canvasbacks (*Tucson Citizen* 1904). In August 1911, Dr. C. A. Schrader and K. L. Hart shot approximately 100 mourning doves there (*Tucson Citizen* 1911).

Farming and Ranching

A major reason for the presence of so much wildlife was the Rillito, a creek that flowed year-round in the nineteenth century. As early as the 1860s, ranchers and farmers were moving to the area along the creek to raise crops and herd cattle and sheep. An 1867 newspaper article noted that three ranches, owned by G. H. Oury, Dr. Goodwin, and Peter Brady, were present along the Rillito, growing corn, melons, and other vegetables. The ranch of Mr. Oury had an *acequia* constructed on it to bring water to fields (*Arizona Weekly Journal Miner* 1867).

Documents in the National Archives describe the removal of many of the ranchers and farmers in 1886, as Fort Lowell expanded. Many of these individuals felt that they had not received proper compensation for their land and improvements. After the fort was abandoned in 1891, these lands became available and were purchased by local farmers and ranchers.

In June 1900, Robert Cole reported that he was raising 100,000 melons at Fort Lowell and was expecting his second crop of strawberries to be ready for the market soon (*Tucson Citizen* 1900a). The same month saw Ed Grindell raising Belgian hares, although he was also experimenting with white leg-horn chickens (*Tucson Citizen* 1900c). The market for Belgian hares died out by 1903. Apparently, they were considered a food fad, similar to the consumption of oysters in the 1880s. Cole and other farmers turned their focus to raising “garden truck,” onions, squash, cabbage, strawberries, cantaloupes, and watermelons (*Tucson Citizen* 1903b).

Farmers dug their own irrigation ditches:

...water rights on the agricultural land along the Rillito are obtained by the ranchers according to methods used when the valleys were first settled. The rancher find [sic] a source of supply in the river sufficient to irrigate the land he owns, and then proceeds to dig his ditch to carry the water to his land, in some instances ranchers have to construct a ditch five miles in length. The rancher can irrigate his land whenever he chooses to, and he pays nothing for the water (*Weekly Republican* 1900).

The 1880 arrival of the railroad brought many overseas Chinese to Tucson. They helped construct the railroad berm and tracks, and some 400 men chose to remain in Tucson, seeking new employment opportunities. A small number had settled at Fort Lowell, working as personal servants for members of the military or as produce gardeners. After the fort closed, a few Chinese farmers remained in the area (Thiel 1997a).

The Chinese immigrants suffered discrimination with the Chinese Exclusion Acts of 1882 and 1892. They were required to carry identification papers and could be deported if forged documents were found. The local Chinese inspector occasionally raided the fields along the Rillito, searching for men who were in the U.S. illegally. In one case, Inspector B. F. Jossey pursued Lim Cheung, who fled into a water ditch near Fort Lowell and nearly drowned (*Tucson Citizen* 1900b).

In 1915, a group of Chinese farmers at Fort Lowell confronted a Mexican man, called “No Nose, from the horrible deformity of his face,” and shot him as he was trying to steal potatoes. The thief had an 18-inch-long knife, half a sack of potatoes, and two empty sacks. He had apparently been stealing potatoes for several nights, and he later died from his wounds (*Tucson Citizen* 1915a).

The area west of the fort was the Mormon settlement of Binghampton, settled by members of the Farr family in December 1909 (<http://parentseyes.arizona.edu/studentprojects/binghampton/where_is_binghampton.htm>). By the middle of 1910, Binghampton farmers were harvesting watermelon and cantaloupe, and were growing alfalfa and other produce (*Tucson Citizen* 1910). In 1911, community members were building a large dairy barn, growing hay and alfalfa, and planting orchards of peaches, apples, apricots, and plums, along with crops of strawberries and watermelons (*Tucson Citizen* 1911a).

Cadets and Boy Scouts

The University of Arizona started a military cadet program in 1896, which continued into the early twentieth century. The battalion was open to male students, who wore summer or winter uniforms to class and practiced military exercises. The battalion often used Fort Lowell as a training ground. In 1902, it was reported that: “The university battalion has received 8,000 rounds of ammunition from the government and before the school closes for the year, the battalion will go onto camp at Fort Lowell. At that time they will hold target practice every day and go through the regular army camp life under the direction of Captain Cole” (*Tucson Citizen* 1902a).

The cadets marched out to Fort Lowell in early May. "They intend to go through the whole routine, and a mess wagon will accompany them. All the cadets have orders to attend" (*Tucson Citizen* 1902b). The cadet program continued to march out to Fort Lowell, traveling back and forth from the University to Fort Lowell twice in the spring of 1920 (*Tucson Citizen* 1920b).

The Boy Scouts of Tucson also marched out to the fort for camping adventures. In April 1912, the newly formed troop camped out just north of the fort. The next day, the "program for the day is a thorough search of the ruins for an old cannon seen there several years ago and for arrow heads and other relics of the days when this was one of the outposts of the frontier." The boys spent a week at the fort (*Tucson Citizen* 1912c). They were led by a pair of University of Arizona cadets, who had practical experience in camping (*Tucson Citizen* 1912a). Another group camped at the fort for several days in April 1914 (*Tucson Citizen* 1914). The Boy Scouts would continue to have a presence at the fort into the 1950s.

Fort Lowell Area Sanitariums

The early 1900s also saw the opening of at least three sanitariums in and around Fort Lowell. Dollie Cate operated one in Officers' Quarters 1 through 3 on what was later known as the Fort Lowell-Adkins Steel Property, beginning in 1908 (Thiel et al. 2008).

Mrs. Nellie Swan operated another, in the old John "Pie" Allen post sutler's store, on the northern side of Fort Lowell Road. Her place was called the Swan Ranch, and was in operation as early as 1916 (*Tucson Citizen* 1916). In December 1917, Mrs. A. V. Grossetta chaperoned a group of young people who sang Christmas carols to convalescents staying at the Swan and Cate ranches in 1917 (*Tucson Citizen* 1917d).

In November 1918, the *Tucson Citizen* (1918c) reported that:

...life is pretty dull for the patients at the ranch sanitariums conducted by Mrs. Swan and Mrs. Cate respectively. The patients are young men, most of whom have not resided here long enough for the strangeness and loneliness to quite wear off. Their means are usually limited and they are somewhat put to it for diversion. 'The boys are get tired of reading magazine and long for the greater satisfaction of good books,' says Mr. Clark, speaking of the matter. 'I am able to provide them with recent magazines but when it comes to books, I must invite the public to share with me in this kindly and neighborly service. There ought to be some private libraries which would like to con-

tribute from the wealth of their cases to starting new shelves for the sick at Fort Lowell.

Sanitarium patients hoped for a cure from whatever health problem they had. Many had tuberculosis, and some died from the disease while convalescing at Fort Lowell, including Ernest Bunnell, a 17-year-old in 1911, Chris Steppish in 1915, and Earl Palmatier, a 32-year-old who died at Mrs. Swan's Fort Lowell Ranch from tuberculosis in 1919 (*Tucson Citizen* 1911b, 1915b, 1919a; A. Earle Palmatier, Original Certificate of Death, online at <<http://genealogy.az.gov>>).

Mrs. Swan sold her sanitarium, then called the Fort Lowell Health Resort, to members of the St. John family in 1925 (Pima County DRE 103:484), and the operation of the sanitarium ceased sometime in the next few years.

A proposal to establish a tuberculosis sanitarium within the ruins of Fort Lowell, east of Craycroft Road, was made in 1902, but did not come to fruition (*Tucson Citizen* 1902).

Fort Lowell as a Film Location

Several silent movies were filmed within the ruins of Fort Lowell. In December 1917, Douglas Fairbanks arrived in Tucson and motored out to Fort Lowell for a day of filming. Allan Dwan directed the film, *Headin' South*, with Frank Campeau playing the movie's villain. The plot consisted of Fairbanks' character as a Canadian infiltrating a band of villains, rescuing some women in distress, and capturing the head villain before returning to Canada with his new girlfriend (*Tucson Citizen* 1917; <<http://www.tcm.com/tcmdb/title.jsp?stid=497853>>). The movie was released in February 1918.

In May 1919, the film *Chasing Rainbows*, also called *Sadie*, was partially filmed at the fort. This silent movie starred Gladys Brockwell and William Scott, and told the story of Sadie, a waitress who discovers that her boyfriend was married, moved to the desert, falls in love with her boss, and after some complications, marries him (*Tucson Citizen* 1919b). The film was released in August 1919, and is still extant (<<http://www.tcm.com/tcmdb/title.jsp?stid=493425>>).

The Ghosts of Fort Lowell, Tourism, and Early Interest in Preservation

The early 1900s saw several people claiming to have seen a ghost in the ruins of the fort. Mexican residents of the area reported seeing a ghost wandering about in December 1900 through April 1901.

In one case, the form of a man appeared in smoke from a fireplace, and in another case, a woman saw a ghost climb a rope out of a well and float over the ruins (*Arizona Daily Citizen* 1900, 1901a, 1901b).

The ruins of the fort became a popular spot for visitors. The decaying walls were a big draw, and were also a convenient place to hang strings of chili peppers, the “entire courtyard surrounding the barracks was festooned with these scarlet garlands, and the sunlight made this picture dazzling” (Curing Chilis in *Arizona* 1910). Many picnickers and campers traveled from Tucson to spend time at the fort, posing for pictures and looking for mementoes (*Tucson Citizen* 1917a, 1920a). Not everyone was interested in seeing the ruins, however. A Major Brown, who was stationed at the fort in 1890, visited Tucson in 1912, and told a newspaper reporter that “I like to think of Fort Lowell as it used to be, and I don’t care to see it in ruins” (*Tucson Citizen* 1912b).

Interest in the historical nature of the site began in 1918, when the Chamber of Commerce considered placement of a sign at the fort explaining its significance (*Tucson Citizen* 1918a). The first preservation efforts took place in the late 1920s. The Tucson Chamber of Commerce had a historical commission, which passed a resolution asking the State Legislature to pass a bill establishing the fort as a State Historic Monument, with ASM to manage the monument. On 15 March 1929, the State Senate passed Senate Bill 100, which withdrew 40 acres of State land on which the majority of the fort stood, from sale or homestead entry. The land was placed in trust for the State of Arizona, with ASM supervising its use (City of Tucson Parks and Recreation Department 1985).

DETAILED HISTORIES OF THE CITY OF TUCSON PROPERTIES AT FORT LOWELL

The city-owned portions of historic Fort Lowell can be divided into four separate properties: Fort Lowell Park, the Donaldson/Hardy Property, the Quartermaster Commissary Property, and the Fort Lowell-Adkins Steel Property. Research on the Fort Lowell-Adkins Steel Property has been completed and was successful in tracing the complete history of the property’s ownership and usage from the 1890s to the present (Thiel et al. 2008). The background research on the post-fort use of this property has been updated for this current report with newly discovered information.

Similar research was conducted for the remaining three properties, with the information uncovered reported below. Documentary research was conducted at the National Archives in Washington,

D.C., the University of Arizona Library, the University of Arizona Special Collections, the Pima County Recorder’s Office, the Southern Arizona Division Library of the Arizona Historic Society, the Arizona Historical Society’s Fort Lowell Museum, and several genealogical and historical websites on the internet.

The Fort Lowell-Adkins Steel Property

The Fort Lowell-Adkins Steel Property is located at the southwestern corner of East Fort Lowell Road and North Craycroft Road. The property consists of Pima County Assessors Parcel Numbers 110-09-032A, 110-09-032b, 110-09-330, 110-09-0340, and 110-90-0350, totaling 5.47 acres. It is in the NE¼ of the SE¼ of the NE¼ of Section 35, Township 13 South, Range 14 East.

Lyman W. Wakefield purchased the SE¼ of the NE¼ of Section 35, totaling 40 acres, from the U.S. government on 19 April 1897 (BLM Serial No. AZ AZAA 011023, online at <www.glorerecords.blm.gov/PatentSearch>). Wakefield was born on 5 October 1853, in New York, son of James M. Wakefield and Clarinda Brown. He was married on 11 May 1881, in Pima County, to Anna R. Patrick, with both residents of Pantano at the time (Negley and Lindley 1994:80). Anna was born in May 1866 in Missouri. Wakefield was the Sheriff of Pima County on 4 June 1900, when the census was taken (he served in that office from 1899-1900). Wakefield lived at 205 East 3rd Street in Tucson with his wife, their five living children (Walter, William, Edith, Clarence, and Margaret), a boarder, and a servant (Lyman Wakefield household, 1900 U.S. census, Pima County, Arizona Territory, ED 47, SD 11, sheet 4A). Wakefield likely viewed ownership of the property as an investment, as there is nothing to suggest he or his family lived on the property. Lyman Wakefield died in Tucson on 30 September 1919 from prostrate hypertrophy and infection, and is buried in Evergreen Cemetery (see <<http://genealogy.az.gov/azdeath/020/10202839.pdf>>).

On 28 December 1899, Lyman and Anna Wakefield sold their 40 acres for \$1.00 to Thomas Grindell (Pima County DRE 30:256-257). Grindell was born circa 1870, in Platteville, Wisconsin, son of William Grindell and Margaret McCurry. He grew up in Platteville, where his father was a cabinetmaker (Western Historical Company 1881:906). Thomas moved to Arizona and was a resident of Nogales in November 1896 (Pima County DRE 27:635). He later moved to Phoenix, where he was the Deputy United States Marshal and then the clerk of the Supreme Court (*Arizona Weekly Journal Miner* 1900a). Grindell sued Robert D. Cole in May 1901, claiming that Cole

was occupying his property (*Tucson Citizen* 1901). Later in the year, Grindell purchased the Pantano Ranch from W. K. Maul, and placed his younger brother, Edward Page Grindell, in charge (*Prescott Morning Courier* 1901). Thomas Grindell sold the Fort Lowell land to his younger brother Edward on 20 March 1902, for \$1.00 (Pima County DRE 32:640).

