

PUBLIC VERSION

**CULTURAL RESOURCES INVENTORY REPORT
FOR THE BRUCE ROAD RECONSTRUCTION
PROJECT, CITY OF CHICO, BUTTE COUNTY,
CALIFORNIA**

CAPITAL PROJECT NO. 16038

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Acronyms and Abbreviations

BLM	U.S. Department of the Interior Bureau of Land Management
CCR	California Code of Regulations
CCTS	Central California Taxonomic System
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historic Resources Information System
CRHR	California Register of Historical Resources
CUSD	Chico Unified School District
DPR	Department of Parks and Recreation
NAHC	California Native American Heritage Commission
NCIC	North Central Information Center
NCPA	Northern California Power Agency
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PRC	Public Resources Code
ROW	right-of-way
SHPO	State Historic Preservation Officer
SR 32	State Route 32
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey

Introduction

This cultural resources inventory report documents the efforts to identify cultural resources in the Project Area for the Bruce Road Reconstruction (project) in Butte County, California. The City of Chico (the City) is proposing to expand Bruce Road from two lanes to four lanes between SR 32 to the north and Skyway to the south in the City of Chico in Butte County (Figure 1; Appendix A). The project also includes constructing a new bridge over Little Chico Creek and expanding storm drain lines.

The project would require compliance with the California Environmental Quality Act (CEQA), and the City of Chico would serve as the lead state agency under CEQA. The project also has the potential to require a permit from the U.S. Army Corps of Engineers (USACE) in order to comply with Section 404 of the Clean Water Act. If a Section 404 permit is required, the project would be subject to Section 106 of the National Historic Preservation Act (NHPA), and the USACE would serve as the lead federal agency. This report has been written to comply with both CEQA and Section 106 standards.

This cultural resources study included an archival records search, coordination with the California Native American Heritage Commission (NAHC) outreach to local Native Americans contacts and historical societies, and an intensive archaeological pedestrian survey. A records search was performed at the Northeast Information Center (NEIC) of the California Historic Resources Information System (CHRIS) at California State University, Chico (Appendix B). The records search indicated that two previously recorded built environment cultural resources are located in the Project Area: CA-BUT-0892H (P-04-0892; Humboldt Wagon Road) and CA-BUT-1071H (P-04-1071; Bruce Ranch Stone Fence) and one archaeological site. No portions of the Humboldt Wagon Road were previously recorded in or near the project; however, the alignment was historically depicted in the area of the current Humboldt Road. The Bruce Ranch stone fence was previously recorded and evaluated in 2010 as part of earlier survey efforts along Bruce Road (Jensen 2010). Upon further inspection of the site record for the archaeological site, it was concluded that the NEIC's shapefile data incorrectly placed the site within the Project Area and the site is located outside of the project.

The results of a search of the NAHC's Sacred Lands File for the Project Area indicated that the NAHC has no record of any sacred sites in or within the immediate vicinity of the Project Area. In addition to consultation with the NAHC, letters were sent to five Native American contacts listed by the NAHC and seven local historical societies who may have information regarding cultural resources within the project. As of submittal of this report, two responses were received as a result of the outreach letters (Appendix C). Tribal consultation under AB 52 was carried out by the City of Chico. As a result of outreach efforts, no tribes requested consultation on the project. Tribal consultation under Section 106 is not addressed in this report and will be carried out by the federal lead agencies.

As a result of the pedestrian survey, the Bruce Ranch stone fence (CA-BUT-1071H) was found to be in the same condition as previously recorded and no indications of the Humboldt Wagon Road were identified in the Project Area. Any original portions of the wagon road that may have been in the Project Area have since been destroyed and built over by the modern paved Humboldt Road. Site record update forms are provided in Appendix D. In addition, no indications of the archaeological site were found within the Project Area and it was confirmed that the NEIC shapefiles were incorrectly plotted.

As a result of the study, the Bruce Ranch stone fence was identified in the Project Area; however, this resource was previously evaluated in 2010 as not eligible for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). A copy of this evaluation is provided in Appendix E of this report.

Pursuant to 36 Code of Federal Regulations (CFR) Part 800.5, Assessment of Adverse Effects, the results of this study conclude that the proposed project will have no adverse effect on historic properties or significant historical resources for the purpose of CEQA (PRC Section 5024.1[d][1]).

Project Location and Setting

The proposed project is located in the southeastern portion of the City of Chico in Butte County, California at an elevation ranging from 235 to 280 feet above mean sea level. The project is located mostly within the right-of-way (ROW) of Bruce Road, with a proposed stormwater alignment heading west from Bruce Road towards commercial and residential developments. The proposed stormwater alignment is located in open grass fields. Little Chico Creek crosses under Bruce Road in the northern portion of the project and Comanche Creek is located less than half a mile south of the project. Generally, the project is located in a flat landscape of open grass fields surrounded by residential development to the north of East 20th Street east of Bruce Road. The project also corresponds to the Township 22 North, Range 2 East (Sections 29, 30, 31, and 32 as depicted on the U.S. Geological Survey (USGS) Chico, CA 7.5 minute map (Figure 2; Appendix A).

Project Description

The Bruce Road Reconstruction Project involves the reconstruction and widening of an approximately 2-mile segment of Bruce Road from State Route 32 (SR 32) to Skyway utilizing roller-compacted concrete pavement. The proposed “complete streets” improvements include widening Bruce Road from an existing 2-lane arterial roadway to a 4-lane arterial roadway, and replacement of the existing two-lane, functionally obsolete Bruce Road bridge over Little Chico Creek (Caltrans Bridge # 12C0106) with a new four-lane bridge structure. The new, approximately 96-feet long by 96.5-feet wide bridge will accommodate four lanes of traffic, a center median, pedestrian/bicycle facilities consisting of a Class I bike path on the west side of Bruce Road, and a sidewalk on the east side. The new bridge will be comprised of three-span, cast-in-place, reinforced concrete slab superstructure founded on pile supported abutments and 16-inch diameter multi-column piers supported on spread footings.

The ultimate roadway design includes construction of the following: a 14-foot landscaped center median; roadway lighting; 5-foot bike lanes with 2-foot buffered striping on both east and west sides of Bruce Road; dedicated left turn lanes at various intersections; concrete curb, gutter, and curb ramps; and a 12-foot-wide concrete multi-use path on the west side of Bruce Road. The project also includes storm drainage improvements such as bioretention facilities, drainage pipe, manholes, and curb inlets, as well as minor extension of sewer facilities where required. The proposed project includes construction of most of the ultimate roadway design. The City will be installing all infrastructure improvements detailed herein, except for a few limited frontage improvements on the east side of Bruce Road. Sidewalk and parking strips on the east side of the roadway will be installed

by others in conjunction with the requirements of adjacent private subdivisions to be constructed as separate projects.

Excavation will be required throughout the project in order to construct the roadway, bridge and associated improvements. The estimated maximum depth of excavation for the roadway improvements is between 1 and 3 feet below existing grade. Landscaping and drainage facilities, which require trenching, placement of pipe, drainage structures, planting, irrigation, and backfill will have a maximum depth of 6 feet. For the bridge structure, a maximum excavation depth of 35-feet will be required to install abutment support, which are anticipated to be Cast-In-Drilled-Hole (CIDH) piles.

Approximately 0.23 acres of right-of-way acquisition will be needed from 4 parcels. Temporary construction easements will be required in various locations. A drainage easement from Chico Unified School District (CUSD) will be required for the proposed stormwater drainage system. An easement for the installation of the multi-use path will also be required from CUSD. Approximately 23 trees will be removed along Bruce Road, plus an additional 11 trees (approximately) along East 20th Street.

Some segments of the project will receive specific work that differs from work that has been proposed for the entire corridor. See below.

Bruce Road from SR 32 and East 20th Street

- A new storm drain outfall will be installed downstream of the Little Chico Creek bridge crossing, on the southbound side of Bruce Road at the northwest corner of the bridge. The existing upstream storm drain outfall will be removed and diverted to the new outfall.
- The existing asphalt-concrete path from Humboldt Road to Native Oak Drive will be removed and replaced with new sidewalk.
- On the east side of Bruce Road, the existing sidewalk that currently ends just south of the Little Chico Creek bridge will be extended northerly to the bridge.

