



Madera High-Speed Rail Station Full-Build Project Phase 3

APPENDIX B
CULTURAL RESOURCES
TECHNICAL REPORT

April 2025

Cultural Resources Technical Report

Madera HSR Station Full-Build Project Phase 3

Prepared for.

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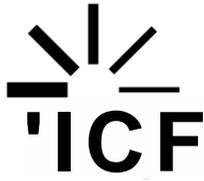


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**Appendix B-1
Cultural Resources**

Archeological Survey Report



Memorandum

To:	San Joaquin Joint Powers Authority
From:	Shelby Caulder, Archaeologist, ICF
Cc:	Nicky Cuevas Leber, Project Manager, ICF Rich Walter, Project Director, ICF
Date:	March 21, 2025
Re:	Madera HSR Station Full-Build Project Phase 3

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Introduction

San Joaquin Joint Powers Authority (SJJPA) retained ICF to conduct a cultural resources inventory and prepare an archaeological resources technical memorandum for the Madera High Speed Rail (HSR) Station Full-Build Project Phase 3 (Project), proposed to take place in Madera County. The proposed Project would improve access to passenger rail service within Madera County and the San Joaquin Valley Region. The Project includes both a new Phase 3 for the Madera HSR Station (to accommodate expanded HSR operations) and design changes to specific components of Phase 1 and 2 and would therefore increase the overall footprint for the Madera HSR Station beyond what was originally defined for Phases 1 and 2 in the 2021 Initial Study/Mitigated Negative Declaration (IS/MND). The proposed Phase 3 Project will construct a new platform, extend the east-side platform, and construct a new 1,400-foot west-side station siding track. In conjunction with the additional trackwork for Phase 3, an overhead contact system (OCS) would be constructed along the entire length of the station siding track to provide electrical power to electrified trainsets. To accommodate the new west-side station siding track as it passes underneath Avenue 12, the Project would construct a new bridge west of the current bridge. The Project would expand the already-approved surface parking lots, increasing the number of spaces. Lastly, the Project includes refinements to the location and design of an access road and includes potential expansion of the station building from Phase 2, located between the south edge of the Phase 2 HSR platform and the bus plaza. The following inventory and evaluation document the efforts to identify cultural resources located within and in the vicinity of the area of potential effects (APE) for the proposed Project.

The following inventory report has been prepared as part of compliance efforts under the California Environmental Quality Act (CEQA) and to support Section 106 of the National Historic Preservation Act (NHPA). This memorandum was prepared to: (1) identify archaeological resources that may meet the CEQA definition of a historical resource (California Public Resources Code [PRC] Section 21084.1) or unique archaeological resource (California PRC Section 21083.2) that could potentially be affected by development of the Project; and (2) provide recommendations based on those findings. The SJJPA is the lead agency for the Project under CEQA and Section 106 of the NHPA.

The following report presents the methods used to identify historic properties intersecting the APE; background research of archaeological, ethnographic, and historical literature; the results of a records search at the Southern San Joaquin Valley Information Center (SSJVIC); examination of historic maps and photographs; the results of a search of the California Native American Heritage Commission's (NAHC) Sacred Lands File; the records documenting outreach to the Native American individuals listed by the NAHC in accordance with Assembly Bill (AB) 52; subsurface sensitivity analysis; and the results of a pedestrian survey.

Project Footprint

The Project (Attachment A, Figure 1) includes the Project Footprint, which covers all Project components and staging areas. The Project includes the construction of a new westside station

platform, extension of the eastside platform, new trackwork, an overhead contact system, and additional parking, as well as additional improvements to components of Phase 1 and Phase 2.

Area of Potential Effect

The cultural resources APE (archaeological and built environment) for the Project is shown in Attachment A, Figure 2. The APE encompasses the maximum possible area of direct and indirect effects on archaeological and architectural built-environment resources resulting from the proposed undertaking. This APE represents the individual construction footprints of the platform additions, new trackwork, overhead contact system, and additional parking.

Project Location and Environmental Setting

The proposed Project Area is located in Madera County approximately five miles southeast of the city of Madera and 0.75 miles east of Madera Community College. The Project Area is bordered on the east side by the Atchinson, Topeka, and Santa Fe Railroad. The Southern Pacific Railroad is approximately 4.5 miles west of the Project Area. The Project Area begins 14 mile north of Avenue 11, continuing northwest, intersecting Avenues 12 and 13, and ending north of Cottonwood Creek. The landscape surrounding the Project Area is predominantly flat land, with an elevation range between 272 feet to 293 feet above sea level. The Project Area is primary agricultural land currently used for vineyards and orchards bordered by unpaved public access roads. Cottonwood Creek, a seasonal creek intersects the northern portion of the Project Area.

The legal location of the Project Area corresponds to the U.S. Geological Survey (USGS) Madera 7.5-minute quadrangle within Township 11S, Range 18, and Section 21, and Gregg 7.5-minute quadrangle within Township 11S, Sections 27, 34, and 35, Township 12S, Sections 2 and 3, Range 18E (Attachment A, Figure 1). The Project Area is within the Great Valley geomorphic province (California Geological Survey 2002). The province is characterized by an alluvial plain with a continuous deposit of sediment accumulating since the Jurassic Period (between 200 and 140 million years old) (California Geological Survey 2002). The Project Area is bordered by coastal mountain ranges to the west and the Sierra Nevada Mountain range to the east.

Project Description

The SJJPA is proposing the Project in Madera County. The Project would be designed to serve as the key connection for Madera County and portions of Fresno County to the intercity rail network, supporting expanded HSR operations and service levels (beyond the early operating segment) associated with HSR Service (north to the Bay Area, south to Southern California, or both) and subsequently Phase 1 HSR service (San Francisco to Los Angeles) at the proposed Madera HSR Station. The Project would include improvements in addition to those previously cleared for Phases 1 and 2 in the 2021 IS/MND.

The components of the Project include platforms, trackwork, bridges, overhead contact system, substations, grade separations, station and parking expansions, and culverts.

Design, construction, and operation of the Project's rail components would comply with applicable standards from the Federal Railroad Administration, California Public Utilities Commission, and the California High-Speed Rail Authority. Design, construction, and operation of Project site access improvements, including the modifications to the access road, would adhere to applicable standards such as the California Manual on Uniform Traffic Control Devices and local design guidelines and specifications. Design approval for specific components would be sought from the appropriate agencies as part of the detailed design and subsequent stages of the Project. Specific components of the Project are described in more detail in the following subsections.

Platform

The Project would include a 1,410-foot platform along the west side of the station to accommodate the full length of the HSR trainsets. The Project also includes the extension of the eastside platform by 410 feet to 1,410 feet, matching the new westside platform. The platform height would be designed to accommodate the trainsets selected for the HSR system. Canopies would be provided on the new westside platform and on the extended portions of the eastside platform to protect passengers from the environmental elements.

Access between the platforms and the station would be provided by a new Americans with Disabilities Act-compliant accessible pedestrian crossing (i.e., footbridge) over the HSR mainline and station tracks.

Trackwork and Overhead Contact Systems

In conjunction with the new westside platform, the Project would construct a new station siding track on the westside of the station. Together with the station siding track on the eastside of the station completed under Phase 2, the Project would provide the Madera HSR Station with a total of four tracks. These would be arranged in a typical "local" station layout: two through tracks in the center (for faster trains not stopping at the station) and one siding track on either side (for slower trains stopping at the station).

The entire length of the new siding track, from the turnout locations at the north and south, would be approximately 14,600 feet. The turnouts would be designed for speeds up to 110 miles per hour.

Bridges

Three bridge structures (one track bridge, one roadway bridge, and one pedestrian bridge) are included in the Project as follows:

- **Track Bridge** at Cottonwood Creek. The western siding track would include a new single-track, five-span continuous cast-in-place, reinforced concrete slab structure over Cottonwood Creek. This bridge would match the span arrangement and hydraulic conveyance capacity of the existing double-track bridge constructed as part of the California High-Speed Rail Authority project.

- **Pedestrian Bridge at the Station.** A pedestrian overpass would be provided to allow passengers to access the new westside platform from the eastside of the station. The pedestrian bridge would include a shade structure, stairs, and two elevators.
- **Roadway Bridge at Avenue 12.** The southern portion of the new western siding track would traverse Avenue 12 below the roadway surface. The existing Avenue 12 berm would be modified by creating a new penetration to accommodate the alignment of the proposed station siding track and expanding the roadway bridge to span the single siding track below.

Parking

In order to accommodate more passengers, the Phase 3 Project will extend the surface parking lots north of the already-approved locations. The expanded parking lot would result in a net increase of approximately 542 parking spaces above the 401 parking spaces cleared for Phase 2, for a new total of 943 parking spaces.

Station Building Expansion

The Project includes construction of an expanded or new separate station building, which would expand upon the station support services provided with the Phase 2 building identified in the prior IS/MND. The new station structure would also include a large canopy structure or structures that would extend out from the enclosed building portion to provide shaded outdoor plaza/seating areas. This station building (including the canopy) would be located adjacent to the eastern edge HSR platform (southern portion) and slightly west of the bus plaza. The total indoor building area would be expanded by approximately 5,000 square feet to provide space for enhanced passenger amenities and station support functions to accommodate the increased ridership from additional service, such as ticketing areas and waiting areas. The outdoor canopy could be designed to cover up to 20,000 square feet of outdoor plaza/seating space. A further 20,000 square feet of space would be reserved for expansion of the building/canopy structure in the future (when and if that becomes needed) but is not part of the Project. The Phase 3 building expansion would include a roof height of about 25 feet compared to the Phase 2 building roof height of about 15 feet.

Culverts

Ten drainage culverts are proposed as part of the Project, all of which would be extensions of culverts originally constructed as part of Phase 2 of Madera Station.

Wildlife Crossings

Two wildlife crossings are proposed as part of the Project, all of which would be extensions of wildlife crossing facilities originally constructed as part of Phase 2 of Madera Station.

Relocation of Pacific Gas and Electric Company Transmission Line

Pacific Gas and Electric Company is currently implementing the Borden-Gregg Transmission Line Re-Alignment Project (BGTLRP) in the vicinity of the Project. The BGTLRP would construct a portion of the re-aligned 230-kilovolt transmission line (including two transmission poles] in the Project footprint. The BGTLRP is currently in final design and is expected to be completed prior to the construction of the Project.

The BGTLRP conflicts with the location of the southern end of the western side station siding track and with a culvert extension, both of which would be constructed as part of the Project. Poles 003 and 004 from the BGTLRP would need to be relocated as part of the Project slightly to the west.

Regulatory Setting

National Historic Preservation Act (54 U.S. Code Section 300101 et seq.)

The National Historic Preservation Act (NHPA) establishes the federal government policy on historic preservation, as well as the programs through which this policy is implemented, including the National Register of Historic Places (NRHP). Under the NHPA, significant cultural resources, referred to as historic properties, include any prehistoric or historic district, site, building, structure, or object included in, or determined eligible for, inclusion in the NRHP. Historic properties also include resources determined to be National Historic Landmarks. National Historic Landmarks are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting United States heritage. A property is considered historically significant if it meets one of the NRHP criteria and retains sufficient historic integrity to convey its significance. This act also established the Advisory Council on Historic Preservation, an independent agency responsible for implementing Section 106 of the NHPA by developing procedures to protect cultural resources included in, or eligible for inclusion in, the NRHP. Regulations are published in 36 Code of Federal Regulations (CFR) Parts 60, 63, and 800.

36 Code of Federal Regulations Part 800, Implementing Regulations for Section 106 of the National Historic Preservation Act

Section 106 of the NHPA requires that effects on historic properties be taken into consideration in any federal undertaking. The process has four steps: (1) initiating the Section 106 process, (2) identifying historic properties, [3] assessing adverse effects, and (4) resolving adverse effects. Section 106 affords the Advisory Council on Historic Preservation and the State Historic Preservation Office (SHPO), as well as other consulting parties, a reasonable opportunity to comment on any undertaking that would adversely affect historic properties. SHPOs administer the

National Historic Preservation Program at the state level, review NRHP nominations, maintain data on historic properties that have been identified but not yet nominated, and consult with federal agencies during Section 106 review.

California Environmental Quality Act

CEQA requires a lead agency to consider the effects of a project on historical resources. CEQA Guidelines Section 15064.5 provides specific guidance for determining the significance of impacts on historical resources (CEQA Guidelines Section 15064.5[b]). Under CEQA, these resources are called "historical resources," whether they are of historic or pre-European contact age. CEQA Section 21084.1 defines historical resources as those listed in, or eligible for listing in, the California Register of Historical Resources (CRHR) or listed in the historical register of a local jurisdiction (county or city), unless the preponderance of evidence demonstrates that the resources are not historically or culturally significant. The NRHP listed "historic properties" in California are considered historical resources for the purposes of CEQA and are also listed in the CRHR. The CRHR criteria for listing such resources are based on, and similar to, the NRHP criteria.

The State CEQA Guidelines define three ways that a cultural resource may qualify as a 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 PRC 5020.1(k), or is identified as significant in a historical resource survey meeting the requirements of PRC 5024.1(g) 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 (14 California Code of Regulations [CCR] 15064.5[a]).

According to CEQA, a project that causes a substantial adverse change in the significance of a historical resource or an archaeological resource has a significant effect on the environment (CEQA Guidelines Section 15064.5; California PRC Section 21083.2). CEQA defines a "substantial adverse change" as (CEQA Guidelines Section 15064.5[b]):

- Physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired; or
- Demolition or material alteration in an adverse manner of the physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR; or
- Demolition or material alteration in an adverse manner of the physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

- Demolition or material alteration in an adverse manner of the physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by the lead agency.

California Public Resources Code

California PRC Section 5097.5 prohibits excavation or removal of any "historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site [...] or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands." Public lands are defined to include lands owned by or under the jurisdiction of the state or any city, county, district, authority, or public corporation, or any agency thereof. Section 5097.5 states that any unauthorized disturbance or removal of archaeological or historical materials or sites located on public lands is a misdemeanor.

National Register of Historic Places Criteria for Evaluation

The criteria for evaluation of eligibility for listing on the NRHP are outlined at 36 CFR Part 60.4. A district, site, building, structure, or object must be at least 50 years old to be eligible for consideration as a historic property. That district, site, building, structure, or object must retain integrity of location, design, setting, materials, workmanship, feelings, and association as well as meet one of the following criteria to demonstrate its significance in American history, architecture, archaeology, engineering, and culture. A district, site, building, structure, or object must:

- a. be associated with events that have made a significant contribution to the broad patterns of history; or
- b. be associated with the lives of people significant in our past; or
- c. embody the distinct characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- d. have yielded, or may be likely to yield, information important in prehistory or history.

A site must have integrity and meet one of the four criteria of eligibility to demonstrate its historic associations to convey its significance. A property must be associated with one or more events important in history or prehistory to be considered for listing under Criterion A. Additionally, the specific association of the property itself must also be considered significant. Criterion B applies to properties associated with individuals whose specific contributions to history can be identified and documented. Properties significant for their physical design or construction under Criterion C must have features with characteristics that exemplify such elements as architecture, landscape architecture, engineering, and artwork. Criterion D most commonly applies to properties that have the potential to answer, in whole or in part, important research questions about human history that can only be answered by the actual physical materials of cultural resources. A property eligible under Criterion D must demonstrate the potential to contain information relevant to prehistory and history (National Register Bulletin 15).

A district, site, building, structure, or object may also be eligible for consideration as a historic property if that property meets the Criteria Considerations for properties less than 50 years old, in addition to possessing integrity and meeting the criteria for evaluation.

Assembly Bill 52

Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) established policy that "a project with an effect that may cause a substantial adverse change in the significance of a Tribal cultural resource is a project that may have a significant effect on the environment" under CEQA (per PRC Section 21084.2). AB 52 acknowledges that CEQA did not previously "directly include California Native American tribes' knowledge and concerns," which resulted in significant impacts on Tribal cultural resources and sacred places. To remedy this, AB 52 established a requirement for a formal consultation process with California Native American tribes for projects subject to CEQA. AB 52 took effect on July 1, 2015, and Appendix G of the State CEQA Guidelines was updated accordingly. The process for complying requires that California Native American tribes request lead agencies to notify them of proposed projects. A lead agency that receives such requests must notify the requesting tribes of new projects within 14 days of commencing the CEQA process. The tribe must respond to the notice and request consultation within 30 days of receipt, and the lead agency must initiate consultation within 30 days of receiving the request. This process is separate from consultation procedures under other state cultural resources law.

Cultural Setting

Pre-Contact Context

The Project is located in the center of the Central Valley cultural region of California. Early inhabitants of the Central Valley used the various habitats found throughout the valley, including riparian forest, marsh, alkali basins, oak savanna, and foothill woodland communities. They created a sophisticated material culture and established a trade system involving a wide range of manufactured goods from distant and neighboring regions, and their population and villages prospered in the centuries prior to historic contact (Rosenthal et al. 2007:147, 149). The setting provided below is based on Fredrickson's (1973) precontact cultural chronology and divides this chronology into five periods; Paleo-Indian (13,550 to 10,550 BP), Lower Archaic (10,550 to 7,550 BP), Middle Archaic (7,550 to 2,550 BP), Upper Archaic (2,550 BP to AD 1100), and Emergent (AD 1100 to Historic Period). These periods are analytical constructs and do not necessarily reflect Native American views

Paleo-Indian (13,550 to 10,550 BP)

At the end of the Pleistocene, circa 13,550-10,550 Before Present (BP), parts of the Sierra Nevada adjacent to the Central Valley were covered with large glaciers (West et al. 2007:27), and the Central Valley provided a major transportation route for animals and people. Although evidence for human occupation during this period is rare, archaeological remains of this early period have been reported in and around the Central Valley.

The Farmington Complex was thought to be evidence of pre-projectile point evidence dating from the Late Pleistocene based on lithic cores and a flake associated with Pleistocene gravels (Johnson 1967:283-284; Rosenthal et al. 2007). However, geoarchaeological investigations at CA-STA-69 (in the vicinity of Farmington Complex-type site CA-STA-44) discovered that the assemblage was contained completely in Holocene alluvial terrace deposits, not Pleistocene glacial outwash deposits (Rosenthal and Meyer 2004:96; Rosenthal et al. 2007:151). Currently, evidence from basally thinned and fluted projectile points from scattered locations in the southern portion of the Central Valley represent the earliest evidence of human occupation. Concave base points have been found at only three locations in the San Joaquin Valley: Tracey Lake, Wolfsen mound (MER-215), and Tulare Lake basin. Along a remnant shoreline at Tulare Lake in the Southern San Joaquin Valley, hundreds of concave base points were discovered at Witt site (KIN-32) (Rosenthal et al. 2007:151).

Lower Archaic (10,550 to 7,550 BP)

During the Lower Archaic, an accumulation of sediment occurred over the Pleistocene alluvial fans and floodplains, creating a visible stratigraphic sequence between Late Pleistocene and Holocene sediment (Rosenthal et al. 2007). Beginning at approximately 10,550 BP, a shift to a more specialized subsistence strategy began, focusing on ways of increasing the amount of food that could be produced from smaller portions of land. This change can be at least partially corroborated by the increasing numbers of people living in the Central Valley, which is indicated by a much more abundant archaeological record, as well as by dietary stress, as indicated by dental pathologies (Moratto 1984:203-204). Alongside early concave base points, Lower Archaic stemmed points, crescents, and other flaked stone artifacts are found along the ancient shorelines of Tulare Lake (Rosenthal et al. 2007). Human occupation during the Lower Archaic is mostly represented by isolated finds. KER-116 is the only Lower Archaic archaeological deposit in the Central Valley. Among the lithic assemblage were three chipped stone crescents, stemmed projectile point fragment, carved stone atlatl spur, and a few flaked stone implements. One human skull fragment was found and among the faunal assemblage were freshwater mussel shells, freshwater fish, waterfowl, and artiodactyl bone fragments (Rosenthal et al. 2007).

Middle Archaic (7,550 to 2,550 BP)

The beginnings of the intensification emerging in the Lower Archaic manifested even more so in the Middle Archaic. During the Middle Archaic, two distinct settlement-subsistence adaptations began to emerge: one centering around the Central Valley floor and the other centering around the foothills (Rosenthal et al. 2007). Foothill tradition sites are abundant in the archaeological record, likely due to the elevation and slope of the foothills and less accumulation of sedimentary deposits. The foothill tradition artifact assemblages contained mostly flaked and ground stone tools, very few beads, bone and shell artifacts or ornaments.

The Valley tradition is rare in the Central valley, due to periods of alluvial deposition. The regional cultural pattern in Central California representing the Middle Archaic is the Windmill Pattern (4,500-2,800 BP). The Windmill Pattern shows evidence of a mixed economy of game procurement and use of wild plant foods (Moratto 1984). Hunting was not limited to terrestrial animals, as evidenced by fishing hooks and spears found in association with the remains of sturgeon (*Acipenser* sp.), salmon (*Oncorhynchus* sp.), and other fish. Plants also were used, as indicated by

groundstone artifacts and clay balls used for boiling acorn mush. The bone tool industry appears minimal but includes awls, needles, and flakes. Other characteristic artifacts include charmstones, quartz crystals, abalone (*Haliotis* sp.) and olive snail (*Olivella* sp.) shell beads and ornaments.

Windmill sites are concentrated on low rises or knolls in the floodplains of major creeks or rivers. Such locations provided protection from seasonal flooding and proximity to riverine, marsh, and valley grassland biotic communities. During the Middle Archaic, subsistence strategies evolved, and the population became more sedentary along the Sacramento and San Joaquin Valley River corridor (Rosenthal et al. 2007). An economic shift from a foraging to a collecting strategy likely occurred during the Middle Archaic. Burials following this pattern consisted of formal cemeteries, both within and separate from villages, suggesting a degree of sedentism. Burials appear in a ritual context that included the use of red ochre, often rich grave offerings, and ventral extension with a western orientation, although other burial positions, such as dorsal extension and flexed, and cremations are also known (Moratto 1984; Rosenthal et al. 2007).

Upper Archaic (2,550 BP to AD 1100)

The Middle Archaic-Upper Archaic transition corresponds with a dramatic climatic shift to cooler, wetter conditions. These conditions resulted in the filling of inland lakes and greater freshwater flow through the Delta. Overall, the Upper Archaic is characterized by a proliferation and increased distinction of artifact types, burial positions, and specialized technologies, such as widespread manufacture of ceremonial blades, obsidian biface blanks, *Olivella* and *Haliotis* beads and ornaments, groundstone, and net sinkers (Rosenthal et al. 2007). Dominant food resources in the Central Valley during the Upper Archaic consisted of acorns, salmon, shellfish, rabbit, and deer. In general, settlements became increasingly larger and of a more sedentary nature. In the San Joaquin Valley during the Upper Archaic, Rosenthal et al. (2007) theorized that the lower foothills may have been a boundary for valley people to periodically colonize riparian and other watered foothill habitats at the base of the Sierra.

Little is known about the Upper Archaic cultures in San Joaquin Valley. Sites dating from the Upper Archaic have been investigated in the western areas of the San Joaquin Valley. The Pacheco Complex from Mer-S-94, defined by Olsen and Payen (1969) is a Middle Archaic and Upper Archaic Complex characterized by foliate bifaces, *Olivella* shell beads, rectangular abalone ornaments, bone awls, perforated canine teeth, stemmed and side notched projectile points, and an abundance of millingstones, mortars and pestles (Moratto 1984, Olsen and Payen 1969).

Emergent (AD 1100 to Historic Period)

The trends toward specialization, exchange, and spatial circumscription that characterized prior periods continued in the Emergent Period. Population continued to increase, and group territories became smaller and more defined. Patterns in the activities, social relationships, belief systems, and material culture continued to develop during this period.

A generalized subsistence pattern with a high degree of technological specialization, termed the Augustine Pattern (1,200 BP to Historic Period) is associated with the Emergent period in the lower Sacramento Valley/Delta region (Rosenthal et al. 2007). This pattern exhibits a great elaboration of ceremonial and social organization, including the development of social stratification (Moratto

1984). 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 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 that includes figurines and pottery vessels known as Cosumnes Brownware. Small projectile point types, called the Gunther Barbed series, indicate the use of bow and arrow.

Excavations at sites Mer-3, Mer-14, and Me-S-94, defined two other complexes that are possibly associated with the Emergent Period: the Gonzaga Complex (ca. A.D. 300-1000) and the Panoche Complex (ca. A.D. 1500-1850) (Moratto 1984; Olsen and Payen 1969). Artifacts from the Gonzaga complex include extended and flexed burials, squared and tapered-stem projectile points, bowl mortars and shaped pestles, bone awls, and grass saws. Shell ornaments included abalone (*Haliotis*) ornaments and oval *Olivella* beads. The Panoche Complex includes circular structures, flexed burials, cremations, mortars and pestles, few milling stones, bone awls, saws, and whistles, small side-notched projectile points, clamshell disk beads, abalone (*Haliotis*) beads, and *Olivella* disk beads (Moratto 1984).

Ethnographic Context

The Project falls within the southern boundary of the Northern Valley Yokuts territory, members of the Penutian-speaking central California group (Wallace 1978). The Penutian language family is made up of the Wintun speakers, along with Miwok, Maidu, Costanoan, and Yokuts (Kroeber 1925). Southern Valley Yokuts, Northern Valley Yokuts, and the Foothills Yokuts are geographical divisions of Yokuts. The Northern Valley Yokuts historically inhabited from San Joaquin River to the midway line between Mokelumne River and Calaveras River, this also extends to Sierra Nevada and the west coast ranges (Asselin et al. 2016; Wallace 1978).

Subsistence pattern of Foothills, Northern Valley and Southern Valley Yokuts emphasize fishing, hunting, and gathering. The Northern Yokuts relied on fishing year-round; they mainly caught Salmon, however, white sturgeons, river perch, western suckers, and Sacramento pike were also caught. They varied their diet with waterfowl including geese, ducks, and other aquatic birds, and the harvesting of wild plant food, such as acorns, seeds, and tule root (Wallace 1978).

The Northern Valley Yokuts built their settlements on low mounds, or along the banks of major watercourses (Wallace 1978). Building their settlements on higher ground kept their villages from flooding during the spring floods (Cook 1960; Schenck 1926; Schenck and Dawson 1929). The abundance of resources along major watercourses allowed a more sedentary lifestyle, however due to the occasional heavy snow melt and rain, villages were often forced to higher ground due to flooding (Wallace 1978).

Their main political unit were tribes of approximately 300 people, each tribe guided by their own Chief. Smaller villages containing two or three houses also existed (Wallace 1978). Villages contained oval or round family houses, a community lodge for dances, and a sweathouse (Wallace 1978). Their dwellings were covered with Tule stalks that had been woven into mats. Unlike the Southern Valley Yokuts, the Northern Valley dwellings were scattered about with no order.

Trade was common with neighboring groups that included extended trails through meadows and along river banks that connected the Southern Valley Yokuts. Crafting boats out of bundles of tule provided transportation through the water ways. The Northern Valley Yokuts traded dog pups with the Miwok in exchange for baskets bows and arrows and the Costanoans exchanged mussels and abalone (Wallace 1978).

Based on ethnographic and archaeological data, Yokuts population decreased from the invasion of Mexican ranchos and Spanish missionaries. Mexican settlements did emerge at sites formerly occupied by Yokuts groups, but it is not known when they were first inhabited by European heritage (Asselin et al. 2016). Contact with Mexican ranchos, miners and settlers affected the San Joaquin Valley ethnographically due to disease and cultural impactation. When the gold rush began in 1848, white settlers inhabited California causing a change in their territory.

Historic Context

Spanish settlers did not venture into what is now Madera County and no Spanish settlements were ever made there (Hoover et al. 1990). The entire central San Joaquin Valley was covered by water from Tulare Lake and sloughs, making it nearly impossible to expand east into the Central Valley during high water. In 1827 and 1828, Jedediah Strong Smith passed through Madera County, followed by Hudson Bay Company trappers and explorers. John C. Fremont ventured into Madera County in 1844 by raft along sloughs and up the San Joaquin River (Hoover et al. 1990).

With an increase in popularity in California, the gold rush had also contributed to a push in new settlers in California. In the 1850's-1870's, miners traveled south from Mariposa County via the Stockton-Los Angeles Road, and Gilroy, using the Pacheco Pass. Economic developments in California gained popularity in establishing means of transportation. Steamboats navigated the San Joaquin Valley in the early 1850s. These steamboats carried people between Stockton and present-day Fresno County (Asselin et al. 2016). Developments that also contributed to the Valley's economic boost are railroads and oil wells.

The town of Madera grew after the construction of the Central Pacific Railroad in 1870. The California Lumber Company laid out the town of Madera in 1876. The town was built at the lower end of the flume where it ended near the Central Pacific Railroad. The 63-mile-long V-shaped flume built in 1874 carried yellow pine, fir, cedar, and other lumber from the Sierra Nevada mountains to the railroad (Hoover et al. 1990). The Central Pacific Railroad was the main form of transporting farmers and ranchers' crops to further markets. With no other forms of shipping alternatives in the regions, farmers and ranchers were subject to high shipping costs and extensive land holdings (AECOM 2020). The Southern Pacific Railroad took over the Central Pacific Railroad in 1884. The San Francisco and San Joaquin Valley railroad (SF & SJV) was built between 1895 and 1898, connecting Bakersfield and Stockton (Connolly and Glennly 2017). The SF & SJV railroad, a competitor to the Southern Pacific Railroad, was constructed to break the control that the Southern Pacific Railroad had over the agricultural industry. The SF & SJV railroad was acquired by the Atchinson, Topeka and Santa Fe (AT&SF) Railroad in 1989 and operated until 1996, when the railroad merged with the Burlington Northern Santa Fe (BNSF) railroad (AECOM 2020; Connolly and Glennly 2017).

Methods and Results

The effort to identify cultural resources in the APE for the Project included a review of the archaeological, ethnographic, and historical literature; records search at the Southern San Joaquin Valley Information Center (SSJVIC); examination of historic maps and photographs, consultation with the Native American Heritage Commission (NAHC), subsurface sensitivity analysis, and field surveys. Each of these methods and their results are described in this chapter. The following resources were reviewed:

- General Land Office plat maps (BLM 2024]
- Nationwide Environmental Title Research website (NETR 2024]
- A Geoarchaeological Overview and Assessment of Caltrans Districts 6 and 9 (Meyer, Young, and Rosenthal 2010]
- US Geological Survey maps (USGS]
- U.S. Department of Agriculture, Natural Resources Conservation Service soil survey data (USDA 2024]

Records Search

A cultural resource records search was conducted by staff at the Southern San Joaquin Valley Information Center (SSJVIC) on July 29, 2024, to identify any previous cultural resource studies and previously recorded cultural resources intersecting the APE, or within 0.25 -miles of the APE (also referred to as the record search radius). The SSJVIC, an affiliate of the Office of Historic Preservation, is the official state repository of cultural resource records and reports for Madera County. The records search compiled the following bibliographic references, previous survey reports, historic maps, and cultural resources site records pertinent to the Project to identify prior cultural resource studies and known cultural resources within 0.25-mile of the APE.

- NRHP and CRHR
- California Office of Historic Preservation Historic Property Directory (2010]
- California Inventory of Historic Resources (1976]
- California State Historic Landmarks (1996]
- California Points of Historical Interest (1992]
- Historic properties reference map

The SJVIC identified six previous cultural resource studies within a 0.25-mile radius of the APE (Table 1]. Of the six cultural resource studies, three intersect the APE. The SSJVIC identified two previously recorded cultural resources within a 0.25-mile radius of the APE (Table 2]. The two previously recorded cultural resources are built-environment resources. P-20-002662 consists of the Atchison, Topeka, and Santa Fe Railroad and Burlington Northern Santa Fe Railway. P-20-002904 is the Wilson-Gregg Transmission Line and intersects the APE. A full list of previous cultural resource studies and cultural resources can be found in Attachment B.

Table 1: Previous Cultural Resource Studies within or adjacent to the Project Site.

Study Number	Author	Year	Title	Intersects APE (Yes or No)
MA-00035	Jensen, Sean M.	1996	<i>Archaeological Inventory Survey for the Tracy to Fresno Long haul Fiberoptics Data Transmission Line, Portions of Fresno, Madera, Merced, Stanislaus, and San Joaquin Counties, California</i>	Yes
MA-00216	Crist, Michael K.	1982	<i>Cultural Resource Reconnaissance for the Trigo Industrial Park EIR, Madera County</i>	Yes
MA-00455	Wren, Donald G.	1995	<i>An Archaeological Survey of the Weldon Property, 11 Ave. and Road 30, Madera County CUP#94-25</i>	No
MA-00739	Nelson, Wendy J.	2000	<i>Cultural Resources Survey for the Level J3) Communications Long Haul Fiber Optics Project: Segment WS04: Sacramento to Bakersfield</i>	No
MA-01256	Asselin, Katie	2015	<i>Additional Cultural Resources Services for the Lotus Solar Project, Madera County, California</i>	Yes
MA-01334	Unknown	2020	<i>Merced to Fresno Project Section Final Archaeological Survey Report Addendum: HOG Flats/Curran Preservation Property</i>	No

Table 2. Previously Recorded Cultural Resources within a 0.25 mile of the Project

Primary/Trinomial	Age	Archaeological/Built Environment	Description	Intersects APE (Yes/No)
P-20-002662	Historic	Built Environment	Atchison, Topeka, and Santa Fe Railroad; Burlington Northern Santa Fe Railway	No
P-20-002904	Historic	Built Environment	Wilson-Gregg Transmission Line	Yes

Archival Map and Aerial Photograph Review

ICF reviewed historical maps and historical aerial photographs to determine the presence of historic-period buildings and/or structures within the APE and the general vicinity to assist in assessing the potential for historic-period archaeological deposits. In the general vicinity of the APE, by 1922, the Atchinson Topeka and Santa Fe Railroad is present directly northeast/east of the proposed Project and the Southern Pacific Railroad is present approximately 2 miles west-southwest of the APE. The towns Triago and Madera are present and various homesteads are located on what is now Road 30^{1/2}, Avenue 11, Avenue 12, and Avenue 13. A cemetery is located 1.7

miles west of the APE (USGS 1922]. By 1946, transmission lines are west of the APE, intersecting at Avenue 12 (USGS 1946). In 1965, Avenues 11, 12, and 13 are paved roads, various orchards and vineyards are present east and west of the Project and the Borden Substation is present 0.5 miles south of Avenue 12 (USGS 1965). The transmission lines, the Atchinson Topeka and Santa Fe Railroad, and homesteads are visible in historical aerials from 1946, 1957, and 1962 (NETR 2024).

Native American Heritage Commission Sacred Lands File Search

In November 2023, IGF requested a CEQA Tribal Consultation List (Assembly Bill (AB) 52) and a search of the NAHC Sacred Lands Files (SLF) on behalf of the SJJPA, for a review of the commission's SLF- specifically, records regarding the Project Area. The NAHC is the official state repository of Native American sacred location records in California. In December 2023, a response from the NAHC was received and in part stated, "the results of the Sacred Lands File check conducted through the Native American Heritage Commission was negative." The NAHC provided IGF with a list of 16 Tribal contacts for Madera County. In December 2023, the SJJPA sent formal consultation opportunity letters, pursuant to Public Resources Code §21080.3.1 (AB 52), to each of the 16 Tribal contacts. All tribal consultation under CEQA (AB 52) is being conducted by the SJJPA (lead agency). A copy of correspondence between ICF, the NAHC, and Tribal contacts is provided in Attachment C. Letters containing details about the Project and a location map were sent to the following 16 Tribal contacts:

- Tom Zizzo, Tribal Administrator
- Joel Marvin, Vice Chairperson
- Elizabeth Kipp, Chairperson
- Robert Ledger, Chairperson
- Mary Stalter, Environmental/Heritage Manager
- Fred Beihn, Chairperson
- John Murga, Tribal Historian
- Timothy Perez, Tribal Compliance Officer
- Jessica Murga, Tribal Secretary
- Erolinda Perez, Tribal Administrator
- Tracey Hopkins, Chairperson
- Heather Airey, Tribal Historic Preservation Officer
- Sandra Chapman, Chairperson
- Brenda Lavell, Chairperson
- Neil Peyron, Chairperson
- Kenneth Woodrow, Chairperson

The SJJPA received a response letter dated February 23, 2024, from Robert Pennell, the Tribal Cultural Resources Director for the Table Mountain Rancheria. The tribe declined participation but would like to be notified if cultural resources are identified during the Project. The SJJPA received a second letter from Robert Pennell dated March 13, 2024, stating that the Table Mountain Rancheria is interested in the Project as it lies within the rancheria's cultural area of interest and that the tribe would like to coordinate a meeting to discuss the Project. The tribe requested copies of any cultural resource reports identified through the record search.

Subsurface Sensitivity Analysis

This section considers the potential for the Project Area to contain buried pre-contact-period archaeological resources. For purposes of this analysis, the phrase archaeological sensitivity is used to characterize a given area's likelihood to contain buried archaeological resources. For example, if an area is defined as having a high degree of buried archaeological sensitivity, it is considered an area with high likelihood for containing archaeological resources.

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

- U.S. Department of Agriculture, Natural Resources Conservation Service Soil Survey Data (USDA 2024)
- A Geoarchaeological Overview and Assessment of Caltrans Districts 6 and 9 (Meyer, Young, and Rosenthal 2010)

The resources listed above provide background for the predictive modeling for the sensitivity of buried sites in the Project Area. The focus on the predictive modeling consisted of analyzing the soil survey data and soil classification types across the Project Area and cross referencing with the age of the landforms associated with the identified soils (Meyer, Young, and Rosenthal 2010).

Located in the Great Valley geomorphic province, the APE is on an alluvial plain where sediment has been continuously deposited since the Jurassic period (between 200 and 140 million years old) (California Geological Survey 2002). Meyer, Young, and Rosenthal (2010) identify the alluvium soils in the APE as dating between the Older Pleistocene (greater than 25,000 Cal BP) to the Latest Holocene (2,000-150 Cal BP). Their analysis indicates that most buried sites are in soils associated with fans and floodplains; however, other factors for buried site sensitivity consist of landform age, proximity to water, slope, exposure, and distribution of subsistence resources.

A substantial portion of the APE consists of Older Pleistocene landforms (greater than 25,000 Cal BP) and Latest Holocene landforms (2,000-150 Cal BP). Older Pleistocene landforms have a low sensitivity for buried archaeological deposits since they formed before human occupation. The Older Pleistocene Landforms are mainly in the northern and southern portions of the Project Area, north of Cottonwood Creek and south of Avenue 12. The Latest Holocene landforms have a higher sensitivity for buried archaeological deposits due to higher human populations (Meyer, Young, and Rosenthal 2010). This landform is mainly in the center of the Project Area extending south of Cottonwood Creek until Avenue 12.

Small portions of the Project along the northern boundary of Cottonwood Creek include sediment from the Early Holocene (11,500-7,000 Cal BP). These landforms are considered to have a low sensitivity for buried archaeological sites since "these landforms can only contain sites from the latest Pleistocene or earliest Holocene" (Meyer, Young, and Rosenthal 2010). Due to the age of these landforms corresponding to the possible timeframe of Native American occupation for the area, areas south of Avenue 12 and north of Cottonwood Creek have a low sensitivity for buried archaeological sites and areas between Cottonwood Creek and Avenue 12 have a high sensitivity for buried archaeological sites. Table 3 shows the soil map units, soil association names, and landform ages identified in the Project Area (USDA 2024; Meyer, Young, and Rosenthal 2010).

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

Soil Unit Key	Soil Association¹	Percent Slopes	Landform Age²	Sensitivity for Buried Archaeological Sites
AsA	Alamo clay	0-1	Older Pleistocene	Low Potential
CuB	Cometa sandy loams	3-8	Older Pleistocene	Low Potential
CwB	Cometa-Whitney sandy loam	3-8	Early Holocene	Low Potential
DfA	Delhi sand	0-3	Latest Holocene	High Potential
GsA	Greenfield fine sandy loam	0-3	Early Holocene	Low Potential
HaA	Hanford fine sandy loam	0-1	Latest Holocene	High Potential
HbA	Hanford fine sandy loam	0-1	Latest Holocene	High Potential
HfA	Hanford sandy loam	0-3	Latest Holocene	High Potential
HgA	Hanford sandy loam	0-3	Latest Holocene	High Potential
SaA	San Joaquin sandy loam	0-3	Older Pleistocene	Low Potential
ScB	San Joaquin-Whitney sandy loams	0-8	Older Pleistocene	Low Potential
TwA	Tujunga loamy sand	0-3	Historical and Modern	High Potential
WrB	Whitney and Rocklin sandy loam	3-8	Older Pleistocene	Low Potential

Sources:

¹ USDA 2024;

² Meyer, Young, and Rosenthal 2010

Field Methods and Results

On July 18, 2024, ICF archaeologist Shelby Caulder conducted an intensive pedestrian survey of the APE to determine the presence of historic and archaeological cultural materials within the APE. Intensive pedestrian survey methods consisted of walking 15-meter-wide, east-west, north-south, and southeast-northwest oriented transects to ensure optimal coverage of the APE.

The survey area consisted of approximately 85 acres of flat agricultural farmland used for vineyards, row crops, orchards and unpaved public access roads. Ground visibility varied from excellent (90-100%) in the graded sections of agricultural fields and dirt public access roads, to low (0-15%) in

areas with densely overgrown vegetation within vineyards that are no longer active or in use. Photos of the survey area are provided in Attachment D.

A portion of the survey area within Parcel 034-210-055 was not surveyed due to active agricultural work including large equipment use. A portion of the survey area within Parcel 047-070-025 was not surveyed due to overgrown vineyards that restricted survey access. All other parts of the survey area not surveyed were due to no parcel access by the landowners (Attachment A, Figure 3). All areas with no access issues were intensively surveyed.

No new evidence of pre-contact (i.e., Native American) and/or historic resources were found in the APE during pedestrian survey. The two previously recorded built environment resources identified through the record search comprising the Atchison, Topeka, and Santa Fe Railroad (P-20-002662) located directly east of the APE and the Wilson-Gregg Transmission Line (P-20-002904) west of the APE and intersecting the APE at Avenue 12 were visible and found to be in similar condition and construction as other previously recorded segments beyond the Project APE. A more detailed description of these resources can be found in the associated Historic Architectural Survey Report (ICF2024).

Archaeology

As a result of the intensive pedestrian surveys, no new evidence of pre-contact (i.e., Native American) and/or historic resources were encountered in the APE. The records search did not identify any pre-contact archaeological sites intersecting the Project, or within 0.25 mile from the Project Footprint.

Built Environment

As a result of the intensive pedestrian survey, two segments of built environment resources were identified within or directly adjacent to the APE: the Atchison, Topeka, and Santa Fe Railroad (P-20-002662) and the Wilson-Gregg Transmission Line (P-20-002904).

Conclusions and Recommendations

Conclusions

Archaeology

As a result of the inventory and field visit conducted by IGF, no cultural resources of pre-contact (i.e., Native American) or historical origin were identified in the APE for archaeological resources. In conclusion, the Project is not expected to cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5 as there are no archaeological resources identified in the Project Area; however, in the case of an anticipated discovery, stop work measures will be put in place to avoid impacts to previously unidentified archaeological resources. The Project has the potential to disturb human remains, including those interred outside of dedicated cemeteries, and recommendations are provided below regarding this conclusion.

Built Environment

As a result of the cultural resources investigation, two segments of built environment resources were identified within or directly adjacent to the APE: the Atchison, Topeka, and Santa Fe Railroad (P-20-002662) and the Wilson-Gregg Transmission Line (P-20-002904). No Project design elements are expected to impact the Atchison, Topeka, and Santa Fe Railroad along the eastern edge of the Project, or the Wilson-Gregg Transmission Line intersecting the APE. In conclusion, the Project is not expected to cause a substantial adverse change in the significance of a historical resource as defined in 15064.5, as all Project elements will avoid the Atchison, Topeka, and Santa Fe Railroad and the Wilson-Gregg Transmission Line.

Recommendations

Inadvertent Discoveries of Archaeological Resources

There is always a chance of unearthing archaeological resources during ground-disturbing activities. The procedures provided here are for reference but will be followed in the event of a discovery of archaeological resources, including human remains, during construction. If unanticipated cultural resources are encountered during Project construction, the following protocol should be implemented:

- All construction activity should be immediately halted within a 100-foot radius and the SJJPA should be notified. The SJJPA should then immediately retain a professionally qualified archaeologist. A qualified professional archeologist is one who meets the Secretary of the Interior's Professional Qualification Standards in archaeology, as promulgated in Code of Federal Regulations (CFR), Title 36. Following notification, the qualified archaeologist should make a preliminary assessment of the discovery to determine whether the find is an isolated artifact or recent deposit. If the find is determined to be either isolated or recent, construction should be allowed to resume.
- If the discovery contains Native American archaeological resources, the designated representatives should be contacted and informed of the discovery. The archaeological resource discovery, including human remains, should not be disturbed (e.g., photographed, videoed, moved) until fully assessed by a professionally qualified archaeologist.
- Once the qualified archaeologist has determined that the archaeological deposit has been sufficiently documented, as well as recovered/removed, and concluded that further construction activities would not affect additional cultural deposits in the immediate area, the SJJPA may allow construction activity to resume in the area.

If the site is eligible or recommended to be eligible for listing on the NRHP or CRHR, additional mitigation (e.g., further testing for evaluation or data recovery) may be necessary. Any previously undiscovered resources found during construction will be recorded on appropriate DPR 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.

Inadvertent Discovery of Human Remains

If human remains, including disarticulated or cremated remains, are discovered during any phase of construction, ICF recommends that the construction contractor immediately cease all ground-disturbing activities within 100 feet of the remains and notify SJJPA consistent with California Health and Safety Code Section 7050.5.

In the event that human remains are discovered during Project construction, in accordance with California Health and Safety Code Section 7050.5, the following protocol should be implemented:

- No further disturbance shall occur until the Madera County Coroner or medical examiner has determined origin and disposition pursuant to PRC Section 5097.98. All construction activity should be immediately halted within 100 feet of the discovery and the SJJPA should be informed. The SJJPA should then immediately contact the Cities Chief Medical Examiner and the qualified archaeologist, if not already present. The medical examiner shall have 2 working days to inspect the remains after receiving notification. During that time, all remains, associated soils, and artifacts should remain in situ and be protected from public viewing. The SJJPA should take appropriate measures to protect the discovery site from disturbance during any negotiations. This may include restricting access to the discovery site and hiring 24-hour security.
- If the remains are determined to be Native American and not under the medical examiner's jurisdiction, within 24 hours, the medical examiner shall notify the NAHC, which shall determine and notify a Most Likely Descendant (MLD). With permission from the SJJPA, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Work should be suspended within a 100-foot radius of the human remains until the MLD's recommendations are implemented.
- The qualified professional archaeologist should work with the MLD regarding the treatment of the remains and all associated funerary objects and ensure that any identified human remains are secured while they are left in place and treatment decisions are in progress. Information concerning the discovery shall not be disclosed pursuant to the specific exemption set forth by the California Government.