Thomas later became the principal of the public school in Douglas. In June 1905, Tom was exploring on the island of Tiburon, off the coast of Sonora, with three other men, and the group disappeared (*Idaho Statesman* 1905). His brother Edward led several search parties south, meeting with Tom's Papago guide, and following a rumor that four hands had been found nailed to the ground (*Tucson Citizen* 1905b). In November 1905, the city of Douglas raised \$615 to help extend the search (*Tucson Citizen* 1905a). The searches proved fruitless, and in December 1905, after three separate expeditions, Edward Grindell gave up hope of his brother ever being found. He had located the group's guns and saddles, but no trace of their remains. Rumors that Thomas' body had been located several years later proved unfounded (*Tucson Citizen* 1905c, 1907).

Edward Page Grindell was born on 3 July 1873, in Platteville, Wisconsin. He was living in Tucson as early as October 1899 (*Weekly Republican* 1899). In April 1900, Ed was raising Belgian hares on his ranch "located on the scene of old Fort Lowell" (*Weekly Republican* 1900). On 25 June 1900, Edward lived in Precinct 1 of Tucson, and was working as a newspaper editor (Edward P. Grindell household, 1900 U.S. census, Pima County, Arizona Territory, ED 46, sheet 16A). By October 1900, he was living at Fort Lowell. He reported that the "roar of rushing water across the plaza at the fort during the heavy rain, something rarely heard, was loud enough to keep one awake" (*Arizona Weekly Journal Miner* 1900b:3). Edward lived in Douglas at the Gadsden Hotel on 26 April 1910, where he was the secretary for the Chamber of Commerce (Nathaniel Grant household, 1910 U.S. census, Cochise County, Arizona Territory, ED 19, sheet 8A). He was described on his World War I Draft Registration card, created in September 1918, as being tall, slender, with gray eyes and black hair. At that time, he was working as a railway agent for the El Paso and Southwestern Railway and living at McNeal, Cochise County, Arizona (WWI draft registration card, online at <www.ancestry.com>).

How Edward Grindell used the property during the next two years remains unknown. He may have lived in one of the standing officers' quarters, or he may have rented these out to other people. On 5 November 1904, Edward Grindell sold the land for \$10.00 to Irvin Douglas (Pima County DRE 45:476). Efforts to locate information about the Douglas fam-

ily were unsuccessful; they apparently did not remain in Pima County for long, and were not counted on the U.S. census here.

On 22 May 1908, Irvin and Maude Douglas sold the land to Robert D. Cole (Pima County mortgages 23:689). Robert Cole and his brother William farmed in the area and had already purchased a 3/7 stake in an irrigation ditch from Bernardino Diaz for \$150.00 on 23 May 1899. The ditch ran south from the southern side of the Rillito, and their interest allowed unrestricted use of water in the ditch on Mondays, Tuesdays, and Wednesdays (Pima County DRE 30:82). Robert's other land purchases in the Fort Lowell area included 50 acres on the south side of Section 26 (north of the Adkins-Steel parcel) and the 80 acres immediately north and west of the Adkins Steel parcel, as well as land in Section 31 (Pima County DRE 28:710, 30:540, 35:268, 42:298, 45:466, 45:550, 46:155, 46:166). The earliest transaction indicates Cole was in Tucson by 19 September 1898 (Pima County DRE 28:710). In 1903, he was growing watermelon and "garden truck" (produce) at his farm at Fort Lowell (*Tucson Citizen* 1903a). More detailed biographical information on Cole is presented below.

A number of irrigation canals, also called *acequias*, or ditches, were run from the Rillito to fields on the south and north (Figure 13). The Corbett or Douglas Ditch runs north of the Fort Lowell-Adkins Steel Property and was apparently owned at one time by Irvin Douglas. Some of these canals are still visible north of Fort Lowell Park today.

Mr. Dixie L. Cate purchased the property from the Coles on 29 June 1908, paying them \$10.00, and agreeing to pay off the mortgage the Coles had from the Douglasses. Robert Cole had paid \$700.00 for the ranch and sold it six weeks later for \$1,300.00 (Pima County DRE 45:558-559; *Tucson Citizen* 1908b).

Richard Longstreet "Dixie" Cate was born on 23 September 1864, in James County, Tennessee, the son of George Oliver Cate and Mary D. Allison. He was married on 27 March 1895, in Hamilton County, Tennessee, to Dolly (often also spelled Dollie) Monger (International Genealogical Index, online at <www.familysearch.org>). Dolly was born in October 1871, in Tennessee. The identity of her parents has not been confirmed, and a child by that name has not been located on the 1880 census. It is unclear if Dolly was her given name, or if it was a nickname (with Dolly often a shortened form of Dorothy).

On 9 June 1900, Dixie and Dollie Cate lived in James County, Tennessee, with Dixie working as a farmer (Dixie Cate household, 1900 U.S. census, James County, Tennessee, ED 7, SD 3, sheet 5A). The couple had moved to Arizona by 13 December 1907, when Dixie purchased a lot in the Feldman Addi-

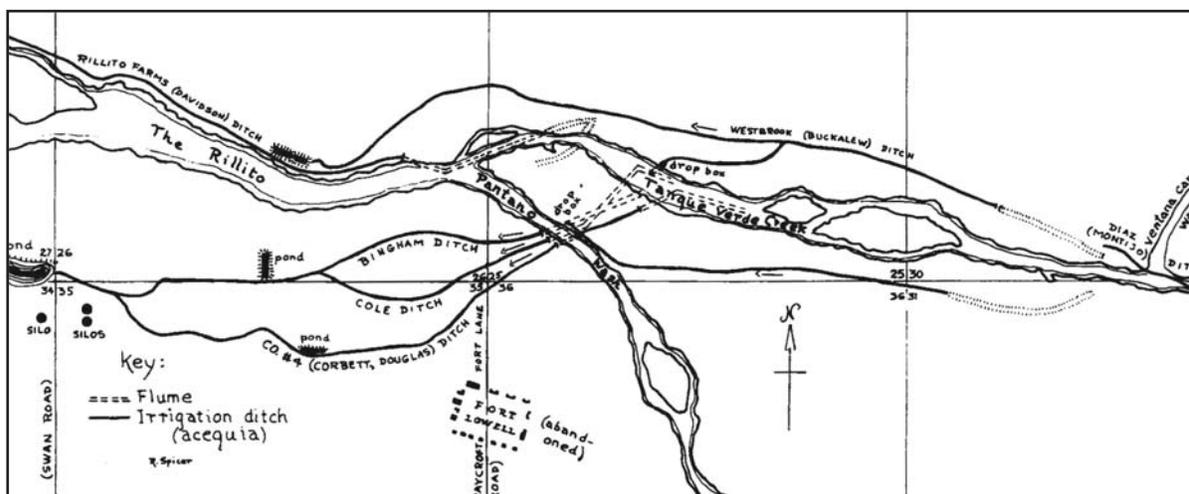


Figure 13. Irrigation ditches located in the Fort Lowell area (Turner et al. 1982).

tion of Tucson (Pima County DRE 43:707). Over the next year, several additional lots were purchased in that area (Pima County DRE 44:181, 44:183, 44:726). The 1908 Tucson City Directory (probably created in 1907) lists D. L. Cate as a chicken rancher living at 5th Avenue and Drachman Street in Tucson (Kimball 1908:80).

Dixie's sister, Nellie Davis Cate, married Charles F. Gulden circa 1887. Charles was a railroad conductor, and the couple lived at 54 Council Street in June 1900 (Charles Gulden household, 1900 U.S. census, Pima County, Arizona, ED 49, sheet 18A). It seems very likely that Dixie and Dolly Cate came to Tucson at the invitation of his sister.

Dixie died from pulmonary tuberculosis on 18 December 1908, while living near Fort Lowell: "He was 44 years of age and was a brother of Mrs. Charles Golden. He came to this country for his health, but he failed steadily. He was a native of Tennessee and was quite well known in that state." Dixie was buried in Evergreen Cemetery (Dixie L. Cate, Return of a Death, online at < <http://genealogy.az.gov/azdeath/005/10052798.pdf>>; *Tucson Citizen* 1908a:5). Dolly Cate was subsequently assigned ownership of the couple's property (Pima County DRE 47:471). On 24 February 1909, Dolly paid off the Irwin mortgage on the property (Pima County DRE 46:189, 46:325).

In May 1910, Dolly (last name incorrectly listed as Cole) was living near Fort Lowell with two young girls, listed as "Mollie Cole" (Lottie) and "Ruth Cole." The census states that these are her daughters, but this is incorrect (Dolly Cole household, 1910 U.S. census, Pima County, Arizona, ED 95, SD 1, sheet 10B). The relationship of the two girls, if any, to Robert Cole is unknown.

Dolly Cate opened "Mrs. Cate's Tuberculosis Sanatorium" in the officers' quarters in the project

area. The business was also called "Mrs. Cate's Hotel," and one of the visitors in 1917 was Mr. S. Steinberg, who described it as "there's no place like home" (*Tucson Citizen* 1917c:3). In 1918, "Mrs. Dollie Cate" was listed in the Tucson City Directory as living in the "Rural Free Delivery 2" area (Tucson Directory Company 1918). In August 1918, it was reported that: "Tonight the young people of the Baptist church will be the guests of Mrs. Dollie Cates, out at the Fort Lowell ranch, for a big watermelon 'feed.' They will leave the church in autos at 7:30. A large crowd is expected, and a good time is assured all" (*Tucson Citizen* 1918d:3).

In January 1920, Dolly Cate was running a "rest ranch" with two nieces, Ruth Monger (age 21) and an 18-year-old girl whose given name was not recorded, but who must be Lottie Monger. Thirteen invalid males lived at the rest home, all white men between the ages of 21 and 48 (D. Cate household, 1920 U.S. census, Pima County, Arizona, Ed 80, SD 2, sheet 5A).

Dolly Cate sold the property to Harvey and Fronia Adkins on 3 February 1928. She received \$10.00 and "other valuable considerations." In turn, the Adkins received 6.5 acres "together with certain household furniture and furnishings" (Pima County DRE 155:4). Dolly was still in Tucson on 9 April 1930, when she and her niece Ruth O. Monger lived at 720 East Speedway Boulevard. She owned the house, which was valued at \$6,000.00, but did not have a radio. She was reported to be the proprietor of a boardinghouse (Dollie Cate household, 1930 U.S. census, Pima County, Arizona, ED 34, sheet 8B). City directories reveal that Dolly lived at that address until 1944. From 1946 through 1962, she lived at 1115 North 9th Avenue. She died on 8 October 1964, and is buried in Block 30, Section B, Lot 159 of Evergreen Cemetery in Tucson:

Mrs. Cate's Funeral Set for Tuesday. Funeral services for Mrs. Dolly Cate, 93, a longtime Tucson resident who formerly operated a convalescent rest home at Ft. Lowell, will be held at 10 a.m. tomorrow at Bring's Funeral Home. She died Thursday at a local rest home. Mrs. Cate, who lived at 1115 N. 9th Ave., was born near Chattanooga, Tenn. She came to Tucson in 1907 with her late husband Richard Cate. From about 1909 until the 1920s, she operated a convalescent home in the fort buildings. She is survived by two nieces, Miss Ruth Monger of Tucson, and Mrs. C. N. Cooke of Hydesville, California. Burial will be in Evergreen Cemetery (*Tucson Citizen* 1964b:5).

Harvey Adkins was born on 18 September 1872, in Jasper County, Illinois, the son of Thomas Jefferson Adkins and Dicy Ann Brooks (see <<http://james.thenamecenter.com/sheets/f3666.html>> for family group sheets on the Adkins family). Harvey was married on 17 May 1898, to Sophronia "Fronia" Bragg. Fronia was born on 15 September 1872, in Clay County, Illinois, the daughter of John Wesley Bragg and Hannah Dyson (*Arizona Daily Star* 1955). The couple were the parents of five children: Vinda Adkins Ortega (1900-1944), Virginia Alice Adkins Beam (1903-1985), Dicey Minerva Adkins (1905-1927), Marion Heber Adkins (1908-1986), and Belva Naomi Adkins (1911-1999). The family lived in Newton, Jasper County, Illinois, in 1910 and 1920, with Harvey working as a dairy farmer (1910 U.S. census, Jasper County, Illinois, ED 87, SD 14, sheet 6B; 1920 U.S. census, Jasper County, Illinois, ED 110, SD 15, sheet 1B). Harvey registered for the draft on 12 September 1918, and reported he had a medium build, medium height, blue eyes, and black hair (WW I Draft Registration, online at <www.ancestry.com>).

The Adkins family moved to Tucson around August 1926, to bring their daughter Dicey to a tuberculosis sanatorium (Old Fort Lowell Neighborhood Association 2005:33). The family was living on Fort Lowell Road, at the Cate's rest home, on 15 June 1927, when Dicey died from pulmonary tuberculosis at age 21. She was subsequently buried in Evergreen Cemetery: "Miss Adkins had lived here only six months, coming from Newton, Illinois. She is survived by her parents, three sisters and a brother all of whom are in Tucson" (Dicey Minerva Adkins, Original Certificate of Death, online at <<http://genealogy.az.gov/azdeath/035/10350392.pdf>>; Old Fort Lowell Neighborhood Association 2005:33; *Tucson Citizen* 1927). According to a family member, Dicey's body was later moved to East Lawn Cemetery (Lannie Hartman, personal communication 2007).

The Adkins family constructed an adobe house on the property in 1927, according to a Fort Lowell

Inventory Form. They constructed a second adobe house around 1935 (MS 265, black binder in file, AHS).

On 9 April 1930, Harvey and Fronia operated the "Adkins Rest Ranch" at Fort Lowell. Their daughter Belva was living with them. There were 13 residents of the ranch, 10 men and three women. All 13 residents were white, ranged in age from 23 to 51, and with one exception, had been born in the United States. The facility was valued at \$8,000.00 but the family did not own a radio at that time (1930 U.S. census, Pima County, Arizona, ED 10, SD 3, sheet 4B). In 1938 and 1940, Harvey and Fronia were reported to be running the Adkins Rest Home (Tucson City Directories 1938 and 1940). The Adkins family operated the rest home until at least 1950, at 5615 East Fort Lowell Road (Old Fort Lowell Neighborhood Association 2005:33; Tucson City Directory 1950).