East 20th Street

- Timing and equipment modifications will be made to the traffic signals at the intersection of Bruce Road and East 20th Street.
- Two traffic signal poles on the SW and SE corners of the Bruce Road and East 20th Street intersection will be relocated.
- Approximately 625 feet of additional work will be completed along East 20th Street right-of way from the Bruce Road intersection easterly to approximately 200 feet east of Belgium Avenue.
 - The road will be widened from 3 lanes to 5 lanes to align with the proposed ultimate intersection configuration at Bruce Road and East 20th Street.
 - Curb and gutter improvements will be installed on the north side of East 20th Street easterly to Belgium Avenue. No sidewalk or curb and gutter work is planned for the south side of East 20th Street.
 - Approximately 11 trees will be removed from the center median of East 20th Street; the median will be modified to a raised curb median.

- Approximately 450 feet of East 20th Street west of Bruce Road will be widened to align with the proposed ultimate intersection configuration.

Bruce Road from East 20th Street to Raley Boulevard

- Proposed improvements include surface and subsurface drainage infrastructure to capture and direct stormwater runoff from Bruce Road to existing storm drain systems on Raley Boulevard and Fremont Street.
- A new 42-inch storm drainpipe will be installed from Bruce Road west across the CUSD parcel and will drain into an existing connection at Fremont Street. Trenching for the new storm drainpipe will be at least 6 feet deep and approximately 6 feet wide.
- The existing culverts under Bruce Road will be removed.
- Conduit will be installed at the intersection of Bruce Road and Raley Boulevard and at the location of the future intersection of Bruce Road and Webster Drive for traffic signals to be installed by developers in the future.
- Bioretention facilities will be installed in both the northbound and southbound lane parkways on Bruce Road at Webster Drive.

Bruce Road from Raley Boulevard to Skyway

- Curb and gutter will be installed on the east side of Bruce Road.

Regulatory Setting

Section 106 of the National Historic Preservation Act

The project would involve activities that could result in the placement of fill in jurisdictional waters of the United States, and thus would require permitting from the Corps under Section 404 of the Clean Water Act. Therefore, the project is subject to Section 106 of the NHPA.

Section 106 of the NHPA (54 United States Code Section 306108) requires that effects to historic properties be taken into consideration in any federal undertaking. "Historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that meet the NRHP criteria" [36 CFR Part 800.16(l)]. Implementing regulations at 36 CFR Part 800 outline the process whereby federal agencies, in consultation with the State Historic Preservation Officer (SHPO) and other consulting parties, identify historic properties within the APE of the proposed project and make a finding of effect. If the project is determined to have an adverse effect on historic properties, the federal agency is required to consult further with the SHPO and the Advisory Council on Historic Preservation to develop methods to resolve the adverse effects. The Section 106 process has six basic steps.

1. Initiate the Section 106 process, including the identification of consulting parties, such as Native American tribes.

2. Identify the APE, in consultation with the SHPO and other consulting parties.
3. Identify if any historic properties are located in the APE.
4. Assess the effects of the undertaking on historic properties within the APE.
5. If historic properties may be subject to an adverse effect, the federal agency, the SHPO, and any other consulting parties (including Native American tribes and the Advisory Council of Historic Preservation) continue consultation to seek ways to avoid, minimize, or mitigate the adverse effect. A Memorandum of Agreement is usually developed to document the measures agreed upon to resolve adverse effects. Alternatively, the federal agency may prepare and execute a Programmatic Agreement with the aforementioned parties to comply with 36 CFR Part 800, particularly in the context of complex undertakings that entail years of implementation actions or where the undertaking's effects on historic properties cannot be well characterized during the planning phase.
6. Proceed in accordance with the terms of the Memorandum of Agreement or Programmatic Agreement.

Cultural resources are eligible for the NRHP if they have integrity and significance as defined in the regulations for the NRHP. Four primary criteria define significance; a property may be significant if it displays one or more of the following characteristics.

- A. It is associated with events that have made a significant contribution to the broad pattern of our history.
- B. It is associated with the lives of people significant in our past.
- C. It embodies the distinct characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or it represents a significant and distinguishable entity whose components may lack individual distinction.
- D. It has yielded, or is likely to yield, information important in prehistory or history (36 CFR Part 60.4).

Some types of cultural resources are not typically eligible for the NRHP. These resources consist of cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years. These property types may be eligible for the NRHP, however, if they are integral parts of eligible districts of resources or meet the criteria considerations described in 36 CFR Part 60.4.

In addition to possessing significance, a property must also have integrity to be eligible for listing in the NRHP. The principle of integrity has seven aspects: location, design, setting, materials, workmanship, feeling, and association (36 CFR Part 60.4). To retain historic integrity, a property will always possess several, and usually most, of the qualities of integrity (U.S. Department of the Interior 1995:44).

California Environmental Quality Act

CEQA requires public or private projects that are financed or approved by public agencies to assess the effects of the projects on historical resources. *Historical resources* are defined as buildings, sites,

structures, objects, or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance. If a project would result in an effect that causes a substantial adverse change in the significance of a historical resource, CEQA requires that alternative plans or measures to mitigate the effect be considered; however, only significant historical resources need to be addressed. Therefore, the significance of cultural resources must be determined.

The following steps are normally taken in a cultural resource investigation for CEQA compliance.

1. Identify cultural resources.
2. Evaluate the significance of the resources.
3. Evaluate the effects of the project on significant resources.
4. Develop and implement measures to mitigate the effects of the project on significant resources.

The CEQA guidelines define three ways that a property may qualify as a significant historical resource for the purposes of CEQA review.

- The resource is listed in or determined eligible for listing in the CRHR.
- The resource is included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code (PRC), or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record (California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15064.5[a]).

Each of these ways of qualifying as a significant historical resource for the purposes of CEQA is related to the eligibility criteria for inclusion in the CRHR (PRC Sections 5020.1[k], 5024.1, 5024.1[g]).

A historical resource may be eligible for inclusion in the CRHR if it is associated with, embodies, or yields one of the following:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Properties that are listed in or eligible for listing in the NRHP are considered eligible for listing in the CRHR, and thus, are significant historical resources for the purpose of CEQA (PRC Section 5024.1[d][1]).

Cultural Setting

The following setting and cultural context discussions focus on the patterns of development in vicinity of the project, and specific resources in the Project Area.

Archaeological Context

Prehistoric Context

As a result of continuing research and interpretation, the archaeological record of the Central Valley has been approached in two fundamentally different ways; the first is chronological, and the second involves the elucidation of contemporaneous cultural patterns. The discussion below is a succinct description of both approaches to Central Valley prehistory, beginning with the nascent, salvage-oriented archaeology of the late nineteenth century, followed by the development of cultural historical frameworks for the Central Valley under the aegis of Sacramento Junior College and the University of California. The discussion moves from this chronologically oriented approach to the functional and systems approaches favored in California archaeology from the 1960s through the present. Early explanations for cultural change usually were linked to the movements of people. In 1939, a synthesis of this research was published and later expanded into the Central California Taxonomic System (CCTS) (Lillard et al. 1939). Later refined by Heizer (1949) and Beardsley (1948, 1954a, 1954b), the CCTS was characterized by specific artifact types, mortuary practices, and other cultural features.

Subsequent archaeological research was aimed at refining the CCTS and incorporating the study of paleoenvironmental change, settlement patterns, population movement, subsistence strategies, and development of exchange networks. These studies led to the development of a second approach. As absolute dates became available for sites with early, middle, and late assemblages, it was discovered that sites with different assemblages were contemporaneous. This discovery, along with a change in archaeological paradigms to a more economic and functional orientation in the 1960s, led to a reorganization of the CCTS. This new scheme used the same archaeological manifestations to differentiate sites as did the CCTS but ordered sites into functional groups rather than temporal ones, which led to the establishment of different cultural models for many localities of central California. This approach was advanced by Fredrickson (1973), who used the term *pattern* to describe an “adaptive mode extending across one or more regions, characterized by particular technological skills and devices, and particular economic modes.” These patterns, while generally corresponding to the Early, Middle, and Late horizons within the Central Valley, were conceptually different and free of spatial and temporal constraints. By changing the paradigm from a cultural/historical orientation to a more processual/adaptive one and introducing the concept of pattern, Fredrickson addressed problems with the chronological and regional sequences that had been nagging archaeologists for several decades.