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U.S. Geological Survey. 1922. Gregg, California 7.5-Minute Quadrangle Map

----- 1922. Madera California 7.5-Minute Quadrangle Map

----- 1946. Gregg, California 7.5-Minute Quadrangle Map

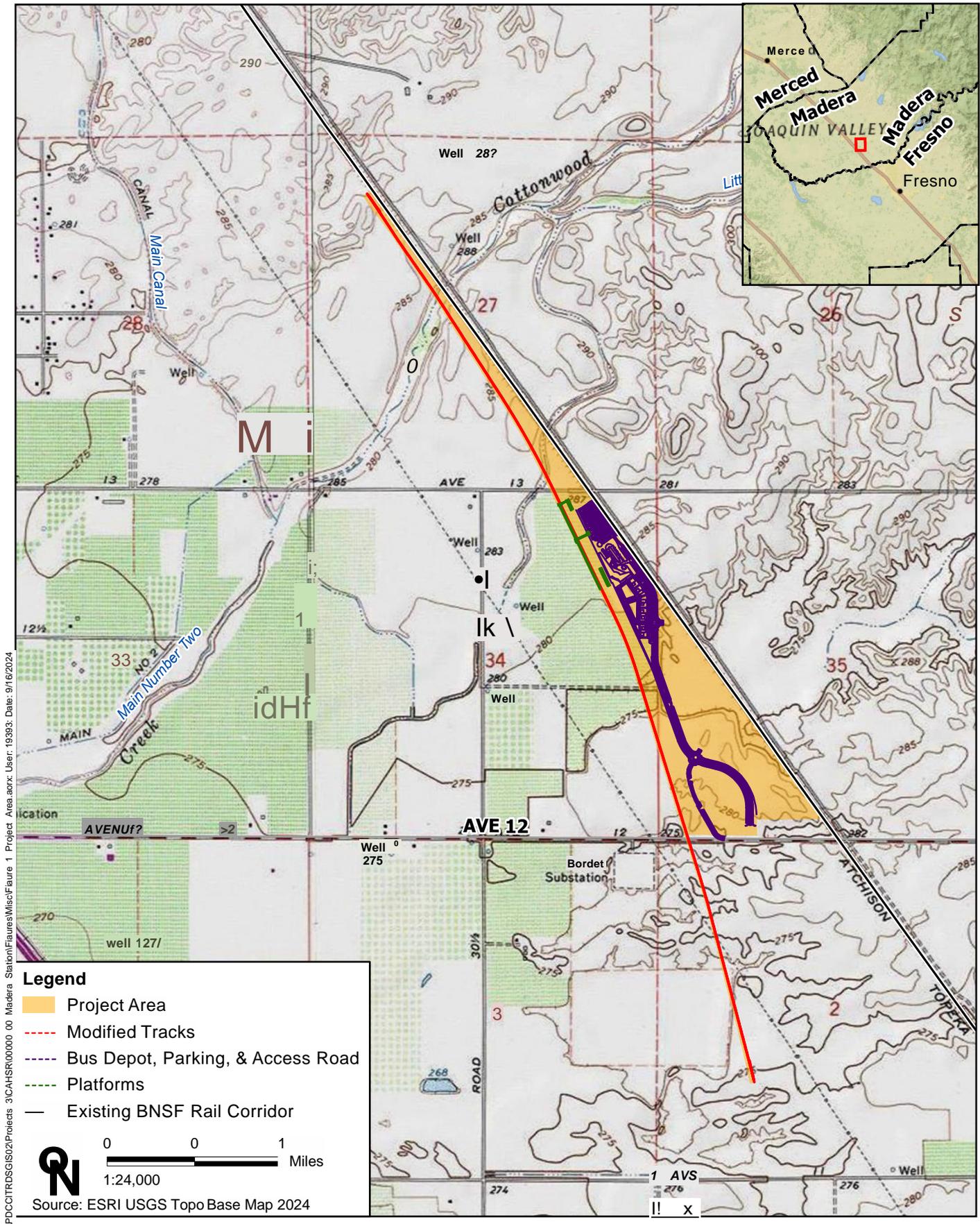
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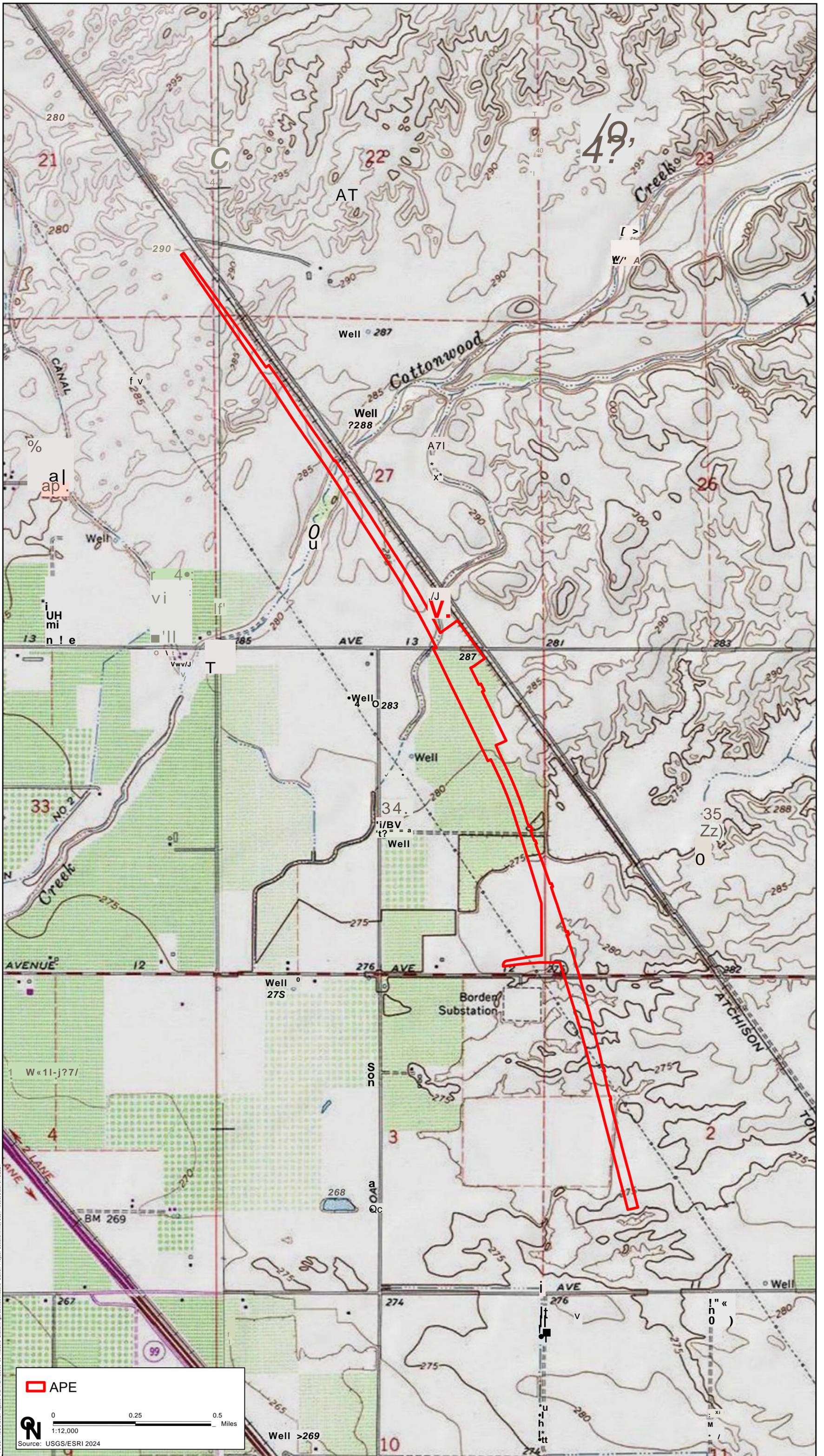
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Attachment A
Figures



\PPOCITRDSG(S2)Proects 3\CAHSR\000000 00 Madera Station\Frares\Misc\Faure 1 Project Area.aprx: User: 19393; Date: 9/16/2024

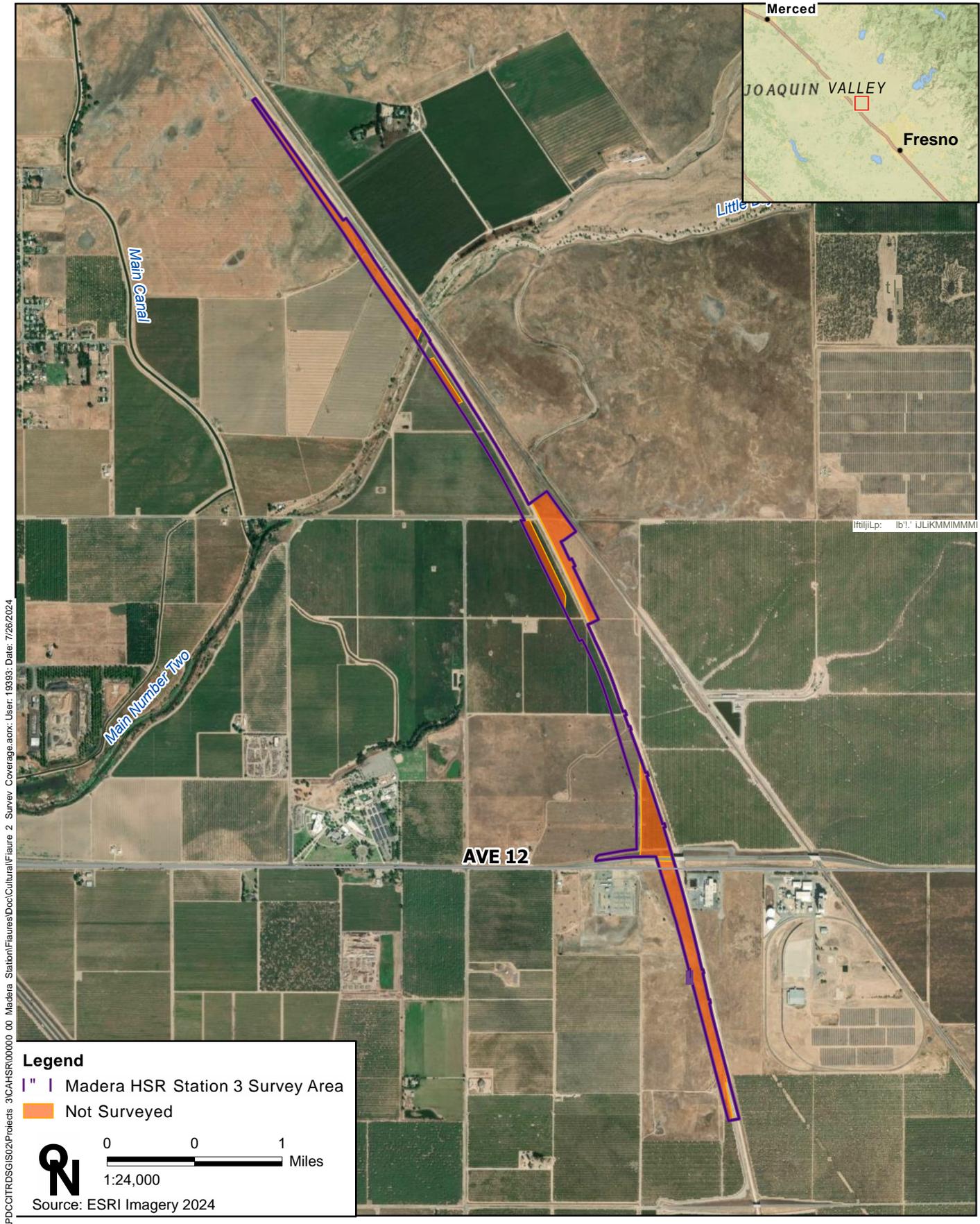
Figure 1
Project Area
CAHSR Madera Station



P:\DC\GIS\Projects\3\CAHSR\00000_00_Madera_Station\Figures\Madera_Station_Project_Location.mxd User: 10303 Date: 9/13/2024



Figure 2
Madera HSR APE



\\PCC\TRD\GIS\2\Projects\3\CAHSR\000000_00_Madera_Station\Frares\Doc\Cultural\Figure 2_Survey_Coverage.aprx User: 19393; Date: 7/26/2024

Figure 3
Survey Coverage Map
CAHSR Madera Station

Attachment B
Record Search Results

Report Detail: MA-00035

SSJVIC Record Search 24-335

Identifiers

Report No.: MA-00035

Other IDs:	Type	Name
	IC Record Search Nbr	96-517
	NADB-R	1141300

Cross-refs: Extends into another county as FR-00092

Citation information

Author(s): Jensen, Sean M.

Year: 1996 (Dec)

Title: Archaeological Inventory Survey for the Tracy to Fresno Longhaul Fiberoptics Data Transmission Line, Portions of Fresno, Madera, Merced, Stanislaus, and San Joaquin Counties, California

Affiliation: Jensen and Associates

No. pages: 20

No. maps: 12

Attributes: Archaeological, Field study

Inventory size:

Disclosure: Not for publication

Collections: No

General notes

NEGATIVE

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Madera

USGS quad(s): Fresno North, Gregg, Herndon, Kismet, Le Grand, Madera, Raynor Creek

Address:

PLSS:

Database record metadata

	Date	User	Action taken
Entered:	5/23/2011	ssjvic	
Last modified:	3/11/2016	userl	
IC actions:	Date	User	Action taken
	5/23/2011	ssjvic	Entered primary: CLC
	5/23/2011	ssjvic	Survey area mapped: CLC
	6/4/2014	cthomson	Updated: CT

Record status: Database Complete

Report Detail: MA-00216

SSJVIC Record Search 24-335

Identifiers

Report No.: MA-00216

Other IDs:

Cross-refs:

Citation information

Author(s): Crist, Michael K.

Year: 1982 (Sep)

Title: Cultural Resource Reconnaissance for the Trigo Industrial Park EIR, Madera County

Affiliation: Buada Associates

No. pages: 8

No. maps: 1

Attributes: Archaeological, Field study

Inventory size: 287 Acres

Disclosure: Not for publication

Collections: No

General notes

NEGATIVE

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Madera

USGS quad(s): Gregg

Address:

PLSS: T12S R18E Sec. 2 MDBM

Database record metadata

	Date	User	Action taken
Entered:	6/20/2011	ssjvic	Entered primary: CLC
Last modified:	8/17/2016	userl	Project area mapped: CLC
IC actions:	Date	User	Updated: CT
	6/20/2011	ssjvic	
	6/20/2011	ssjvic	
	7/8/2014	user	

Record status: Database Complete

Report Detail: MA-00455

SSJVIC Record Search 24-335

Identifiers

Report No.: MA-00455

Other IDs:

Cross-refs:

Citation information

Author(s): Wren, Donald G.

Year: 1995 (Nov)

Title: An Archaeological Survey of the Weldon Property, 11 Ave. and Road 30, Madera County CUP #94-25

Affiliation: Individual Consultant

No. pages: 5

No. maps: 1

Attributes: Archaeological, Field study

Inventory size: 40 acres

Disclosure: Not for publication

Collections: No

General notes

NEGATIVE

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Madera

USGS quad(s): Gregg

Address:

PLSS: T12S R18E Sec. 2 MDBM

Database record metadata

Date	User	Action taken
Entered: 7/19/2011	ssjvic	Entered primary: CLC
Last modified: 8/22/2016	userl	Gregg
IC actions: Date	User	Action taken
7/19/2011	ssjvic	Project area mapped: CLC
7/19/2011	ssjvic	Entered report: MMB
7/19/2011	ssjvic	
8/22/2016	userl	

Record status: Database Complete

Report Detail: MA-00739

SSJVIC Record Search 24-335

Identifiers

Report No.: MA-00739

Other IDs:	Type	Name
	Submitter	Project Number 27101

Cross-refs: Extends into another county as FR-01651
Extends into another county as KE-02396
Extends into another county as KI-00094
Extends into another county as TU-01025

Citation information

Author(s): Nelson, Wendy J.

Year: 2000 (Jun)

Title: Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics Project: Segment WS04:
Sacramento to Bakersfield

Affiliation: Far Western Anthropological Research Group, Inc.

No. pages: 125

No. maps: 74

Attributes: Archaeological, Field study

Inventory size: 3219 km of fiber optic ca

Disclosure: Not for publication

Collections: No

General notes

Associated resources

Primary No.	Trinomial	Name
P-15-002396	CA-KER-002396	KERN 178-3
P-20-000739	CA-MAD-000739	

No. resources: 2

Has informals: No

Location information

County(ies): Madera

USGS quad(s): Berenda, Gregg, Herndon, Kismet, Le Grand, Madera, Plainsburg

Address:

PLSS:

Database record metadata

Date	User	Action taken
Entered: 3/28/2012	ssjvic	
Last modified: 7/22/2016	user1	
IC actions: Date	User	Action taken
3/28/2012	ssjvic	Entered Primary: JW
2/5/2014	ssjvic	Edited: CT

Record status: Database Complete

Report Detail: MA-01256

SSJVIC Record Search 24-335

Identifiers

Report No.: MA-01256

Other IDs:

Cross-refs:

Citation information

Author(s): Asselin, Katie

Year: 2015 (Sep)

Title: Additional Cultural Resources Services for the Lotus Solar Project, Madera County, California

Affiliation: Applied Earthworks, Inc.

No. pages: 6

No. maps: 3

Attributes: Archaeological, Field study

Inventory size: 6.5 acres

Disclosure: Not for publication

Collections: No

General notes

NEGATIVE

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Madera

USGS quad(s): Gregg

Address:

PLSS: T11S R18E Sec. 34, 35 MDBM

Database record metadata

Date	User	Action taken
Entered: 6/30/2017	User	
Last modified: 6/30/2017	User	
IC actions: Date	User	Action taken
6/30/2017	User	report entered: cis
6/30/2017	User	report mapped: cis

Record status: Database Complete

Report Detail: MA-01334

SSJVIC Record Search 24-335

Identifiers

Report No.: MA-01334

Other IDs: Type	Name
Submitter	PN 8017-1955

Cross-refs:

Citation information

Author(s): Unknown

Year: 2020 (Jan)

Title: Merced to Fresno Project Section Final Archaeological Survey Report Addendum: HOG Flats/Curran Preservation Property

Affiliation: InContext

No. pages: 52

No. maps: 8

Attributes: Archaeological, Architectural/historical, Field study

Inventory size: 147 acres

Disclosure: Unrestricted

Collections: No

General notes

The Project Number was gleaned from the submission cover letter, the physical report makes no mention of this number.

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Madera

USGS quad(s): Madera

Address: Address	City	Assessor's parcel no.	Zip code
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035-212-004

035-212-005

035-212-006

035-242-003

PLSS: T11S R18E Sec. 21 MDBM

Database record metadata

Date	User
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Entered: 7/28/2021 jdavid5

Last modified: 8/26/2021 cthomson

IC actions: Date	User	Action taken
7/28/2021	jdavid5	Entered Report
8/26/2021	cthomson	Verified

Record status: Verified

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BIA-00035

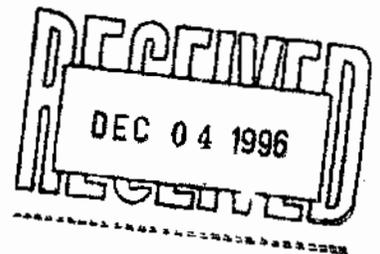
ARCHAEOLOGICAL INVENTORY SURVEY

**Tracy to Fresno Longhaul Fiberoptics Data Transmission Line,
Portions of Fresno, Madera, Merced, Stanislaus, and San Joaquin
Counties, California.**

Prepared for

North State Resources, Inc.
5000 Bechelli Lane, Suite 203
Redding, California 96002

SowShern San Joaquin Valley
ARCHAEOLOGICAL INFORMATION CENTER
CAL STATE UNIVERSITY, BAKERSFIELD
9001 STOCKDALE HIGHWAY
BAKERSFIELD, CALIFORNIA 93311-1099



December 1, 1996

JENSEN & ASSOCIATES CHICO, CALIFORNIA

ARCHAEOLOGICAL - HISTORICAL - CULTURAL RESOURCE MANAGEMENT SERVICES

INTRODUCTION and SCOPE OF WORK**1141300**

Jensen & Associates has completed a variable intensity, complete coverage archaeological inventory survey in conjunction with the proposed Tracy-to-Fresno Longhaul Fiberoptics Data Transmission Line which will involve portions of Fresno, Madera, Merced, Stanislaus, and San Joaquin Counties, California. The line is to be placed in an excavated trench (or within existing buried utility conduits where it proceeds through cities) which in turn will be located entirely within State/County Road rights-of-way for existing roads. The Area of Potential Effect (APE) thus consists of a narrow corridor adjacent to and paralleling these existing roadways, beginning at the intersection of Herndon Avenue and West Avenue, in Fresno, and proceeding north by northwesterly along various roadways. The project terminates at the line dividing Alameda and San Joaquin Counties, at Patterson Pass Road, approximately 1.5 miles west of Interstate 580, and south of Interstate 205, approximately 5 miles west of Tracy.

While much of the route proceeds through intensively developed and heavily disturbed lands, portions of the study corridor where the proposed alignment crosses major stream courses (San Joaquin River, Fresno River, Chowchilla River, Bear Creek, Merced River, and the Tuolumne River), and smaller stream courses is generally more "sensitive", and involves less developed lands or lands impacted only by agricultural activities.

According to agency definitions, this project constitutes an "undertaking" which could adversely affect cultural resources located within the APE. Evaluation of such effects must be undertaken in conformity with Fresno, Madera, Merced, Stanislaus, and San Joaquin County rules and regulations, which in turn must comply with the California Environmental Quality Act of 1970, Public Resources Code, Section 21000, et seq. (CEQA), and the CEQA Guidelines, California Administrative Code, Section 15000 et seq. (Guidelines), prepared by the Office of Planning and Research and published in June of 1986. As well, the line crosses California State Highways at six locations, within which the California Department of Transportation (CALTRANS) exercises jurisdiction. A separate Archaeological Survey Report (ASR) has been prepared for and submitted to CALTRANS for these six crossings.

At the most general level, compliance with CEQA requires undertaking several related tasks. Based on information contained in Appendix K of the Guidelines, the following specific Scope of Work was considered adequate and appropriate for this project;

- Conduct a records search at the Southern San Joaquin Valley Information Center at CSU-Bakersfield, and the Central California Information Center at CSU-Stanislaus to determine if any previously recorded sites exist within the project APE. The Records Search was supplemented with contacts with affected Native American groups and historic societies and museums. Collectively, the goals of the records search are to determine (a) the extent and distribution of previous archaeological surveys, (b) the locations of known archaeological sites and any previously recorded archaeological districts, and (c) the relationships between known sites and environmental variables. This step is designed to ensure that, during the field survey, all significant cultural resources are discovered, correctly identified, fully documented, and properly interpreted.
- Conduct a pedestrian field survey of the APE in order to record and evaluate any previously unidentified cultural resources. Based on map review, a complete coverage, but variable-intensity survey was considered appropriate, given the presence of variable sensitivity zones within the project area. The highest sensitivity occurs at points where the proposed alignment crosses major river courses and other streams and natural sources of surface water.

- In view of moderate to potentially high sensitivity of at least portions of the APE for cultural resources, the Information Centers at Bakersfield and Stanislaus recommended that an appropriate level of pedestrian archaeological survey be conducted prior to ground disturbing activities associated with the project.

Other Sources Consulted: In addition to examining the official records of Fresno and Madera Counties as maintained by the Southern San Joaquin Valley Information Center, and the official records of Merced, Stanislaus, and San Joaquin Counties as maintained by the Central California Information Center, the following additional sources were consulted:

1. The National Register of Historic Places (1979, 1989, Supplements to 12/95);
2. The California Inventory of Historic Resources (State of California 1976);
3. The California Historical Landmarks (State of California 1990);
4. Native American Groups and Individuals, and Historical Societies/Museums:
 - a) Georgia Johnson, Bloss House-/Atwater Historical Society, P.O. Box 111, Atwater, California 95301.
 - b) Pat Carsen, Gustine Museum, 397 Fourth St/Highway 33, Gustine, California 95322.
 - c) Sue Sharp, Old County Courthouse/Merced County Historical Society, 21st and North Streets, Merced, California 95340.
 - d) Heidi Warner, McHenry Museum and Historical Society, 1402 1 Street, Modesto, California 95354.
 - e) Robert Kimble, President, Patterson Historical Society & Museum, P.O. Box 15, Patterson, California 95363.
 - f) Lodi Historical Society & Museum, San Joaquin County Historical Society, Stockton Historical Society, P.O. Box 30, Lodi, California 95241.
 - g) Reba Fuller, Spokesperson, Central Sierra Me-Wuk Cultural and Historical Preservation Committee-, P.O. Box 699, Tuolumne, California 95379.
 - h) Margaret Ruvalcaba Franklin, P.O. Box 687, Sloughouse, California 95683.
 - i) Leonard A. Manuel, Jr., Tule Reservation, Route 7, Box 251, Porterville, California 93257.
 - j) Lome Planas, 2786 W. San Gabriel, Fresno, California 93705.
 - k) Juanita Williams, Chairperson, North Fork Rancheria, P.O. Box 120, North Fork, California 93643.
 - l) Gilbert Cordero, Chairperson, Picayune Rancheria, 35234 Highway 41, Coarsegold, California 93614.
 - m) Jeanette Sample, Chairperson, Big Sandy, P.O. Box 337, Auberry, California 93602.
 - n) Frank Lee, Chairperson, Cold Springs Rancheria, P.O. Box 209, Tollhouse, California 93667.

The remainder of the present document details the findings of the Records Search and the pedestrian survey, and recommends appropriate measures to take in the event that significant or potentially significant sites are inadvertently encountered during construction/placement of the fiberoptics line.

LOCATION

As noted above, the project will involve excavation of a trench located entirely within State or County road rights-of-way. Where the project corridor proceeds through cities, the fiberoptics line will be placed within existing buried utility conduits and no new excavation, or excavation within previously undisturbed areas, will occur. The Area of Potential Effect (APE) thus consists of a narrow corridor adjacent to and paralleling existing roadways (outside of cities), beginning in Fresno and proceeding north by northwesterly along various roadways to Tracy, California. Lands affected by the undertaking are located within portions of the following Township/Range (MDM):

2S4E	4S8E	8S15E	13S19E
2S5E	4S10E	8S16E	
3S4E	4S11E	9S16E	
3S5E	5S11E	9S17E	
3S6E	5S12E	10S17E	
3S7E	6S12E	11S17E	
3S8E	6S13E	11S18E	
3S9E	7S13E	11S19E	
3S10E	7S14E	12S18E	
4S7E	7S15E	12S19E	

RECORDS SEARCH

Information Center Records: Prior to conducting the field survey, an archaeological records search was conducted at the Southern San Joaquin Valley Information Center at CSU-Bakersfield (RS# 96-517), and at the Central California Information Center at CSU-Stanislaus (CCIC File # 2763 ILN). The records indicate the following existing conditions for the 130 mile-long corridor:

- There have been 32 previous archaeological surveys affecting portions of the study corridor. Over 100 prior surveys have been conducted within a mile radius of the study corridor.
- There are a total of four (4) known recorded archaeological sites located within or immediately adjacent to the study corridor. Two of these are irrigation canals (the Lateral 5 West, Banta-Carbona Irrigation District [P-39-000088], and the Upper Main Canal, West Side Irrigation District [P-39-000104]). The third site consists of segments of the Western Pacific Railroad [P-39-000098], and associated features. The final site is located west of Planada, and consists of three concrete foundations [CA-MER-321H] that are likely the remains of collapsed outbuildings. Within a mile of the study corridor, there are over thirty recorded sites. However, due to the narrow APE, none of these sites will be affected by the project as presently proposed.

- o) Vernon Castro, Chairperson, Table Mountain Rancheria, P.O. Box 445, Friant, California 93626-0177.
- 5. Existing published and unpublished documents relevant to prehistory, ethnography, and early historic developments in the vicinity. These sources provided a general environmental and cultural context by means of which to assess likely site types and site distribution patterns for the project area.

Environment: The entire project area proceeds through intensively developed areas. The corridor is located within the San Joaquin Valley within generally flat terrain, and the entire route has been extensively impacted by road construction, including excavation and land leveling, importation of road base and other fill, multiple episodes of paving, construction of overpasses (in some cases), excavation of drainage ditches adjacent to roadways, and excavation in conjunction with burying utility lines, storm drains, etc. Native vegetation has been removed from most areas, in some cases being replaced with highway landscape shrubs and trees.

Ethnography: The Project Area is located in lands claimed by the Penutian-speaking Yokuts (Kroeber 1925:474-573; Wallace 1978: Figure 1). The Yokuts occupied an area extending from the crest of the Coast "Diablo" Range easterly into the foothills of the Sierra Nevada, north to the American River, and south to the upper San Joaquin River.

The basic social unit for the Yokuts was the family, although the village may also be considered a social, as well as a political and economic, unit. Villages were often located on flats adjoining streams, and were inhabited mainly in the winter as it was necessary to go out into the hills and higher elevation zones to establish temporary camps during food gathering seasons (i.e., spring, summer and fall). Villages typically consisted of a scattering of small structures, numbering from four or five to several dozen in larger villages, each house containing a single family of from three to seven people. Larger villages, with from twelve to fifteen or more houses, might also contain an earth lodge.

As with most California Indian groups, economic life for the Yokuts revolved around hunting, fishing and the collecting of plant foods, with deer, acorns, and aquatic resources representing primary staples. The collection and processing of these various food resources was accomplished with the use of a wide variety of wooden, bone and stone artifacts. The Yokuts were very sophisticated in terms of their knowledge of the uses of local animals and plants, and of the availability of raw material sources which could be used in manufacturing an immense array of primary and secondary tools and implements. However, only fragmentary evidence of their material culture remains, due in part to perishability, and in part to the impacts to archaeological sites resulting from later (historic) land uses.

Based on the results of previous survey work within the general and immediate project area, the expected range of site types included the following:

- surface scatters of lithic artifacts and debitage associated with dark brown to black “midden” deposits resulting from village encampments. Typically, such sites are located adjacent or close to permanent surface water sources;
- surface scatters of lithic artifacts and debitage without associated middens, resulting from short-term occupation and/or specialized economic activities;
- bedrock milling stations, including both mortar holes and metate slicks, located in areas where bedrock is exposed, particularly along stream channels;
- petroglyphs, especially “pitted” or “cupped” bedrock outcrops within the higher elevation zones;
- isolated finds of aboriginal artifacts and flakes,

While it was not expected that all of these site types would be encountered within the project area, it was anticipated that such sites would be the most likely *types* identified if any sites were encountered at all.

Antecedent cultures in the area span several thousands of years and document use and occupation centered along the margins of the San Joaquin Valley and the major water courses in the area. Detailed archaeological sequences are reviewed in works by Moratto 1984, Napton 1981, Ragir 1972, and others.

PEDESTRIAN SURVEY

General Observations: Field survey work was conducted by Supervisory Archaeologist Sean M. Jensen between November 5-11, 1996. The survey involved walking the undeveloped segments of the study corridor, examining intensively a swath of approximately 25 feet in width adjacent to both sides of the pavement. Particular attention was given to segments of corridor which cross streams, especially at the San Joaquin River, Fresno River, Chowchilla River, Bear Creek, Merced River, and the Tuolumne River, and several smaller unnamed stream courses encountered along the route. As well, special attention was provided the survey corridor where it proceeds through only partially developed lands or lands impacted only by agriculture. No special problems were encountered during the course of the pedestrian field survey, and all survey objectives are considered to have been satisfactorily achieved.

Little to no vegetation of any type was encountered along much of the study corridor, as most areas have been intensively developed and/or impacted by road construction, burying of utility lines and concrete conduit, and intensive agricultural activities, commercial development, and access road grading on adjacent lands. Indeed, the land surface along most of the route has been completely re-contoured, and gravel, paving and other exotic materials have been imported.

Specific Findings: Specific findings from the field survey are as follows:

- No historic-period resources were identified during the pedestrian survey of the study corridor. Regarding the four previously identified sites, the following field observations were made.

1. Site P-39-000088, the Lateral 5 West Canal, and site P-39-000104, the Upper Main Canal, both consist of concrete lined irrigation canals that are currently used for supplying irrigation water by the Banta-Carbona Irrigation District and the West Side Irrigation District, respectively. The canals have been upgraded to "modern" construction standards along their length, with incorporation of steel control gates, pipes, dams, electric pumps, etc. These sites do not retain historic attributes, or other qualities which might render them historically significant for research or exhibition values, and will not be directly affected by the undertaking.
 2. Site P-39-000098, the Western Pacific Railroad, now owned by Union Pacific, consists of a railroad alignment and various railroad features. The feature is located adjacent to but not within the APE, and will not be affected by the undertaking.
 3. The final site, CA-MER-321H, consists of three concrete foundations, and is located approximately 100 meters (c. 300 feet) north of the APE, and will not be affected by the undertaking.
 4. In addition to the above information concerning previously recorded sites near the APE, the area around San Joaquin City, located within Section 13, Township 3 South, Range 6 East, USGS Vernalis Quadrangle 7.5' Map, is considered culturally sensitive. An historical monument marker is located along the roadway at this location, and several historic-era buildings are located in the vicinity. In addition to historic structures, several fresh water mussel shell fragments were observed adjacent to the northeast side of Kasson Road, in the immediate vicinity of the historical monument and close to the present APE. The fresh water mussel shell, combined with the topographic setting (stream side terrace) near a major water course (San Joaquin River), suggest that buried cultural deposits may be present within or immediately adjacent to the proposed APE. For this reason, archaeological monitoring of this area during construction is considered appropriate (see below).
- No evidence of prehistoric activity or occupation was observed anywhere within the study corridor.

CONCLUSIONS AND RECOMMENDATIONS

No previously recorded or documented historic or prehistoric sites, and no newly identified resources, will be affected by the undertaking, as presently proposed. However, buried historic and prehistoric cultural materials could possibly be present in the vicinity of San Joaquin City (within Section 13, Township 3 South, Range 6 East, USGS Vernalis Quadrangle 7.5' quad), based on surface observation of fresh-water mussel shells and consideration of geomorphologic attributes. In view of this possibility, monitoring of construction in this area by a qualified professional archaeologist is considered appropriate to ensure that significant cultural materials are not inadvertently impacted.

It is reasonable to conclude that significant historic properties will not be affected by construction of the fiberoptics longhaul line, as presently proposed. While archaeological clearance can therefore be recommended for the proposed undertaking, archaeological monitoring (per the above recommendation), and the following general provision, are considered appropriate:

The present evaluation and recommendations are based on the findings of an inventory-level surface survey only. There is always the possibility that potentially significant unidentified cultural materials could be encountered below the surface during the course of construction activities. In such a situation, archaeological consultation should be sought immediately.

REFERENCES

ACHP (Advisory Council on Historic Preservation)

- 1985 Guidelines for Consideration of Traditional Cultural Values in Historic Preservation Review. Washington, D.C.: Advisory Council on Historic Preservation (Draft Report, August 1985).

CFR (Code of Federal Regulations)

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Federal Resister, Volume 53, No. 100, Tuesday, May 24, 1988.

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Wallace, William J.

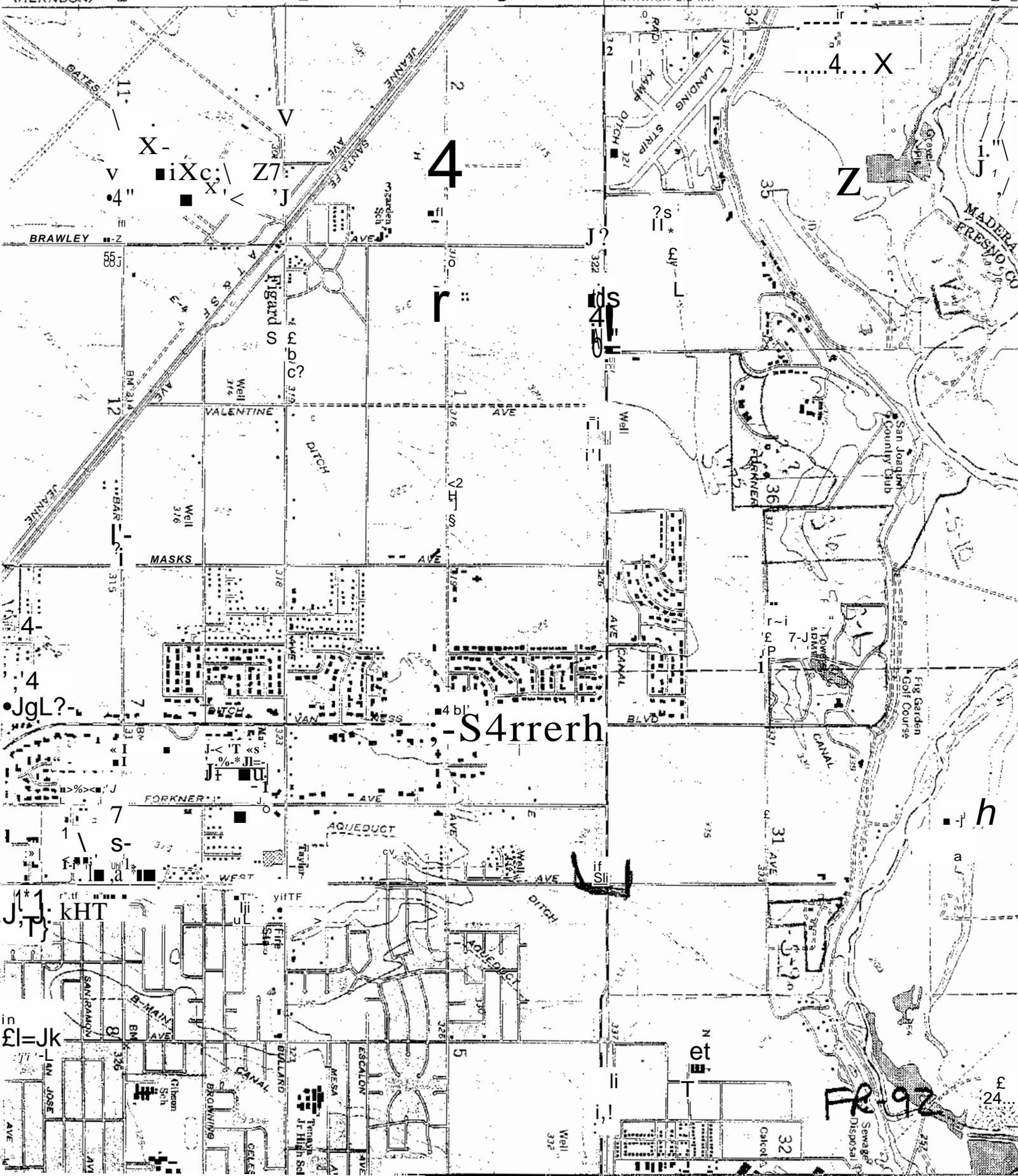
- 1978 Northern Valley Yokuts, IN, Handbook of North American Indians, Volume 8: California, Robert F. Heizer, Editor, pp. 462-470. Smithsonian Institution, Washington, D.C.