Fronia Adkins was a member of the Valley Christian Church in Tucson (*Arizona Daily Star* 1955). She died on 9 September 1955, at her home at 2951 North Craycroft Road from pneumonia, complicated by the effects of a stroke she had had seven months earlier (Fronia Adkins, Certificate of Death, online at <<http://genealogy.az.gov/azdeath/0220/02201696.pdf>>). Harvey Adkins died on 11 January 1958, at the family home in Tucson. He and Fronia are buried in the Grantwood Memorial Park (later East Lawn Cemetery) (*Tucson Citizen* 1958a).

Marion Adkins, born on 12 December 1908, a son of Harvey and Fronia Adkins, started the Adkins Trucking and Steel Manufacturing business on the property in 1934. Marion's son Harry Adkins recalled: "In the '40s we were doing steel buildings and tanks and in the '50s pretty much tanks, for everybody and the City of Tucson" (Old Fort Lowell Neighborhood Association 2005:35). Marion was married to Lovetta Nova Merchant, who was born on 20 May 1913. The 1938 and 1940 Tucson City Directories list Marion H. Adkins as living on Fort Lowell Road with his wife Loretta, and working as a trucker. In 1950, they lived at 5603 East Fort Lowell Road, with Marion listed as a welder and operating the Adkins Steel Mfg. Co. (Tucson City Directory 1950).

Residential Property Record Cards were filled out for the Adkins family home (10-110-09-032A) and the historic Fort Lowell Officers' Quarters (10-110-09-350) on 2 June 1965. At that time, the Adkins family home was described as a solid masonry structure with Spanish tile roofing. The assessor reported that the home was built in 1935, based upon information provided by Marion Adkins. Other buildings and structures built by members of the Adkins family include a water tower and windmill adjacent to their home, a large steel shed (built circa 1935), a

nearby adobe house, several concrete slabs, a chicken coop, and a large concrete tank next to a well.

Marion Adkins lived at 5460 East Ft Lowell Road in 1970, with his business address at 5450 East Fort Lowell (Tucson City Directory 1970). He died in January 1986, in Tucson (Social Security Death Index). Lovetta N. Adkins died on 4 July 2002, in Colorado, where she had moved to live with her daughter (Social Security Death Index; Lannie Hartman, personal communication 2007). The couple's son Harry Adkins took over the family business, which operated within the project area until the spring of 2007.

Over the years, there had been several attempts by the City of Tucson to purchase the property from the Adkins family. These attempts were not successful. In the early 2000s, Pima County became interested in the acquisition of properties with significant cultural resources and the Fort Lowell-Adkins Steel Property was identified as of interest. A local developer, Oasis Tucson, Inc. (later OT Gila, LLC), made a deal to purchase the property. That sale led to the creation of "An Intergovernmental Agreement between Pima County and the City of Tucson for the Rehabilitation, Restoration and Management of the 'Adkins Steel' parcel at Historic Fort Lowell," which was approved by the Pima County Board of Supervisors on 6 March 2007. Pima County provided money from the May 2004 bond election (2004 Bond Project 4.4, Fort Lowell Acquisition and San Pedro Chapel) to purchase the property. A complex land exchange and sale subsequently took place, with the developer receiving another parcel along Speedway Boulevard in exchange for the Fort Lowell-Adkins Steel Property. The Adkins family formally sold the parcel to OT Gila LLC (also called Oasis Tucson, Inc.) in March 2006 (Pima County Docket 12759:5128). On 9 March 2006, OT Gila LLC sold the property for \$1.00 to the City of Tucson (Pima County Docket 12759:5132).

An iron cross is present within the right-of-way at the southwestern corner of North Craycroft Road and Fort Lowell Road. Although not a burial, the cross is marked with welded letters "Robert Hankocy 1956-2005." The cross is decorated with a garland of red and white artificial flowers, a toy motorcycle, and a plastic bead necklace with a small plastic cup marked "Party Time." Robert D. Hankocy was born on 12 March 1956, and died on 19 July 2005. Hankocy, a power tool repairman, was driving his motorcycle south on Craycroft Road and was struck and killed by a car backing out of a driveway (Rowley 2005).

Fort Lowell Park

The land currently used as Fort Lowell Park consists of three pieces of land totaling 37.73 acres. These

are Pima County Assessor's Parcel numbers 110-140-15A, 110-140-140, and 110-140-16B. The land consists of the SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ and the N $\frac{1}{2}$ of the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 36, Township 13 South, Range 14 East.

Historically, this area contained the majority of the Fort Lowell buildings and structures, including the eastern end of the officers' quarters row, the eastern half of the parade ground, the hospital, hospital kitchen, the laundresses' quarters, and the infantry company's quarters and kitchen. Portions of the hospital, the band quarters, one of the soldiers' quarters, and one of the soldiers' quarters kitchen are still standing today, but all are in poor condition and are actively eroding (Figure 14).

After abandonment of the fort, the U.S. government gave the land east of Craycroft Road to the State of Arizona. The state subsequently leased the land for ranching or farming purposes in the early twentieth century.

The adobe walls of fort-era buildings gradually crumbled due to weather-related erosion and vandalism. Interest in the preservation of the Fort Lowell ruins grew in the late 1920s. Local residents hoped to increase tourism and realized that measures needed to be taken to prevent the continued destruction of the surviving adobe walls.

In June 1929, the tenants of the land, Mr. and Mrs. W. C. Harrington, who leased that portion of the fort east of Craycroft Road, were asked not to damage the standing adobe walls on their property (*Tucson Citizen* 1929). Tucson residents held a dance to raise money to purchase the lease on the fort, valued at \$750.00 (Fort Lowell ephemera file, 1920s, AHS). Additional money was raised later in the year (*Arizona Daily Star* 1929).

Dr. Byron Cummings of ASM used the money to purchase the Harrington's lease in 1929, with the couple subsequently being paid a total of \$1,500.00 for improvements they had made on the property. The University of Arizona contributed \$750.00, and moneys collected by Mrs. George Kitt and the Tucson Chamber of Commerce provided another \$750.00. The Harringtons were also paid a yearly lease fee. The Arizona Archaeological and Historical Society then organized an effort to fill in potholes at the site (Bieg et al. 1976:73).

The 1930s saw an attempt to create a national monument through the National Park Service (*Arizona Daily Star* 1936b). In 1932, a Fort Lowell Bill came before the U.S. Congress but failed to pass (Bieg et al. 1976:74). In 1933, adobe walls were built along the eastern side of Craycroft Avenue and on the northern side of the main portion of Fort Lowell by the Civil Works Administration (C.W.A.). Two years later, the C.W.A. from Camp SP-11, under the direction of Charles Maguire, created diversion ditches,

constructed checkdams, and filled in gullies along that portion of the fort east of Craycroft Road (Fort Lowell ephemera file, AHS).

Work at the site ended in 1936, when funding of the program was cut (Bieg et al. 1976:74). Maguire continued to interview local residents in 1937 and 1938, collecting information about life at the fort, the appearance of structures, the location of the fort flagpole, and architectural elements from buildings. He also prepared a master plan for the proposed park (McGuire 1938). Ultimately, this effort failed. Historic American Building Survey forms, plan view, cross-section, exterior façade drawings, photographs, and data sheets were prepared by Maguire and other government personnel for the second officers' quarter's kitchen, the third officers' quarters, and the post hospital (online at the Library of Congress website, <<http://memory.loc.gov/>>).

Maguire completed a map in June 1937 for a proposed Fort Lowell State Park (Figure 15). Another map was drafted by Philip Contzen at about the same time (Figure 16). Contzen's map varies quite dramatically from Maguire's map in some details.

In 1941, the president of the University of Arizona instructed Dr. Emil Haury of ASM to turn the fort over to another agency as a cost-savings measure. Subsequently, in December 1944, the property was auctioned, and it was purchased by George Babbitt for \$9,000.00, in an effort to save the ruins (Bieg et al. 1976:74; *Tucson Citizen* 1945c, 1945d).

George Babbitt, Jr., was a member of the prominent Babbitt family of northern Arizona. He was born in Flagstaff on 4 June 1899. He attended Loyola University in Los Angeles, and returned to Flagstaff, where he worked for the Babbitt Brothers Trading Post and became involved in Democratic Party politics. He was named Postmaster of Flagstaff in 1936, and retained that position until 1953. George Babbitt was very interested in history, maintaining membership in several historical societies and conducting oral interviews with Arizona pioneers. He died on 24 October 1980 (<<http://wc.rootsweb.ancestry.com/>>).

Babbitt learned that the Catalina Council of Boy Scouts was interested in obtaining the land. He returned the parcel to the State Land Department. The department then held an auction on 11 September 1945, and sold the land for \$220.00 to the Catalina Council Inc., Boy Scouts of America. There was some anxiety because four other individuals had expressed interest in purchasing the land; however, after learning they would be bidding against the Boy Scouts, they did not do so (*Tucson Citizen* 1945a).

The scouts planned to reconstruct several of the buildings, but lacked the necessary funding. They were, however, able to erect a shelter over the ruins of the hospital building, replace eroding adobe

bricks, and build a redwood enclosure around the building. The restoration work on the hospital was led by Dr. E. H. Bruening, who was a member of the Catalina Scouts Board (*Arizona Daily Star* 1953; Bieg et al. 1976:74; Fort Lowell ephemera file, 1940s, AHS; *Tucson Citizen* 1945c). A caretaker's residence was built during the Boy Scout use of the fort, occupied in 1952 by Scout Ranger Jerry Field and his wife. A 25-ft by 72-ft barracks building was brought from Fort Huachuca, and two other barracks were brought from Marana, one of which was used as an activity building. A well was drilled, and an open-air shower and a wash basin facility were constructed (*Tucson Citizen* 1958b; *Tucson's Scouts Camp at Historic Fort* 1952).

The Pima County Parks and Recreation Board urged the county to acquire the property (*Arizona Daily Star* 1956). The Catalina Council gave Pima County an option to purchase 37 acres of their Fort Lowell property on 18 January 1957 (*Arizona Daily Star* 1957; Pima County Daily Docket 1163:151). Pima County subsequently purchased the property on 7 August 1957, with deeds describing it as the east 500 ft and the south 760 ft of the SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 36 (Pima County Daily Docket 1163:155). They reportedly paid the Scouts \$50,000.00. The county then established the Fort Lowell Historical and Recreational Area (Fort Lowell ephemera file, 1950s, AHS). The county closed the park in July 1957, due to increased vandalism, with adobe walls being knocked over (*Tucson Citizen* 1957).

Pima County soon made plans to develop the park for recreation. Initial plans called for replanting the cottonwood trees on Officer's Row, construction of a museum, and creation of picnic areas (*Tucson Citizen* 1957). These plans were scrapped, and new plans drawn up that included construction of athletic fields, an arts and crafts building, and a "tiny tot playground." The historical nature of the site was de-emphasized (*Arizona Daily Star* 1960b). Concerned citizens organized and presented an alternate plan to the county (*Arizona Daily Star* 1960a).

A committee was established in 1960, to plan reconstruction of the commanding officer's quarters and kitchen. Archaeologist Al Johnson spent 16 days excavating these structures, privies, and a trash dump (Hodge 1960; MS 265, AHS).

The County Parks and Recreation Committee and the Junior League joined forces to promote the work (*Arizona Daily Star* 1961b). The cost of restoration was calculated to be \$40,000.00. The Board of Supervisors for Pima County was asked to provide funds for the reconstruction (*Arizona Daily Star* 1962a). The Junior League donated \$11,300.00, Pima County \$28,000.00, the Sheriff's Posse of Pima County \$1,500.00, and the Civil War Centennial Committee

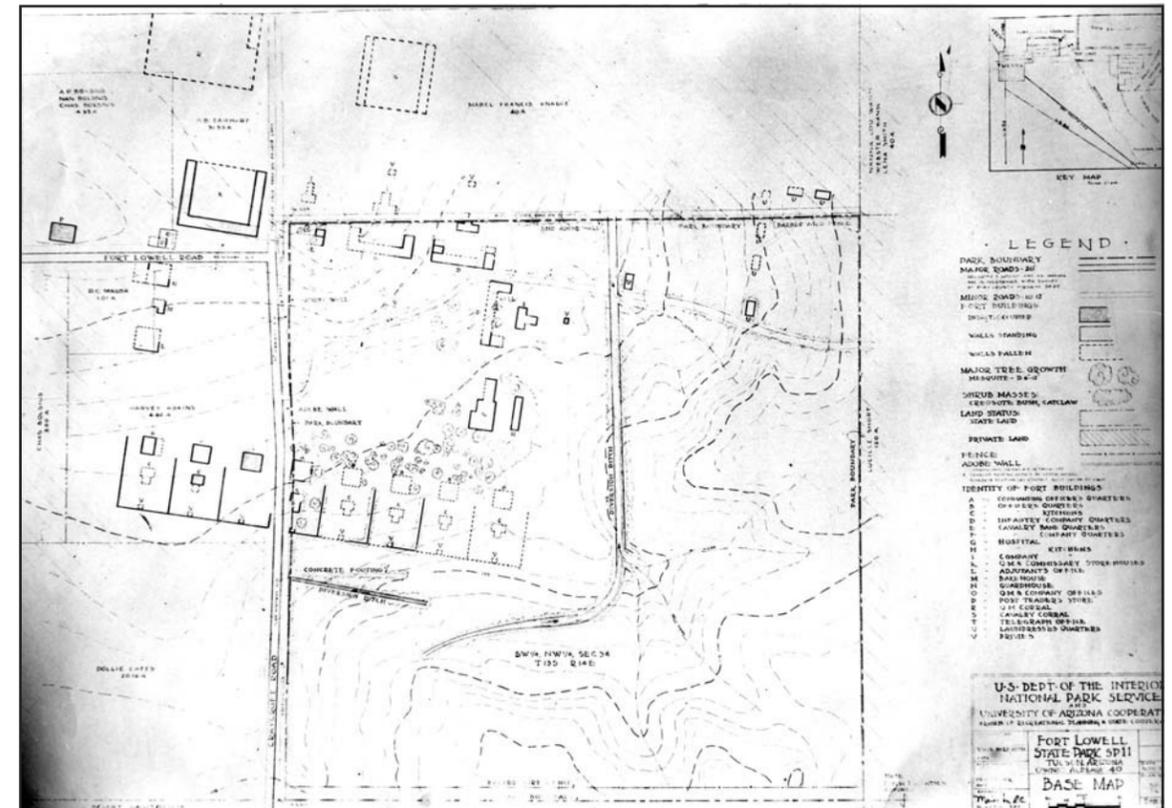


Figure 15. A 1937 map of Fort Lowell, drafted by Charles Maguire (AHS/SAD 12887).