The taxonomic framework of the Sacramento Valley is described in the following sections in terms of archaeological patterns, following Fredrickson’s (1973) system. Following the discussion of the patterns, brief summary is provided of four local complexes representative of the archaeology of the Augustine Pattern that were identified as a result of excavations at Lake Oroville.

Terminal Pleistocene and Early Holocene: 13,500–7000 BP

At the end of the Pleistocene (roughly the beginning of the Paleoindian Period), circa 13,500 to 10,500 BP, parts of the Sierra Nevada adjacent to the Central Valley were covered with large glaciers (West et al. 2007:27), and the valley provided a major transportation route for animals and people. The transportation corridor, perhaps rivaled only by maritime coastal travel (Erlandson et al. 2007), was undoubtedly used heavily by early Californians. Evidence for human occupation during this period, however, is scarce, the hypothesized result of being buried by deep alluvial sediments that accumulated rapidly during the late Holocene (Westwood 2005:17). Although rare, archaeological remains of this early period were reported in and around the Central Valley. Johnson (1967:283–284) presents evidence for some use of the Mokelumne River area, under what is now Camanche Reservoir, during the late Pleistocene. Archaeologists working at Camanche Reservoir found a number of lithic cores and a flake that are associated with Pleistocene gravels. These archaeological remains were grouped into what is called the Farmington Complex, which is characterized by core tools and large, reworked percussion flakes (Rosenthal et al. 2007:151).

Middle to Late Holocene: 7000–1200 BP

During the Lower Archaic Period, beginning approximately 6000 BP, a shift to a more specialized subsistence strategy began to take place. The more specialized strategy focused on ways of increasing the amount of food that could be produced from smaller portions of land. This change can be at least partially explained by the increasing numbers of people living in the Central Valley. An increased population is indicated by a much more abundant archaeological record and by dietary stress, as indicated by dental pathologies (Moratto 1984:203–204). As the population slowly increased, it became more difficult for people to obtain seasonally available resources across large areas of land. The beginnings of this intensification can be seen in the Middle-Archaic Windmill Pattern (4500–2800 BP) and is based on the assemblage at the Windmill site (CA-SAC-107). Windmill Pattern origins are believed to be linked to the arrival of Utian peoples from outside California who were adapted to riverine and wetland environments. Settlement strategies during the Windmill period reflect seasonal adaptations; habitation sites in the valley were occupied during winter, but populations moved into the foothills during summer (Moratto 1984).

Material culture from the Windmill Pattern include mortars and millstones, quartz crystals, charmstones, projectile points, shell beads and ornaments, and bone tools. New elements include steatite beads, tubes and ear ornaments, slate pendants, and burial of the dead in flexed positions with variable orientation or cremations accompanied by fewer grave goods. During this period, flexed burials are found alongside extended burials at CA-COL-247, contrary to the pattern elsewhere in the valley, which saw near exclusive use of flexed burials for interment of the deceased (Moratto 1984; Rosenthal et al. 2007:155; White 2003:175). The use of grave goods generally declined (Moratto 1984), and trade continued to be important (Beardsley 1948; Fredrickson 1973; Heizer and Fenenga 1939; Lillard et al. 1939; Moratto 1984).

Late Horizon: 1200 BP to Historic Period

The predominant generalized subsistence pattern during this period is called the Augustine Pattern (1200 BP) and shows a high degree of technological specialization (Fredrickson 1973). Development of the Augustine Pattern was apparently stimulated by the southward expansion of Wintuan populations into the Sacramento Valley (Moratto 1984). The Augustine Pattern reflects a change in subsistence and land use patterns to those of the ethnographically known people of the

historic era. This pattern exhibits a great elaboration of ceremonial and social organization, including the development of social stratification. Exchange became well developed, and an even more intensive emphasis was placed on the use of the acorn, as evidenced by the presence of shaped mortars and pestles and numerous hopper mortars in the archaeological record.

Other notable elements of the artifact assemblage associated with the Augustine Pattern include flanged tubular smoking pipes, harpoons, clam shell disc beads, bone awls for basketry, bone whistles, stone pipes, and an especially elaborate baked clay industry, which includes figurines and pottery vessels (Cosumnes Brownware). The presence of small projectile point types, referred to as the Gunther Barbed series, suggests the use of bow and arrow. Other traits associated with the Augustine Pattern include the introduction of preinterment burning of offerings in a grave pit during a mortuary ritual, increased village sedentism, maintenance of extensive exchange networks, population growth, and an incipient monetary economy in which beads were used as a standard of exchange. Burials were flexed with variable orientation and generally lacked grave goods (Beardsley 1948; Fredrickson 1973; Moratto 1984; Ragir 1972).

Lake Oroville Complexes

Moratto (1984) summarizes the archaeological work done at Lake Oroville by Jewell in 1964, Olsen and Riddell in 1963, and Ritter in 1968. These studies resulted in the identification of four Lake Oroville complexes: Mesilla, Bidwell, Sweetwater, and Oroville.

The Mesilla Complex (1000 BCE to 1 CE) may exemplify "...a local western foothills manifestation of the Martis occupation of the Northern Sierra" (Dreyer and Kowta 1986). Associated with sporadic occupation and the use of the atlatl and dart points made of basalt, slate, and cryptocrystalline silicates, the Mesilla Complex is characterized by the use of bowl mortars, milling slabs, *Haliotis* and *Olivella* shell beads, and limited charmstones and bone pins, suggesting contact with Sacramento Valley peoples.

The Bidwell Complex (1 to 800 CE) may represent a transition to more permanent villages from which smaller groups ventured to hunt, fish, and gather acorns, seeds, and freshwater mussels. The Bidwell Complex is characterized by steatite vessels, net sinkers, and large basalt drills. The use of the bow and arrow appears to arise during this period.

The Sweetwater Complex (800 to 1600 CE) represents a phase of population growth, increased use of acorn, and an increased emphasis on luxury items. The number, variety, and embellishment of material goods also increase during the Sweetwater Complex. These include bone artifacts (pins, fish gorges, awls), shell artifacts (abalone ornaments, freshwater clam spoons, and *Olivella* beads), and goods manufactured from steatite (tubular pipes, cups, platters, and bowls) (Dreyer and Kowta 1986).

Trends from the Sweetwater Complex continue in the Oroville Complex (1600 to 1833 CE). Incised bones, tubes, gorge hooks, gaming bones, and clamshell disc beads are some of the distinctive artifacts of the Oroville Complex.

Ethnographic Context

Ethnographically, the Konkow Maidu occupied the areas surrounding Chico and Oroville, along the Sacramento and Feather Rivers as well as a portion of the Sacramento Valley (Riddell 1978). From the Sacramento Valley, the Konkow territory extended northeast into the Feather River Canyon

along areas surrounding the North Fork of the Feather River. Konkow is one of three languages composing the Maiduan language family of the Penutian linguistic stock. Several dialects of Konkow were spoken from the lower extent of the Feather River Canyon to the surrounding hills and in the adjacent parts of the Sacramento Valley (Shipley 1978).

The Konkow lived in communities of three to five villages, in round semisubterranean houses covered with earth. It is estimated that a typical village consisted of approximately 35 people during ethnographic times. Villages were made up of smaller groups. Family units usually were made up of two to five people. A major village with a large assembly and subterranean ceremonial lodge served as the central ceremonial and political focus for affiliated villages in the vicinity. The political leader (chief) lived in the ceremonial lodge. The chief's primary roles were advisor and spokesman. The individual villages were self-sufficient, not under the control of a headman (Riddell 1978).

In winter, the Konkow settled in widely dispersed patterns along river canyons, usually on ridges high above rivers and generally on small flats on the crest of the ridge, or halfway down the canyon side. A village-community owned and defended a known territory, which served as a communal hunting and fishing ground. Some villages were located strategically atop isolated knolls in consideration of attack and defense. The Konkow followed an annual gathering cycle that made it necessary for them to leave their winter settlements on the river ridges. In the summer, they traveled into the mountains to hunt. In the spring, they ventured into the valley areas to collect grass seeds (Riddell 1978).

