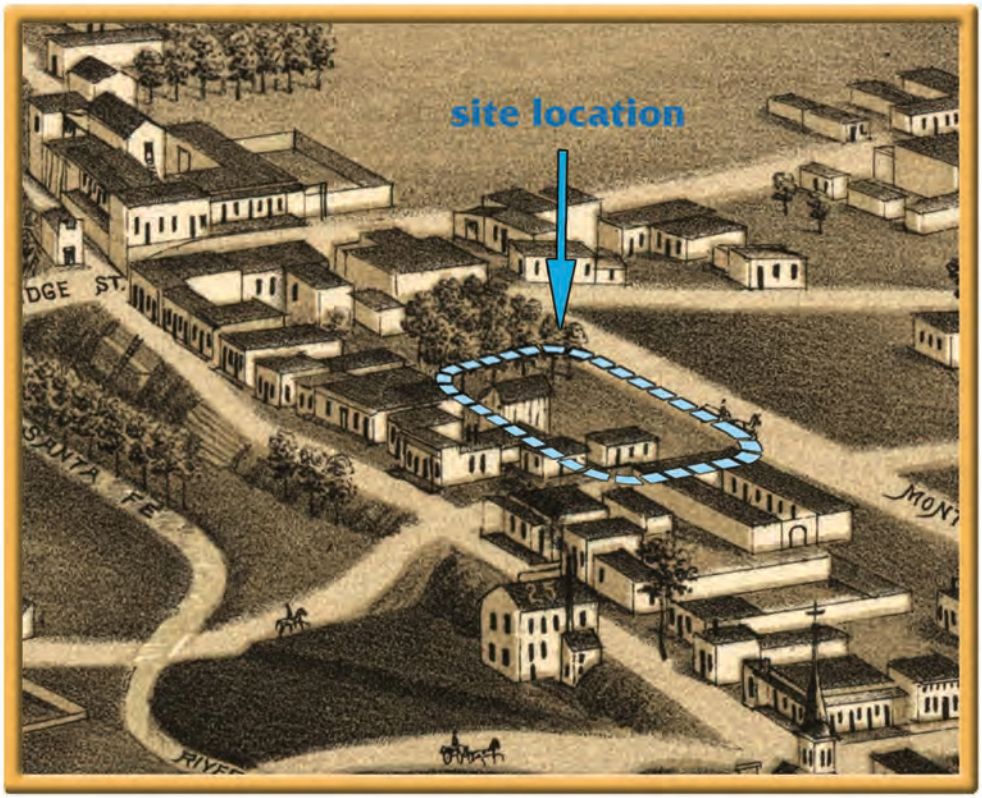
The First Judicial District Courthouse Complex:

Research Design and Data Recovery Plan for LA 156207

Steven A. Lakatos



Museum of New Mexico

Office of Archaeological Studies

AN 395 2008

DEPARTMENT OF CULTURAL AFFAIRS

OFFICE OF ARCHAEOLOGICAL STUDIES

THE FIRST JUDICIAL DISTRICT COURTHOUSE COMPLEX: RESEARCH DESIGN AND DATA RECOVERY PLAN FOR LA 156207

Steven A. Lakatos

with contributions by
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Principal Investigator

to

Paul M. Olafson, Director
Community Projects Division

ARCHAEOLOGY NOTES 395

SANTA FE 2008 NEW MEXICO

ADMINISTRATIVE SUMMARY

In April of 2007, the Office of Archaeological Studies (OAS) conducted an archaeological reconnaissance on 2.4 acres of property in advance of a proposed new First Judicial District Courthouse complex. The project area is county-owned property located at the northeast corner of Montezuma Avenue and Sandoval Street in Santa Fe, New Mexico. The intent of the 2007 project was to provide a complete archaeological reconnaissance of the property that would allow Santa Fe County to comply with state regulations that might apply to the project. The north half of the project is within the Historic Downtown District and the south half is in the Transition District in the City of Santa Fe. The project is in an urban setting characterized by a paved (100 percent) parking lot and associated modern buildings.

Initial field investigations excavated nine backhoe trenches that discovered the presence of a previously unrecorded archaeological site, LA 156207 (Hannaford 2007). Currently the site consists of four features and a prehistoric horizon recorded as Stratum 5, however LA 156207 required further evaluation to determine if it is eligible for inclusion on the *National Register of Historic Places* (36 CFR Part 60.4 and in conformance with 4.10.16 NMAC). In addition to these remains, more recent (1945 to present) deposits consisting of two features, a demolition pit (Feature 6) associated with the razing of a superstructure associated with a concrete basement (Feature 5) likely dating to the 1950s. These younger deposits were recorded during the reconnaissance phase and no further work is recommended. All potentially eligible features are anticipated to be damaged or destroyed during construction activities related to the Judicial Courthouse project. Importantly, the 2007 project evaluated only the property that was county-owned at the time. Subsequent to completion of the reconnaissance, the county acquired a private parcel (The Blue Monkey Salon) that is part of the project area. This parcel was not investigated, but will be included in the proposed additional testing and data recovery project.

Based on the preliminary investigation results, four of the seven features and a prehistoric horizon are recommended for further evaluation to determine their data potential for inclusion on the *National Register of Historic Places* under criterion D. Subsequent to eligibility determinations, data recovery will be conducted on intact deposits. The following data recovery plan provides a cultural-historical context for the planned archival research and archaeological excavation and examination of structures, features, deposits, and artifacts from social and economic perspectives.

The proposed data recovery project, named here *The First Judicial District Courthouse Complex Project,* will be conducted by the Office of Archaeological Studies at the request of Paul M. Olafson (Director, Community Projects Division) representing Santa Fe County. Field work is anticipated to commence in the last week of March 2008 and last through May 2008. Laboratory and report production tasks are anticipated to proceed through the rest of 2008.

The data recovery excavations are expected to be phased in to allow for demolition activities to commence concurrently with the archaeological investigation. This research design is intended to accommodate the range of potential deposits that may exist in the project area .

MNM Project No. 41.844 (Judicial Complex)

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FIGURES

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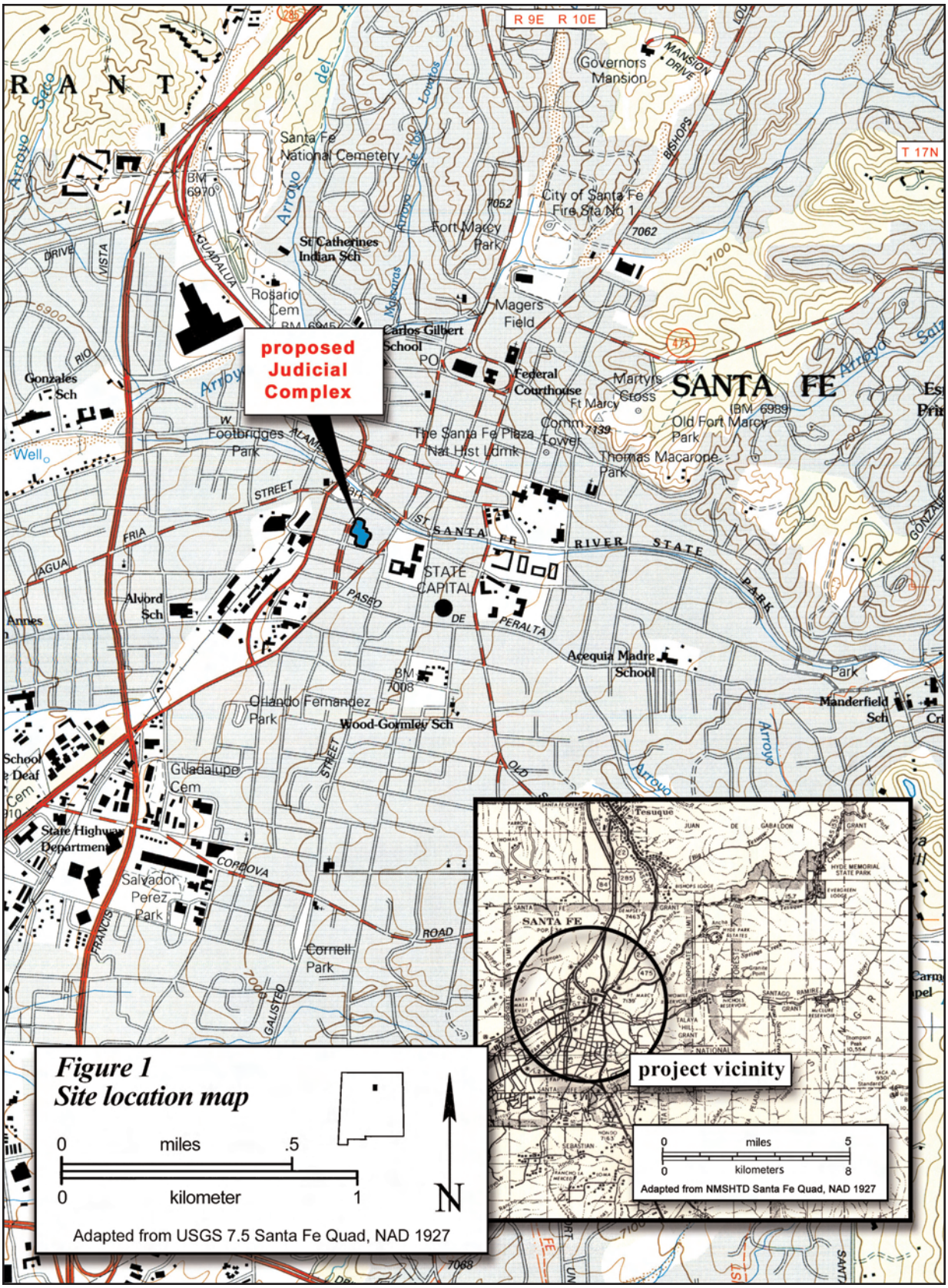
proposed Judicial Complex
project vicinity
Figure 1
Site location map
0 miles .5
0 kilometer 1
N
Adapted from USGS 7.5 Santa Fe Quad, NAD 1927
0 miles 5
0 kilometers 8
Adapted from NMSHTD Santa Fe Quad, NAD 1927
R 9E R 10E
T 17N
SANTA FE
STATE CAPITAL
Governors Mansion
Santa Fe National Cemetery
St Catherines Indian Sch
Rosario Cem
Fort Marcy Park
City of Santa Fe Fire Sta No 1
Magers Field
Carlos Gilbert School
Federal Courthouse
Martyrs Cross
Old Fort Marcy Park
Thomas Macarone Park
The Santa Fe Plaza Nat Hist Ldmk
Comm Tower
Footbridges Park
Gonzales Sch
Alvord Sch
Acequia Madre School
Manderfield Sch
Wood-Gormley Sch
Orlando Fernandez Park
Guadalupe Cem
Salvador Perez Park
Cornell Park
State Highway Department
Tesuque

INTRODUCTION

In April of 2007, at the request of Paul M. Olafson (Director, Community Projects Division) representing Santa Fe County, the Office of Archaeological Studies (OAS) conducted an archaeological investigation of 2.4 acres of property for a proposed new First Judicial District Courthouse complex. The intent of the project was to provide the county with a complete archaeological reconnaissance that would allow the Santa Fe County to comply with state regulations (4.10.16 NMAC). At the time of the initial 2007 archaeological investigations, one privately-owned parcel was within the proposed project area. Subsequent to the 2007 reconnaissance, Santa Fe County acquired this parcel, which will be examined during the proposed additional testing and data recovery phase.

The project area is located on unplatted land (USGS 7.5' Santa Fe Quadrangle, UTM Zone 13 [NAD 27], [redacted]) at the northeast corner of Montezuma Avenue and Sandoval Street in Santa Fe, New Mexico (Figs. 1 and 2) within the boundary of the Historic Downtown District (SR No. 260) and the Transition District and consists of county-owned and private property.

Prior research of archaeological literature and archival documents has been contributed by Charles A. Hannaford (2007), Chris T. Wenker et al. (2005), and Stephen C. Lentz (2005) of the OAS. That research is presented in three reports: *The First Judicial District Courthouse Complex, The Santa Fe Railyard: Archaeological Research Design and Data Recovery Plan for the North and South Guadalupe and Baca Street Development Parcels,* and *El Pueblo de Santa Fe (LA 1051): Archaeological Testing of the Proposed Santa Fe Civic Center.* Much of the background information presented and used in this document is abstracted from those complete and informative reports.

The following research design and data recovery plan consists of a brief cultural-historical context, a brief environmental setting, a summary of site descriptions, research topics and themes, excavation methods, laboratory and analysis methods, reporting and curation plans, and a burial plan. This research design and data recovery plan complies with NMAC 4.10.16.

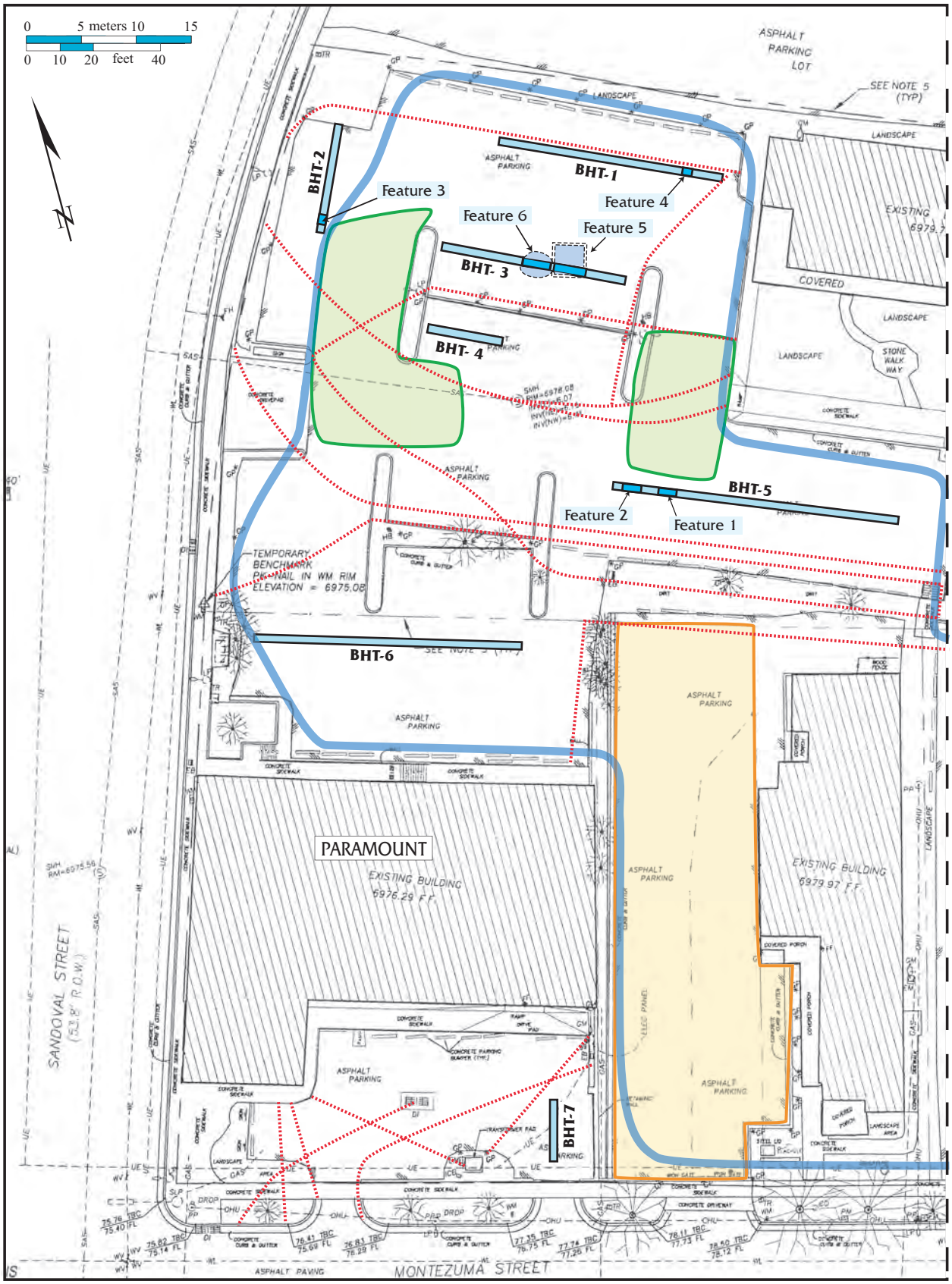

Figure 2. LA 156207 site map.

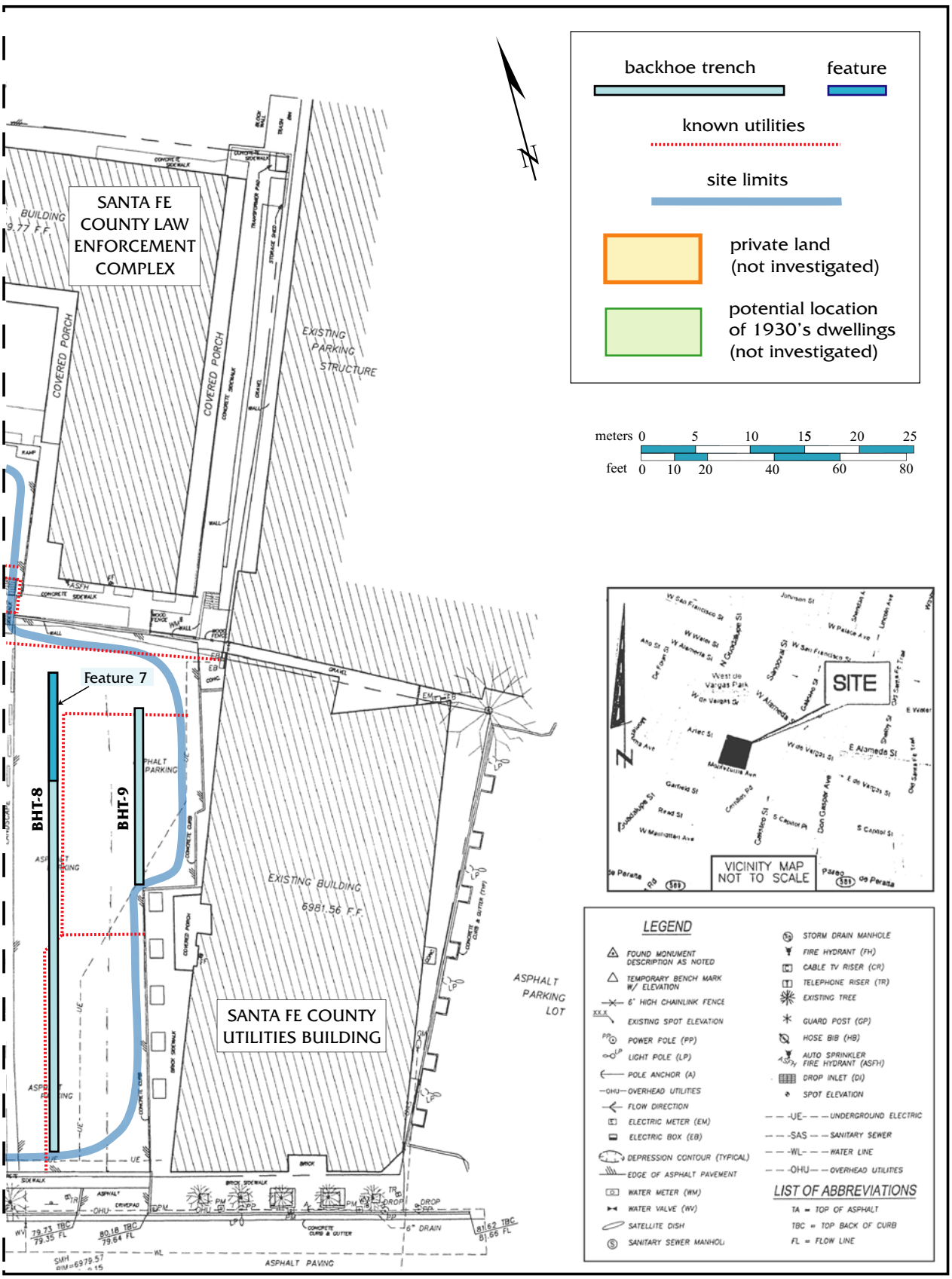
backhoe trench
feature
known utilities
site limits
private land
(not investigated)
potential location
of 1930's dwellings
(not investigated)
meters 0 5 10 15 20 25
feet 0 10 20 40 60 80
SANTA FE
COUNTY LAW
ENFORCEMENT
COMPLEX
BUILDING
9.77 F.F.
COVERED PORCH
COVERED PORCH
EXISTING
PARKING
STRUCTURE
Feature 7
BHT-8
BHT-9
EXISTING BUILDING
6981.56 F.F.
SANTA FE COUNTY
UTILITIES BUILDING
ASPHALT
PARKING
LOT
ASPHALT PAVING
SITE
VICINITY MAP
NOT TO SCALE
LEGEND
FOUND MONUMENT DESCRIPTION AS NOTED
TEMPORARY BENCH MARK W/ ELEVATION
6' HIGH CHAINLINK FENCE
EXISTING SPOT ELEVATION
POWER POLE (PP)
LIGHT POLE (LP)
POLE ANCHOR (A)
OVERHEAD UTILITIES
FLOW DIRECTION
ELECTRIC METER (EM)
ELECTRIC BOX (EB)
DEPRESSION CONTOUR (TYPICAL)
EDGE OF ASPHALT PAVEMENT
WATER METER (WM)
WATER VALVE (WV)
SATELLITE DISH
SANITARY SEWER MANHOLE
STORM DRAIN MANHOLE
FIRE HYDRANT (FH)
CABLE TV RISER (CR)
TELEPHONE RISER (TR)
EXISTING TREE
GUARD POST (GP)
HOSE BIB (HB)
AUTO SPRINKLER FIRE HYDRANT (ASFH)
DROP INLET (DI)
SPOT ELEVATION
-UE- UNDERGROUND ELECTRIC
-SAS- SANITARY SEWER
-WL- WATER LINE
-OHU- OVERHEAD UTILITIES
LIST OF ABBREVIATIONS
TA = TOP OF ASPHALT
TBC = TOP BACK OF CURB
FL = FLOW LINE

Figure 3. General project overview.

ENVIRONMENTAL SETTING

Charles A. Hannaford

The environmental overview is adapted from the Santa Fe Railyard research design (Wenker et al. 2005), a major excavation project located about two blocks west of the project area. The project area is within a structural subdivision of the Southern Rocky Mountain physiographic zone (Folks 1975:110). The basin is bounded on the west by the Jemez Mountains and on the east by the Sangre de Cristo Mountains. The City of Santa Fe is situated on the dissected piedmont plain of the western flank of the Sangre de Cristo Mountains. The ancient alluvial fan upon which the city lies was deposited by the Santa Fe River, which passes 0.2 km to the north of the project area as it flows westwardly to the Rio Grande. The project area is located on the nearly level southern terrace of the Santa Fe River at an elevation of 6,975 ft (2,126 m). Santa Fe Formation (Folks 1975) soils are formed in reworked, mixed alluvial material of the Tertiary-Quaternary period.

The project area is within the Santa Fe River inner valley or Airport physiographic surface (Spiegel and Baldwin 1963:56). The major soil association of the immediate project area is Bluewing gravelly sandy loam (Folks 1975:15–16). This soil occurs on 0- to 5-percent slopes and may co-occur with Pojoaque and Fivemile soils. These are well-drained soils that formed in alluvium of mixed origin along terraces and floodplains. The gravelly sandy loam has rapid permeability with medium runoff and severe erosion hazard.

The biotic community falls within Great Basin Conifer Woodland ecological zone (Brown 1982), but, being situated in an active urban setting, little native flora or fauna presently occupy the area. Prior to Spanish settlement, this area would have supported a plant and animal community similar to the rabbitbrush community of the arroyo channels and terrace slopes described by Kelley (1980). Affected by runoff, flooding, and erosion, arroyo channels and terraces tend to support the grasses, shrubs, and succulents that favor disturbed conditions. The arroyo channels or terraces also may have been historically dry-farmed, which would have created disturbed soils zones when left uncultivated. Plant species of the rabbitbrush community include prickly pear, yucca, *Chenopodium* sp., *Amaranthus* sp., and Indian ricegrass.

The Santa Fe area has a semiarid climate. Most of the local precipitation occurs as intense summer thunderstorms, which produce severe runoff and reduce usable moisture. The area generally receives between 229 and 254 mm of precipitation per year and a mean snowfall of 356 mm (Kelley 1980:112). The growing season ranges from 130 to 220 days and averages 170 days. The last spring frost usually occurs in the first week of May and the first fall frost occurs around the middle of October. The mean yearly temperature is 10.5 degrees C.

CULTURE OVERVIEW

Charles A. Hannaford

Large nearby projects conducted by the OAS help to place the project area in a regional cultural context. The prehistoric overview is adapted from work by Stephen C. Lentz (2005) at the Santa Fe Civic Center (LA 1051) located about three to four blocks north of the project area. The historic section is adapted from work by Chris Wenker et al. (2005) at the Santa Fe Railyard located about two blocks west of the project area.

Prehistoric Period Overview (9500 BC to AD 1540)

Paleoindian (9500–5500 BC)

The earliest known occupation of the American Southwest was by big-game hunters referred to collectively as Paleoindians (9500–5500 BC). Recorded Paleoindian sites are primarily in grassy basins or on plains around playa lakes and are identified by large diagnostic projectile points. Early Paleoindian groups characteristically hunted now-extinct mammoths, while later Paleoindians concentrated on *Bison antiquus* or *Bison occidentalis.* While the pursuit of large mammals was a subsistence focus, general foraging must have been a critical aspect of the economy as well. Evidence of Paleoindian occupation is rare in the Santa Fe area and consists mainly of isolated projectile points that have been found in the Galisteo Basin to the south and on the Caja del Rio west of Santa Fe.

Archaic (5500 BC to AD 400–600)

The term Archaic applies to the broad-spectrum foraging cultures that evolved out of the Paleoindian big-game hunting populations in North America (5500 BC–AD 200–400). Archaic populations in the Southwest reflect adaptations to local topography and food sources, and like their Paleoindian predecessors, are identified by distinctive projectile point types, scrapers, knives, and grinding stones. Late in the Archaic adaptation, maize was added to the diet but seemingly with little initial disruption to the established subsistence strategy. In the northern Southwest the Archaic period is generally described in terms of two major material culture traditions: the Oshara tradition (Irwin-Williams 1973) and Cochise tradition (Sayles 1983). Santa Fe is surrounded by Archaic period sites consisting mainly of flaked stone scatters of varying sizes and sometimes associated with charcoal stains and fire-cracked rock showing differing degrees of occupation intensity, duration, and activity sets. No Archaic period sites are found in the immediate vicinity of the project area. Post (1996) presents a comprehensive overview of Archaic period settlement and subsistence trends in the Santa Fe area.

Developmental Period (AD 600–1200)

Sites from the Developmental period in the Northern Rio Grande are comparable to the late Basketmaker III and Pueblo periods of the Pecos Classification. Basketmaker III sites are rare and tend to be small, with a ceramic assemblage composed primarily of Lino Gray, San Marcial Black-on-white, and various plain brown and red-slipped wares. The majority of the documented Early Developmental sites are in the Albuquerque and Santa Fe districts (Frisbie 1967; Reinhart 1967; Peckham 1984). The settlement of the Rio Grande drainage has typically been attributed to immigration from the southern areas (Bullard 1962; Jenkins and Schroeder 1974) or the Four Corners and San Juan area (Judge 1991; Stuart and Gauthier 1981:49; Lekson and Cameron 1995:185).

Archaeological sites in the Santa Fe area with Late Developmental components include

Pindi Pueblo (LA 1), located along the Santa Fe River west of the project area. The Developmental period component included a pithouse and a single jacal room. Kwahe'e Black-on-white pottery was recovered, and a tree-ring date of 1218+ vv was recovered below the jacal structure (Stubbs and Stallings 1953:24–25; Robinson et al. 1972:38). Nearby is the Agua Fria Schoolhouse site (LA 2; Lang and Scheick 1989). Closer to downtown, LA 608–LA 609 is a large pueblo under Fort Marcy (Acklen et al. 1994) and LA 618 is a pithouse site on the bluff overlooking the Santa Fe River on upper East Palace Avenue (Elliott 1988:17).

An example of a Late Developmental site near downtown Santa Fe is the KP site (LA 46300). At this site, on top of a ridge along the north side of the Santa Fe River near Fort Marcy, a single trash-filled burned structure was tested (Wiseman 1989). Red Mesa Black-on-white, Kwahe'e Black-on-white, "Chaco II" (Red Mesa, Rio Grande Variety?) Black-on-white, Escavada Black-on-white, Gallup Black-on-white, Chaco Black-on-white, Puerco Black-on-red, Cebolleta Black-on-white, Socorro Black-on-white, and Los Lunas Smudged pottery was recovered during testing. Obsidian predominated in the flaked stone assemblage, although local chert types, particularly red jasper, were also used. Eleven tree-ring and two radiocarbon dates indicate that the structure was occupied in the mid- to late AD 1000s and the fill accumulated in the early AD 1100s. Dendrochronological cutting dates of AD 1116, 1117, and 1120 are associated with Kwahe'e Black-on-white pottery. A wide variety of plant remains were recovered, including corn, squash, and beeweed. The fauna consisted of deer, antelope, and cottontail (Wiseman 1989:139).

Coalition Period (AD 1200 to 1325)

The Coalition period (AD 1200 to 1325) in the Northern Rio Grande is marked by a shift from the use of mineral pigment paint to organic paint on decorated pottery. There are substantial increases in the number and size of habitation sites coincidental with expansion into previously unoccupied areas. Although above-ground pueblos were built, pit structure architecture was used through the early phases of this period. Rectangular kivas, which are incorporated into room blocks, also coexisted with subterranean circular structures (Cordell 1979:44). Frisbie (1967) notes that settlement shifted away from less optimal upland settings and returned to permanent water and arable land adjacent to the major drainages.