\$150.00 (*Arizona Daily Star* 1962c). The Junior League had raised funds through its “Junior League Follies” and rummage sales (*Arizona Daily Star* 1961a).

Architect William Goldblatt was appointed to draw plans for the project, selected after he showed the Board of Supervisors his preliminary plans (*Arizona Daily Star* 1962b). He prepared plans for the new buildings, including visiting a home on North Euclid Avenue that incorporated an original door from an officers’ quarters (his drawings of the door and other architectural elements are on file at the Arizona Historical Society in Tucson within MS 0265). Construction began in 1962, and the dedication ceremony was held on Veteran’s Day, 11 November 1963 (*Arizona Daily Star* 1963a; Dedication brochure on file at the Arizona Historical Society; Goldblatt 1964; *Tucson Citizen* 1963a). Approximately 700 people attended the opening ceremony for the new museum, with George Babbitt serving as keynote speaker (*Arizona Daily Star* 1963a).

The reconstructed officers’ quarters and kitchen were built with a concrete block core and an unfired adobe brick veneer. Sahuaro ribs, oak, and pine logs were obtained from the region. Milled lumber, including redwood, was imported; fired bricks and wall caps were locally made (Goldblatt 1964).

Concurrently, Pima County began development of other portions of the park. A contract for site grading and the placement and compaction of 24,000 yd³ of fill was let in 1961 (*Tucson Citizen* 1961a). A deep well turbine pump was installed that same year, probably for watering the area to promote grass growth (*Tucson Citizen* 1961b). A contract to install sewer lines within the park was given to the E. P. Huniker Construction Company in May 1963 (*Tucson Citizen* 1963c). Craycroft Road and Glenn Road, adjacent to the park, were proposed for paving and installation of curbs and sewers in 1964, with the work completed the following year. By 1963, an estimated \$55,000.00 had been spent on the park (*Tucson Citizen* 1963b, 1964a, 1965b).

A swimming pool, a wading pool, and bathhouse were built in 1967, four years after local residents petitioned the county for this improvement (*Tucson Citizen* 1963b, 1967c). The existing sewers were not big enough to handle the pool overflow, so a small pond was constructed at the park to hold this water. Several ramadas were also constructed for use by picnickers and people attending sporting events. The Little League ran an electrical line to one ramada for an automatic pitching machine, which was judged to be a public safety hazard. The Little

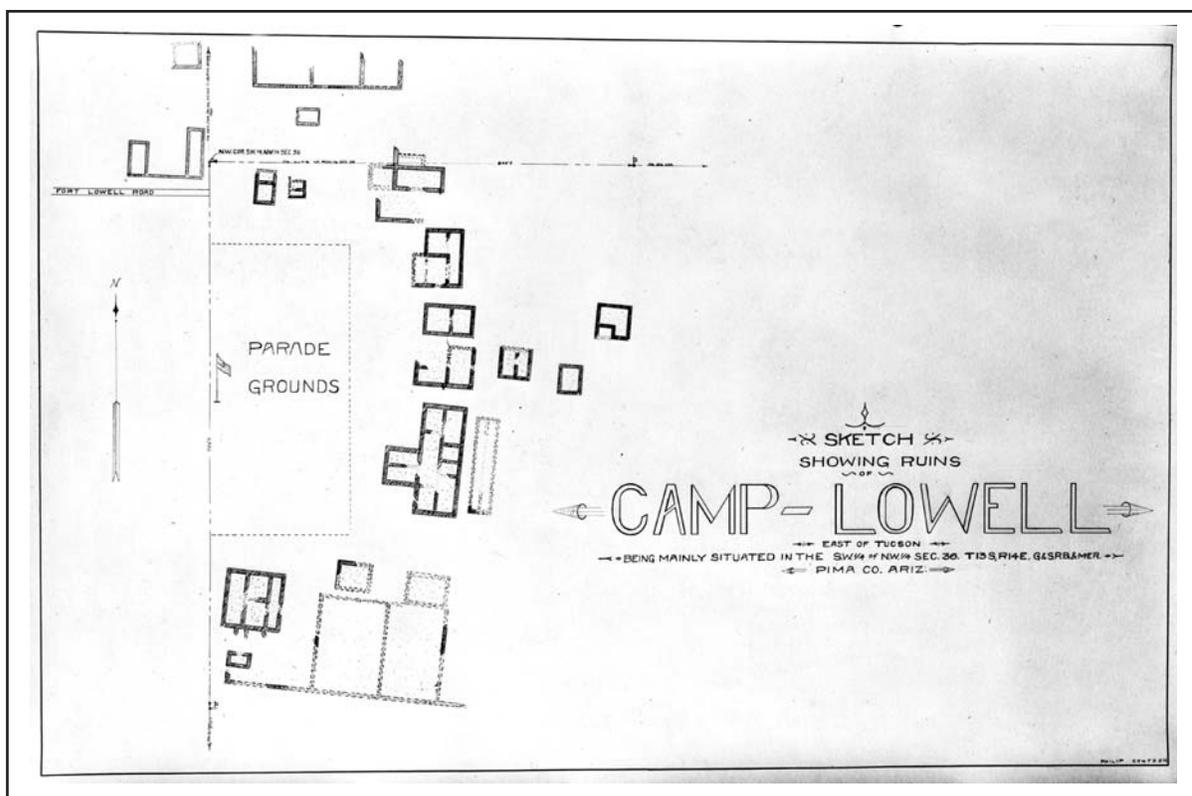


Figure 16. An undated map of Fort Lowell, drafted by Philip Contzen (AHS/SAD BN 207929).

League also complained about the condition of the baseball field (*Tucson Citizen* 1967a).

Construction of the retaining pond proved difficult. A sand layer was discovered, and a vinyl liner was required to keep the water in place (*Tucson Citizen* 1967b). By 1970, the park had ramadas, a major baseball field, six Pee Wee League fields, playground equipment, a museum, a swimming pool, and a wading pool (*Tucson Citizen* 1970). An archery range was to be installed in the northeastern corner of the park in 1971 (*Tucson Citizen* 1971). Tennis courts were in place by November 1972 (*Tucson Citizen* 1972). Soccer was being played at the park by November 1974 (*Tucson Citizen* 1974c). Additional baseball fields and a racquetball court were to be constructed in 1975, leading one Tucson resident to complain that the park was favoring recreation over history and archaeology (*Tucson Citizen* 1974b).

A variety of cultural and sports events took place within the park. In April 1965, a Pioneer Jubilee was held that included a Mormon chuckwagon supper and a "pageant honoring the American pioneer. Music and dancing" (*Tucson Citizen* 1965a:5). Arts and crafts fairs were held at the park in the late 1960s, with items made in a Crafts Center at the park offered for sale. Among the crafts taught at the center were decoupage, fabric painting, porcelain painting, and ceramics (*Tucson Citizen* 1969a). Swimming com-

petitions were held at the newly completed pool in the late 1960s (*Tucson Citizen* 1969b). Other events included Cavalry Field Days, Easter Egg hunts, potluck suppers, wedding receptions, family reunions, and meetings.

In March 1973, the 100th anniversary of the establishment of the fort at the location was marked by a large celebration, including a pageant "If Adobes Could Talk." The pageant had a variety of vignettes, including "Portrayal of Papago Culture," "Tucson—the Mexican Village," "Won Toi's Celestial Restaurant," and "Fort Lowell in Summer" (pageant program, Fort Lowell ephemera file, AHS; *Tucson Citizen* 1973). The Tierra del Sol Garden Club planted an Aleppo pine in the park for Arbor Day in 1974, the third tree the group placed in the park (*Tucson Citizen* 1974a). A Senior Now center was present in 1977, serving hot meals to senior citizens (*Tucson Citizen* 1977).

In 1971, the publication of *Tucson's Historic Districts* noted that Fort Lowell was one of five remaining historic areas the city should consider as possible historic districts. Three years later, local residents and property owners petitioned the Pima County Planning and Zoning Commission to make Fort Lowell a historic zone. The spring of 1976 saw planning students from the University of Arizona canvassing the neighborhood to determine which

buildings and structures might be considered historic (Bieg et al. 1976:3-4). The Fort Lowell Multiple Resource Area was nominated to the National Register of Historic Places in 1977, and was listed on the National Register on 10 April 1978 (National Register form). Inventory forms created during this process are housed at AHS (MS 265, binder in file).

The County Board of Supervisors purchased three additional acres from the Boy Scouts in 1972 for \$10,000.00 (*Arizona Daily Star* 1972). Pima County set aside \$283,000.00 to purchase 20 acres of land on the eastern side of Fort Lowell, extending the park to the Pantano Wash (Hatfield 1975). One of the county supervisors, Bud Walker, complained that Fort Lowell was receiving more money than other parks (*Arizona Daily Star* 1975).

In 1981, museum curator Dave Faust supervised the capping of walls within the park (Bunnell 1981). The re-created officers' quarters within the park suffered major damage in a storm in 1982. The following year saw restoration of the building and the adjacent kitchen (*Arizona Daily Star* 2008). Currently, visitors to the park can view four enclosures containing the remains of the hospital, a soldiers' barracks, a barracks kitchen, and the eastern portion of the band quarters (Figure 17).

The Pima County Board of Supervisors decided to transfer Fort Lowell Park to the City of Tucson on 30 June 1984 (Kemper 1984a, 1984b). The City of Tucson formally acquired the park from Pima County on 4 October 1984 (Pima County DRE 7387:553). A Master Plan was prepared the following year that discussed the historic and archaeological character of Fort Lowell, existing conditions, citizen participation, project objectives, and a plan (City of Tucson Parks and Recreation Department 1985).

Interpretations within Fort Lowell Park

A number of monuments are present within the park along with two sets of interpretive signage (Figures 18 and 19). At the east end of Cottonwood Lane is a bilingual historic site marker created by the Tucson-Pima County Historical Commission and the Arizona Historical Society. The sign reads:



Figure 17. Photograph of the hospital ruins, January 2009.

Fort Lowell. The military post, established in 1862 near downtown Tucson, was moved to this location in 1873. One of many active forts on the Arizona frontier, Lowell served also as a major supply depot, influencing the economy and social life of the community. At its peak in the 1880's, three companies of infantry and two troops of cavalry—more than 250 officers and soldiers—were stationed here. The need for Fort Lowell steadily declined after Geronimo's surrender in 1886 and, despite local protest, it was closed by the army in 1891.

The signs are mounted on a metal pole and are in good condition.

A bronze plaque is mounted on a stone and mortar base also near the east end of Cottonwood Lane. It reads:

Cottonwood Lane/Planted shortly after Fort Lowell was established in 1873. The trees were irrigated by acequias or open ditches with water diverted from Pantano Wash. The beautiful shade trees made Fort Lowell an oasis in an otherwise barren area. After the fort was abandoned in 1891 the trees died and were cut up for firewood. Now they have been replanted as they originally were in the heyday of Fort Lowell./Presented by the Conservation Dept. of Tucson Woman's Club/Mrs. H. M. Merritt, President 1964-65.

The plaque appears to be in good condition.

An adobe-colored concrete column stands west of the hospital and has two bronze plaques attached to its western side. The uppermost contains the following text:

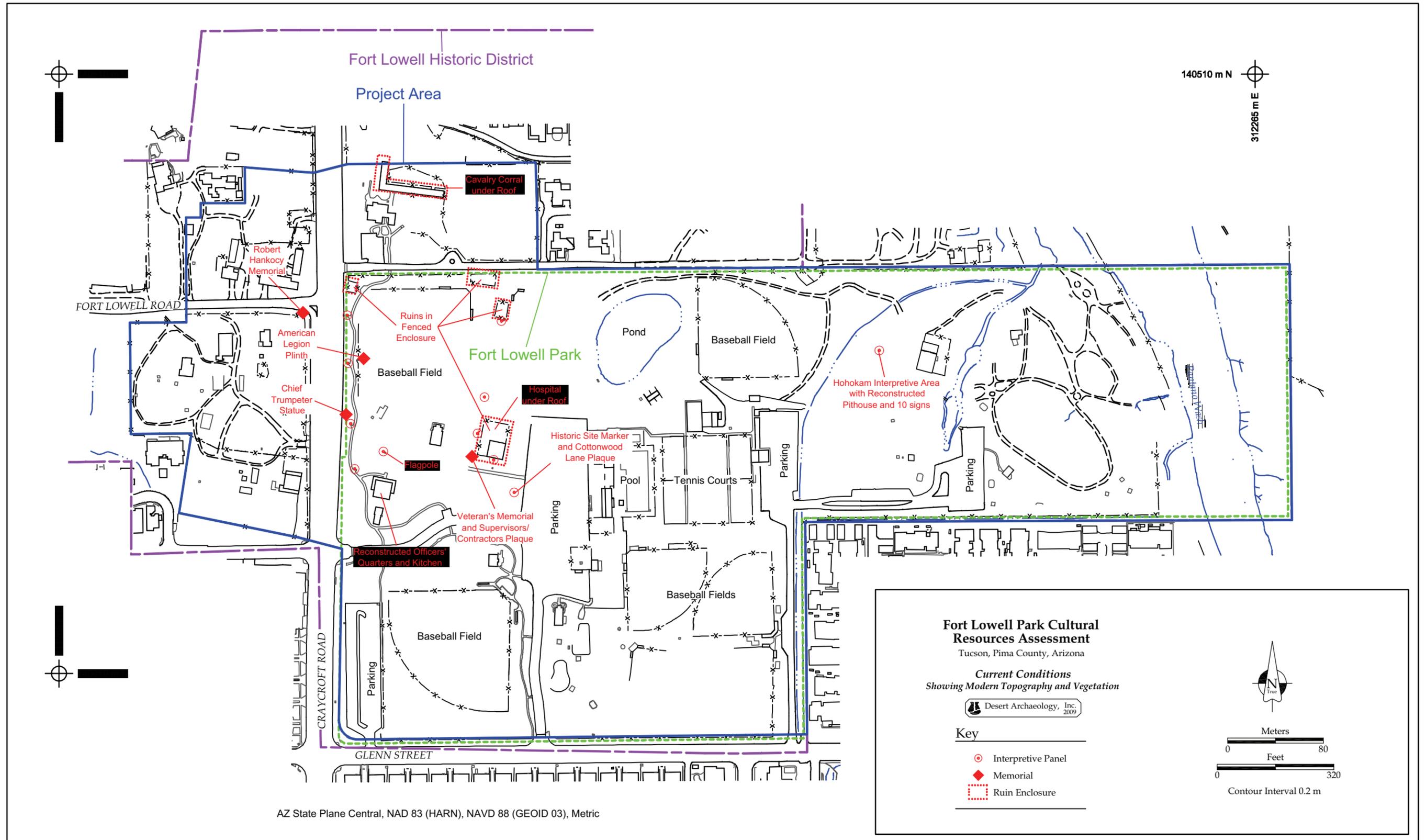


Figure 18. Map showing locations of the Hankocy cross, ruin enclosures, monuments, interpretative signs, and the Hohokam pit structure.