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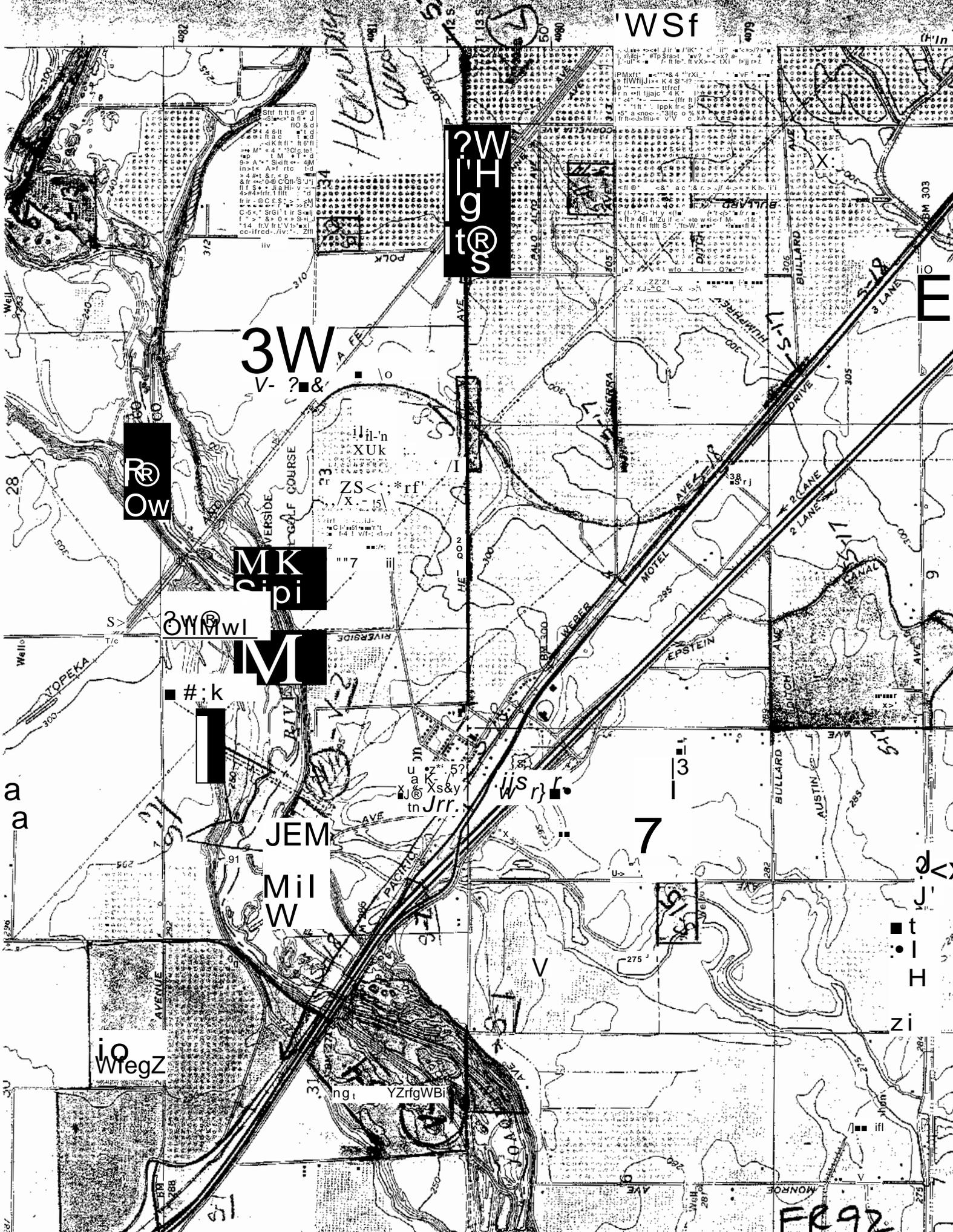
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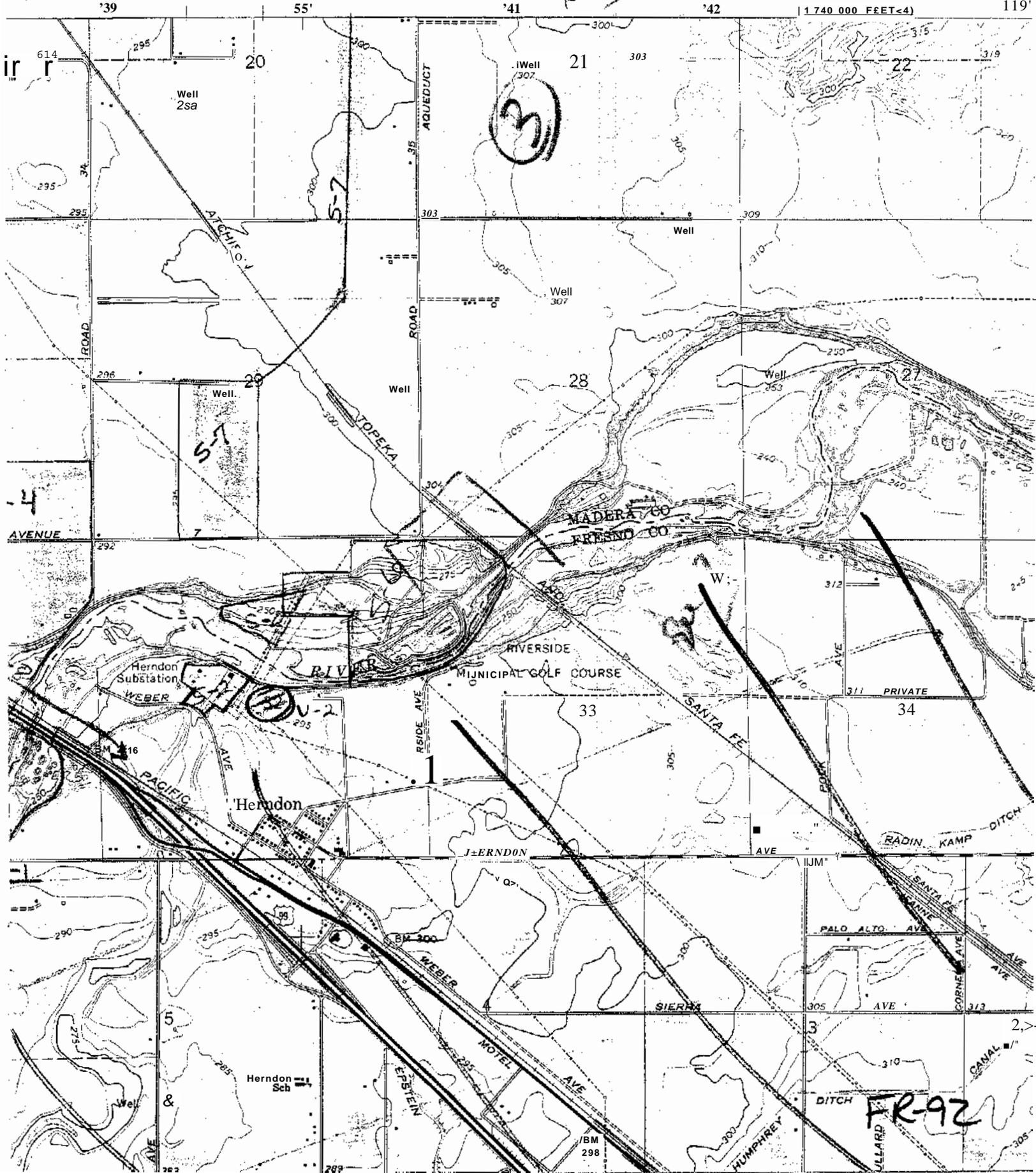
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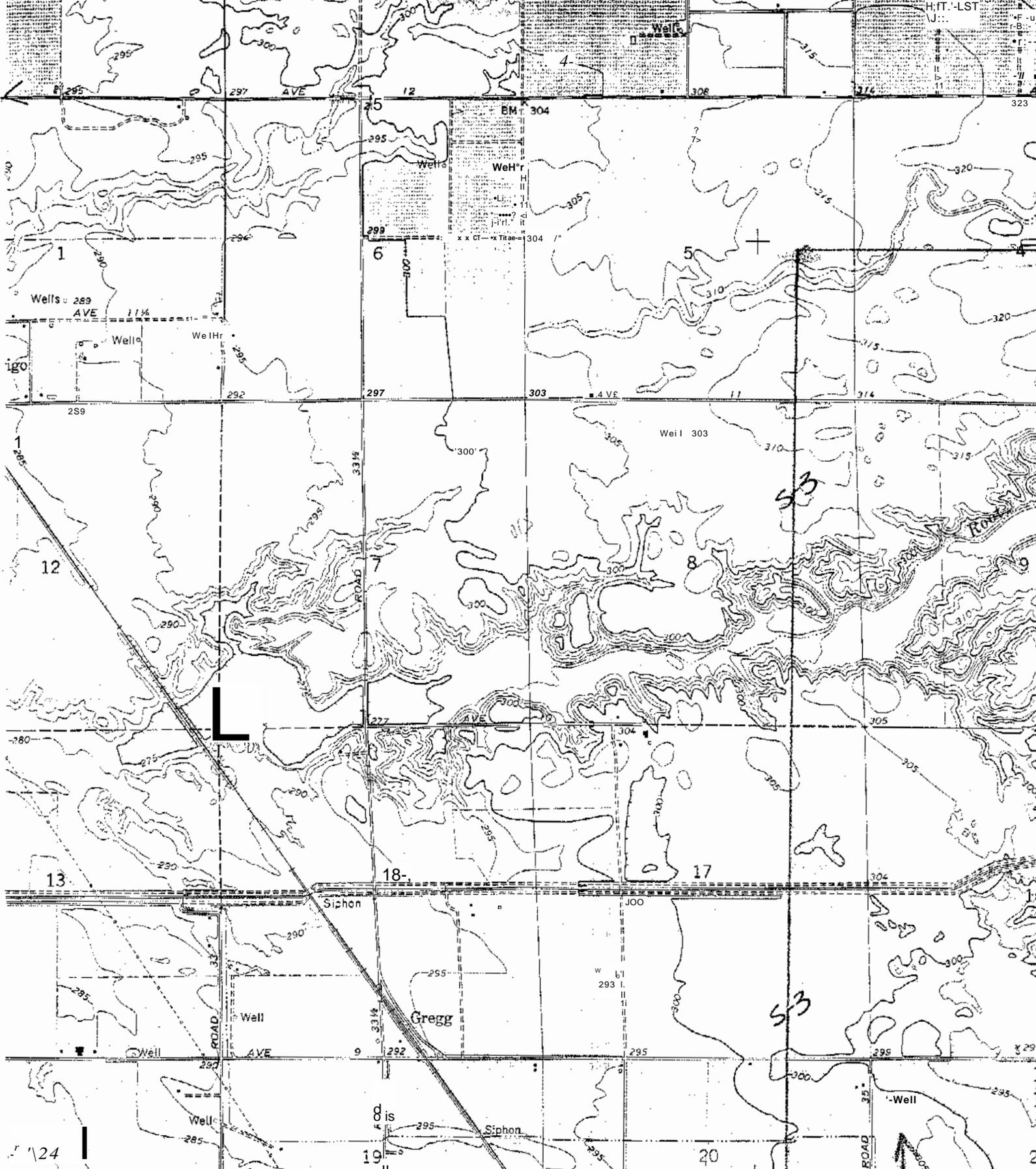
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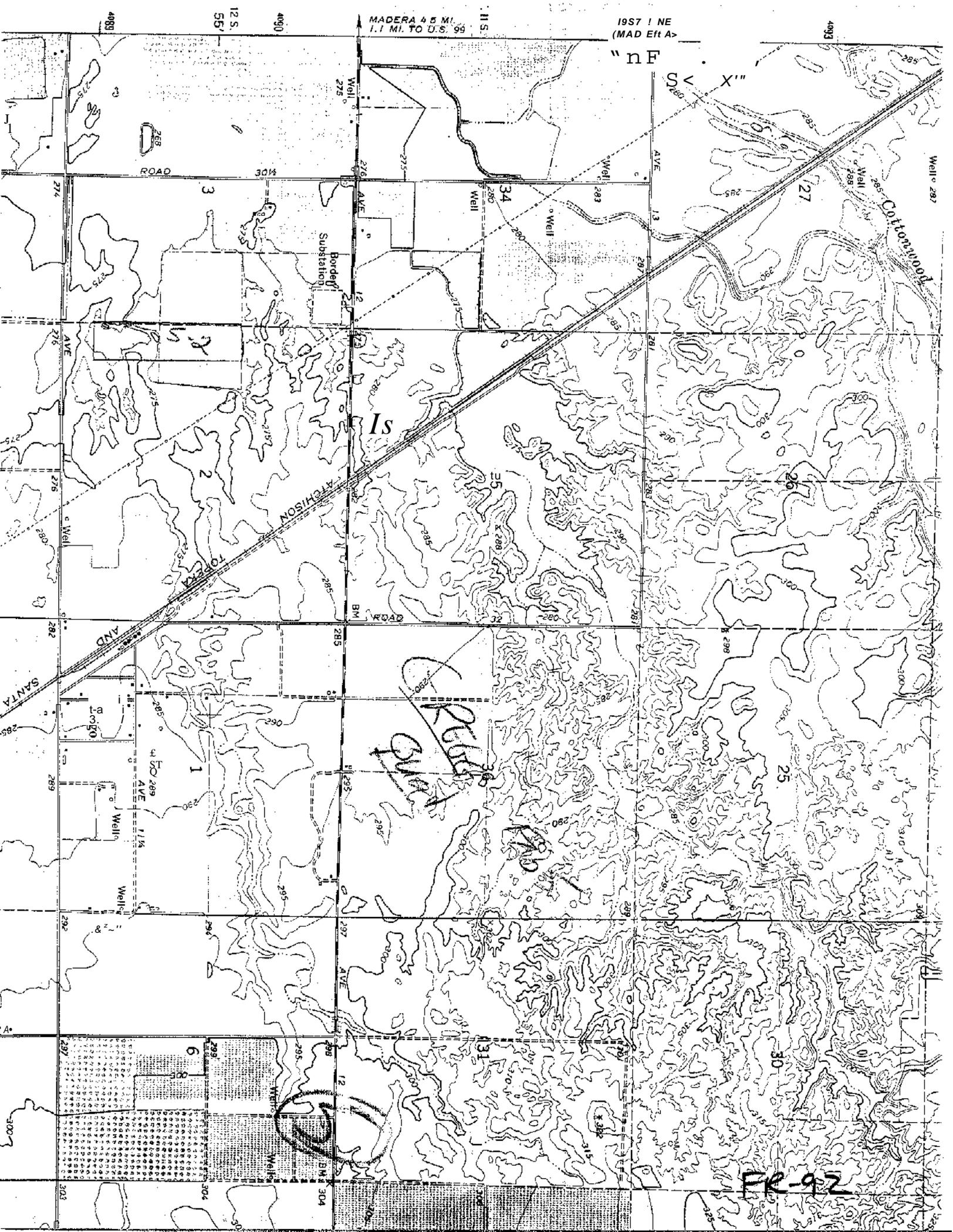
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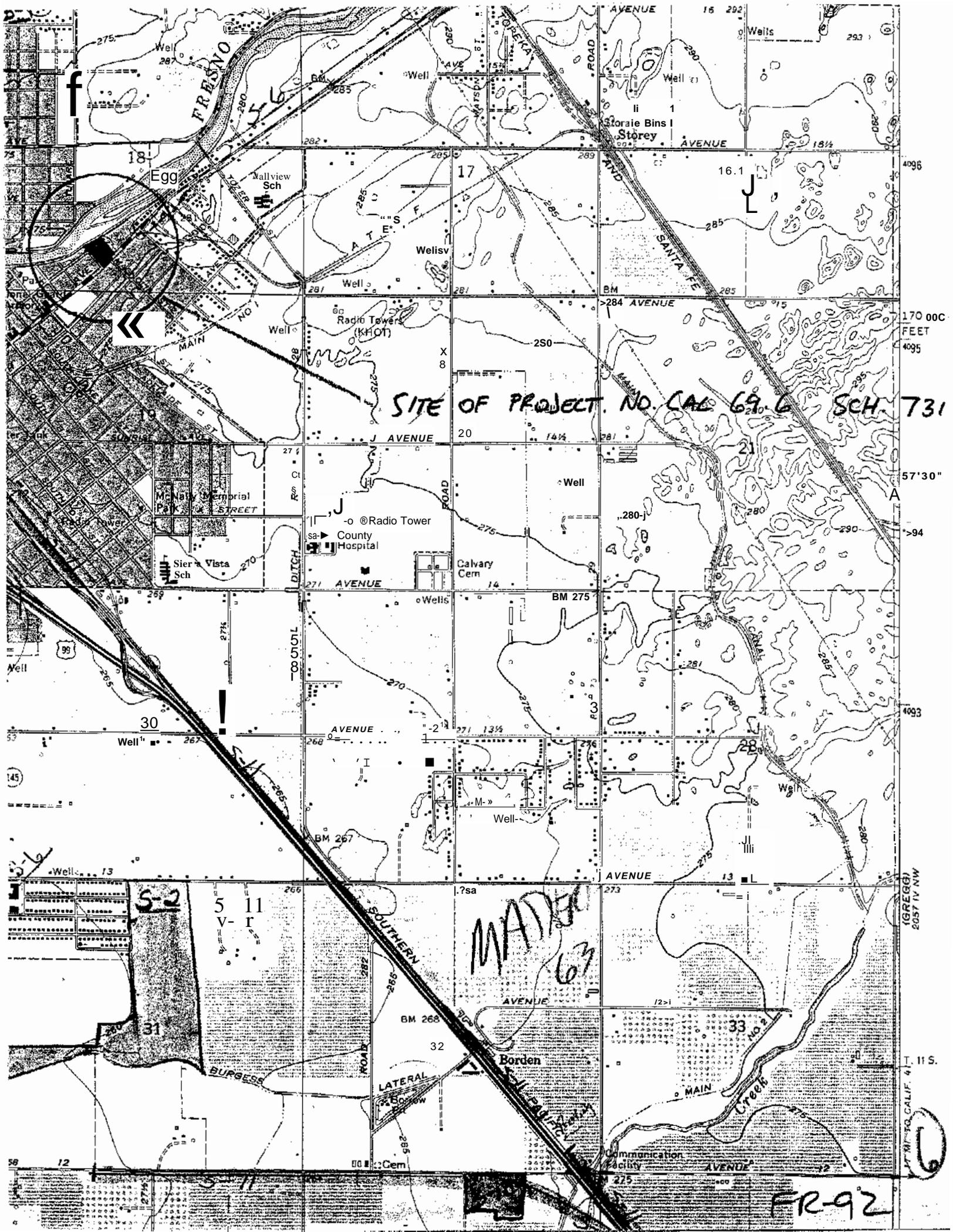
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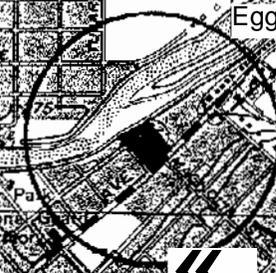


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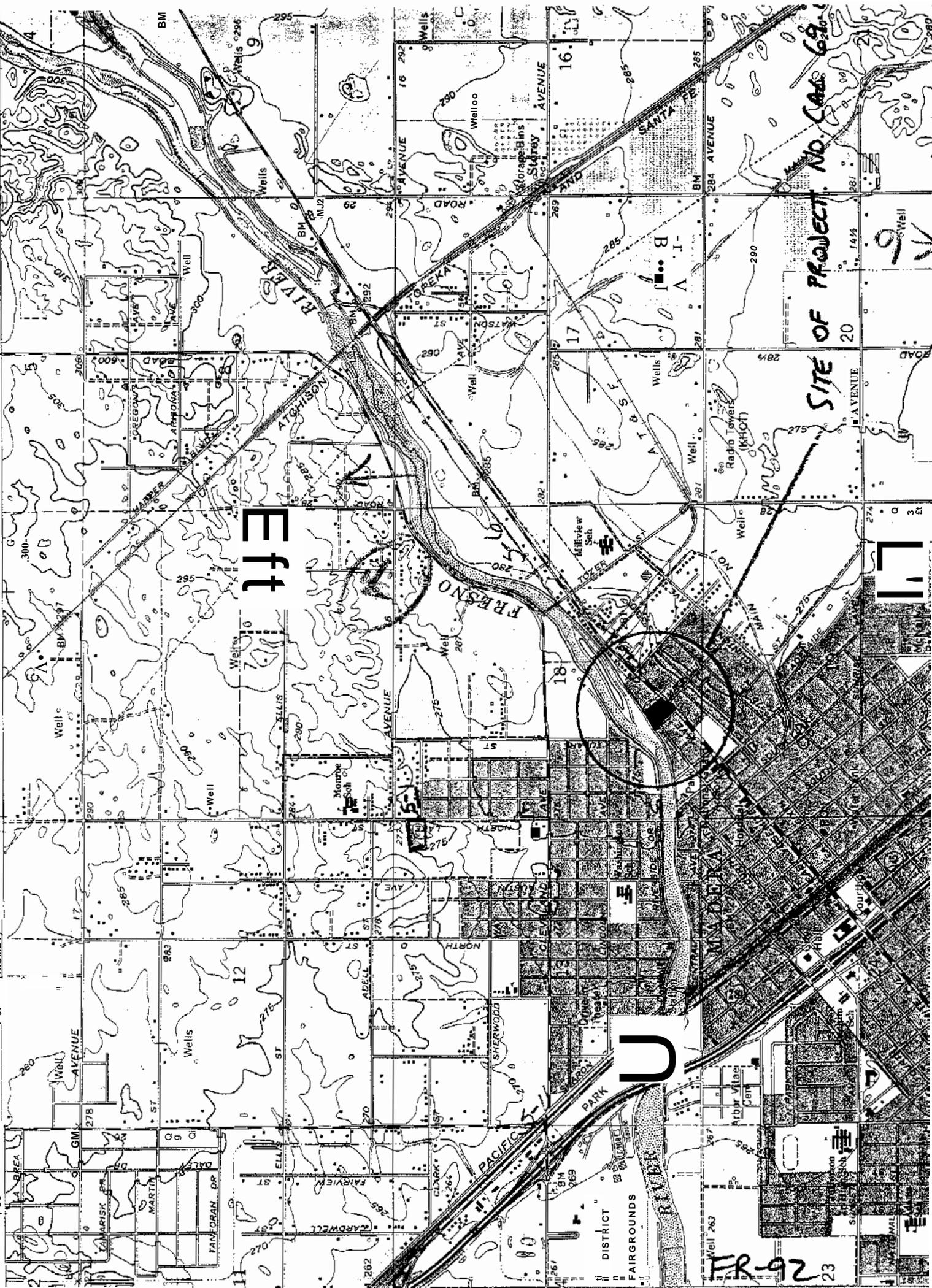
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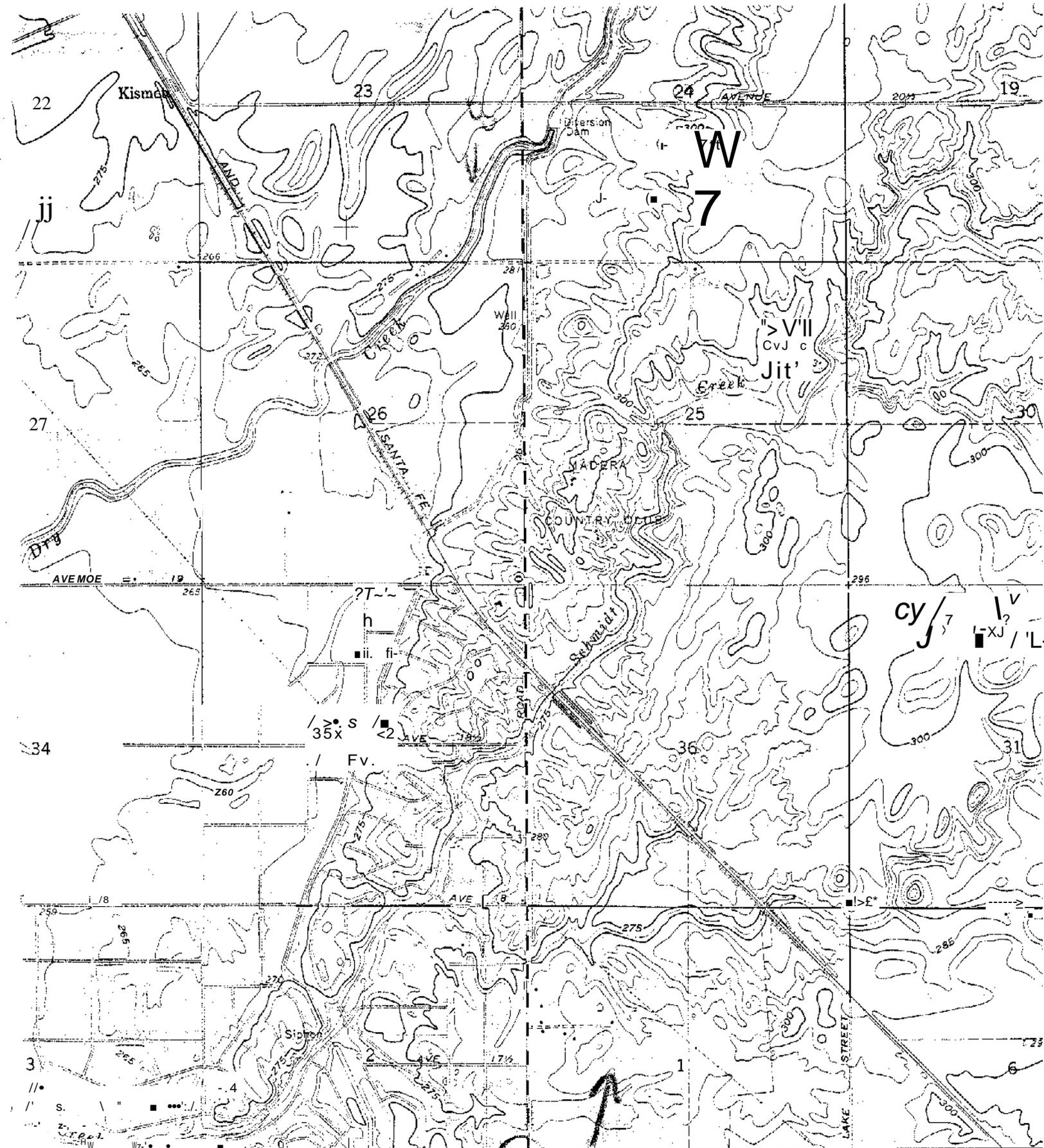


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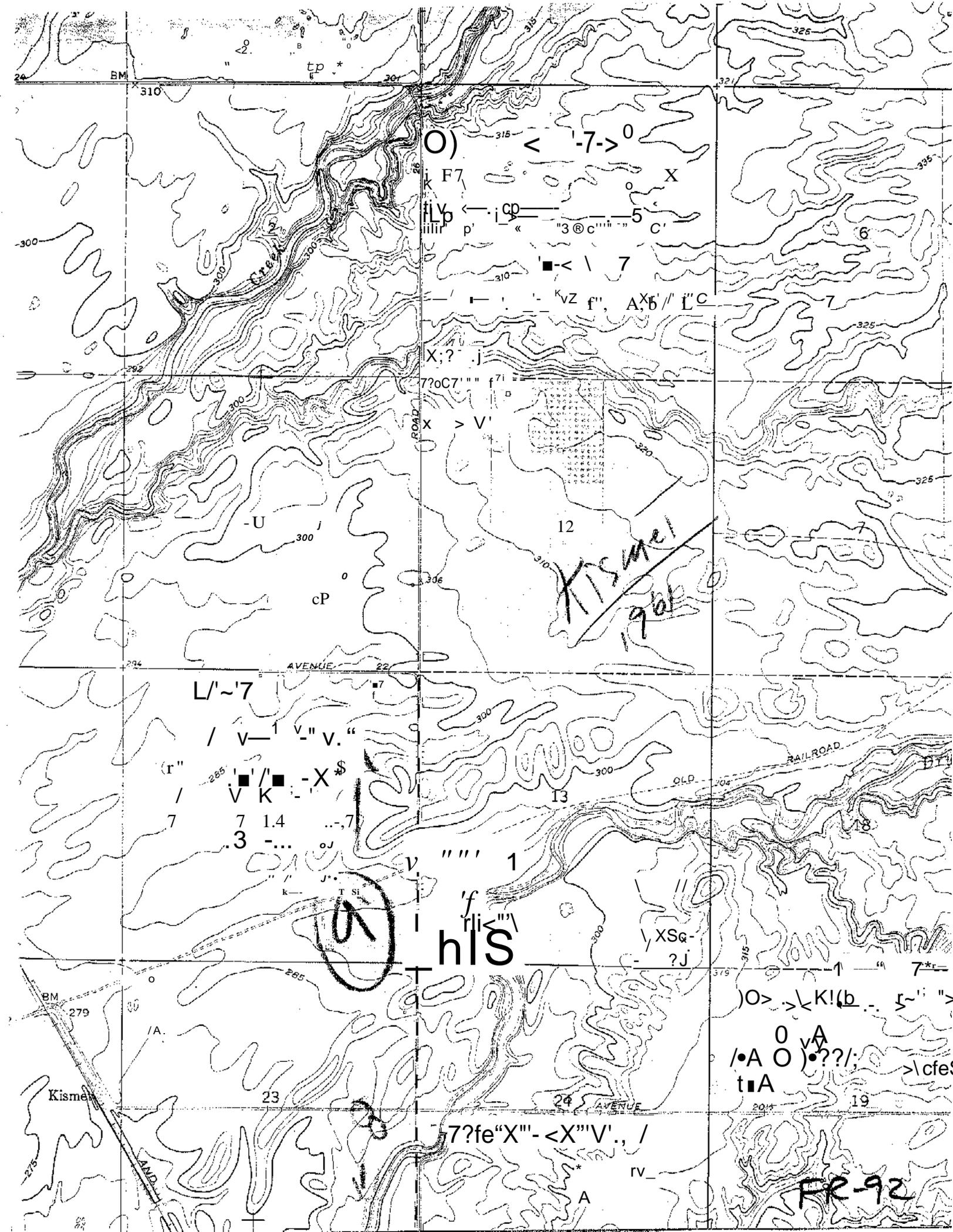


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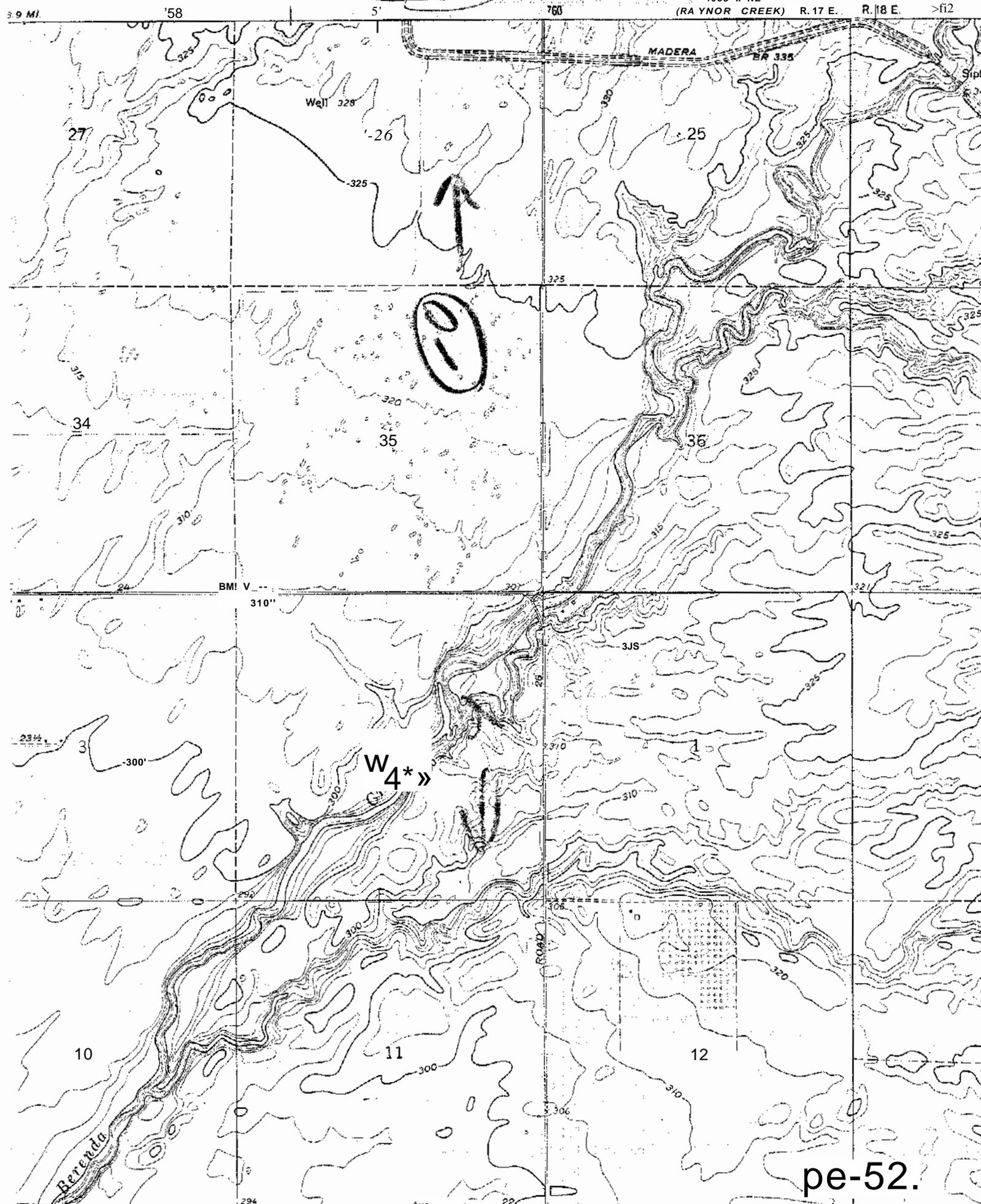
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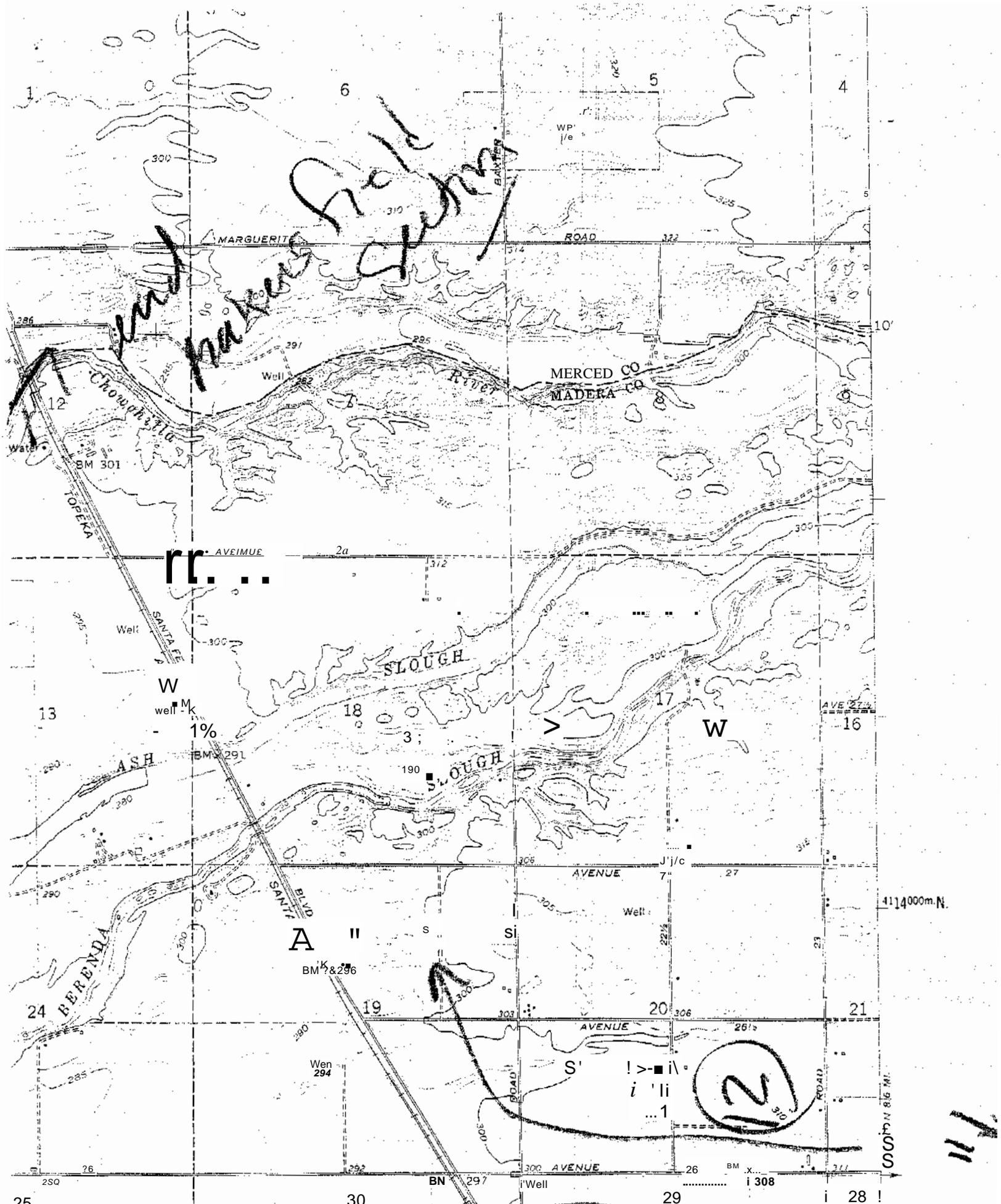
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**CULTURAL RESOURCE RECONNAISSANCE
FOR THE TRIGO INDUSTRIAL PARK
EIR, MADERA COUNTY**

Southern San Joaquin Valley
Archaeological Information Center
9001 Stockdale Highway
Bakersfield, CA 93311-1099

BY
MICHAEL K. CRIST
SEPTEMBER 1982

PREPARED FOR
MADERA COUNTY PLANNING DEPARTMENT

BUADA ASSOCIATES
2350 W. SHAW, SUITE 122
FRESNO, CALIFORNIA 93711
(209) 432-4902

MA 00216

Project Location

The project area is located about 5 miles southeast of the City of Madera and about 2 miles north and east of Highway 99. The project area is bounded on the north by Avenue 11, on the south by Avenue 10, and by agricultural land and lumber mills to the east and west. The location of the project falls within portions of Section 2, Township 12 South, Range 18 East, Mount Diablo Base and Meridian, U.S.G.S. 7^{1/2} Minute Gregg Quadrangle (Figure 1). Fieldwork was*conducted on August 31, 1982.

Project and General Environmental Description

The proposed project is the development of a 287 acre parcel for industrial use. As of yet, there are no plans as to what type of industry will occupy the parcel.

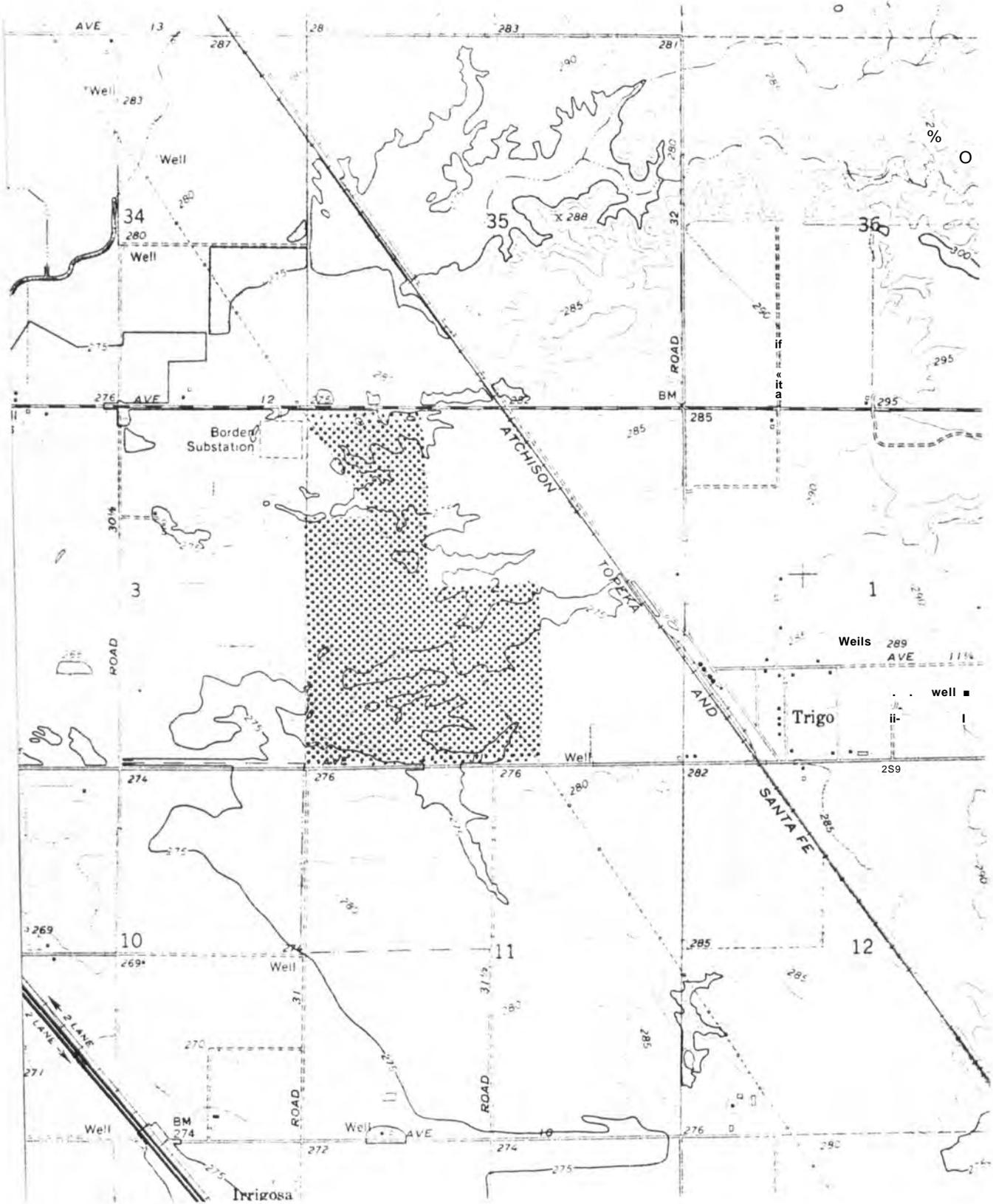
The project area exists on agricultural land. Vegetation was characterized by field stubble and a few weeds. Wildlife noted during the survey included ground squirrels and reptiles. The elevation of the project area is about 275 feet.

Pre-field Research and Previous Investigations

A. Archaeology

Archaeological research in the southern Sierra Nevada and San Joaquin Valley has been ongoing for over 50 years. Early studies focused primarily on the identification of archaeological sites; however, no major archaeological investigations were undertaken at this time.

As Wallace (1978a) has noted, prehistoric occupation initially occurred some 10,000-12,000 years ago. Economic emphasis at this time probably focused on; hunting of game animals and exploitation of lacustrine resources. Sometime after 6,000 B.C., food procurement shifted from animal to plant resources. This exploitation pattern endured for several thousand years. By 3000 B.C., a variety of plant and animal foods were utilized. Hunting game, collecting plant roots and seeds, and fishing became important. After 300 B.C., movement of aboriginal groups into different environmental niches became more commonplace. Population increases were evident as well. By A.D. 300, the acorn



Project Location

U.S.G.S. Gregg
7k' Quadrangle

FIGURE 1

became the most important dietary commodity.

Major studies in the vicinity of the project area include those completed by Varner (1976), Varner and Bernal (1976), Varner and McCormick (1977), Moratto (1972), and Crist (1981). Excavation of archaeological deposits along the Chowchilla River has suggested that habitation in the area probably first occurred about 300 B.C. with hunting being the favored subsistence activity. By A.D. 1500, the reliance on plant foods, particularly the acorn, became more commonplace (Moratto 1972). At the Recreation Point site at Bass Lake, Varner (1976) was able to show that prehistoric occupation initially date about 200 B.C. Closer to the project area, excavations have taken place along the San Joaquin River at Kerckhoff Reservoir. Material recovered from a number of sites suggest a date of occupation after A.D. 1450 (Varner and Bernal 1976; Varner and McCormick 1977). Crist (1981) studied locational information derived from 200 archaeological sites in Fresno and Madera Counties in order to predict sensitive areas where sites would most likely be found. Areas along stream terraces, where distances from perennial streams were less than 100 meters, and where slopes were less than 15 percent contained more archaeological sites than those areas not exhibiting these characteristics.

In general, it can be concluded that most artifacts recovered during excavations in the general vicinity reflect similar cultural patterns exhibited by ethnographically identified Indian groups that lived in the area at the time of contact.

B. Ethnography

Information concerning the Native Americans who lived within the project vicinity is little known. Except for details supplied in the writings of explorers, soldiers, missionaries, and travelers, no major ethnographic data has been collected on any of the Yokuts tribes who occupied the area of the northern San Joaquin Valley. The reason for the scarcity of information is that many of these people disappeared in a relatively short period of time as a result of introduced disease, missionization and conflict between American miners and ranchers. Nevertheless, some information has survived over the years, and when augmented with other data derived from archaeological excavations, provides a description of the lifeways of

these people. The ethnographic literature of the Northern Valley Yokuts described here is derived from Shipley (1978), Wallace (1978), and Kroeber (1925).

The Northern Valley Yokuts were members of the Yokutsan language family of Penutian stock (Shipley 1978:83-84). Aligned with other Yokutsan speaking people throughout the San Joaquin Valley and the Sierra foothills, the Northern Valley Yokuts occupied a region that extended from about the Sacramento-San Joaquin River Delta area in the north to the eastward flowing portion of the San Joaquin River in the south. The western boundary of the Northern Valley Yokuts territory probably extended to the crest of the Diablo Range, while the eastern boundary, not as well-defined in the north included much of the valley floor to the base of the Sierra Nevada foothills. The Yokuts tribe that lived near the project area was the Hoyima.

Not all of the Northern Valley Yokuts territory was occupied. Most settlements were located on top of low mounds along the major rivers that courses through the territory. These included the San Joaquin, Fresno, Chowchilla, Merced, Tuolumne, Stanislaus, and the Calaveras Rivers. Flat, featureless plains existed on both the eastern and western sides of the San Joaquin River and because of the lack of water, these areas were visited but only occasionally during the year. Tule marsh areas were widespread in many regions.

Food was abundant in the Yokuts territory. Hunting, fishing, and gathering activities were carried out year round, though most plant food sources were collected only during harvest. Acorns, for example, were gathered in the fall from large stands of valley oak. Fishing was also of prime importance, with salmon being the most sought after variety. Other fish included white sturgeon, perch, western suckers and pike. Geese and ducks were undoubtedly hunted and provided an additional source of meat. Whether elk or antelope were hunted in any significant numbers remains unknown at this time, although it has been suggested that they were only a marginal source of food. Seeds from a variety of plants were collected throughout the year.

No evidence remains as to the extent of the Northern Valley Yokuts social organization. If parallels can be drawn from the organizational practices of neighboring Native American groups, it can be assumed that the Northern

Valley Yokuts, much like their Foothill and Southern Valley Yokuts counterparts, were organized into lineages with a descent pattern reckoned through the male line. Each lineage probably had a totem that was treated respectfully by its followers and provided members of the group with strength and wisdom. The smallest social unit was undoubtedly the family.

Method of Field Observation

The parcel was systematically examined for evidence of historic or prehistoric occupation or other kinds of land alteration or use. The parcel was walked in parallel transects spaced approximately 35 meters apart. Back dirt from rodent burrows, as well as other areas of ground not completely hidden by grass, were examined for cultural debris that included obsidian, chert, and basalt flakes, bedrock mortars, areas of occupation midden, pottery, porcelain, square nails, and other material suggesting human habitation. Grass cover made it impossible to completely view the ground surface in much of the project area.

Field Observations

No areas of prehistoric occupation or significant historic occupation or land use were located within the project boundaries.

Summary and Recommendations

Since no features of cultural significance were located on the site, no direct mitigating measures are offered. However, in the event that evidence of prehistoric occupation be uncovered during project development, activity within 100 feet of that feature should be stopped immediately and a qualified professional archaeologist be consulted to determine appropriate mitigating measures.

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CULTURAL RESOURCES SURVEY
FOR THE LEVEL (3) COMMUNICATIONS
LONG HAUL FIBER OPTICS PROJECT

Segment WS04: Sacramento to Bakersfield

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June 30, 2000

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INTRODUCTION

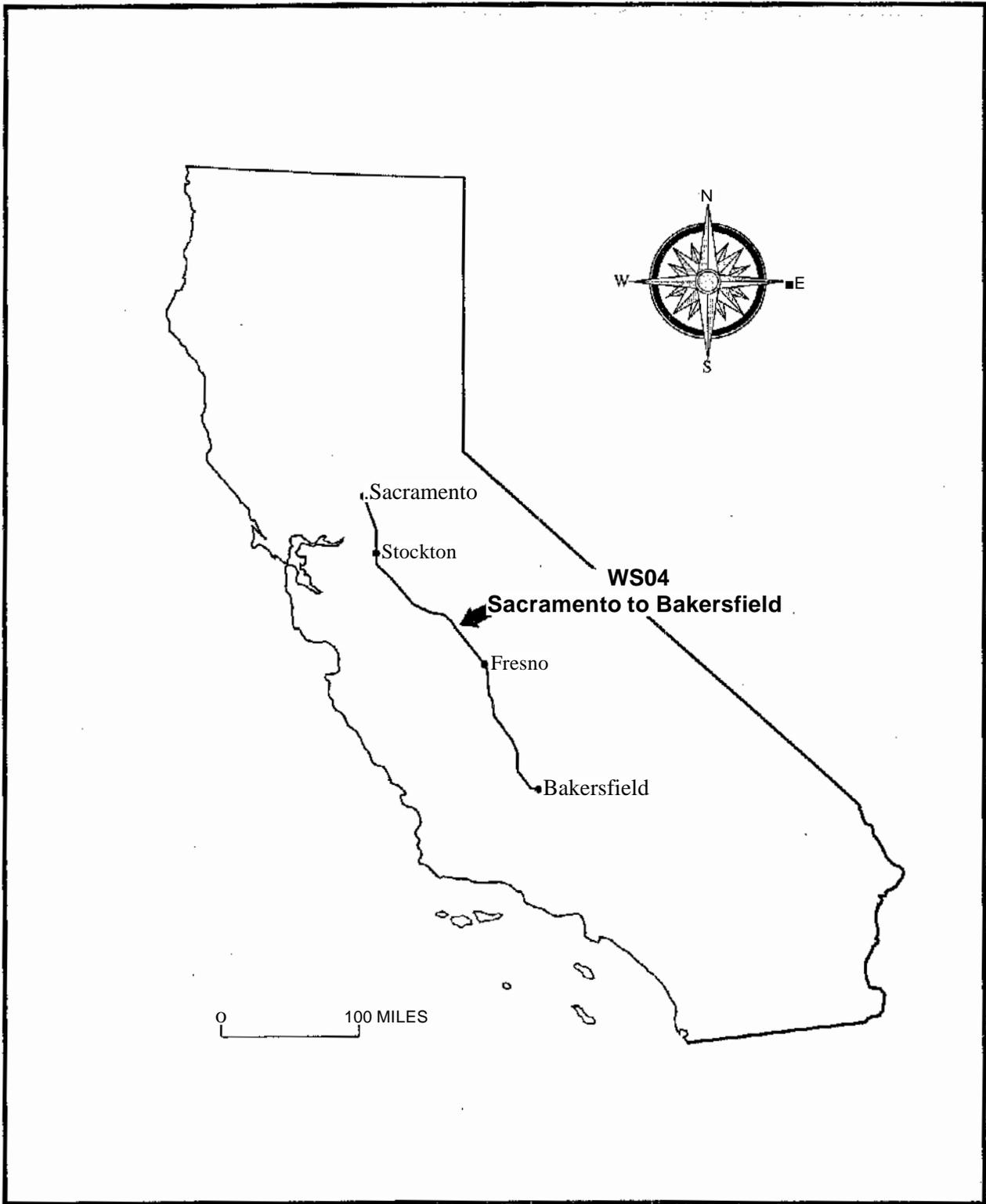
This draft report, prepared by Far Western Anthropological Research Group, Inc. (Far Western), presents the results of a cultural resource survey of the proposed Level 3 Communications (Level 3) Fiber Optics cable route in Sacramento, San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and Kern counties, California (Map 1). Far Western was hired by Parsons Brinckerhoff Network Services, Inc. (PBNS) to conduct a pre-field records search, field survey, and site recordation, and provide recommendations for avoidance of cultural resources. The results are presented in this document; materials (e.g., site records, maps) supporting the recommendations are included in the appendices.

PROJECT SUMMARY

Level 3 is currently building a national long-haul communications fiber optics network. Level 3 is the project owner, Kiewit Pacific Company (Kiewit) the project constructor, and PBNS the project engineer. The Sacramento to Bakersfield route (WS04) is one of several city-pair segments linking Level 3 gateway facilities in California. Construction of the network entails the placement of approximately 3219 kilometers (km) (2,000 miles) of fiber optic cable in California. The proposed cable will be buried within existing utility easements (mostly in Union Pacific and Burlington Northern Santa Fe Railroad right-of-way[ROW]) and roadways. Some project facilities may extend beyond the existing utility right-of-way, including In Line Amplification sites (ILAs; see Appendix E), Retime, Reshape and Regenerate facilities (3Rs), and Work-arounds. ILA and 3R above ground facilities were considered for placement at regular intervals on 5-acre parcels located in close proximity to the main fiber route. Work-arounds were designed to comply with an agency directive or permit, often with the intent to bypass a sensitive (i.e., biological, cultural) area. Staging areas, used to assemble and store equipment, were to be situated at various points along the route, occurring primarily on industrial properties.