During the Coalition period, the Chama, Gallina, Pajarito Plateau, Taos, and Galisteo Basin districts, which had been the focus of little Anasazi use prior to AD 1100 to 1200, were settled (Cordell 1979). In excess of 500 Santa Fe Black-on-white sites are listed for the Pajarito Plateau, although many of these sites are poorly documented (New Mexico Cultural Resource Information System, Archeological Management Section, Historic Preservation Division). Among the representative sites of the Coalition period are LA 4632, LA 12700, and Otowi, or Potsuwii (LA 169).

Numerous Coalition period sites have been recorded in and near downtown Santa Fe. In 1955, excavations were undertaken by Stubbs and Ellis (1955) at the site of the old San Miguel Church. Deposits dating to the fourteenth and seventeenth centuries were found. Excavations at LA 132712, at 125 Guadalupe Street (near Johnson Street) had a Coalition component. A trash concentration, pits, and burials were excavated (Scheick 2003). A Coalition phase pit structure and associated artifacts were found in the west courtyard of the Federal Courthouse (C. Scheick to S. Post, pers. comm. 2004). Other sites with Coalition or Coalition-Classic period materials include LA 114261 (Hannaford 1997), LA 930 (Peckham 1977; Post and Snow 1982), LA 120430 (Post et al. 1998), LA 125720 (C. Snow 1999), LA 126709 (Viklund 2001), and LA 111 (Snow and Kammer 1995).

Classic Period (AD 1325 to 1600)

The Classic period (AD 1325 to1600) postdates the abandonment of the San Juan Basin by

sedentary agriculturalists. It is characterized as a time when regional populations may have reached their maximum size and large communities with multiple plaza and room block complexes were established (Wendorf and Reed 1955:13). The beginning of the Classic period in the Northern Rio Grande coincides with the appearance of locally manufactured red-slipped and glaze-decorated ceramics in the vicinity of Santa Fe, Albuquerque, the Galisteo Basin, and the Salinas area after ca. AD 1315, and Biscuit wares in the Pajarito Plateau, Santa Fe, and Chama areas (Mera 1935; Warren 1979). Near Santa Fe, the Galisteo Basin saw the construction of some of the Southwest's most spectacular ruins. Many of these large pueblos were tested by N. C. Nelson (1914, 1916) in the early part of the twentieth century. The majority of these Classic period sites were established in the early 1300s and several were occupied into the historic time period. Arroyo Hondo (LA 12) is an important site with Classic period components located just south of Santa Fe and appears to have ties to contemporaneous sites in the Santa Fe area (Schwartz 1971, 1972; Schwartz and Lang 1973).

Few sites of the Classic period have been found in the immediate project area. The nearest one is LA 1051 (the Sweeney Center and City Hall area). Coalition and Classic period structural remains and abundant artifacts have consistently been encountered in this area (Mera 1934; Peckham 1977; Tigges 1990; Drake 1992; Deyloff 1998). The site has been the center of major archaeological excavations by the OAS over the last several years.

Historic Period Overview (AD 1539 to 1955)

Spanish Contact/Pueblo Revolt (AD 1539 to 1680)

The first European contact with the Northern Rio Grande Valley occurred in the late winter or early spring of 1541, when a foraging party of Coronado's men set up camp near San Juan Pueblo (Hammond and Rey 1953:244, 259). Having heard of Coronado's earlier plundering farther south, these pueblos were hastily abandoned by their occupants. The Spaniards looted the deserted villages (Ortiz 1979:280; Winship 1896:476).

After the Spanish *entradas* of the mid- and late-sixteenth century, Native American groups underwent numerous changes in lifestyle, social organization, and religion. The introduction of new crops and livestock contributed to major changes in subsistence, as did mission programs, which taught new industries such as metal smithing and animal husbandry, meant to wean the Pueblo people away from traditional ways (Simmons 1979b:181). Incursions by Plains groups caused the abandonment of many pueblos and a contraction of the region occupied by the Pueblos (Chávez 1979; Schroeder 1979). A combination of new diseases to which the Pueblos had no natural defenses, intermarriage, conflict attendant with the Pueblo Revolt of AD 1680–1692, and the abandonment of traditional lifestyles contributed to a significant decrease in Pueblo populations over the next few centuries (Dozier 1970; Eggan 1979).

In 1591 San Juan Pueblo was visited by the Gaspar Castaño de Sosa expedition. Castaño de Sosa erected a cross, received obedience to the king of Spain, and appointed a governor, a mayor, and various other administrators (Schroeder and Matson 1965:121, 129; Lentz 1991:7).

With the goals of missionization, territorial expansion, and mineral wealth, the colonizing expedition of Don Juan de Oñate arrived at Oke Owinge (San Juan Pueblo) on July 11, 1598, and proclaimed it the capital of the province. During the winter of 1600–1601 the Spanish moved across the river to a partially abandoned 400-room pueblo village, which they renamed San Gabriel de los Caballeros. The first Catholic mission church, called San Miguel, was built at the southern end of the village. Soon, New Mexico was divided into seven missionary districts. A Spanish *alcalde* (magistrate) was appointed for each pueblo, and all were under Oñate's leadership (Spicer 1962:156). In January 1599, in retaliation for

the death of Juan de Zaldivar (one of two of Oñate's nephews), 70 of Oñate's men attacked Acoma Pueblo. After a three-day battle, the Spanish troops prevailed. In retribution, 500 Acoma prisoners over the age of 25 had one foot severed and were sentenced to 20 years of hard labor in the mines of Zacatecas.

The Spanish colony at San Gabriel did not survive the first decade of the seventeenth century. Oñate returned to Mexico in disgrace, and in 1610 the capital was moved from San Gabriel to the current site of Santa Fe by Oñate's successor, Don Pedro de Peralta (Ortiz 1979:281; Pearce 1965:146; Spicer 1962:157).

During the next twenty years, churches were built in all the pueblos. Native American secular and church officers were also established in each village. These included governors, alcaldes, and fiscales (tax collectors). During the 1620s the villages were peaceful, population grew, and conversions to the Catholic Church increased. By 1630, 50 Franciscan missionaries were working in 25 missions, and a school was operating in each (Spicer 1962:158).

In 1676, there began a series of events that ultimately led to the Pueblo Revolt of 1680. Forty-seven Pueblo religious leaders were jailed and flogged in Santa Fe for their adherence to traditional Pueblo beliefs. Among them was the San Juan moiety chief, Popé, under whose leadership the Pueblo Revolt was subsequently planned and carried out (Spicer 1962:162–163). Twenty-one of the Franciscan friars in the territory were killed, along with 400 Spaniards. Santa Fe was besieged by an alliance of Pueblo forces, and on August 21, 1680, Governor Otermín was forced to surrender and evacuate the city (Hackett and Shelby 1942:11, 56–57; Lentz 2004). Coincidentally, a similar insurrection successfully ousted the Spanish from the Isthmus of Tehuantepec, Mexico, that same year.

The Pueblos held firm to their independence for 12 years. During the winter of 1681–1682, an attempted reconquest by Governor Otermín was turned back. Otermín managed to sack and burn most of the pueblos south of Cochiti before returning to Mexico. Taking advantage of inter-Pueblo factionalism, the definitive reconquest was initiated in 1692 by Don Diego de Vargas (Dozier 1970:61; Simmons 1979a:186).

Spanish Colonial Period (1692 to 1821)

During this period, Spain under Hapsburg (until 1700) and Bourbon (1700–1821) rulers was changed from a world empire to a second-tier political and economic power as its European land holdings dissolved, its New World riches were spent, and the social hold of its missionization effort was diminished (Kamen 2003). At the height of its empire early in the eighteenth century, Spain had economic ties covering three-quarters of the known world. The empire was based on economic superiority gained through alliances with the rich bankers and royalty of the Italian city-states, with the Flemish, and with its neighbor and sea power, Portugal. New Spain and New Mexico were affected by imperial trends as the structure of the government, the focus of the economy, and pressures on the imperial borderlands changed. New Mexico and Santa Fe were on the frontier of the Spanish Empire and at the end of the Camino Real, the main communication and transport route for public, governmental, and ecclesiastic institutions and individuals. Pressured for most of a century by the French and English advances into the North American interior until 1789, Santa Fe soon felt the social and economic pressures brought on by the growing pains of the United States and its rapid institution of Manifest Destiny. These pressures were exerting tremendous influence on New Mexico as Mexico gained its independence from Spain in 1821.

Government and Military. During the eighteenth century and into the early nineteenth century, Santa Fe functioned as the provincial capital of Nuevo Mexico in New Spain. The greater territory and military were administered by the governor and his appointed offi-

cials (Jenkins and Schroeder 1974; Kessell 1979; Weber 1992). After 1735, the governor ruled under the Audencia of Mexico and the Viceroy of New Spain (Westphall 1983:16–17). Locally, Santa Fe was governed by an *alcalde mayor* and *cabildo* or town council (Hordes 1990; Snow 1990; Twitchell 1925). The *alcalde* and *cabildo* were responsible for carrying out daily operations of the local government, fulfilling the legal requirements of land petitions as assigned by the governor, and the collection of taxes and tithes for the church. These individuals, who were citizens and soldiers, controlled the social and economic well-being and development of the community and surrounding area (Bustamante 1989; Westphall 1983). After 1722, the *alcalde mayor* in Santa Fe appointed two *juezes repartidores,* one for each side of the river, to inspect farmlands and acequias and to allot water based on need (Baxter 1997:19). Beginning in 1776 and continuing into the 1800s, the presidio system was revamped along with the military importance of Santa Fe and New Mexico. Until the late 1780s, the Santa Fe presidio and the improved and expanded presidio system provided protection against continued Indian raiding of Spanish and Pueblo villages. With a major decrease in the raiding following Governor Juan Bautista de Anza's treaty with the Comanches, the military served as a buffer against French, English, and later American incursions from the north and east (Moorhead 1974; Simmons 1990; Weber 1992). During this time the Spanish governmental organization in Mexico changed three times, but New Mexico remained primarily under its governor who also remained the military commanding officer.

Settlement and Economy. Following Don Diego de Vargas's reconquest (1692–1696), both pre-Pueblo Revolt and new settlers returned to Santa Fe and the Rio Grande Valley. They allegedly returned to a villa that had been partially destroyed after the escape of Governor Otermín and the surviving colonists, soldiers, and missionaries. The fact that settlers temporarily moved into the Tano pueblo that occupied the former casas reales suggests that most of the residences were destroyed or rendered uninhabitable. Early priorities for the returning colonists and administration were rebuilding the *casa reales* and the *acequia* system, reallotting grants to former *encomenderos* and landholders or their surviving family members, and expanding on the pre-Revolt settlement (Kessell 1979; Simmons 1979a). With the termination of *encomienda,* settlers were expected to be more independent and self-sufficient and to properly compensate the Indians for their labor and goods (Westphall 1983:7). For defensive purposes, settlers were encouraged to settle lands near Santa Fe. However, the quality and quantity of suitable farm land, combined with the practice of living close to their fields, resulted in an elongated and dispersed settlement pattern along the Santa Fe River and adjacent to acequia-irrigated fields as depicted in the 1766–1768 Urrutia map (Simmons 1979a:105–106; Adams and Chávez 1956:40; Moorhead 1975:148–149).

Presumably, all families were eligible for the typical town lot, which in the seventeenth century was defined as "two lots for house and garden, two contiguous fields for vegetable gardens, two others for vineyards and olive groves, and in addition four *caballerias* of land; and for irrigation, the necessary water, if available, obligating the settlers to establish residence for ten consecutive years without absenting themselves" (Hammond and Rey 1953:1088). Land documents from the eighteenth century clearly show that house and garden lots were common and that they were bought and sold regularly, once the ten-year residency requirement had been fulfilled (Tigges 1990). The extent to which vineyards and olive groves were actually introduced is unclear and has not been addressed archaeologically or well documented historically.

Obviously, arable land within the villa was scarce by the middle 1700s. Individual or family grants within the city league that included the full four *caballerias* of land or explicit access to the *ejido* or common land parcels for livestock grazing were relatively

few. Only twenty-four are shown on William White's undated *Sketch Map of Grants within the Santa Fe Grant* reflecting land ownership in the early 1890s and coinciding with land claims filed with the Court of Private Land Claims (Westphall 1983:237). Based on William White's 1895 map *Showing Owners of Land within the Santa Fe Grant Outside of City Limits,* the long-lot land subdivision pattern is clearly evident. These long lots were the basis of the small-scale agro-pastoral economic tradition that typified eighteenth- and early nineteenth-century land use within village or urban settings such as Santa Fe. The residences, which may be termed ranchos or rancherias, were much smaller in scale than haciendas (Simmons 1979a; Payne 1999:100–109). They were sufficient for subsistence, but did not lead to economic advantage or prosperity. Long lots allowed access into the *ejido* or common lands for other natural resources, such as wood, game, and stone for construction (Wozniak 1987:23–25). Acequia irrigation that supported intensive wheat and corn cultivation was the backbone of successful settlement in New Mexico (Ackerly 1996; Baxter 1997; D. Snow 1988; Wozniak 1987).

Class and Community. During the eighteenth century, Santa Fe and New Mexico was inhabited by a diverse population. It was a socially stratified society with the governor, high-ranking officials, and officers of the presidio in the upper echelon. The middle class contained the farmers and artisans, who were slightly more prosperous than the common people and the soldiers of the presidio (Bustamante 1989:70). Other divisions within Hispano society reflected a diverse, mixed, and perhaps somewhat discriminatory and arbitrarily defined caste system (Brooks 2002; Bustamante 1989; Frank 2000). Economic-based social stratification was present, but the majority of the population was small landholders of Hispano, *mestizo, genízaro,* or *indio* castes. The Urrutia map shows the area south of the Santa Fe River and between San Miguel Church and the Guadalupe Church area as the Barrio de Analco, in which the population was partly composed of Tlaxacalan Indians from Mexico. Men were soldiers, farmers, shepherds, and laborers with a few skilled blacksmiths, educators, and medical professionals. During this time, churches and secular *cofradias* remained the main avenues by which social and economically defined groups would cooperate and act as a community (Frank 2000). Until the building of the Sanctuario de Guadalupe in the early 1800s, worship and service would have been connected with the Parroquia or would have occurred at San Miguel chapel. With the addition of the Santuario, the area assumed a more communal organization mediated through church membership and lay organizations (Sze and Spears 1988:37).

Mexican Period (1821 to 1846)

At the beginning of the nineteenth century, Spain's hold on Mexico and the northern territories had diminished significantly. Recognizing that the citizens of New Mexico could not partake in the normal political, economic, and social activities of the declining empire, Spain allowed New Mexico to operate in virtual independence, except for the most important activities (LeCompte 1989; Westphall 1983). The positive effect was that New Mexico could determine much of its social and economic future. The negative effect was that the economic problems, compounded by limited sources of money, limited access to durable goods, and slow responses to military and administrative issues, created a stagnant economic environment. In addition, pressure from the United States to open economic ties, applied through small-scale economic reconnaissances, increased in frequency between 1803 and 1821.

With Mexico's independence from Spain in 1821, New Mexico became a frontier province and economic avenue to the commercial markets and production centers of the United States. Two major changes instituted by the new Mexican government had important consequences in northern New Mexico. These were the establishment of normal eco-

nomic relations with the United States through overland trade on the Santa Fe Trail and the abolition of the caste system, which meant that everyone was a Mexican citizen.

Government. The political structure of Santa Fe experienced only minor change with the switch to a Mexican administration (LeCompte 1989; Pratt and Snow 1988). The abolition of the caste system meant that any citizen had an equal opportunity to hold a public office. Governors were still appointed by Mexico and the governor continued to be the military commander. He was also responsible for collecting tariffs and regulating the Santa Fe Trail commerce. The town council and alcalde still oversaw the town business. Santa Fe was divided into six parishes that formed the nucleus through which issues could be advanced to the council and discussed throughout the community.

Economy. In 1821, with Mexico's independence, the New Mexican frontier was opened to trade with the United States. The Santa Fe Trail, extending from Santa Fe, New Mexico, to Independence, Missouri, became a major trade route for European goods from the East (Jenkins and Schroeder 1974; Simmons 1989). England also opened formal trade relations with Mexico. Due to these improved trade relations, large volumes of Euroamerican manufactured goods were available and filtered north on the Camino Real. By the 1830s, the dominant source of manufactured goods was the Santa Fe Trail, eclipsing the Camino Real in importance. Trade between the United States traders and Mexico did continue with a special focus on the northern Mexican silver mining region (Scheick and Viklund 2003:14). Americans not only traded in New Mexico, but also became involved in the illegal transfer and allotment of large illegal land grants from Mexican officials (Westphall 1983).

New Mexico still remained predominantly an agro-pastoral economy upon the opening of the Santa Fe Trail. Most villages and towns barely felt the effects of the increase in commercial and consumer opportunity, except that basic household and work items were more readily available. The opening of the Santa Fe Trail and the effect that it had on northern New Mexico's economy has been explored by many researchers (LeCompte 1989; Pratt and Snow 1988; Boyle 1997). While not widespread immediately, but with greater effect through time, the Santa Fe Trail trade provided access to durable and manufactured goods in quantities and at lower costs than had been available from Camino Real commerce. Seemingly basic household goods, such as window glass, dishware, hand tools, etc. were available to anyone that could afford to buy them or who could open a line of credit based on projected farm and ranch production. The beginnings of a more viable cash economy meant that wage labor added to the available options for supporting a family. It also meant that with cash available, land that could not sustain a family's needs could be sold.

Society in Transition. Mexican independence from Spain resulted in limited changes to the family- and church-based social structure of Santa Fe and New Mexico. The abolition of the caste system and the granting of equal citizenship to all Mexicans and New Mexicans potentially allowed for changes in the social status of local and provincial office holders or officials, but there is not strong evidence for such changes in Santa Fe. General historical descriptions indicate that under Mexican rule, Santa Fe and New Mexico continued to have considerable autonomy resulting in strong organizations that governed secular aspects of religion and other aspects of Hispanic organization (LeCompte 1989:83; Abbink and Stein 1977:160; Frank 2000). Abolition of the caste system and full citizenship had little effect on Hispanic populations, but had serious consequences for the Pueblo Indians who had enjoyed special status relative to land holdings under Spanish rule. Their lands could now be sold and were subject to the vagaries of land transactions (Hall 1987).

Perhaps the strongest social consequence in Santa Fe resulted from the opening of the Santa Fe Trail. This officially opened New

Mexico to influences and settlement by populations from the United States. This added a new layer of cultural diversity to the social setting that would eventually shift the balance of the social and economic relations in Santa Fe and along the Rio Grande.

American Territorial Period (1846–1912)

New Mexico's Territorial period quest for statehood was one of the longest endured by any state of the Union. Following the United States' acquisition of new southwestern and western territories, there was a disorderly and turbulent rush to own or control land and mineral and natural resources. The struggle for control created a political, economic, and social order that still affects how New Mexico functions as a state today. Two authoritative accounts of this period are Larson's *New Mexico's Quest for Statehood: 1846–1912* (1968) and Lamar's *The Far Southwest* (1966). Much of the following summary is derived from those sources and from a history of the Old Pecos Trail in Santa Fe, authored by Maxwell and Post (1992).

Santa Fe Trail and Pre-Railroad Times (1846–1879). On July 30, 1846, rumors that the United States would invade Mexican territory became a reality as Kearny proclaimed his intention to occupy New Mexico. After possible secret negotiations with General Manuel Armijo, the Army of the West arrived in Santa Fe on August 18, and New Mexico was surrendered to the United States (Jenkins and Schroeder 1974:44). Between 1846 and the ratification of the Treaty of Guadalupe Hidalgo on March 10, 1848, the United States army continued to occupy New Mexico, and a civilian government was installed, including a governor (initially appointed by General Kearny) and a territorial assembly.

New Mexico changed politically when it was designated a territory of the United States under the Organic Act of 1851 (Lamar 1966:13). The act set up the territorial governorship, from which important appointments were made in the territorial administration. The territorial legislative assembly dealt with issues on a local level, while the territorial governor's job was to ensure that federal interests were served (Lamar 1966:14). The center of government remained in Santa Fe, as it had been during the Spanish and Mexican administrations.

Between 1848 and 1865, the economy continued to focus on Santa Fe Trail trade, with the inclusion of routes from Texas (Scurlock 1988:95–97). Santa Fe continued to be the economic and political center of the territory. In addition to the mercantile trade, the establishment of military forts such as Fort Union and Fort Stanton expanded the economic markets (Jenkins and Schroeder 1974:50; Scurlock 1988:76–88). Local economies continued to be agrarian and pastoral. The large ranches supplied cattle and wool to the eastern markets and, until the end of the Civil War, to Mexico. A full-scale cash and wage economy was not yet in place as New Mexico was still isolated from the rest of the United States by long distances and hostile Indian tribes (Abbink and Stein 1977:167; Fierman 1964:10).

Changes in the social structure were gradual before the Civil War. Early migration by Anglo-American and European entrepreneurs was slow because industries such as mining had only been established on a small scale. As the terminus of the Santa Fe Trail, Santa Fe attracted immigrant Jewish and German merchants, who brought Eastern European business experience into the new territory. These merchants replaced the early traders and established formal businesses (Jenkins and Schroeder 1974:63). Early merchants were not satisfied with dealing only in goods and participated in growing land speculation in Spanish and Mexican land grants.

Between 1865 and 1880, the trends that began with establishment of the territory were amplified. Before 1860 the United States' attention was focused on the sectional conflict and the resulting Civil War. New Mexico was a Union territory, and for a brief period in 1862 the Confederates occupied Santa Fe without a shot being fired from the cannons of Fort Marcy, which overlooked Santa Fe.

However, when the Confederate contingent attempted to move north to the Colorado gold mines they were engaged, defeated, and exiled from the territory (Jenkins and Schroeder 1974:50–51).

With the end of the Civil War, attention was turned to the settlement of the new territories and their potential for economic opportunity. Military attention turned to pacification of the Native American tribes that roamed New Mexico outside the Rio Grande and its tributaries (Jenkins and Schroeder 1974:51–56). The new western territories were perceived as a place where lives ruined by the Civil War could be renewed. Eastern professionals with all kinds of expertise were encouraged by associates to come to New Mexico, where the political and economic field was wide open (Lamar 1966). Much of this migration centered on Santa Fe, which continued to be the economic and political center of the territory.

The newcomers joined forces with and embraced the patron system, thereby gaining acceptance into the existing cultural setting. These alliances were referred to as "rings." The rings were informal organizations of lawyers, cattlemen, mining operators, land owners, merchants, and government officials (Larson 1968:137). Their common goal was to provide a favorable environment for achieving economic and political aims. The most well known was the Santa Fe Ring, which included territorial governors, land registrars, newspaper owners, lawyers, and elected and appointed officials. Important persons in New Mexico history belonged to the Santa Fe Ring, including Stephen Elkins (Secretary of War and U.S. senator), Thomas Catron (territorial delegate and U.S. senator), L. Bradford Prince (U.S. senator and territorial governor), Francisco Chavez (president of the Territorial Assembly), and M. W. Mills (territorial governor), to name a few (Larson 1968:142–144). The Santa Fe Ring crossed party lines and was extremely fluid in its membership; disloyalty resulted in ostracization and often in political or economic ruin. Opposition to the ring was suppressed by law and violence, as demonstrated by the Lincoln and Colfax County wars in the 1870s (Larson 1968:137–140).

The alliances between the new political and economic entrepreneurs and the old power structure came to dominate the territorial legislature, which through time passed an increasing number of laws benefitting the new structure to the detriment of the Spanish and Native American populations (TANM Roll 102, Frames 78–95). The new Westerners often had contacts in Washington through which they influenced territorial political appointments and disbursement of economic aid (Lamar 1966:169–170).

Perhaps the greatest lure in the New Mexico territory was land. Ownership of large tracts of land was intensely sought by Santa Fe Ring members, a pattern typified by Thomas Catron, who was one of largest landholders in the United States by 1883, only 16 years after arriving in the territory (Larson 1968:143). To land speculators, most of New Mexico was unsettled and unused. This was an illusion promoted by the frontier subsistence economy of low-density, land-extensive farming and ranching, which had prevailed before the Territorial period. Lack of transportation to markets, conflicts with Indians, and a general lack of funds had retarded New Mexico's cattle, lumber, and mining industries. Under the Spanish land grants, nonarable land was a community resource and was therefore not over-exploited. It was the community land that land speculators obtained, to the detriment of New Mexico's rural economy and social structure (Van Ness 1987).

New Mexico's economy changed after the Civil War because of increases in the number of military forts and the growing Anglo-controlled mining and ranching industries. A mercantile system that had focused on Mexican and California trade now supplied the military and transported precious ores from the gold and silver mines of the Santa Rita and Ortiz mountains to national markets. A marginal cash economy grew as the federal government spent money on military forts and the Indian campaigns. The Santa Fe,

California, and Texas trails were the main routes for goods. The Chihuahua trade died after the Civil War (Jenkins and Schroeder 1974:61–62).

The Early Railroad Era (1879–1912). Between 1879 and 1912, political power was concentrated in the Santa Fe Ring, which consisted of several Santa Fe politicians. The group controlled territorial and local political appointments through a system of patronage and effectively blocked legislation proposed by its opponents. In 1885, Edmund G. Ross was appointed territorial governor and was asked to end the political and economic control of the Santa Fe Ring, a task he was unable to complete.

National attention on New Mexico focused on the continued abuses of the land grant situation. Between 1870 and 1892, the Santa Fe Ring was able to manipulate land grant speculation to their advantage. Surveyors general were usually appointed with the blessing of the ring and were often involved in land deals with ring members (Westphall 1965). William Julian was appointed surveyor general and given the job of halting the land grant abuses, which he carried out in spectacular if not a little overzealous fashion. His inclination was to deny all claims as fraudulent and recommended very few to Congress for confirmation. The grants within and on the periphery of Santa Fe were at both ends of the spectrum. Julian recommended the Sebastián de Vargas Grant, located on the southeast boundary of Santa Fe, for confirmation, even though it lacked the proper documents (Court of Private Land Claims [CPLC]). On the other hand, the Salvador Gonzáles Grant, within the northeast corner of the Santa Fe Grant, became the focal point for a national lambasting by Julian (1887) of the abuses of the land grant situation. To the Santa Fe Ring, Julian was an obstructionist, who used his position to advance personal vendettas (Bowden 1969).

At stake in the land grab were millions of acres that would leave private control and enter the public domain if they could not be confirmed as part of a land grant. Julian and Ross believed the public domain should be available to small landholders (Lamar 1966). The Santa Fe Ring supported large-scale ranching and mining interests. Because Santa Fe was the political and economic center of the territory the land around it was valuable, and large tracts not legitimately included in the Spanish land grants were falsely claimed.

From 1880 to 1912, economic growth in the Santa Fe area began to lag as other areas of the state—Las Vegas, the Mesilla Valley, and Albuquerque—grew in importance. Much of the economic slowdown can be ascribed to the lack of a through railroad (Elliott 1988:40). Santa Fe was no longer an important economic center, but became only a stop at the end of a spur on the Atchison, Topeka, and Santa Fe Railway. Although it was also the terminus of the Denver and Rio Grande Railway, which had local and regional significance, that route had little national importance because it did not tie in directly to the east-west transportation corridor (Pratt and Snow 1988:419).

In a move to spur economic growth, a concerted effort was made to advertise Santa Fe and New Mexico as a tourist and health destination. Sanitariums sprang up all across New Mexico, even in remote locations such as Folsom, in the northeast corner of the state. The trip on the Denver and Rio Grande Railway was described as an excellent remedy for lung problems (Nims 1881; Williams 1986:129–131). New Mexico's unique cultural heritage was recognized as an important tourist draw. Preservation and revival of traditional examples of architecture and native crafts and ceremony were encouraged. Large-scale tourist corporations such as the Harvey Corporation invested heavily in Native American crafts. Tourism and economic development became a dichotomy of economic goals. The tourist industry emphasized the old and romantic, while the economic development interests portrayed New Mexico as booming and vital, embodying the modern values embraced by the eastern establishment (Wilson 1981:105–159).

As the seat of territorial government,

Santa Fe maintained economic stability. The city acquired many federal and territorial expenditures and jobs. Attempts to move the capital to Albuquerque in the early 1880s were defeated, which proved critical to the long-term economic stability of Santa Fe (Lamar 1966). Another choice made by legislators interested in Santa Fe's economic growth was to locate the penitentiary in Santa Fe. As a tradeoff, Albuquerque, Las Cruces, Las Vegas, and Socorro received colleges. The penitentiary was viewed as economically more valuable than schools.

Statehood to Modern Times (1912–Present). New Mexico was delayed in its quest for statehood by eastern politicians who viewed the small population, the arid climate, and a Spanish-speaking majority as liabilities. Most New Mexicans favored statehood but had different conditions under which they would accept it. Some citizens feared statehood because of the potential for increased taxation, domination by one ethnic group over another, and the loss of federal jobs under a state-run system. These factors, combined with political factionalism in New Mexico, resulted in the struggle (Larson 1968:302–304).

On January 6, 1912, New Mexico was admitted into the Union as a state. After statehood, the patterns that were established in the Territorial period continued. New Mexico experienced only slow population growth, with most settlement concentrated along the Rio Grande corridor and in the southeast around Roswell. More than half the state land had a population density of fewer than five people per square mile (Williams 1986:135), partly because of the large area that was part of the National Trust and could not be settled. The major industries continued to be mining, ranching, lumber, farming within the Pecos and Rio Grande irrigation districts, and tourism. These industries, except the irrigation projects, were well established before statehood and continue to be important today (Jenkins and Schroeder 1974:77).