The Konkow economy was a mixture of hunting, fishing, and gathering. They managed their food resources skillfully, which made it possible for them to have a surplus during the non-harvest times. During harvest times, families gathered greens, tubers and roots, seeds, nuts, and berries. Although wild rye was common in their diet, and pine nuts were highly valued, the most important of the harvested foods were acorns, from black oak in particular. The Konkow managed their environment with a method of burning, which enhanced favorable ecozones. The Feather River provided a wealth of fish resources, mainly in the seasonal salmon runs. Lamprey eel also were abundant and favored by the Konkow in ethnographic times. Hunting was also an important source of food for the Konkow. Deer were the main game animal, but others included elk, rabbits, squirrels, and birds such as quail, pigeons, and ducks (Riddell 1978).

Because the Konkow had no complex political organization, the shaman was an important figure in their society. With his mysterious powers and spiritual communication, he provided a sense of unity in the village community. He functioned in ceremonies and festivals and served as a medical doctor. The office of shaman was an inherited one, falling to a son after the shaman's death (Riddell 1978).

The Konkow held an annual mourning ceremony, the Keruk, for the recently deceased, which reenacted the death of the creator, Kukumat. For this ceremony a male and female effigy were created, clothed, and burned. Other things such as food, money, and blankets were given to the god by burning. The Maidu participated in the Kuksu cult, also practiced by the Patwin, Pomo, northern Costanoans, and the Coast and Sierra Miwok. Kuksu, "the South God," renews the world each year. The ritual was celebrated in round dance houses by dancers with elaborate costumes, including large feather headdresses (Riddell 1978).

Konkow life was little affected by European contact until the gold rush in 1849, which was particularly devastating for them. The abundant gold in the Feather River and surrounding foothills lured hordes of miners to the area. The miners brought diseases that were deadly to the native peoples, decimating the population. These miners also destroyed the landscape with their mining

techniques and violently drove the surviving Konkow from their lands. When the mining craze was over, the miners settled in the area and turned large tracts of land into agricultural fields.

Because the miners wanted their land, the Konkow were driven off their traditional lands twice. In 1853 they, along with other Native American groups, were rounded up and sent to the Nome Lackee reservation in Tehama County. This was not a successful reservation, and most of the families returned to their original lands. In 1863 the Konkow again were rounded up by the militia and driven in what is now remembered as the Death March across the Coast Range to the Round Valley Reservation in northern Mendocino County. Many of these families remain in Round Valley today. Around the turn of the twentieth century, several small Rancherias were created, finally establishing a legal land base for them and formalizing their tribal status with the Federal government. Today the Konkow are very active in cultural preservation in and around the Palermo/Feather River area (California Department of Water Resources 2004).

Historic Context

Rancho Chico Land Grant

A large tract “east of the Sacramento River at its confluence with Chico Creek,” California Governor Manuel Micheltorena granted the roughly 22,000-acre Rancho Arroyo Chico, or “Little Stream Ranch,” to William Dickey in 1844. Dickey formed various business partnerships alongside George McKinstry and John Bidwell, each gaining experience and connections through employment with John Sutter in and around the Sacramento Valley. Wishing to return to the East Coast, Dickey eventually sold interest in his land grant to George W. McKinstry Jr. in 1849. In the same year McKinstry sold one-half interest to John Bidwell and in 1850 sold the other half-interest to Justus McKinstry, a relative, who in turn sold this half-interest to Bidwell in 1851 (Beckham 2006:5-6; Hunt 1942:247-249).

John Bidwell

Born in New York in 1819, John Bidwell served as a primary member of the first emigrant party to cross the desert west to California in 1841. John Sutter, founder of Sutter’s Fort in Sacramento, employed Bidwell as his business manager for Sutter’s Hock farm. Developing his business experience in California, Bidwell spent almost a year in Bodega Bay overseeing disassembly of Sutter’s recently purchased Fort Ross for use as recycled materials at Sutter’s Fort. In 1843, as he and Peter Lassen pursued thieves who had taken his horses while on errands for Sutter, Bidwell passed through the region surrounding Big Chico Creek and Rancho Chico, catching his first glimpse of what he described as “one of the loveliest places” in the region.

Bidwell purchased a part-interest in Rancho Farwell in 1846 and secured the lands south of Chico Creek by 1847. Due in part to his rising status as a landowning resident of Alta California, Bidwell served in the California Battalion under John C. Fremont in the United States’ war with Mexico over control of Alta California and other Mexican interests. He stayed on until May 1847, after which he began developing his fortunes in gold mining. Under the influence of Sutter, Bidwell learned the value in indigenous labor, which could be had for lower cost and greater autonomy than other labor populations (White 2015:vii, 16, 20-21; Beckham 2006:6).

Utilizing indigenous labor and influenced by James Marshall’s gold discovery around Coloma, Bidwell began scouting streams around his newly acquired rancho, eventually developing gold

mining sites along “Bidwell Bar” on the Feather River. From these ventures came Bidwell’s fortune and the means to secure his entire landholdings. By 1851 Bidwell acquired the final acreage making up Rancho Arroyo Chico, where he went on to establish his agricultural and commercial interests in anticipation of emigrant and immigrant booms following discovery of gold at Sutter’s Mill (White 2015:21). Bidwell’s interests, however, took several years to secure, due in part to the unstable legalities surrounding recognition of the Mexican land grants following California’s path to statehood. Bidwell finally secured recognition of ownership for his 22,214-acre rancho in March 1859, as recorded in a deed held at Butte County, California (Beckham 2006:6).

From 1847 Bidwell oversaw an experimental orchard at Rancho Chico, with over 400 varieties of fruits on roughly 1,800 acres. He also operated a vineyard in the mid-1860s, despite his pro-prohibition stance on alcohol. Once he married Annie E. Kennedy, the vineyard was removed, and no wine grapes ever were planted on his land again. His farming operations included founding one of the first raisin operations in the area as well as the manufacturing of olive oil (Kyle et al. 2002: 37).

By 1857 Bidwell cultivated some 350 acres, including a “diverse array of tree and row crops”. By 1860 Bidwell’s household included twenty-eight Euro-American males employed to operate his estate, which ignores in its account the dozens of indigenous laborers upon whose labor Bidwell’s agricultural interests relied (White 2015:16).

Humboldt Wagon Road

The following text has been adapted from AECOM’s 2010 recording and evaluation of Nobles Trail/Humboldt Wagon Road (Deis 2010).

The Humboldt Wagon Road was established between 1863 and 1865 by John Bidwell as a transportation route from Chico to the silver mines located in the Humboldt Range in Nevada. Although previously established routes along the way such as the Nobles Trail running through Shasta, Plumas, and Lassen Counties, Bidwell found an opportunity to construct a toll road which would allow travelers to cross from the valley into Nevada. This road would create demand for prospective miners and travelers to visit his newly established city of Chico, as well make a profit for Bidwell and his business partners.

In 1863 the California Legislature granted John Bidwell and his business partners the rights to construct a toll road leading from Chico to Honey Lake Valley near the border of California and Nevada. Soon after the granting of the road, Bidwell and his associates created the Chico and Humboldt Wagon Road Company and construction began, taking a total of 30 days and tens of laborers to construct the segment from Chico to Susanville. The road included 4 toll gates, one at every 25-mile span of the road and travelers were charged \$2.00 to access (per horse and buggy). The route primarily followed present-day Highway 32 from Chico to Butte Meadows and then following Butte Creek to Jonesville. From there, the road headed east and north, eventually following present-day Highway 36 to Susanville.

Initially, the Humboldt Wagon Road received large amounts of travelers as this was the most direct and accessible route from Chico to the Humboldt mines. However, the road was all but abandoned by 1865 due to the Humboldt mines eventually yielding low profits. In addition, by 1869 the transcontinental railroad was completed thus revolutionizing long-distance travel.