The Level 3 Long Haul Fiber Optic project is guided by the California Environmental Quality Act (CEQA). The California Public Utilities Commission (CPUC) is the designated Lead Agency for this project. According to the Initial Study and Mitigated Negative Declaration IX approved by the CPUC on March 26, 1998, most of the construction would be underground and limited to previously disturbed areas. Thus, environmental impacts would be minor and, where potentially significant impacts may occur, such impacts could be mitigated by avoiding.

The construction zone for installation of the cable will be approximately 6 meters (20 ft) wide to allow for movement of heavy equipment (e.g., dozer plow, spider plow, and back hoe); however, subsurface disturbance will be limited to a 0.3 meter (1 ft) wide by 1.2-1.5 meter (4-5 ft) deep trench (PBNS 1999:6). Construction and installation of the cable line includes direct burial cable plowing, directional and conventional boring, and open trench construction. Although the cable will be laid primarily in disturbed areas, installation had the potential to affect known and previously unidentified cultural resources. Far Western's goal was to help Level 3 *avoid* all known and newly discovered resources, and comply with cultural resource laws and regulations (e.g.,



Map 1. Cable Route Location for the Sacramento to Bakersfield Segment.

CEQA) as they apply to the Long Haul project.

For potential construction outside the railroad or utility ROW, Level 3 prepared a Draft petition to modify its Certificate of Public Convenience and Necessity. These construction activities (e.g., work-arounds and ILAs) required a separate review under CEQA by the CPUC. The "cultural" analysis section of the CEQA Initial Study Environmental Checklist was completed by Far Western for all proposed ILA locations and relevant work-arounds. Far Western recommended abandoning ILA sites when a records search or field survey identified cultural resources in that locality (see Appendix E: ILA Surveys).

Far Western performed a limited number of test excavations to determine whether or not a site's boundary extended into the ROW. Far Western's recommendations always followed the preferred CEQA recommended option of avoidance. Far Western's involvement was limited to identifying sites and providing recommendations to PBNS. This draft report summarizes the results of Far Western's work only.

SCOPE OF WORK

Far Western's role in this project was divided into four phases.

Phase 1: Records Searches - A complete records search was undertaken for this segment at the North Central Information Center (NCIC), located at California State University, Sacramento; the Central California Information Center (CCIC), located at California State University, Stanislaus, Turlock; and the Southern San Joaquin Valley Information Center (SSJVIC), located at California State University, Bakersfield, of the California Historical Resources Information System. The study area for records search for the project was defined by PBNS (1999:8) as one-quarter mile (402.3 meters [1320 ft]) on either side of the railroad centerline, for a total of a one-half mile-wide (804.6 meters [2640 ft]) corridor. The study area for ILA sites extended one-half mile beyond the proposed site boundary. In addition, a request was made to the Native American Heritage Commission (NAHC) to search their "Sacred Lands" file to see if there were any sites that may be impacted by construction of the cable line. The NAHC sent a list of Native American contacts that was forwarded by Far Western to PBNS. TRC/Mariah, another firm under contract with PBNS, was responsible for contacting the individuals and providing them with appropriate maps of the proposed project corridor.

Phase 2: Archaeological Reconnaissance - Field surveys were completed of the proposed route with the intent of relocating known cultural resources and identifying previously unknown or unrecorded resources. The survey corridor extended 15.2 meters (50 ft) on either side of the railroad tracks or road centerline. For safety reasons, the area within 7.6 meters (25 ft) of the tracks could not be walked, leaving only a 7.6-meter (25-foot) survey corridor. For ILAs, 3Rs, staging areas, work-arounds, and other areas that were outside railroad or road ROW, the field survey covered the actual physical extent of those areas (as defined by project engineers or other PBNS personnel).

Phase 3: Recommendations for Avoidance - Far Western made recommendations for avoidance of cultural resources to PBNS staff. These recommendations were based on results of their field survey, in some cases site testing, additional background archival research, and consultation with JRP Historical Consulting Services (JRP) and Foothill Resources, Ltd. (Foothill).

Phase 4: Final Report - This document represents the final report on the results of the cultural resources records search and survey.

JRP was hired by PBNS as an historical consultant to conduct archival research and make recommendations for avoidance on historic structures, buildings, and objects. TRP was to field-check historic structures or buildings within the project ROW that would be disturbed or altered by construction activity, as well as any buildings or structures in close proximity to Level 3 above-ground facilities (see Field Review of Historic Resources section). Foothill was hired by Far Western as a sub-consultant to provide additional archival research on historic-period archaeological sites.

PROJECT LOCATION AND SURVEY DESCRIPTION

The Sacramento to Bakersfield city-pair segment of the Long Haul fiber optics cable route passes through nine counties in the Central Valley, following the Union Pacific and Burlington Northern Santa Fe railroad ROW. The running line, as established during the period covered by this report, in the city of Sacramento at mile post (MP) 38.8, following the Union Pacific railroad ROW. Heading in a south/southeast direction, the segment ends in the city of Bakersfield at MP 314. Field surveys took place from March 15, 1999 to May 5, 1999.

The maps (Appendix A), tables (Appendix C), and records search materials (Appendix Band D) included in this report for WS07 are inclusive of the area bounded by MP 38.8 to the north and MP 314 to the south, comprising the main running line surveyed by Far Western.

SURVEY ROUTE

Far Western's archaeological reconnaissance began at MP 38.8 at the point where the Union Pacific railroad tracks cross H Street in the city of Sacramento. The survey route continued south along the Union Pacific railroad ROW through the cities of Lodi and Stockton until it reached Lathrop Road (MP 92) at the north end of the town of Lathrop. At this point the route moved off the main Union Pacific railroad tracks and onto a branch of Union Pacific railroad tracks heading in a southeasterly direction through the towns of Manteca, Ripon, Salida, Modesto, Ceres, Keyes, Turlock, Delhi, Livingston, Atwater, and Merced.

At MP 149 in Merced, the route turns to the left, off the Union Pacific railroad ROW and onto V Street, heading in a northeast direction to tie in with the Burlington Northern Santa Fe running line at MP 1057. From this point the survey route follows the Burlington Northern Santa Fe railroad ROW eastward through the towns of Tuttle and Planada. In Planada at MP 1046.97, the route turns toward the south, passing through the towns of Le Grand and Madera on the way to Fresno. At MP 996, in southern Fresno, the Burlington Northern Santa Fe railroad parallels the Union Pacific railroad tracks to MP 994. This is where the two railroad lines separate. The survey route continues along the Burlington Northern Santa Fe railroad ROW heading south through the towns of Monmouth, Laton, Hanford, Corcoran, Allensworth, Pond, Wasco, and Shafter.

At MP 890 the Burlington Northern Santa Fe route joins the Union Pacific railroad. At this point, the route heads to the north along a short section of the Burlington Northern Santa Fe railroad ROW that parallels the Union Pacific tracks for two miles (NIP 113-111). The parallel tracks end at a junction with the Union Pacific railroad. The survey followed the Union Pacific tracks from MP 313 in a southward direction to the segment terminus at MP 314. The Sacramento to Bakersfield survey ended at the point where the railroad tracks cross Mt. Vernon Ave. in the city of Bakersfield.

NATURAL AND CULTURAL SETTING

This section of the report provides brief reviews of historic, ethnographic, and archaeological data for the survey area. Also considered here are aspects of the natural and cultural environments characterizing the study area.

NATURAL SETTING

The survey corridor for the Sacramento to Bakersfield segment passes through what is commonly known as the Central Valley, or Great Central Valley. The Central Valley, measuring 750 km (466 miles) long and from 30 to 80 km (18.6 to 49.7 miles) wide, was once an inland sea. The valley is bounded on the east by the Sierra Nevada Mountains, and the Coast Ranges on the west. The Tehachapi and Siskiyou ranges form the southern and northern boundaries, respectively. The valley floor is underlain by alluvial sediments, up to 17 km (10.5 miles) thick, derived mostly from Sierra streams. Two major river systems, the Sacramento and San Joaquin, bisect the valley lengthwise, and merge in the Sacramento-San Joaquin Delta before they drain into the San Francisco Bay. The Central Valley is divided into two subregions, the Sacramento Valley to the north and the San Joaquin Valley to the south. Only a small portion of the Sacramento to Bakersfield segment cuts through the Sacramento Valley; most of the line passes through the San Joaquin Valley.

Grassland is the dominant vegetation throughout the valley, except along rivers and sloughs, where oak (*Quercus* spp.), cottonwood (*Populus* spp.), and willow (*Salix* spp.) reside. In aboriginal times, native deer, Tule elk, and pronghorn grazed the grassland prairie. The grasslands are dominated by perennial species, such as purple stipa (*Stipa pulchra*), nodding stipa (*S. cernua*), pine bluegrass (*Poa scabrella*), blue wildrye (*Leymus glaucus*), California brome (*Bromus carinalis*), and a triple-awned grass (*Aristida divaricata*) (Crampton 1974; Munz and Keck 1973). Perennials, such as creeping wildrye (*Leymus triticoides*), slender wheatgrass (*Agropyron trachycaulum*), bearded wheatgrass (*Agropyron subsecundum*), and deergrass (*Mulenbergia rigens*) grew along the tule marsh edges of the Sacramento and San Joaquin rivers. Within the marshes, perennials such as tufted hairgrass (*Deschampsia caespitosa*), spike bentgrass (*Agrostis exarata*), common reed (*Phragmites australis*), and rice cutgrass (*Leersia oryzoides*) could be found. Other micro-environments, such as the alkaline flats and vernal pools, supported unique perennial and annual species.

Fish species that inhabit the Central Valley rivers, streams and sloughs include rainbow trout, speckled dace, California roach, squawfish, Tule perch, sucker, chub, and anadromous fishes such as Chinook salmon, steelhead, Pacific lamprey, and white sturgeon. The wetlands were also home to a variety of ducks, geese, and the Great Blue heron.

Average rainfall for the valley is less than 25.4 centimeters (10 inches) per year. Rain falls almost entirely in the winter months, and the summers are long and dry. Prior to irrigation, most grasses dried and turned brown in the summer. Over time, the native bunch grasses have been replaced by imported annual species of *Bromus*, *Festuca*, and *Avena*. This is primarily due to

overgrazing by livestock since their introduction by the Spanish in the 1800s. Furthermore, continuous, extensive agriculture in the Central Valley has eliminated much of the remaining native grassland. The modern growing season is seven to 11 months with 205 to 325 frost-free days (Munz and Keck 1973), making the Central Valley a prime area for agricultural pursuits.

CULTURAL CONTEXT

Important changes in land use and ownership reflect the periods of Native American, Mexican, and Anglo-American settlement in the study area. The historical and cultural setting of the study area is presented below to underscore the mix of cultural resources that may be encountered due to these varied occupations.

Historic Period

Spanish exploration into interior California began in 1808 with Moraga's expedition into the San Joaquin Valley to locate mission sites and runaway Native American neophytes. Between 1810 and 1820 several additional minor expeditions were taken into the Central Valley and along its waterways; however, no settlements were established.

Later expeditions into interior California in the 1820s and 1830s by the Mexicans were often met with hostility from the Miwok and Yokuts peoples. Most of the violent interactions were over Indian thefts of Mexican horses, the horses having replaced the acorn as a dietary staple (Beck and Haase 1974). Beginning in 1824, under Mexican rule, land in California was divided into large parcels or Mexican land grants, referred to as ranchos. Land grants were awarded in the Central Valley to create stability in the interior lands of California. Eight land grants were claimed in Sacramento County, with six in San Joaquin, five in Stanislaus, four in Merced, one in Fresno and Kings, and five in Kern counties. The ranchos were most often very large, such as the Rancho del Campo de los Franceses, a 48,747 acre tract of land granted in 1844, that includes the modern towns of Lathrop, Stockton, and French Camp.

Anglo-American intrusion into the Central Valley began in 1826, when Jedediah Smith and his fur trapping party occupied the San Joaquin River. The Hudson's Bay Company trappers soon began hunting beaver in the Sacramento and San Joaquin Rivers. In the early 1840s, American immigrants, encouraged by the writings of fur trappers, began moving into California. In 1843, Joseph Walker, an explorer, took his party of immigrants across the Sierra at Walker Pass and through the San Joaquin Valley, heading toward the town of Gilroy (Beck and Haase 1974).

The gold rush period of the 1850s helped to create new cities, like Sacramento and Stockton, and a need to provide goods and services to the horde of people moving into California. Many small farming communities were established at this time. Stockton became the center of trade and commerce for the San Joaquin Valley, forming a link between points south, west, and north, especially the southern Sierra mining towns. By 1860 the Wells Fargo stage line helped to link

Sacramento with Stockton. Within the next 20 years most major towns in the valley were connected by the stage line, and some by rail.

The railroad played an important role in the development of towns and agriculture in the Central Valley. Construction of the San Joaquin Valley branch of the Central Pacific Railroad (later Southern Pacific, and now Union Pacific) began in 1870. Placement of the railroad line was based on town promotion and town site acquisition by the railroad, in addition to engineering considerations such as bridging waterways. Many of the larger cities in the valley were laid out as isolated railroad towns in the 1870s and 1880s and shared a common plan of a central depot with a surrounding uniform plat. These railroad towns were laid out on a rectangular grid aligned with the tracks rather than with those established by traditional government survey. Due to the construction of the railroad, the population in the San Joaquin Valley grew by 45 percent between 1870 and 1880. By the 1880s, the railroad established 50 stations in six San Joaquin Valley counties. Town sites were built at 24 stations; of these, eight became major towns. Much of the railroad construction was built with Chinese labor; as a result, Chinatown's were established in several towns along the route, such as Hanford in Kings County.

Throughout the twentieth century, agriculture has remained the mainstay of the Central Valley. Irrigation has transformed the vast expanse of prairie grassland into a fertile valley known for its fruit, nuts, grain, and cotton.

Ethnographic Record

The area covered by this segment passes through the aboriginal territory of the Miwok, Northern Valley Yokuts, and Southern Valley Yokuts. All three belong to the California Penutian language family, which includes the languages of other central and coastal California groups: Costanoan, Maidu, and Wintuan (Silverstein 1978). Missionization in California may have had minor impacts on native populations in the Central Valley, however, a major epidemic (probably malaria) in 1833 killed about 75% of the population in only thirteen years (Cook 1955). The reduced population and displacement of the native people caused by Anglo-American occupation of their land substantially altered their traditional lifeways. As a result, none of these groups are well known ethnographically.

The Plains Miwok occupied the southeastern end of the Sacramento Valley, reaching as far south as the confluence of the Sacramento and San Joaquin rivers just north of Stockton. Much of what we know about the Plains Miwok comes from the work of Bennyhoff (1977), who studied mission records, maps, and diaries, and interviewed the few remaining descendants. The basic political unit for the Plains Miwok was the tribelet, consisting of a primary village and several smaller villages under the jurisdiction of a headman. About 28 tribelets are thought to have existed, scattered along the Sacramento, Cosumnes, and Mokelumne rivers in the Sacramento Valley. They tended to live in large multiple-family villages on high ground along waterways. They were mostly sedentary with the exception of several weeks during the fall when people left their villages to harvest acorns. Acorn, by far the most important resource, was supplemented with seeds, nuts, roots, berries, greens, fish, and game.

The San Joaquin Valley was considered Yokuts territory. Most Yokuts settlements are said to have been situated on low mounds on or near the edges of large waterways (Wallace 1978b). Like the Miwok, the basic political unit for the Yokuts is the tribelet. Subsistence was based on fishing, hunting, and intensive collecting. The Yokuts are subdivided into three groups, Northern Valley, Southern Valley, and Foothill.

The Northern Valley Yokuts inhabited the northern portion of the San Joaquin Valley from just north of Stockton, south to the present day town of Mendota. Villages were clustered along the San Joaquin River and its main tributaries (Wallace 1978b). The size of the villages averaged about 200 persons and were spaced five to ten miles apart along the river (Schenk 1926). Ethnographic data suggest that the Northern Yokuts subsisted on a multitude of wetland resources including plants (e.g., Tule), fish (primarily salmon), and waterfowl. The San Joaquin River is known to have supported a large population of King Salmon, and early historic accounts speak of fishing as a significant activity of the Indians in this vicinity (Wallace 1978b). Small groups left the permanent encampments seasonally in pursuit of other resources, such as acorns, antelope, elk, and a variety of other mammals (both small and large), and other gathered seeds, and bulbs.

The Southern Valley Yokuts occupied lands in the southern end of the San Joaquin Valley, from Fresno south to the Tehachapi Mountains, just south of Bakersfield. The southern Valley Yokuts settlement and subsistence patterns were lake-and-marshland based. Most villages were situated near lakes or rivers (e.g., Tulare Lake and Kings River). Settlements were mostly sedentary, with small family groups leaving seasonally and occupying temporary camps to gather seeds and other wild plants. Food procurement activities centered around wetland resources, with a major emphasis on fishing, hunting waterfowl, and collecting shellfish, roots, and seeds (Wallace 1978a). Tule was an important source of raw material used to construct their canoe-shaped rafts, to cover their wooden framed dwellings and granaries, and for the manufacture of baskets, cradles, and other domestic accoutrements.

Beginning in 1850, the U.S. government began to enter into treaties with native groups living in the Central Valley. The headmen signed treaties, ceding all lands they owned or claimed; in return, the government established several reservations or rancherias in the San Joaquin Valley beginning in 1851 with the Tejon (abandoned in 1859), the Tule River, Santa Rosa, and Fresno Reservations. In the early part of the Twentieth-century, the federal government set aside some small parcels of land as reservations for the Plains Miwok (Levy 1978).

Archaeological Record

Archaeological research in the Central Valley began as early as 1899 with surveys of mounds along the waterways. In the 1890s and into the early 1900s, nearly a dozen mounds, yielding more than two thousand artifacts, in the Stockton area were studied (Moratto 1984). The first large-scale excavation project took place in the Southern San Joaquin Valley and resulted in the publication of *Archaeology of the San Joaquin Valley*, by Gifford and Schenck in 1926.

Chronology building in the Central California began with Schenck and Dawson's (1929) early-middle-late cultural and temporal sequence, based on mortuary artifacts recovered from mounds. It wasn't until the 1930s, that a scientific program of archaeological reconnaissance and excavation in the Central Valley was initiated by Sacramento Junior College. Results of this early work were published as *Introduction to the Archeology of Central California* (Lillard, Hiezer, and Fenenga 1939) and summarized the artifact assemblages for seventeen sites in the Central Valley. This research helped to further define the tripartite sequence for the Central Valley.

In the early 1950s, Beardsley (1954) established the Central California Taxonomic System, refining the three-horizon sequence proposed by Lillard, Heizer, and Fenenga (1939). Beardsley's system included three primary horizons: Early, Middle, and Late, defined largely on the basis of stylistic variation in artifacts determined largely through analysis of grave goods. The Early Horizon is characterized by extended burials, often with grave goods; leaf-shaped and large stemmed projectile points; *Haliotis* and *Olivella* shell beads; and infrequent milling equipment. Middle Horizon burials are more varied and include cremations. Artifacts associated with the Middle Horizon include large, heavy, concave-base projectile points; charmstones; shell beads; wooden mortars; and a variety of bone and baked clay items. The Late Horizon is characterized by burned mortuary goods; small, arrow-sized projectile points; flat-bottomed mortars; *Haliotis* and *Olivella* shell beads in addition to clamshell disc beads; stone pipes; incised bird bone; baked clay artifacts; and historic materials. Revisions to the chronology have taken many forms over time years (see in particular Fredrickson 1974). The three periods recognized today are the Early (dated 2500-500 B.C.), the Middle (500 B.C. to A.D. 300) and the Late (A.D. 300 to 1840). This sequence has proven useful throughout the Central Valley and neighboring regions.

Archaeological investigations throughout the valley support the ethnographic and historic literature, confirming that large populations tended to concentrate along the banks of major waterways, streams, sloughs, and wetlands. More than 100 mounds associated with wetlands were recorded in San Joaquin County alone. Many archaeological sites in the valley, however, are not as obvious, as the mounds, and are quite often buried under natural sediments. Alluvial deposits are responsible for many deeply buried archaeological remains recovered unexpectedly throughout the valley.

METHODS OF CULTURAL RESOURCES STUDY

Following project protocol, upon receiving the fiber optics cable route maps, archival records searches of the study corridor were initiated. After the records search, the route and all known sites within the project ROW were plotted on field survey strip maps. The field reconnaissance survey sought to locate known sites and identify previously unknown sites within the ROW.

PRE-FIELD ARCHIVAL RECORDS SEARCHES

Prior to commencement of field work, a thorough search of available records pertaining to this segment was conducted by Far Western. The study corridor for the records search included all lands within one-quarter mile (402.3 meters [1320 ft]) along either side of the project centerline (total width, one-half mile [804.6 meters]). The records search provided data on previous cultural resource investigations including surveys, excavations, and site documentation.

The Sacramento to Bakersfield route crosses eight counties: Sacramento, San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, and Kern. They fall under the jurisdiction of three different California Historical Resources Information Centers: the NCIC, located at California State University, Sacramento; CCIC California State University, Stanislaus in Turlock; and SSJV California State University, Bakersfield.

The records search for this project included a review of topographic maps showing known sites, isolates, and surveys within the project area; also reviewed were the cultural resources atlas, site records, report files, and General Land Office (GLO) Plat maps. Other references include: the *National Register of Historic Places (NRHP)-Listed Properties* (1988, Computer Listings 1966-1996 by National Park Service), *California Register of Historical Resources* (1998), *California Points of Historical Interest* listing (May 1992 and updates), *California Historical Landmarks* (1996), *Historic Spots in California* (1990), *Directory of Properties in the Historical Property Data Files* (1998), and other pertinent historic data available at the Information Centers for the relevant counties. JRP reviewed the California Historic Resources Inventory (HRI) for known historic buildings and structures. Foothill consulted on historic-period sites.

Record searches were conducted by Darren Miller at the CCIC on March 1, 1999 and March 4, 1999 (CCIC 374ILN), and the SSJV March 2-3, 1999 (SSJV 99-066), and at the NCIC by Marianne Russo, Assistant Coordinator of the NCIC, on March 15, 1999 (NCIC SAC-99-16).

The location of all previously recorded sites and surveys within or immediately adjacent to the proposed project area were mapped onto appropriate topographic quadrangles. Relevant site records were photocopied, as well as portions of reports depicting previous work within or adjacent to the utility ROW (see Appendix D, Records Search Bibliography).

FIELD SURVEYS AND SITE RECORDATIONS

Prior to field survey, all Far Western field personnel completed safety training courses provided by the Union Pacific and Burlington Northern Santa Fe Railroads. All Far Western crew were equipped with specified safety equipment, including vests, goggles, and hard hats (displaying Union Pacific Fiber Optics Safety Trained stickers), and carried the Burlington Northern Santa Fe safety training card when within the railroad ROW.

Prior to field work, a Form C permit, providing railroad ROW access, was filed by Far Western. Before commencing the field survey, the crew chief completed the Kiewit Hazard Elimination through Planning (HELP) form, which was signed by all crew members and submitted at the end of each week. While in the field, a weekly Tool Box Safety meeting was held to discuss safety issues, potential hazards, and precautionary plans. In addition, before the beginning of each work day, safety meetings were held to remind all crew members of key items on the HELP form and issues raised at the Tool Box meeting. Far Western provided additional safety training as set forth by CAL OSHA.

The Sacramento to Bakersfield segment was surveyed by two crews of Far Western archaeologists. Kim Holanda and Rick Fitzgerald served as field directors, and Mike Darcangelo as crew chief. They were assisted by Jennifer Hatch, Darren Miller, and Cheryl White.

Survey procedures were designed to allow the field archaeologists to find and record any cultural resources within the proposed project area. An intensive surface reconnaissance of the railroad ROW was completed by walking on both sides of the railroad tracks in areas where access (as defined by Union Pacific and Burlington Northern railroads) was possible. The survey area was defined as 15.2 meters (50 ft) on either side of the railroad and road center lines. No personnel were allowed within 7.6 meters (25 ft) of the tracks, so field survey consisted of the 7.6-meter (25-foot) corridor between 7.6 and 15.2 meters (25 and 50 ft) on either side of the centerline of the tracks. Tire survey crew closely examined the surface, noting indicators of cultural midden, such as any changes in soil color, composition, and texture. Special attention was given to areas with known cultural resources and those considered culturally sensitive (i.e., creek banks). No artifactual materials were collected during survey. Sections that could not be surveyed due to visibility (e.g., vegetation or concrete), or access, are noted in Table 1.

All historic and prehistoric sites, isolated finds, and features observed in the field were noted on field maps and summary tables. Historic structures, such as buildings, were referred to JRP for evaluations (see section below). The location of all sites, isolated finds, and features were plotted on U.S.G.S. 7.5 minute quadrangle maps (Appendix A), and a master table served to summarize all survey findings (Appendix C). Department of Parks and Recreation (DPR) site records updates were prepared for all prehistoric sites located in the ROW. The updated DPR forms are included in this report (Appendix B); copies will be forwarded to the appropriate Information Center. DPR forms for the historic buildings, structures, and objects (e.g., MD-2, CA-SAC-428H, MD-4, MD-7, etc.) are the responsibility of the PBNS historic consultant and are, with one exception (the Modesto Southern Pacific Railway Depot), not included in this report. No new sites were identified for the Sacramento to Bakersfield segment.

Table 1. Far Western's Cultural Resources Survey Coverage

Milepost		Surveyed by:	Problems encountered
From	To		
MP 40	MP 41 Sta. 27+88	Far Western 1999, east side only	West inaccessible
MP 41 Sta. 27+88	MP 41 Sta. 36+85	Not surveyed	No access
MP 41 Sta. 36+85	MP 57 Sta. 29+40	Far Western 1999	None
MP 57 Sta. 29+40	MP 58.5	Not surveyed	Flooded
MP 58.5	MP 60 Sta. 12+18	Far Western 1999, west side only	Eastside flooded
MP 60 Sta. 12+18	MP 64 Sta. 14+30	Far Western 1999	None
MP 64 Sta. 14+30	MP 64 Sta. 33+94	Not surveyed	Flooded
MP 64 Sta. 33+94	MP 73	Far Western 1999	None
MP 73	MP 74	Far Western 1999, west side only	No access to eastside
MP 74	MP 82 Sta. 3+90	Far Western 1999	None
MP 82 Sta. 3+90	MP 85 Sta. 8+63	Far Western 1999, spot checked only	Limited access - drove and walked where possible
MP 85 Sta. 8+63	MP 87 Sta. 11+87	Far Western 1999, west side only	No access to eastside - windshield survey
MP 87 Sta. 11+87	MP 93	Far Western 1999	None
MP 93	MP 93 Sta. 14+73	Not surveyed	No access
MP 93 Sta. 14+73	MP 104 Sta. 13+30	Far Western 1999	None
MP 104 Sta. 13+30	MP 104 Sta. 16+92	Not surveyed	No access, river
MP 104 Sta. 16+92	MP 106 Sta. 7+55	Far Western 1999	None
MP 106 Sta. 7+55	MP 134	Woodward Clyde 1995	Already surveyed
MP 134	MP 136	Far Western 1999	None
MP 136	MP 142	Woodward Clyde 1995	Already surveyed
MP 142	MP 144	Far Western 1999	None
MP 144	MP 148.5	Woodward Clyde 1995	Already surveyed
MP 149	MP 149 Sta. 38+98	Far Western 1999	None
—	'—'	V street in Merced	Windshield survey
MP 1057	MP 890	Far Western 1999	None
MP 114	MP 111	Far Western 1999	None

FIELD REVIEW OF HISTORIC RESOURCES

JRP was hired by PENS as an historical consultant. JRP's role in the project was to conduct additional archival research for, and in some cases field check, the built environment (i.e., buildings, structures, and objects). Far Western provided JRP with a list of potential historic sites/structures identified during survey. JRP checked the sites against the California Historical Resources Inventory (HR!) creating a table noting if the sites were listed. No field visits were made by JRP for this segment.

METHODS FOR AVOIDANCE RECOMMENDATIONS

Construction of the proposed Long Haul fiber optics route had the potential to affect known and currently unidentified cultural resources. According to the Initial Study and Mitigated Negative Declaration IX, prepared and approved for the project by the California Public Utilities Commission, Level 3 was required to avoid resources in designing and constructing the project. Far Western's task was to help Level 3 Communications accomplish this goal.

FAR WESTERN'S RECOMMENDATIONS

All prehistoric and historic-period archaeological sites and historic structures identified by archival research and field surveys were documented on a master table (Appendix C). Additional structures identified on Level 3 engineering maps (e.g., a building near MP 942) were added to the table, but were not field checked. This table served to notify PBNS staff of the location and nature of sensitive or potentially sensitive cultural resources. Included in the table were specific locational data, records search information, a description of the resource, and recommendations regarding how to avoid the resources (e.g., avoid by going east of railroad tracks; or initiate field work to determine how to avoid). Previously recorded sites not relocated during survey, or considered out of the ROW were noted in the tables and on the strip maps to indicate areas of potential archaeological sensitivity. Detailed memos that called attention to particular sites and avoidance recommendations were forwarded to PBNS staff as required. In an agreement with the Union Pacific Railroad, no features associated with the railroad (e.g., trestles, loading docks, and culverts) were to be impacted by the proposed project; this policy was reflected in our recommendations.

It was Far Western's intent to provide PBNS with alternative avoidance options. Level 3 had preferred alternatives for avoiding sites based on constraints placed by construction. The favored option, when available, was to move the cable to the opposite side of the tracks from the resource (e.g., avoid, go north). A second option was given in case there was some other reason (i.e., non-cultural resource) to avoid the other side of the tracks (e.g., avoid go north; or bore under the site). In some cases, Far Western recommended that the cable route be altered and moved outside the proposed corridor to avoid a particularly sensitive area. This was the least desirable option as it entailed another records search and field survey.

JRP provided Far Western with avoidance recommendations for historic buildings, structures, and objects identified during survey. Most structures were to be avoided by placing the cable on the opposite side of the railroad tracks. In some cases, JRP created a letter report, detailing the desired placement of the cable between the boundary of the structure (i.e., footprint) and the railroad tracks.

Monitoring of construction was recommended in areas of archaeological sensitivity. The role of the archaeological monitor was to identify cultural resources inadvertently exposed during subsurface construction. In areas where human remains might be encountered, Native American monitors, in addition to archaeological monitors, were recommended. In anticipation of such a need.

Far Western contacted the NAHC for a list of individuals who should be notified regarding monitoring.

At the request of PBNS, Global Positioning System (GPS) data points were collected for select sites and railroad-related features. The two data points taken for each site included a buffer zone extending beyond the known site boundaries. Data points were collected by an independent GPS technician, hired by Level 3, assisted by a Far Western archaeologist who helped the technician locate the sites, features, and objects.

The tables submitted as part of this report (Appendix C) reflect the final Far Western recommendations.

RESULTS OF SURVEY

Far Western completed an archival records search and surface reconnaissance for the Sacramento to Bakersfield proposed cable route. All prehistoric and historic sites, historic structures, buildings, or objects, isolated artifacts, irrigation features, and railroad-related features located during Far Western's survey are listed on Table C-1 (Appendix C). Several historic buildings and structures plotted on earlier GLO Platt maps, identified during the records search, were not relocated during survey. Far Western noted these structures on the table and recommended to PBNS that JRP field check the location of these structures. This also was done for buildings identified on PBNS engineering maps. Far Western also recommended that JRP field check and evaluate other historic structures, buildings, and objects relocated during survey; frequently these sites can be avoided by boring or cleared (i.e., with a recommendation of no further management) following JRP's field visit. DPR site record update forms were completed for prehistoric sites only and are included in Appendix B with the original archaeological site records.

Far Western's field survey located five prehistoric sites, six isolated artifacts, 22 historic structures, buildings, or objects, two historic archaeological sites, 16 irrigation features, and 110 railroad-related features. A summary of cultural resources documented during the survey phase is presented below.

PREHISTORIC SITES

CA-SAC-211 was recorded in 1956 by Elsasser and Bennyhoff as a multi-component village site with burials. According to the site record, the location is approximately 100 yards west of the Southern Pacific railroad bridge over the Cosumnes River, south of the city of Sacramento in Sacramento County. The site is most likely under or near a private residence located west of the railroad ROW. The survey found no indication of the site within or just west of the ROW. Since the site is located out of the ROW, no further management is recommended.

CA-SAC-94, located south of the city of Sacramento in Sacramento County, was recorded in 1937 by Heizer and Massey as a village site. According to the site record, the location is approximately 1/2 mile from the railroad bridge over a drainage ditch, and west of the railroad ROW. The survey found no indication of the site within or just west of the ROW. Since the site is located out of the ROW, no further management is recommended.

CA-SAC-95 was recorded by Garth in 1937 as a circular mound with artifacts. According to the site record, the location is in an agricultural field near the corner of the levee and the railroad tracks, south of the city of Sacramento in Sacramento County. The mound described in the site record is no longer visible. Two shell fragments were observed east of the ROW during survey; no other indication of cultural remains were noted. Since the site is located out of the ROW, no further management is recommended.

CCIC#2990 refers to a letter report dated April 30, 1997 regarding human remains that were discovered at Channel Street in Stockton and reburied elsewhere. There is no site record on file at the CCIC. No evidence of cultural remains were noted on the surface during survey; however, some remains were located east of the railroad tracks, out of the ROW. The site should be avoided by placing the line on the west side of the tracks, or test the site for effect.

CA-TUL-389 was characterized as a temporary occupation camp located on a sandy ridge west of the Burlington Northern Santa Fe railroad tracks in Tulare County. Artifacts recovered include flaked stone, a metate fragment, and shell beads. Far Western's survey located a very sparse lithic scatter in the railroad ROW on the west side. The site should be avoided by placing the line on the east side, or testing for effect.

ISOLATED ARTIFACTS

Of the six isolated artifacts located during Far Western's field reconnaissance, two were historic glass bottle fragments (KH-73 and KH-74), and four were prehistoric artifacts. The latter artifacts are described below. DPR Isolate Record forms were filled out for the prehistoric isolates and are included in Appendix B.

RF-94 is a single obsidian biface located east of the Burlington Northern Santa Fe railroad tracks within the railroad right-of-way. The biface measures 2.1 centimeters (cm) long x 1.5 cm wide x 0.7 cm thick. It appears to be the mid-section of a projectile point. No further management is recommended.

DM-303 is an obsidian biface located west of the Burlington Northern Santa Fe railroad tracks within the right-of-way. The biface measures 3.3 cm long x 2.5 cm wide x 0.7 cm thick, and is a proximal end. No further management is recommended.

DM-304 is a chert biface located west of the Burlington Northern Santa Fe railroad tracks within the right-of-way. The biface is a proximal end, measuring 6.6 cm long x 2.4 cm wide x 0.8 cm thick. No further management is recommended.

DM-305 is a chert flake located west of the Burlington Northern Santa Fe railroad tracks within the ROW. No further management is recommended.

HISTORIC STRUCTURES, BUILDINGS, AND OBJECTS

MD-2 is an old brick building located at 6313 Elvas Avenue, in the city of Sacramento, Sacramento County. Access to this structure was limited, however, it appeared to be located west of the railroad ROW. Far Western recommended avoiding the building by constructing the line on the east side of the tracks, or having JRP access the site and evaluate the structure.

CA-SAC-428H is a segment of the Sacramento Valley Railroad recorded as an historic site. Previous research determined it is eligible to the National Register of Historic Places (Mikesell, 1993). The feature crosses the Union Pacific railroad tracks in the city of Sacramento, Sacramento County. Far Western recommended avoiding the site by boring under it, or that JRP evaluate the impact.

MD-4, located south of the city of Florin in Sacramento County, is the Frasinetti Winery, established in 1897. This building is within the railroad ROW on the west side. Far Western recommended constructing the line on the east side of the tracks, or that JRP evaluate the structure.

MD-7 is an historic house and bam with farm-related equipment in the yard. A row of olive trees, associated with the ranch, lines the railroad. This series of structures is listed on the NCIC base map as the Stohlgren/Olsen Ranch at 9040 Elk Grove Blvd, north of the town of Elk Grove in Sacramento County. The ranch extends within 15.2 meters (50 ft) on the east side of the tracks into the railroad ROW. Far Western recommended that tire site be avoided by placing the cable on the west side of the tracks, or that JRP evaluate the structures.

KH-61, located north of the town of Elk Grove in Sacramento County, is described as an historic ranch complex with a bam. The structures are approximately 15.2 meters (50 ft) west of the railroad track, appearing to be out of the railroad ROW. However, Far Western recommended the site be avoided by placing the cable on the east side of the tracks, or that JRP evaluate the site.

The Elk Grove Historic District, located in the town of Elk Grove, Sacramento County, includes the railroad **ROW**, however no resources were located within the **ROW**. Far Western recommended that JRP field check the boundaries of the district.

MD-8, located in the town of Elk Grove, Sacramento County, was identified as a brick and cinder block warehouse and associated structures. The historic buildings are within the ROW on the east side. Far Western recommended that the structures be avoided by placing the cable on the west side of the railroad tracks, or that JRP evaluate them,

KH-64 was identified as a rock-lined gravel road running parallel to the railroad tracks north of the town of Galt in Sacramento County. The road is just 5 meters east of the tracks within the ROW. Far Western recommended that tire road be avoided by placing the cable on the west side of the tracks, or that JRP evaluate the site.

The Utah Condensed Milk Company historic complex is located at 621 3rd Street in the town of Galt, Sacramento County, and appears to be out of the ROW on the west side of the tracks. This is a NRHP property (CCIC 1999: #3374ILN) and Far Western recommended that it be avoided by placing the cable on the east side, or that JRP evaluate the site to see if the footprint extends into the ROW.

KH-71 is the Earl Fruit Company, located at 17 East Elm Street in the town of Lodi, San Joaquin County. The structure is 12,2 to 15.2 meters (40-50 ft) east of the railroad tracks and Far

Western recommended that it be avoided by placing the cable on the west side of the tracks, or that JRP evaluate the site.

KH-72 is a brick building located at 124 North Sacramento Avenue in the town of Lodi, San Joaquin County, just 15.2 meters (50 ft) west of the railroad tracks. Far Western recommended that it be avoided by placing the line on the east side of the tracks, or that JRP evaluate the site.

CA-SJO-241H is the Kaiser Permanente Metals Corporation Magnesium Plant, a World War II era industrial complex situated at 2801 E. Louise Aye, east of the town of Lathrop in San Joaquin County. The magnesium processing plant is accessed by a railroad spur, that operated between August 1942 and June 1944 (Eidness 1996). The complex is located south of the railroad tracks; a single railroad spur connects the plant with the main tracks. Far Western recommended that the site and spur be avoided by placing the cable on the north side of the tracks, or that JRP evaluate the site.

P-50-000438 is the historic Sanders Brothers Market, commonly known as Lion's Market, at 439 7th Street in the town of Modesto, Stanislaus County, and dated 1947 (Marvin 1996a). The building is not in the ROW and no further management is required.

P-50-000439 was originally tire Standard Oil of California products facility, an industrial complex dating from 1913-1946. Now known as Breshners Chevron Products, the site is located at 720 B Street in the town of Modesto, Stanislaus County, east of the railroad (Marvin 1996b). Since the building is not in the ROW, no further management is required.

RF-79 is a circa 1940s corrugated, three-story metal building/factory located east of the town of Merced in Merced County. The structure is within 1.5 meters (5 ft) of the ROW, on the south side of the tracks. Far Western recommended that the building be avoided by placing the line north of the tracks, or that JRP evaluate the site.

RF-90 is a series of nine steel storage tanks within the ROW on the east side of the tracks, located in the town of Madera in Madera County. The structures are of an unknown age and may be grain silos. Far Western recommended that the tanks be avoided by placing the cable on the west side of the tracks, or that JRP evaluate the site.

W-BW a wM en barn-like structure possibly containing O. The building, located in the city of Fresno, Fresno County, is within the ROW on the east side of the tracks. Far Western recommended that it be avoided by placing the line on the west side of the tracks, or have JRP field check the site.

RF-100, located in the city of Fresno, Fresno County, is a concrete loading platform with palm trees that may be associated. A second smaller platform is located 18.2 meters (60 ft) to the west. Both platforms are within the ROW on the west side of the tracks, and Far Western recommended that they be avoided by placing the line on the east side, or that JRP evaluate the site.

KE-2396

MD-302, located east of the town of Alpaugh in Tulare County, consists of two rows of mature palm trees paralleling the railroad tracks. Concrete steps adjacent to the tracks appear to be associated with the trees. The site is within 15.2 meters (50 ft) of the tracks on the west side. Far Western recommended that they will be avoided by placing the line on the east side, or that JRP evaluate the site.

MD-307 was identified as a long, white wooden structure with loading ramps. It appears that the building of unknown age, located north of the town of Wasco in Kern County, is associated with packing and shipping. The structure is in the ROW on the west side of the tracks, and Far Western recommended that it be avoided by placing the line on the east side, or that JRP evaluate the site.

HISTORIC-PERIOD SITES

Circa 1910 GLO maps place the location of the historic town of Amo just south of Badger Creek, adjacent to the railroad tracks. The field survey located the town site on the edge of agricultural fields adjacent to the railroad in Sacramento County. It appears that the farmers are avoiding impacts to the site. The site includes old non-native trees and a complex of corrals. Some debris was noted on the ground, however, visibility was limited. It was recommended that impact to the intact portion of the site could be avoided by keeping the cable within the fenced portion of the ROW, or that JRP and Foothill research and evaluate the site.

Site KER-3029H is the old Rosedale townsite, which includes the Rosedale depot. The Far Western survey crew reported that the site is being severely looted by pothunters. The frontage road has been recently widened, with impacts to the site from heavy equipment using the site as a turn-around. Far Western identified the SSTVIC about the looting and damage. The townsite, located in Kern County, is within 15.2 meters (50 ft) of the railroad tracks on the east side, and Far Western recommended that it be avoided by placing the cable on the west side, or that JRP research the site.

RAILROAD-RELATED FEATURES

A total of 110 railroad-related features was identified during Far Western's field survey. The features include 71 concrete culverts, ten railroad trestles, ten bridges, seven abandoned railroad spurs, four loading dock/platforms, and one concrete railroad crossing. Also, a segment of an abandoned railroad, recorded as site CA-SJO-256/H was relocated, and a portion of the track and associated features recorded as historic site CA-SJO-250/H was documented. In addition, four railroad depots and an empty field where a depot once stood were located during survey. All railroad-related features are listed in the master table and will be avoided per agreement with the railroad.

GLOBAL POSITIONING SYSTEM DATA POINT COLLECTION

After completion of the field survey, archaeologists from TRC Mariah, another firm under contract with Level 3, determined which sites, structures or features should have GPS data points recorded. GPS data points were collected for the historic town of Arno, an unrecorded burial site in Stockton, KH-73 (historic bottle fragments), P-39-000099 (a Southern San Joaquin Irrigation District drainage canal), concrete wells (KH-76 and KH-77), TU'E-389', and KER-3029 1.

SUMMARY

Approximately 370 kilometers (230 miles) of proposed and alternative routes of the Level 3 Communications Long Haul Fiber Optics line between Sacramento and Bakersfield (Segment WS04) were surveyed by Far Western in 1999. The survey and prior records search were undertaken to identify all known or previously unidentified prehistoric and historic archaeological resources and historic structures within the various project ROWs. Based on Initial study and Mitigated Negative Declaration IX, these resources were to be avoided during construction. This report represents research and survey results, including a summary table of findings and recommendations for avoidance. A total of seven sites and 22 historic structures were identified within the survey area. Additional studies may have been conducted for this segment and would be reported elsewhere.