In Santa Fe, the absence of a major spur into the national railroad lines proved to be a detriment to industrial growth. Instead, development in Santa Fe focused its state and federal administrative centers and the tourism and art trade (Pratt and Snow 1988; Wilson 1981). The lack of industry that had retarded Santa Fe's growth was turned into a positive situation. Without heavy industry and the accompanying population density that accompanies it, quality of life became a draw for people seeking to escape the increasingly crowded and polluted cities. As part of the quality of life and the uniqueness of Santa Fe, its multicultural heritage continued to be emphasized.

Today, Santa Fe is the centerpiece of a tourism industry that brings more than $1 billion into the state every year. Municipal ordinances and efforts of the art and anthropological community to preserve Santa Fe's cultural heritage in the 1920s and 1930s have made it a desirable location for second residences and professional people who supply services to the national markets. Rapid growth in the 1970s combined a blue-collar and lower economic population with residents of a higher economic class (Williams 1986:244).

ARCHIVAL RESEARCH

adapted from Hannaford (2007)

Archival research began with a query of the New Mexico Cultural Resources Information System (NMCRIS) database for sites recorded within 500 m of the project area (Table 1). These summarized data provide an initial view of settlement context and an understanding of the range of temporal and functional site types that may contribute archaeological material to the project area. A total of 55 sites represented by 76 temporal components have been recorded in the designated 500 m area. No previously recorded sites or properties listed on the *National Register of Historic Places* or the *State Register of Cultural Properties* are located within the project area. LA 20195 (SR 156), the Second Ward School, is located west of Sandoval Street near the northwest corner of the project. This one-room historic stone school house was erected in 1886 and is recorded on the *State Register of Cultural Properties*. The standing structure is currently unoccupied. Two archaeological sites are located about one block to the southeast. LA 113736/LA 137737 (identical site) is at the current location of the Villagra Building to the southeast. Excavations at this site found at least eight features consisting of trash-filled pits and a well attributed to the late nineteenth and early twentieth centuries (Duncan et al. n.d.). LA 112663 is located about one block to the southwest. This site is a Hispanic single residence with an AD 1880 to AD 1996 temporal affiliation (Viklund 1996). Features associated with this site include an L-shaped brick and concrete structure, an outhouse, three ash and coal dumps, and a brick cistern. The remaining sites are over 250 m from the project area. LA 1876 is the nearest prehistoric site located about 400 m to the northeast of the project area and on the north terrace of the Santa Fe River. This poorly documented site was recorded in 1935 by the Laboratory of Anthropology and was assigned an AD 1100 to AD 1600 temporal affiliation. Associated features included one human burial.

No previously recorded Paleoindian or Archaic period manifestations are represented in the 500 m radius around the project area. The Prehistoric period is represented by 13 temporal components centered on the Coalition period (AD 1200 to AD 1325). The sites overlap the earlier and later time periods somewhat, depending on the ceramic types recorded at the sites. In general, the sites are located north of the Santa Fe River and are represented mainly by artifact scatters along with one larger residential site. Additional prehistoric sites are located along the higher terrace north and outside of the area.

The remaining sites are Pueblo, Hispanic, Anglo-Euroamerican, and Unknown, dating mainly from the Historic period. The sites document the intense urban occupation of the Historic Downtown District from the founding of Santa Fe to the present. Over 40 of the sites are located north of the Santa Fe River depicting the initial Hispanic settlement around the plaza including the entire range of governmental, military, religious, and residential structural types. The single Pueblo occupation is represented by Pueblo groups occupying the Palace of the Governors during the Pueblo Revolt. The Hispanic and Anglo-Euroamerican periods are represented by a similar number of almost identical site types as earlier Spanish Colonial sites were reoccupied and utilized by Anglos during the later Territorial and Statehood periods. The project area is nearly equidistant between San Miguel Chapel to the east and Guadalupe Chapel to the west with most of the early structures growing up along both sides of the Santa Fe River northeast and northwest of the project area. The Anglo-Euroamerican period has several additional transportation-related sites centering mainly around railroad activities

Table 1. Sites in the Project Vicinity

COMPONENT	TOTAL
Formative	
Formative Unknown (AD 1 to AD 1600)	1
Formative Unknown (AD 1100 to AD 1300)	1
Formative Unknown (AD 1100 to AD 1600)	3
Formative Artifact Scatter (AD 1050 to AD 1600)	1
Formative Artifact Scatter (AD 1200 to AD 1450)	1
Formative Artifact Scatter (AD 1200 to AD 1600)	1
Formative Simple Features (AD 1200 to AD 1325)	1
Formative Features and Artifact Scatter (AD 1200 to AD 1325)	1
Formative Features and Artifact Scatter (AD 1000 to AD 1325)	1
Formative Features and Artifact Scatter (AD 1275 to AD 1450)	1
Formative Multiple Residence (AD 1100 to AD 1600)	1
Total	13
Pueblo	
Pueblo Multiple Residence (AD 1680 to AD 1692)	1
Hispanic	
Hispanic Unknown (AD 1539 to AD 1680)	1
Hispanic Unknown (AD 1539 to AD 1993)	3
Hispanic Unknown (AD 1692 to AD 821)	1
Hispanic Unknown (AD 1846 to AD 1912)	1
Hispanic Unknown (AD 1945 to AD 1993)	1
Hispanic Artifact Scatter (AD 1539 to AD 1680)	1
Hispanic Artifact Scatter (AD 1600 to AD 1912)	1
Hispanic Artifact Scatter (AD 1692 to AD 1821)	1
Hispanic Artifact Scatter (AD 1700 to AD 1945)	1
Hispanic Artifact Scatter (AD 1720 to AD 1750)	1
Hispanic Artifact Scatter (AD 1767 to AD 1810)	1
Hispanic Artifact Scatter (AD 1650 to AD 1900)	1
Hispanic Artifact Scatter (AD 1800 to AD 1899)	1
Hispanic Artifact Scatter (AD 1880 to AD 1912)	1
Hispanic Governmental (AD 1605 to AD 1680)	1
Hispanic Governmental (AD 1692 to AD 1846)	1
Hispanic Military (AD 1609 to AD 1848)	1
Hispanic Simple Features (AD 1740 to AD 1740)	1
Hispanic Single Residence (AD 1880 to AD 1996)	1
Hispanic Single Residence (AD 1750 to AD 1856)	1
Hispanic Residential Complex/Community (AD 1605 to AD 1680)	1
Hispanic Residential Complex/Community (AD 1605 to AD 1846)	1
Hispanic Residential Complex/Community (AD 1692 to AD 1846)	1
Hispanic Residential Complex/Community (AD 1780 to AD 1996)	1
Hispanic Residential Complex/Community (AD 1821 to AD 1846)	1
Hispanic Residential Complex/Community (AD 1853 to AD 1858)	1
Hispanic Features and Artifact Scatter (AD 1846 to AD 1999)	1
Hispanic Features and Artifact Scatter (AD 1850 to AD 1920)	1
Hispanic Features and Artifact Scatter (AD 1880 to AD 1920)	1
Hispanic Features and Artifact Scatter (AD 1598 to AD 1912)	1
Total	32

Table 1. Continued.

Anglo/Euroamerican	
Anglo/Euroamerican Unknown (AD 1539 to AD 1993)	1
Anglo/Euroamerican Unknown (AD 1846 to AD 1912)	4
Anglo/Euroamerican Unknown (AD 1912 to AD 1945)	3
Anglo/Euroamerican Military (AD 1846 to AD 1912)	1
Anglo/Euroamerican Military (AD 1848 to AD 1920)	1
Anglo/Euroamerican Military (AD 1846 to AD 1851)	1
Anglo/Euroamerican Features and Artifact Scatter (AD 1821 to AD 1859)	1
Anglo/Euroamerican Features and Artifact Scatter (AD 1821 to AD 1912)	1
Anglo/Euroamerican Features and Artifact Scatter (AD 1870 to AD 1945)	1
Anglo/Euroamerican Features and Artifact Scatter (AD 1900 to AD 1971)	1
Anglo/Euroamerican Single Residence (AD 1883 to AD 1912)	1
Anglo/Euroamerican Single Residence (AD 1856 to AD 1990)	1
Anglo/Euroamerican Residential Complex/Community (AD 1846 to AD 1999)	1
Anglo/Euroamerican Residential Complex/Community (AD 1846 to AD 1912)	1
Anglo/Euroamerican Industrial (AD 1891 to AD 1960)	1
Anglo/Euroamerican Commercial (AD 1881 to AD 1886)	1
Anglo/Euroamerican Transportation/Communication (AD 1846 to AD 1900)	1
Anglo/Euroamerican Transportation/Communication (AD 1870 to AD 1945)	1
Anglo/Euroamerican Transportation/Communication (AD 1903 to AD 1955)	1
Anglo/Euroamerican Transportation/Communication (AD 1900 to AD 1930)	1
Anglo/Euroamerican Governmental (AD 1846 to AD 1945)	1
Anglo/Euroamerican Unknown (AD 1912 to AD 1945)	1
Anglo/Euroamerican Unknown (AD 1945 to AD 1993)	1
Total	28
Unknown	
Unknown Artifact Scatter (AD 900 to AD 1880)	1
Unknown Features and Artifact Scatter (AD 900 to AD 1945)	1
Unknown Simple Features (AD 1900 to AD 1990)	1
Total	3
Grand Total	77

located several blocks to the west. Although no archaeological sites are located in the near proximity, a wide range of temporal and functional site types from the Historic period could potentially have contributed archaeological material to the project area.

Historic maps show that the immediate project area followed a trend characterized by open farm land with structures mainly hugging the Santa Fe River. The ca. 1766 Joseph Urrutia Map (Fig. 4) shows structures related to the Barrio de Analco strung along the Santa Fe River both east and west of the Camino de Galisteo. The area behind the structures including the project area is depicted as fields. The Barrio de Analco Historic Neighborhood is one of the oldest residential areas of Santa Fe, having been settled by Tlaxcalan Indian servents who accompanied the Spanish Colonists from Mexico (Sze and Spears 1988:21). The south boundary of the Barrio Analco is just north of the project area.

The 1846–1847 Gilmer map (Fig. 5) shows a similar pattern of land use and settlement. The project area is dominated by open fields behind the houses fronting the Santa Fe River. Residential development appears along Guadalupe Street in the vicinity of the Guadalupe Chapel. The 1885–1886 Hartmann map (Fig. 6) shows that the project area is still open land, but with residential growth along Galisteo Street in addition to the dwellings

Figure 4. Detail of Urrutia's Map of Santa Fe, ca. 1766.

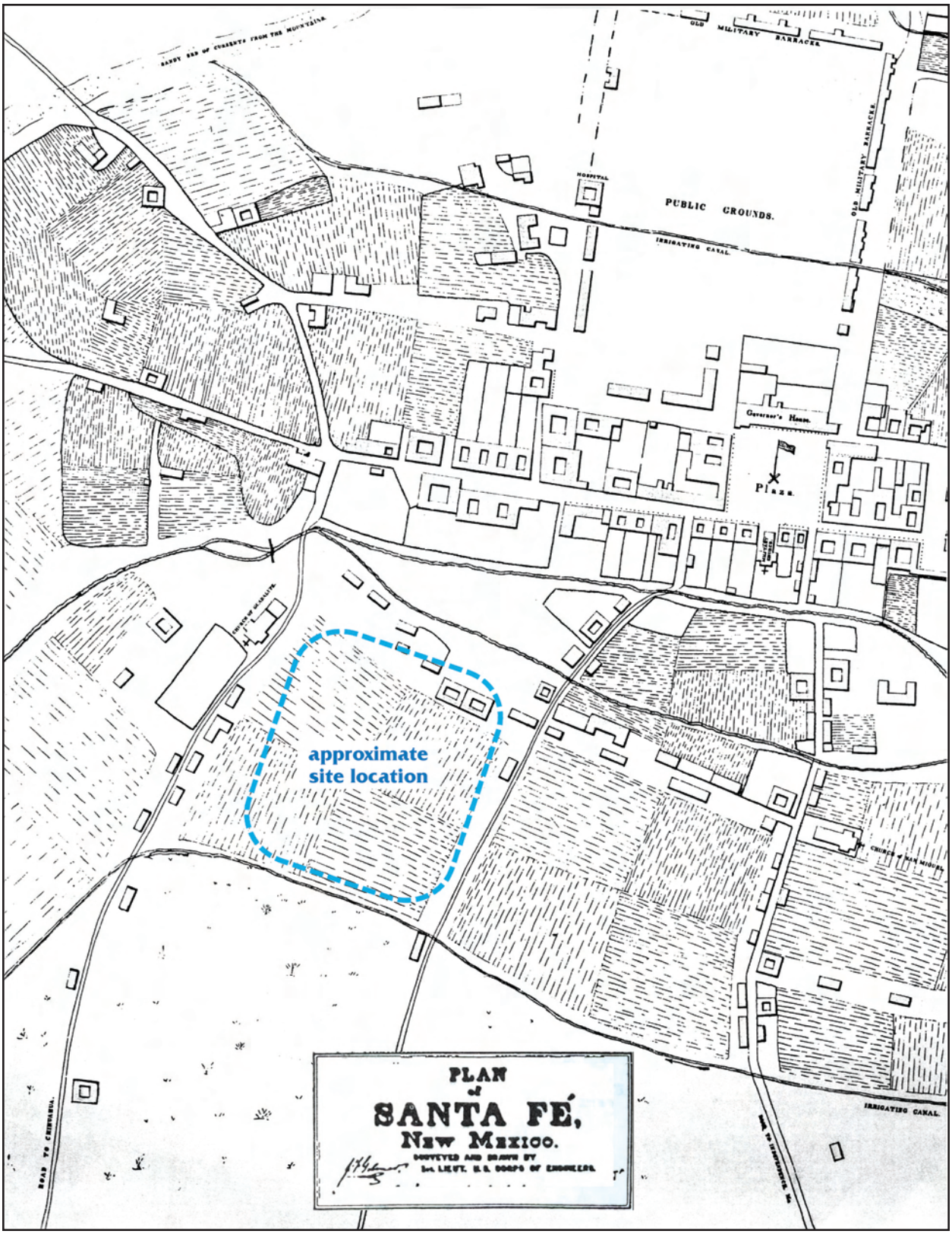

Figure 5. Detail of Gilmer's Plan of Santa Fe, 1846-1847.

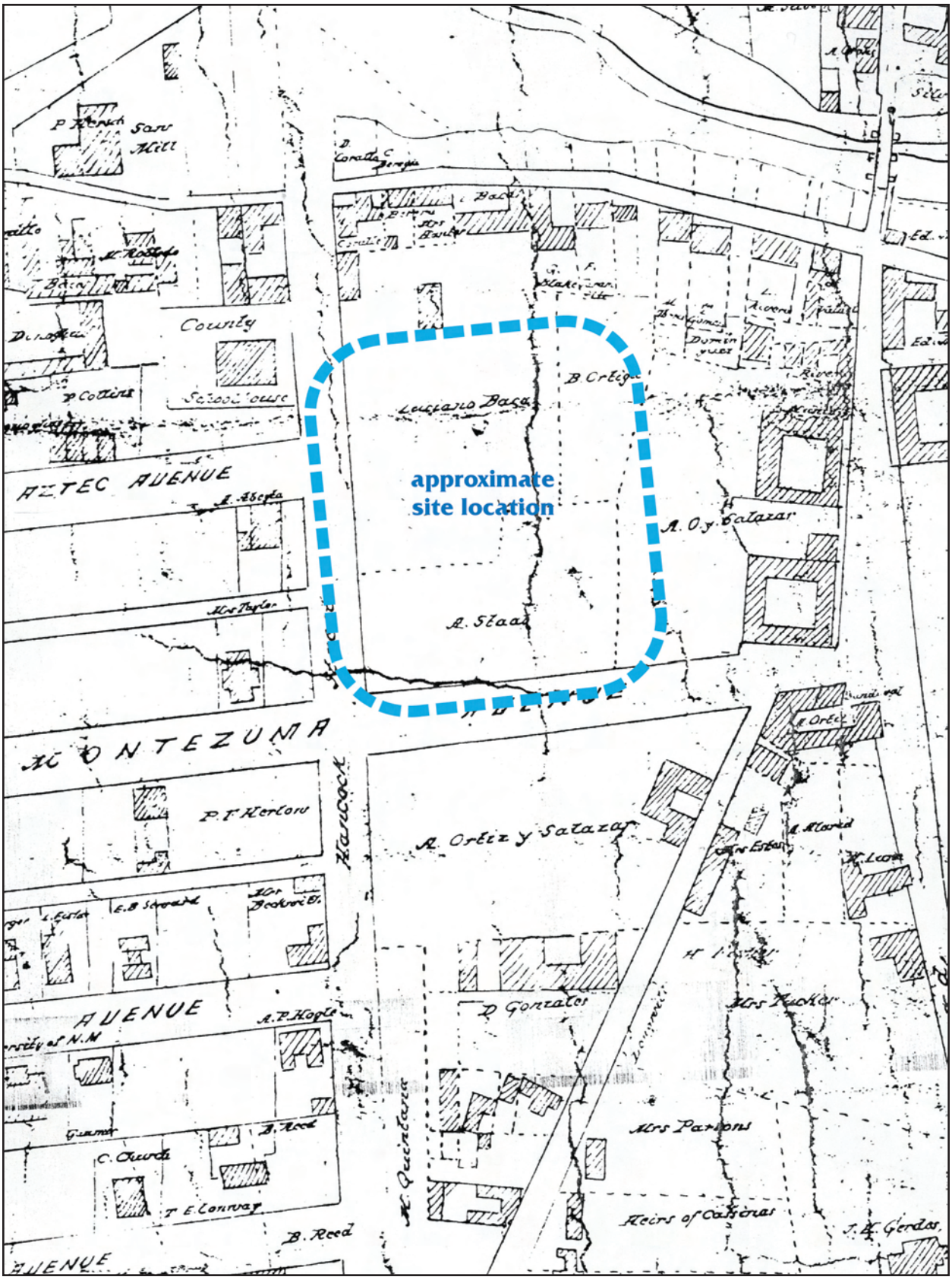

Figure 6. Detail of Hartmann's Map of Santa Fe, 1885-1886.

north of the project area along the river. LA 20195, the Second Ward one-room school house, is depicted west of Hancock Street (currently Sandoval Street). This map also shows that the open lots containing the project area were owned by Abraham Staab, Luciano Baca, Benigño Ortega, and Antonio Ortiz y Salazar.

The Sanborn Insurance maps supply additional information on the land use and settlement of the project area. The 1883 Sanborn map (Fig. 7) continues to document vacant land. The 1890 Sanborn map (Fig. 8) notes that six adobe dwellings are located on the block containing the project, but their locations are not depicted because of their adobe construction. The land remains open until the Hondo Pine Lumber Company appears at the corner of Montezuma Avenue and Hancock Street (Sandoval Street) on the 1921 Sanborn map (Fig. 9). An orchard is depicted at the locality of the Santa Fe County Utility office building and parking lot. This orchard is also depicted on the Stoner 1882 Bird's Eye View of Santa Fe (Fig. 10). The 1930 Sanborn map (Fig. 11) shows that the Hondo Pine Lumber Company has been replaced by the Montezuma Avenue Subdivision composed of long, narrow, north-south running lots. A dwelling is illustrated at the present location of the Blue Monkey Cosmetology School. An additional five, mainly adobe, structures of various sizes are scattered across the project area. The 1930–1948 Sanborn map (Fig. 12) shows additional growth. An auto sales and service building appears at the current location of the Santa Fe County Utility Building offices. A large building constructed of steel trusses appears at the current location of the Paramount Building. Several new buildings are scattered across the project area and several buildings from the 1930s show accretional growth. Buildings from this time period survive at the current locations of the Paramount Building, the Blue Monkey Cosmetology School, and the Santa Fe County Utility office building. The construction of the Santa Fe County Law Enforcement Complex building and parking lot destroyed the other buildings depicted on the map. No historic photographs were found in the photo archives of the immediate project area.

An examination of the 1848–1934 direct and indirect deed books at the Santa Fe County Courthouse revealed that Antonio Ortiz y Salazar was one of the largest land owners in the area with over 70 transactions recorded in the direct index. Salazar was the largest land owner in the project area with lands extending north to the river and west to the railyard. Salazar sold the southwest corner of the property to Zadoc Staab in 1881. However, no additional transactions are recorded in these deed books for A. Staab, L. Baca, or B. Ortega for the 1848–1934 time period.

Finally, the Hudspeth Santa Fe City Directories were examined from 1928 to 1948. These were the primary years showing the construction of buildings in the project area. Unfortunately, the various small structures constructed in the 1930s and 1940s could not be associated with specific businesses, although numerous individuals are listed over the years that may have rented residences in the area. Auto sales occurred at the current location of the Santa Fe County Utility building from the late 1930s into the 1960s. This was the location of the Houch Motor Company (1938), Ricker Motor Company (1943), and Ballow Motor Company (1951) with business continuing into the 1960s. This was the location of Chrysler-Plymouth car sales, service, and auto parts sales for many years.

In summary, land use in the project area was primarily open land with development confined mainly along De Vargas Street to the north and Galisteo Street to the east. Land use probably centered around farming and also an orchard. The property was essentially a large open back lot behind the structures facing the streets to the north and east. The area sees development in the 1930s and 1940s with the construction of several dwellings of various sizes across the locality. The area finally becomes a parking lot with the construction of the Santa Fe County Law Enforcement Complex building bordering the east side of the property.

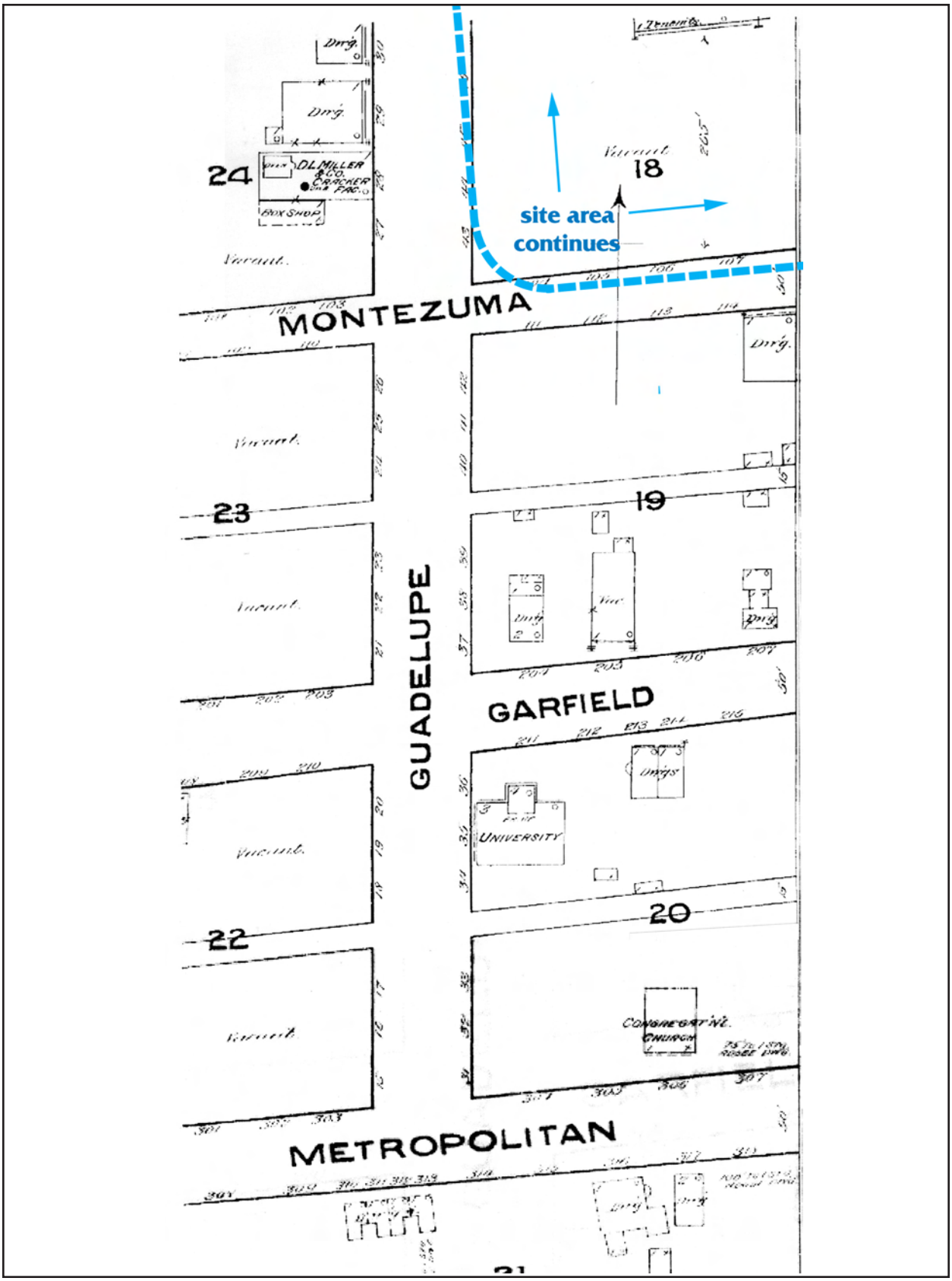

Figure 7. Sanborn Insurance Map detail, 1883.

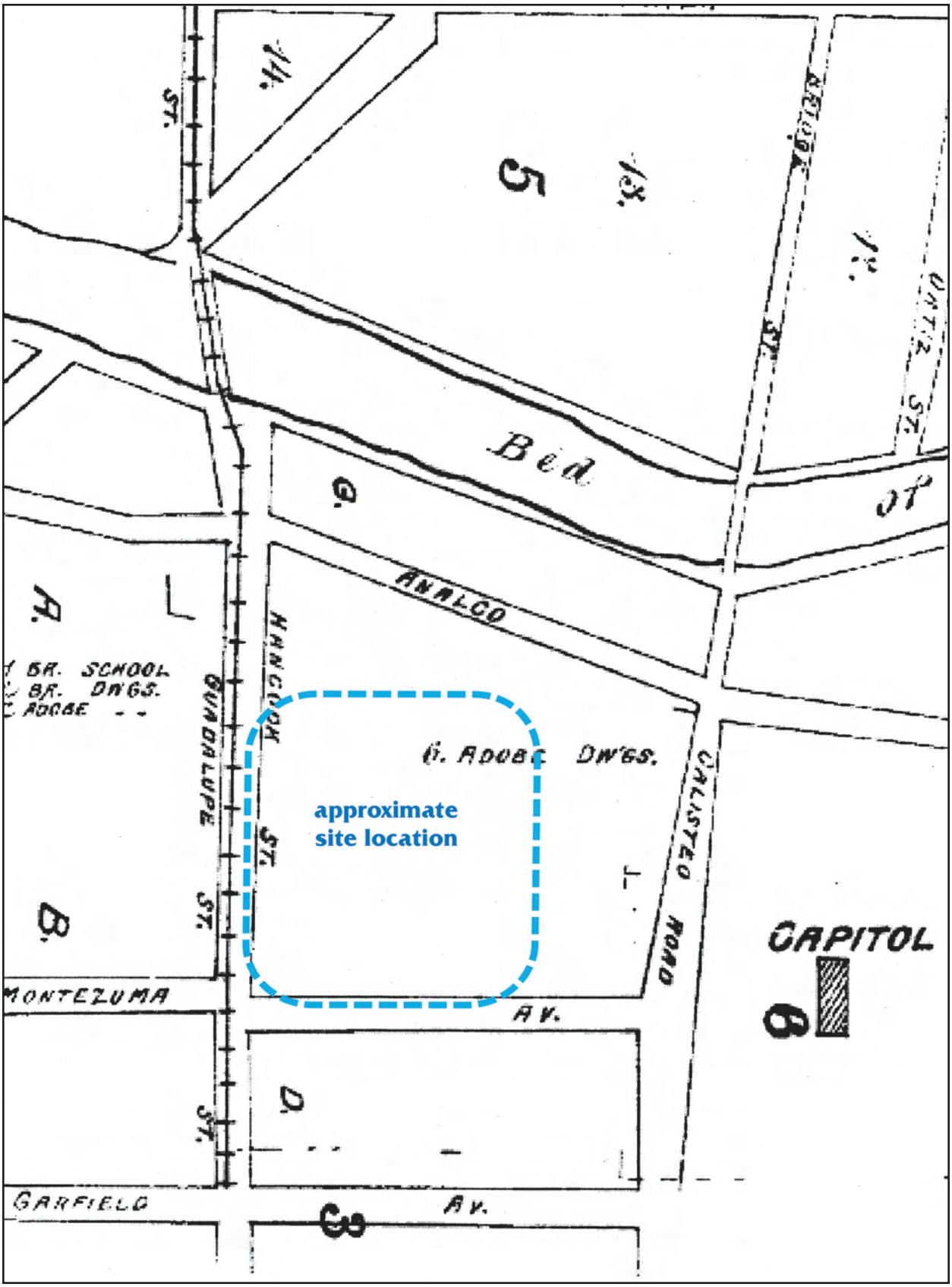

Figure 8. Sanborn Insurance Map detail, 1890.