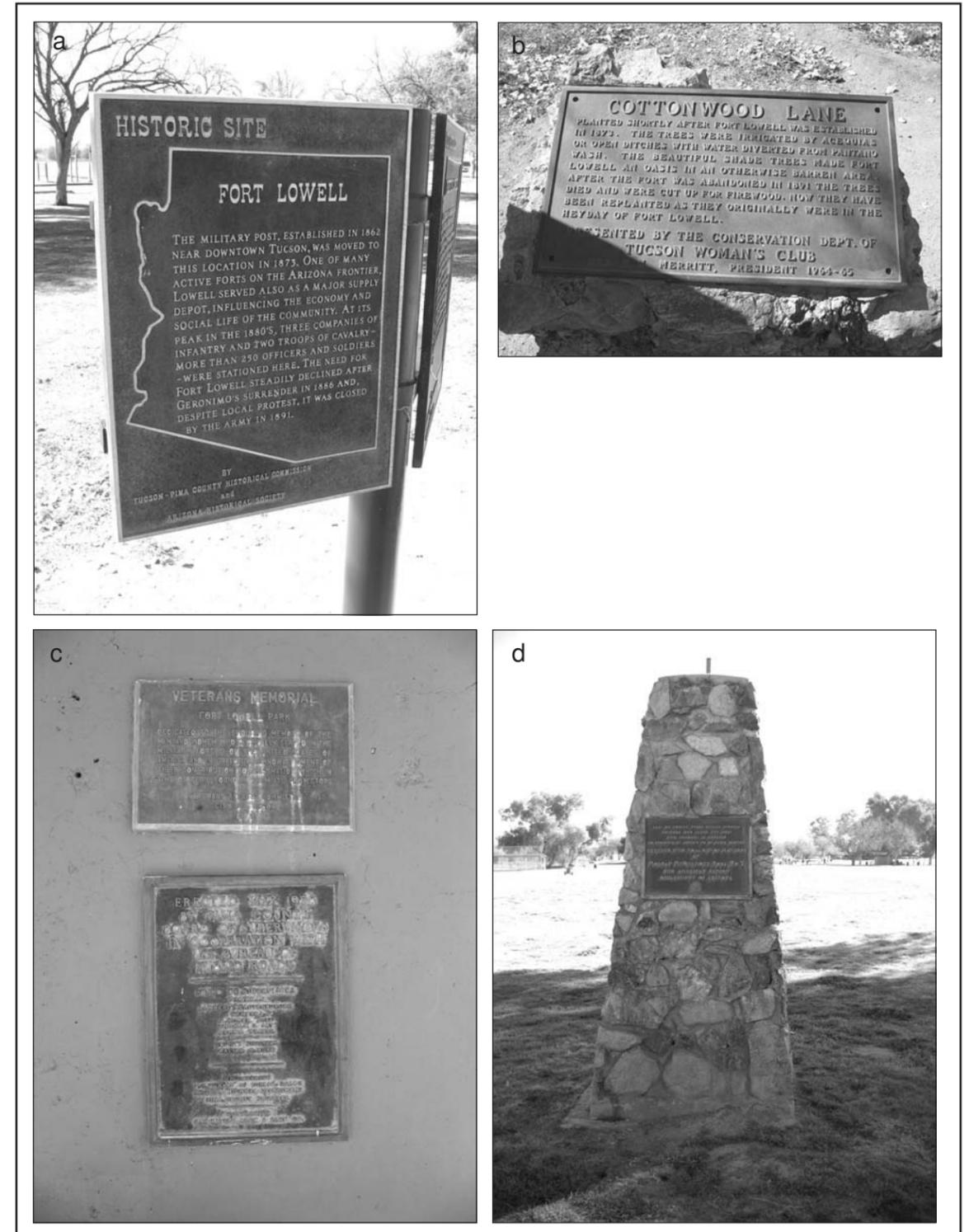


Figure 19. Examples of monuments within Fort Lowell Park: (a) historic sites plaque; (b) Cottonwood Lane plaque; (c) Veteran's Memorial and park plaques; and (d) American Legion plinth.

VETERAN'S MEMORIAL/Fort Lowell Park/Dedicated to the enduring memory of the men and women who faithfully served in the military forces of the United States of America and in grateful acknowledgment of their contribution to this nation, which in time of peril, found in them its protectors./Veterans Affairs Committee/ City of Tucson/1979.

This plaque has several streaks of paint or, perhaps, corrosion running down its front, as well as several splotches of the adobe-colored paint.

Below is a larger, rectangular bronze plaque with the following text:

Erected May 1958 by Pima County Board of Supervisors in cooperation with U.S. Bureau of Public Roads/Board of Supervisors/Chairman/Lambert Kautenburger/Members/Homer Boyd/Thomas S. Jay/Dennis Weaver/County Engineer/Walter A. Burg/[line] Engineering/U.S. Bureau of Public Roads/Arizona Highway Department/Pima County Engineer/[line] Contractor/San Xavier Rock & Sand Co.

This plaque appears to be suffering from corrosion.

A stone plinth is present along the western side of the park with a bronze plaque attached to its western side. The plaque reads: "Lest we forget those rugged pioneer soldiers who tamed the west, this memorial is erected to perpetually remind us of their service./Erected this 30th day of May 1965 by Morgan McDermott Post No. 7/The American Legion/Department of Arizona/[seal of the American Legion]." The plaque appears to be in good condition. A galvanized pipe protrudes from the top of the plinth, and it appears something was once attached to this.

A statue, "The Chief Trumpeter," created by Dan Bates of the Desert Crucible Foundry, faces North Craycroft Avenue, southwest of the American Legion plinth. An interpretive sign indicates the statue was placed at this location in February 1991. It stands on a tall base faced with brown limestone slabs, which are beginning to deteriorate, especially on the northwest corner.

Wooden signs are present inside some of the panel fences enclosing the fort-era ruins. All of these signs are in poor condition.

A set of nine interpretive panels commemorating Fort Lowell are scattered around the historic site. These are titled: "Fort Lowell Post Hospital," "Post Hospital," "Infantry Barracks-Laundresses Quarters," "Cavalry Barracks and Band Barracks," "Quartermaster Depot," "Headquarters Buildings," "The Chief Trumpeter," "Officer's Quarters," and "Fort Lowell Flagpole." All of the signs are fairly recent and are in good condition. The flagpole sign stands just south of the reconstructed flagpole, erected in

2007, to replace the earlier flagpole, which stood from 1978 to 2005.

Northeast of the pecan grove is the Hohokam interpretive area. A generic pit structure is marked with an earthen-colored concrete-lined "pit," with posthole locations marked by oversized weathered posts. Surrounding the pit structure are 10 etched-metal interpretive panels covering the following topics: "The Tucson Basin in A.D. 1150," "Tucson in 1875," "Archaeology," "O'odham," "Trash Disposal," "Houses Built in Pits," "Life in a Hohokam Village," "The Tucson Basin," "Death and Dress," and "Inside a Hohokam House." All of these panels are very weathered and will likely be illegible within a few years.

The Donaldson/Hardy Property

The Donaldson/Hardy Property is located at the northeastern corner of the intersection of Fort Lowell Street and Craycroft Road and is Pima County parcel numbers 110-14-013B and 110-14-012C, totaling 3.49 acres. The property is located in the SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 36, Township 13 South, Range 14 East.

Fort Lowell-era structures once located on this parcel included the band quarters' kitchen, excavated as AZ BB:9:72 (ASM), the hay yard, the cavalry corral and stables, and a privy. Archaeological work was conducted in several of these structures in the early 1980s (Huntington 1982). Portions of the cavalry corral wall are still standing.

Efforts to identify the earliest private owners of this property were unsuccessful. The earliest identified owners were Emerson C. and Margaret J. Scholer, who sold the land on 15 April 1947, to John W. and Janet B. Donaldson (Pima County DRE 324:585). The Donaldsons apparently constructed the house standing on the parcel; it first appears in the 1948 city directory. John Donaldson worked as a rancher, and the couple had three children. They retained ownership until 12 December 1978, when they sold the house to John C. and Susan S. Hardy for \$76,000.00 (Pima County DRE 5929:592).

The Hardys moved into the house, with Mr. Hardy working as manager of a tennis shop. They sold their property, which included a parcel on the eastern side of the existing Fort Lowell Park, to the City of Tucson on 30 May 1985 (Pima County DRE 7545:1001-1002).

Afterwards, in 1986, the city leased the property to the Human Adventure Center, a health science museum. The house was later leased to the Arizona Historical Society, which used it as an educational center for several years. The house has been vacant since the early 1990s (Thiel 1994).

An architectural evaluation of the house was conducted in July 1994, by Stan Schuman of CDG Architects. He determined that the core of the single-story house was constructed from 12-inch-thick adobe bricks. The original house was probably L-shaped with a low-sloping, built-up roof and parapet. Verandas were present on the northern, southern, and western sides, and these were later enclosed with low-fired adobe bricks to enlarge the home. The original house probably had double-hung wood windows; however, most of these were removed when the house was enlarged, and all but one of the existing windows were steel sash, casement type or large wood-frame with intermediate mullions. The interior floor of the house is poured concrete, covered in some areas with carpet or 8-inch-square Saltillo tile.

The 1990s saw construction of a roof over the remaining standing portions of the cavalry corral (Figure 20).

The area surrounding the house has desert landscaping with typical Sonoran Desert vegetation, including barrel cacti, mesquite trees, yucca, and agaves.

The Quartermaster's and Commissary Storehouse/*La Saetas*

The Quartermaster's and Commissary Storehouse Property is located at the northwestern corner of Fort Lowell Street and Craycroft Road. It is Pima County Parcel Number 110-090-06L, totaling 2.28 acres. The property is located within the SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 25 in Township 13 South, Range 14 East.

This was the location of the Fort Lowell quartermaster and commissary storehouse, the quartermaster and commissary offices, and the blacksmith shop. The office is no longer standing, and most of the remains of this building likely lies beneath modern Fort Lowell Road. The blacksmith shop no longer exists, and was located at the back of the parcel, or possibly to the north, beyond the property line. Portions of the quartermaster and commissary storehouse have been incorporated into an apartment complex built in the 1940s.



Figure 20. Remnants of the cavalry corral, covered with a metal roof in the 1990s.

In 1896, the Department of the Interior, General Land Office, authorized the sale of buildings and the land on the SE $\frac{1}{4}$ and NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 35 (*Arizona Daily Citizen* 1896). Severin Rambaud purchased the patent for the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ (Pima County DRE 67:292). Lyman Wakefield purchased the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$, located immediately to the south (Pima County DRE 67:294-295) (Thiel et al. 2008).

Severin Rambaud was born on 17 February 1843, in "Brutinel," Hautes Alpes, France, located in the southeastern corner of the country. He came to the U.S. in 1868 (according to the 1900 and 1910 censuses), reportedly moving to Tucson in 1880. Rambaud married a widow, Refugio Diaz de Carrillo, on 10 December 1892 (Lyons 1980). She was born circa February 1857, in Hermosillo, Sonora, the daughter of Jose Maria Diaz and Jesus Cerma. Severin operated a bakery in Tucson for 10 years and later, had a ranch on the San Pedro River (*Tucson Citizen* 1918b). The couple lived in a home on Meyer Street on 19 June 1900, with Severin listed as a stock raiser (1900 U.S. census, Arizona Territory, Pima County, Tucson precinct 1, ED 49, sheet 20B). On 23 April 1910, the couple and Severin's nephew and niece, John and Maria Rambaud, lived on Meyer Street. By this time, he was retired and living off of investments (1910 U.S. census, Arizona Territory, Pima County, Tucson ward 1, ED 112, sheet 10B).

Severin died on 27 January 1918, at his home in Tucson, from pneumonia, and is buried in Holy Hope Cemetery (Severin Rambaud, Original Certificate of Death, online at <<http://genealogy.az.gov>>). Refugio died on 14 October 1934, in Tucson, from chronic nephritis, and is also buried in Holy

Hope Cemetery (Refugio Rambaud, Standard Certificate of Death, online at <<http://genealogy.az.gov>>).