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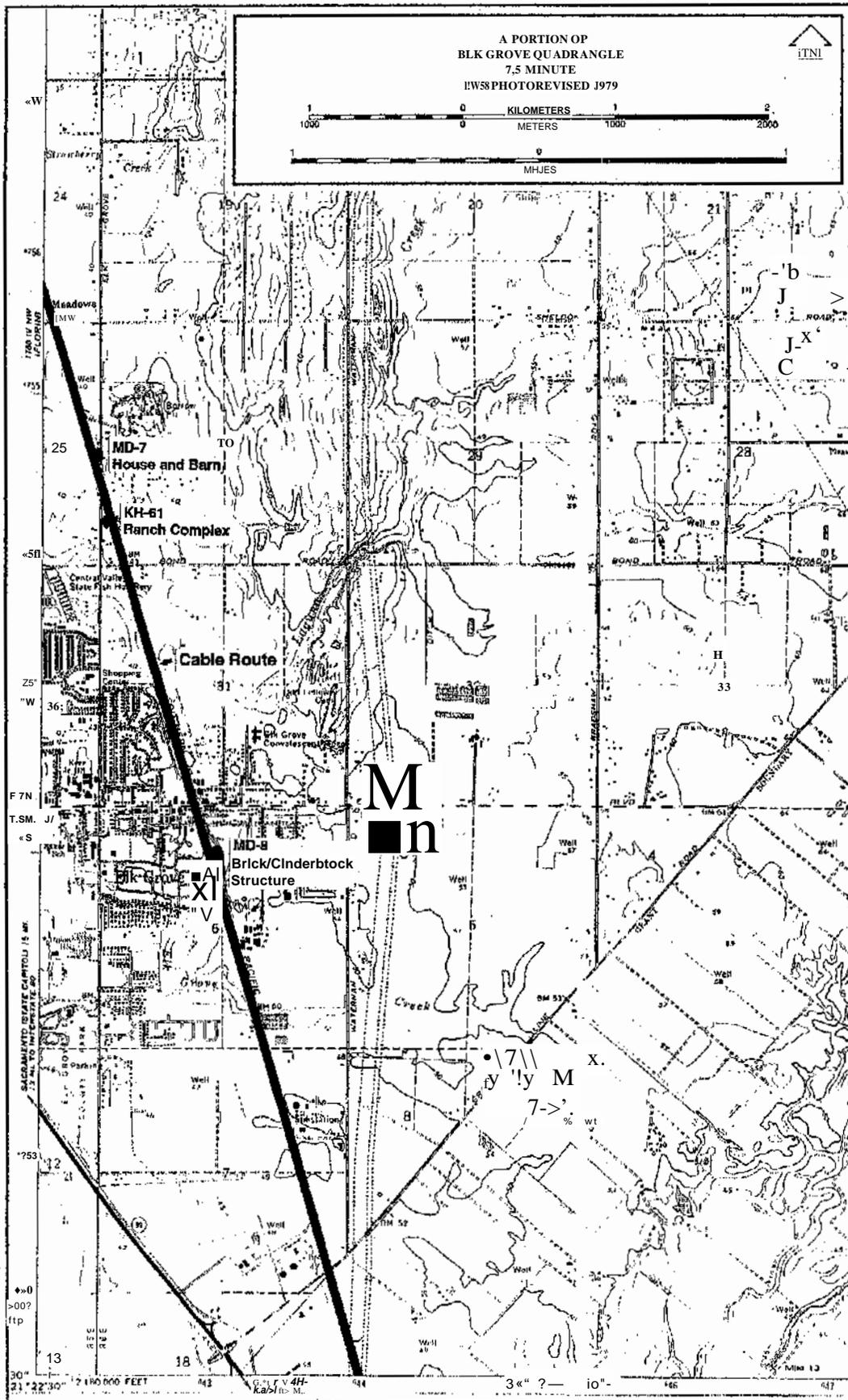
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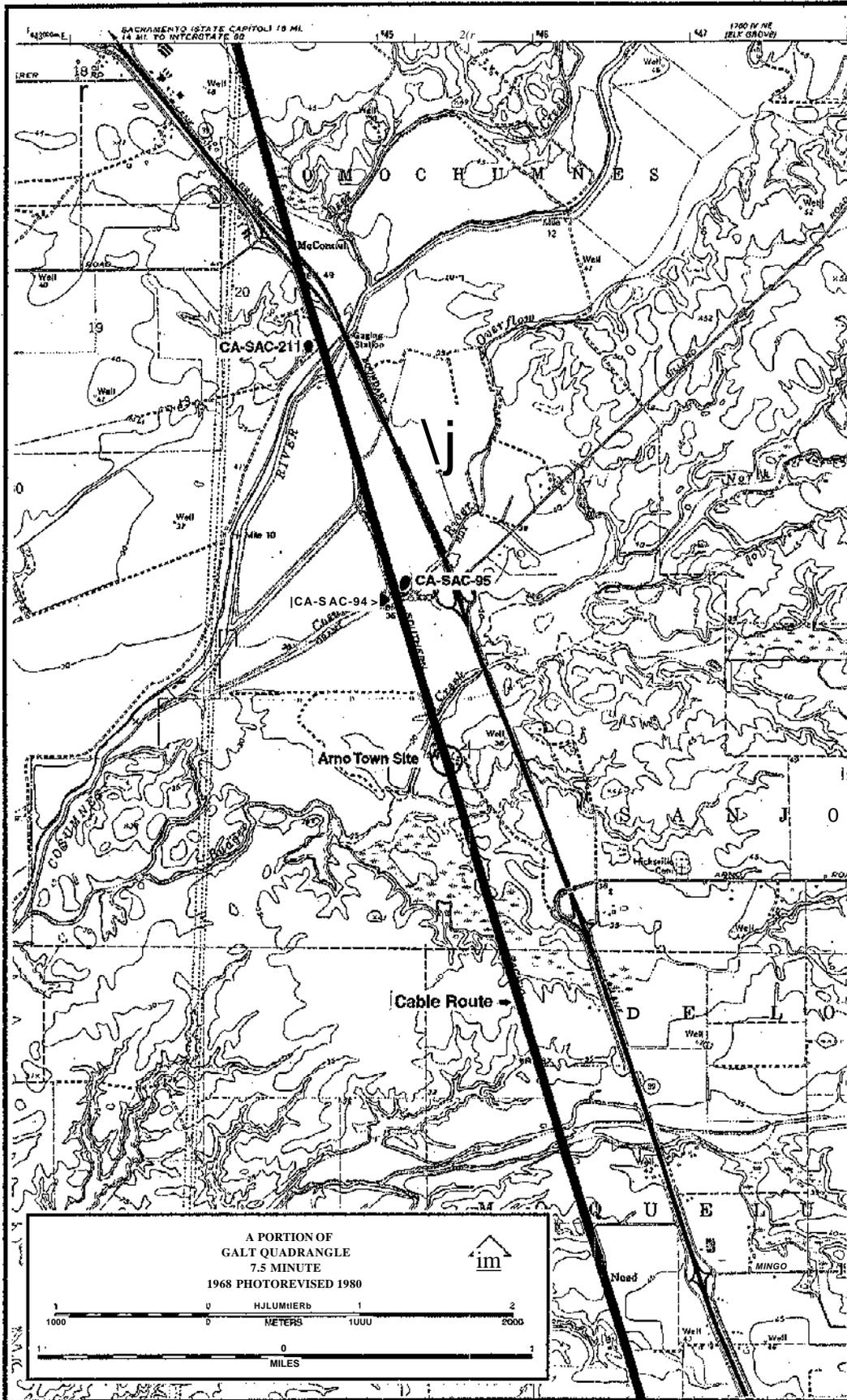
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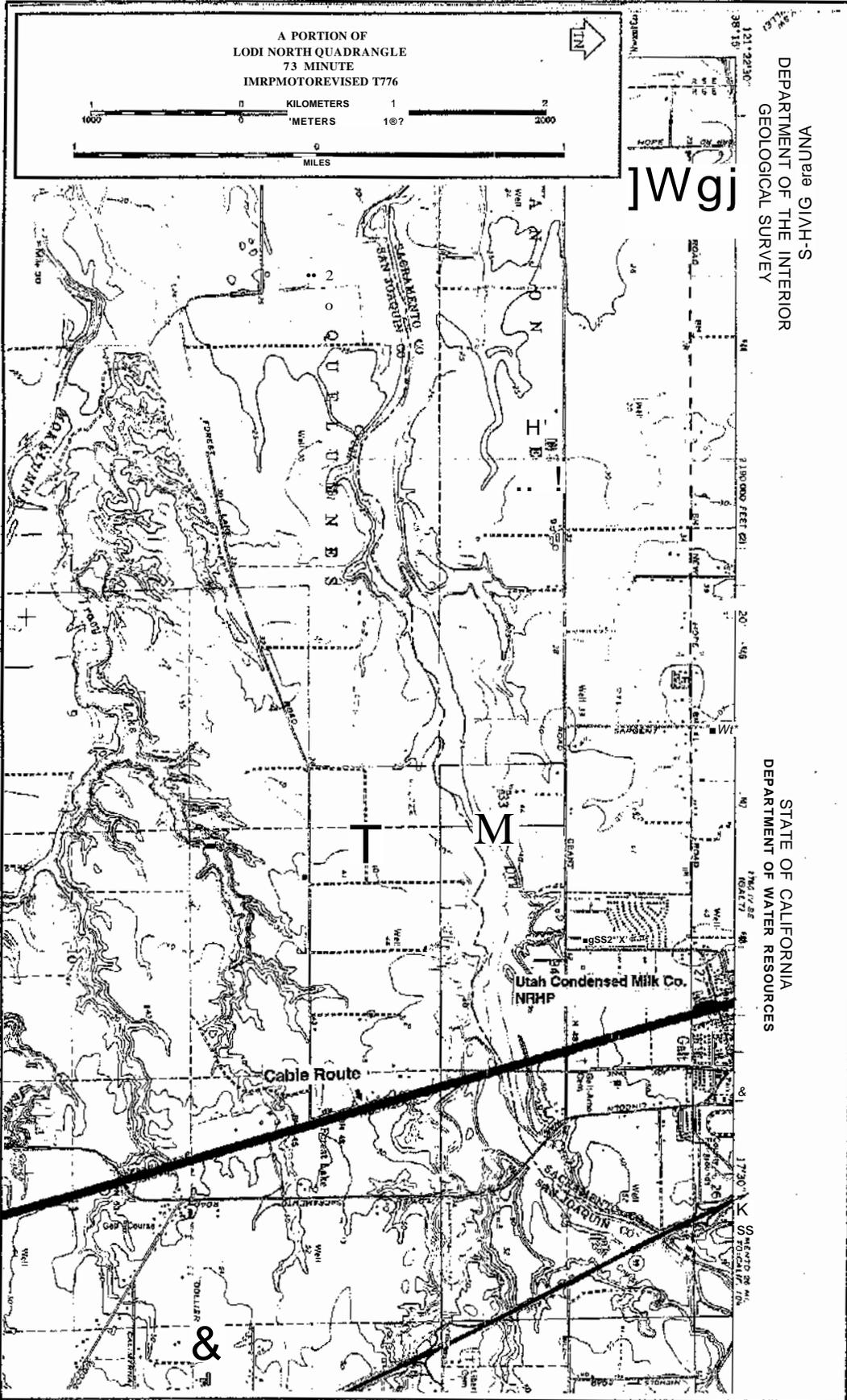
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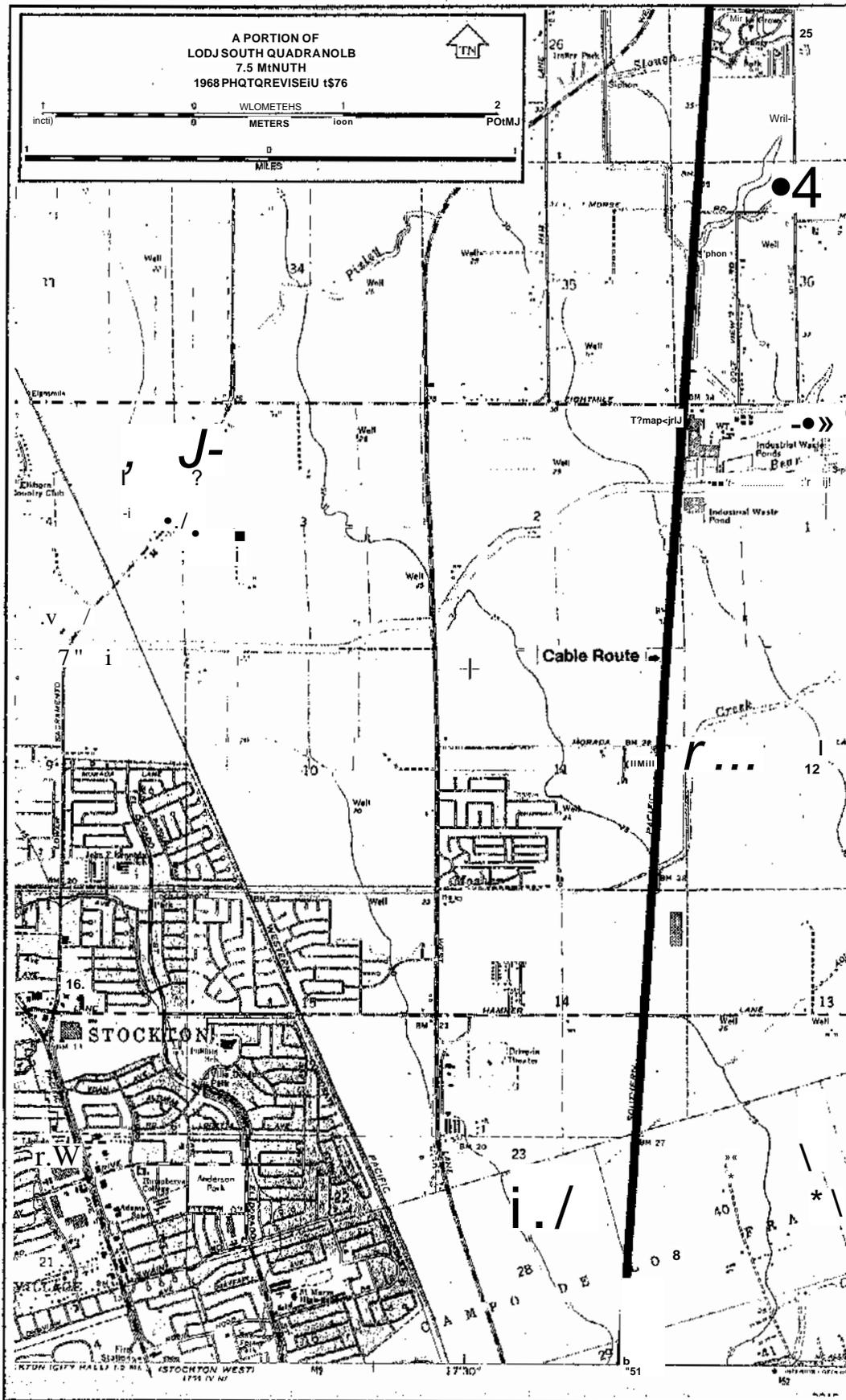


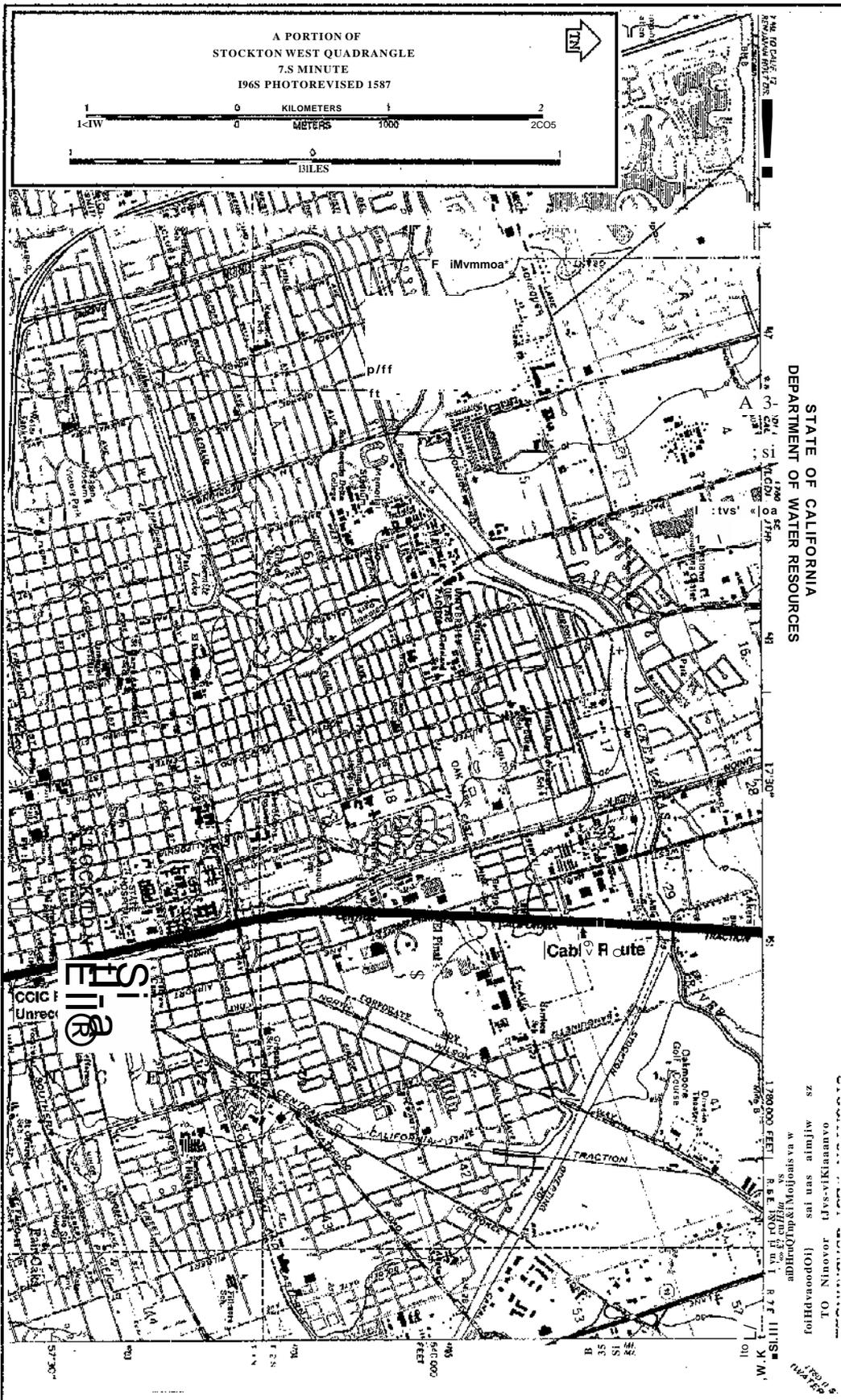
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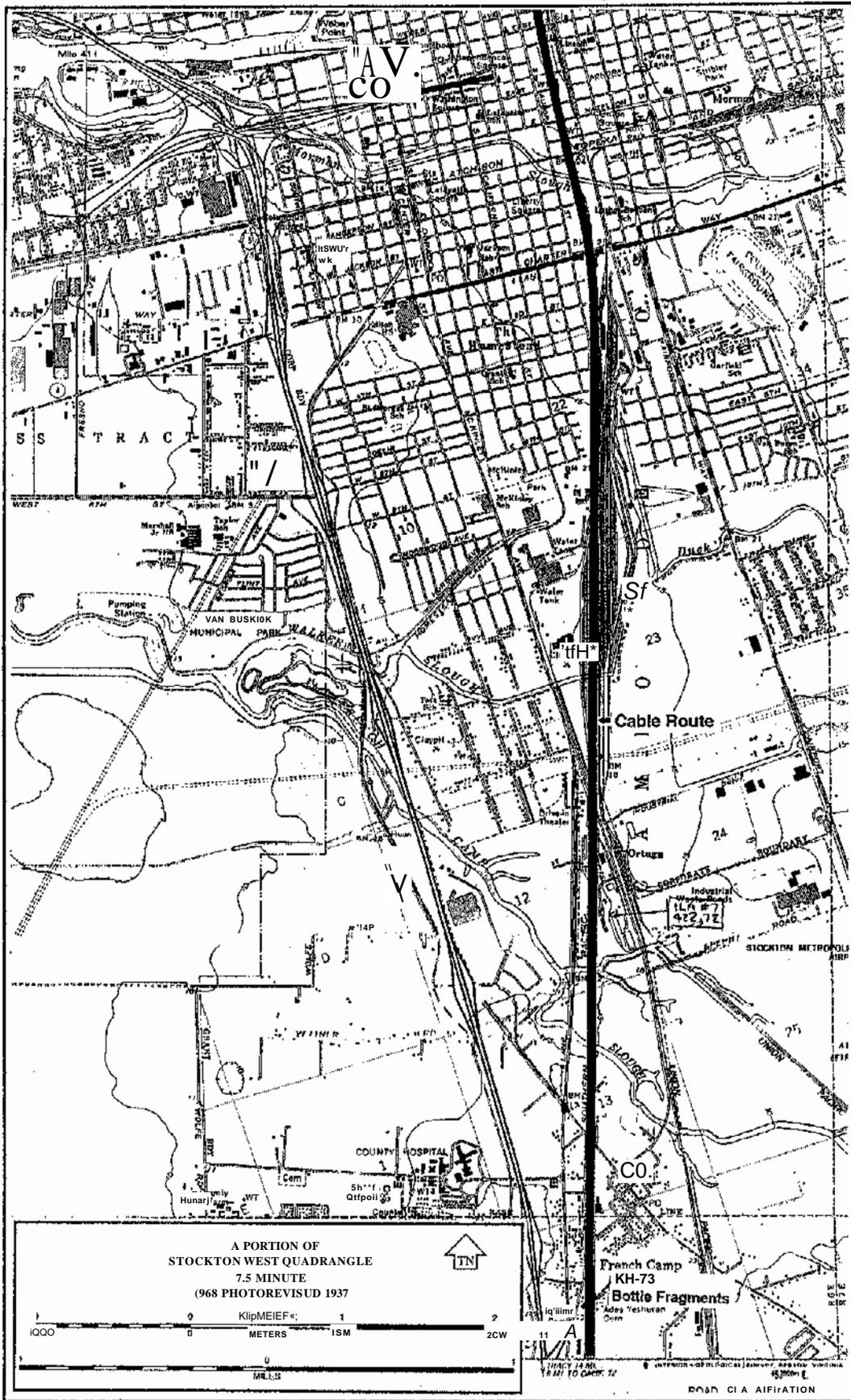
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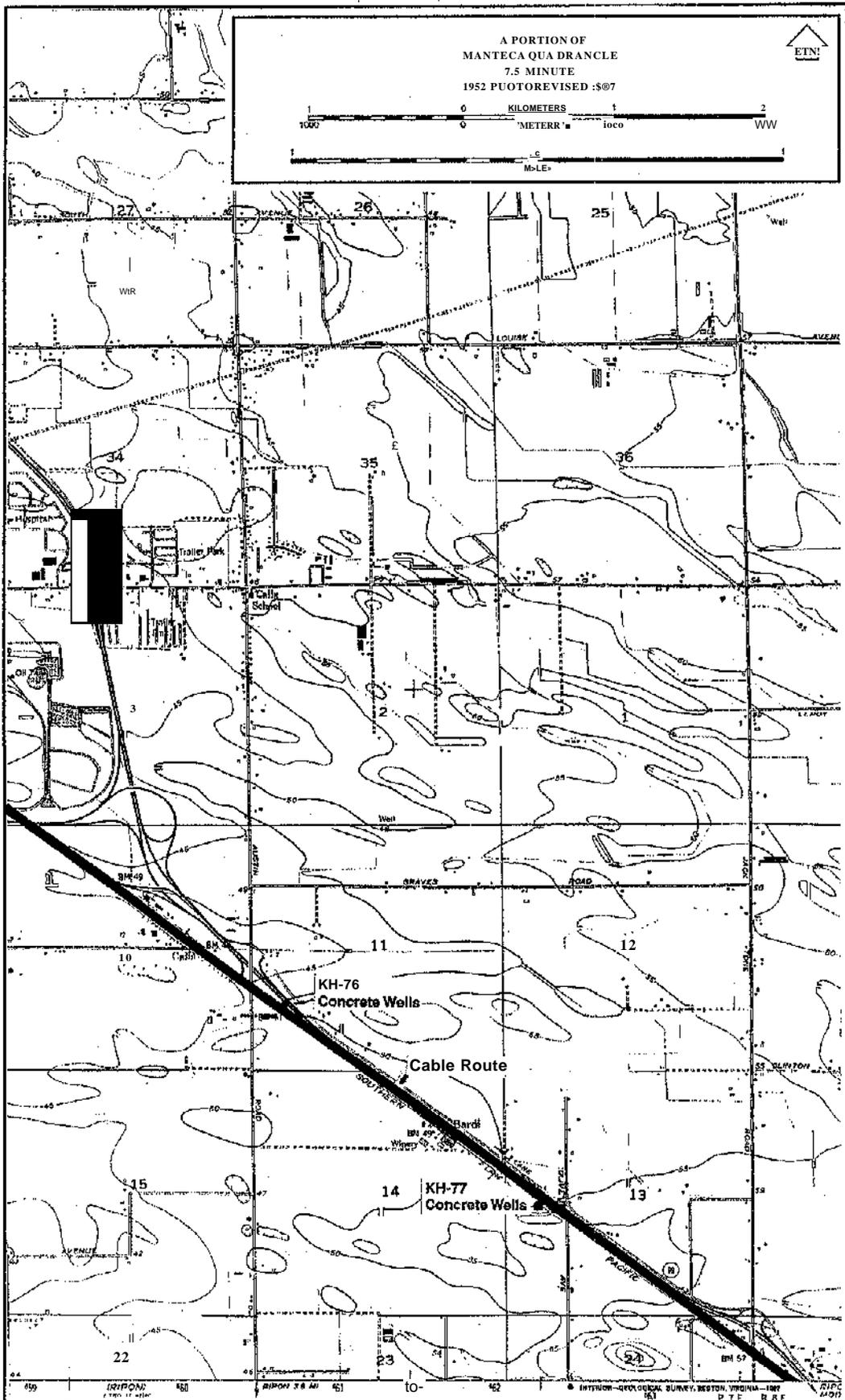
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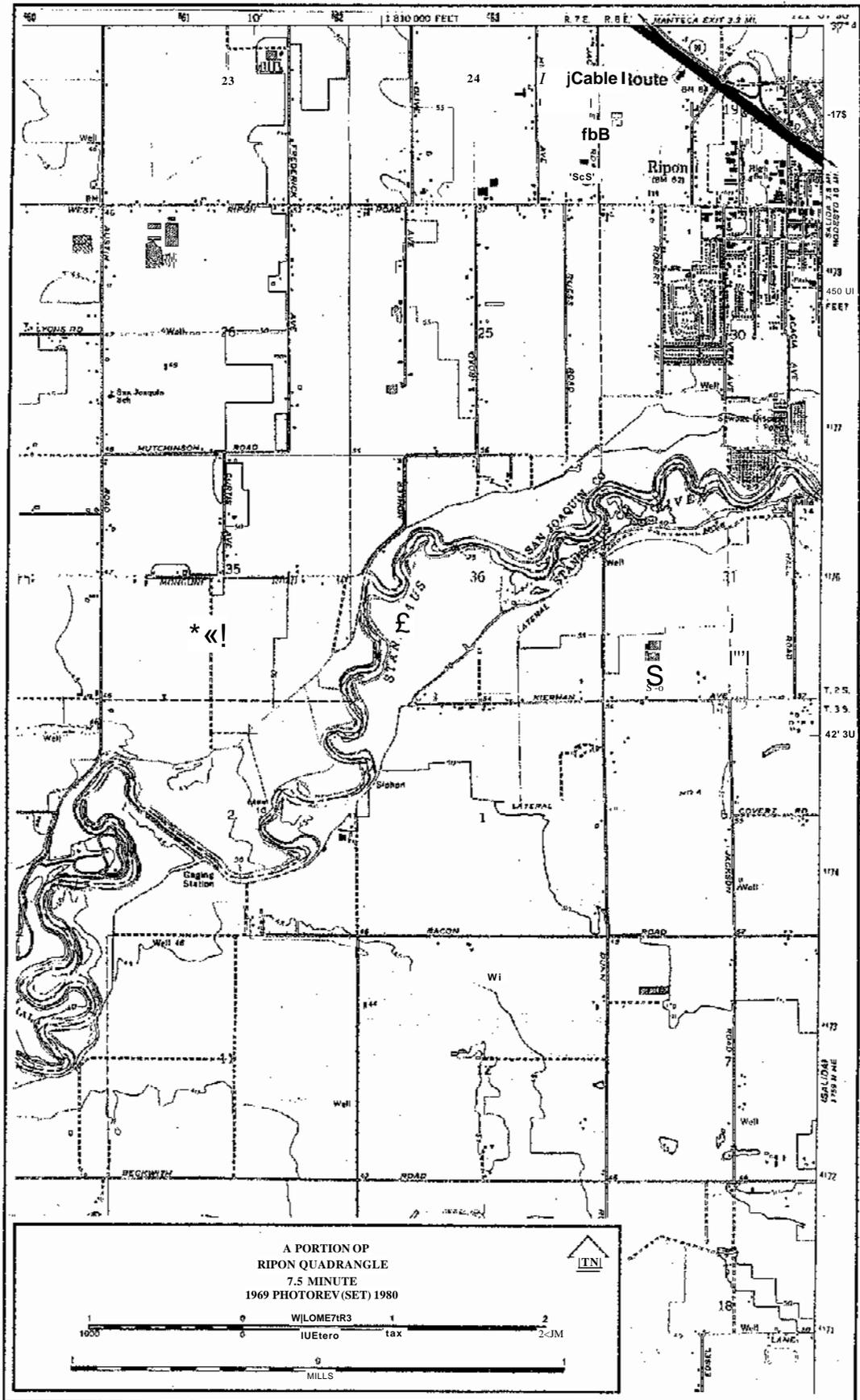
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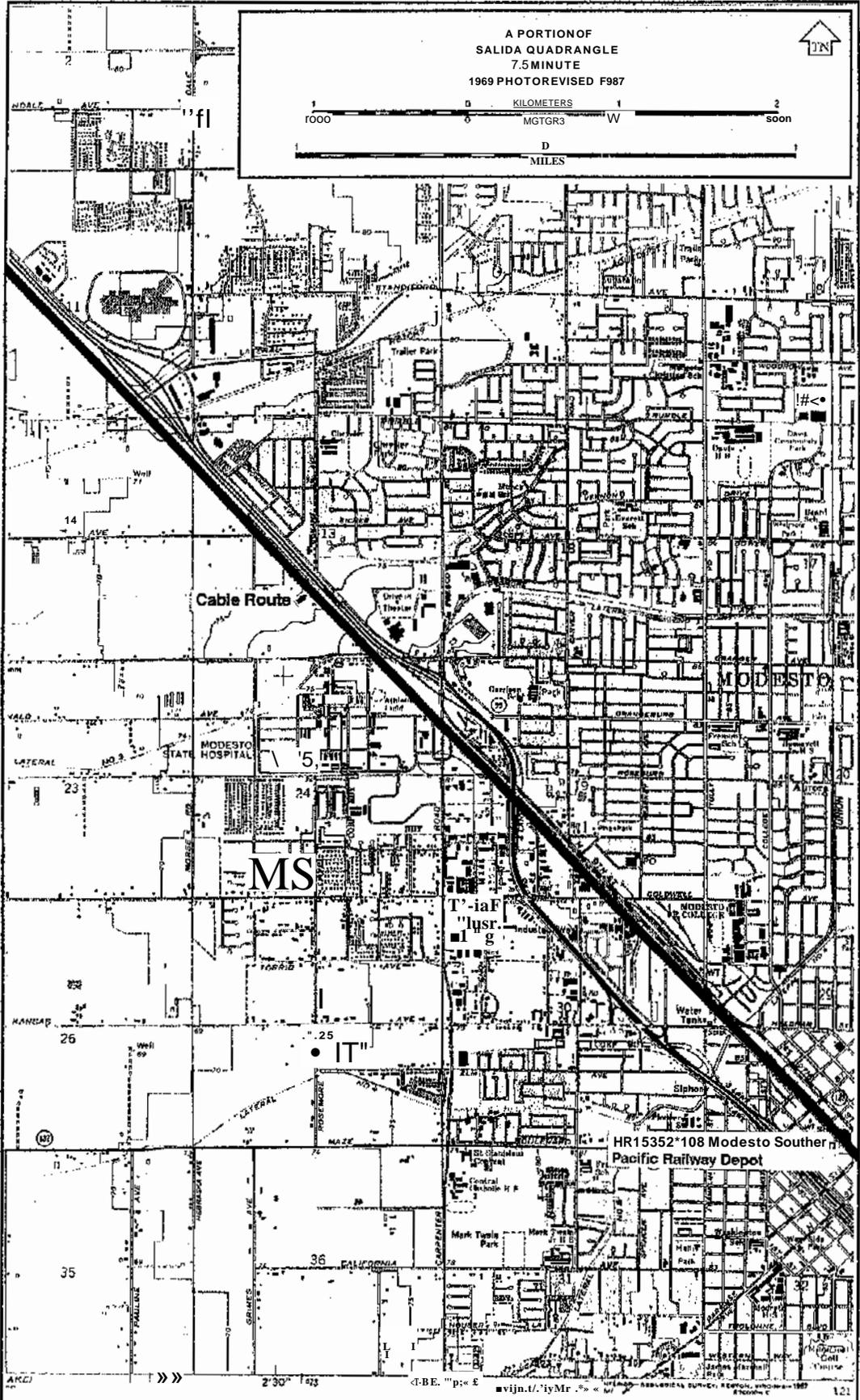