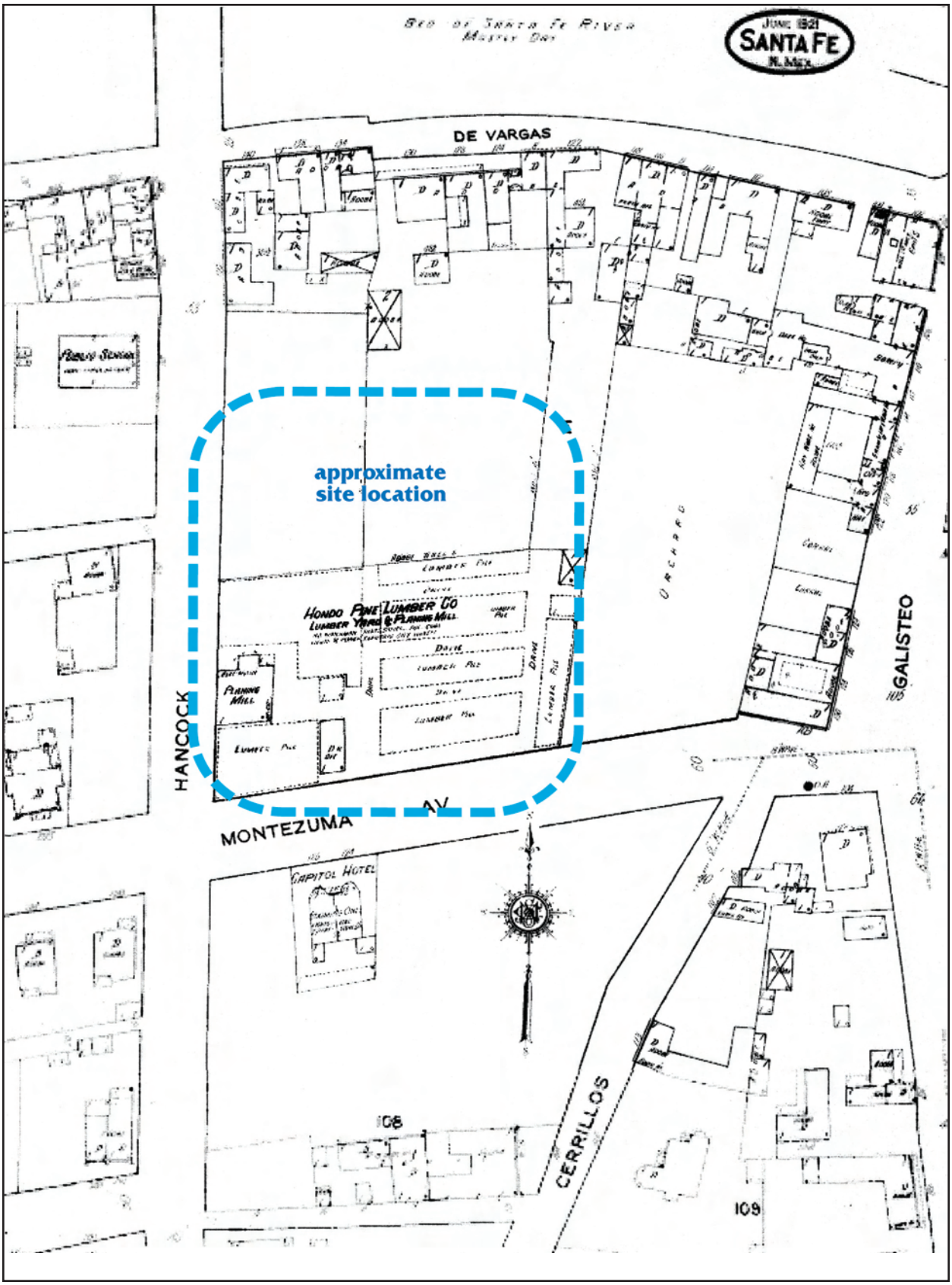

Figure 9. Sanborn Insurance Map detail, 1921.

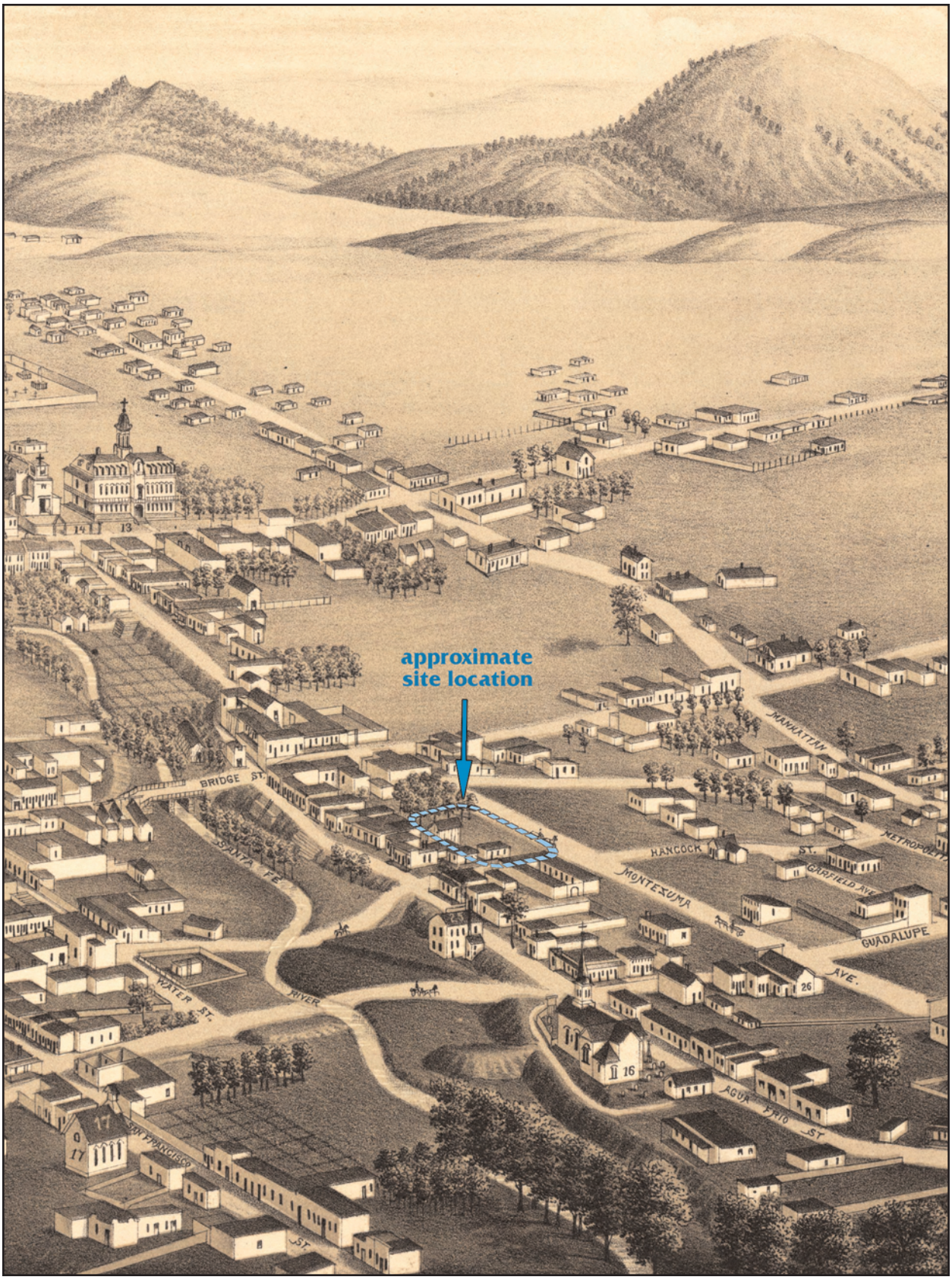

Figure 10. Detail of Stener's Bird's Eye View of Santa Fe, 1882.

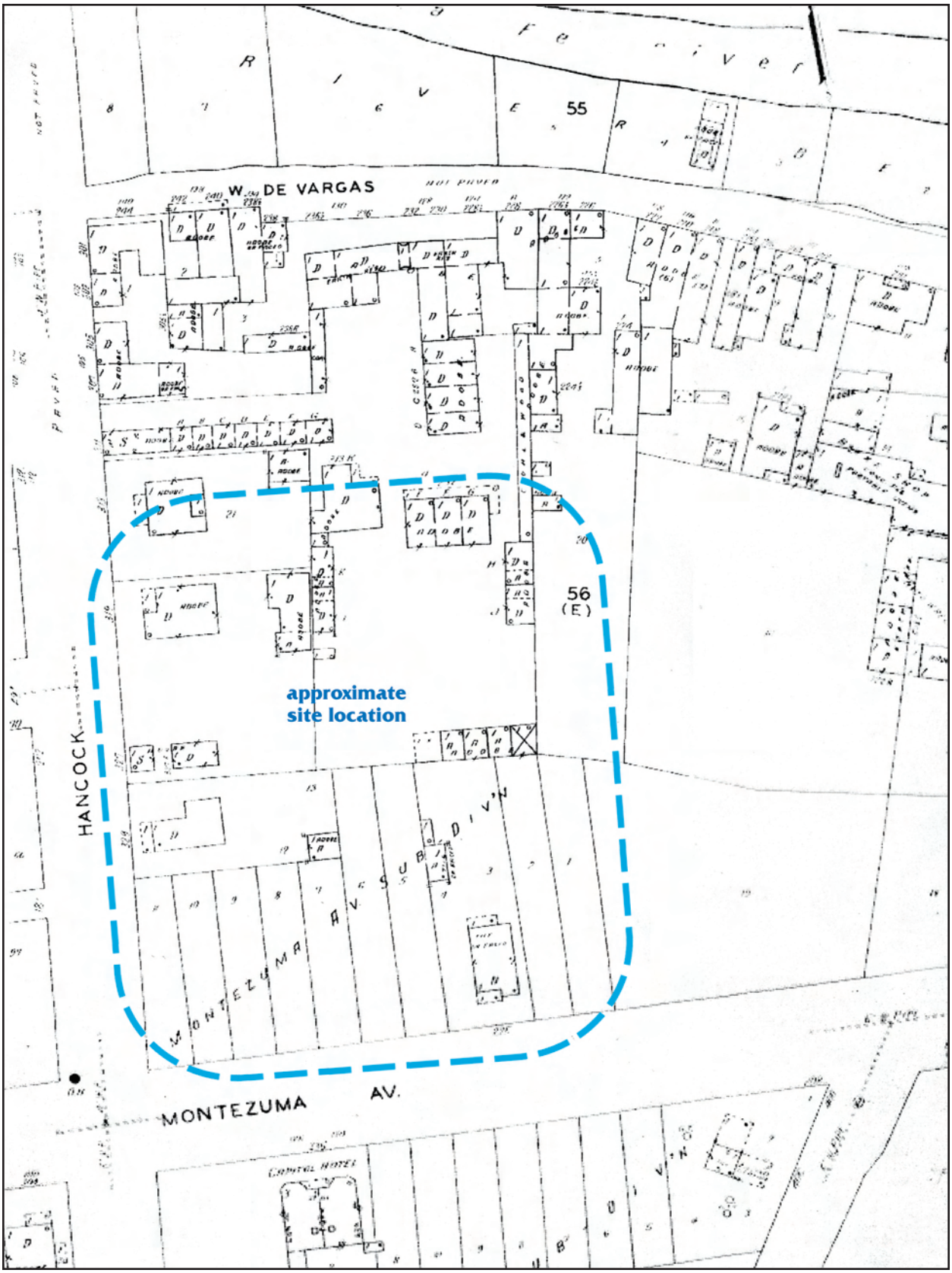

Figure 11. Sanborn Insurance Map detail, 1930.

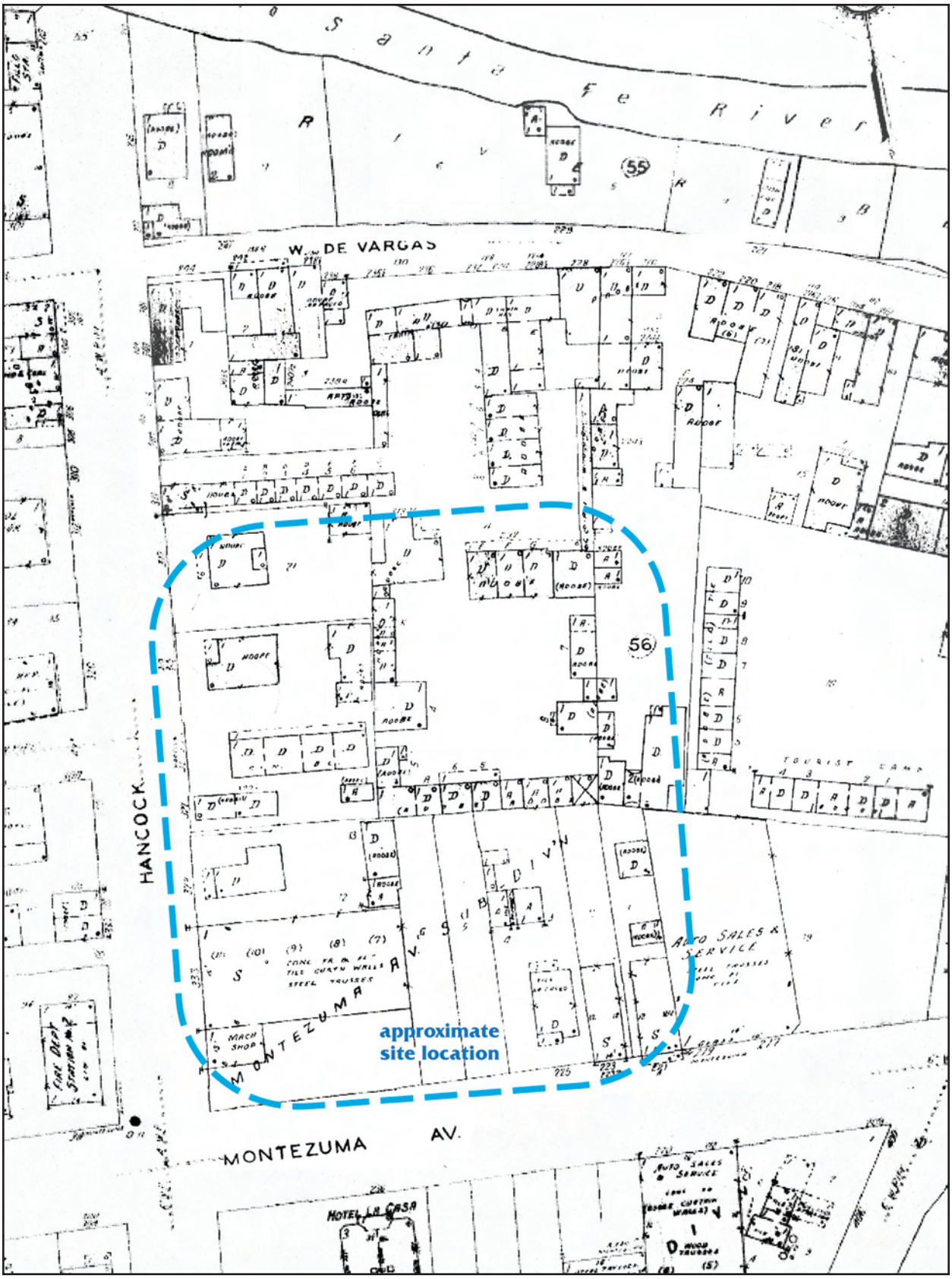

Figure 12. Sanborn Insurance Map detail, 1930-1948.

PREVIOUS RESEARCH

adapted from Hannaford (2007)

The project area is a classic example of an urbanized built environment, complete with asphalt-paved parking lots, modern buildings, and a complex web of marked and unmarked subsurface utilities that mask the presence of any archaeological deposits. The only way to effectively identify and evaluate potential cultural deposits was through the excavation of backhoe trenches. Backhoe trenches varied in length and were placed at locations that had potential for subsurface deposits based on the archival records search, were free of marked utility lines, and on the professional judgement of the archaeologists (Fig. 2). The trenches were 3 ft (0.90 m) wide and were excavated to a depth of 4.5 ft (1.4 m) below the surface. Mechanically excavated trenches determined that sterile sediments were encountered across the site before this depth. Each trench was profiled, photographed, backfilled, and prepared for active parking by the next day. No hand-dug trenches were excavated during the reconnaissance phase.

One goal of the reconnaissance phase was to obtain a 2 percent sample of the 2.4 acre project area (800 ft [244 m] of trench). An effort was made by the archaeologist to insure spatial coverage of the project area, but this endeavor was often hampered by the maze of utility trenches. Nine backhoe trenches totaling 597 ft (182 m) have been excavated on the land owned by Santa Fe County (Fig. 2), but permission was not obtained to work on the privately-owned parking lot. Two trenches (45 m and 21 m) are planned to be excavated at this locality during the proposed evaluation and data recovery phase.

The excavation of the nine backhoe trenches on County of Santa Fe land resulted in the discovery of seven archaeological features and a distinctive stratum apparently representing a prehistoric cultural horizon. The discovered features and cultural stratum have been recorded as LA 156207. Subsurface stratigraphy, backhoe trenches, and features are presented in the following section.

Summary of Archaeological Deposits

Stratigraphy

Seven strata were defined during the profiling of the nine backhoe trenches during the 2007 reconnaissance phase. A similar stratigraphic profile is exhibited across the site varying mainly in the depth and thickness of the various strata (Figs. 13–20). In general, upper strata represent a 30- to 40-cm layer of mechanical leveling and gravel deposition in preparation for paving the parking lots. Below this mechanical disturbance a subtle prehistoric horizon represented by Stratum 5 was recorded in several of the trenches. The one possible feature and the few sherds associated with this cultural horizon suggest an early Classic period (AD 1325–1450) or general Classic period (AD 1325–1600) temporal affiliation. The horizon is characterized mainly by the presence of charcoal flecks within a 10–30 cm stratum appearing at a depth of 20 cm to as deep as 60 cm to 70 cm in some areas of the site. This prehistoric horizon (Stratum 5) appears to be associated with the prehistoric utilization of the general area, possible related to farming activities along the Santa Fe River terrace. The remaining strata are alluvial in origin, representing both high-energy deposition of large cobbles (Stratum 7) and low-energy deposition of finer silty clay (Strata 4 and 6).

Descriptions

Stratum 1. Asphalt parking lot cap averaging about 4 cm thick.

Stratum 2. 10YR 4/4 dark yellowish brown. This is a base course of sand and gravel located directly beneath the asphalt pavement. The stratum is between 10 and 15 cm thick extending to a depth of about 20 cm below the surface. The bottom boundary is consistently level and sharp. This is a construction-related stratum involved with the placement of the asphalt pavement for the parking lots.

Stratum 3.10YR 4/2 dark grayish brown. This stratum consists of a moderately consolidated silty clay loam with occasional recent artifacts in the form of glass, rebar, and concrete fragments. This is another construction-related stratum associated with leveling and preparing the surface for the placement of the asphalt pavement. The stratum extends to a depth of 30 cm to 40 cm below the surface and ranges from 10 to 20 cm thick. The bottom boundary is consistently level and sharp indicating leveling with heavy machinery.

Stratum 4.10YR 4/1 dark gray. This stratum consists of a moist, consolidated clay loam with a small amount of gravel and a few artifacts represented by occasional fragments of recent glass. The stratum generally extends from 40 cm to 50 cm below the surface and averages from 10 to 30 cm thick. The upper portion of the stratum has been cut by the leveling activities associated with the construction of the parking lots. The bottom boundary is slightly wavy and rests on the lower cultural stratum (Stratum 5). Stratum 4 represents low-energy alluvial sediment most likely deposited in association with flooding activities along the Santa Fe River terrace.

Stratum 5. 7.5YR 5/5 dark brown. Stratum 5 is an apparent prehistoric horizon characterized by a consolidated sandy loam with moderate inclusions of gravel. The stratum, infused with charcoal flecks, is rather subtle and artifact content was limited to two sherds, both of which were recorded in Backhoe Trench 9. The sherds included a red ware and a mica utility ware both suggesting a general Classic period (AD 1325–1600) temporal association. A possible hearth (Feature 4) is associated with Stratum 5 in the Backhoe Trench 1 profile. This feature also contained two sherds (Wiyo Black-on-white and a glaze-on-red) that suggest a slightly earlier Classic period occupation from around AD 1300–1450. In Backhoe Trench 1 at the north end of the project, Stratum 5 extends from a depth of 60 to 70 cm below the surface and ranges from 10 to 30 cm in thickness. In Backhoe Trench 9 at the south end of the project, Stratum 5 is positioned immediately below Stratum 2 at a depth ranging from 20 cm to 30 cm below the surface. Stratum 5 suggests the presence of prehistoric activities in the area, possibly related to long-term farming along the Santa Fe River terrace.

Stratum 6. 10YR 4/3 brown. Stratum 6 is a culturally sterile consolidated silty clay with only rare gravel content and faint mottles of caliche inclusions. The stratum is of alluvial origin associated with low-energy deposition along the Santa Fe River terrace. The stratum generally extends from 80 cm to 1.4 m below the surface with thickness ranging from 10 to 60 cm thick. Stratum 6 is positioned below the Stratum 5 prehistoric horizon in Backhoe Trench 1.

Stratum 7. 10YR 4/4 dark yellowish brown. Stratum 7 is a culturally sterile coarse sand matrix containing abundant gravel and cobbles ranging in size from 5-by-5 cm up to 20-by-20 cm. The cobbles frequently exhibit caliche skins, and the overall stratum is weakly cemented with calcium carbonate. The stratum generally appears toward the bottom of the trenches. However, in Backhoe Trenches 4 and 5 the stratum appears directly below the Stratum 3 mechanical leveling activities at a depth of only 20 to 30 cm below the surface. The massive stratum is some 1.2 m thick in these trenches and appears to represent an ancient high-energy stream bed of the Santa Fe River.

Table 2. Backhoe Trench Summary

Backhoe Trench	Length	Orientation	Cultural Resources
1	21 m	East-west	Feature 4 and Stratum 5 prehistoric horizon
2	9 m	North-south	Feature 3
3	17 m	East-west	Features 5 and 6 along with the Stratum 5 prehistoric horizon
4	9 m	East-west	No cultural resources
5	30 m	East-west	Features 1 and 2 and Stratum 5 prehistoric horizon
6	27 m	East-west	Stratum 5 prehistoric horizon
7	6 m	North-south	No cultural resources
8	45 m	North-south	Feature 7 and Stratum 5 prehistoric horizon
9	18 m	North-south	Stratum 5 prehistoric horizon

Backhoe Trenches

Nine backhoe trenches (197 ft [82 m]) of various sizes to accommodate placement within the web of utility lines were excavated on the county-owned portions of the project area (Fig. 2). These nine trenches and the two (45 m and 21 m) proposed for the privately-owned parking lot represent 800 linear feet of subsurface exploration required for the 2.4 acre project area.

Backhoe Trench 1. Backhoe Trench 1 is located at the north boundary of the project area just west of the Santa Fe County Law Enforcement Complex building (Fig. 2, Table 2). This locality was selected to look for subsurface remnants of adobe structures that appear in this area on the 1930s Sanborn Insurance Map. Another single-room adobe structure was set behind this room block at the east end and in the general area of the northwest corner of the Santa Fe County Law Enforcement Complex building (Fig. 11). Although no utility trenches had been spotted at this locality, the initial 2 m of the trench exposed an unmarked and active sewage line. In addition, after 21 m of mechanical excavation, an unmarked and active gas line was found paralleling the north edge of the trench. Backhoe Trench 1 exemplified the problems and hazards of subsurface excavation in a heavily built urban environment.

The trench found no architectural remains, yet the only possible prehistoric deposits (Feature 4 and Stratum 5) were encountered during these archaeological investigations (Fig. 13). A prehistoric horizon (Stratum 5) was also found to extend the length of the trench. Stratum 5 is much deeper (50 to 60 cm) below the surface at the north end of the site compared to the (30 cm) below the surface at the south end. The lower sterile deposit at the north end of the project consisted of the low-energy Stratum 6 silty sediment rather than the high-energy Stratum 7 cobble layer.

Backhoe Trench 2. Backhoe Trench 2 is located at the northeast corner of the project area and paralleling Sandoval Street to the west (Fig. 2, Table 2). The backhoe trench was located at this locality to explore for subsurface remnants of an adobe dwelling that appears in this general area on the 1930 Sanborn Insurance Map (Fig. 11). The trench uncovered no architectural remnants of the dwelling and cultural material was limited to a single pit of unknown, but probably recent, temporal affiliation. In addition, the prehistoric horizon (Stratum 5) was not found in this trench

Backhoe Trench 3. Backhoe Trench 3 is located in the north-central portion of the project area to locate any remains of the adobe

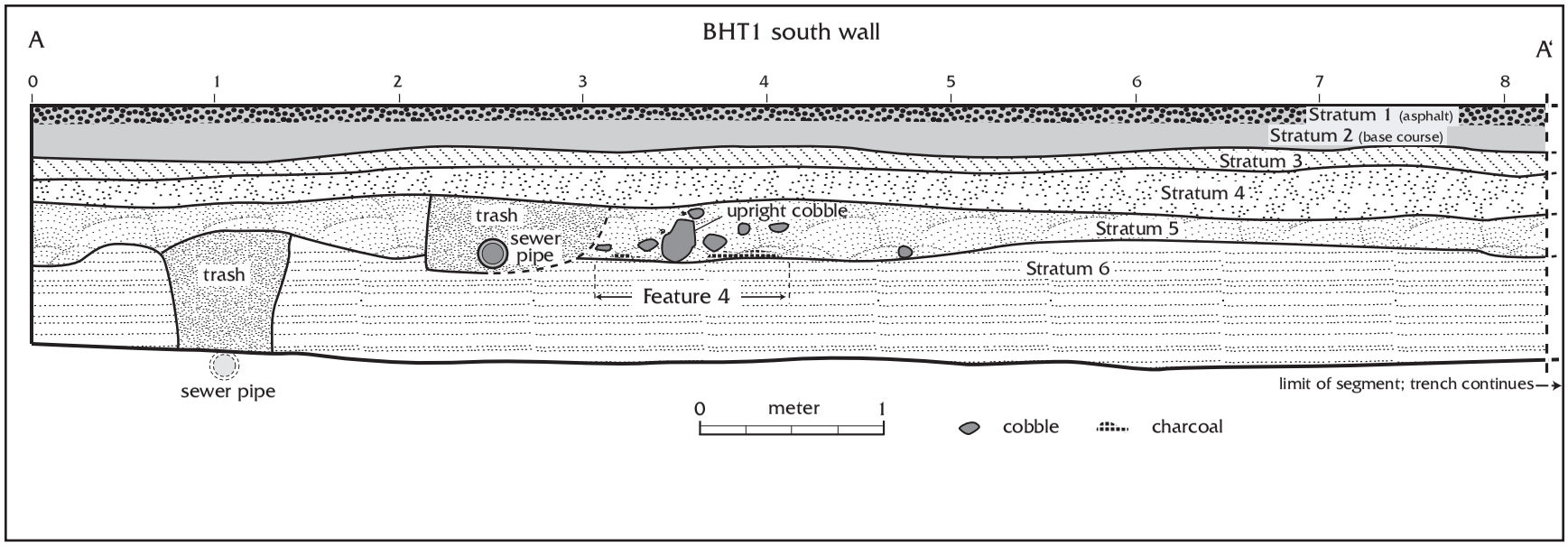

Figure 13. Backhoe Trench 1 profile, Feature 4.

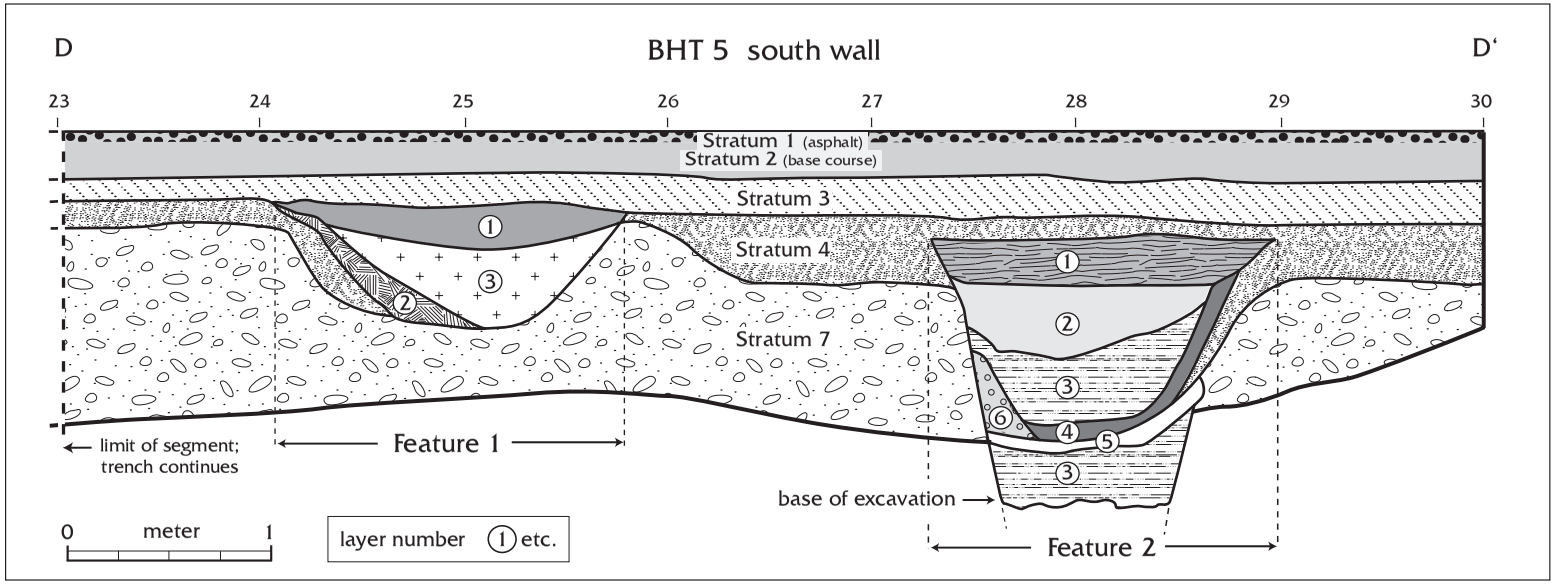

Figure 14. Backhoe Trench 5 profile, Features 1 and 2.

dwelling that also appears on the 1930s Sanborn Insurance Map (Fig. 11). The backhoe trench uncovered two features along with the presence of the Stratum 5 prehistoric horizon. Feature 5 is a remnant of a concrete basement measuring 4-by-4 m. This basement was probably associated with the dwelling depicted on the 1930s insurance map. Feature 6 is a large pit located just to the west of the basement. The pit was filled with construction debris and apparently represents a demolition pit dug to bury remnants of the dwelling, which was probably razed in the 1950s. Both features had been excavated through the Stratum 5 prehistoric horizon was about 20 cm thick, present at the east and west end of the trench at a depth of about 60 cm below the surface.