Rambaud owned the property for only a year, selling it on 19 September 1898, to Robert D. Cole for \$500.00 (Pima County DRE 28:710). Robert Dysart Cole was born on 23 October 1862, in Missouri, the son of Samuel Franklin Cole and Mary Dysart (see entry on WorldConnect database, <wc.rootsweb.ancestry.com>). He was married in September 1884, to Mary Isabella Mahard. She was born on 12 August 1868, in Missouri, daughter of James Mahard and Luella Lucas.

In June 1900, the couple, their three living children, Rena, James, and Robert, and Robert's father Frank S. Cole lived in Tucson, with Robert working as a farmer (Robert D. Cole household, 1900 U.S. census, Arizona Territory, Pima County, ED 46, sheet 15B). In that month Cole reported that he had about 100,000 melons on his vines at his Fort Lowell ranch, as well as a second crop of strawberries (*Tucson Citizen* 1900a). The couple executed several mortgages in 1908, and Cole sold 330 acres of land to J. P. Mallory in November 1909 (Pima County DRE 23:398, 24:42; *Tucson Citizen* 1909). In December 1909, the Coles sold land to H. W. Shepherd (Pima County DRE 49:55). By May 1910, the couple and their family were living in Long Beach, California (Robert D. Cole household, 1900 U.S. census, California, Los Angeles County, Long Beach ward 1, ED 38, sheet 20A).

While these property transactions were taking place, after the fort was abandoned, the storehouse building was occupied by several Mexican families who called it the *comisario*. Among the residents reported to have lived in the building were the families of Refugio Martinez and Ricardo Ochoa. (Turner et al. 1982). No information could be located for the Martinez family in the U.S. censuses for 1900 through 1930.

The Ricardo Ochoa family is listed as living in the Fort Lowell area in the 1920 and 1930 censuses (1920 U.S. census, Arizona, Pima County, Fort Lowell, ED 80, sheet 7B; 1930 U.S. census, Arizona, Pima County, Fort Lowell, ED 10, sheet 7B). Ricardo was born circa 1895/1896, in Arizona. He was married on 21 March 1914, in Pima County, to Leonarda Romero (Negley and Tinney 1997:233). Leonarda was born circa 1901/1902, in Arizona. The couple had at least seven children: Sara (born 5 December 1914), Refugio (born 1917), Manuel (born 22 March 1919), Josefina (born 28 March 1921), Elidia (born 1923), Esperanza (born 1925), and A. Cruz (born 1929) (birth dates are from the censuses or the website <<http://genealogy.az.gov>>). In 1920, Ricardo was working as a farm laborer, and in 1930, he was a common laborer.

No biographical information was located for H. W. Shepherd. This individual sold the land on 30 June 1910, to A. R. Swan and his wife Nellie Swan (Pima County DRE 49:669). The Swans operated a sanitarium in the sutler's building into the 1910s and possibly the early 1920s. Again, very little biographical information was located for this couple. The nearby Swan Road was probably named after them. The Swans sold the sutler's building to Frank St. John on 12 October 1925 (Pima County DRE 112:205). The St. John family continued to operate the sanitarium as the Fort Lowell Health Resort in the late 1920s and early 1930s. In some as yet undetermined manner, Ambus Earheart obtained ownership of the land east of the sutler's building sometime prior to 1942.

Ambus Barnet Earheart was born on 28 March 1894, in Hermitage, Tennessee (WW I Draft Registration card, <www.ancestry.com>). He was married to Mary Curtis, and they moved to Tucson prior to April 1930, when they lived at 734 East Helen Street (1930 U.S. census, Tucson, Pima County, Arizona, ED 34, sheet 6A). In 1933, he and Mary owned a home on North Campbell Avenue, north of Prince Road, and were in the poultry business (Tucson City Directory 1933).

On 18 December 1942, the Earhearts sold the Quartermaster and Commissary Storehouse Property to members of the Bolsius family for \$10.00 (Pima County DRE 275:61-62).

Peter and Charles Bolsius were natives of Holland who arrived in Tucson after having lived in New Mexico for a while. Adrian Peter Maria Bolsius (known as Pete in Tucson), was born on 22 August 1897, in S'Hertogenbosch, Holland. Peter was in the Netherlands Merchant Marine at the onset of World War I, and after his ship was taken over by the U.S., he remained in the country (Wadsworth 1950:21). He formally emigrated to the U.S. aboard the S. S. Rotterdam on 17 July 1920, and moved to Dubuque, Iowa, where he met his wife, Kathleen E. (Nan) Sheridan, their marriage taking place around 1923/1924. Nan was born on 29 June 1898, in Victor, Iowa, daughter of Andrew Sheridan. Pete renounced his allegiance to Wilhelmina, Queen of the Netherlands on 10 December 1925, and became a citizen of the United States. At age 28, he was blonde, 5 ft 9 inches tall, weighed 160 pounds, had a slight scar on his lip, and worked as a salesman (Adrian P. Bolsius U.S. Naturalization Records, online at <www.ancestry.com>).

The couple was living in Tucson in January 1928 (*Casa Grande Dispatch* 1928). But by 2 April 1930, the couple and Nan's father lived in Riverside, Riverside County, California, where Peter worked as a typewriter salesman, and Mr. Sheridan was a farm laborer. The couple owned their home, which was

valued at \$3,000.00, but they did not have a radio (A. Peter Bolsius household, 1930 U.S. census, Riverside, Riverside County, California, ED 54, sheet 1A).

Carolus (Charles) Godefridus Wilhelmus Marianus Bolsius was born in Holland on 23 June 1907. He attended the Royal Academy of the Hague for art instruction (Wadsworth 1950:21). Charles moved to the U.S. in 1930. He became a United States citizen on 23 November 1935 (Adrian P. Bolsius U.S. Naturalization Records, online at <www.ancestry.com>).

Peter and Nan returned to Tucson in the early 1930s, and were joined by Charles. The Bolsius family initially purchased John "Pie" Allen sutler's store, from members of the St. Johns family on 3 January 1935 (Pima County DRE 186:99-100). The Bolsius family was living at 5425 East Fort Lowell by 1934, according to the Tucson City Directory. The trio worked on the sutler's store in February 1936, when it was reported that they "are re-building it into a 17th century Spanish style home" (*Arizona Daily Star* 1936a:15). The Bolsius family called their home "*La Saetas*" (Spanish for "The Arrows"). It was described as an example of "art handicrafts and the creative work of the Bolsius family" (*Tucson Citizen* 1945b:3). During the 1940s and 1950s, it was often the location of women's club parties and other social gatherings (Wadsworth 1950). Peter Bolsius lived in the restored store until the early 1960s, when he and Nan moved to a smaller apartment in the quartermaster and commissary storehouse. The sutler's store was acquired by Ben and Peggy Sackheim in 1973, a few years after Peter Bolsius was unable to have it rezoned for commercial use (*Arizona Daily Star* 1964; Noonan 1979).

The three Bolsiuses began work on the adjacent quartermaster and commissary storehouse building in the late 1940s. Most of the walls had collapsed. Charles Bolsius did much of the work, assisted by Peter and Nan. The fallen debris inside the building was cleared away to locate the original stone foundations, and new walls were constructed on those. Once the building was roofed, Peter and Nan hand-carved doors, corbels, niches, and cupboards, transforming the former storehouse into living quarters, which Charles occupied by the mid-1950s (Kinney and Kinney 1974; OFLNA Home Tour 2005; Thiel 1997b). The building is located at 5495 East Fort Lowell Road.

Charles Bolsius was a fairly well-known artist in Tucson. A set of his doors from a church in Sasabe in southern Arizona was used in the 1963 film *Lilies of the Field*, which was filmed in the Tucson area. He was married to his wife Leora in the 1960s. The Bolsius family members lived in the commissary building until at least 1980. Nan Bolsius had died in

May 1963 (*Arizona Daily Star* 1963b), and Peter's second wife Kathleen died in 1981. Charles died in March 1983, and Peter died in August 1987 (*Arizona Daily Star* 1987).

Siblings Mike and Judy Margolis bought the property from the Bolsius family in the 1970s (History Notes 2003). The City of Tucson purchased the property from the Margolis family in the early 2000s, after Margolis proposed to build additional housing on the land (Thiel 1997b; *Tucson Citizen* 2000). It continues in use today as rental apartments.

The rock-walled cellar for the storehouse is in the backyard, with several courses of adobe bricks on the northern wall. A window with iron bars is visible beneath the adobe wall. The entrance to the cellar was from the east (Figure 21). Examination of the undeveloped portion of the property revealed an outdoor barbeque made from rocks and concrete mortar, roughly 100 ft north of the storehouse. Beyond that, along the barbed wire fence, is an east-west wall from the quartermaster and commissary corral (Figure 22). Remnants of the wall were traceable for 35 m. The eastern and northern walls of the corrals, in addition to several adobe brick rooms on their interiors, can also be traced in properties to the north.

THE FORT LOWELL CEMETERY

Recent excavations at the National Cemetery in downtown Tucson, conducted by Statistical Research, Inc., personnel, uncovered portions of the military cemetery where soldiers from Camp Lowell and Fort Lowell were buried from 1862 until 1881 (O'Mack 2006:117). A new cemetery was established east of Fort Lowell, probably in 1881. In March 1883, an estimate was provided to fence and place gates around this cemetery (Fort Lowell collection, MS 266, folder 2, AHS/SAD).

First Lieutenant William Carter prepared the 1883 inspection report for Fort Lowell and wrote:

I wish to call attention to the discreditable condition of the soldiers graves in the town of Tucson, seven miles from this Post. The fence has been torn down by the City authorities and a street run through the cemetery. The stones and headboards are disappearing and the graves will soon disappear, under the desecrating hands of the Tucson rabble, who seem to feel licensed by the action of the authorities. It is recommended that some action be taken to have the graves of men who died in uniform protected, or else remove the remains to another and more fitting resting place ("Annual Report of Public Buildings [1883]," Fort Lowell collection, MS 266, folder 2, AHS/SAD).



Figure 21. Entrance to the rock cellar on the northwestern wing of the quartermaster and commissary storehouse, February 2009.



Figure 22. The southern wall of the quartermaster and commissary corral, February 2009.

In the mid-1880s, 74 burials were removed from the National Cemetery and reinterred at this cemetery (O'Mack 2006:21-26). This cemetery was in use until the fort was abandoned in 1891.

A proposal for disinterment was published in area newspapers in January 1892, with 19 February 1892 given as the deadline for submittals. The bids were for "disintering, disinfecting, boxing and removing remains of soldiers, their families and others, together with the headstones... and delivering them at the nearest railroad station" (*Santa Fe Daily New Mexican* 1892:1).

David Dunham, a farmer living near the fort, was the lowest bidder (*Arizona Weekly Journal Miner* 1892). Removal of bodies began in May. A newspaper reported:

A ghastly sight met the eyes yesterday of parties engaged in removing the remains of a soldier from Fort Lowell to the

National Cemetery. The evidence were plain that James Deviney, a member of "L" Troop, Fourth Cavalry, who died four years ago, was buried alive. The head of the body was found turned over to the left and the right arm lying straight down by the side. The left arm was thrown over the left thigh and the lower limbs were crossing each other. From the appearance and position of the lower jaw and portions of the face which was yet intact, it is clear that animation returned after burial and that he subsequently died in great agony (*Philadelphia Inquirer* 1892).

Captain Roger Bryan supervised the removal of remains from May through July 1892 (Bryan 1914:99). In all, 80 burials were disinterred and taken to the San Francisco National Cemetery (including west side burials 1275-1296, 1053-1055, 1059, 1063, and 1366-1387). Some burials, including those of civilians, were left in place (Edith C. Tompkins collection, MS 790, AHS/SAD).

The exact location of the Fort Lowell Cemetery is not known. A map in the Edith Tompkins manuscript collection suggests it was located on the southern side of "Cienaga Road" southeast of the fort in the NE $\frac{1}{4}$ of Section 36 (MS 790, AHS/SAD) (Figure 23). The cemetery was relocated on private property in 1952, when members of the local Post 549 of the Veteran's of Foreign War received information from the U.S. Army Command. A photograph in a local newspaper clearly shows grave depressions and the base of a grave marker (*Arizona Daily Star* 1952). Houses are thought to have been built on the location.

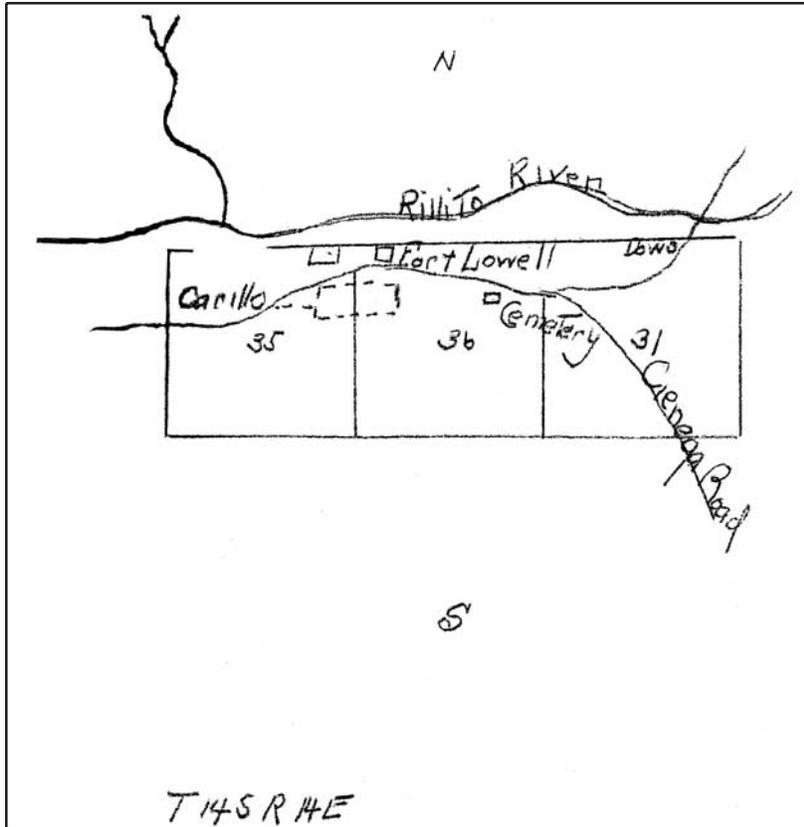


Figure 23. A hand-drawn copy of the U.S. Army map, showing the location of the Fort Lowell cemetery (Edith Tompkins manuscript collection, MS 790, AHS/SAD).