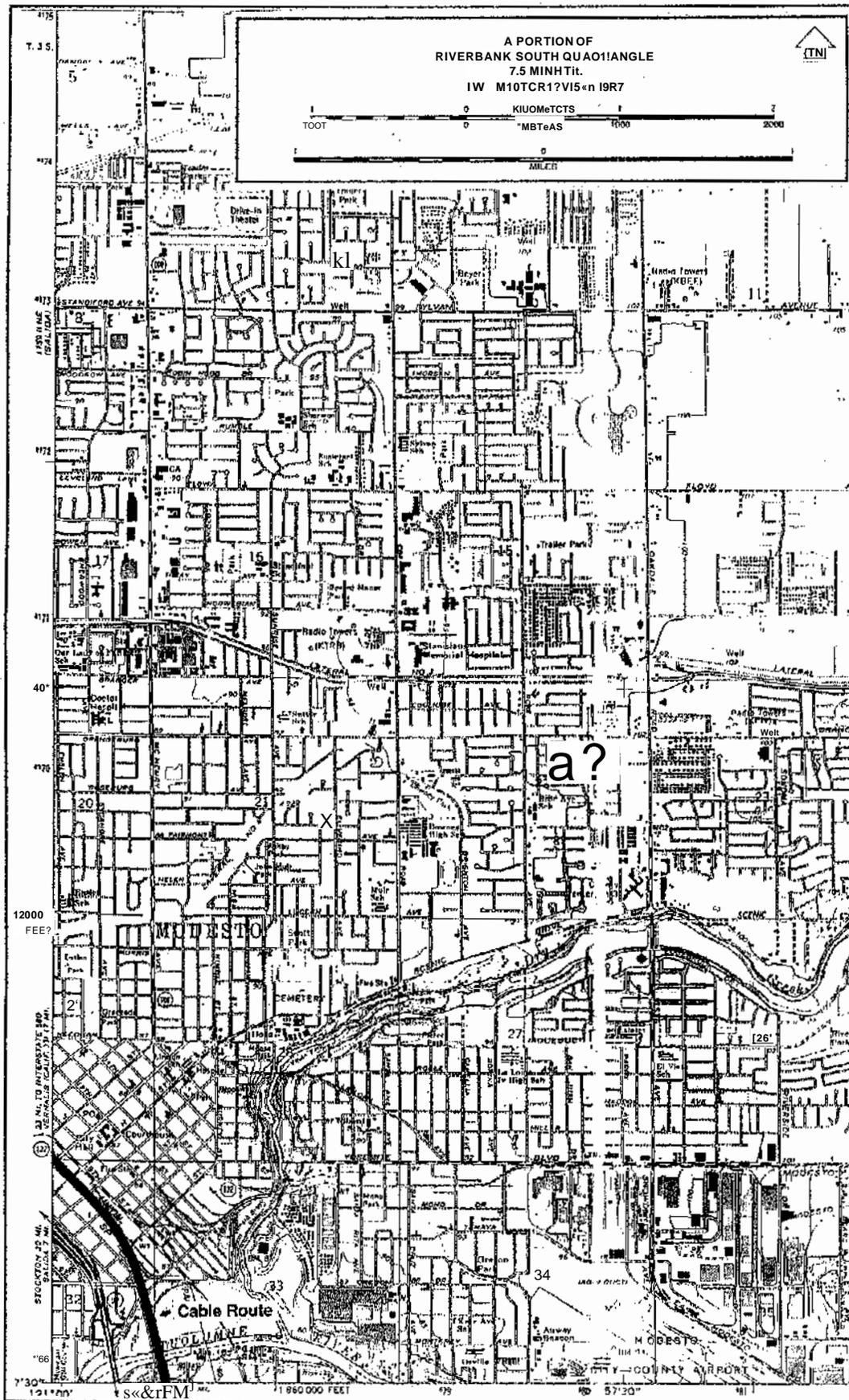


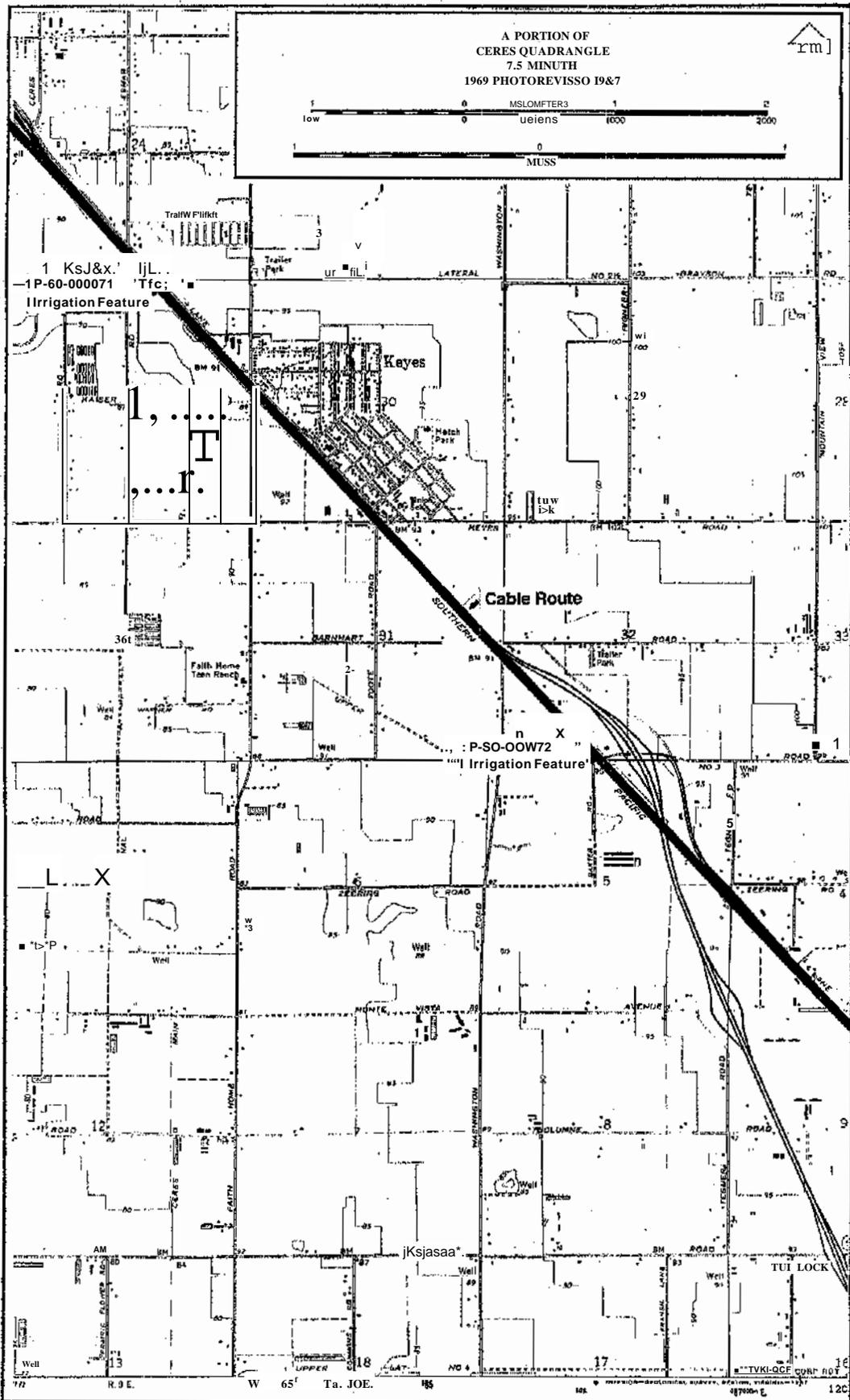




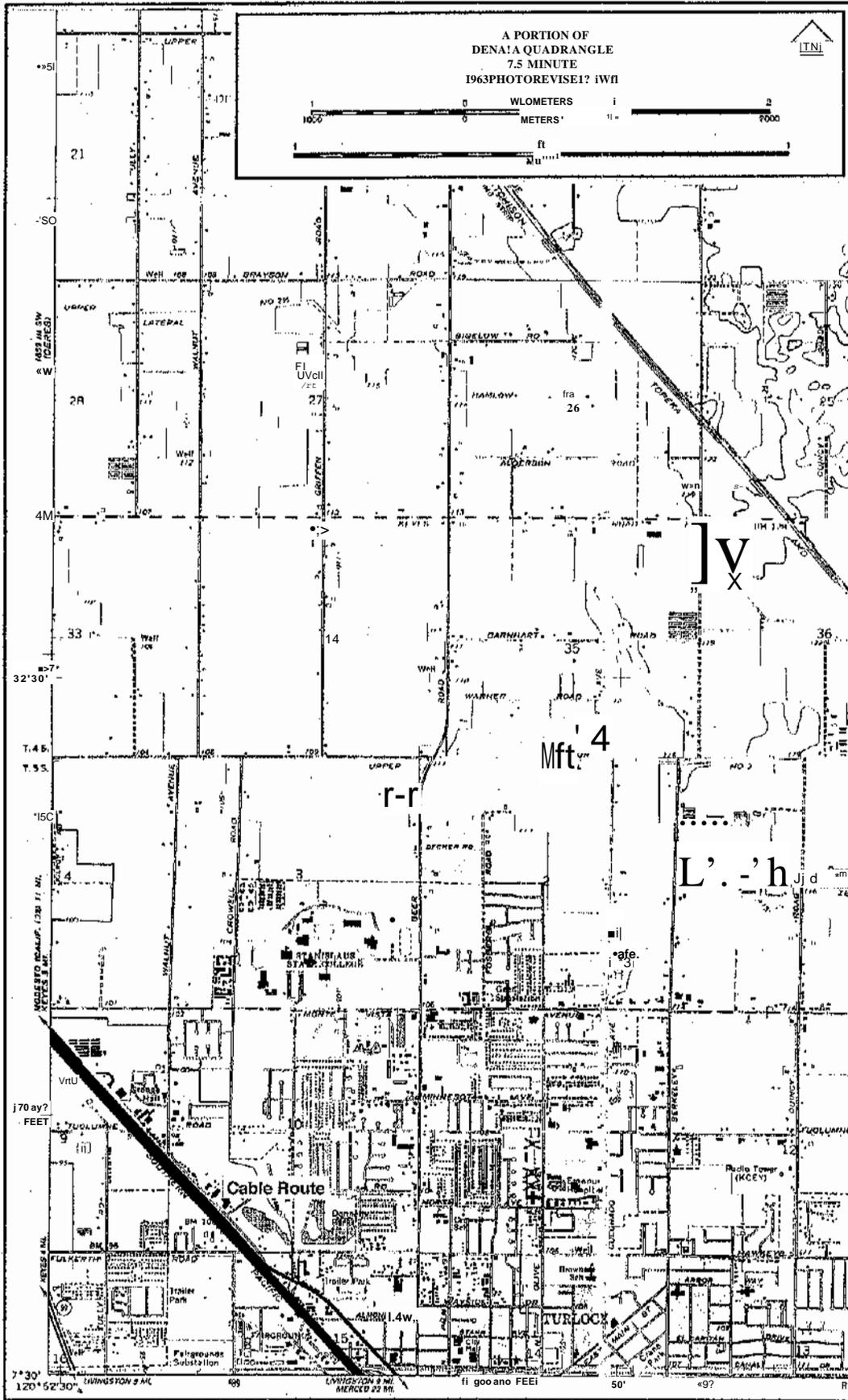


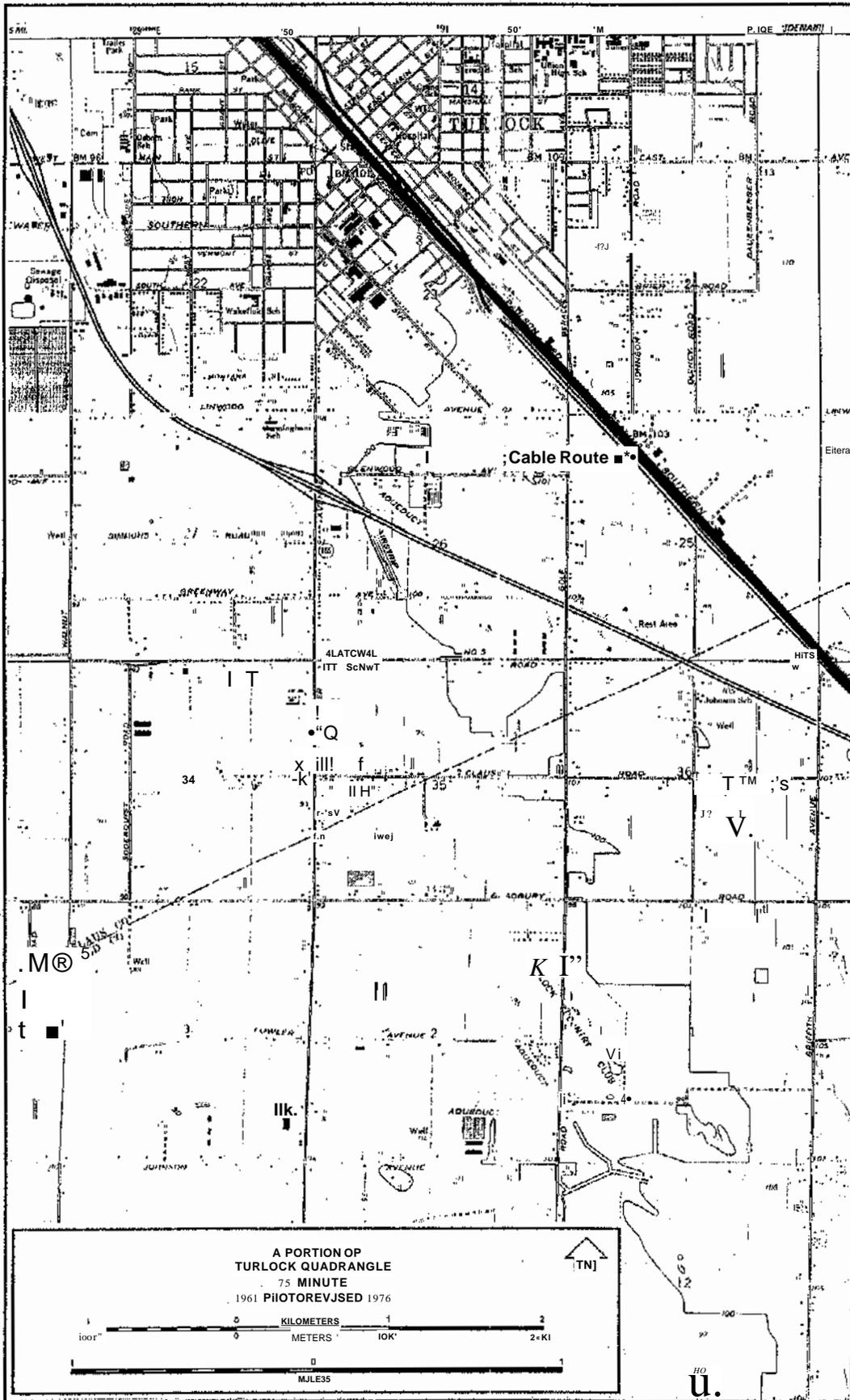




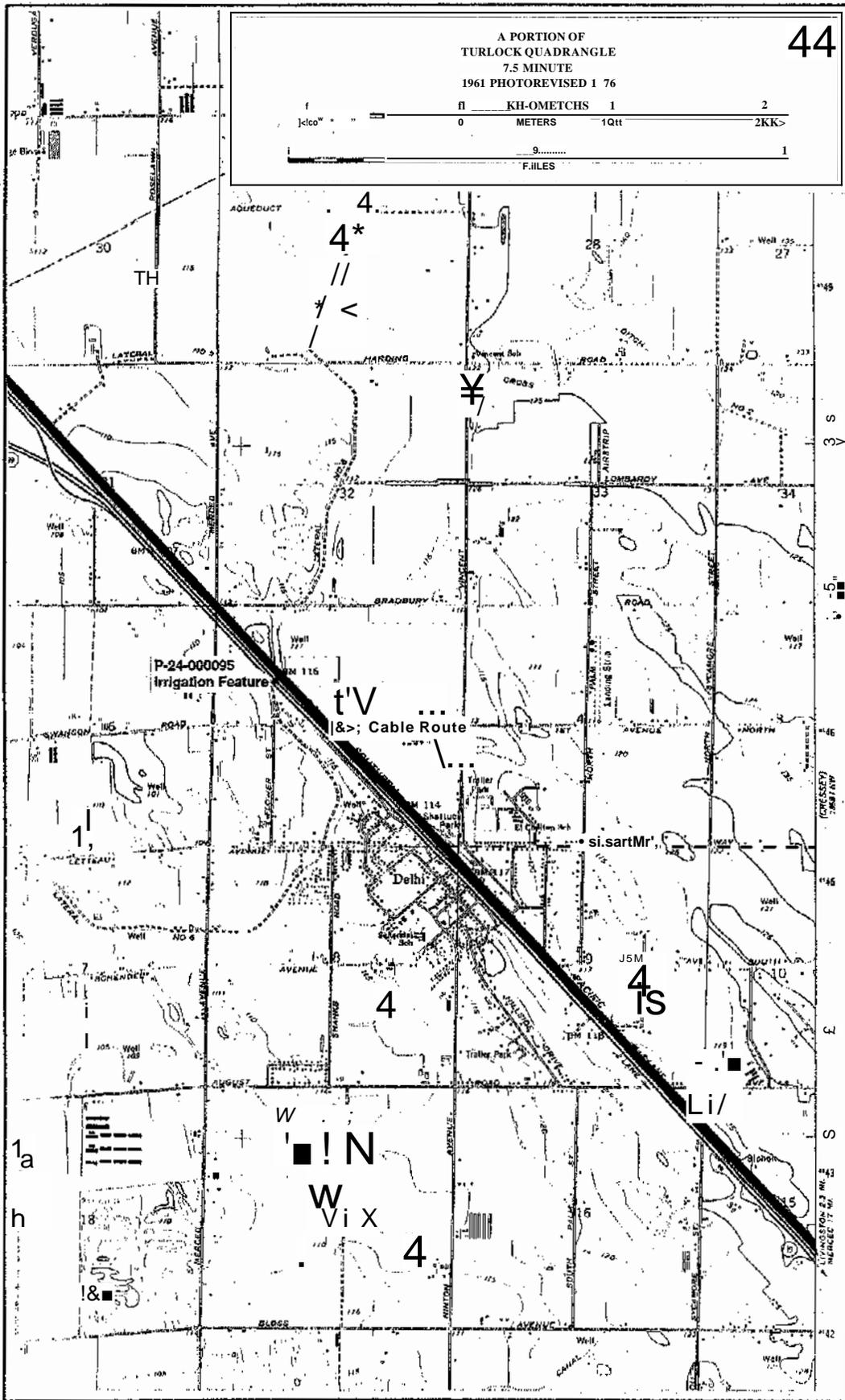


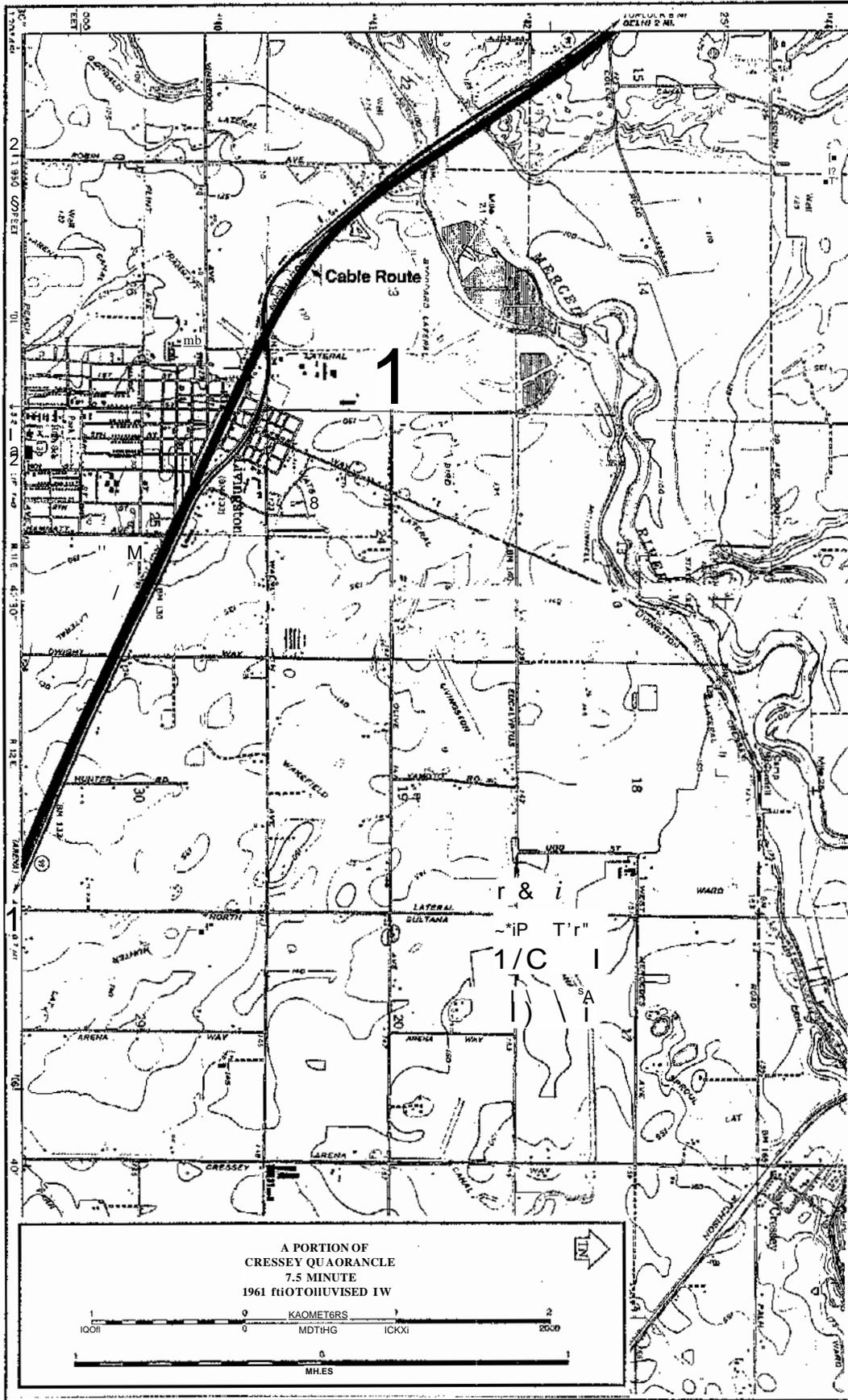
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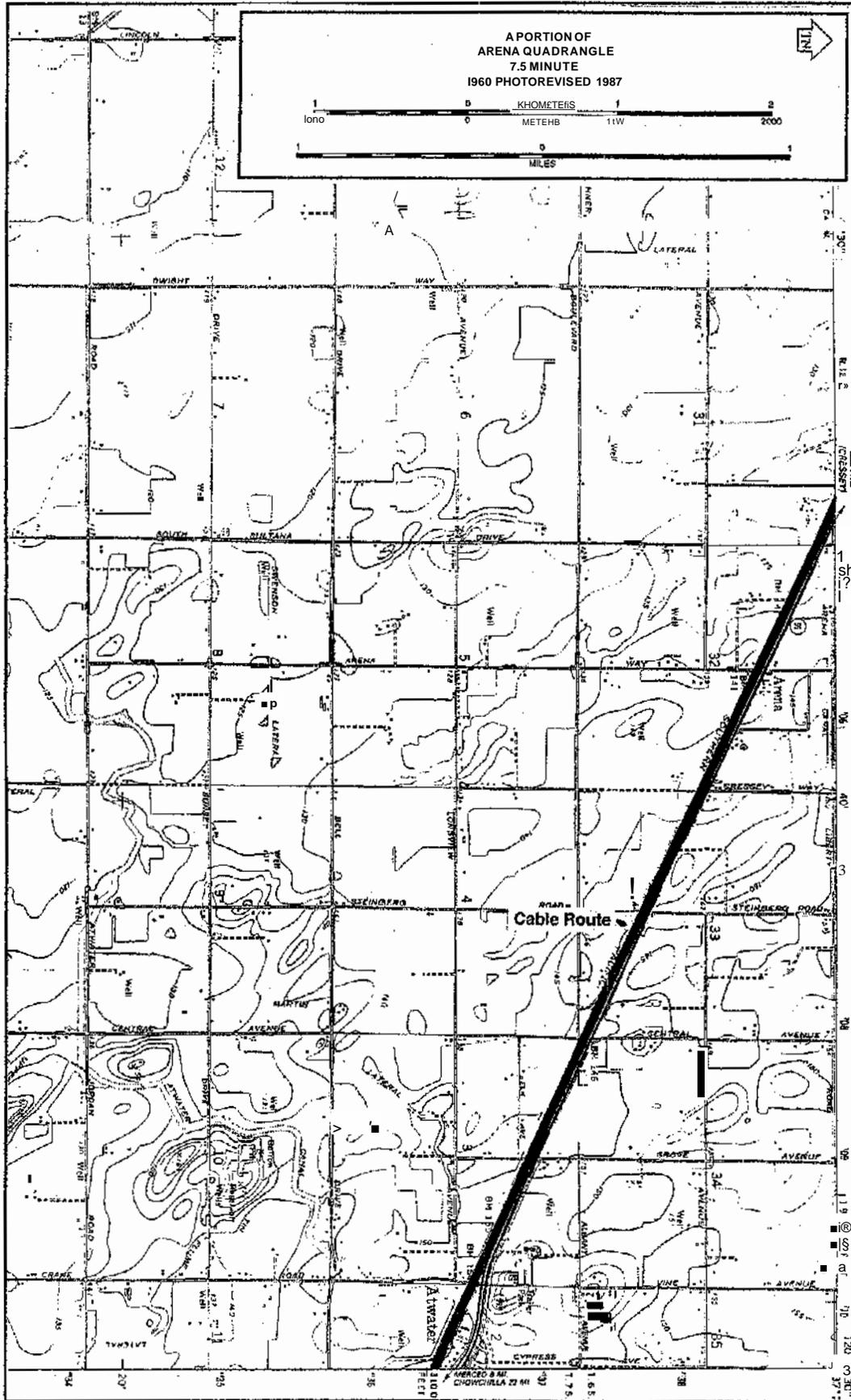


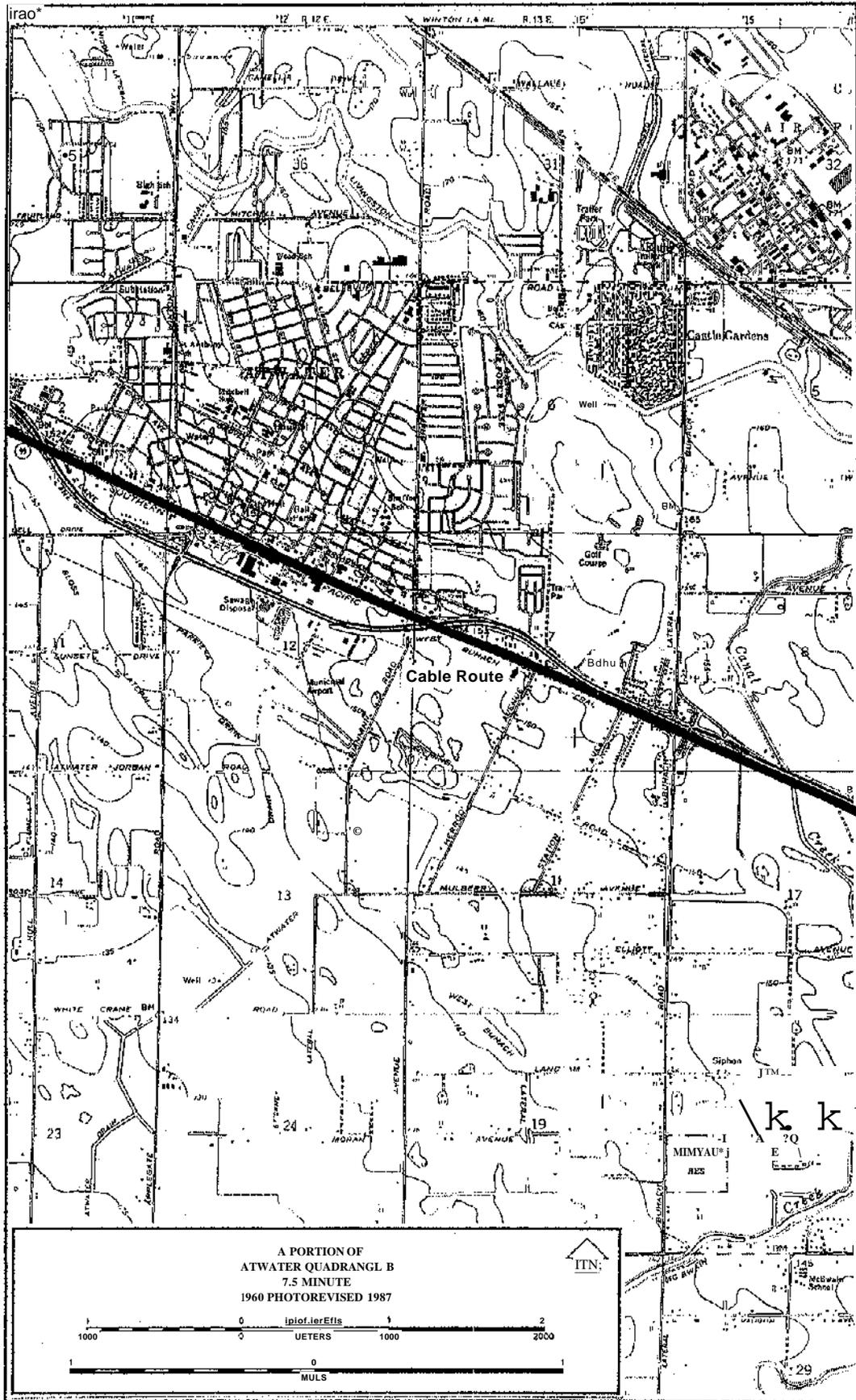


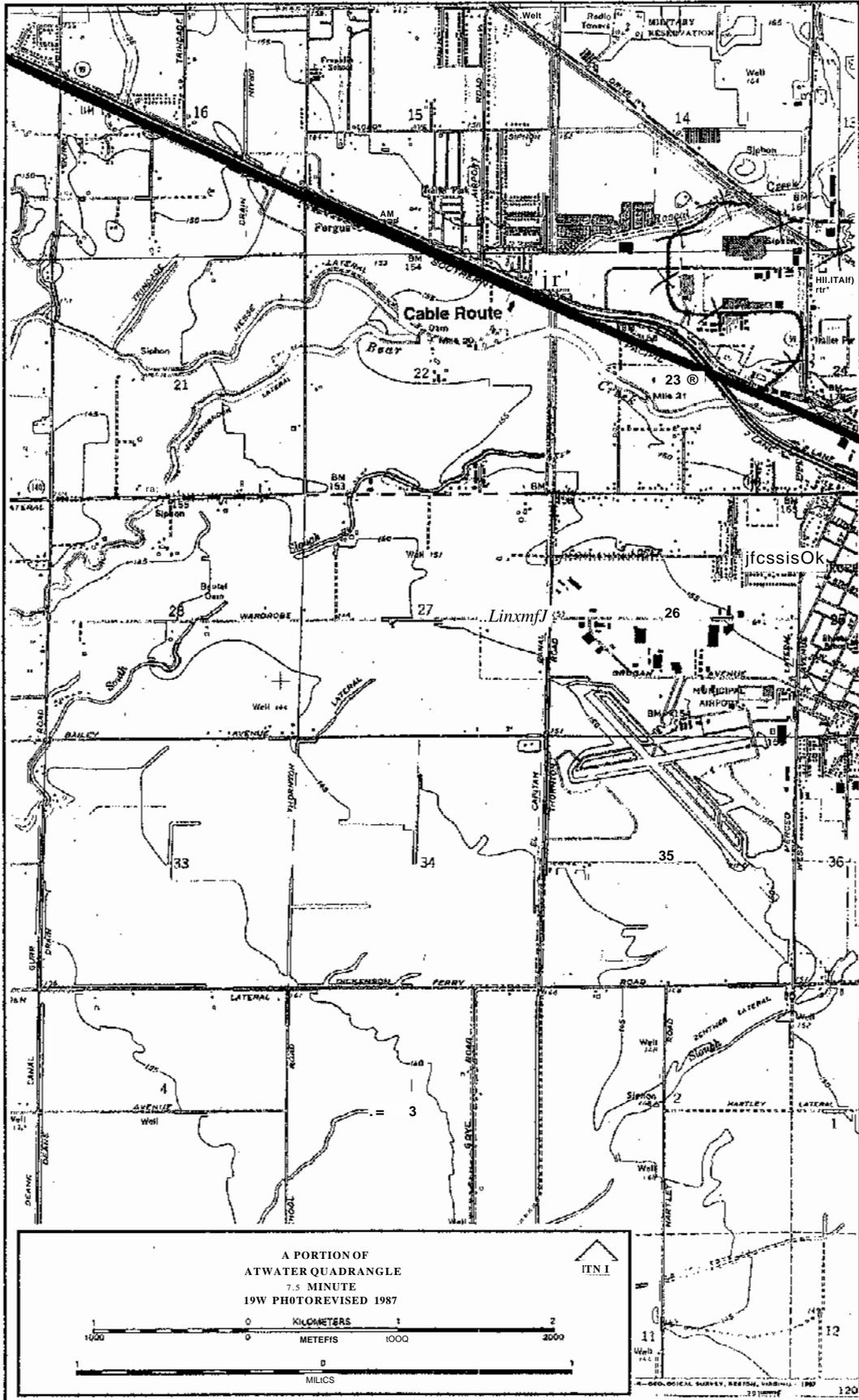
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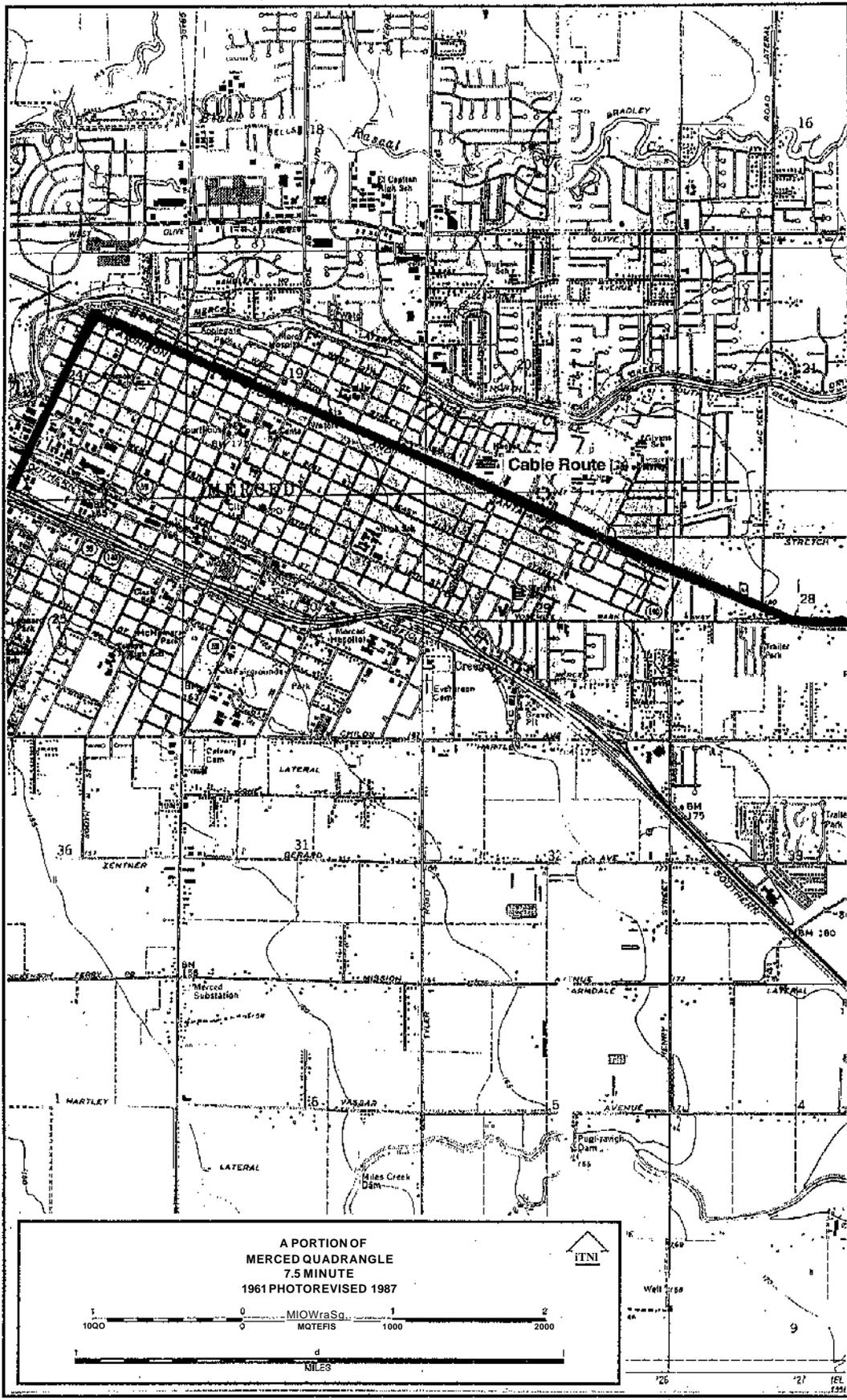


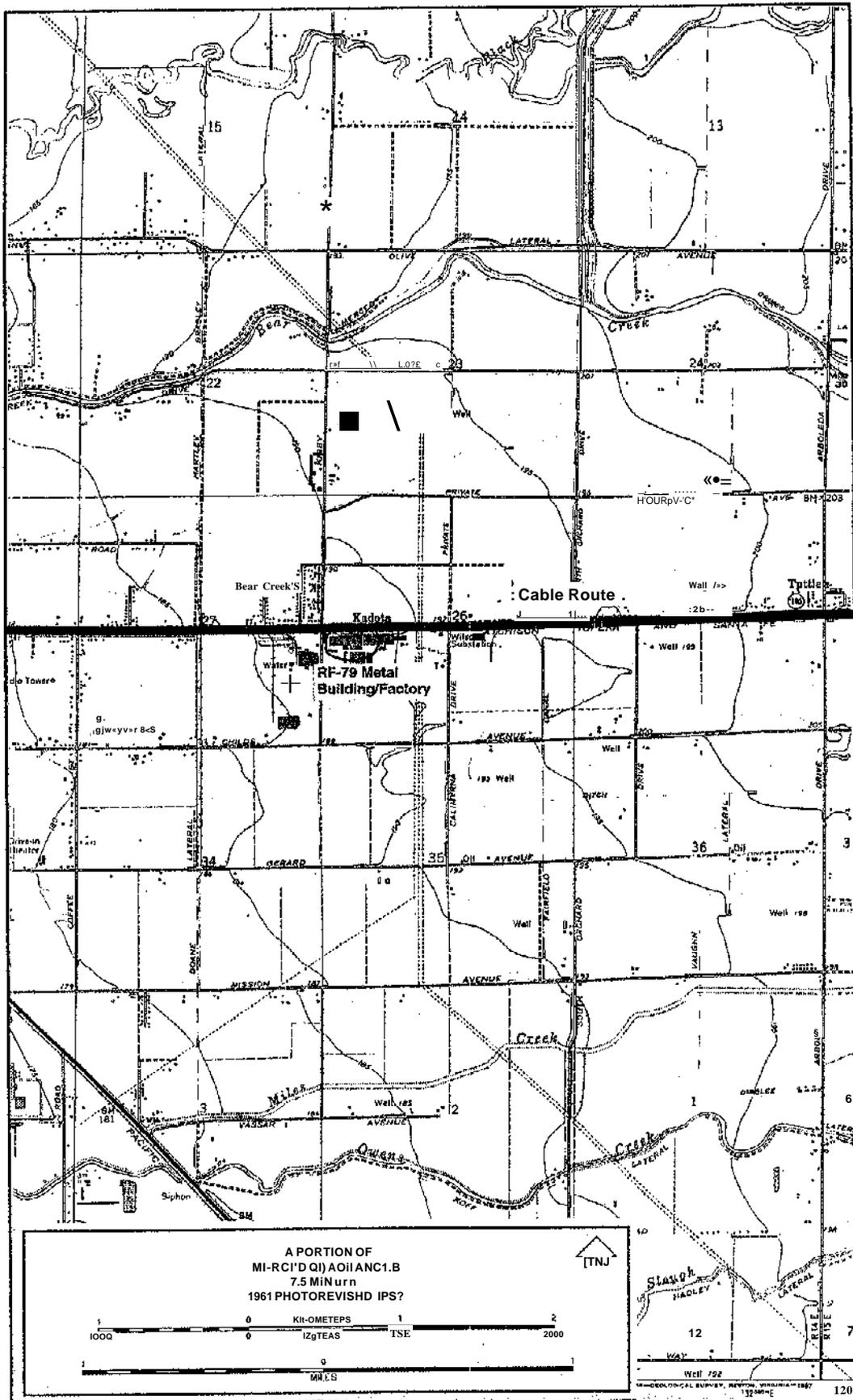


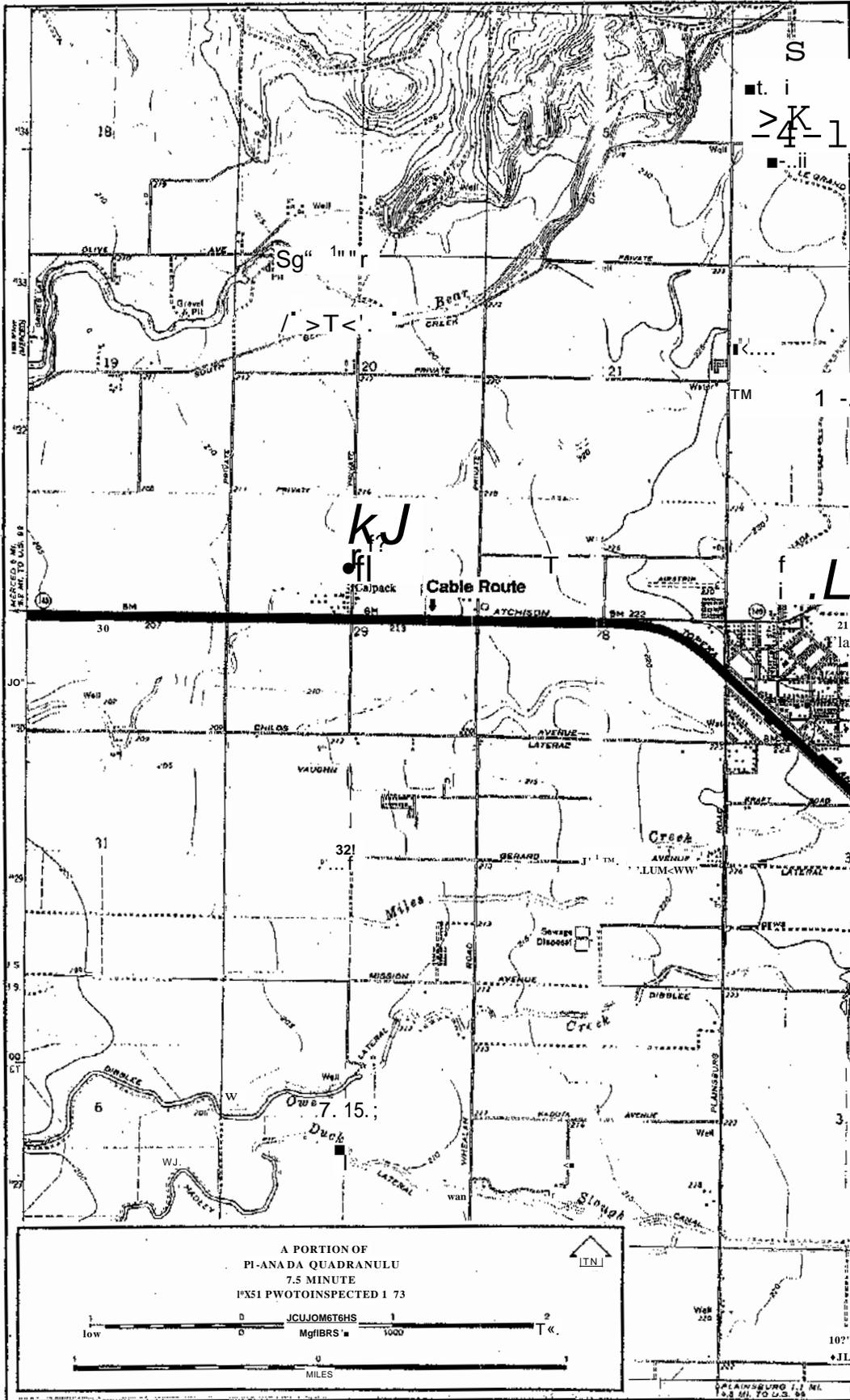




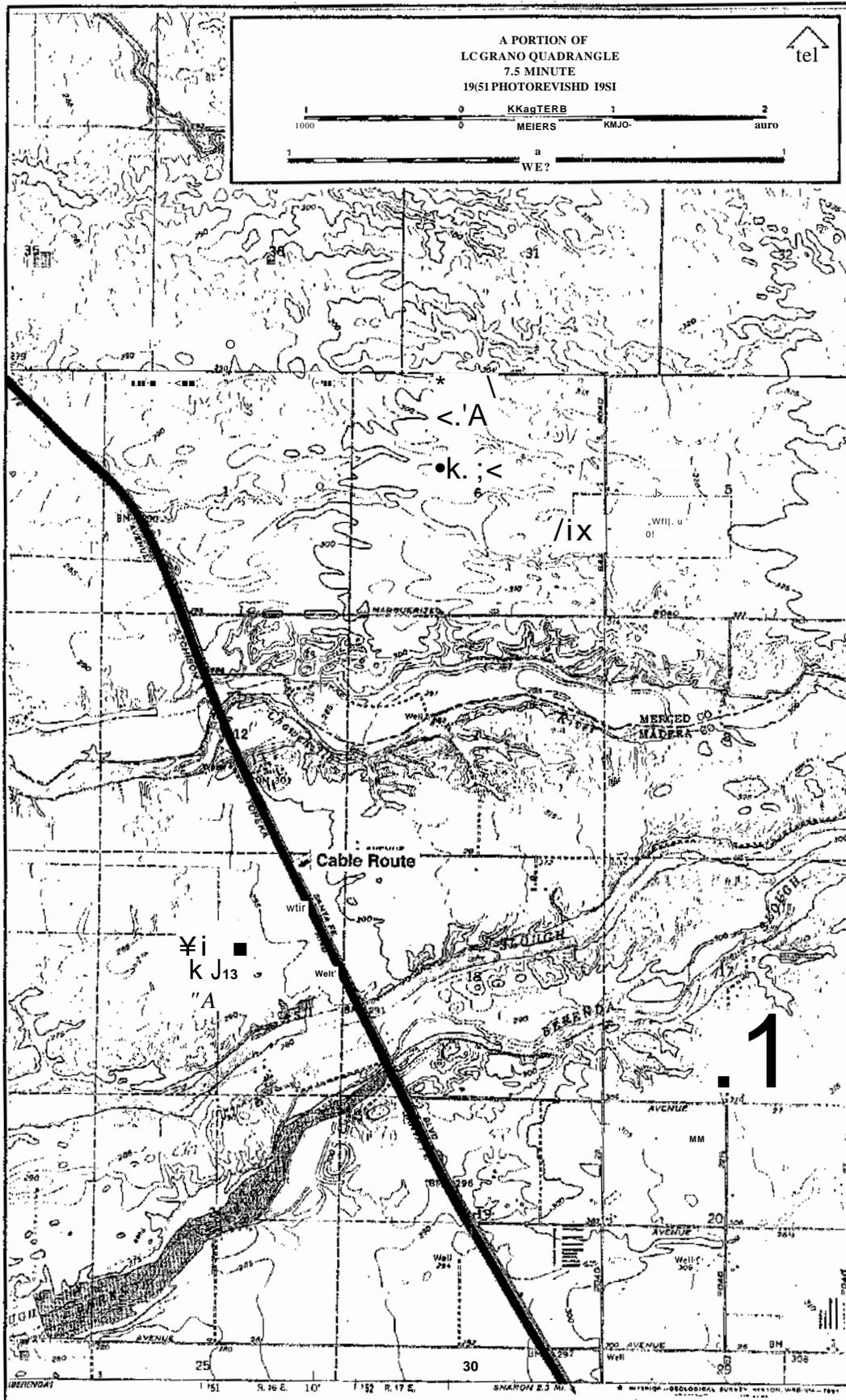


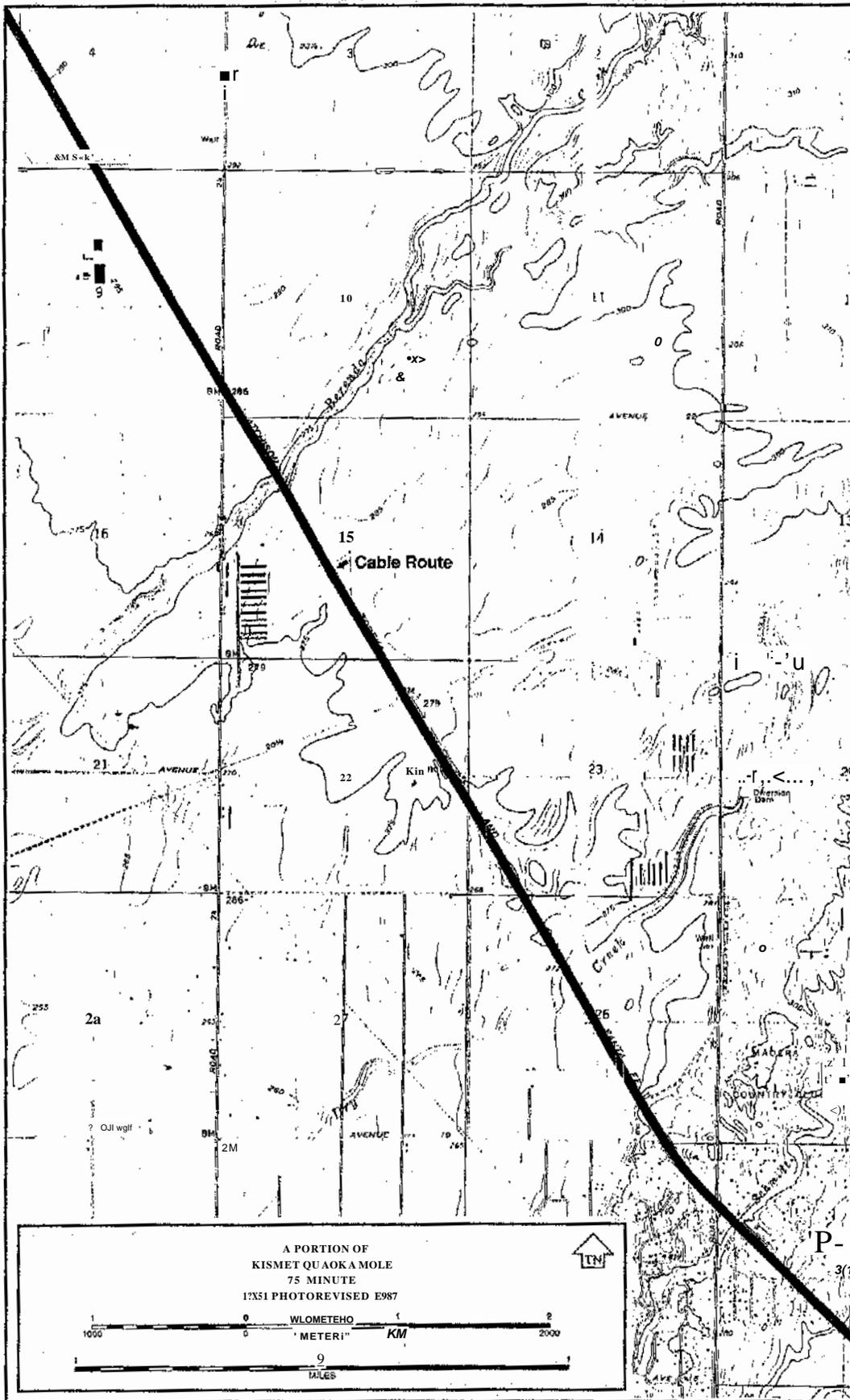




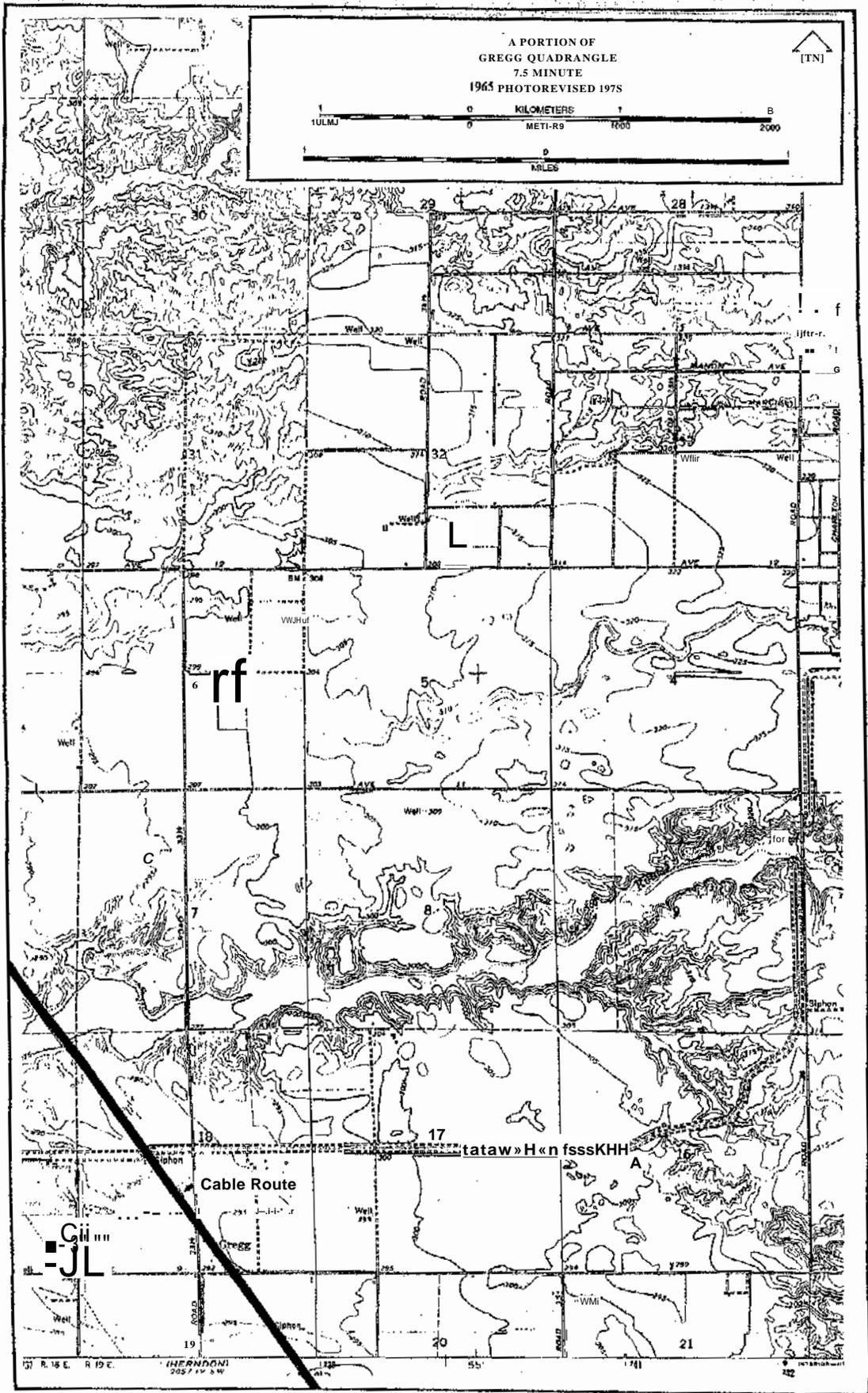


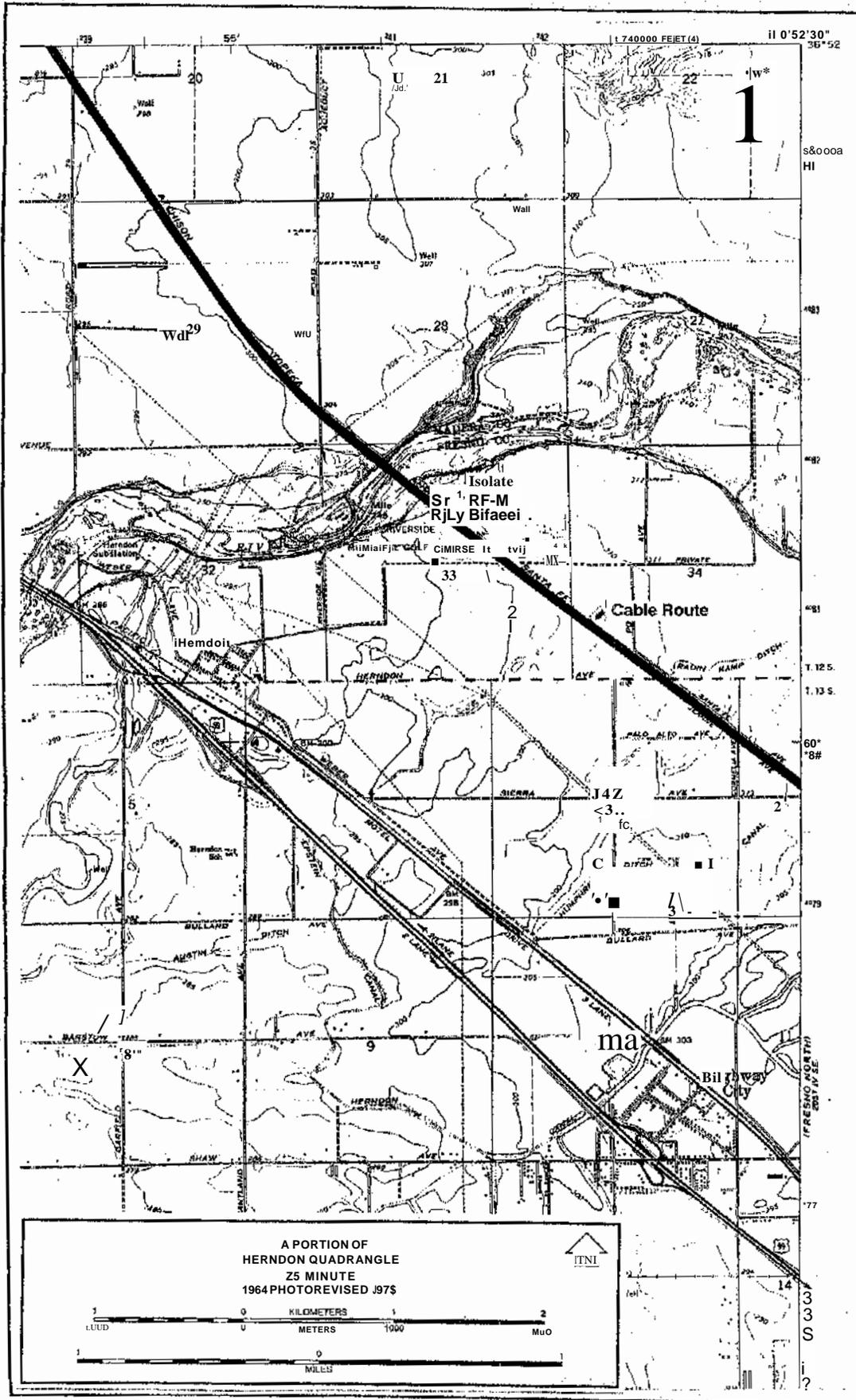
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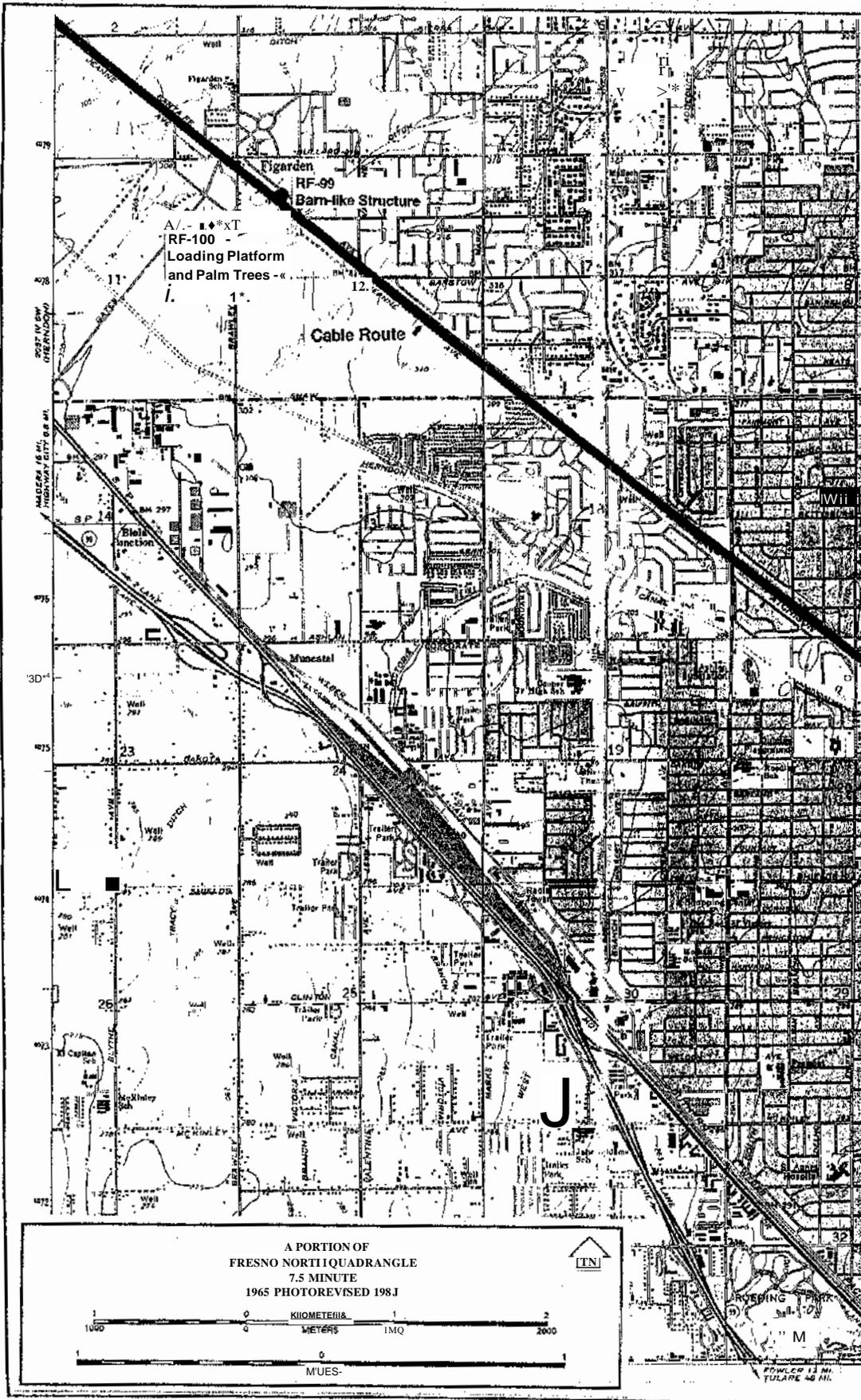