Backhoe Trench 4. Backhoe Trench 4 is located in the central portion of the project area and about 10 m south of Backhoe Trench 3 (Fig. 2, Table 2). This location was selected to further define the adobe dwelling that appears in this general area on the 1930s Sanborn Insurance Map (Fig. 11). Backhoe Trench 4 was completely sterile of cultural material. Features 5 and 6 exposed in Backhoe Trench 3 to the north did not extend into this trench. The trench profile consisted of three strata represented by the asphalt pavement, a 20 cm to 30 cm layer of base coarse gravel, followed by a thick layer of the Stratum 7 cobble deposit. Stratum 7 extended from a depth of 20 cm below the surface to the bottom of the trench at a depth of 1.4 m. The thick Stratum 7 cobble deposit appears to be a continuation of the old Santa Fe River channel also exposed in Backhoe Trench 5 to the southeast. Of interest is the fact that Backhoe Trench 3, located 10 m to the north, contained no cobble deposition. The channel edge must be somewhere between the two trenches.

Backhoe Trench 5. Backhoe Trench 5 is located in the central project area and just west of the Santa Fe County Law Enforcement Complex building (Fig. 2, Table 2). The trench was located here to explore subsurface remnants of a contiguous row of adobe rooms illustrated on the 1930 and 1930–1948 Sanborn Insurance maps (Figs.11 and 12) Although no architectural remains were identified, two pit features dating from the 1930s were discovered (Fig. 14). A refuse pit and possible latrine may be related to the 1930s structures. The upper levels of both features contained construction debris, possibly originating from the razing of the structure. In addition, a small area of the Stratum 5 prehistoric horizon was noted between the 16 m and 20 m segment of the trench.

A remnant of the prehistoric layer (Stratum 5) is located just below Stratum 3 at a depth of 30 cm below the surface. The narrow 10-cm-thick remnant rests on the lower Stratum 7 cobble layer. The Stratum 7 cobble layer is present just below the surface at this locality and is over 1.20 m thick. The massive deposit suggests the presence of an old Santa Fe River channel in this area. Both features had been dug, probably by hand, into this massive cobble layer.

Backhoe Trench 6. Backhoe Trench 6 is located just north of the existing Paramount Building (Fig. 2, Table 2). The trench was located in this area to explore subsurface remnants of two small adobe structures that appear on the 1930s Sanborn Insurance Map at this general locality (Fig. 11). The structures are connected on the 1948 Sanborn map and a four-room contiguous room block (measuring about 20-by-40 ft east-west) appears just to the north. The trench revealed no subsurface evidence of the structures. Cultural material was limited to a 15-m-long strip of the prehistoric horizon present at the west end of the trench located just below the pavement leveling and filling activities at a depth of about 30 cm below the surface extending east and west outside of the project area. Stratum 5 ranged from 20- to 30-cm thick, but had a noticeable absence of charcoal at this locality. A recent pit was filled mainly with refuse consisting of various household bottles and jars, beer bottles, plastic debris, and cloth, combined with

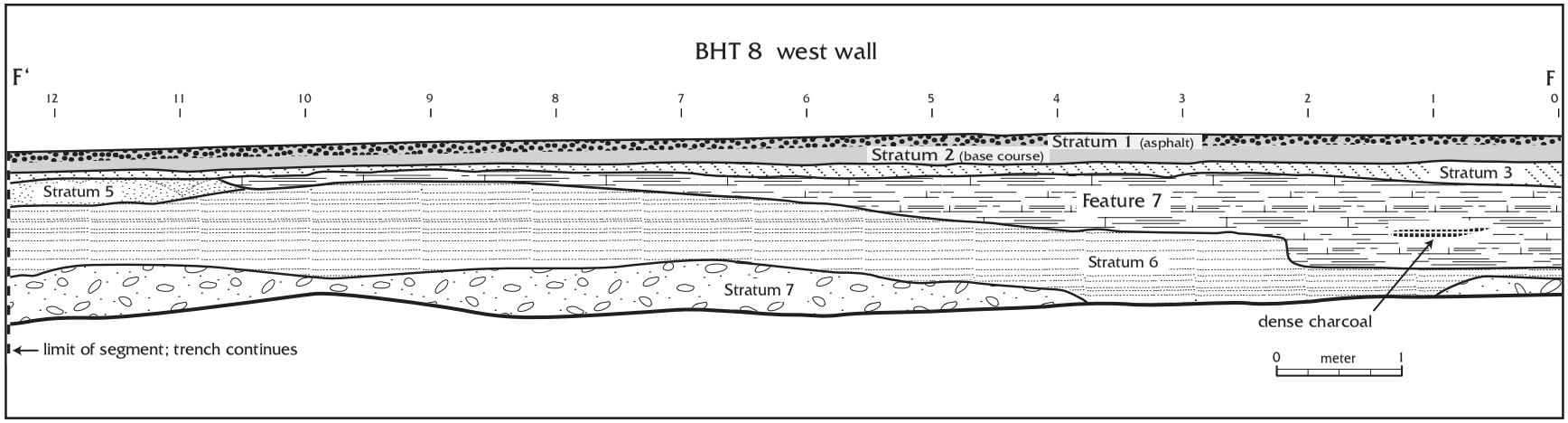

Figure 15. Backhoe Trench 8 profile, Feature 7.

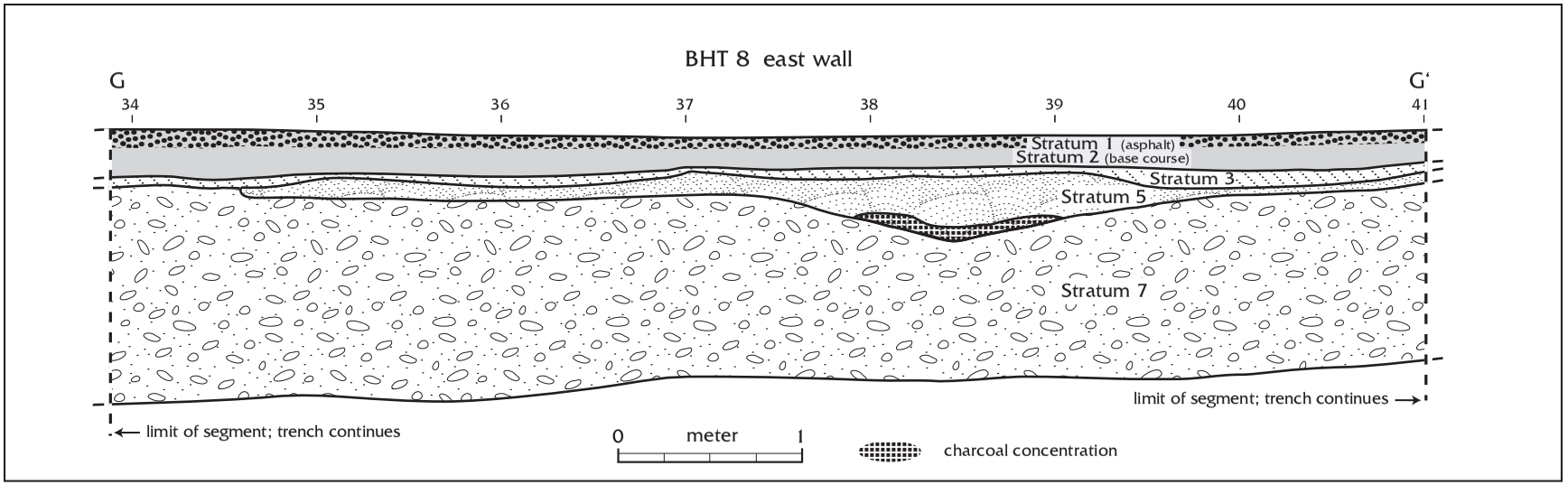

Figure 16. Backhoe Trench 8 profile, south end.

some milled wood debris and window glass trash dating from the 1970s, overlies the prehistoric horizon from the 0 m to the 8 m profile marker. This pit was not recorded as a feature because of the recent 1970s nature of the refuse. The lower sterile deposits at this locality consisted of the Stratum 7 cobble layer.

Backhoe Trench 7. Backhoe Trench 7 (Fig. 2, Table 2), a short, 6-m trench, was located here to explore for subsurface remnants of the Hondo Pine Lumber Company depicted on the 1921 Sanborn Insurance Map (Fig. 9). Much of this area is now below grade, occupied by the Paramount Building, and crossed by numerous utilities. Backhoe Trench 7 was completely sterile of cultural material and the soil profile (not depicted) characterized by four strata consisting of the initial parking lot pavement, Stratum 2 gravel (20 cm), Stratum 3 redeposited leveling fill (40 cm), and Stratum 7 cobbles (50 cm). The area apparently required more leveling than the areas to the north and east. A recently installed French drain in the form of a 55-gallon oil can filled with cobbles and fed by a PVC pipe was found at the north end of the trench.

Backhoe Trench 8. Backhoe Trench 8 is a 45-m-long trench located just west of Backhoe Trench 8 (Fig. 2, Table 2). This is essentially the center of the parking lot between the Blue Monkey Cosmetology School on the west and the Santa Fe County Utility Building offices on the east. This area had essentially remained undeveloped until paved over as a parking lot. Although no utility lines were marked in the area, several abandoned lines were encountered. A north-south sewage line discovered in Backhoe Trench 8 intersected the trench at about the 3-m marker and then extended south along the east wall of the trench to the 21-m marker. The sewage line crossed the trench at the 21-m marker and paralleled the west wall of Backhoe Trench 9 south to the 45-m marker. The old trench was dug to a depth of 1.4 m below the surface and was filled with redeposited construction and domestic refuse from the 1930s. This redeposited material may have originated from the 1930s buildings noted on the Sanborn Insurance Map in the area of Backhoe Trench 5 to the northwest. The east wall of Backhoe Trench 9 was disturbed by this trench from the 5-m marker to the 21-m marker. The west wall of Backhoe Trench 9 was disturbed from the 21-m marker to roughly the 45-m marker at the south end.

A large 1930s era refuse pit (Feature 7) was uncovered at the north end of the trench and the Stratum 5 prehistoric horizon was found to extend essentially the length of the trench (Figs. 15 and 16). The large Feature 7 refuse pit contained 1930s era construction and domestic artifacts that may have originated from the 1930s dwellings located some 12 m to the northwest. The long tapered depression combined with the similar 1930s era material in the old sewage line, suggests that razed debris from these structures may have been used to fill and level this area of the site.

The Stratum 5 prehistoric horizon extends the length of the trench and is positioned just below Stratum 3 at a depth of 20 cm below the surface (Figs. 15 and 16). The stratum is about 20 cm thick and rests on the lower sterile Stratum 6 at the east end and Stratum 7 at the west end. A 2 m area in the east profile between the 37-m and 39-m profile markers contains a charcoal concentration with larger charcoal fragments. This does not appear to be a feature and no artifacts were observed in the area. However, the area does stand out as containing a higher density of charcoal than normally encountered along the profile.

Backhoe Trench 9. Backhoe Trench 9 is located just west of the Santa Fe County Utilities building (Fig. 2, Table 2). An auto sales and service building appears at this locality on the 1948 Sanborn Insurance Map (Fig. 12). This building was remodeled into the current Santa Fe County Utilities building. The 1948 Sanborn Insurance Map shows two small single-room adobe dwellings located adjacent to the west wall of the existing building. Both

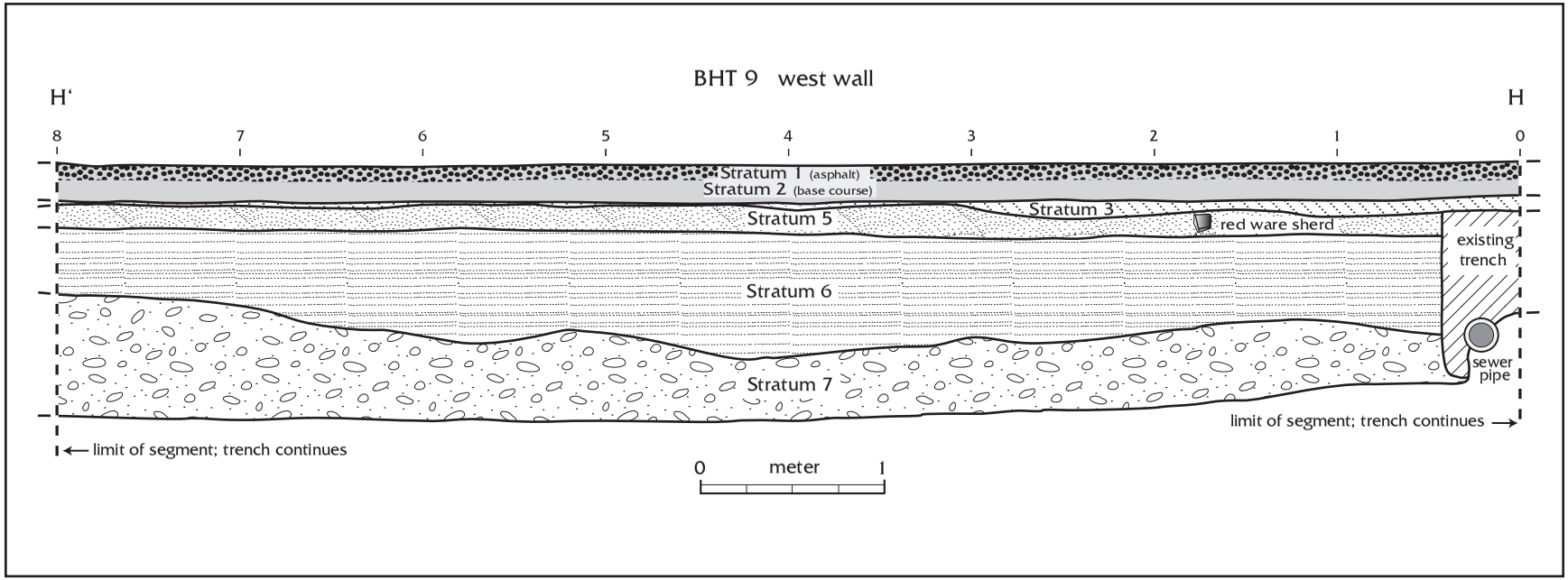

Figure 17. Backhoe Trench 9 profile.

structures measure about 10-by-10 ft. Backhoe Trench 8 was located just west of the existing building to search for subsurface architectural remnants of these two small structures. Backhoe Trench 9 revealed no subsurface evidence of the structures (Fig. 17). An abandoned ceramic sewage pipe was uncovered at the north end of the trench. A shallow pit at the south end of the trench (not illustrated) contained construction debris in the form of white tile fragments and miscellaneous metal scrap. The shallow pit is at least 2 m long (continues south of the backhoe trench) and 10 cm thick. The pit is just below the Stratum 2 site leveling and is probably associated with recent razed debris involved with leveling the parking lot. The pit was not assigned a feature designation because of the recent nature of the artifacts. The Stratum 5 prehistoric horizon was also found to extend the length of the trench. Stratum 5 is located at a depth of about 20 cm below the surface and is positioned just below the Stratum 2 and 3 site leveling and graveling associated with the asphalt pavement. The stratum averages about 20 cm thick and rests on the lower Stratum 6 silty sediment. A red ware sherd was noted near the 2-m profile marker and a mica utility sherd was noted near the 12-m marker. These were the only two artifacts observed in association with Stratum 5 outside of Feature 4 in Backhoe Trench 1.

Summary Feature Descriptions

The seven features discovered during the backhoe trenching are described here.

Feature 1

Feature Type. Refuse pit (Figs. 14 and 18).

Feature Age. Statehood/WW II (1912 to 1945), ca. 1930s.

Size. 1.6 m east-west by an estimated 1.6 m north-south. Only a small segment of the feature appears in the north profile of the trench. Location. Feature 1 was exposed in the south profile of Backhoe Trench 5 close to the 24 m to 25 m horizontal profile measurements.

Depth and Thickness. The top of the pit was located at a depth of 40 cm below the surface. The pit was about 60 cm thick with the bottom resting at a depth of 1 m below the surface.

Construction Material and Method. Feature 1 is a simple basin-shaped pit probably dug by hand into Stratum 7 characterized by a thick layer of alluvial gravel and cobbles apparently associated with a high-energy arroyo channel.

Condition. The feature is intact and stable.

Depositional Context. Feature fill consists of three layers of silty clay with varying gravel and cobble content. Charcoal flecks are present throughout the fill. Although charcoal flecks are present throughout the fill, there is no evidence of burning or oxidation. There is no indication that the pit functioned as a thermal feature. The fill layers appeared to have been introduced through a combination of alluvial erosion and cultural deposition.

> *Layer 1.* 10YR 4/3 brown. Moderately consolidated silty clay and gravel covering the feature. Sparse charcoal flecks are present, but no evidence of burning.
> *Layer 2.* 10YR 5/4 yellowish brown. Loose sandy gravel and cobbles similar to the surrounding Stratum 7 alluvial cobble deposit. Layer 2 appears to represent the collapsed east wall of the feature.
> *Layer 3.* 10YR 4/2 dark gray. This is the primary cultural layer consisting of silty clay with charcoal flecks and containing most of the artifacts.

Artifact Content. Low density artifact content (estimated less than 25) is present throughout the fill. Artifact content consists of construction debris in the form of wood fragments and miscellaneous metal straps mixed with

Figure 18. Feature 1, refuse pit.

Figure 19. Feature 2. possible privy.

domestic debris, including saw-butchered cattle bone and clear unpatinated bottle glass. A large green depression glass stem ware fragment from essentially the feature floor suggests the 1930s temporal association. No discrete temporal or functional differences were noted between the fill layers.

Interpretation. Feature 1 is a simple, small, refuse pit containing low-density construction and domestic refuse dating to the 1930s. A contiguous row of small rooms appears in this area on the 1930s Sanborn Insurance Map. Feature 1 is probably associated with this 1930s-era room block, probably as a simple yard-related refuse pit.

Feature 2

Feature Type. Possible privy (Figs. 14 and 19). Feature Age. Statehood/WW II (1912 to 1945), ca. 1930s.

Size. 1.5 m east-west by estimated 1.5 m north-south and tapering to less than 1 m in diameter at the termination of excavation at 1.80 m below the surface. The entire depth of the feature was not delineated. The feature was not present on the north wall of the trench.

Location. Feature 2 was exposed in the south profile of Backhoe Trench 5 between the 27 m and 29 m horizontal profile measurements. Feature 2 is about 1.5 m west of Feature 1.

Depth and Thickness. The top of Feature 2 was located at a depth of 50 cm below the surface. The possible privy extends to a depth of at least 1.8 m below the surface. The actual floor of the feature was not ascertained.

Construction Material and Method. Feature 2 is an inverted cone-shaped pit tapering from a diameter of 1.5 m at the mouth to less than 1 m at a depth of 1.8 m below the surface. The deep pit was apparently dug by hand into Stratum 7 characterized by the thick layer of alluvial gravels and cobbles. Digging this deep pit by hand would have been a challenge considering that the backhoe had problems penetrating the dense cobble fill.

Condition. The feature is intact and stable.

Depositional Context. The feature contains six depositional layers. Layers 4 and 6 apparently represent discrete dumping episodes. A 5-cm layer of lime divides Stratum 3 in the lower portion of the feature.

> *Layer 1.* 10YR 5/4 yellowish brown. Moderately consolidated silty clay with gravel inclusions and low artifact content.
> *Layer 2.* 10YR 4/3 brown. Moderately consolidated silty clay with gravel and occasional cobbles. Increased coal content and charcoal flecks.
> *Layer 3.* 10YR 4/4 dark yellowish brown. Slightly consolidated silty clay with low frequencies of charcoal inclusions. The layer is divided by Layers 4, 5, and 6.
> *Layer 4.* 2.5YR 4/4 reddish brown. Loose silty loam with higher artifact content consisting of metal scrap, saw-cut cattle bone, glass, and charcoal.
> *Layer 5.* 10YR 8/1 white. This is about a 5-cm-thick layer of lime dividing the thicker Layer 3 deposit.
> *Layer 6.* 10YR 4/2 dark grayish brown. Loose sandy loam with abundant charcoal and wood fragments.

Artifact Content. Moderate density (estimated 50 to 100) artifacts are scattered throughout the exposed fill layers. Construction debris is represented by wood, brick fragments, small wood fragments, and window glass. Domestic refuse is represented by sanitary can fragments, clear bottle glass, and saw-butchered cow bone. Charcoal flecks are present throughout the fill layers, but there is no evidence of actual burning or oxidation. Slight color variations suggest distinct cultural fill episodes, but with little evidence of temporal or functional differences between the depostional layers. A soda bottle with the date of 1926 was noted just above the lime layer along

Figure 20. Feature 3. indeterminate pit.

Figure 21. Feature 4, prehistoric hearth.

with an Owens Illinois Glass Co. (1929–1954) makers' mark on a clear bottle with a threaded lip. These bottles suggest the 1930s temporal designation.

Interpretation. Feature 2 is a possible privy judging mainly from the depth of the pit. However, no organic deposits were noted in the feature. Artifacts suggest use and fill during the 1930s. The possible privy is contemporaneous with Feature 1 to the east and both features are probably associated with the structure depicted in this area on the 1930 Sanborn Insurance Map.

Feature 3

Feature Type. Indeterminate pit (Fig. 20).

Feature Age. Recent (1945 to present).

Size. 1.0 m north-south by an estimated 1.0 m east-west. The feature does not extend into the east profile of the backhoe trench.

Location. Feature 3 was exposed in the west profile of Backhoe Trench 2 and between the 7 m and 8 m horizontal profile measurements.

Depth and Thickness. The top of the pit is at a depth of 30 cm below the surface. The pit is located just below the Stratum 2 gravel and actually cuts through the Stratum 3 site leveling suggesting the recent temporal affiliation. The pit was about 90 cm thick with the bottom resting at 1.2 m below the surface.

Construction Material and Method. Feature 3 is a simple bowl-shaped pit apparently dug by hand into the Stratum 6 silty sediment. The bottom of the feature extends into the cobble layer representing high-energy alluvial activity.

Condition. The feature is intact and stable.

Depositional Context. Feature 3 is capped by a 5-cm-thick layer of charcoal and oxidized soil, which extends an unknown distance south of the backhoe trench. This charcoal lens is at least 1.6 m long. The actual pit fill consists of a single layer of moderately consolidated silty sand. The fill is essentially sterile of cultural staining and charcoal with no apparent artifacts.

Artifact Content. No artifacts were noted in the exposed profile.

Interpretation. Feature 3 is a simple indeterminate pit capped with a light burn area. The pit and burned area probably have a recent temporal affiliation dating to the leveling and construction of the parking lot. The date of the parking lot construction was not determined.

Feature 4

Feature Type. Possible hearth (Figs. 13 and 21).

Feature Age. Classic period (AD 1300 to 1400).

Size. 1.0 m east-west. The feature does not extend into the north profile of the trench.

Location. Feature 4 was located in the south profile of Backhoe Trench 1 between the 3 m and 4 m horizontal profile measurements.

Depth and Thickness. The top of the feature is at a depth of 50 cm below the surface and is positioned just below Stratum 4. The feature along with a long strip of the Stratum 5 prehistoric horizon extending to the west are resting on the Stratum 6 alluvial silty sediment. The proposed feature is about 35 cm thick with the bottom resting at about 85 cm below the surface.

Construction Material and Method. Feature 4 is an apparent prehistoric hearth constructed from a concentration of at least six river cobbles measuring about 10 cm in diameter. A larger more angular river cobble measures about 40 cm by 20 cm and is standing upright. The cobbles are rather jumbled within the 35-cm-thick feature, and do not define a good

Figure 22. Feature 5, concrete basement south wall.

outline. Fragments of charcoal are concentrated in about a 1 m area around the cobbles. Charcoal staining is present on the cobbles, but no oxidation indicative of intense burning was noted. The feature is resting on the bottom of the Stratum 5 prehistoric horizon exposed along the 21 m length of the trench.
Condition. The feature has been partially cut by an old sewage line trench. The jumbled cobbles are positioned at various levels within the feature and do not define a good outline or boundary. The integrity of the feature is questionable.

Depositional Context. Charcoal fragments are concentrated around the jumbled cobbles, but the feature does not have a formal fill layer. Charcoal merges with the surrounding Stratum 5 prehistoric horizon.

Artifact Content. Two sherds were positioned near the top of the upright cobble. The Wiyo Black-on-white and glaze-on-red sherds suggest an early Classic period (AD 1300 to 1400) temporal affiliation.

Interpretation. Feature 4 seems to be the remains of a hearth dating to the early Classic period (AD 1300 to 1400). This was the only feature found in association with the Stratum 5 prehistoric horizon encountered across the site.

Feature 5

Feature Type. Structure basement (Figs. 22, 23, and 24).

Feature Age. Statehood/WW II (1912 to 1945), 1930s.

Size. 4-by-4 m square.

Location. Feature 5 was discovered in both the north and south profiles of Backhoe Trench 3 between the 4 m and 8 m horizontal profile

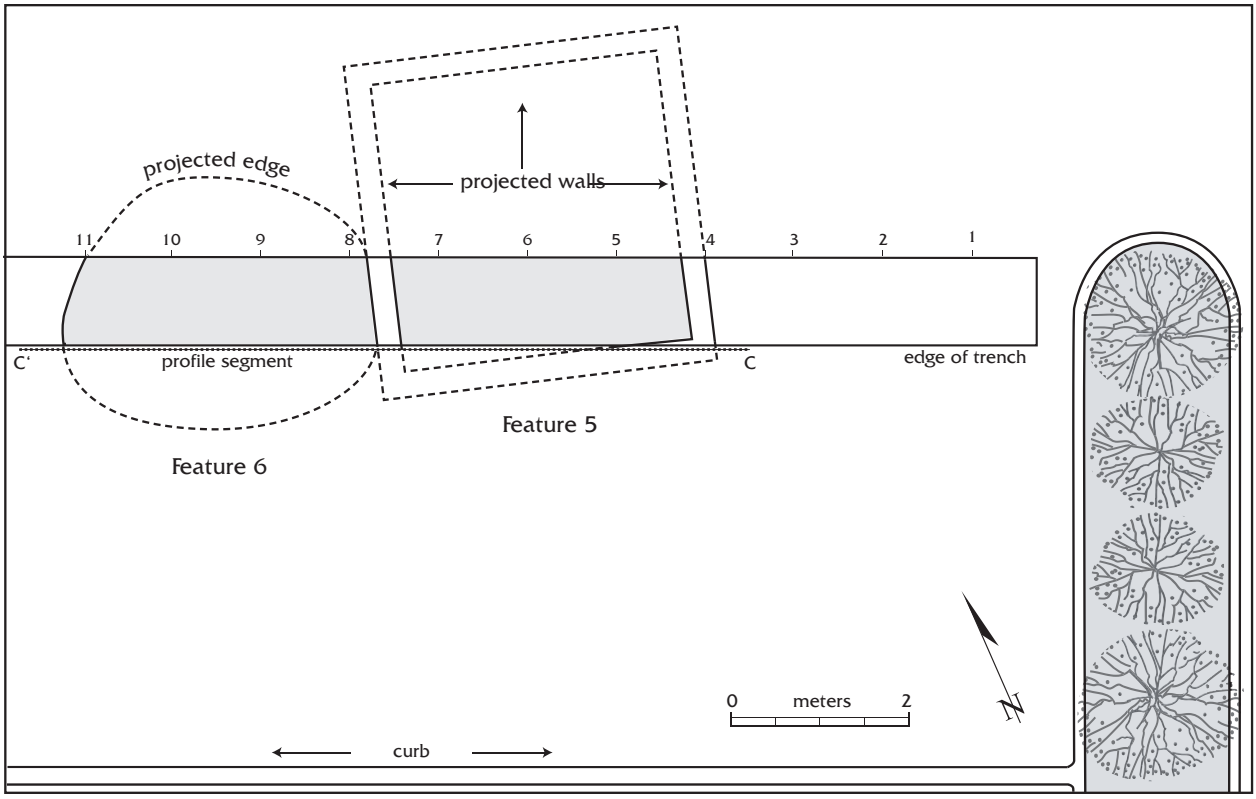

Figure 23. Backhoe Trench 3, Features 5 and 6, plan view.

Figure 24. Feature 5, concrete basement.

measurements. The feature appeared as a low depression in the asphalt at this locality.

Depth and Thickness. The top of the cement walls are at a depth of 50 cm below the surface and just below the Stratum 3 site leveling. The cement floor was at a depth of 2 m below the surface.

Construction Material and Method. Feature 5 was a basement dug into the Stratum 6 silty sediments. The 25-cm walls were constructed of cobbles and cement with a cement slab floor. The interior walls were painted white. The structure was probably one of the 1930 to 1940 structures appearing on the Sanborn Insurance Map for this time period.

Condition. The remaining cement walls and floor are intact and stable. However, the interior fill was loose and the remaining north segment eventually collapsed into the backhoe trench. The loose fill was compacted with gravel to stabilize the area for continued parking. No intact interior fill remains inside the structure.

Depositional Context. The basement fill consisted of a single layer of loose sandy loam (10YR 4/4) mixed with moderate construction debris associated with the demolition of the structure.

Artifact Content. Moderate density (estimated 100 to 200) construction-related artifacts including white painted wood fragments from the upper floor, linoleum fragments, plumbing pipe, electrical fixtures, wire, concrete, and plaster fragments. The fill was relatively free of other refuse, which consisted of a few butchered animal bones and a churchkey opened beer can. This beer can was found on the floor and suggests that the structure was probably razed in the 1950s.