City of Chico

Founded in 1860 by John Bidwell and incorporated as a city in 1872, Chico came to prominence as an important economic hub for settlers seeking gold after its regional discovery by Bidwell and his business partners along the Feather River in 1848. When Bidwell laid out the town, he started off by donating land to churches and schools, most notably, setting aside a plot of land for what would become California State University, Chico. Chico also became an important agricultural and commercial center, particularly under Bidwell's agricultural interests, and expanded to include almonds and peaches as well as wheat, flour and lumber (City of Chico 2030 General Plan 2017:11-1). One of the most prominent attractions to Chico is Bidwell Park. Bidwell Park was first established in 1905 with 1,900 acres of land along Big Chico Creek that was donated by Annie Bidwell. Six years later, an additional 301 acres were donated as part of the park. To this day, Bidwell Park is the second largest park in the state (Kyle 2002: 38). The grid-pattern of the City of Chico, skewed slightly northwest/southeast in aerial images, grew from this original orientation of the Sacramento Northern Railroad lines (which paralleled the Esplanade) and the Esplanade itself (Nationwide Environmental Title Research 1941; Huberland 2016:1-2). Naming conventions for streets branching off the route highlight this point as the East and West directions originate at the Esplanade.

Present Day Chico

Butte County's General Plan 2030 Land Use Element established a cultural-geographic feature called the "Greenline," which monitors and governs urban development along certain corridors neighboring Chico to "conserve and protect for agricultural use the lands in the Chico area that are situated on the Agricultural Side of the Chico Area Greenline" (Butte County California 2012:4-49). As a result, Chico maintains a "special sense of small town living" even as it developed to act as a "vibrant regional center for business, recreation and cultural activities." Chico supports a core population of some 92,464 people (as of 2016) with a wider urban population of 224,601 with key business industries of Food & Beverage, Agriculture, Consumer Products and Manufacturing (Constantin 2019).

Methods

The effort to identify cultural resources in the Project Area for the proposed project included a records search and a review of the archaeological, ethnographic, and historical literature; consultation with NAHC and Native American representatives from federally recognized tribes; correspondence with other interested parties; examination of historic maps and aerial imagery; archival research; and field surveys. These methods and their results are described in this section.

Records Search and Prefield Research Methods

Records Search

On March 30, 2020, staff at the Northeast Information Center of CHRIS at California State University, Chico (IC File No. D20-42; Appendix B). The Northeast Information Center maintains the State of California's official records of previous cultural resource studies and recorded cultural resources for Butte County. The records search area included the project as well as a 0.25-mile buffer around the

Project Area. Additional sources of information were reviewed, including historic maps from the U.S. Geological Survey and General Land Office, to determine areas that have a high potential for the presence of historic and prehistoric sites.

The following resources were also reviewed:

- The Office of Historic Preservation (OHP) Historic Property Data File for Butte County (OHP 2012a)
- The OHP Archaeological Determinations of Eligibility for Butte County (OHP 2012b)
- NRHP website (NPS 2020)
- California Historical Resources website (OHP 2020)
- U.S. Department of the Interior Bureau of Land Management's (BLM) General Land Office Records database (BLM 2020)

Previous Research

The records search indicates that sixteen cultural resources studies (Table 1) have been conducted within or adjacent to the Project Area. These surveys have collectively covered the entire Project Area between 1975 to 2010. In 2010 Sean Jensen conducted a survey for the Bruce Road Improvement Project (Study #010832) which followed the Project Area along Bruce Road. This study was conducted over 10 years ago and due to the age of the survey, and possible changes to the landscape over the 10 years, an updated survey was deemed warranted. All other surveys that covered additional portions of the project were conducted over 10 years ago and are considered outdated.

Table 1. Previous Cultural Resources Studies Conducted in or Adjacent to the Project Area

Study #	Year	Author(s)	In or Adjacent	Title
000144	1975	Cross, Dorothy and Richard Thorn	In	<i>Summary Report: Environmental Impact Analysis for the Proposed Development of a Little Chico Creek Green Belt, Chico, California</i>
003181	2000	Jensen, Peter M.	In	<i>Archaeological Survey, 40-ac Portion of the Eastgate Subdivision Project, Chico, Butte County, California</i>
004131	1994	Jensen, Peter M.	Adjacent	<i>Archaeological Inventory Survey for the California Park South Subdivision Project Area, 360 Acres Between State Route 32 and Humboldt Road, East Chico, Butte County, California</i>
005911	2002	EDAW, Inc.	In	<i>Addendum to the Archaeological Inventory Survey City of Chico's Humboldt Road Burn Dump Site, Project Area ca.14 acres</i>
005932	1997	Jensen, Peter M.	In	<i>Archaeological Inventory Survey for the City of Chico's Humboldt Road Burn Dump Site Project Area, c. 160 Acres Between State Route 32 and Humboldt Road, East Chico, Butte County, California</i>
006325	2004	Jensen, Peter M.	In	<i>Archaeological Inventory Survey of the Chico Crossing Project, c. 29 acres Adjacent to Humboldt Road, Chico, Butte County, California.</i>

Study #	Year	Author(s)	In or Adjacent	Title
006326	2004	Jensen, Peter M.	Adjacent	<i>Archaeological Inventory Survey of the Chico Burn Dump Clean-up Project, c. 63 acres Adjacent to Humboldt Road, Chico, Butte County, California</i>
006887	2006	Harrington, Lori	Adjacent	<i>An Archaeological Evaluation of the Meriam Park Project, Chico, Butte County, California</i>
007235	1989	Farber, Alfred	Adjacent	<i>Archaeological Survey of the Proposed Federal Land Bank of Sacramento Parcel Map Area, Chico, Butte County, California</i>
007236	1988	Swillinger, Lisa and Frank Bayham	Adjacent	<i>Archaeological Reconnaissance of the Enloe Hospital 20th Street Property, Chico, Butte County, California</i>
007239	1992	Jensen, Peter M.	Adjacent	<i>Archaeological Inventory Survey for the Proposed Stonegate Development Project, Southeast Chico, Butte County, California</i>
008135	1993	Jensen, Peter M.	In	<i>Archaeological Inventory Survey for the City of Chico's Proposed Bicycle and Leisure Path, Involving c. 1.25 Miles Along Little Chico Creek, Chico, Butte County, California.</i>
008136	1993	Jensen, Peter M.	Adjacent	<i>Archaeological Inventory Survey for the Villages of Simmons Ranch, c. 60 Acre Portion, Between Stilson Canyon Road and Humboldt Road, Chico, Butte County, California.</i>
008160	1995	Jensen, Peter M.	Adjacent	<i>Archaeological Inventory Survey of the Bruce Road Subdivision Project, 11.7 Acres on Bruce Road, East Chico, Butte County, California.</i>
010040	2006	Bartoy, Kevin M., John Holson, Elena Reese, and Heather Blind	In	<i>Archaeological Survey and Test Excavation Report for the SR 32 Widening From SR 99 to Yosemite Drive Project, Chico, Butte County, California</i>
010832	2010	Jensen, Sean	In	<i>Archaeological Inventory Survey for the Bruce Road Improvement Project, c. 2-mile linear corridor, Chico, Butte County, California.</i>

As described below, two historic built environment resources were identified within the Project Area. Two archaeological resources were originally identified by the NEIC as within the Project Area; however, after consulting the site records and field verification, it was found that the NEIC's shapefile data for the site boundaries incorrectly placed the sites within the project. The NEIC also identified five additional sites (one prehistoric and four historic sites) within the 0.25-mile record search radius but outside of the Project Area.

CA-BUT-0892H (P-04-0892; Humboldt Wagon Road)

A portion of the Humboldt Wagon Road intersects the Project Area near the northern portion of the project. Over 40 segments of this historic road throughout California and Nevada have been recorded since the early 1990s with a large (38-mile) portion recorded and evaluated by AECOM in 2010 (Deis 2010). The road was planned out by John Bidwell in the early 1860s as a route from Chico, California to the silver mines in Idaho. The Humboldt Wagon Road has been determined eligible for the NRHP and is listed in the CRHR.

CA-BUT-1071H (P-04-1071; Bruce Ranch Stone Fence)

A portion of the Bruce Ranch stone fence is located within the Project Area. This resource was originally recorded in 1988 by Lisa Swillinger and updated in 2010 by Sean Jensen. The resource consists of two sections of cobblestone fence- the western section follows the south side of Humboldt Road for 800 feet then heads south, following the west side of Bruce Road for 1,800 feet down to Little Chico Creek. This resource was evaluated in 2010 by Sean Jensen as not eligible for listing on the NRHP.