FORT LOWELL AND CRAYCROFT ROADS

Two roads bisect the city-owned properties at Fort Lowell. East Fort Lowell Road runs east-west between the Fort Lowell-Adkins Steel Property and the Quartermaster and Commissary Storehouse Property. The 60-ft-wide right-of-way for this road was formally established by the Pima County Engineer on 25 September 1916 (Pima County Misc. Records, 14:581).

North Craycroft Road runs north-south along the dividing line between Sections 35 and 36. The road originally terminated at the fort, but was extended north through the fort in 1929 (Pima County Roads, 1:151). The 1980s saw the widening of Craycroft Road and the replacement and installation of utilities beneath the street and adjacent sidewalk (Dart 1988; Huntington 1982).

PREVIOUS ARCHAEOLOGICAL RESEARCH

A records check was conducted at ASM and on AZSITE. Cultural resource survey and site information reported in this section reflects records available

as of August 2008. Archaeological investigations have been conducted in the Fort Lowell area since 1935, when the Arizona Archaeological and Historical Society and the University of Arizona Anthropology Department went to Fort Lowell and filled treasure-hunters holes around many buildings (*The Kiva* 1935:4).

Archaeological sites identified within 1 mile of the project area are listed in Table 3 and shown in Figure 24. Similarly, archaeological projects conducted within 1 mile of the project area between 1979 and 2003, are listed in Table 4 and shown in Figure 25.

_____ have been identified within 1 mile of the project area. _____

Prehistoric Archaeology



CONFIDENTIAL INFORMATION

RESTRICTED ARCHAEOLOGICAL SITE LOCATION INFORMATION

Disclosure of the locations of historic properties to the public may be withheld under both federal and state laws.

Applicable United States laws include, but may not be limited to, Section 304 of the National Historic Preservation Act (16 U.S.C. 470w-3) and the Archaeological Resources Protection Act (16 U.S.C. §470hh).

In Arizona, applicable state laws include, but may not be limited to, Arizona Revised Statute Title 39, Section 125.

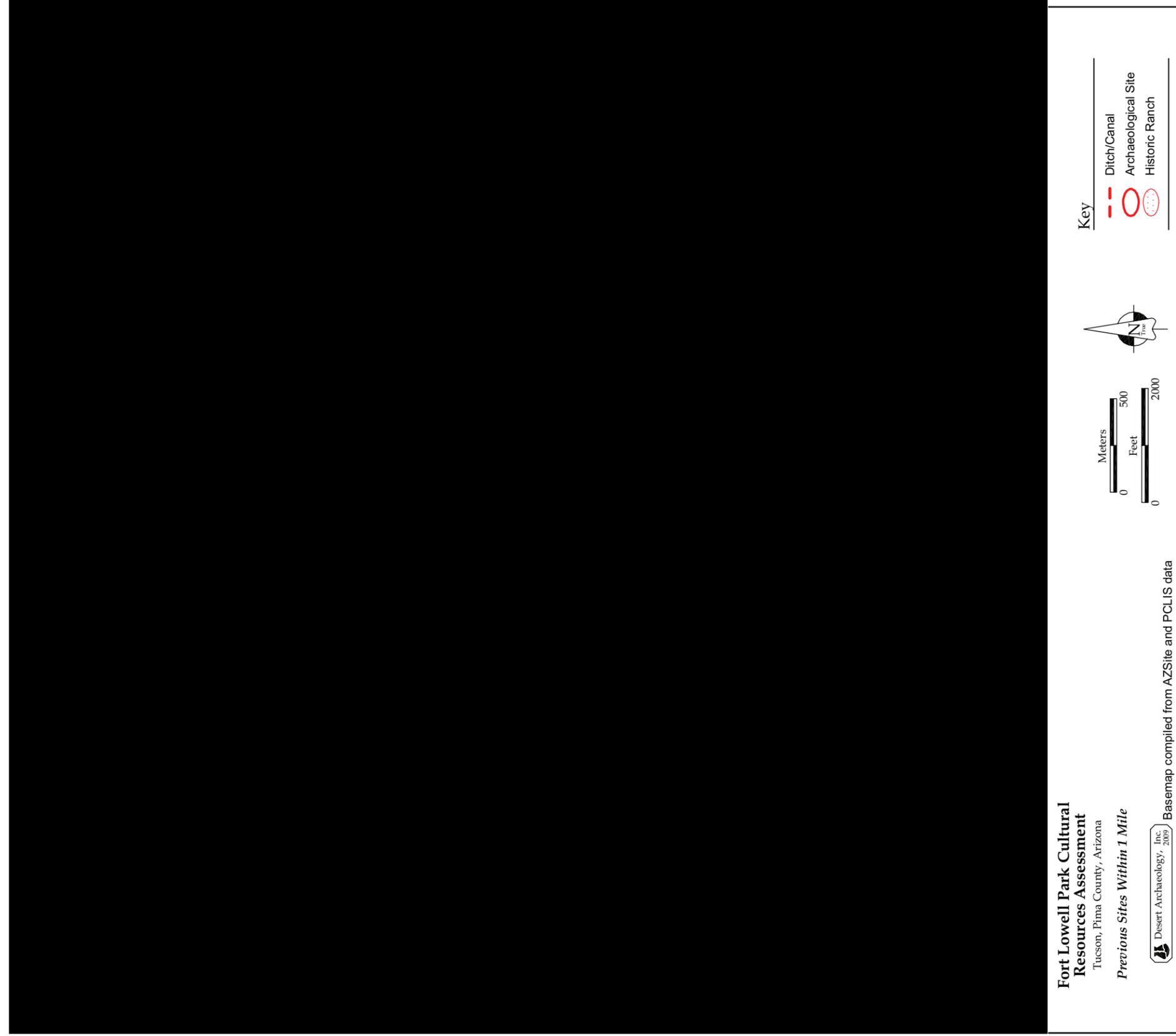


Figure 24. Previously recorded archaeological sites within 1 mile of the project area.

Table 4. Previous cultural resources surveys conducted within 1 mile of the project area.

ASM Project Number	Project Name	Organization	Sponsor
1979-31	Pima County Bridge Survey	Arizona State Museum	Pima County
1979-51	TEP 138 kV Survey, NE Substation to E Loop Substation through Snyder Substation	Arizona State Museum	Tucson Electric Power
1980-158	Rio Verde Vista II, East of Craycroft, N and S of River Road	Arizona State Museum	Broadway Realty & Trust
1980-227	ROW Along Grant/Kolb Road	Arizona State Museum	Arizona Department of Transportation
1980-228	Reconstruction/Widening of Grant Road, Sahuara to Wilmot Road	Arizona State Museum	Arizona Department of Transportation
1980-55	Primavera, SW Corner of Craycroft and River Road	Arizona State Museum	Continental Homes
1981-8	Cloverleaf Townhouses	Arizona State Museum	
1982-142	Hill Farms II, Ft. Lowell and Craycroft	Arizona State Museum	Cienega, Ltd.
1982-148	Sahuaro Village, Grant and Sahuaro	Arizona State Museum	Sun Country Development
1984-212	OPW South Rillito Sanitary Interceptor Survey	Arizona State Museum	Osborn, Petterson, Walbert and Associates
1985-79	Archaeological Clearance Survey of La Sonrisa Development Area, Pima County	Arizona State Museum	Lovstrom and Associates
1986-168	Clearance Survey for a Reclaimed Water Pipeline, North-Central Tucson	Arizona State Museum	Brown and Caldwell, Consulting Engineers
1987-139	Archaeological Monitoring during Construction of the Ft. Lowell Park Reclaimed Water Main	Arizona State Museum	R. E. Miller Paving and Construction
1987-213	Alamo Wash: Glenn Street to Rillito River, W.O. 4FAWFL	Institute for American Research	Pima County Transportation and Flood Control District
1989-121	Phase I Archaeological Reconnaissance of the Proposed Rillito Creek Recharge Site	Louis Berger and Associates	Camp Dresser & McKee
1989-2	Rillito Testing Project	Statistical Research	U.S. Army Corps of Engineers, LA District City of Tucson
1990-162	Archaeological Survey of Speedway/Pima Widening Project	Desert Archaeology	City of Tucson
1990-240	Fort Lowell Park Expansion	Desert Archaeology	City of Tucson
1991-89	Calle Chueca Main Replacement Survey	Desert Archaeology	City of Tucson
1994-87	Rillito Creek Recharge Feasibility Study	Bureau of Reclamation	Bureau of Reclamation
1996-42	Swan Road	Desert Archaeology	City of Tucson
1996-467	Parcel C, Fort Lowell at Swan Road	Arizona State Museum	University of Arizona
1996-468	Parcel B, Fort Lowell at Swan Road	Arizona State Museum	University of Arizona
1997-120	Ft Lowell/Orlando	Professional Archaeology Services & Technologies	The DeGrazia Company
1997-319	Archaeological Survey of the Fort Lowell Alignment Extension between Vista del Forte and Swan Road	Desert Archaeology	City of Tucson
1997-9	Archaeological Assessment of 5.6 Acre Parcel Near River and Craycroft Roads	Tierra Archaeology	Rogers Civil Engineering
1998-148	Swan / Sunrise Main Survey	Desert Archaeology	City of Tucson
1998-303	Presidio/Craycroft Rd. NWC	Professional Archaeology Services & Technologies	Planners Ink Corporated
1998-571	Canciones Survey	Tierra Archaeology	Rob Paulus Architect

Table 4. Continued.

ASM Project Number	Project Name	Organization	Sponsor
1998-61	Traffic Signal Survey: Grant/Rosemont	Desert Archaeology	City of Tucson
2000-264	Pantano Wash Bank Protection Project	Statistical Research	Pima County
2000-423	Craycroft Road Survey	SWCA	Engineering and Environmental Consultants
2000-790	TMC - Acadia Wash (Lots 13 & 14)	Professional Archaeology Services & Technologies	TMC Healthcare, Plant Services
2001-174	River Road-Tanuri Drive-Calle Vista Ciudad Buried Cable Survey	Old Pueblo Archaeology Center	Comcast Cable Communications
2001-502	Tanque Verde Wash Survey	Aztlan	American Pacific Engineering LLC
2001-53	Camp Lowell and Swan Survey	SWCA	Park West Development
2002-146	River-Craycroft Survey	Tierra Archaeology	Broadway Realty & Trust
2002-154	TMC Site Archaeological Survey	SWCA	Planning Resources
2003-425	East Lawn Survey	Tierra Archaeology	KB Home Tucson

the band quarters and kitchen and AZ BB:9:324 (ASM) for the quartermaster's dump—but both should be considered part of BB:9:40.

Johnson excavated a portion of Fort Lowell in 1960, prior to construction of a parking lot (Hodge 1960; Johnson 1960). During Johnson's project, one of the officers' quarters was completely excavated, the commanding officer's quarters were partially excavated, three other officers' quarters were tested, and several outhouses were excavated, as was a trash-filled pit. Johnson (1960) noted that buildings were constructed from unfired adobe bricks measuring 20 inches by 12 inches by 4 inches. Interior walls of these structures were plastered, while exterior walls were left unplastered.

Artifacts from this excavation are housed at ASM and are contained within 22 boxes (6 glass, 2 ceramic, 2 glass/ceramic, 9 mixed, 1 glass/plaster/ceramic, 1 metal, and 1 glass/wood/ceramic). These items have never been formally analyzed. A brief examination of the artifacts indicates that many are from the post-fort era and represent items discarded by Mexican families living in the abandoned structures, as shown by items with maker's marks that post-date 1891. The AHS in Tucson has a manuscript file containing information about the project (MS 265, AHS). This material includes the original maps drawn by Johnson, drawings of architectural elements found in other buildings and reported to be from Fort Lowell, and a variety of black-on-white photographs.

Excavations in 1982 documented the band-quarter's kitchen, where members of the regimental band had a mess hall, kitchen, and storage room

Historical Archaeology

Fort Lowell was assigned site number BB:9:40 by William Wasley in August 1960 (ASM site card). Additional site numbers have been assigned to the fort by other archaeologists—AZ BB:9:72 (ASM) for

during the fort's occupation (Huntington 1982). This structure is located on the eastern side of Craycroft Road and widening of that road necessitated the project, which documented the structure and recovered associated artifacts. At about the same time, excavations were conducted at the cavalry stables and corral, resulting in documentation of standing portions of the wall, as well as recovering a small number of artifacts (Huntington 1982).

In 1988, the Institute for American Research (now Desert Archaeology, Inc.) conducted monitoring of waterline trenches dug along the eastern side of North Craycroft Road, between Glenn Street and St. Gregory's High School (Dart 1988). Eight archaeological features were documented. Three of these features, two pithouses and a roasting pit, were prehistoric. One pithouse yielded Middle Rincon phase (A.D. 1000-1100) ceramics. Five other features dated to the Historic era. Four were associated with Fort Lowell and consisted of the area of the commanding officer's quarters, two pits, and a midden area. Another feature was a possible irrigation ditch from the Fort Lowell occupation or later.

On 3 October 1990, Jonathan Mabry of Desert Archaeology surveyed the Adkins Steel Property for the City of Tucson. He noted the presence of prehistoric and historic artifacts scattered about the property, as well as the three officers' quarters and the guardhouse of Fort Lowell (Mabry 1990).