Interpretation. Feature 5 is a concrete-lined basement probably associated with an adobe dwelling appearing in this area on the 1930 Sanborn Insurance Map. However, there is some discrepancy in the location of the structure. The insurance map shows the front of the building at about 20 ft west of Hancock St. (current Sandoval St.) and the dwelling measured about 40-by-40 ft. This would place the back of the building at about 60 ft west of the road. The exposed basement is over 80 ft from the road. This places the basement in close proximity, but not beneath the dwelling. However, slight variance in the road location could account for the discrepancy. A similar structure was located about 40 ft to the south in the area of the west entrance into the Santa Fe County Law Enforcement Complex parking lot (Fig. 2). This area could not be investigated because of the high frequency of utilities at this locality. This area should be considered a sensitive locality possibly containing remains of a similar dwelling that may aid in positioning both 1930s dwellings in space.

Feature 6

Feature Type. Demolition pit (Figs. 23 and 25).

Feature Age. Recent (1945 to present), ca. 1950s.

Size. 3.20 m east-west and an estimated 4.0 m north-south probably running adjacent to the west Feature 5 basement wall.
Location. The large Feature 6 pit was exposed in both the north and south profiles of Backhoe Trench 3 between the 8 m and 11 m horizontal profile measurements.

Depth and Thickness. The top of the pit was at 50 cm below the surface just below the Stratum 3 site leveling. The pit floor was at a depth of 1.7 m below the surface. The east end of the pit abuts the west wall of the Feature 5 basement.

Construction Material and Method. Feature 6 is a large pit probably dug with mechanical equipment during the 1950s. The pit was dug into the sterile Stratum 6 silty sediment and cut through a portion of the Stratum 5 prehis-

toric horizon.

Condition. Feature 6 is intact and stable.

Depositional Context. Feature fill consists of a single layer of loose sandy loam matrix (10YR 4/4) mixed with construction debris. The large pit was apparently dug next to the west end of the basement and construction debris was buried in the pit during the demolition of the structure.

Artifact Content. Moderate density (estimated 100 to 500) artifacts are present throughout the 1.2 m fill layer. Artifacts consist almost exclusively of construction debris associated with the demolition of the 1930s era dwelling to the east. Associated artifacts included partially burned milled wood, concrete, plaster, cobbles, brick fragments, plaster, linoleum fragments, and nails. The milled wood along with some unmilled posts were apparently burned in the pit before final covering.

Interpretation. Feature 6 was apparently a large demolition pit dug beside the west outside wall of the Feature 5 basement. Remaining construction debris from this structure was pushed into the pit. The upper west wall of the basement had collapsed and had been pushed into the pit probably with heavy machinery. The remaining debris was then apparently burned before final closure. The pit was probably dug and the structure demolished and buried sometime in the 1950s.

Feature 7

Feature Type. Refuse pit (Figs. 15 and 26).

Feature Age. Statehood/WW II (1912 to 1945), 1930s.

Figure 25. Feature 6, demolition pit.

Figure 26. Feature 7, refuse pit.

Size. At least 10.5 m north-south. The feature extends north beyond the edge of Backhoe Trench 8 an unknown distance. The east-west measurement was not determined, although little material was found in the east profile indicating that the pit extends primarily to the west.

Location. Feature 7 was exposed in the west profile of Backhoe Trench 8 between the 0 m and 11 m horizontal profile measurements.

Depth and Thickness. The top of the pit was at a depth of 30 cm below the surface and just below the Stratum 3 site leveling episode. A long tapering protrusion extends 9 m south of a bowl-shaped pit at the north of the trench. The maximum depth of the bowl-shaped pit is 1.0 m below the surface. The base of the protrusion ranges from a depth of 35 cm to 80 cm below the surface.

Construction Material and Method. The size and odd shape of the pit suggests that it was dug by heavy machinery during leveling of the area. The bowl-shaped pit at the north end may be the actual feature that was impacted by mechanical scraping and leveling activities involved with the parking lot construction. However, the entire feature may be a demolition pit used to dispose razed material associated with a 1930s-era dwelling located about 12 m to the northeast. The pit served the dual purpose of disposing of the razed material and leveling the ground surface. A similar scenario was encountered with Feature 6 and the 1930s dwelling in the central portion of the project area.

Condition. Artifacts within the 9-m-long tapering depression are considered redeposited and not in place. The potential is great that the larger portion of the artifacts in the deeper basin-

shaped pit at the north end are also redeposited. The feature appears to be associated with leveling and filling activities using 1930s derived fill that probably originated with the demolition of the nearby 1930s building. This interpretation is given additional credence by the presence of a sewage line paralleling the north edge of the backhoe trench that was filled with similar redeposited 1930s material.

Depositional Context. Feature fill consists of a single homogeneous layer of charcoal-rich sandy loam (10YR 4/4) with moderate-density 1930s refuse. The fill layer appears to be the result of one depositional episode. The absence of internal stratigraphy or lenses indicates that the dumping was not episodic.

Artifact Content. Moderate density refuse is present throughout the fill layer with no evidence of internal temporal variations. The total artifact count is unknown since the entire size of the feature has not been delineated, but I would estimate counts in the low hundreds. Artifact types were derived from a combination of construction and domestic-related items. Construction materials included miscellaneous metal, window glass, and occasional plaster. Domestic refuse included saw-butchered cow bone and clear unpatinated glass. An Owens Illinois Glass Co. (1929–1954) makers' mark on a clear bottle with a threaded lip observed near the floor of the main pit suggests the 1930s temporal affiliation.

Interpretation. Feature 7 is interpreted as a demolition pit similar to Feature 6 in the north project area. The pit served to both dispose of razed material and to fill and level the ground surface. The 1930s cultural material probably originated from the room block located about 12 m to the northeast.

SUMMARY OF TESTING RESULTS AND RECOMMENDATIONS

To provide the county with an archaeological reconnaissance of a 2.4 acre parcel at the proposed location of a new judicial complex, nine backhoe trenches were excavated to evaluate the character and extent of subsurface archaeological deposits. The backhoe trenches varied in length and were placed based on archival information, an absence of marked utility lines, and the judgement of the supervisory archaeologist. An effort was made to insure spatial coverage across the project area, but the placement of backhoe trenches was hampered by the numerous utilities and tight schedule stemming from the active nature of the crowded parking lot. No hand-dug test pits were excavated during the archaeological investigation.

The nine mechanically excavated trenches on the county-owned portion of the project area discovered the presence of an archaeological site recorded as LA 156207. The backhoe trenching showed that the site is characterized by three temporal components represented by features and what appears to be intact cultural strata. The earliest temporal component is a prehistoric horizon (Stratum 5), which extends across much of the project area and a possible hearth (Feature 4) (AD 1325 to AD 1600). The Statehood/WW II (1912 to 1945) component consists of four features including two refuse pits (Features 1 and 6), probable privy (Feature 2), and a concrete basement (Feature 5). These features date specifically around the 1930s. The recent (1945 to present) component consists of two features. A demolition pit (Feature 6) is associated with the razing of the superstructure probably related to a basement (Feature 5) in the 1950s. Lastly, Feature 3 is an indeterminate pit dating to the paving of the parking lot; however, the actual date of the parking lot construction was not determined.

The 1930s-era features were found in Backhoe Trenches 5 and 7 in the southeastern project area and Backhoe Trench 3 in the central project area. These dwellings appear during the 1930s with additional growth depicted on the 1948 Sanborn map. The Feature 5 basement is probably associated with a dwelling initially constructed by 1930 map, but the apparent dwelling contained material culture more representative of the 1950s. No architectural remains were discovered in Backhoe Trench 2 to the west or Backhoe Trench 4 to the south. Other 1930s-era building should be located within the existing Santa Fe County Law Enforcement Complex property but these areas could not be investigated because

Table 3. Summary of Feature and Stratum 5 Treatment Recommendations

Feature No.	Type	Time Period	Treatment Recommendation
1	Refuse pit	Statehood to WW II (1930s)	Further evaluation
2	Privy	Statehood to WW II (1930s)	Further evaluation
3	Indeterminate pit	Recent (parking lot construction)	No further work
4	Hearth	Classic Period (1325 to 1600)	Further evaluation
5	Concrete basement	Statehood to WW II (1930s)	No further work
6	Demolition pit	Recent (ca. 1950s)	No further work
7	Refuse pit	Statehood to WW II (1930s)	Further evaluation
Stratum 5	Prehistoric horizon	Classic period (1325 to 1600)	Further evaluation

of utility lines and should be considered sensitive areas with potential subsurface 1930s-era structural remains.

The 1930s features in Backhoe Trenches 5 and 7 probably relate to a row of residential buildings illustrated on the 1930s Sanborn map. Although architectural remains were not found in these trenches, Feature 1 (refuse pit) and Feature 2 (privy) may be associated with these structure. In turn, the Feature 7 (refuse pit) to the south may be related to the razing and subsequent disposal of material from the structure as leveling land fill. The exact size of the large Feature 7 refuse pit was not determined, but the feature extends an unknown distance beyond the north end of Backhoe Trench 8. The area around Backhoe Trench 5 and the north end of Backhoe Trench 8 should be considered an additional sensitive area for subsurface 1930s-era material.

The site boundary has been arbitrarily defined and tentatively extended across a privately-owned parcel not yet evaluated to coincide with the project perimeter, guided by trenches containing important subsurface features and deposits. The parking lot south of the Paramount Building was not included in the site limit due to the sterile and redeposited nature of the fill at this locality. In addition, Backhoe Trench 2 is also excluded from the site boundary because Feature 3 (indeterminate pit) recorded in this trench is of recent temporal affiliation associated with the construction of the parking lot and the current recording has exhausted the potential of this recent feature to contribute additional important information.

LA 156207 is a newly recorded site discovered during archaeological investigations at the location for the proposed new First Judicial District Courthouse complex. The site consists of seven recorded features and a prehistoric cultural horizon designated Stratum 5 (Table 3). In certain instances, recording of recent cultural deposits has exhausted their potential as individual features to supply additional information and no further work was recommended (Table 3). In other instances the context, integrity, and character of earlier features along with a prehistoric horizon remained unclear and additional work was recommended to evaluate their significance to determine if LA 156207 can be nominated for inclusion to the *National Register of Historic Places* under criterion D.

The development plan calls for the demolition and construction of a new courthouse complex including the installation of a new utility, transportation, and parking infrastructure. These new construction projects will involve extensive subsurface earth disturbance across substantial portions of the project area. A staged data recovery plan was recommended to further evaluate the eligibility of LA 156207 for nomination to the *National Register of Historic Places* under criterion D as the potential of the site to yield information important to prehistory and history remains uncertain (36 CFR Part 60.4 and in conformance with 4.10.16 NMAC). Ideally, this activity should coincide with additional backhoe work needed to evaluate the privately-owned parking lot. Archaeological investigations would require the exposure of larger blocks of the parking lot for longer periods of time. Therefore work should be scheduled for a time when large portions of the parking lot can be closed and the pavement removed for subsequent investigation and evaluation of the subsurface cultural deposits.

RESEARCH DESIGN AND DATA RECOVERY PLAN FOR LA 156207: HOUSEHOLD SUBSISTENCE AND ECONOMY

As described by Wenker et al. (2005), Santa Fe represents one of the oldest continuously occupied non-mission communities in the Southwest. As such, it has presented archaeologists, anthropologists, and historians with the opportunity for studying the ancient past, military campaigns and engagements, American Territorial frontiers, and more recently the Atchison, and Topeka and Santa Fe Railway. As Santa Fe grew from a peripheral European settlement to an international destination, its identity developed "in such a way that the particulars of past were lost to idealized views" (Wenker et al. 2005). These idealized and romanticized expressions of Santa Fe are no more clearly represented in the project area by street names and neighborhood layout illustrated as *Valuable Building Lots Adjoining AT and SF Depot in the 1880s* (C. Snow 1995; Sze and Spears 1988:65). Fittingly these "valuable" lots were to be sold by Bradford Prince, Territorial Supreme Court Justice. Recent studies have reexamined the process by which Santa Fe changed as a community, as a population, and as a cultural icon (Wilson 1981). However, the details of individual households contributing to the local cultural environment often yield to the examination of broader regional economic and social trends. The archaeological deposits identified at LA 156207 provide us with the opportunity to examine the temporal placement of cultural features and the "particulars" of household complexion during the 1930s.

Archaeological test excavations at the First Judicial District Courthouse Complex property in Santa Fe, New Mexico, identified a multicomponent archaeological site, LA 156207. Several cultural features identified on this 2.4 acre parcel were recommended as potentially significant because they likely possess data potential useful for addressing the prehistory and history of Santa Fe. LA 156207 is anticipated to be damaged or destroyed during the construction of a new judicial complex, therefore, the site requires impact-mitigation treatment through the implementation of a research design and data recovery plan.

Archaeological test excavations on the First Judicial District Courthouse Complex property have revealed an array of structures, features, and cultural deposits suited for addressing a wide range of research themes pertaining to the late prehistoric period and early twentieth-century household economy. Variability in feature function, content, and age should facilitate comparisons of social and economic status as the Judicial Complex property changed from agricultural-residential to residential-commercial in nature. To facilitate this study, the research is divided into two domains: late prehistoric subsistence activities and early twentieth-century household economy. These research domains are to be examined using data from the archaeological field excavation and laboratory analysis in combination with additional archival research.

The components of Depression-era archaeology in this section involve those created by residential and commercial activities that were attracted to the Railyard area. As noted in preceding discussions, most of the archaeological data that are expected to be yielded by the features of this period relate to data from associated artifact assemblages derived from refuse pits or privies. The remains of this era represent unique phenomena in the historical archaeology of Santa Fe in a variety of senses. In one sense, each residence was unique within a neighborhood and all were complementary parts of a functioning whole. In another sense, the project area is unique in that it was developed by early land speculators to take advantage of the anticipated population growth with the coming of the railroad in the 1880s, but only marginally desired until the 1940s.

Theoretical Perspective

The nature of the deposits and project area in some ways limits the types of synchronic or diachronic comparisons that can be drawn among the Judicial Complex remains and the rest of the city. These types of pattern-recognition comparisons, which would inform processual or evolutionary archaeological perspectives, are not readily applied because we cannot compare like with like. Instead, in many ways, these features must be considered and evaluated in a particularistic paradigm (South 1977:8–10), which emphasizes individualistic analysis and synthesis and the intensive study of individual cases such as events, dates, individuals, and significant items.

From this perspective, the archaeological investigation of Depression-era remains provides data to be used, along with archival documents, to complement and elaborate the historical record of the Railyard District (Gorman 1982:67). Fleshing out our knowledge of household configuration and socioeconomic status and, possibly, identifying a late Spanish colonial deposits, are all worthwhile goals of the Judicial Complex project that help personalize the Railyard District. Promotion of a humanistic viewpoint will certainly enhance the knowledge of the city's historical character and will lend to the appreciation of the archaeological significance by the general public.

Research Domain 1: Prehistoric Component

This research is focused on the nature, extent, and temporal placement of Stratum 5, which contained charcoal, a cobble feature (Feature 4), and pottery diagnostic of the Classic period (Hannaford 2007). While diagnostic ceramics seem to indicate these deposits are fourteenth century in age, the project area remained an agricultural parcel up until the early 1920s. Also, it is important to note that the project area borders the Barrio de Analco as defined by Sze and Spears (1988:20–21). This neighborhood, one of the oldest in the city, was originally occupied by Tlaxcalan Indians during the Spanish Colonial period. The neighborhood and the fields to the south (Judicial Complex property) apparently played an important role in the Pueblo Revolt because it was the first section of the city to be razed by attackers who approached from the "cultivated fields to the south" (Sze and Spears 1988:20).

Research Questions

Hannaford (2007:59) described Stratum 5 as a prehistoric horizon associated with a cobble feature. The integrity and extent of this layer, however, could not be systematically evaluated due to various constraints as described in the reconnaissance report. With this in mind, a range of research questions are proposed regarding integrity, chronology, and feature function examined through the excavation and documentation of this stratum.

Research Question 1. What is the integrity and extent of Stratum 5? Can a source for the charcoal and Classic period artifacts be identified? Are there additional features associated with this layer?

Stratum 5 represents a prehistoric horizon identified across much of the project area. However, this layer was likely compromised through continuous development and the installation of utilities beginning in the 1920s. These questions focus investigations on determining what portions of the project area may remain intact and whether these manifestations represent part of a larger component outside the project area.

Research Question 1 Data Needs. In order to address the question presented above it will first be necessary to systematically expose this layer and excavate by hand to sample the content and frequency of material culture items. If hand excavations document that this layer is an intact cultural deposit, the upper limits of Stratum 5 will be exposed where previously identified and intervening areas mechani-

cally explored to delineate the extent of this deposit and to identify additional features. Finally, the distribution of inclusions, such as charcoal and artifacts, associated with this layer may reveal the sources for this deposit.

Research Question 2: What is the temporal placement of Stratum 5 and associated feature(s)?

Although ceramics diagnostic of the Classic period were identified in this layer, they may not be representative of all temporal components contributing to the formation of this layer. Other occupations particularly those associated with the Spanish Colonial component of the Barrio de Analco to the north may also be represented in this deposit (Moore 2003; Deyloff 1999)

Research Question 2 Data Needs. Primarily chronometric data are needed to address questions of temporal placement and sequence. Recovering chronometric samples or temporally diagnostic artifacts from reliable contexts will be the focus of data recovery efforts. Radiometric data, archaeomagetic data, tree-ring samples, or temporally sensitive artifacts can all inform on the temporal placement of particular deposits. Radiocarbon and tree-ring samples can help establish an occupational date, but problems can develop when wood was salvaged and reused. Similarly archaeomagnetic data can generate a high alpha-95 value resulting in less than precise temporal placement. Because of these potential problems, radiocarbon, tree-ring, and archaeomagnetic dates are acceptable only when corroborated by other data such as diagnostic artifacts.

Charcoal samples for standard or AMS radiometric analyses will be recovered, although the source of any charcoal may be suspect given the high potential for water transport and redeposition of cultural materials and inclusions. Contexts to be targeted for all archaeomagnetic and radiocarbon sampling will primarily include strata or features that are positioned to provide chronometric data on the potentially earliest and latest use periods of the sampled contexts.

Research Question 3: Feature Function. What can feature function tell us about the exploitation of biotic resources, craft specialization, and the local environmental setting?

Intact features have the potential to provide basic information about the types of activities that were part of subsistence level economic pursuits. Combined with temporal data, feature function can be placed within a regional context of economy and resource exploitation.

Research Question 3 Data Needs. Data recovery will record in detail feature contents, condition, and morphology in addition to any other pertinent information that can be used to infer feature function. Through comparative analysis of morphology, condition, and content, subsistence strategies can be inferred to address local economy. For example, analyses of recovered plant and faunal remains can be used to argue if specialized or more general economic strategies were used to exploit the natural environment. Features may also contain artifacts that were cached for use in specific contexts such as butchering, rendering plant parts, or field preparation and maintenance. Deposits within and adjacent to these fortuitously preserved contexts will be hand excavated to provide the stratigraphic and contextual basis for assessing the potential dating reliability of the recovered artifacts. Expected temporally diagnostic artifact types may include Pueblo-made pottery from the late Prehistoric period or perhaps the late Spanish Colonial period (Moore 2003).

Research Domain 2: Depression-Era Households

Archival research identified that the project area was the location of several residential buildings constructed beginning in the 1890s in an area slated for commercial development. However the transition from residential to com-

mercial was not realized until the early 1920s.

Prior to the establishment of twentieth-century commercial enterprises, several adobe residential buildings are reported (Hannaford 2007). Sze and Spears (1988:68–69) state that this neighborhood never thrived like local businessmen had hoped and by the early twentieth century was occupied by "the families of clerks, teachers, salesman, and merchants—mostly Anglo—who often rented rather than owned their homes." The location and nature of the archaeological deposits provide an opportunity to compare and contrast the archival and archaeological records (Deyloff 1999). The nature of the three historical refuse pits' contents, which included abundant culinary refuse, strongly indicate a domestic origin for the deposits. The proximity of the refuse pits to the surrounding residential buildings may suggest that one or several of the households produced and deposited the fill in these features. Feature 1 and Feature 2 exhibited abundant material in the trench cross section, and given their large size, probably contain good potential to yield additional data relevant to household use that could be compared and contrasted against other residential refuse pits at sites such as LA 110432 on lower Agua Fria (Post 1999) and residential refuse pits excavated at the Santa Fe Railyard (Wenker et al. 2005). The OAS standardized Euroamerican artifact analysis is particularly well-suited to generating material culture data for comparison between contemporaneous assemblages, presumably generated by a similar range of activities.

As the upper layers of Depression-era pits were filled with mixed post-abandonment overburden, the artifact assemblages contained in this overburden have no apparent bearing on the use or function of the associated buildings. Therefore, we plan to minimize the controlled recovery of artifacts from these mixed architectural contexts, targeting temporally or functionally relevant assemblages. Removal of these mixed deposits will be conducted by mechanical means while exposing the intact strata and feature outlines. The field excavation will be supplemented by additional archival research that will focus on sources that were consulted for the reconnaissance study, but not fully pursued, or information sources that may become available during the course of the excavation.

Research Questions

Research Question 4. What was the complexion of the household? For example, given that many of the residents reportedly rented, is the frequency, type, or variety of consumer goods more representative of a nuclear family, single parent families, or another type of configuration? What was the socioecomomic status of the families in this neighborhood?

The 1930 Sanborn map shows dwellings and spatially associated private garages and stables suggesting that automobiles were within the means of the residents, supporting documentation of working middle class families (Sze and Spears 1988:68–69). Yet, stables and corrals are also depicted, indicating lower income levels and perhaps a more subsistence-based existence.

Research Question 4 Data Needs. The data needed to test our ideas on household complexion and socioeconomic status will be derived through analysis of various artifact assemblages. In particular, the analysis will attempt to distinguish handcrafted or repaired artifacts with the frequency and types of store-bought items to address questions concerning consumption and source of manufactured goods. This artifact category can also provide important temporal data, which can be used to augment archival sources. Other data sets can be used to amplify the results of these analyses, and to provide general information concerning Depression-era life in Santa Fe. For example, botanical and faunal samples should demonstrate that households were committed to commercially produced food stuffs. The identification of wild plant species recovered from flotation samples or hand-butchered bone of domestic

and wild species will also provide information on household economic status.

In earlier periods, the use of domestic versus wild fauna varied according to social and economic status (Reitz and Cumbaa 1983). Higher status households used a wider range of domestic as well as wild animal species; middle class households mostly exploited domestic animals for food, but there was some use of wild terrestrial species; lower class households exploited a wider variety of species, modified to some extent by use of domestic animals (Reitz and Cumbaa 1983:166). Thus, the variety and variation of wild and domestic species in an assemblage can be used to support arguments concerning the economic status of households and their level of access to manufactured goods.

Several methods will be used to provide temporal control and accurate dates. Most accurate would be archival documents that establish occupational spans. Diagnostic artifacts can also be used to estimate periods of occupation. Other chronometric data may be collected, but will likely have limited use. By focusing on the patterning of commercially manufactured goods and documentary information, temporal data necessary to establish the comparability of these remains with other sites from New Mexico, and to place them in the proper historical setting, will be retrieved. Relative frequencies of different artifact classes in combination with datable artifacts may provide the best potential for dating and sequencing the use of the features.

Research Question 5. Is there a distinction between commercial and residential refuse disposal patterns? If so, in what kinds of commercial activities were residents participating?

As the Depression wore on, more families took on work that they could conduct in their homes, such as domestic services, auto repairs, or craft production. Comparison of feature contents should be particularly interesting for identifying differences in residential patterns of rubbish disposal that may provide a look at variation in occupational activities as the result of a cottage industry.

Research Question 5 Data Needs. By comparing the types and distributions of artifacts recovered from pit features, we may be able to determine whether refuse was strictly residential or if other commercial activities were conducted at the household level. Each of the three pits identified at LA 156207 (with more pits likely to be encountered during the excavation) contained refuse deposits. Most contain residential refuse and seem to date to the 1930s (Hannaford 2007). If the contents of pits differ between residential and commercial artifact type and frequency, we may assume differences in household level commercial activities. Even if the data recovered from this study provides no definitive answers to the questions posed above, they should contribute a great deal of information that can be used to further explore these topics by future researchers. By pursuing this examination in such a way that necessitates comparisons with other Depression-era deposits, we may be able to address how this economic pressure affected people in Santa Fe.

DATA RECOVERY PLAN FOR LA 156207

Archival Research

Many reports have summarized the prehistoric and historic culture history, archival documentation, and architectural history of the Santa Fe Railyard District, including the proposed project area (Colby 2004; Deyloff 2004; Scheick 2003; C. Snow 1995; Sze and Spears 1988). Still, additional resources of archival material are suspected to exist in a variety of formats and in a variety of locales. The data recovery aspect of this treatment plan intends to more fully explore and obtain information from sources that are available within reasonable distances and time frames.

Local archival resources that can be consulted include the Santa Fe County Land Use Department, New Mexico State Records and Archives Center, and the Fray Angélico Chávez History Library. In addition, a collection of historic documents and photographs located in the Donnelly Library at New Mexico Highlands University may be consulted. Finally, one potential avenue of archival research involves searching the online catalog of the Library of Congress (http://catalog.loc.gov/) for pertinent documentation. These sources may contain additional details about the ownership and use of land tracts in the project area to accentuate the information already reported and provide detailed information needed for adequate interpretation of the archaeological remains.

Copies of original Sanborn Fire Insurance Company maps at the Fray Angélico Chávez History Library or at the New Mexico State Library will also be obtained. Composite overlays generated from these maps can be helpful in identifying individual structures and land use and development patterns.

Specific Field Excavation Strategies

The field strategies in part reflect the Judicial Complex construction sequence, nature of the prehistoric horizon, and the location of intact archaeological remains. Working from preliminary investigations (Hannaford 2007), data recovery investigations will be conducted in two stages.

In the first stage (Stage1), all utility companies will be notified that the OAS will be commencing archaeological excavations, so active utility lines can be spotted. A series of pre-excavation photographs will be generated during this initial stage of investigation and horizontal and vertical control will be established from a main datum. Using the information obtained from Hannaford (2007), preliminary investigations will commence with mechanically exposing and examining by hand areas where intact deposits were identified to evaluate their integrity and other information potentially relative to determine the site's eligibility for nomination to the *National Register of Historic Places* and *State Register of Cultural Properties.* This additional work will particularly focus on the prehistoric horizon (Stratum 5), which is ephemeral, has low artifact content, is spatially extensive, and appears to be heavily reduced by twentieth-century demolition and construction activities. If Stage 1 investigations determine, in consultation with the Historic Preservation Division (HPD), that the prehistoric deposit and three historic period pits have the potential to yield additional data informing on Santa Fe history, then a data recovery effort will be initiated (Stage 2). If in consultation with HPD, the data potential of LA 156207 has been exhausted by additional evaluation (Stage 1), no further field work will be conducted.

Upon determining that the archaeological deposits have the potential to yield information important to Santa Fe prehistory and history, Stage 2 investigations will expand on deposits that display integrity. After these deposits have been more closely evaluated,

Figure 27. Project area and approximate location of historic structures.

mechanical equipment will be used to remove noncultural and mixed strata to further examine the nature, depth, and extent of the intact cultural deposits. Following data recovery investigations, mechanical equipment will be used to backfill all excavation areas.

Given the rich history of Santa Fe, the nature of the project area, and results from preliminary investigations, additional cultural deposits may be present. For example, when the property limits and structures depicted on the 1930 and 1930–1948 Sanborn Insurance Maps are shown in relation to the project area, several locations where structures once stood were not examined during preliminary research efforts (Fig. 27). In other areas, however, these types of deposits were encountered and no additional work, recommended. If structural remains are encountered in uninvestigated areas and are of similar age and nature to Feature 3, Feature 5, and Feature 6, they will be treated in the same manner as during the reconnaissance phase (Hannaford 2007) . That is, data recovery will document the location, estimated size, nature of the fill, and construction techniques and materials. If older structures are identified, such as those annotated on the 1890 Sanborn Insurance Map (see Fig. 8), they will be treated as outlined below.

Figure 27 is also helpful for predicting where intact deposits may still remain, particularly the prehistoric horizon. The installation of utilities and buildings has limited the areas where we may likely find intact prehistoric deposits to the north-central portion of the project area. In the event unanticipated cultural deposits are encountered (i.e., irrigation features, prehistoric architecture, etc.), an additional data recovery strategy will be developed in consultation with the HPD.

GENERAL EXCAVATION AND LABORATORY METHODS AND PROCEDURES

adapted from Wenker et al. (2006)

General Field Excavation Methods and Procedures

Archaeological deposits varied in depth, nature, and extent from an ephemeral cultural horizon to well-delineated historic structures and features. The frequency and intensity of materials recovered from this project will add to our growing knowledge about the inhabitants of the Santa Fe from early Colonial agriculturists to the end of the Great Depression. Excavation methods will follow standard modern archaeological procedures (e .g., Joukowsky 1980), especially the OAS excavation, sampling, and proveniencing procedures outlined by Boyer et al. (2000), to maintain comparability of data collected from the Judicial Complex with other prior OAS project data. In addition, the procedures in the OAS safety manual (OAS 1995) will also be followed. The nature of some of the archaeological remains and the emphasis on mechanical excavation during this project does warrant some additions and alterations to the general OAS strategy.

Mapping and Locational Controls

The corners of all hand-excavation units, backhoe excavations, elevation-datum stakes, and other points of interest will be mapped with a Nikon DTM-330 Total Station or high quality optical transit. The project grid system will be established by deriving horizontal (north and east) coordinates from an AutoCAD design file provided by NCA Architects–Planners–AIA, the Judicial Complex engineering firm. The AutoCAD design file was imported to Surfer and horizontal and vertical metric coordinates for known benchmarks calculated. By these means, an exact overlay of the project design file's grid system, aligned with true north and tied to true elevations, can be established on the ground. All points recorded with the total station or generated optically will be imported to Surfer and plotted over the design-file layers, allowing excavation areas and features to be overlaid on construction design plans. This process also removes the need for the archaeological crew to map the project area's modern features and topography because all relevant data are already digitally available.