Records

The OHP *Directory of Properties, Historic Property Data File* for Butte County (OHP 2012a) and *Archaeological Determinations of Eligibility* for Butte County (OHP 2012b) failed to identify any properties or archaeological sites listed within 0.5 mile of the Project Area.

The NRHP website interactive map (NPS 2020), did not identify any National Registered properties within the Project Area or records search radius. The nearest listed property is the American River Grange Hall No. 172 located 4.75 miles northwest of the Project Area.

The OHP California Historical Resources website (OHP 2020) did not identify any resources in or within 0.5 mile of the Project Area that were listed as California Historical Landmarks or California Points of Historical Interest, or listed in the CRHR.

General Land Office plat maps viewed on the BLM website (BLM 2020), of Township 22 North, Range 2 East (1869) depicted an unnamed trail running east-west through the northern halves of Sections 29 and 30 in the same location as the present-day Humboldt Road. The BLM website also identified early land patents associated with the project as the majority of the parcels on the east side of Bruce Road (Section 29, 32) were patented to John J. Moak, Benjamin Potter, and William Weaver, with the parcels on the west side of Bruce Road (Section 30 and 31) were patented to John Bidwell and the Central Pacific Railroad.

A review of historical maps from 1893 to 1980 identified a road system in the area as early as 1886. The USGS 1893 (Surveyed in 1886-1888) California, Chico Sheet (1:125,000 scale) shows a road in the same location as present-day Bruce Road, heading from "Humboldt Road" and connecting to a road to the east (present-day E 20th Street). The map also shows a road in the similar alignment as present-day Skyway. The USGS 1912 Durham Quadrangle (1:31,680 scale) map shows the same alignment as the 1893 map, but also depicts a structure directly south of Little Chico Creek and west of Bruce Road. The 1948 Chico, CA (1:24,000 scale) quadrangle map depicts Bruce Road as an unimproved road ending at E 20th Street at the southern end but without any structures along the road; however aerial photographs from 1947 show a possible ranch complex located directly north of Little Chico Creek on the east side of Bruce Road. Aerial photographs from 1969 and USGS maps from 1971 show the addition of one structure south of Little Chico Creek and west of Bruce Road, and one structure with the ranch complex north of the creek and east of the road. The aerial photographs also show the land south of Little Chico Creek and east of Bruce Road as orchards, possibly associated with the structure located west of the road.

In conclusion, it appears that the project has been used as a transportation network since the 1860s, with the establishment of the Humboldt Wagon Road as one of the main transportation routes from Chico, east through several states. Locally, early iterations of present-day Bruce Road were in use as

early as 1886. Ranches established as early as 1912 have been noted along Bruce Road and a few additional ranches were in use throughout the mid to late 20th century.

Native American Correspondence

On April 1, 2020, ICF sent a letter to NAHC requesting a search of its Sacred Lands File and a list of individuals and organizations that may have knowledge of properties of cultural or religious importance to Native Americans in the vicinity of the Project Area. On April 3, 2020, ICF received a response letter from NAHC stating that a search of its Sacred Lands File failed to identify any Sacred Lands within the Project Area. The NAHC also provided a list of five Native American contacts that may provide information on Native American cultural resources within the area. On behalf of the City of Chico, ICF mailed out letters to the five contacts provided by the NAHC on April 24, 2020. The letters requested any information the contacts may have regarding Native American resources in the area. As a result of the letters, the Mechoopda Tribe responded, mentioning that they were concerned with portions of the project and that there were areas sensitive to the Tribe. Native American correspondence is included in Appendix C; however, confidential information has been omitted from this public document.

The City of Chico sent out letters to interested tribes under AB 52 consultation; however, no tribes responded requesting consultation on the project. Section 106 is not addressed in this report and will be carried out by the federal lead agencies.

Other Interested Parties Correspondence

On May 12, 2020, on behalf of the City of Chico, ICF sent letters to local historical societies describing the project and requesting information on any potential cultural resources in the project. The letters were sent to the Association for Northern California Records and Research, the Bidwell Mansion State Historic Park, Butte County Historical Society, Chico Heritage Association, Chico Museum, the Museum of Northern California Art and the Valene L. Smith Museum of Anthropology at CSU Chico. Copies of all correspondence to interested parties are located in Appendix C.

Field Methods

On May 1, 2020, ICF archaeologist Christiaan Havelaar conducted an archaeological survey of the portions of the Project Area, as well as a built environment survey. The survey consisted of a pedestrian inspection of the Project Area, with the surveyor walking a maximum of 15-meter-wide transects (Figure 2; Appendix A). The majority of the survey area consisted of overgrown nonnative grasses, yielding poor ground visibility due to thick grass cover along areas of the road right-of-way and areas within the proposed stormwater alignment (Photos 1 and 2). ICF paid careful attention to areas denuded of vegetation, such as those along fence lines, directly adjacent to the paved roadways, cutbanks, and holes with exposed backdirt piles made by burrowing animals. The area along Little Chico Creek was also paid close attention for any prehistoric milling stations, surface artifacts, or darkened midden soil. Areas along waterways generally have a higher likelihood of prehistoric occupation; however, no archaeological evidence around the creek was observed.



Photo 1. Overview of thick grasses along proposed sewer alignment, view north, photo taken May 1, 2020.



Photo 2. Overview of CA-BUT-1071H (Bruce Ranch Stone Fence) and Bruce Road ROW, view south, photo taken November 4, 2019.

As a result of the pedestrian survey, no archaeological resources, historic or prehistoric, were identified in the Project Area.

The only built resource identified during the survey was the Bruce Ranch stone fence (CA-BUT-1071H; Photo 2). This stone fence was observed adjacent to the west side of Bruce Road in the same condition as previously recorded in 2010.

No indications of the Humboldt Wagon Road (CA-BUT-0892H) were identified in the project. The surveyor inspected the ground surface in the vicinity of Humboldt Road for any indications of wagon wheel ruts, indentations in the soil, or historic artifacts that may date to the use of the wagon road. No cultural evidence was found, and it is assumed that any indications of the Humboldt Wagon Road have since been destroyed by construction of the modern paved Humboldt Road (Photo 3). Figure 3 in Appendix A depicts the current alignment of CA-BUT-1071H as well as the previous alignment of CA-BUT-0892H.



Photo 3. Overview of Humboldt Road, previous alignment of CA-BUT-0892H (Humboldt Wagon Road), view northeast, photo taken November 4, 2019.

Subsurface Sensitivity Identification Efforts

ICF performed additional research to address sensitivity of the Project Area for buried archaeological sites. Research and review of pertinent geologic, soil survey, and geoarchaeological data for the Project Area included the following resources.

- U.S. Department of Agriculture, Natural Resources Conservation Service soil survey data (U.S. Department of Agriculture 2020)
- Geoarchaeological Overview and Assessment of Caltrans District 3—Cultural Resources Inventory of Caltrans District 3 Rural Conventional Highways (Meyer and Rosenthal 2008)
- Geologic Map of California: Chico sheet (Burnett and Jennings 1962)

Although most of the Project Area is in areas that have undergone anthropogenic modification through quarrying operations, construction of roads, and utilities, the project does have the potential to contain buried archaeological sites.

Soil survey data and soil classification types were identified across the Project Area and cross-referenced with the age of the landforms associated with the identified soils (Meyer and Rosenthal 2008).

Table 3 shows the soil map units, soil association names, and landform ages identified in the Project Area (U.S. Department of Agriculture 2019; Meyer and Rosenthal 2008). According to Meyer and Rosenthal's analysis, the surface soils in the Project Area contain mostly Latest Pleistocene (22,000 to 11,500 years old) and Older Pleistocene-age soils (1.9 million to 22,000 years old). However, a small area following Little Chico Creek is depicted as containing soils dating to the Latest Holocene (2,000 to 150 years old). Burnett and Jennings' 1962 geologic map shows the entire Project Area as Pleistocene nonmarine terrace deposits and Quaternary fan deposits. Because these soils are prone to sediment accumulation, they could contain buried archaeological materials that were previously exposed on the surface; however, due to the landform age as shown below, the majority of the Project Area is identified as having soils with low sensitivity for buried archaeological sites. Only a small swath near Little Chico Creek contain soils that date to the Latest Holocene and therefore, the areas are considered sensitive for buried archaeological sites.