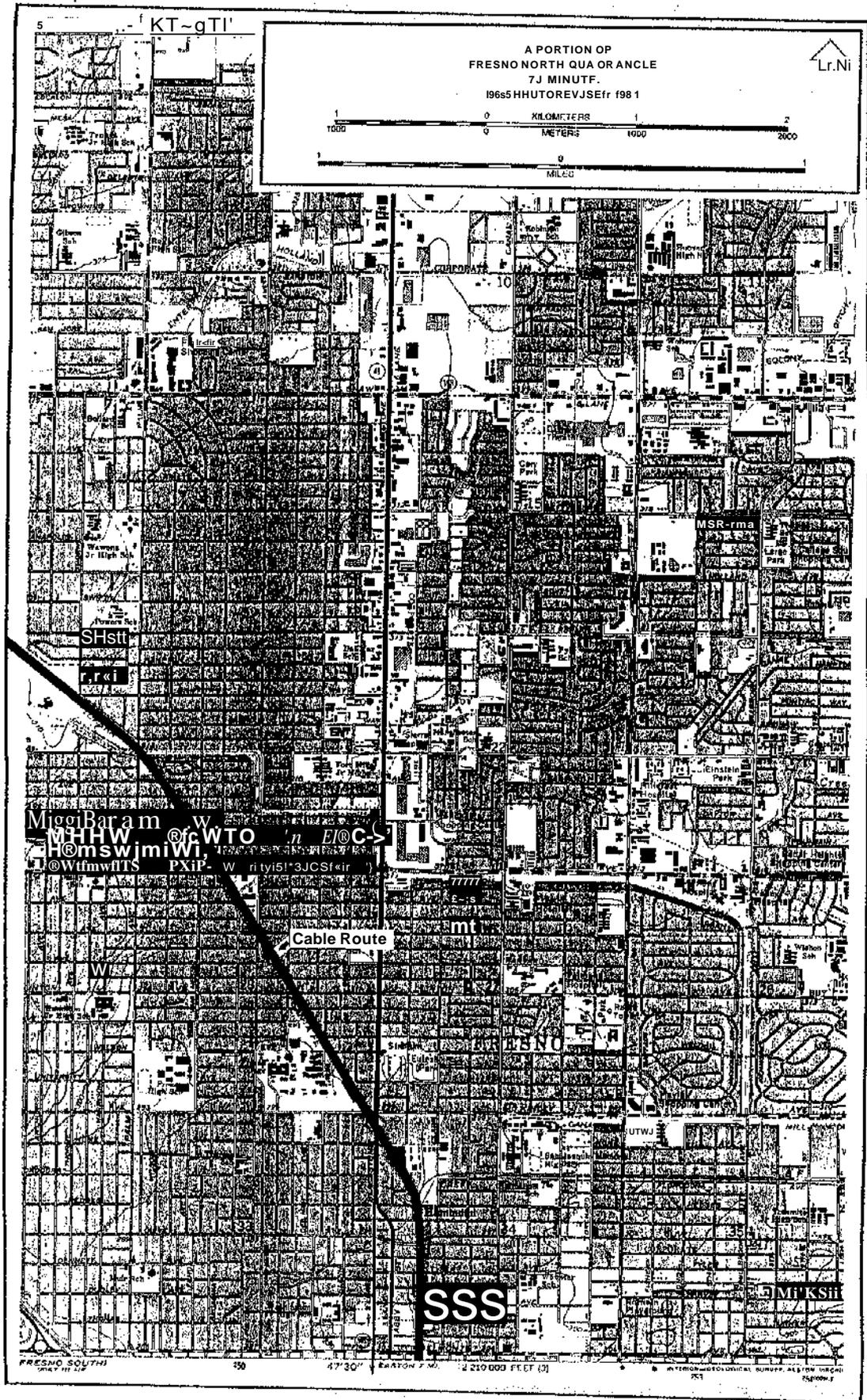


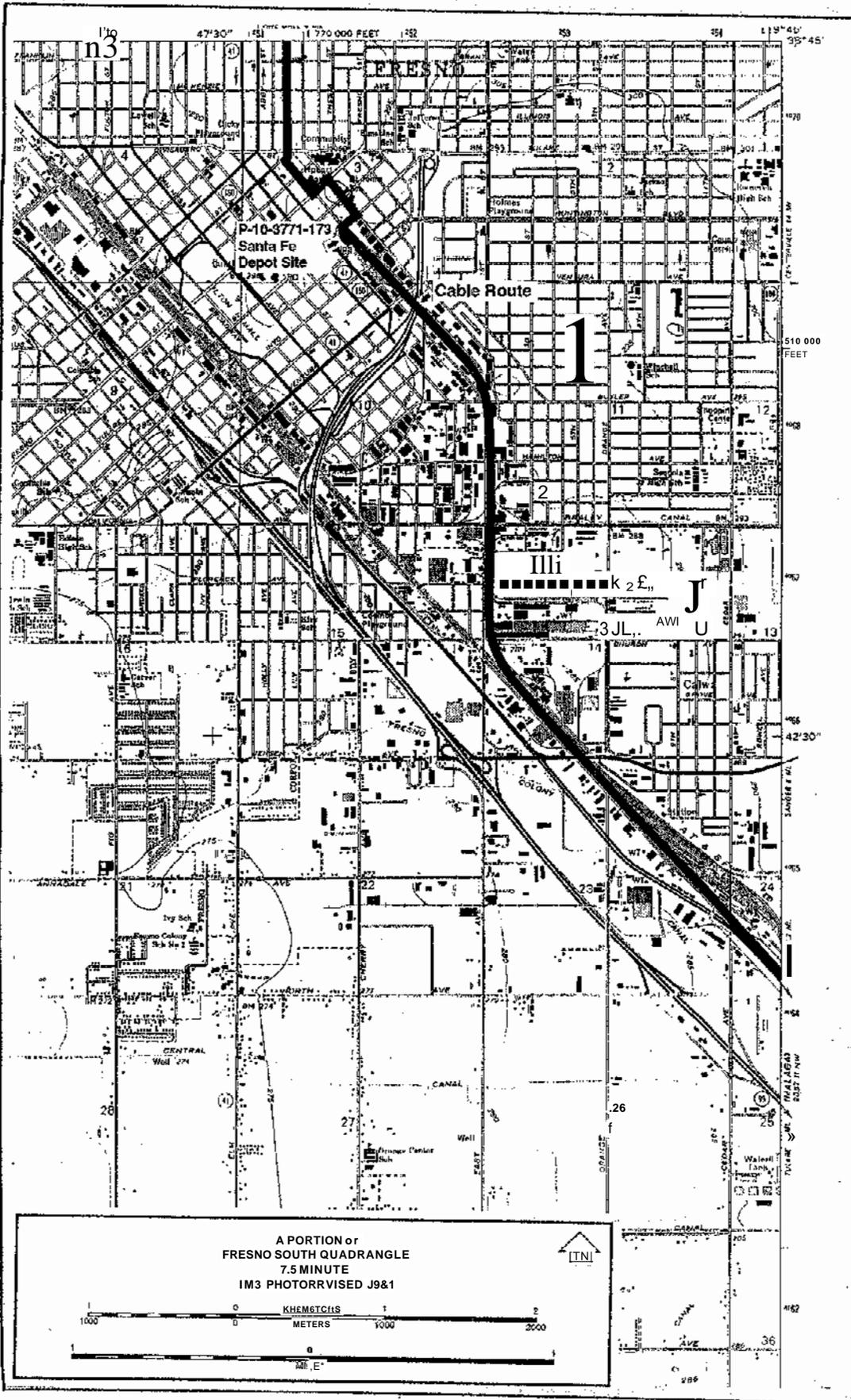


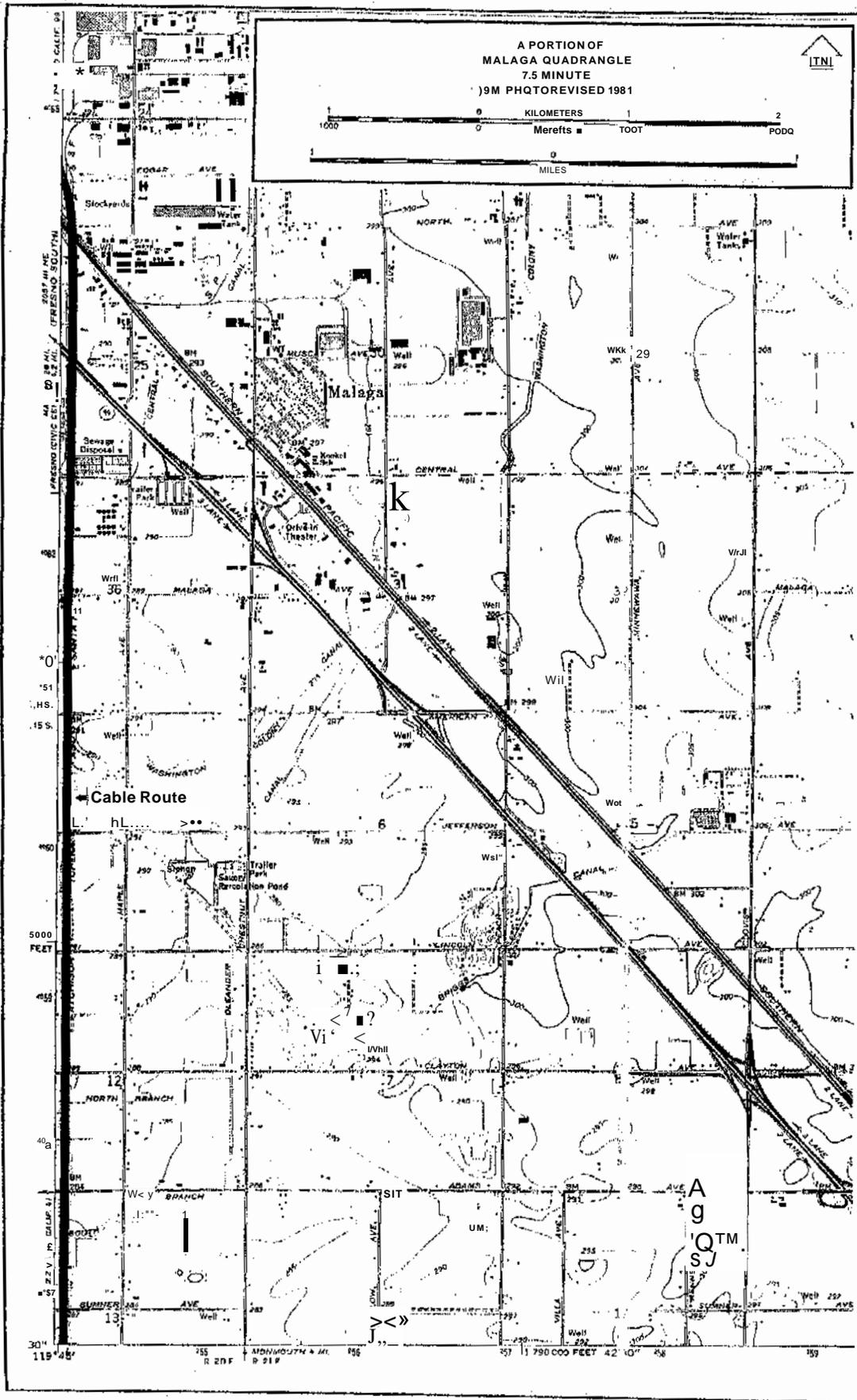






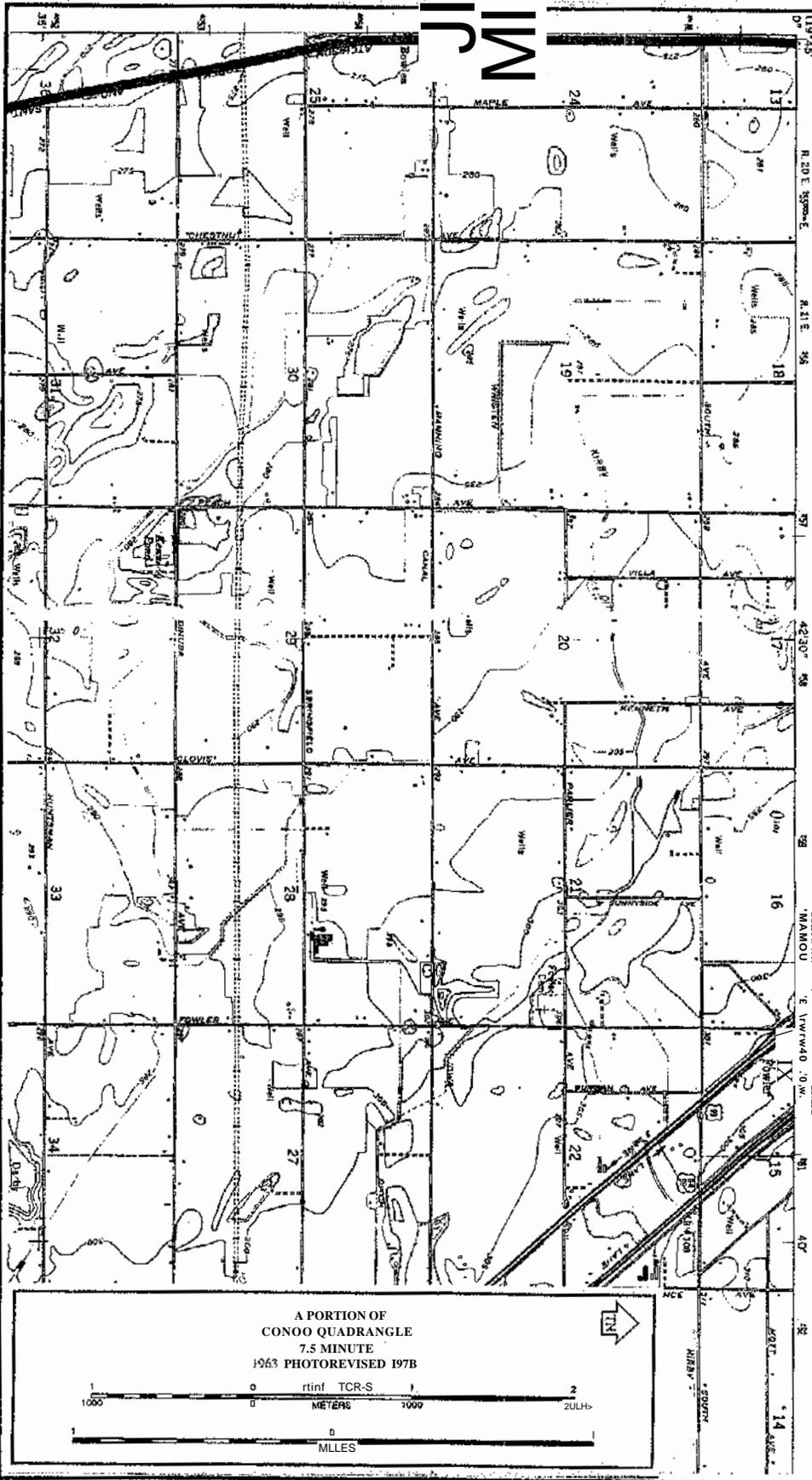




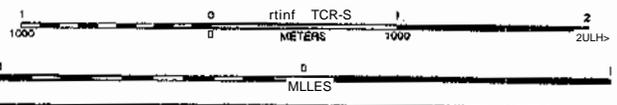


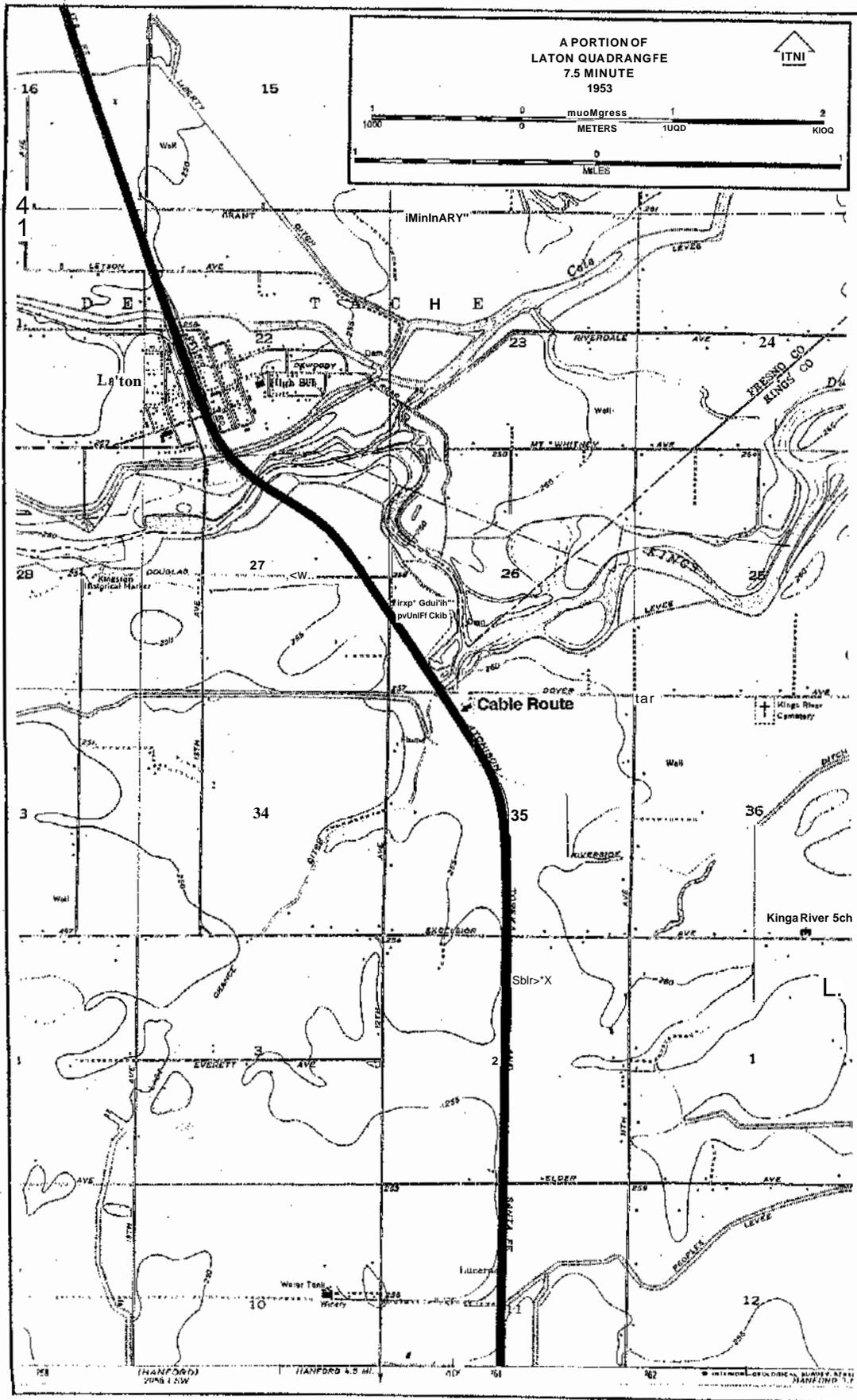
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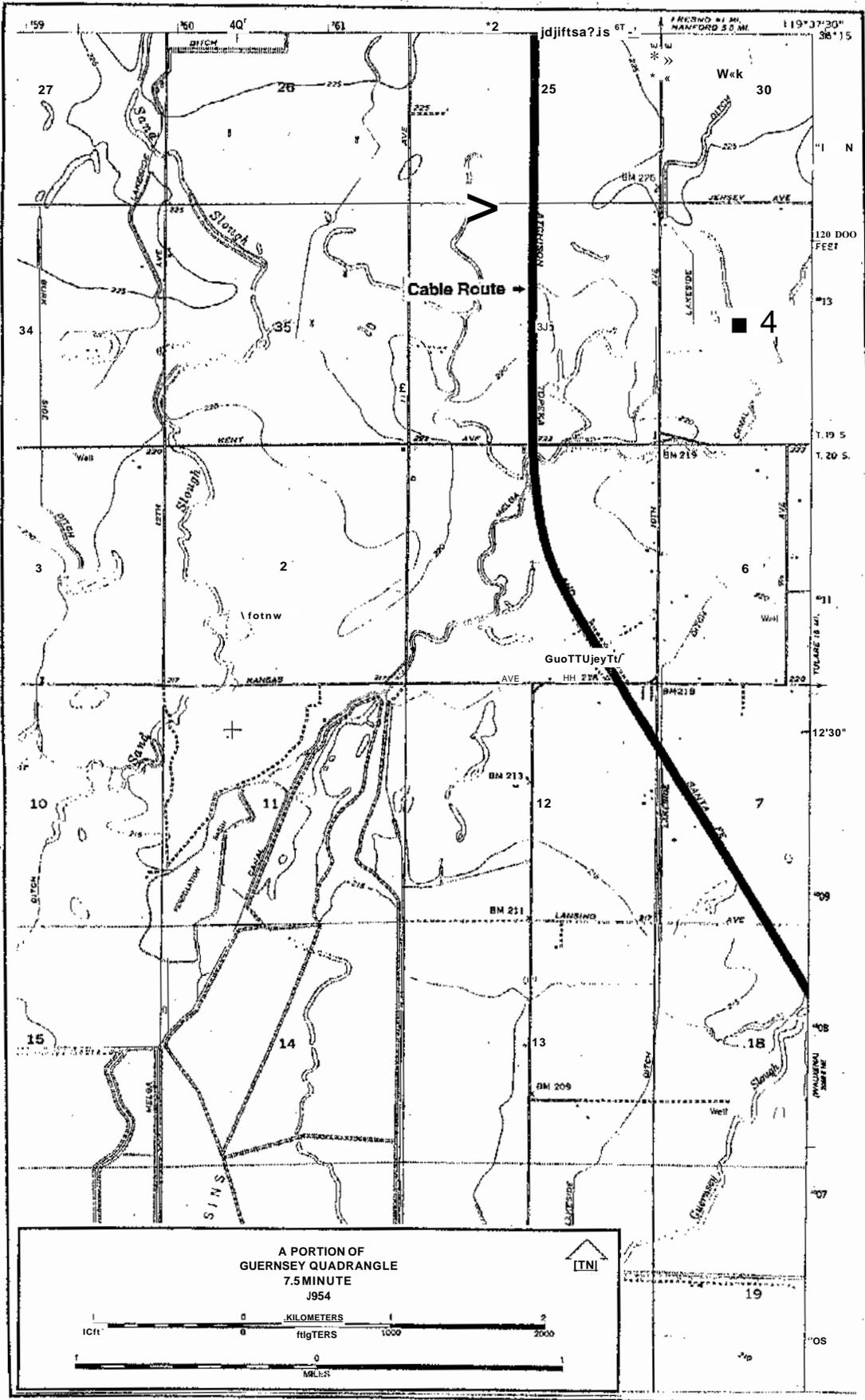
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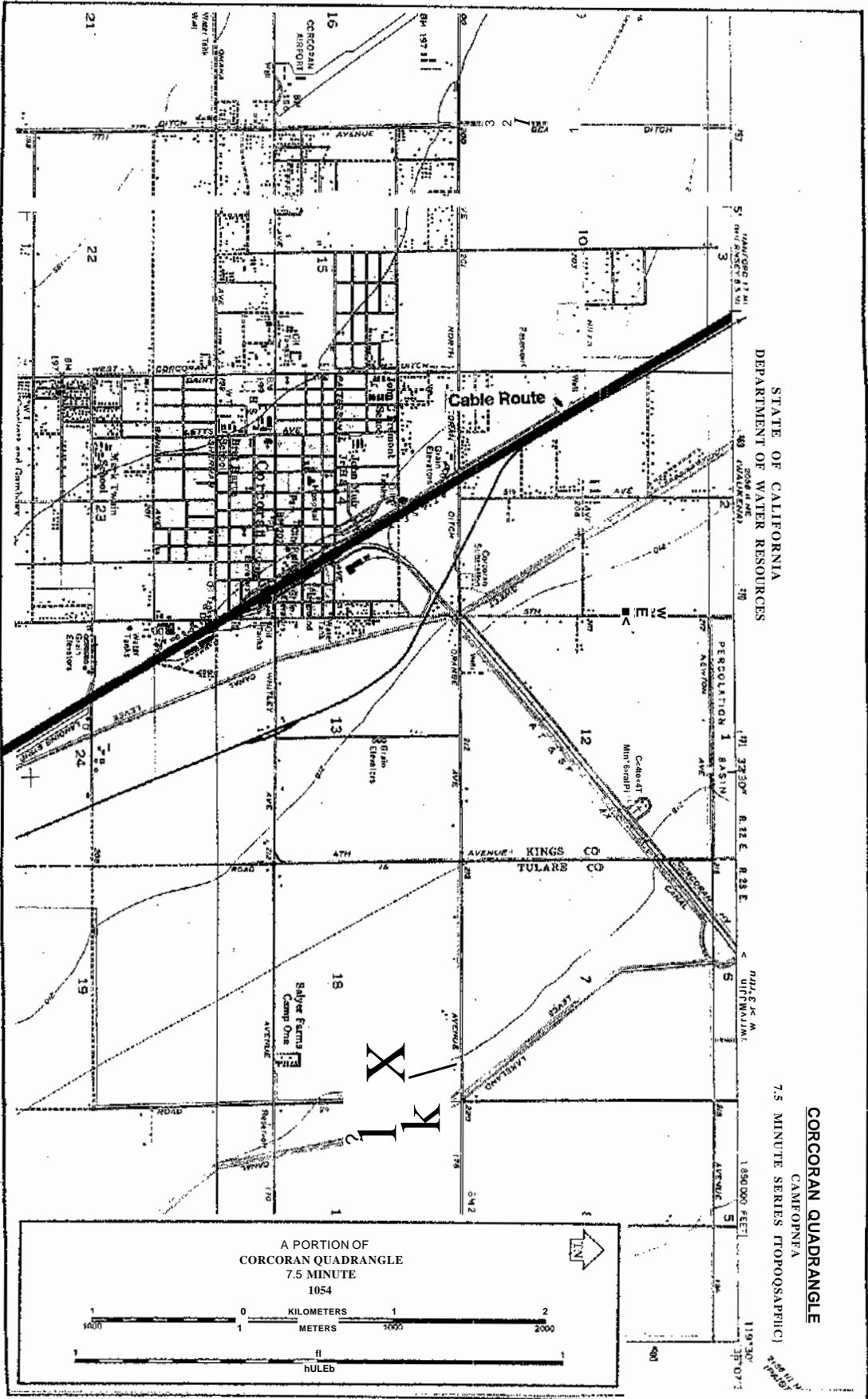


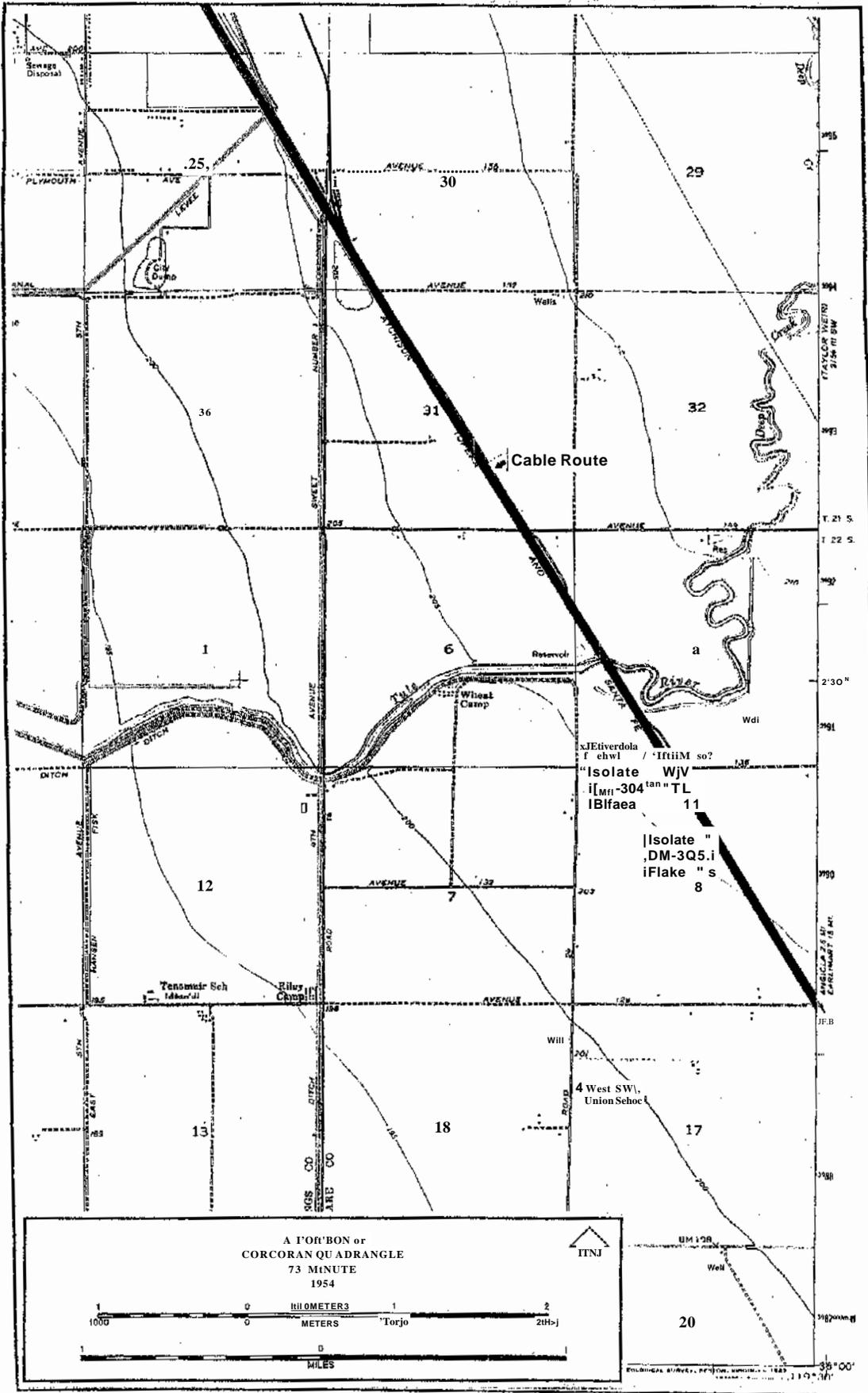
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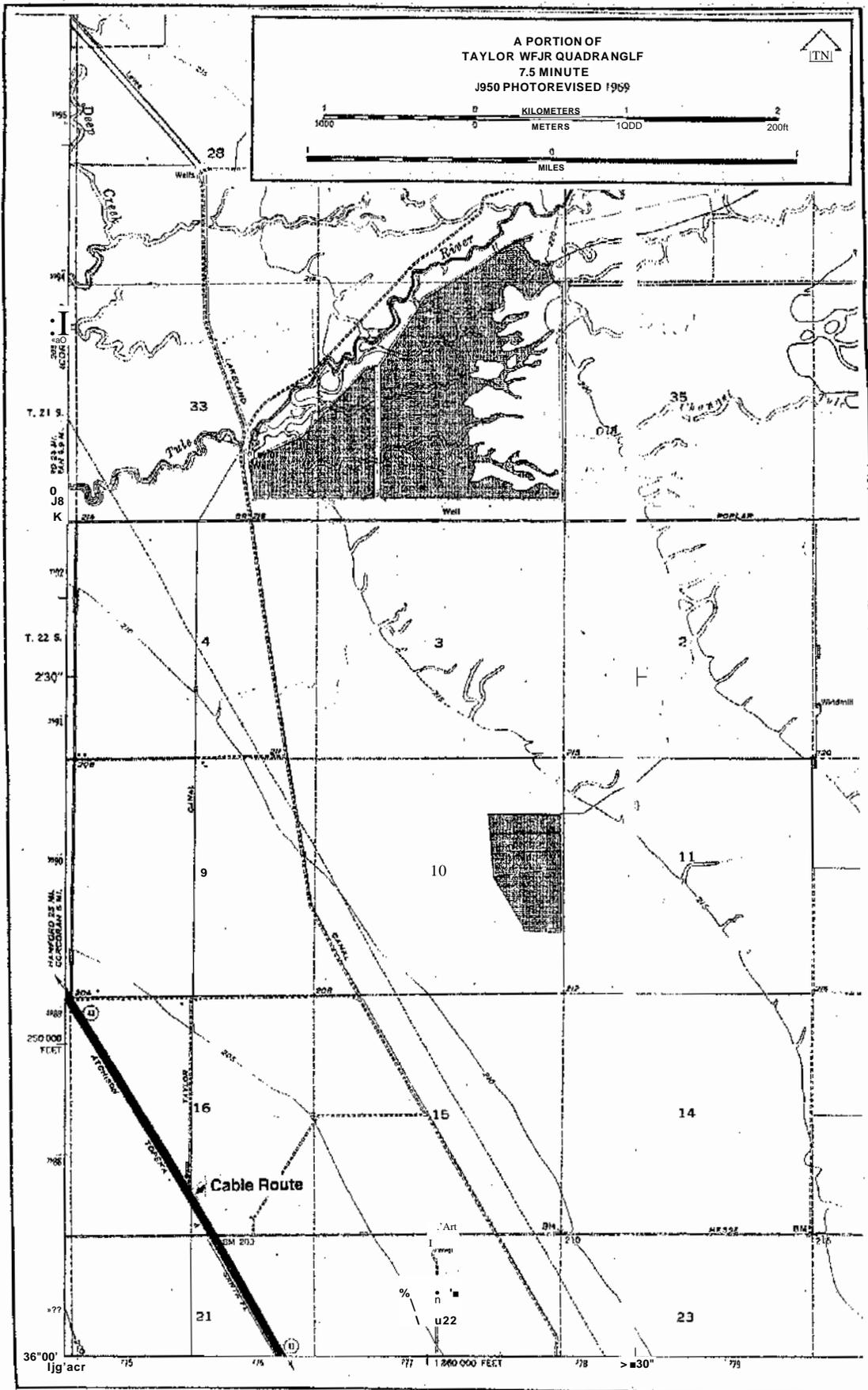