Provenience Control

A field specimen (FS) list will be maintained to catalog all artifacts and samples collected from excavation contexts. Each unique excavated context (e.g., a 10-cm-thick level, or the loose backdirt from a whole backhoe trench, or a single item extracted from a specific stratum in a trench wall) will be assigned a separate FS number that identifies the recovery context of the associated artifacts and samples.

Excavation Units

The initial step of fieldwork will involve identifying and marking all known utility lines in each area. The complex overlay of modern permanent, immovable landscape features such as utility lines, buildings, or related facilities will dictate to some extent the areas available for excavation as described above. Temporary landscape features such as asphalt and concrete pads, parking curbs, fence lines, and vegetation will be retained whenever possible, but archaeological excavation may require the dismantling of these types of features. Mechanical and manual excavation procedures are outlined below. Before it is possible to delimit the extent and nature of soil or sediment strata, it will be necessary to examine them in crosssection. This requires the excavation of exploratory units, mechanically or by hand.

Mechanical Excavation. Backhoe trenching was the predominant approach used during the testing phase (Hannaford 2007), and a minimum of three additional exploratory trenches are planned for the data recovery phase as well (Fig. 28). The position, orientation, and length of all trenches will be designed to maximize the potential of each trench while simultaneously avoiding existing infrastructure and minimizing significant conflicts with daily use of the Judicial Complex. Backhoes will be equipped with buckets between 32 and 36 in (81 to 91 cm) in width, and trenches will be excavated to a minimum width of 35 inches (90 cm) and to a maximum depth of 4 ft (1.2 m). Frequently, culturally sterile gravel and cobble deposits were encountered during testing at depths of 1 to 3 ft (0.30 to 0.91 m), and in those cases the trenches will not be excavated to the full 4 ft in depth.

An archaeologist will monitor the excavation of each backhoe trench (BHT). Functionally or temporally diagnostic artifacts will be opportunistically collected from trench backdirt as they are observed. After excavation, loose and smeared soil will be cleaned off of the trench walls with hand tools, and all trenches will be closely examined for exposed cultural deposits or features. The stratigraphic character and cultural content of each backhoe trench will be documented on a standardized excavation form. Artifacts found *in situ* in trench walls may be point-provenienced. Trenches are to be mechanically backfilled as soon as practicable after documentation is complete. Horizontal proveniences of trenches will be maintained by assigning each a unique number.

The mechanical removal of recent and mixed overburden, as well as of other bulk deposits, will be conducted with backhoes equipped with wide, smooth-edged buckets to allow clean scraping surfaces to be exposed. The goal of this approach is to remove relatively thin (5- to 10-cm-thick), sequential sediment layers from large expanses of site area horizontally defined as non grid units. The primary use of this method is expected to be the removal of modern and mixed postabandonment overburden (Strata 1 through 3) from above-known feature locales. Further, when excavating within expansive cultural deposits, this method may expose buried use surfaces or occupation levels, allowing contemporaneous features to be identified. An archaeologist will always monitor and direct all scraping activities with the goal of identifying and exposing use surfaces, features, or stratigraphic breaks as the scraping proceeds. This type of backhoe excavation will also be conducted within some of the architectural features at the Judicial Complex to remove the modern and mixed fill from within the foundations. Functionally or temporally diagnostic artifacts will be opportunistically collected from backdirt as they are observed. Artifacts found *in situ* in scraped exposures may be point-provenienced.

Individual scraped portions of the site will probably cover irregularly shaped areas due to the nature of mechanical excavation. These areas may abut each other, or each may be spatially discrete. Corners of bladed areas will be mapped and plotted on site and feature maps.

Manual Excavation. Excavation units of standardized sizes (e.g., 1-by-1 m, 1-by-2 m, 2-by-2 m, etc.) will be used to excavate and evaluate most of the deposits subjected to manual excavation. A minimum of 14 standard sized hand-excavated units will allow meaningful comparisons of artifact density among excavated volumes of site matrix (Fig. 28). Hand-excavation units will be linked to the Cartesian grid system and identified by the grid lines that intersect at their southwest corners. The basic excavation unit will be a 2-by-2-m grid unit subdivided into four quadrants unless this is not the most efficient unit of excavation as described below. For example, when necessary, excavation units will be sized, placed, and oriented to maximize their data recovery potential. Upon excavation, the corners of all excavation units will be mapped and plotted on site and feature maps. Hand excavations will be commonly abutted to form broad excavation blocks or linear trenches.

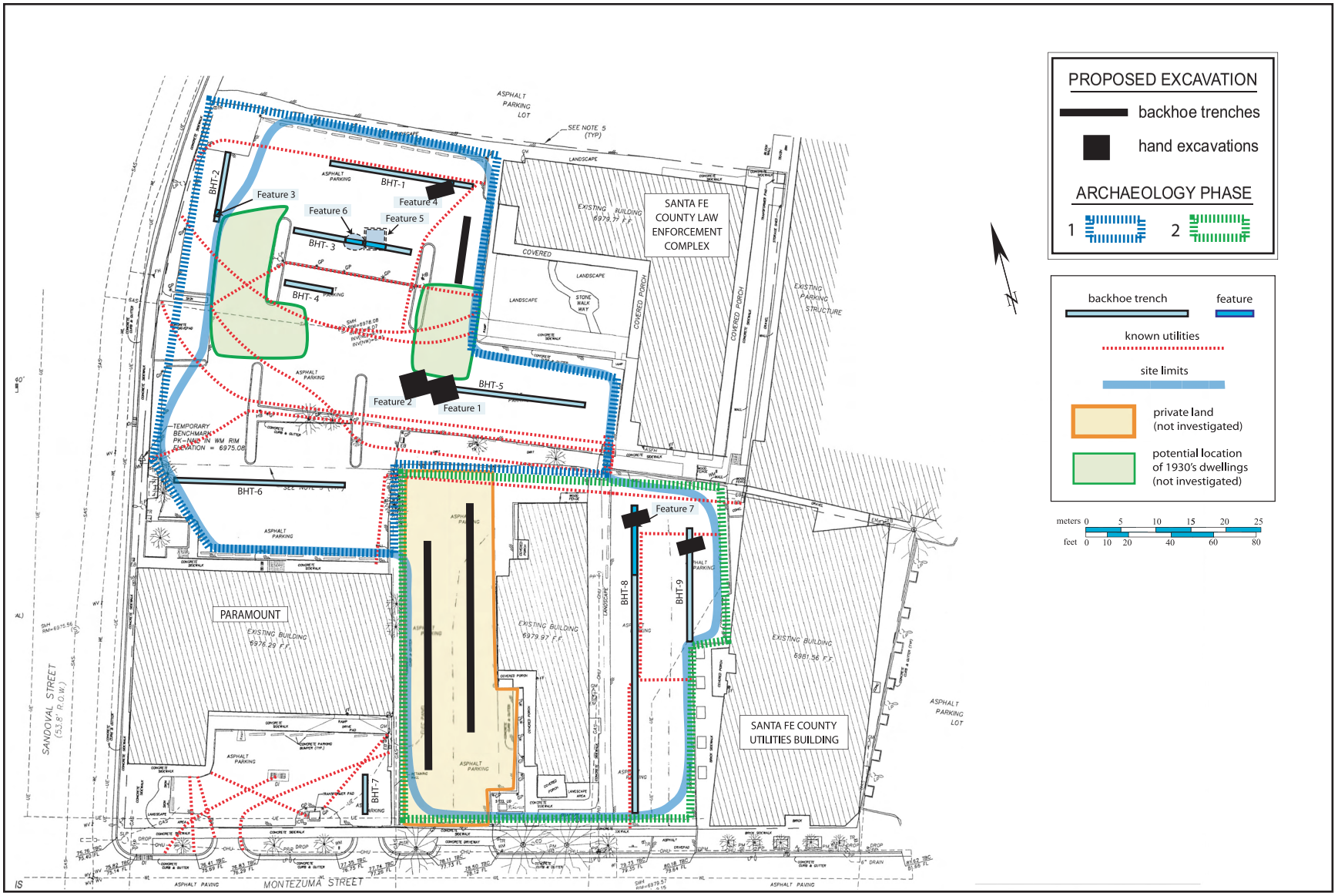

Figure 28. Proposed hand and mechanical excavation areas.

The standard procedure for the hand excavation of bulk sediments will be by 10- or 20-cm-thick arbitrary levels, unless natural or cultural stratigraphic layers are available. If natural or cultural stratigraphic layers are thicker than 10 cm, each thick stratum will be excavated in separate 10- or 20-cm-thick levels. Unless previously determined to be modern or recent overburden or otherwise of a redundant nature, all hand excavated fill will be screened through ¼-inch mesh hardware cloth. All artifacts will be collected and bagged for processing and analysis, unless the fill is not screened. In unscreened proveniences, functionally or temporally diagnostic artifacts will still be opportunistically collected as they are observed. Bulk construction materials (such as milled lumber or bricks related to a feature's construction) may not be collected or may only be sampled, but their type and quantity will be noted in the excavation notes. Since it is often difficult to provide vertical control for an entire site with just one datum, subdatums will be established across the site as needed. All vertical measurements will be recorded in meters below datum (mbd).

Non-standardized hand-excavated trenches of varying widths and lengths may also be used to expose architectural details, or as exploratory trenches in areas where mechanical excavation is not feasible or safe. This is particularly true when working in areas where there are known utilities or when removing fill from structures or other large features down to just above the floor or base where grid units provide a greater level of horizontal and vertical control. Trenches may be vertically divided into levels or strata, or they may be excavated as a full-cut unit, combining the deposits from top to bottom in one bulk excavation unit. Screening of the fill will also depend on the nature of the excavated deposits as well as the intent and goal of the trenches.

Recording Excavation Units. A grid unit excavation form will be completed for each hand-excavated level describing the soil or sediment matrix, inventory cultural materials recovered, and other observations considered important by the excavator or site supervisor, including depths mbd, stratum, and level. The description of the soil or sediment matrix includes information on cultural and noncultural inclusions, presence of building rubble, evidence of disturbance, and how artifacts aredistributed if variations are noticed.

Vertical treatment of deposits will vary according to their nature. Outside exploratory grid units, strata will be used as the main units of vertical excavation. Cultural deposits will be carefully excavated to preserve as much of the vertical relationship between materials as possible. Although the relationship among artifacts in noncultural deposits is rarely meaningful, horizontal and vertical control will be maintained when appropriate. For example, cultural deposits require careful excavation to preserve the relationship between artifacts discarded at different times. Noncultural deposits tend to be jumbled or mixed, and the relationships between artifacts are almost always obscured (i.e., moved from their original contexts and redeposited). While we will always attempt to excavate cultural deposits by stratum, that level of control will only be attempted in noncultural strata if it appears it will provide data of potential importance to site interpretation. Excavation by strata is considered optimal in cultural deposits. Exceptions include non-cultural deposits and cultural strata that are very thick and need to be subdivided in arbitrary vertical levels to provide greater proveniences control.

Recovery of Cultural Materials. Most artifacts will be recovered in two ways: visual inspection of fill layers as they are mechanically excavated, and screening though variable-sized mesh. Other materials will be collected as bulk samples that will later be processed in the laboratory. Regardless of how cultural materials are collected, they will all be inventoried and assigned an FS number, which is listed in a catalog and recorded on all related excavation forms and bags of artifacts.

The FS number is the primary tool allowing for the maintenance of the relationship between recovered materials and associated spatial information. FS numbers are tied to proveniences, so that all materials collected from the same three-dimensional unit receives the same FS number including any samples taken from that three-dimensional space.

Most artifacts will be recovered by systematically screening soil removed from excavation units. All soil from exploratory grids and features will be passed through two sizes of screen, 1/4-inch and 1/8-inch mesh. While most artifacts from historic components should be large enough to be recovered by 1/4-inch mesh, some artifacts from the prehistoric component may be too small to be retrieved by that size of screen. For this reason, soil from at least 25 percent of the excavation units used to investigate Stratum 5 will be screened through 1/8-inch screen during Phase 1 excavations to investigate the prehistoric layer. The recovery method will be evaluated and adjusted, if necessary, for Phase 2 data recovery to provide the best resolution for certain types of pre-Territorial period features and from floor or living surface contexts.

Other cultural materials, such as macrobotanical samples, will be recovered from bulk soil samples. In general, samples for flotation analysis will be collected from culturally deposited strata and features, and should contained at least 2 liters of soil. Macrobotanical materials like corn cobs, piñon shells, wood samples for identification, charcoal, etc., will be collected as individual samples whenever found.

Feature Excavation

Significant features known from the initial field phase will be relocated, and the backfill will be removed from backhoe trenches to expose the features. The feature cross section will be examined and the testing notes will be updated, if necessary. Features constitute individual horizontal provenience units and will be assigned sequential numbers as they are encountered at the site. Feature numbers will be recorded on a feature log and feature excavation information recorded on a feature form that describes, in detail, its shape, content, use history, construction detail, and inferred function. All features will be photographed using 35-mm black-and-white film, documenting the excavation process. Other photographs, including 35-mm color slides and digital images, may also be generated as part of the excavation process

For small features, those less than 1 m in diameter, the feature boundaries (as exposed by mechanical scraping or manual excavation) will be used as the horizontal unit of excavation control. To efficiently define internal stratigraphy, half of the feature will be excavated in a single level to expose a cross section for documentation. The second half will be removed by defined internal strata. After all the fill is removed, a second cross section perpendicular to the soil profile will be drawn illustrating the feature's vertical morphology. In addition, a scale plan of the feature showing the grid location, size, and location of profile lines will be drawn.

For larger features, those larger than 1 m in diameter, the feature will be sampled by excavating one-quarter or one-half of the feature depending on the overall feature dimensions, targeting sample sizes no less than 2 percent of the overall feature area. Manual excavation will proceed through the feature fill in arbitrary 10-cm-thick levels, unless stratigraphic layers are encountered during excavation. Natural or cultural stratigraphic layers thicker than an average of 20 cm will be excavated in separate 10-cm-thick levels. All excavated fill will be screened through 1/4-inch mesh unless it consists of post-abandonment overburden. All artifacts will be collected and bagged for processing and analysis. Bulk construction materials (such as milled lumber or bricks related to a feature's construction) may not be collected or may only be sampled, but their type and quantity will be described in the excavation notes.

As outlined below for architectural fea-

tures, mechanical scraping will be conducted over, within, and around structural features to remove the bulk of modern and mixed post-abandonment overburden. The fill will be mechanically and manually removed from the structures in stages, which will allow the recording of cross section and profile drawings along the short and long axes of each structure, when appropriate. Archaeologists will always monitor these activities, and manual excavation of the overburden in these areas will be conducted in sensitive or fragile locations, particularly during the final stages of an architectural feature's excavation, when subfeatures or intact deposits may be encountered. The modern and mixed overburden will not be screened but temporally or functionally diagnostic artifacts will be collected opportunistically. Once the internal contents and layout of the structures are known, subfeatures or intact deposits will be evaluated for excavation.

After, or during, a structure's complete excavation, a 4-m-wide strip around the perimeter of the structure will be scraped to the top of the culturally sterile substrate. This procedure will be used to locate any extramural subfeatures or structural components, which will be evaluated and excavated according to standard procedures. Most excavation was accomplished using hand tools. However, in some cases mechanical equipment was used to expedite the removal of noncultural deposits such as striping noncultural overburden from buried extramural cultural strata, and in areas where surface remains were absent.

Structures. Individual numeric designations will be assigned to structures on a site, as well as to the contiguous rooms they contain (e.g., Structure 1, Room 2). The excavation of structural elements will begin by digging an exploratory trench completely across the room. The initial exploratory trench will be mechanically excavated or hand excavated by grid unit to provide controlled samples and cross sections of the deposits. In some cases, this procedure will be repeated, perpendicular to the initial trench, to provide additional information on the filling processes. The exploratory cross section(s) will be mapped and the nature of the fill defined. Remaining fill will be excavated by quadrant determined by the locations of grid lines or exploratory trench(es) and will not always be the same size.

At least one quadrant, whether cultural or noncultural in nature, will be excavated by the defined strata. This method provides a sample of materials associated with these strata, allowing for a more comprehensive understanding of the filling sequence. The quadrant(s) selected for sampling will be assumed to provide the most information. Factors that determine quadrant(s) selection include the presence of representative strata, obtaining a representative sample of associated materials, and the discretion of the site supervisor. Remaining fill will be removed without screening, though artifacts will be collected when observed.

Excavation will be halted approximately 5 cm above the floor to prevent damage to its surface during excavation. At this time, the grid system will be reestablished to permit more systematic sampling of materials near or in direct contact with the floor surface. This arbitrary layer, referred to as floor fill, will be removed by grid unit and screened through 1/8-inch mesh. Finer control in recovering materials from these contexts was necessary since they are the most likely to have been deposited at or soon after the time of abandonment. Artifacts in direct contact with the floor surface will be mapped, collected, and assigned an FS number unique from the floor fill level.

Following complete excavation of a structure, architectural details will be recorded on a series of forms. Building elements and construction methods encountered during excavation will be mapped, described, and sampled for species identification or chronometric data. Descriptions of individual rooms will include information on wall dimensions, construction materials and techniques, and associated features. In addition, scaled plan and profile maps of each structure will be drawn,

detailing the locations of rooms and internal features, and any other details considered important. A series of 35-mm black-and-white photographs will be completed for each structure showing its overall form, individual rooms, construction details, and the relationship of features with other architectural elements. In addition, photographs including 35-mm color slides and digital images will be taken at the discretion of the site supervisor documenting the excavation process.

Site Documentation Methods

Site-specific master lists will track the sequential identification numbers of all backhoe trenches, excavation areas, features, strata, and photographic exposures. As noted above, an FS list will be maintained to catalog all artifacts and samples recovered from the site.

Information to be recorded for all excavation units, features, and structures will include sediment descriptions using a Munsell Color Chart and standard geomorphological descriptors, notes on artifact variety and frequency, evidence of disturbance, horizontal and vertical locations and associations, excavation technique, and temporal associations. Written descriptions will be recorded on standardized forms. Plan, profile, and elevation drawings will include a scale, north arrow, and key to abbreviations and symbols. A final site map will document excavation limits, architectural and other cultural features, and modern features adjacent to the excavation area.

Excavation records will include photographs of the features, taken during and at the conclusion of excavation. Photographs will include a metric scale, north arrow, and label board with the LA and feature number and date. Photographs will also be taken of the general site and of selected excavation units and all features found within the units.

Geomorphological Field Methods

During the geomorphological examination of the exposed sediments, detailed technical drawings of selected cross sections will be recorded to document fill characteristics, subfeatures, artifact content, and condition in an effort to determine the source of the fill

Charcoal samples for radiometric analysis will be recovered from strata that are best positioned to provide chronometric data on potentially the earliest and latest use periods of the sampled features.

Archaeobotanical Sampling

This sampling procedure is primarily adapted from Toll and McBride (2000), although it is focused on the sampling of residential sites. It is helpful to recognize a fundamental difference between floral data collected in soil samples and virtually every other artifact category. Standard field procedure now dictates collection and curation with provenience information of every artifact encountered during most excavation situations; sampling of this universe may take place later in the lab. Doing the equivalent for botanical materials would mean bringing home the entire site, a ludicrous proposition. This makes every soil sample collected in the field a sampling decision. Samples not taken are generally gone forever. On the other hand, a systematic decision to sample widely and intensively to guard against such information loss can generate hundreds or even thousands of unanalyzed samples. Lacking infinite time and resources, we must try to garner maximal information from judicious sampling.

Two aspects hallmark the most effective sampling protocols: awareness of which depositional contexts are most productive of floral remains, and recognition of site areas from which subsistence data will be of most interpretive use for the research foci of the project. Both are fundamentally selection processes. The following guidelines for sampling specific provenience categories provide some simple directives for choosing flotation and pollen sampling locations.

Excavators should concentrate on covering the most informative contexts. By coping with

less informative proveniences with minimal sampling (a small number of well-placed samples), we can maintain the option of sampling more complex and informative proveniences in greater detail, generating finer scale information where it will be appropriate and helpful.

Prime among differentiated, potentially informative contexts are intact interior floor surfaces protected by fill and roof fall. If structures are encountered sampling multiple locations on interior floors contributes data for mapping cultural activities involving plant materials. This patterning informs on the organization of economic and cultural behavior at a household level. Analogous exterior surfaces, such as extramural work areas with associated cooking and storage features, are of equal interpretive interest, but tend to have very poor preservation of perishable remains, and consequently do not merit intensive sampling.

Trash fill and roof fall, voluminous and originating from cultural behavior, are of considerable interest as an entity. Except in the rare case of a burned roof falling intact on the floor below and being quickly covered by protective fill, horizontal differences in floral debris are really only a sampling problem. Sampling from contexts without good cultural affiliation (for example, disturbed areas) will be minimized.

Botanical samples from floors can be a very important source of information, especially when taken from around thermal features. However, data from other work areas that might not be as well defined is also desired. For a clearer picture of what plant materials are associated with specific work areas, we need samples from floor contents unassociated with feature concentrations. The best way to ensure adequate coverage is to take samples from alternate grids with the idea that analysts will later be able to select floor loci that will represent major activity areas, as well as one or more controls.

A single sample will be taken from near the bottom of primary deposits in interior features. Multiple samples will only be taken when primary deposits are clearly stratified. Samples may be taken from secondary deposits, with the understanding that they do not reflect the function of the feature itself. Single 2-liter samples will also be taken from roof fall zones, and from trash deposits, if well-linked to a later or continuing occupation of the site.

Extramural features will be sampled in the same way as features inside structures: a single sample will be taken from near the bottom of primary deposits, and multiple samples will only be obtained when primary deposits are clearly stratified. Outbuildings like cellars, sheds, or stables are particularly important because of their association with the storage of plant foods for people and/or livestock. Floor fill will be sampled for these types of nonresidential structures, and multiple samples will be taken if warranted (for instance, if a shelf or *banco* is present). Stables and extramural middens will be sampled similarly. In both cases, a single 2-liter sample will be obtained from each clearly definable cultural stratum. If the sample is large enough and was taken accurately from the proveniences it is meant to represent, multiple samples from the same stratum are redundant. Archaeobotanical samples may be collected from highly specific contexts such as thermal or refuse deposits rich in organic material. It is expected that only a small number of samples may be collected during the excavation. Pollen sampling will complement or accentuate the above-described methods.

Human Remains

No human remains were discovered during the testing phase, and none are expected during data recovery. If human remains are encountered, the following process will be implemented. On all lands of the state of New Mexico and on all private lands in the state of New Mexico, state law (NMSA Chapter 18-6-11.2, 1989 and HPD Rule 4 NMAC 10.11) requires a permit for excavation of unmarked burials. Human remains will be excavated under the current annual burial permit issued

to the Office of Archaeological Studies. Following the permit provisions, if human remains are discovered, the intent to use the annual permit, including a legal description of the location of the burial, the written authorization to remove the burial from the landowner, a description of the procedures to be implemented to identify and notify living relatives of the burials, certification that the law enforcement agency having jurisdiction in the area has been notified, a list of personnel supervising and conducting excavations of the human burial, and the NMCRIS LA Project/Activity Number for the permitted excavation will be submitted in writing to the State Historic Preservation Officer (SHPO) before excavation of the burial begins. The local law enforcement agency with jurisdiction over the area will be notified to contact the state medical investigator who will determine if the burial is of medico-legal significance. Within 45 days of completing the permitted excavation, recommendations for the disposition of human remains and funerary objects will be made to the SHPO. These recommendations will take into consideration the comments of living persons who may be related to the deceased and the wishes of the landowner. The plan will provide a proposed location for reburial or approved curatorial facilities and an inventory of funerary objects, other artifacts found in association or collected in the course of excavation. The SHPO, after consulting with the State Office of Indian Affairs, will determine the appropriate disposition of the human remains and associated funerary objects. If a final report cannot be completed with a year of the completion of fieldwork, an interim report will be submitted along with an estimated completion date for a final report. Following notification and concurrence by the State Police, Medical Examiner, and SHPO, the following procedures will be applied to the finding of human bones in any excavations at the Judicial Complex.

Isolated Human Bones. When an isolated and disarticulated human bone or bones are recognized in context and we have clearance to proceed from the applicable agencies, the element(s) will be located vertically and horizontally on a detailed plan map and photographed. The plan will include a point plot number and sufficient detail to determine the orientation, possible associations, and whether the interment was natural or intended. The excavator will pay exceptional attention to recording observations that may be pertinent to interpreting how the element came to rest in this location. Any evidence of rodent, insect, root, carnivore, or other types of disturbance will be recorded in detail. If large numbers (ten or more) of disarticulated or partially articulated human bones are found, the excavation will stop until personnel trained in human osteology can aid in the excavation. If human bones are found in the screen, excavation in that unit will be conducted by trowel until it is determined that it is indeed an isolated incident.

Human Burials. As soon as a burial is suspected and is sufficiently exposed, calls to the appropriate agency officials will be initiated. Once these officials have concurred with the excavator, the following procedures will be followed.

To the extent possible, the burial pit will be defined by clearing the area of the pit and sufficient working space to a uniform level as near the point of origin of the pit as possible. During this clearing the excavator will observe and record any information pertinent to the origin of the pit with respect to other features and surfaces at the site. Grid corners or other datums for use in locating the burial in three dimensional space will be established. Once an outline has been defined, the pit will be photographed.

Once the pit is defined, a line will be established though the center of the long axis and half of the pit will be excavated. Fill will be carefully removed with tools that will not damage the bone. Broad-tipped bamboo and wooden tools are preferred along with fine-tipped metal tools. Pointed wooden tools leave marks that are more difficult to distin-

guish from old marks than do metal tools that leave a black or metal signature. To the extent possible, bones will be left in place, excavating only enough to expose the outline of the element. A profile along the pit axis will be drawn. This may have to be in stages, progressing as the entire burial is exposed and layers of elements are removed. Pollen and flotation samples will be taken from near the head and in the stomach area.

Once the profile is recorded, the other half of the pit will be excavated, again exposing the bones only to the extent necessary for recording the burial. When the burial is adequately exposed, digital and black-on-white photographs will be taken. These photos will record the burial from an number of angles, including directly above to help clarify the field drawings. A detailed plan of the burial, burial goods, areas of disturbance, and aspects of the pit will be drawn and when possible a print of the digital photograph will be extensively annotated.

Forms completed concerning the burial include the usual feature form to detail the attributes of the burial pit, fill, and other information in the same format at other pit excavations. The OAS Burial Form, which is completed for every burial, incorporates the following information: project, site, recorder, and other tracking information; detailed provenience information, details concerning the grave or feature where the burial was found (relationship to primary feature, placement in the feature, soil matrix the feature or grave is excavated into, pit description, dimensions, construction, sealing or plugging, pit fill description); characteristics of the burial (whether it is primary, secondary, etc., details concerning the body position and orientation of the individual); details concerning the position of each major element or part (e.g., left leg and foot); estimates as to the age and sex of the individual; comments concerning the preservation of the bone and any disturbance noted during the excavation; a list of all material recovered from the burial excavation both as point plots and screening; the size of screen used and how much fill was screened through that size; and a list of all plans, plots, photographs, and other documentation. Another set of forms, the Human Field Inventory and Disturbance, lists each bone or type of bone (e.g., right ribs) and records the presence, type of disturbance, and location of disturbance.

During the recording process, bones will be removed carefully without excessive cleaning and wrapped in acid-free tissue. Related elements, e.g., the left arm bones, will be placed in bundles, especially when fragmentary, to aid in identification of small fragments. These will be placed in an individual box containing only the burial and transported to locked storage at OAS.

Personnel and Schedule

Field work is anticipated to commence by the end of March 2008 and last through approximately May 2008. The data recovery plan described in this document will be implemented by the Office of Archaeological Studies. Stephen S. Post will serve as the project's principal investigator. Steven Lakatos will serve as the project director and will supervise the daily excavation proceedings, laboratory procedures, and report production activities. Curriculum vitae for these project staff are on file with HPD.

An OAS operational archaeologist will serve part time in a dual role as laboratory director and as crew chief. OAS basic archaeologists and laborers will fill the roles of crew members. Laboratory and report production tasks (as discussed below) are anticipated to proceed through August 2008. Additional work or scheduling conflicts may prolong this time frame.

Archival studies (as discussed above) will be directed and conducted by either an experienced OAS staff member or by a contracted specialist. The personnel involved in actual direct charge of this work will be qualified as historians under the SHPO Directory of Qualified Supervisory Personnel.

Laboratory Analysis Methods and Procedures

When brought in from the field, the FS logs and bags will be compared and the artifacts will be washed or cleaned, sorted, and catalogued. Artifacts and samples will be temporarily curated at the OAS laboratory during analysis and will be prepared for permanent curation.

Laboratory analysis will be conducted by the staff of the OAS and by specialized professional consultants, where necessary. Analysis procedures will follow the standards established by the OAS, many of which have been developed for historic sites in the Northern Rio Grande area. These discussions are primarily adapted from Moore (2000).

Ceramic Analysis

Pueblo-made ceramics recovered by the excavations will be analyzed at the Office of Archaeological Studies laboratory under the direction of C. Dean Wilson. Both historic and lesser amounts of prehistoric Native American-made pottery may be recovered, in addition to a range of Euroamerican ceramics. Euroamerican ceramics will be analyzed as part of the historic artifact analysis.

Detailed and systematic examination of various attributes is needed to fully determine the timing and nature of the deposits and features that may be exposed by the excavations. Ceramic studies may contribute to these studies by using distributions of ceramic types and attribute classes from dated contexts to examine patterns related to ethnic affiliation, place of origin, form, and use of ceramic vessels. In order to examine these issues, it is necessary to record a variety of data in the form of both attribute classes and ceramic type categories. These technological and stylistic attributes apply to pottery from all periods.