Table 3. Soil Series Type and Associated Landform Age in the Project Area

Soil Unit Key	Soil Association (USDA 2018)	Landform Age (Meyer and Rosenthal 2008)	Sensitivity for Buried Archaeological Sites
300	Redsluff gravelly loam, 0 to 2 percent slopes	Latest Pleistocene	Very Low Sensitivity
301	Wafap-Hamslough, 0 to 2 percent slopes	Older Pleistocene	Very Low Sensitivity
302	Redtough-Redswale, 0 to 2 percent slopes	Older Pleistocene	Very Low Sensitivity
447	Charger fine sandy loam, 0 to 1 percent slopes	Latest Holocene	Very High Sensitivity
614	Doemill-Jokerst, 0 to 3 percent slopes	Older Pleistocene	Very Low Sensitivity
615	Doemill-Jokerst, 3 to 8 percent slopes	Older Pleistocene	Very Low Sensitivity

Conclusions and Recommendations for Cultural Resources

As a result of the identification efforts, no archaeological resources were observed in the Project Area. One built environment resource CA-BUT-1071H (P-04-1071; Bruce Ranch stone fence) was identified within the Project Area; however, this resource was previously evaluated as not eligible for the NRHP or CRHR (Jensen 2010; Appendix E).

Given the heavily disturbed landscape of the Project Area, the lack of known prehistoric archaeological sites within the Project Area, and the depositional environment of the landscape, there is an overall low potential for subsurface archaeological deposits in most of the Project Area. Geoarchaeological research indicated the presence of Late Holocene soils along Little Chico Creek. With the presence of Holocene soils and the possibility of a mound site near the creek, this area is

identified as sensitive for buried archaeological material. Despite this, given the type of proposed project activities for the bridge at Little Chico Creek (Cast-In-Drilled-Hole [CIDH] piles), the potential to encounter previously unrecorded prehistoric and historic-period resources is considered low.

The overall finding for this study is that no historic properties recognized under Section 106 and no historical resources recognized under CEQA were identified within the Project Area; therefore, no historic properties/historical resources would be affected by the proposed project.

Inadvertent Discovery of Archaeological Resources

There is always a chance of unearthing an archaeological site during ground-disturbing activities. The procedures provided here are for reference and will be followed in the event of a discovery of archaeological resources, including human remains, during construction. If cultural resources are discovered during construction, all construction will immediately stop within 100 feet (30 meters) of the discovery, the location of the discovery will be marked for avoidance, and efforts will be made to prevent inadvertent destruction of the find.

The contractor must notify the City of Chico and a qualified archaeologist will be consulted for an onsite evaluation. If the site is eligible or appears to be eligible for listing in the NRHP or CRHR, additional mitigation (e.g., further testing for evaluation or data recovery) may be necessary. In the event that resources are discovered, Butte County will retain a qualified archaeologist to assess the find and to determine whether the resource requires further study. Any previously undiscovered resources found during construction will be recorded on appropriate California Department of Parks and Recreation 523 forms and evaluated for significance under all applicable regulatory criteria. If human remains are present, treatment will conform to the requirements of state law under California Health and Safety Code Section 7050.5 and PRC Section 5097.98.

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Preparers' Qualifications

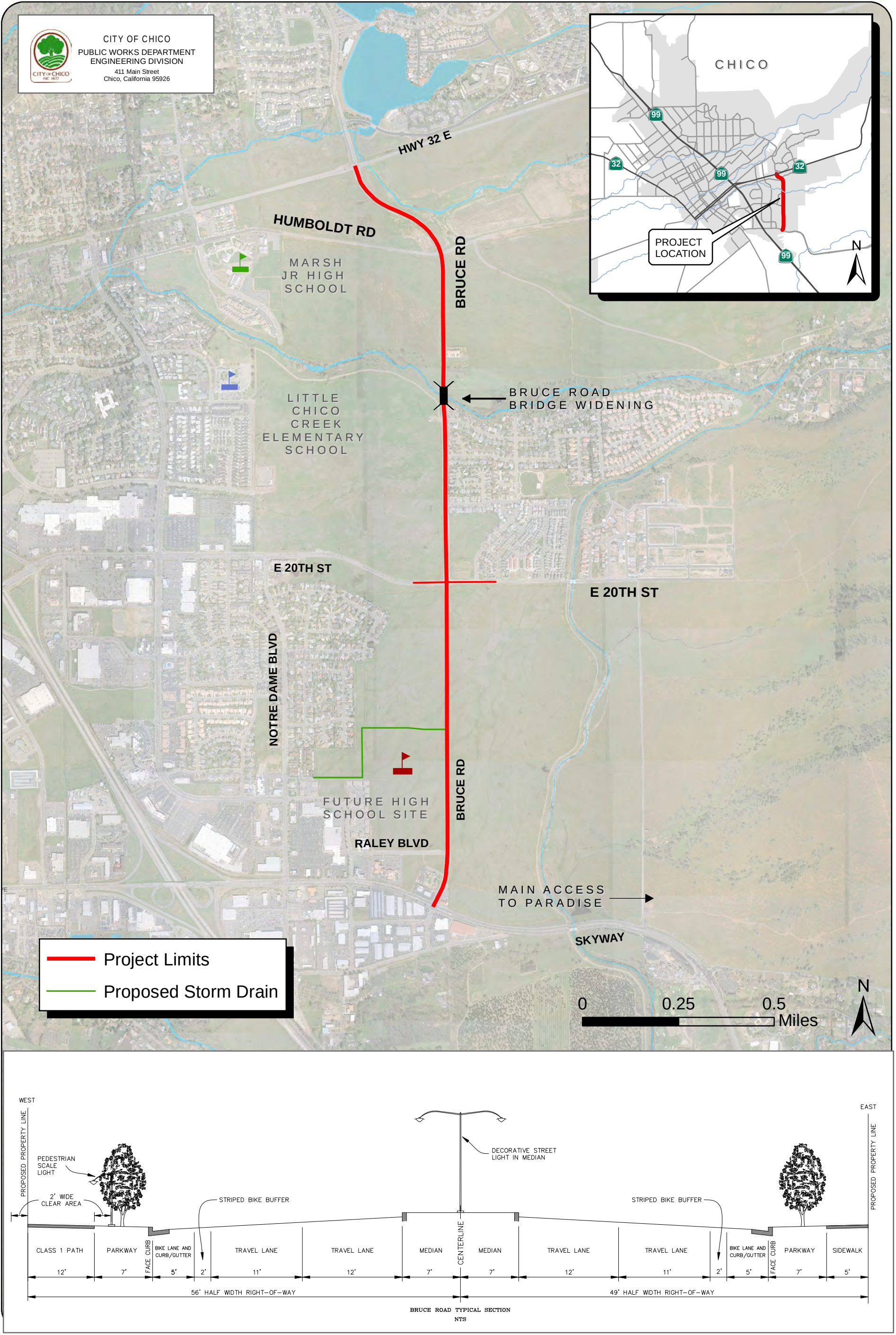
Stephen Pappas is a Registered Professional Archaeologist with more than 15 years of experience in cultural resources management. He has participated in all aspects of archaeological fieldwork, including survey, test excavation, data recovery, and construction monitoring projects throughout California, Nevada, Arizona, and New Mexico. Stephen has extensive familiarity with meeting the cultural resource requirements of CEQA, National Environmental Policy Act, Section 106 of the NHPA, Clean Water Act 404 permits, and other environmental laws and regulations. He exceeds the Secretary of the Interior's Professional Qualifications Standards for work in archaeology.