Architectural evaluations conducted in 1994 and 1997 at the Hardy homesite, located at the north-eastern corner of Craycroft and Fort Lowell roads, and at the quartermaster and commissary storehouse at the northwestern corner of these streets, indicate that features associated with Fort Lowell and the Hardy sites are also likely to be found in these areas (Thiel 1994, 1997b).

Monitoring emergency stabilization work for the second officers' quarters and kitchen was conducted in August 2007. Portions of the wooden floor in the southeastern room of this quarters were removed so that wall bracing elements could be installed. A whiteware cup and a stoneware Dundee Marmalade jar were found beneath the floor, suggesting additional fort-era refuse may be present in this and other rooms. Newspapers from the 1930s were present beneath the deteriorated linoleum on the southern side of the quarters, in the area of a former porch. Other newspapers from 1920 were present beneath the cement capping elements that once lined the parapet of the quarters and its adjacent kitchen (Thiel et al. 2008).

Removal of a large underground storage tank in 2007 on the western side of the Adkins steel barn located a fragmentary brick foundation, or floor support pier, and an ash deposit associated with the post

bakery. The uncovered portion was six bricks long, two bricks wide, and several courses tall. Only a small portion was uncovered, and the full extent of the feature is not known. It is unclear how much of the bakery was destroyed by placement of the tank (Thiel et al. 2008).

Removal of a fuel line running from the large underground storage tank uncovered portions of the rock foundation of the guardhouse. The guardhouse foundations are partially visible on the ground surface, and additional rock alignments were visible in the trench for the fuel line (Thiel et al. 2008).

Artifact-collecting activities have also occurred on the property, focused especially on the latrine features associated with the officers' quarters. The Fort Lowell Museum contains displays with a number of artifacts purchased from an artifact collector. Some items have also been discovered on the surface within the park, or during excavation of trenches for utility lines. Despite these disturbances, many subsurface features associated with the prehistoric and historic occupation of the site likely remain undisturbed, hidden beneath the modern ground surface.

Previous archaeological work suggests the prehistoric occupation of the site occurred between A.D. 650-750 and A.D. 1000-1300. However, it would not be surprising if evidence for occupation during the intervening years were eventually located. The presence of pit structures along Craycroft Road and at the eastern edge of the modern Fort Lowell Park, as well as the location of artifacts over a much larger area, indicates this was a significant, large site. Many areas almost certainly remain undisturbed, despite the development of some portions of the site.

Fort Lowell-era (1873-1891) archaeological features are located within the park, the Fort Lowell-Adkins Steel Property, the City of Tucson-owned portion of the fort in the quartermaster and commissary storehouse area, and privately owned parcels north of the warehouse area. While artifact collecting activities have undoubtedly destroyed important features and artifact assemblages, the likelihood is high that other features have survived.

Post-Fort Lowell features (1891-onward) relating to occupation of the site by post-fort residents, are also likely to be present. These should include irrigation ditches or *acequias*, trash-filled pits, adobe mining pits, privies, and wells.

SURVEY METHODS AND RESULTS

Field survey of the project area was conducted on 23 January 2009, by Homer Thiel, and on 6 February 2009, by Thiel and Michael Brack. Overall

visibility of the ground surface varied across the project area. The western portion of Fort Lowell Park is covered with grass or structures, and visibility is very poor. The eastern portion of the park, including the pecan grove and the undeveloped area adjacent to the Pantano Wash, has less vegetation, but is also either heavily disturbed or covered with alluvial sediments. The Donaldson/Hardy Property and the Quartermaster and Commissary Storehouse Property have excellent ground visibility in undeveloped areas.



The buildings and structures known to have been present in Fort Lowell between 1873 and 1891 are listed in Table 5. Portions of 13 buildings and structures associated with the historic fort are known to be present on the city-owned properties. Adobe walls are standing within Fort Lowell Park from the hospital, the cavalry band quarters, the infantry company's quarters, and a kitchen from the infantry company's quarters. Adobe walls from the cavalry corral are present beneath a protective roof on the Donaldson/Hardy Property. Portions of the quartermaster and commissary storehouse are incorporated into the apartments created by the Bolsius family on that property. Also visible is a rock-lined basement associated with the building (Thiel 1997b). An additional seven buildings, represented by a standing building and ruins in varying states of decay, are located on the Fort Lowell-Adkins Steel Property. These include Officers' Quarters 1, 2, and 3, the kitchens for Officers' Quarters 2 and 3, the guardhouse, and the bake house (with the bake house represented by subsurface remains) (Thiel et al. 2008). Subsurface remains of many of the other buildings are almost certainly present on the city-owned properties.

Several post-fort buildings, older than 50 years, are present within the project area. The Boy Scouts constructed a building in the early 1950s that stands within Fort Lowell Park. It was used as a caretaker's residence and is currently used at the park as an employee break room and for equipment storage. The Donaldson/Hardy residence is present to the north and was built around 1948; it is currently vacant. The Bolsius family reused portions of the quar-

termaster and commissary storehouse in a series of apartments completed in the 1940s. Several other post-fort buildings and structures are present on the previously studied Fort Lowell-Adkins Steel Property. Most predate 1959, including two houses, a concrete steel fabrication barn, a windmill, and a circular, concrete, aboveground cistern (Thiel et al. 2008).

MANAGEMENT SUMMARY

The three city-owned properties discussed in this report and the city-owned Fort Lowell-Adkins Steel Property examined in a previous report (Thiel et al. 2008) contain a variety of cultural resources, including Hohokam pithouses, cremations, and other features, fort-era adobe ruins and subsurface features, and post-fort structures and subsurface features.

Significance Assessment

The four properties were included within the Fort Lowell Multiple Resource Area (MRA), which was listed on the National Register of Historic Places on 13 December 1978. This designation includes the prehistoric Hohokam Hardy site within the current Fort Lowell Park, as well as the fort-era ruins and structures within and adjacent to the city-owned properties. The Bolsius' quartermaster and commissary storehouse apartments were also included within the Fort Lowell MRA. The original form states that the Fort Lowell MRA was significant for the Prehistoric period and the 1800-1899 period, as well as for Archaeology-Prehistoric, Architecture, and Military contexts.

The current nomination forms for the National Register of Historic Places are much more detailed and require the identification of criteria of significance, contexts, and an evaluation of integrity. Desert Archaeology recommends that the Fort Lowell MRA nomination be updated to modern standards.

The National Register of Historic Places evaluates the significance of properties under four criteria (National Register Branch 1991:3):

- Criterion A: association with events, activities, or patterns;
- Criterion B: association with important persons;
- Criterion C: distinctive physical characteristics of design, construction, or form; and/or
- Criterion D: potential to yield important information.

Table 5. List of buildings and structures once present at Fort Lowell.

Structure	Location	Comment
Commanding officer's quarters	Craycroft Road	Excavated in 1960
Officers' Quarters 1	Fort Lowell-Adkins Steel	Standing
Officers' Quarters 2	Fort Lowell-Adkins Steel	Ruins
Officers' Quarters 3	Fort Lowell-Adkins Steel	Ruins
Officers' Quarters 5	Fort Lowell Park	Excavated in 1960
Officers' Quarters 6	Fort Lowell Park	-
Officers' Quarters 7	Fort Lowell Park	-
Officers' kitchen 1	Fort Lowell-Adkins Steel	-
Officers' kitchen 2	Fort Lowell-Adkins Steel	-
Officers' kitchen 3	Fort Lowell-Adkins Steel	-
Commanding officer's kitchen	Craycroft Road	Excavated in 1960
Officers' kitchen 5	Fort Lowell Park	-
Officers' kitchen 6	Fort Lowell Park	-
Officers' kitchen 7	Fort Lowell Park	Excavated in 1960
Officers' privy 1	Fort Lowell-Adkins Steel	-
Officers' privy 2	Fort Lowell-Adkins Steel	-
Officers' privy 3	Fort Lowell-Adkins Steel	-
Commanding officer's privy	Craycroft Road	Excavated in 1960
Officers' privy 5	Fort Lowell Park	-
Officers' privy 6	Fort Lowell Park	Excavated in 1960
Officers' privy 7	Fort Lowell Park	Excavated in 1960
Infantry company quarters 1	Fort Lowell Park	-
Infantry company quarters 2	Fort Lowell Park	-
Cavalry band quarters	Craycroft Road and Fort Lowell Park	-
Cavalry company quarters	Fort Lowell Park	-
Hospital	Fort Lowell Park	Ruins
Hospital kitchen	Fort Lowell Park	-
Infantry company kitchen 1	Fort Lowell Park	-
Infantry company kitchen 2	Fort Lowell Park	-
Cavalry band kitchen	Craycroft Road	Excavated in 1982
Cavalry company kitchen	Fort Lowell Park	-
Infantry company privy 1	Donaldson/Hardy Property	-
Infantry company privy 2	Fort Lowell Park	-
Cavalry company privy	Donaldson/Hardy Property	-
Quartermaster & commissary storehouse	Quartermaster & commissary storehouse	Reused for 1940s Bolsius apartments
Adjutant's office	Fort Lowell-Adkins Steel	-
Bake house	Fort Lowell-Adkins Steel	Archaeological
Guardhouse	Fort Lowell-Adkins Steel	Archaeological
Quartermaster & commissary offices	Quartermaster & commissary storehouse	-
Post trader's store	Sackheim House	Sackheim House
Quartermaster corral	Private oroperty	-
Cavalry corral and hayyard	Donaldson/Hardy Property	Ruins; party excavated in 1982
Telegraph office	Quartermaster & commissary storehouse?	-
Laundresses quarters	Fort Lowell Park	Destroyed by pond construction
Laundresses quarters	Fort Lowell Park	-
Laundresses quarters	Fort Lowell Park	-
Laundresses quarters	Fort Lowell Park	-
Laundresses quarters	Fort Lowell Park	-

Table 5. Continued.

Structure	Location	Comment
Laundresses quarters	Fort Lowell Park	-
Laundresses quarters	Fort Lowell Park	-
Blacksmith shop	Quartermaster & commissary storehouse	-
Parade ground	Fort Lowell Park, Craycroft Road, Fort Lowell-Adkins Steel	-
Officers' Quarters 8	Fort Lowell Park	Excavated in 1960
Officers' Quarters 9	Fort Lowell Park	Excavated in 1960
Fort Lowell cemetery	Unknown	-

Table 6. The four City-owned portions of Fort Lowell and the National Register criteria.

	Criterion A	Criterion B	Criterion C	Criterion D
Fort Lowell Park	X	X	-	X
Donaldson/Hardy	X	-	-	X
Quartermaster and commissary storehouse	X	X	X	X
Fort Lowell-Adkins Steel	X	X	X	X

The four properties owned by the City of Tucson that encompass much of historic Fort Lowell are eligible under most of the criteria (Table 6).

Under Criterion A, which seeks an association “with events that have made a significant contribution to the broad patterns of our history” (National Register Branch 1991:37), all four properties are eligible due to their association with the military activities of Fort Lowell between 1873 and 1891. The soldiers of the U.S. Army stationed at Fort Lowell participated in the protection of southern Arizona and the pacification of the Apaches. Following completion of this latter mission, the fort was no longer needed, and the fort was abandoned. Additionally, the Fort Lowell-Adkins Steel Property is also eligible under Criterion A due to the operation of a tuberculosis sanatorium there by the Cate and Adkins families in the early 1900s through the 1940s. Many health seekers were drawn to Tucson in the late nineteenth and early twentieth centuries, particularly those suffering from consumption, known today as tuberculosis. Another nearby tuberculosis sanatorium, the Desert Sanatorium, opened in 1927, and was transformed into the Tucson Medical Center in 1943.

Under Criterion B, which seeks an association with the lives of persons significant in our past, the Fort Lowell-Adkins Steel and Fort Lowell Park Properties are eligible based on their association with officers of the U.S. military and their families (for example, John Summerhayes and his wife author Martha Summerhayes). Also, the Quartermaster and Commissary Storehouse Property is eligible under Criterion B due to its association with Charles

Bolsius, an artist known for his paintings, carvings, prints, and buildings in the Greater Southwest.

Properties eligible under Criterion C have distinctive architectural characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values. The Officers' Quarters 3 on the Fort Lowell-Adkins Steel Property is eligible under this criterion, representing a well-preserved fort-era adobe brick dwelling with many architectural details typical of Territorial Arizona, such as saguaro rib ceilings, corner fireplaces, and original doors and windows.

The once-ruined quartermaster and commissary storehouse building is also eligible for inclusion under Criterion C. The Bolsius family rebuilt portions of the building on its original foundations in the 1930s and 1940s. They incorporated architectural traditions they observed in New Mexico. Nan and Charles Bolsius hand-carved the doors and cupboards found inside the apartments.

All four properties are eligible under Criterion D, because they have yielded, or are likely to yield, information about prehistoric or historic archaeology. Archaeological excavations have located Hohokam pithouses and other prehistoric features on the Fort Lowell Park Property. Excavations have also encountered historic archaeological resources on the Fort Lowell Park and Donaldson/Hardy Properties. Surface evidence suggests the prehistoric Hardy site encompasses all four properties, and historic subsurface features associated with the fort and post-fort occupations are almost certainly also present, scattered throughout the four properties.

Recommended Treatment

Pima County has contracted with Poster Frost Associates to prepare a Master Plan for the four city-owned Fort Lowell properties. This plan will include ideas for future use of the properties, focusing on cultural and natural resources, transportation issues, and the recreational facilities present within Fort Lowell Park.

Desert Archaeology, Inc., was asked to prepare historical and archaeological overviews of the properties. The report for the Fort Lowell-Adkins Steel Property has been previously published (Thiel et al.

2008). The current report summarizes the history and archaeological work conducted on the remaining three properties.

The outcome of the Fort Lowell Master Plan prepared by Poster Frost Associates is not yet known. A variety of improvements will likely be suggested, some of which may include ground disturbances. Small disturbances, such as the replacement of utilities, should be monitored by a qualified archaeologist. Larger disturbances may require archaeological testing and data recovery to mitigate damage to potential subsurface cultural resources.

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