Attribute categories used in this study are similar to those employed in recent OAS projects in the Northern Rio Grande (Wilson 2004). All sherds will be examined and recorded for temper type, paint type, surface manipulation, modification, and vessel form, and the results will be entered into a computerized database for analysis and interpretation.

Traditional typologies will be used to classify sherds where possible. Examples of known typologies for ancestral Pueblo pottery that will be employed include the Rio Grande, Jemez, Pajarito, Galisteo, and Pecos series (as defined by Habicht-Mauche 1993) for matte-paint pottery. For ancestral Pueblo and early historic Pueblo glaze-paint pottery, the Rio Grande Glaze Ware series as defined by Mera (1940) and refined by Warren (1979) will be employed. For the late ancestral Pueblo and historic Pueblo matte-paint pottery traditions, the Tewa series as defined by Harlow and revisited by McKenna and Miles (1990) will be used. In addition, recent efforts by Office of Archaeological Studies analysts will be incorporated into both prehistoric and historic pottery-based dating (Wilson 2000).

Other studies planned for data recovery involve more detailed characterizations of selected subsamples of sherds. Such studies will include analysis of refired paste color, petrographic characterizations, design style, and construction methods. Studies of the distributions of these descriptive attributes will be used to examine various issues discussed below.

Trends that reflect chronology and economic patterns can also be examined using ceramic type categories. Ceramic types, as used here, refer to groupings identified by various combinations of paste and surface characteristics with known temporal, spatial, and functional significance. Sherds are initially assigned to specific traditions based on the probable region of origin as indicated by paste and temper. They are then placed in a ware group on the basis of general surface manipulation and form. Finally they are assigned to temporally distinctive types previously defined within various tradition and ware groups.

While a number of historic Tewa ceramic types have been formally defined and

described (Batkin 1987; Frank and Harlow 1990; Harlow 1973; Mera 1939), most of these type definitions are based on whole vessels and tend to emphasize decorated types. Historic Tewa decorated types are often distinguished from each other by characteristics such as overall design field or shape that are only observable in complete vessels. Such distinctions are of limited use in studies of pottery from archaeological assemblages, which tend to be dominated by plain ware sherds. Thus, this analysis will focus on the definition and use of sherd-based categories more suitable for sherd collections.

Sherd-based definitions of historic Tewa types have been used to examine historic archaeological assemblages (Dick 1968; Lang 1997; D. Snow 1982). In addition, a number of descriptive categories have been proposed for sherds that exhibit ranges of characteristics that differ from those used to define types from whole vessels. These categories are defined by a range of characteristics that may be ultimately connected to but are not necessarily equivalent to types previously defined for whole vessels. The degree of correlation between vessel and sherd-defined categories varies for sherds from vessels of the same type, and depends on how much stylistic or decorative information is present. For example, unpainted sherds from a Powhoge Polychrome vessel would be placed into an Unpainted Historic Slipped category, while sherds exhibiting some paint but without distinct decorations would be classified as "Tewa" Black-on-cream undifferentiated. In such cases, the assignment of sherds to Powhoge Polychrome would be limited to examples with distinct design styles indicative of that type. Still, a broken vessel of a specific pottery type should produce a recognizable pattern of sherds assigned to various formal and informal types. Information on this type of patterning may be derived from looking at how types are assigned to sherds that are eventually reconstructed into whole or partial vessels.

Most informal types reflect a range of characteristics indicative of sherds derived from vessels of previously defined types or groups of types. These characteristics are often self-evident in the type name. They are not described in detail here because of the preliminary nature of this study and the relatively small number of sherds examined. The ceramic report produced from this study will include detailed descriptions of all sherd-based historic types recognized during the project, as well as illustrations and discussions of combinations of characteristics observed for each type. These descriptions will be presented in a manner that should serve as an important source of information for future analysis of historic Northern Rio Grande pottery.

Examination of very basic ceramic patterns may be most efficiently served by creating a small number of ceramic ware groups by lumping types that share characteristics. Such groups include Decorated "Tewa" Polychrome, red-slipped utility, plain utility, black utility, micaceous utility, as well as a non-local group. The use of these basic broad categories will permit determination of coarse-grained patterning in ceramic assemblages, as opposed to the more basic patterning available from type distributions.

Flaked Stone Analysis

Flaked stone identification and analysis will be conducted by OAS staff. Flaked stone artifacts will be examined using a standardized analysis format (OAS 1994a). This analytic format includes a series of mandatory attributes that describe material, artifact type and condition, cortex, striking platforms, and dimensions. In addition, several optional attributes have been developed that are useful for examining specific questions. This analysis will include both mandatory and optional attributes. While originally developed for prehistoric lithic assemblages, it has been adapted to include the range of morphological and functional variability representative of Spanish Colonial assemblages.

The primary areas our analysis format

explores are material selection, reduction technology, and tool use. These topics provide information about ties to other regions, mobility patterns, and site function. While material selection studies cannot reveal *how* materials were obtained, they can usually provide some indication of *where* they were procured. A study of mobility patterns is not integral to this project, but our analysis of the flaked stone assemblages will provide baseline data useful for evaluating information from other sites. By studying the reduction strategy employed at a site it is possible to compare how different cultural groups approached the problem of producing useable flaked stone tools from raw materials. The types of tools in an assemblage can be used to help assign a function and to aid in assessing the range of activities that occurred at a site. Flaked stone tools provide temporal data in some cases, but unfortunately they are usually less time-sensitive than other artifact classes like pottery and wood.

Flaked stone artifacts will be examined using a binocular microscope to aid in defining morphology and material type, examine platforms, and determine whether it was used as a tool. The level of magnification will vary between 20- and 100-power, with higher magnification used for wear pattern analysis and identification of platform modifications. Utilized and modified edge angles will be measured with a goniometer; other dimensions will be measured with a sliding caliper. Analytic results will be entered into a computerized database for analysis and comparison with others on file at the OAS.

Attributes that will be recorded for all flakes, angular debris, cores, and tools include *material type, material quality, artifact morphology, artifact function,* amount of surface covered by *cortex, portion,* evidence of *thermal alteration, edge damage,* and *dimensions*. Other attributes are aimed specifically at examining the reduction process, and can only be obtained from flakes. They include *platform type, platform width, evidence of platform lipping, presence or absence of opposing dorsal scars,* and *distal termination type.*

Ground Stone Analysis

Ground stone tools may be recovered from contexts dating to the late nineteenth century. It is expected that ground stone tools will inform on frontier acculturation. Ground stone identification and analysis will be conducted by OAS staff.

Ground stone artifacts will be examined using a standardized methodology (OAS 1994b), which was designed to provide data on material selection, manufacturing technology, and use. Artifacts will be examined macroscopically, and results will be entered into a computerized database for analysis and interpretation. Several attributes will be recorded for each ground stone artifact, while others will only be recorded for certain tool types. Attributes that will be recorded for all ground stone artifacts include *material type, material texture and quality, function, portion, preform morphology, production input, plan view outline, ground surface texture and sharpening, shaping, number of uses, wear patterns, evidence of heating, presence of residues,* and *dimensions*. Specialized attributes that will be recorded in this assemblage include information on *mano cross-section form* and *ground surface cross section*.

By examining function(s) it is possible to define the range of activities in which ground stone tools were used. Because these tools are usually large and durable, they may undergo a number of different uses during their lifetime, even after being broken. Several attributes are designed to provide information on the life history of ground stone tools, including dimensions, evidence of heating, portion, ground surface sharpening, wear patterns, alterations, and the presence of adhesions. These measures can help identify post-manufacturing changes in artifact shape and function, and describe the value of an assemblage by identifying the amount of wear or use. Such attributes as material type, material texture and quality, production input, preform morphology, plan view outline form, and texture provide information on raw material choice and the cost of producing various

tools. Mano cross-section form and ground surface cross-section are specialized measures aimed at describing aspects of form for manos and metates because as these tools wear, they undergo regular changes in morphology that can be used as relative measures of age.

Historic Artifact Analysis

Euroamerican artifacts that are recovered will be examined using a standardized analysis format (OAS 1994c). The OAS analysis format and procedures have been developed over the last 10 years and incorporate the range of variability found in sites dating from the eighteenth to twentieth centuries throughout New Mexico. The detailed recording allows for direct comparisons with assemblages from contemporary sites from other parts of New Mexico and throughout the greater Southwest. Analytical results will be entered into a computerized database for analysis and comparison with others on file at the OAS.

The main emphasis will be the identification of artifact function. One of the major benefits of this type of analysis is that "the various functional categories reflect a wide range of human activities, allowing insight into the behavioral context in which the artifacts were used, maintained, and discarded" (Hannaford and Oakes 1983:70). It also avoids some of the pitfalls of an analytic framework that focuses on categorizing artifacts by material type. Material-based analyses frequently include attributes that are appropriate for only some of the functional categories that might be included in a single material class. For instance, variables that are often chosen for analysis of glass artifacts are usually appropriate for glass containers, but may be inappropriate for flat glass, decorative glass, or items like light bulbs.

This analytic framework was designed to be flexible, which hopefully enables it to avoid these and other problems. The function of each artifact is described by a hierarchical series of attributes that classifies it by functional category, type, and specific function. These attributes are closely related, and provide a chain of variables that will specify the exact function of an artifact, if known.

Ten functional categories will be used in this analysis including economy/production, food, indulgences, domestic, furnishings, construction/maintenance, personal effects, entertainment/leisure, communication, and unassignable. Each category encompasses a series of types, and includes classes of items whose specific functions may be different but are related. An example is a pickle jar and a meat tin, both of which would be included in the food category, but which are made from different materials and had different specific functions.

The exact use to which an artifact was put will be recorded as a specific function within a type. In essence, this attribute represents a laundry list of different kinds of artifacts that may be familiar to most analysts, and is the lowest level of the identification hierarchy. Other variables are recorded to amplify the hierarchy of functional variables, and to provide a more detailed description of each artifact that warranted such treatment. Included in this array of attributes are those that provide information on material type, dating, manufacturer, and what part(s) is represented. Chronological information is available from a variety of attributes, as are data on manufacture and physical descriptions.

Chronological information is available from a variety of descriptive and manufacturing attributes, and especially from the latter. If the array of available variables provide enough information to assign beginning and ending dates to an artifact, it is recorded in the *date* attribute. *Manufacturer* is the name of the company that made an artifact, when known. This type of information can be critical in assigning a specific date to an artifact, because dates for the opening and demise of most manufacturing companies are available. A related attribute is the *brand name* associated with a product. Many brand names also have known temporal spans. At times, the manufacturer or brand name can be determined from the *labeling/lettering* present on an arti-

fact, which was used to advertise the brand name or describe its contents or use.

The *technique* used to manufacture an artifact will be recorded when it can be determined. Because manufacturing techniques have changed through time, this attribute can provide a relative idea of when an artifact was made. A related attribute is *seams,* which records the way in which sections of an artifact were joined during manufacture. Like manufacturing techniques, the types of seams used to construct an artifact are often temporally sensitive. The type of *finish/seal* will be recorded to describe the shape of the opening in a container and the means of sealing it. Many finishes and seal types have known temporal spans of limited duration. Related to this attribute is *opening/closure,* which records the method of retaining or extracting the contents of a container.

In some instances, attributes such as *color, ware,* and *dimensions* can provide information on artifact dating. Thus, the current color of an artifact will be recorded if of diagnostic value. A good example of where this attribute applies is glass, where the various colors present at a site can be used to provide some idea of age. Ware refers to ceramic artifacts, and categorizes the specific type of pottery represented, when known. Because temporal information exists for most major ware types, this attribute can provide critical dating information. Dimensions are also of chronologic value, especially when examining artifacts like nails or window glass, where lengths or thicknesses vary through time.

A few attributes will be used to provide information on the manufacturing process. In some instances these attributes also have descriptive value, and can be used to verify functional information. *Material* records the material(s) from which an artifact was made. *Paste* describes the texture of clay used to manufacture ceramic objects, and is differentiated by porosity, hardness, vitrification, and opacity. *Decoration* describes the technique used to decorate an artifact, including pottery. A simple description of the decoration on an artifact is recorded as *design*.

In addition to most of the attributes already discussed, several others will be used to provide a more comprehensive description of each artifact. *Fragment/part* describes the section of artifact represented. Artifacts or fragments of artifacts within a single excavation unit whose functions and descriptions are identical will be recorded together, and the number of specimens present will be listed under *count*.

Cultural and environmental changes to an artifact will also be recorded. Reuse describes evidence of a secondary function, and any physical modifications associated with that use will be described as *condition/modification.* If environmental conditions have had any effect on the surface of an artifact, it will be recorded as aging.

Other variables will be used to describe the appearance of an artifact. *Shape* describes physical contours, and will generally only be recorded if an artifact is whole. Several different measurements will be taken to complete descriptions including *volume, length/height, width/diameter, thickness,* and *weight*. Measurements will be taken using industry standards, where appropriate. The entire range of measurements are rarely applicable to a single artifact, and only those that are deemed appropriate will be taken.

Faunal Remains Analysis

Faunal remains will be analyzed at the Office of Archaeological Studies laboratory under the direction of Nancy J. Akins. Specimens from proveniences chosen for analysis will be identified using the OAS comparative collection, supplemented by that at the Museum of Southwest Biology when necessary. Recording will follow an established OAS computer-coded format that identifies the animal and body part represented, how and if the animal and part was processed for consumption or other use, and how taphonomic and environmental conditions have affected the specimen. Each data line will be assigned a *lot number* that identifies a specimen or group of speci-

mens that fit the description recorded in that line. Lot numbers also allow for retrieving an individual specimen if questions arise concerning coding or for additional study. A *count* will also be included to identify how many specimens are described in a data line.

Taxonomic identifications will be made as specific as possible. When an identification is less than certain, this will be indicated in the *certainty* variable. Specimens that cannot be identified to species, family, or order will be assigned to a range of indeterminate categories based on the size of the animal and whether it is a mammal, bird, other animal, or cannot be determined. Unidentifiable fragments often constitute the bulk of a faunal assemblage. By identifying these as precisely as possible, information from the identified taxa is supplemented.

Each bone (specimen) will be counted only once, even when broken into a number of pieces during excavation. If the break occurred prior to excavation, the pieces will be counted separately and their articulation noted in a variable that identifies conjoinable pieces, parts that were articulated when found, and pieces that appear to be from the same individual. Animal skeletons will be considered single specimens so as not to inflate the counts for accidentally and intentionally buried taxa.

The *skeletal element* will be identified then described by *side, age,* and *portion* recovered. Side will be recorded for the element itself or for the portion recovered when it is axial, such as the left transverse process of a lumbar vertebra. Age will be recorded at a general level: fetal or neonate, immature, young adult, and mature. Further refinements based on dental eruption or wear will be noted as *comments*. The criteria used for assigning an age will also be recorded. This will generally be based on size, epiphysis closure, or texture of the bone. The portion of the skeletal element represented in a particular specimen will be recorded in detail to allow determination of how many individuals are present in an assemblage and to investigate aspects of consumer selection and preservation.

Completeness refers to how much of each skeletal element is represented by a specimen. It will be used in conjunction with portion to determine the number of individuals present. It will also provide information on whether a species is intrusive, and will inform on processing, environmental deterioration, animal activity, and thermal fragmentation.

Taphonomy is the study of preservation processes and how they affect the information obtained by identifying some of the nonhuman processes that affect the condition or frequencies found in an assemblage (Lyman 1994:1). *Environmental alteration* includes degree of pitting or corrosion from soil conditions, sun bleaching from extended exposure, checking or exfoliation from exposure, root etching from the acids excreted by roots, and polish or rounding from sediment movement, when applicable. *Animal alteration* will be recorded by source or probable source and where it occurs.

Burning, when it occurs after burial, is also a taphonomic process. Burning can occur as part of the cooking process, part of the disposal process, when bone is used as fuel, or after it is buried. Here, the color, location, and presence of crackling or exfoliation will be recorded. Burn color is a gauge of burn intensity. A light tan color or scorch reflects superficial burning, while bone becomes charred or blackened as the collagen is carbonized. When the carbon is completely oxidized, it becomes white or calcined (Lyman 1994:385, 388). Burns can be gradated over a specimen, reflecting the thickness of the flesh covering portions of the bone when burned. Dry burned bone is light on the exterior and black at the core or has been burned from the interior. Graded burns can indicate roasting. Completely charred or calcined bone and dry burns do not occur as part of the cooking process. Uniform degrees of burning are possible only after the flesh has been removed and generally indicate a disposal practice (Buikstra and Swegle 1989:256).

Evidence of butchering will be recorded as various orientations of cuts, grooves, chops,

abrasions, saw cuts, scrapes, peels, and intentional breaks. This type of evidence is much less ambiguous in historic assemblages where metal knives, axes, and cleavers leave more distinct marks than stone tools. The location of butchering will also be recorded. Additional detail will be obtained by indicating the exact location on diagrams of the body parts.

Fauna recovered from historic sites is typically so fragmented that few attempts have been made to collect measurement data. Yet this information has the potential to differentiate varieties of sheep and goat, perhaps distinguish beef from draft cattle, and differentiate species of equids, along with the social and economic consequences thereof. Because this data has such potential, all possible measurements will be taken on domestic fauna. Measurements will be taken following von den Driesch (1976), who provides a comprehensive list of measurements for virtually every element. While this project may not provide enough data to confidently answer questions concerning the varieties represented, it may contribute to a useful database for comparisons with earlier and later sites.

Human Remains Analysis

Human remains will also be analyzed by Nancy J. Akins. The human analysis will follow the procedures set out in *Standards for Data Collection from Human Skeletal Remains* (Buikstra and Ubelaker 1994). This comprehensive system focuses on the need to gain the maximum amount of comparable information by recording the same attributes using the same standards. Documentation on how these should be recorded includes the following information.

1. A coding procedure for each element that makes up a relatively complete skeleton is provided. Diagrams of skeletons and anatomical parts allow for the location of any observations concerning these parts. Another form codes commingled or incomplete remains.

2. Adult sex is determined by examining aspects of the pelvis and cranium. Age changes are documented on the pubic symphysis using two sets of standards, on the auricular surface of the ilium, and through cranial suture closure.

3. For immature remains, the age-at-death is determined by scoring epiphyseal union, union of primary ossification centers, and measurements of elements.

4. Recording of dental information includes an inventory, pathologies, and cultural modifications. Each tooth is coded and visually indicated for presence and whether it is in place, unobservable, or damaged, congenitally absent, or lost premortem or postmortem. Tooth development is assessed, occlusal surface wear is scored, caries are located and described, abscesses are located, and dental hypoplasias and opacities are described and located with respect to the cemento-enamel junction. Any premortem modifications are described and located.

5. The secondary dentition is measured and dental morphology scored for a number of traits.

6. Measurements are recorded for the cranium (n=35), clavicle, scapula, humerus, radius, ulna, sacrum, innominate, femur, tibia, fibula, and calcaneus (n=46).

7. Nonmetric traits are recorded for the cranium (n=21), atlas vertebra, seventh cervical vertebra, and humerus.

8. Postmortem changes or taphonomy are recorded when appropriate. These include color, surface changes, rodent and carnivore damage, and cultural modification.

9. The palaeopathology section groups observations into nine categories: abnormalities of shape, abnormalities of size, bone loss, abnormal bone formation, fractures and

dislocations, porotic hyperostosis/cribra orbitalia, vertebral pathology, arthritis, and miscellaneous conditions. The element, location, and other pertinent information is recorded under each category.

10. Cultural modifications such as trepanation and artificial cranial deformation are recorded in another set of forms.

Buikstra and Ubelaker (1994:174) recommend curating the following samples for future analysis on burials that will be repatriated: the middle portion of a femur midshaft (at least 100 g) that can be used for radiocarbon dating, trace element analysis (diet), stable isotope ratios (climate and diet), strontium (population movement), bone geometry (activity patterns), histomorphometry (age and health), and aspartic acid analysis (age and health); several teeth (the upper central incisor, lower canines and premolars, and lower second molar) for histomorphometric analysis, cementum annulation (root), aspartic acid (dentin), isotope studies (enamel), and future studies of linear hypoplasias and enamel microwear patterning; 5 g of trabecular bone for DNA extraction; the middle third of a clavicle and rib six for age-at-death, health studies, and morphological age assessments; and finally, two sections of the right femur and one section each of the humerus or CT scans of both to assess the level and type of behavior. No samples will be collected without the express permission of the landowner.

Archaeobotanical Analysis

Macrobotanical studies conducted by the OAS under the direction of Mollie Toll will include flotation analysis of soil samples, species identification, morphometric measurement of macrobotanical specimens (where appropriate), and species identification of wood specimens from both flotation and macrobotanical samples. Flotation is a widely used technique for the separation of floral materials from the soil matrix. It takes advantage of the simple principle that organic materials (and particularly those that are nonviable or carbonized) tend to be less dense than water, and will float or hang in suspension in a water solution. Each soil sample is immersed in a bucket of water. After a short interval allows heavier sand particles to settle out, the solution is poured through a screen lined with "chiffon" fabric (approximately 0.35 mm mesh). The floating and suspended materials are dried indoors on screen trays, then separated by particle size using nested geological screens (4.0, 2.0, 1.0, and 0.5 mesh) before sorting under a binocular microscope at 7- to 45-power magnification.

This basic method was used as long ago as 1936, but did not become widely used for recovery of subsistence data until the 1970s. Seed attributes such as *charring, color,* and aspects of *damage* or *deterioration* are recorded to help in determining cultural affiliation versus post-occupational contamination. Relative abundance of *insect parts, bones, rodent and insect feces,* and *roots* help to isolate sources of biological disturbance in the ethnobotanical record.

All macrobotanical remains collected during excavation will be examined individually, identified, repackaged, and catalogued. *Condition* (carbonization, deflation, swelling, erosion, damage) will be noted as clues to cultural alteration, or modification of original size dimensions. When less than half of an item is present, it will be counted as a fragment; more intact specimens will be measured as well as counted. Corn remains will be treated in greater detail. *Width* and *thickness* of kernels, *cob length* and *mid-cob diameter, number of kernel rows,* and several *cupule dimensions* will be measured. In addition, the following attributes will be noted: *over-all cob shape, configuration of rows, presence of irregular or undeveloped rows,* and *post-discard effects*.

Pollen samples selected for analysis will complement or accentuate the above-described strategies. Analysis will be conducted by a contracted professional palynologist experienced with prehistoric and historic sites in New Mexico, and particularly, New World domesticates. Pollen analysis methods are not

presented here, because they may vary depending on the analyst. The full range of methods that may be applicable to the identification of New and Old World domesticate pollen will be explored in consultation with contract specialists and specialists that are on the Office of Archaeological Studies staff.

Chronometric Dating

Chronometric samples may be collected and used to define the occupation sequence if other means fail to provide sufficient data. Absolute dating methods that may be used in this project include dendrochronology, archaeomagnetism, and radiocarbon assays. Other relative dating methods that will be used, particularly ceramic stylistic and technological variation and historic artifact manufacture dates and archival records, are discussed in the appropriate analytical sections.

Dendrochronology produces extremely precise and accurate dates when appropriate samples are available. Ideal samples should have 15 to 20 years of growth rings, a sensitivity to climate variation that allows the sample to be matched with the regional chronology of climatic variation, qualities of outer surface that allow the outer ring to be interpreted as the death year of the tree, and an archaeological context that supports a linkage between tree death and the cultural behavior that is the target event of the dating effort. Tree-ring dating is most reliable when multiple samples are collected from structural remains where timbers were cut to length. Although construction timber reuse and stockpiling can cause inaccuracies (Graves 1983), patterns of dates from multiple samples usually reveal the presence of remodeling or reuse of wood. Although wood samples from nonarchitectural contexts can be dated, samples from fuel wood in hearth contexts risk the same "old wood" problem that affects radiocarbon samples (Smiley 1985). The University of Arizona Tree-Ring Laboratory in Tucson is the preeminent laboratory for this method and they will be used if dendrochronological samples are recovered.

Archaeomagnetism does not have either the potential precision or accuracy of tree-ring dating, but it does have other advantages. Heating allows the field orientations of magnetic particles in earth or rock to become reoriented to the prevailing geomagnetic field when the particles cool (Sternberg 1990; Wolfman 1990). Because the geomagnetic field is constantly changing, features that are burned and cool will retain a distinctive magnetic orientation that is determined by the date of the cooling. Whereas tree-ring dating works best at recording the dates of construction events, archaeomagnetic dates apply to the final use of burned or puddled features, and this procedure is one of the only dating techniques that can inform about abandonment events.

Archaeomagnetic samples are collected from burned cultural features. The orientation of the sample is measured in the laboratory, and the geomagnetic pole recorded by the feature is compared with the regional pattern of polar movement through time. Problems with archaeomagnetism stem from both measurement factors and interpretation factors, both of which can affect the precision and exclusivity of date interpretations. The precision of a given result is determined by the coherence of the orientations of the individual specimens (usually eight) that make up the sample. Variables affecting coherence include the type, size, and density of magnetic minerals in the earth, the temperature of burning, and any sources of post-depositional disturbance of the feature. Even a very coherent result may have imprecise or multiple date interpretations based on the intersection of the result's oval of confidence with the polar curve for the region. A time of particularly slow polar movement can result in a broad date range, or a region of the pole that is transected by several segments of the polar curve will result in multiple possible date ranges. When an archaeomagnetic sample results in multiple date ranges, independent dating evidence will be required to determine which of the possible date ranges is correct. The greatest advantage of this technique is that the sampled

material is usually unambiguously related to the component being dated, but potential ambiguity of the technique requires that it be used in conjunction with other sources of chronology. The Office of Archaeological Studies Archaeomagnetic Laboratory directed by Eric Blinman will be used if appropriate contexts are encountered.

Radiocarbon dating has similar limitations as the first two methods, but it has the advantage that carbon is one of the most abundant materials in archaeological contexts (Taylor 2000). Plants incorporate carbon into their tissues through photosynthesis, drawing on the pool of carbon in the atmosphere. Radioactive isotopes of carbon produce cosmic radiation in the upper atmosphere, resulting in a relatively constant proportion of carbon-14 in the atmospheric pool. When plant tissue is no longer actively incorporating carbon, the amount of radioactive carbon declines at a rate consistent with the relatively short half-life of the isotope. The measured amount of radioactive carbon in a sample, the expected amount given the assumed atmospheric pool concentration, and the half-life value for the isotope can be used to calculate a radiocarbon age for the sample. Precision of radiocarbon age estimates is determined by the measurement error associated with determining the radioactive isotope contents. However, the assumption of a constant value for the carbon-14 pool concentration has been shown to be inaccurate, and the radiocarbon age of a sample can only be translated into a calendric age estimate by comparison with carefully derived calibration curves (Stuiver and Reimer 1993). These curves reflect fluctuating pool values, increasing dating accuracy but affecting both precision and exclusivity of radiocarbon date interpretations. A single precise date expressed in radiocarbon years can yield an imprecise calendar date or multiple possible calendar date ranges.

Independent of the technical aspects of dating, radiocarbon samples are not unambiguously associated with cultural contexts. Although unburned organic materials deteriorate in most archaeological sites, charcoal is inert, and once it is produced, it is only subject to physical damage. Most charcoal results from heating and cooking fuel, but it can also result from the burning of structures and artifacts. Individual pieces of charcoal rarely carry any qualities that can be unambiguously related to a particular cultural event, therefore the integrity of potential samples is dependent on feature contexts. If samples are collected from potentially disturbed contexts, then the resulting dates can only be interpreted in relation to other independent dates. Other problems with radiocarbon dating are the "old wood" issue previously mentioned for dendrochronology and cross-section effects. Long-dead (dry) wood tends to be harvested for fuel, and on Southwestern landscapes, standing dead trees may be sources of fuel for centuries after their death (Smiley 1985). In addition, slow-growing species, such as piñon and juniper, can incorporate centuries of growth into small branches (cross-section effect). These qualities can result in erroneously early radiocarbon dates, even though the sampled material is unambiguously associated with a particular cultural feature and behavior. To lessen the potential risks of these problems, the charcoal selected for dating can be sorted by species and plant part. Small twigs or branches contribute less to cross-section effects because they incorporate fewer years of growth and they persist for shorter periods on standing dead trees. Annual plants and perennial shrubs are better material for radiocarbon dating because they incorporate carbon over smaller numbers of years and are not likely to survive on the landscape a long time after dying. Care in collecting, selecting, and characterizing radiocarbon samples will increase their relevance to particular cultural contexts, but the other limitations of the technique and date interpretation will constrain use and interpretation in some contexts. The Office of Archaeological Studies uses Beta-Analytic, Inc. of Coral Gables, Florida, for all radiocarbon dating analyses.

Unanticipated Discoveries and Site Monitoring

Upon the completion of data recovery field work, site monitoring by an archaeologist will be recommended for particular portions of the site considered likely to contain undiscovered significant material or features. Site monitoring will occur immediately prior to and during earth-disturbing actions within the portions of the site identified to receive this treatment. In the event of unanticipated discoveries of significant material or features (either during the intentional monitoring, or during unmonitored construction), all construction activities will be halted in the vicinity of the discovery and within a 30 m (50 ft) buffer. The HPD and CPRC will be notified within 24 hours of the discovery (excluding Sundays or holidays) to discuss the nature of the discovery and the proposed treatment. Treatments to be applied to significant unanticipated discoveries will follow the feature-specific approaches and general excavation procedures described in this data recovery plan. Results of the monitoring and treatment of unanticipated discoveries (if any) will be reported in the final project report.

Research Results and Project Curation

Preliminary and final reports on the data recovery program, to include any data recovery work conducted in the First Judicial District Courthouse Complex parcel, will be published by the Office of Archaeological Studies in the *Archaeology Notes* series. These reports will describe the site excavations, report the analysis results, and present interpretive summaries. It will include photographs, site and feature maps, and data summaries. Field maps and notes, analytical data sheets, and photographs will be deposited with the Archeological Records Management Section of the New Mexico Historic Preservation Division. Artifacts will be curated at the Museum of New Mexico Archaeological Research Collection facility. Upon project completion, a popular article will be prepared.

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