Appendix A

Figures

BRUCE ROAD RECONSTRUCTION PROJECT

FIGURE 1. PROJECT LIMITS



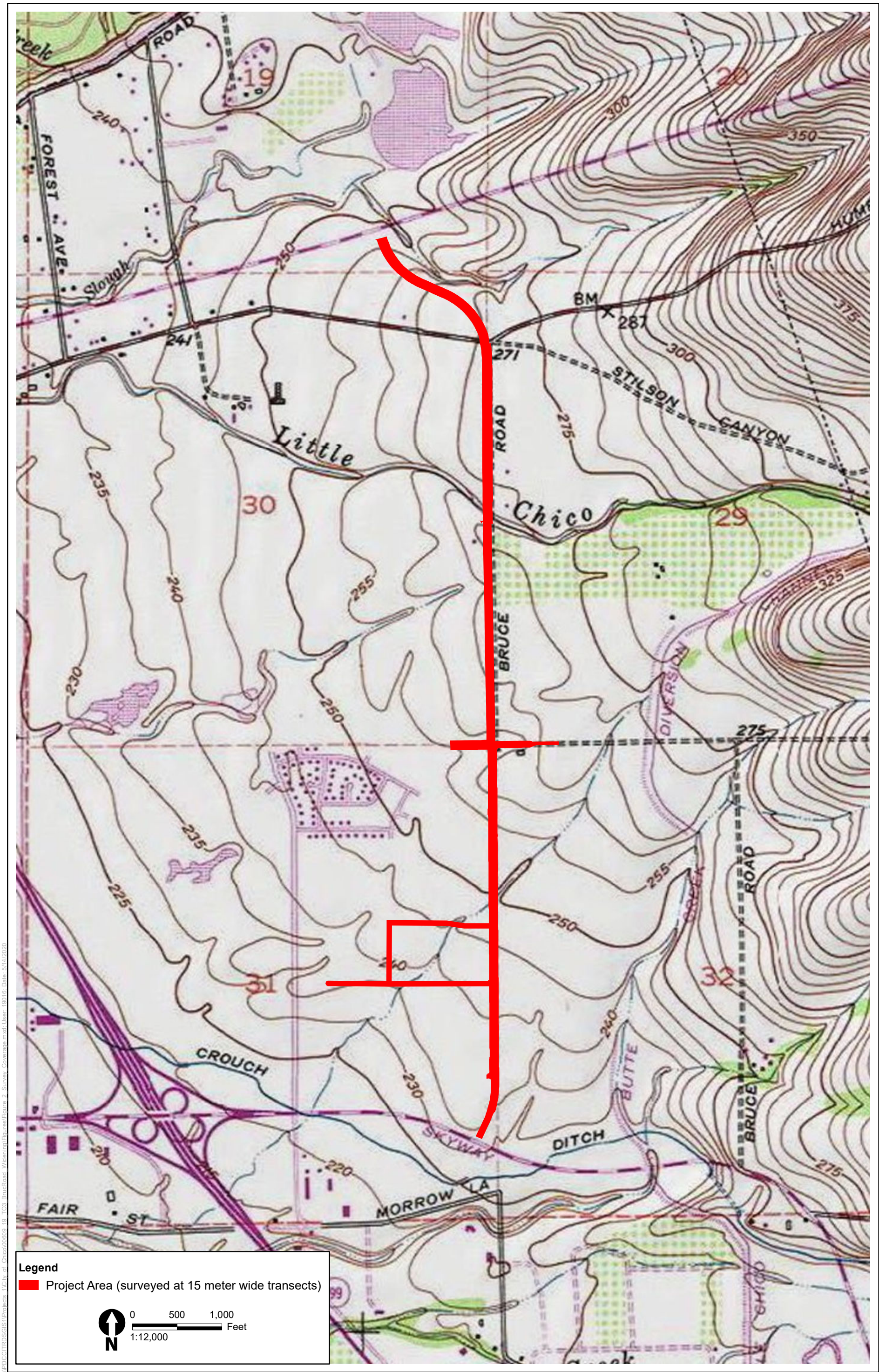


Figure 2
Survey Coverage Map



Figure 3
Resource Location Map

Appendix B

Record Search Results

Contents of this appendix have been removed due to confidential information.

Appendix C

Native American and Historical Society Correspondence

Contents of this appendix have been removed due to confidential information.

Appendix D

Department of Parks and Recreation Forms

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*Resource Name or # Humboldt Wagon Road

*Updated by: Stephen Pappas *Date: 5/15/2020 ☐ Continuation ☒ Update

Site CA-BUT-0892H has been historically identified as the Humboldt Wagon Road. Over 40 segments of this historic road throughout California and Nevada have been recorded since the early 1990s with a large (38-mile) portion recorded and evaluated by AECOM in 2010 (Deis 2010). The road was planned out by John Bidwell in the early 1860s as a route from Chico, California to the silver mines in Idaho. As a result of a record search conducted by the Northeast Information Center at Chico State for the *Bruce Road Reconstruction Project* (ICF 2020), it was mentioned that the Bruce Road reconstruction project intersected a portion of the Humboldt Wagon Road. Although no portions of this wagon road have been previously recorded within the current project boundary, the wagon road was believed to have followed what is now present-day Humboldt Road.

During the pedestrian survey conducted by ICF archaeologist Christiaan Havelaar on May 1, 2020 for the *Bruce Road Reconstruction Project* (ICF 2020), the Humboldt Road and areas surrounding the road within the current project were surveyed for any indications of wagon ruts or slight indentations in the surface indicative of a wagon road alignment. As a result of the survey, no indications of a wagon road were identified, and it is believed that any features associated with the wagon road have since been destroyed and covered by the modern paved Humboldt Road.



Present-day Humboldt Road, view SW, 5/1/2020, Photo_001



Present-day Humboldt Road, view SE, 5/1/2020, Photo_002

Reference:

Deis, Richard 2010. Department of Parks and Recreation site record for CA-BUT-892H; Nobles Trail/Humboldt Wagon Road. Record on file at Northeast Information Center, CSU Chico.

ICF 2020. *Cultural Resources Inventory, Bruce Road Improvement Project, Butte County, California*. Prepared for the City of Chico. Report on file at ICF, Sacramento.

Page 1 of 1

*Resource Name or # Bruce Ranch Stone Fence

*Updated by: Stephen Pappas *Date: 5/15/2020 ☐ Continuation ☒ Update

This site was originally recorded by Lisa Swillinger in 1988 as part of the archaeological survey for the Enloe Hospital property. The resource was described as a cobblestone fence located north of Little Chico Creek on the west side of Bruce Road following north along the road to Humboldt Road and then following Humboldt Road to the west. An additional section was located on the east side of Bruce Road at the intersection with Humboldt Road. The fence was believed to have been constructed sometime in the 1870s by Charlie Royls.

The resource was later revisited in 2010 by Sean Michael Jensen for the *Bruce Road Improvement Project* (Jensen 2010). During the 2010 investigation, Jensen evaluated the rock wall for inclusion of the California Register of Historic Resources (CRHR) and National Register of Historic Places (NRHP). As a result of the evaluation, Jensen recommended that the site is not significant and not eligible for inclusion on the NRHP or CRHR under any of the four Criteria (NRHP-Criterion A through D and CRHR-Criterion 1-4). SHPO concurrence was not provided by the Northeast Information Center; however, the NEIC identified the resources as NRHP status Code 6Y: Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or Local Listing. Detailed evaluation of the resource is provided in the 2010 Jensen report.

The rock wall was revisited by ICF archaeologist Christiaan Havelaar on May 1, 2020 for the *Bruce Road Reconstruction Project* (ICF 2020). During this revisit, the rock wall was found to be in the same condition as previously recorded and the previous description appears to be accurately and sufficiently identified. Because the resource has been evaluated as not eligible for the NRHP and CRHR, no additional documentation is warranted.



Rock wall, view SW, 5/1/2020, Photo_001



Rock wall, view NW towards Humboldt Road, 5/1/2020, Photo_002

Reference:

ICF 2020. *Cultural Resources Inventory, Bruce Road Improvement Project, Butte County, California*. Prepared for the City of Chico. Report on file at ICF, Sacramento.

Jensen, Sean Michael 2010. *Archaeological Inventory Survey, Bruce Road Improvement Project, c. 2-mile linear corridor, Chico, Butte County, California*. Report on file at NEIC, Chico.

Appendix E

2010 Bruce Road Inventory Report

Contents of this appendix have been removed due to confidential information.