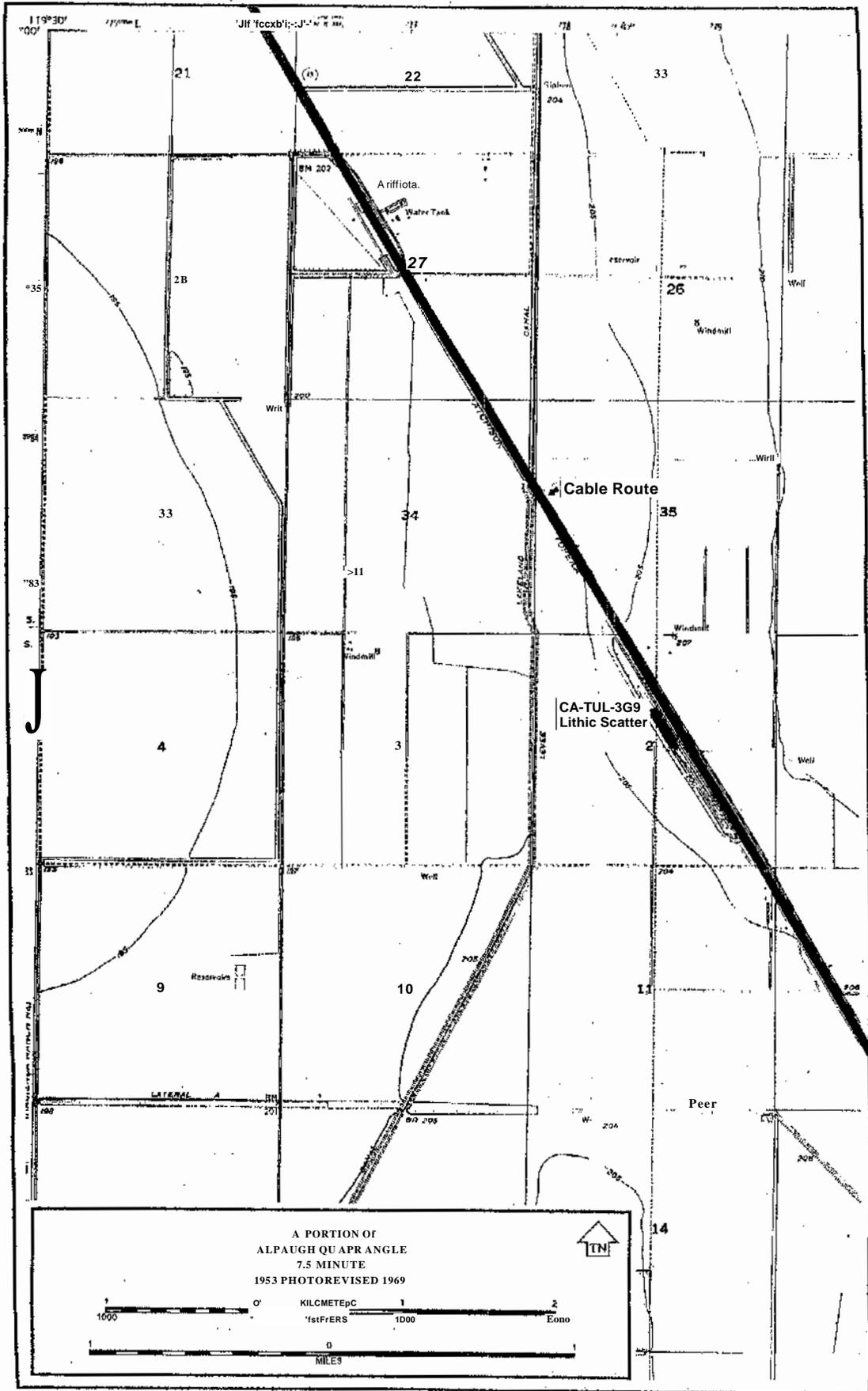








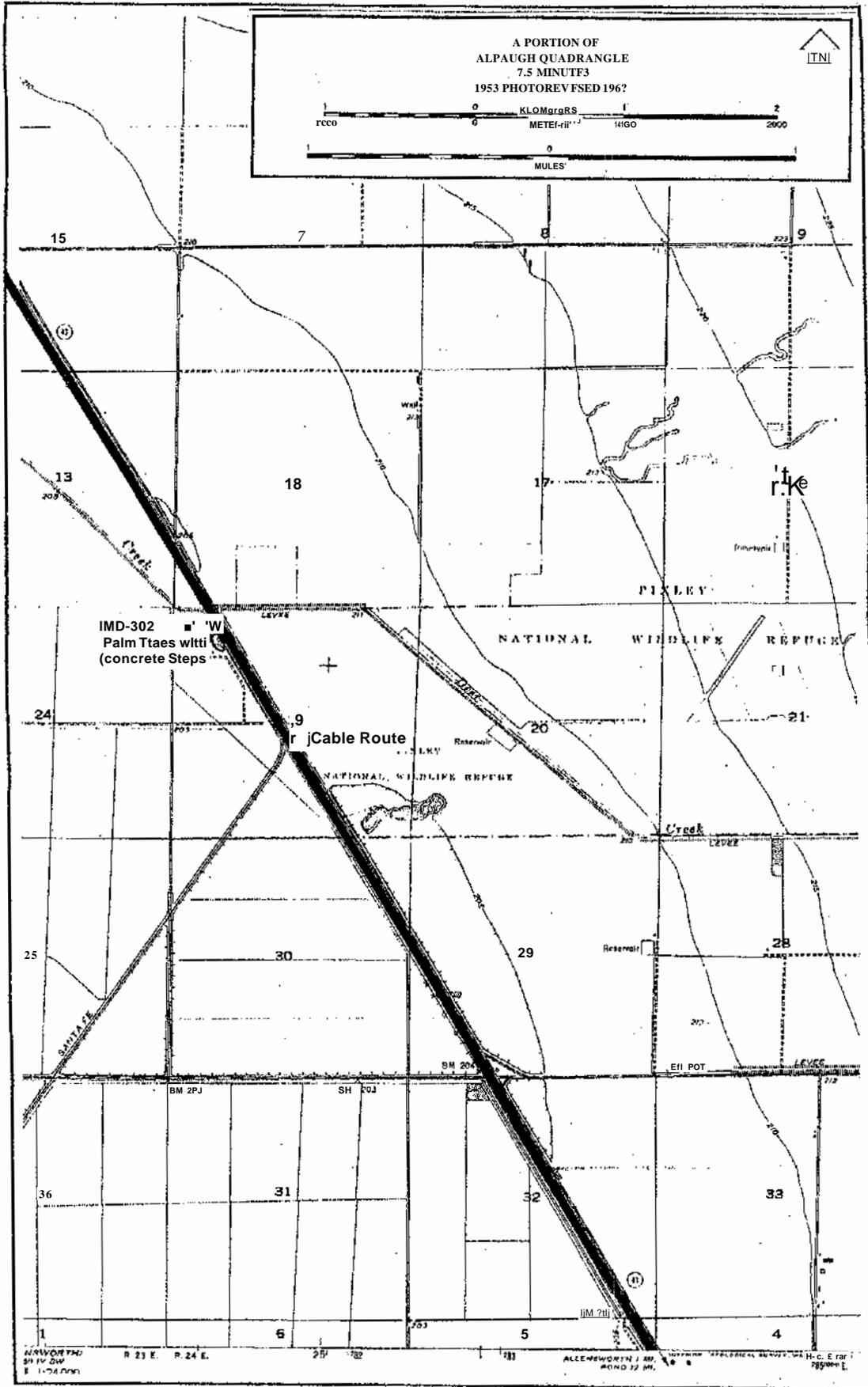


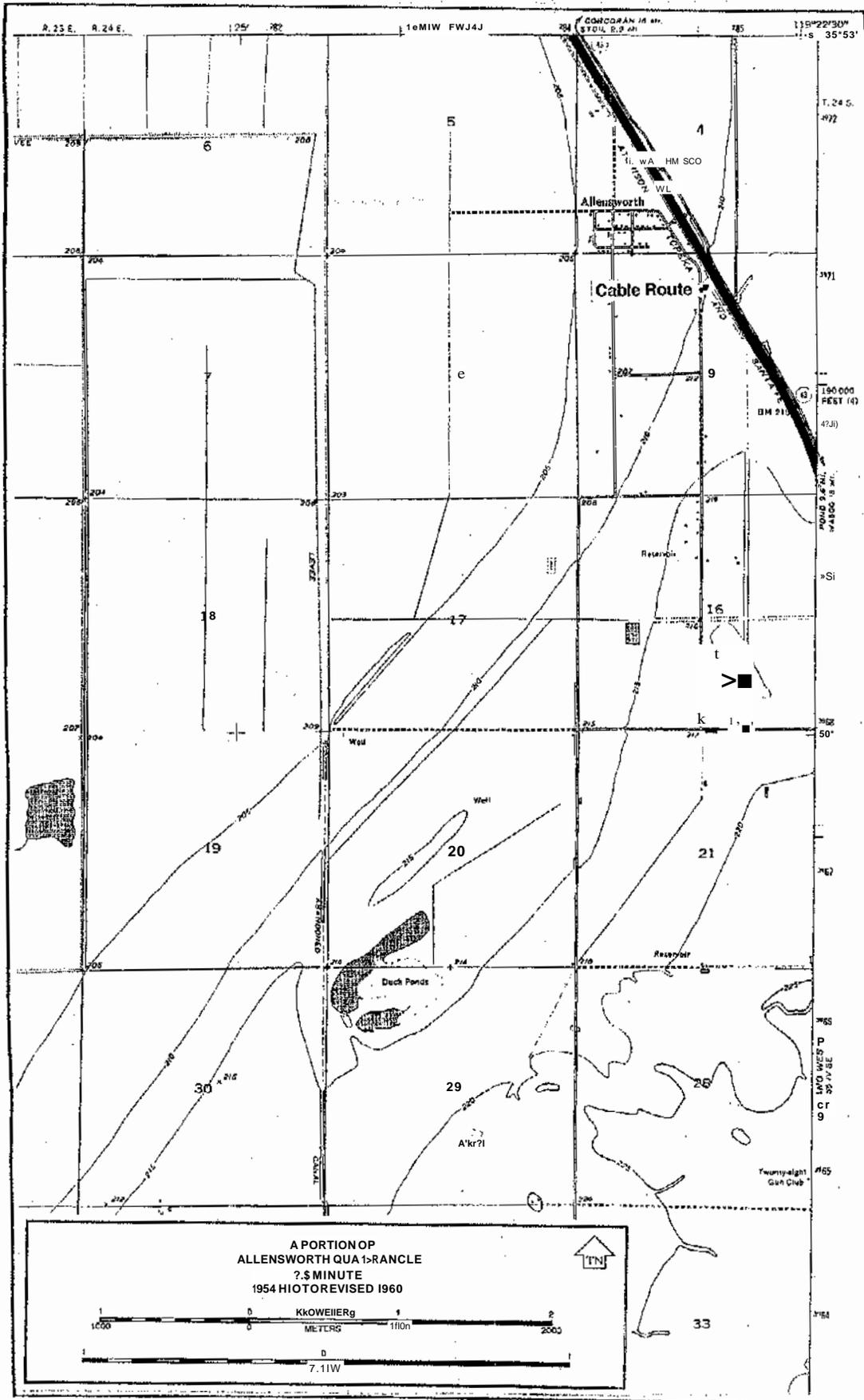


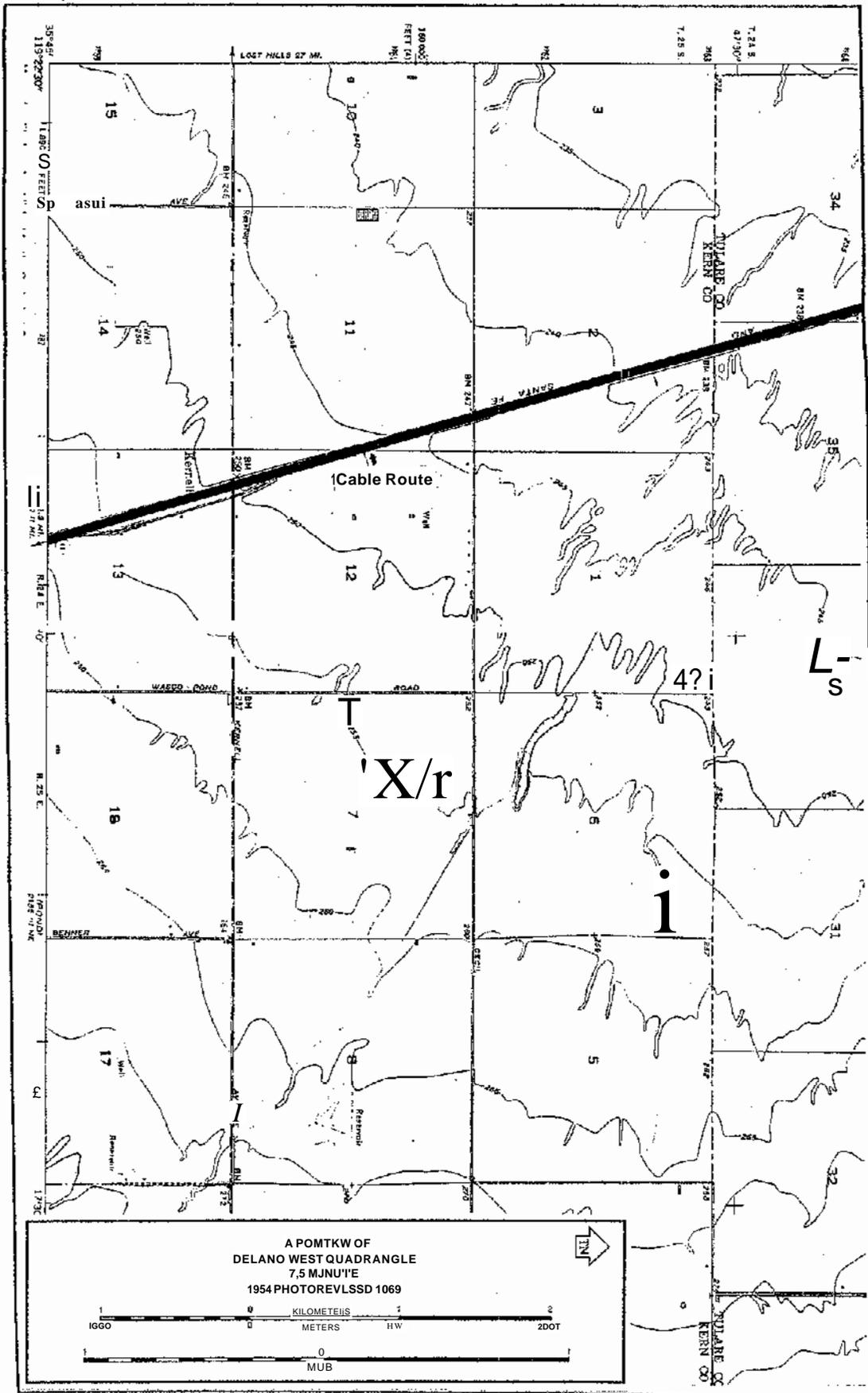
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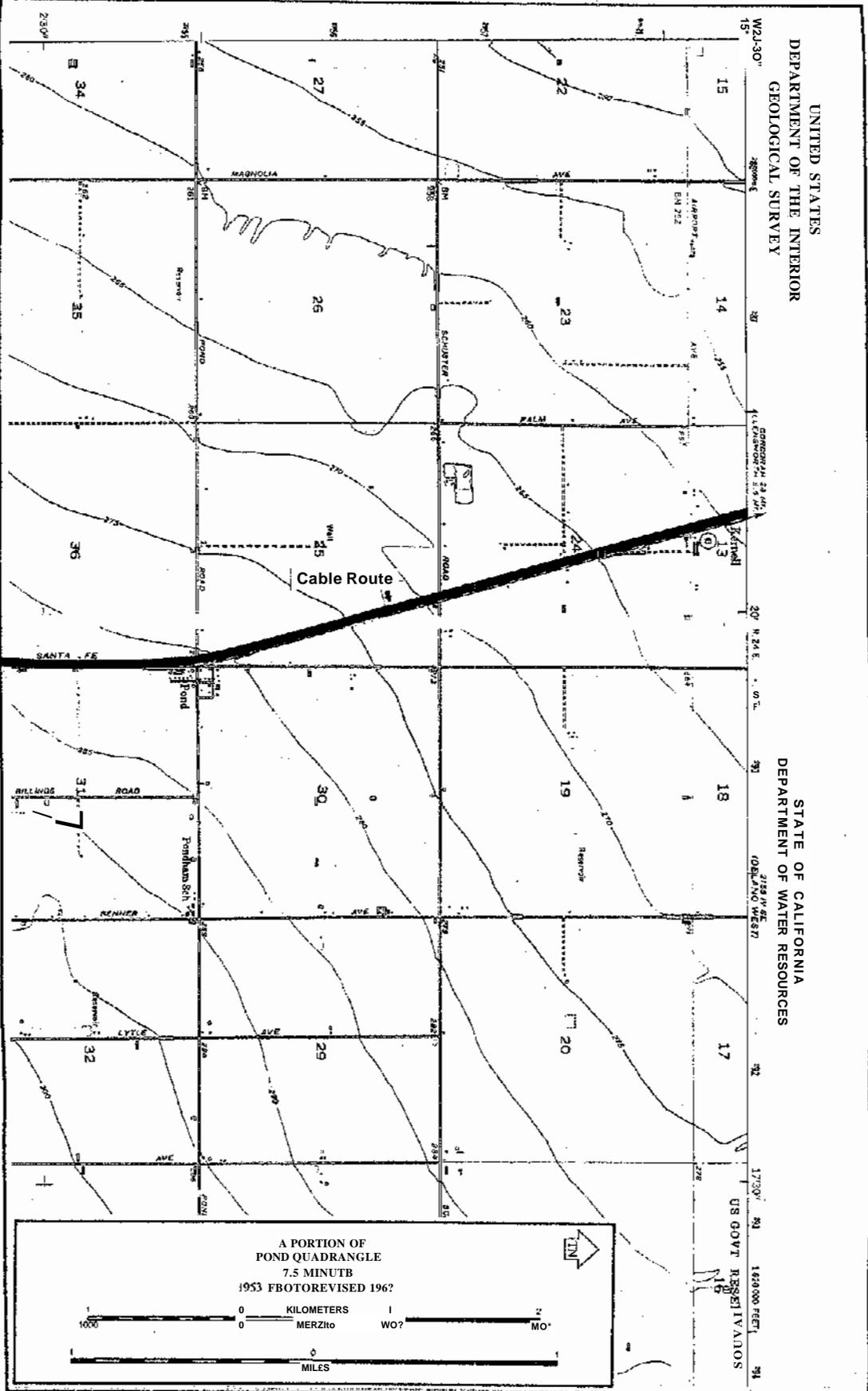




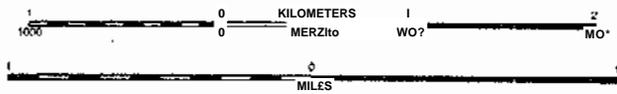


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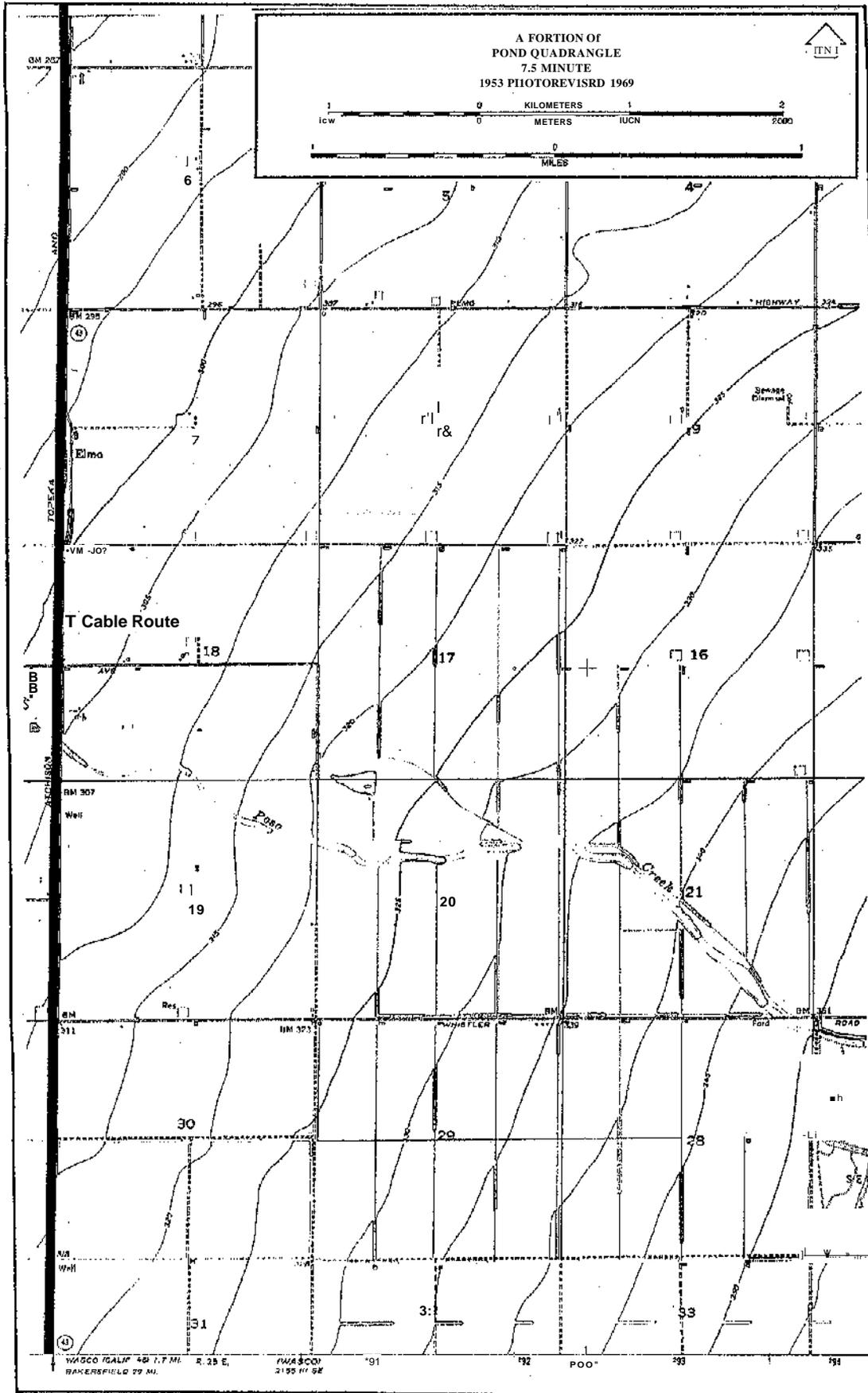
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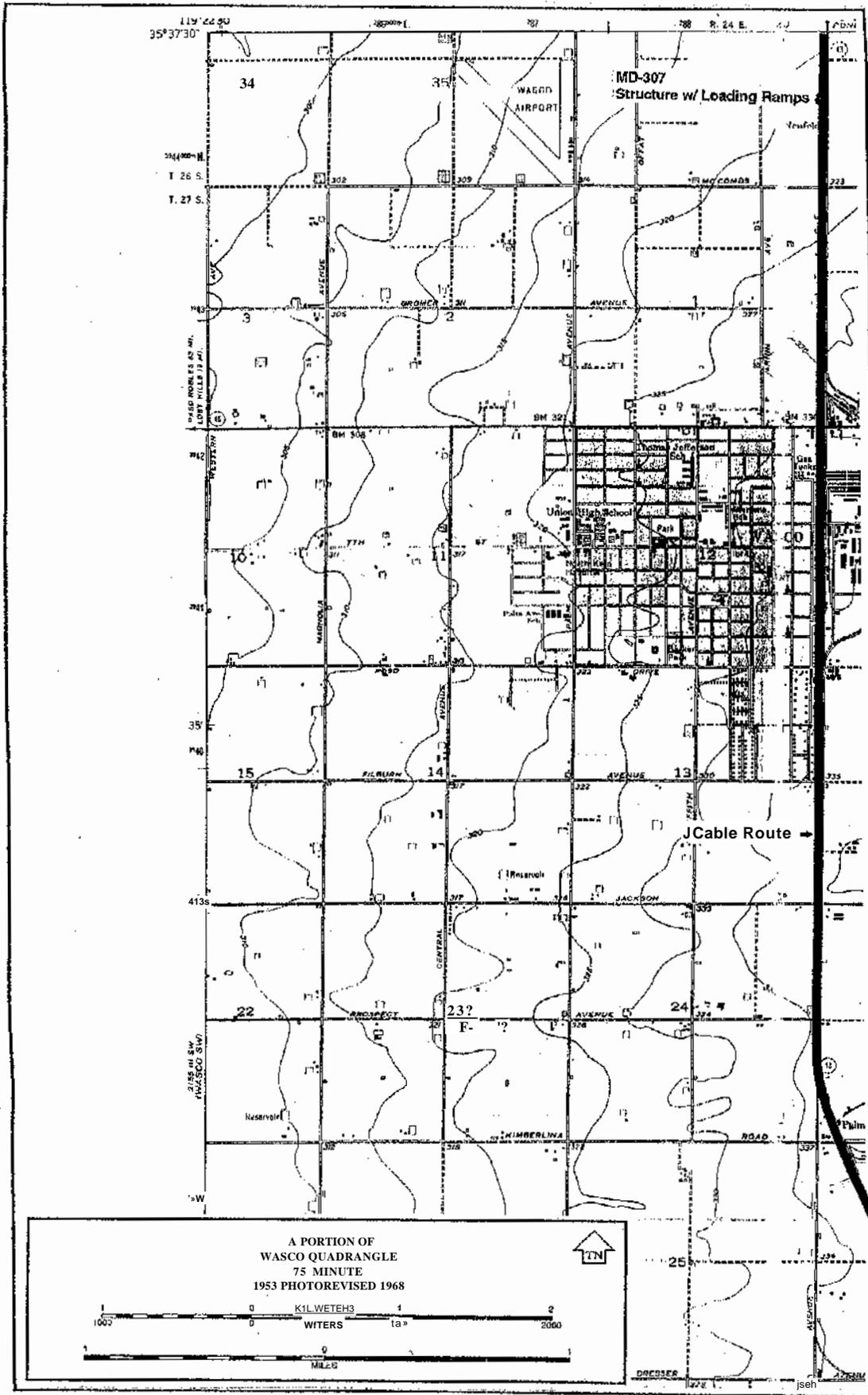


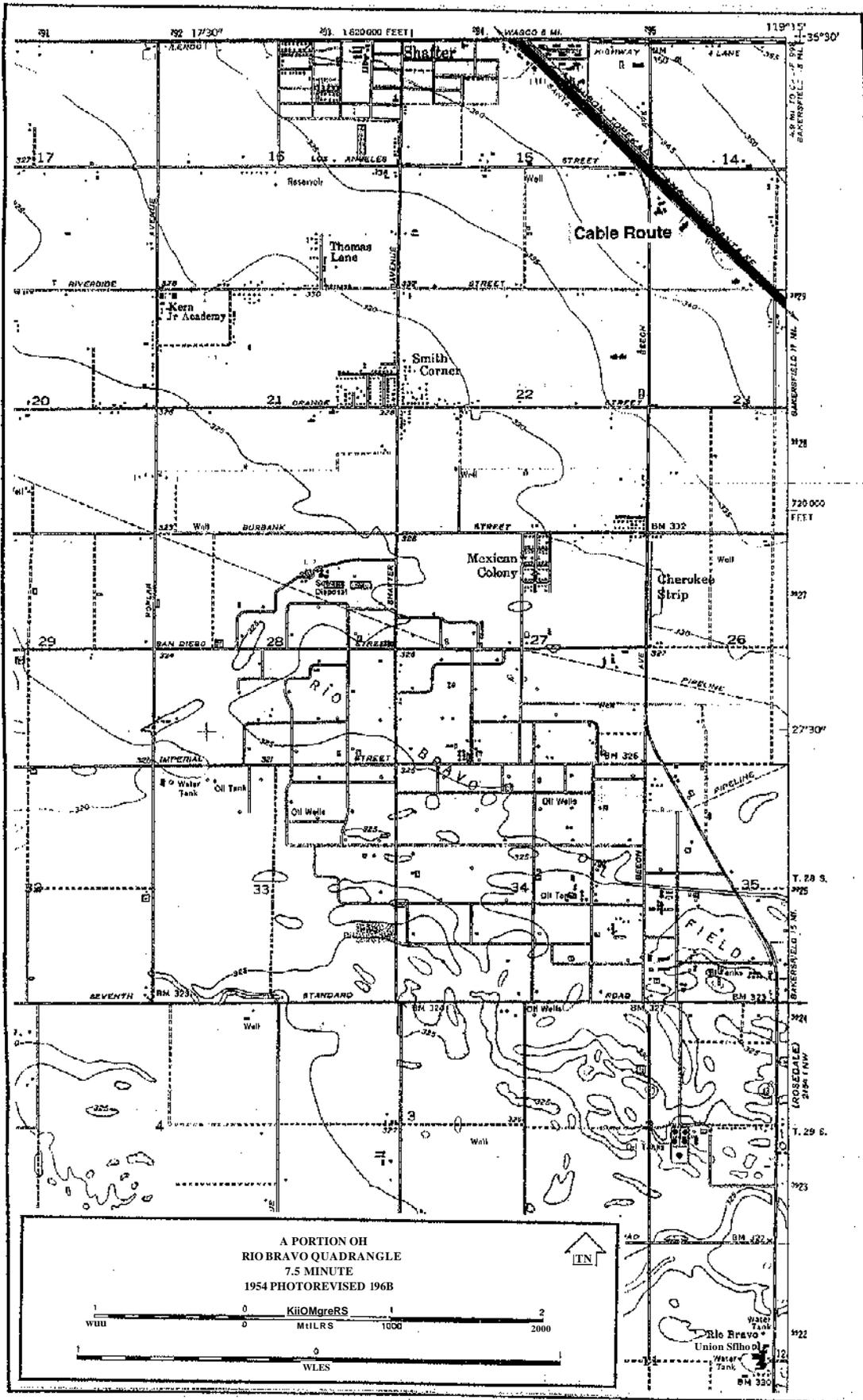
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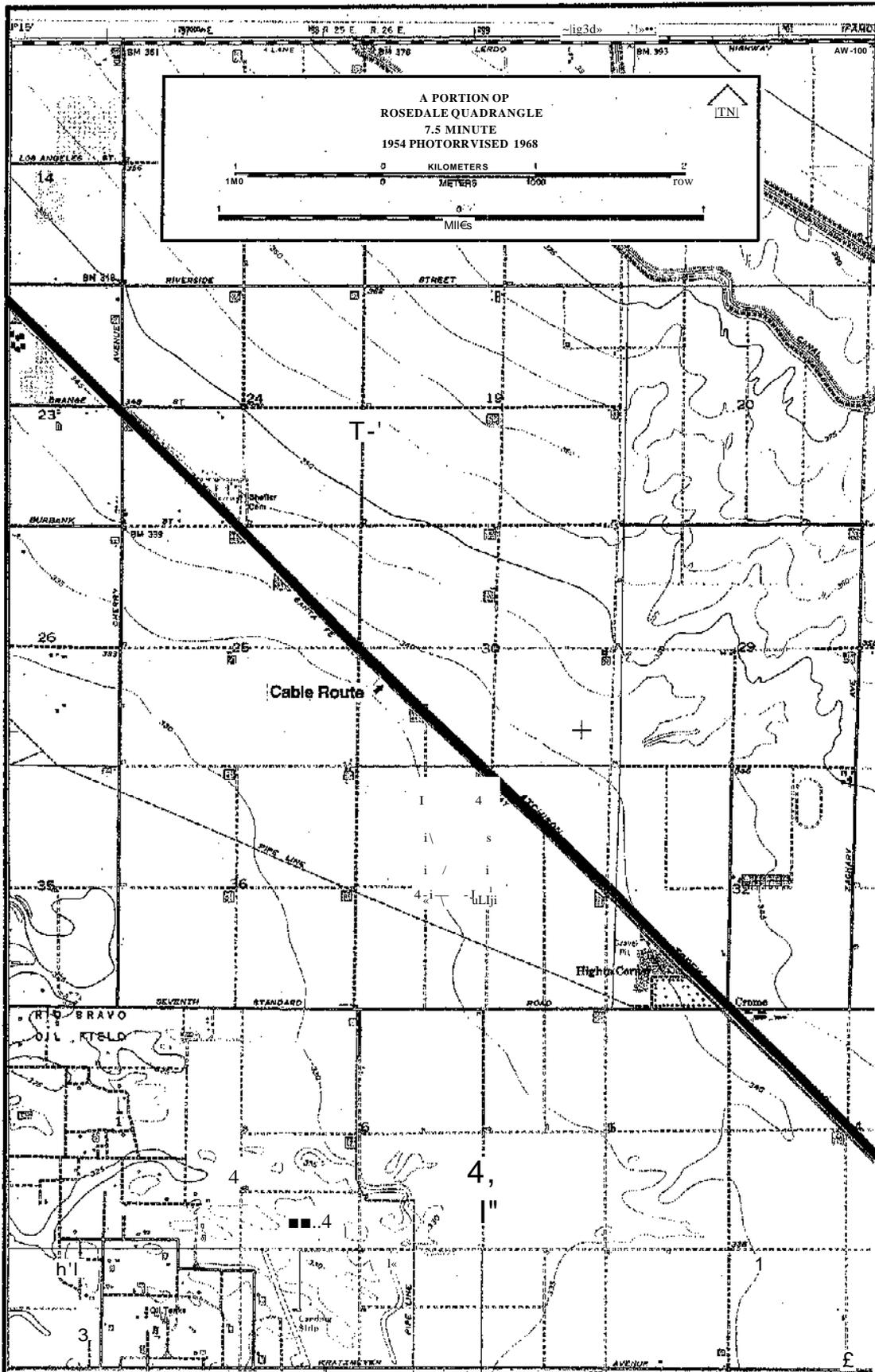


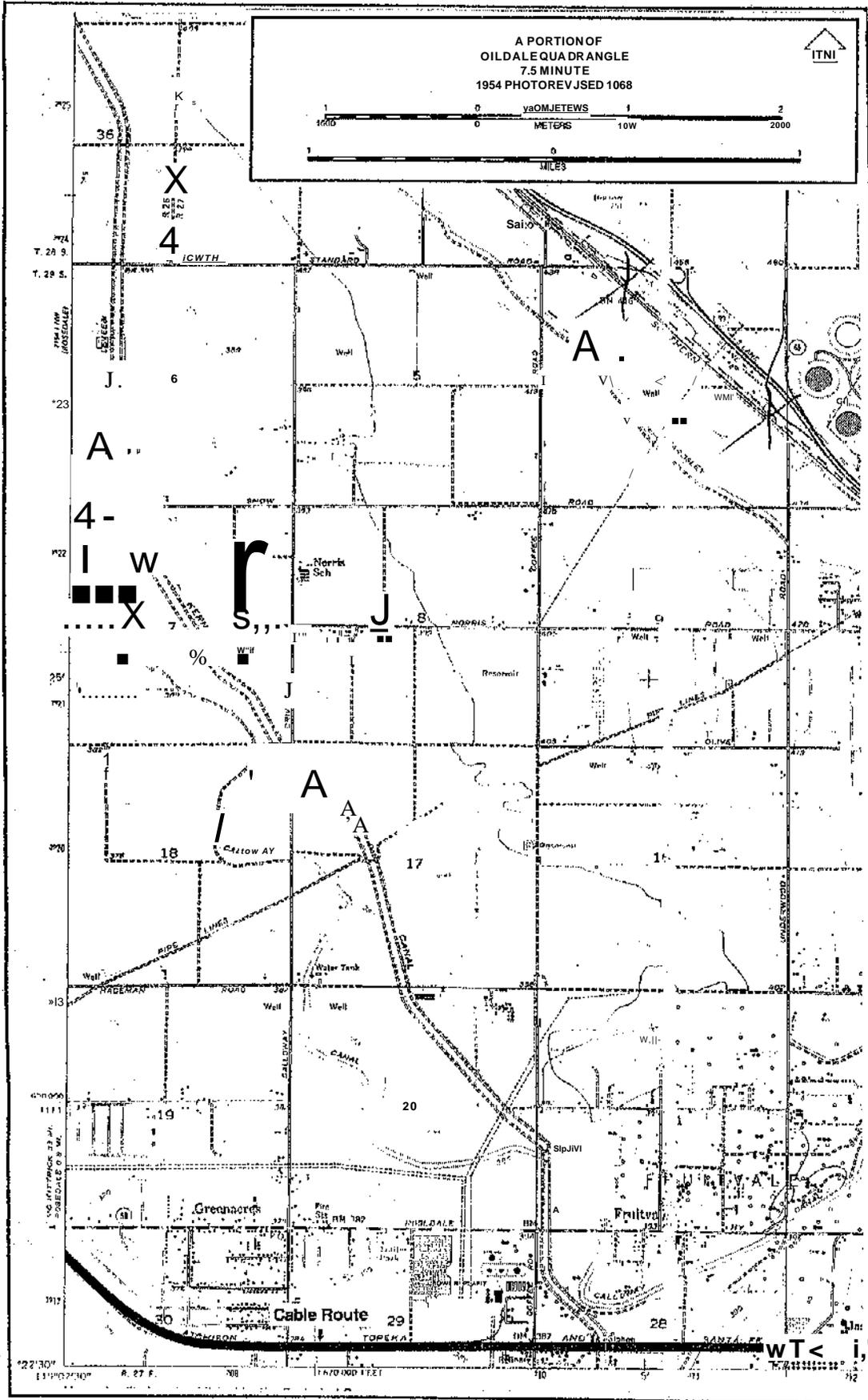
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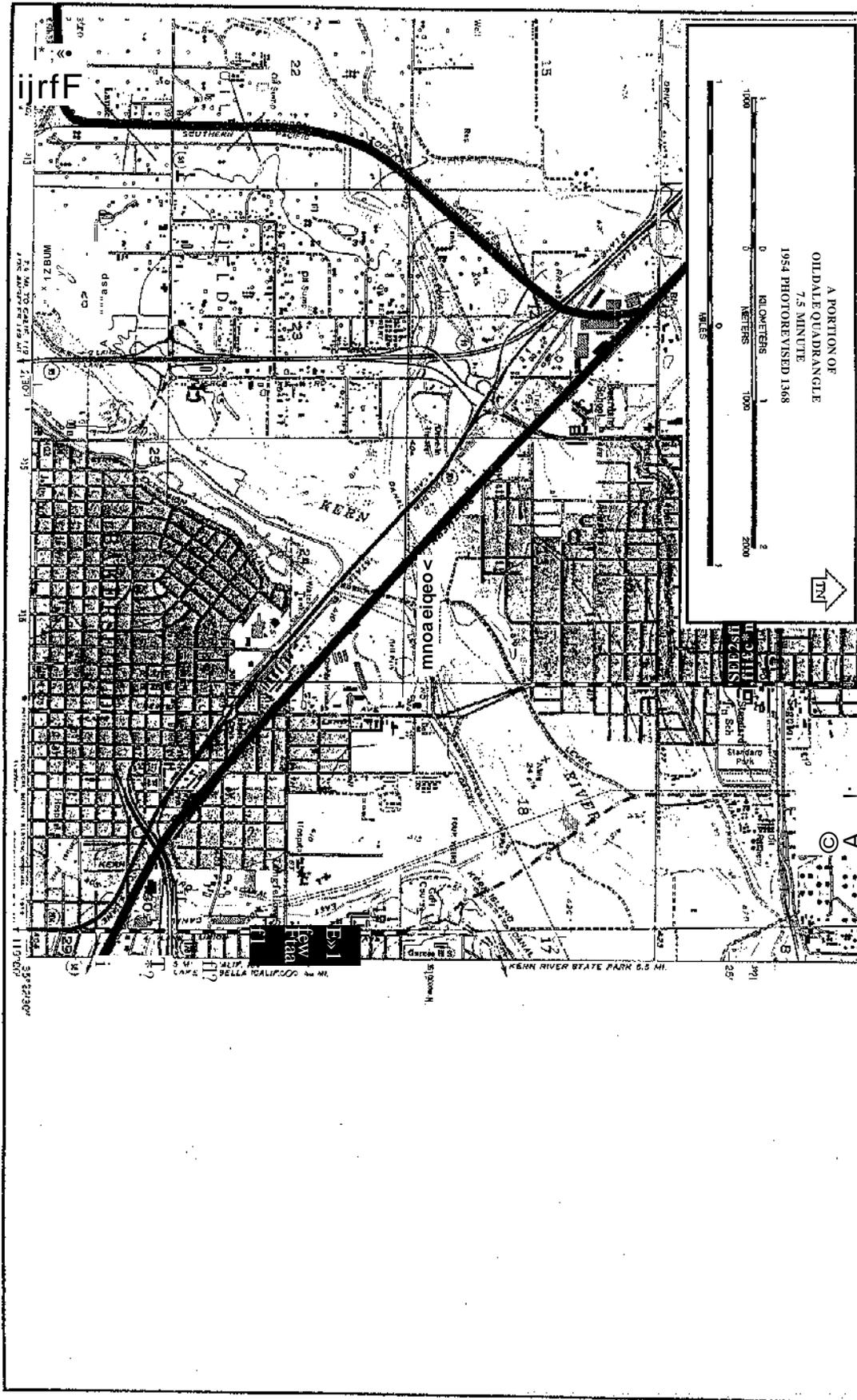


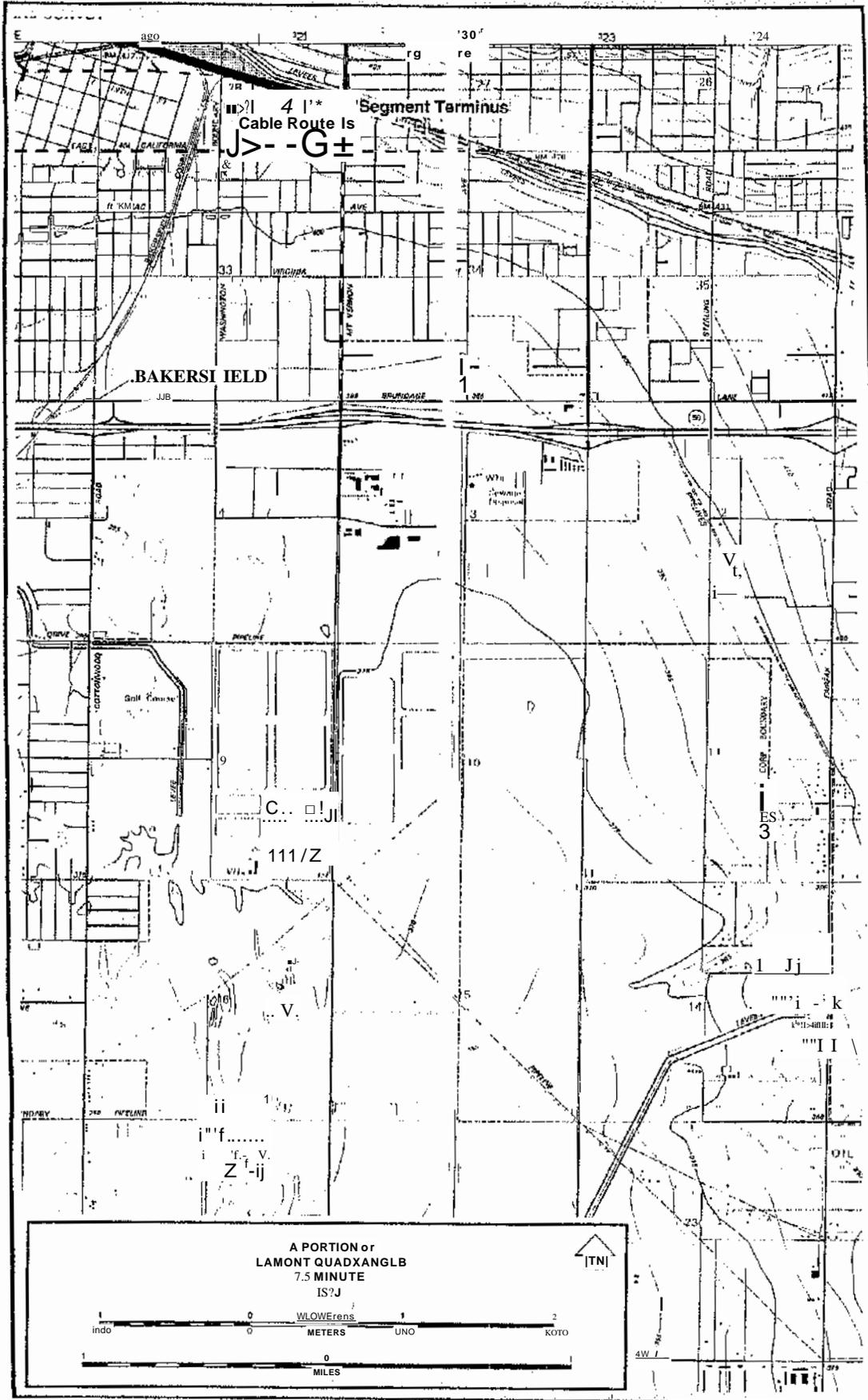












MP#	ROW	Location	Person Conducting Research	File #	Records	Name/Title of Surveyor	Date Surveyed	Survey Method	File #	Map Sheet	Relationship to ROW	Remarks
38.8	RRROW	Sacramento East 7.5	Marianne Russo / ofNCCIC	NCIC, CSU Sacramento, SAC-99-16	None	Michael Darcangelo, Crew Chief	3/15/99	Train trestle; "Southern Pacific RR".	MD-1	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
40	RRROW	Sacramento East 7.5	Marianne Russo / ofNCCIC	NCIC, CSU Sacramento, SAC-99-16	None	Darcangelo, Crew Chief	3/15/99	Old brick building, 6313 Ervas Ave. Limited access to determine relationship to ROW.	MD-5	Indeterminate distant @ west of the ROW	AVOID - Go east of tracks; or have JRP access and evaluate.	
X1	RRROW	Sacramento East 7.5	Marianne Russo / ofNCCIC	NCIC, CSU Sacramento, SAC-99-16	1865 GLO Plat maps indicate house south of Folsom Blvd.	Michael Darcangelo, Crew Chief	3/15/99	Previously surveyed by Wiant 1982. Nothing noted or recorded at that time. We had no access to check.	MD-3	Plotted on west side of tracks	JRP to field check.	
43.6	RRROW	Sacramento East 7.5	Kim Holanda / Field Director	PB Engineering Maps (11/4/98)	1865 GLO Plat maps indicate house in the NW corner of Section 29.	Kim Holanda, Field Director	3/15/99	Nothing noted or recorded during survey.	MD-4	Plotted on west side of tracks	JRP to field check.	
46.5	RRROW	Sacramento East 7.5	Marianne Russo / ofNCCIC	NCIC, CSU Sacramento, SAC-99-16	RR Spur east side of tracks. PB engineer maps suggest removal or tunnel.	Michael Darcangelo, Crew Chief	3/15/99	RR Spur east side of tracks. PB engineer maps suggest removal or tunnel.	MD-3	Feature is a portion of the RR.	AVOID - Either bore, go west of tracks; or have JRP evaluate.	
MP 47	RRROW	Florn 7.5	Marianne Russo / ofNCCIC	NCIC, CSU Sacramento, SAC-99-16	None	Michael Darcangelo, Crew Chief	3/15/99	Concrete railroad crossing over an unnamed drainage, "1929" stamped in concrete.	MD-4	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
MP 47	RRROW	Florn 7.5	Marianne Russo / ofNCCIC	NCIC, CSU Sacramento, SAC-99-16	1855 GLO Plat maps indicate road crossing tracks at various points.	Michael Darcangelo, Crew Chief	3/15/99	Frasmetti Winery, established 1897, jno. 767 395 (bonded winery).	MD-4	Not relocated.	AVOID - Go east of tracks; or have JRP evaluate.	
MP 47.5	RRROW	Florn 7.5	Marianne Russo / ofNCCIC	NCIC, CSU Sacramento, SAC-99-16	Wood and concrete railroad trestle, "1939" stamped in concrete pier.	Michael Darcangelo, Crew Chief	3/15/99	Road crosses the path of the RR at three points, however none relocated during the survey.	MD-5	Feature is a portion of the RR.	JR? to field check.	
MP 49.5	RRROW	Florn 7.5	Marianne Russo / ofNCCIC	NCIC, CSU Sacramento, SAC-99-16	None	Kim Holanda, Field Director	3/15/99	Wood and concrete railroad trestles, "1939" stamped in concrete pier. Piers numbered "7" and "8".	MD-6	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
MP 50	RRROW	Elk Grove 7.5	Marianne Russo / ofNCCIC	NCIC, CSU Sacramento, SAC-99-16	None	Michael Darcangelo, Crew Chief	3/15/99	Wood and concrete railroad trestles, "1939" stamped in concrete pier. Piers numbered "7" and "8".	MD-6	Feature is a portion of the RR.	AVOID - will be avoided per contract.	

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MP	RRROW	Elk Grove 7.5	Marianne Russo / of NCIC	NCIC, CSU Sacramento, SAC-99-16	NCIC has on map as house on map. Listed as Stohlgren! Olsen Ranch; 9040 Elk Grove Blvd.	Michael Darcangelo, Crew Chief	3/15/99	Historic house and bam with associated farm equipment in the yard. A row of olive trees line the railroad.	MD-7	Within 50 feet on the east side-	AVOID - Go west of tracks; or have JRP evaluate.	
50.7	RRROW	Elk Grove 7.5	Marianne Russo / of NCIC	NCIC, CSU Sacramento, SAC-99-16	None	Kim Holanda, Field Director	3/15/99	Historic Ranch Complex-bam.	KH-61	-50 ft west of tracks	AVOID - Go east of tracks; or have JRP evaluate.	
MP 52	RRROW	Elk Grove 7.5	Marianne Russo / of NCIC	NCIC, CSU Sacramento, SAC-99-16	Elk Grove Historic District	Michael Darcangelo, Crew Chief	3/15/99	Elk Grove Historic District. There do not appear to be any historic resources within the ROW.		Historic district encompasses ROW, however no resources were located within the ROW.	JRP to field check.	
MP 52	RRROW	Elk Grove 7.5	Marianne Russo / of NCIC	NCIC, CSU Sacramento, SAC-99-16	None	Michael Darcangelo, Crew Chief	3/15/99	Brick and cinderblock warehouse/structures.	MD-8	Within the ROW on the east side.	AVOID - Go west of tracks; or have JRP evaluate.	
MP 53	RRROW	Elk Grove 7.5	Marianne Russo / of NCIC	NCIC, CSU Sacramento, SAC-99-16	None	Michael Darcangelo, Crew Chief	3/15/99	Concrete railroad trestle, "1925" stamped in concrete pier and balustrade. Benchmark on the west side of trestle, "1947" stamped USCG.	MD-9	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
MP 54	RRROW	Elk Grove 7.5	Marianne Russo / of NCIC	NCIC, CSU Sacramento, SAC-99-16	1867 GLO Platt maps indicate road, now known as "Grant Line Road"	Michael Darcangelo, Crew Chief	3/15/99	Road in use, has been paved, modified. Not listed in the HRL		Crosses the ROW	JRP to field check.	
55.3	RRROW	Galt 7.5	Marianne Russo / of NCIC	NCIC, CSU Sacramento, SAC-99-16	Historic location of McCotmel. Noted, but not recorded.	Kim Holanda, Field Director	5/18/99	Unrecorded site noted by NCIC on the east side of the RR tracks, south of where RR crosses Highway 99. No indication of site within or just east of right of way.		Not in ROW	NFM	
55.4	RRROW	Galt 7.5	Marianne Russo / of NCIC	NCIC, CSU Sacramento, SAC-99-16	CA-SAC-211: multicomponent village site, burials	Kim Holanda, Field Director	5/18/99	Site recorded as - 100 yards west of SPRR bridge. Most likely under or near private residence located west of the RR right of way. No indication of site within or just west of right of way.		Not in ROW	NFM	
55.6	RRROW	Galt 7.5	Marianne Russo / of NCIC	NCIC, CSU Sacramento, SAC-99-16	Possible site on NCIC maps: no info.	Kim Holanda, Field Director	5/18/99	Unrecorded site noted by NCIC as adjacent to tracks. No indication of cultural remains noted within the right of way or in the adjacent field.		Not in ROW	NFM	
56.5	RRROW	Galt 7.5	Marianne Russo / of NCIC	NCIC, CSU Sacramento, SAC-99-16	CA-SAC-94: Village Site recorded in 1937.	Kim Holanda, Field Director	5/18/99	Site recorded 1/8 mile from RR bridge west of the RR right of way. No indication of site within, or just west, of the right of way.		Not in ROW	NFM	

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Feature ID	Survey	Location	Record	Agency	Notes	Field	Date	Description	Impact	Notes	Impact	Notes
56.5	RR ROW	Galt 7.5	Marianne Russo / oN/CJIC	Sci Jivh/KC/HIn	CA-SAC-95: circular mound artifacts, recorded in 1937.	Kim Holanda, Field Director	5/18/99	Site recorded in agricultural field near the corner of levee and RR. Mound described in site record is gone. Two shell fragments observed east of ROW. No other indication of cultural remains were noted.	Adjacent to and either side of RR approximately 40 feet	AVOID IMPACT by keeping cable route within fenced area, or have JRP research and Julia Costello evaluate.		
SLS	RR ROW	Galt 7.5	Marianne Russo / oN/CJIC	NCIC, CSU Sacramento, SAC-99-16	1910 maps suggest that this is the location of the historic town of Amo.	Kim Holanda, Field Director	K/18/99	Town site is on edge of agricultural fields, adjacent to the RR. Farmers are avoiding impact to site. Not much noted on surface other than old non-native trees, and complex of corrals. There is some debris on the ground, however visibility was limited. ROW seems to be very disturbed already, and there should be no significant impact if cable stays close to RR berm.	AVOID IMPACT by keeping cable route within fenced area, or have JRP research and Julia Costello evaluate.			
S of MP 59	RR ROW	Galt 7.5	Marianne Russo / oN/CJIC	NCIC, CSU Sacramento, SAC-99-16	Wood and concrete rail head trestle. "1930* stamped into pier. "1903" stamped into balustrade.	Michael Darcangelo, Crew Chief	P/16/99		Feature is a portion of the RR.	AVOID - will be avoided per contract.		
North of MP 62	RR ROW	Galt 7.5	Marianne Russo / oN/CJIC	NCIC, CSU Sacramento, SAC-99-16	None	Kim Holanda, Field Director	8/16/99	1931 Bridge over Deadman Gulch.	Feature is a portion of the RR.	AVOID - will be avoided per contract.		
South of MP 62.5	RR ROW	Galt 7.5	Marianne Russo / oN/CJIC	NCIC, CSU Sacramento, SAC-99-16	None	Kim Holanda, Field Director	1/16/99	1929 Concrete culvert under the tracks.	Feature is a portion of the RR.	AVOID - will be avoided per contract.		
Near MP 63	RR ROW	Galt 7.5	Marianne Russo / oN/CJIC	NCIC, CSU Sacramento, SAC-99-16	None	Kim Holanda, Field Director	8/16/99	Rock-lined gravel road, parallel to RR tracks.	5 m east of RR.	AVOID - Go west of tracks, or have JRP evaluate.		
North of MP 64	RR ROW	Galt 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stanislaus, File # 33741LN	NRHP Utah Condensed Milk Company.	Kim Holanda, Field Director	13/16/99	Utah Condensed Milk Company, 621 3rd street	Appears to be out of ROW on the west side of RR.	AVOID - Go east of tracks, or have JRP evaluate.		
North of MP 66	RR ROW	Lodi North 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stanislaus, File # 33741LN	None	Kim Holanda, Field Director	8/16/99	1930 culvert under the tracks.	Feature is a portion of the RR.	AVOID - will be avoided per contract.		
66.33	RR ROW	Lodi North 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stanislaus, File # 33741LN	None	Kim Holanda, Field Director	8/16/99	Concrete bridge over unnamed drainage.	Feature is a portion of the RR.	AVOID - will be avoided per contract.		
66.15	RR ROW	Lodi North 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stanislaus, File # 33741LN	None	Kim Holanda, Field Director	11/16/99	Concrete bridge over unnamed drainage.	Feature is a portion of the RR.	AVOID - will be avoided per contract.		
South of MP 67	RR ROW	Lodi North 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stanislaus, File # 33741LN	None	Kim Holanda, Field Director	5H-6Z	Concrete bridge over unnamed drainage.	Feature is a portion of the RR.	AVOID - will be avoided per contract.		
North of MP 69	RR ROW	Lodi North 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stanislaus, File # 33741LN	None	Kim Holanda, Field Director	EH-6S	Concrete bridge over unnamed drainage.	Feature is a portion of the RR.	AVOID - will be avoided per contract.		
70.5	RR ROW	Lodi North 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stanislaus, File # 33741LN	None	Kim Holanda, Field Director	EH-69	Concrete bridge over unnamed drainage.	Feature is a portion of the RR.	AVOID - will be avoided per contract.		
	RR ROW	Lodi North 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stanislaus, File # 33741LN	None	Kim Holanda, Field Director	SH-70	Bridge over Mokelumne River.	Feature is a portion of the RR.	AVOID - will be avoided per contract.		

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MP	ROW	Station	Archaeological	CCIC, CSU	Stamslaus, File #	Personnel	Date	Description	Feature	Notes	Impact	Notes
MP 95	RRROW	Lathrop 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stamslaus, File # 33741LN	Kim Holanda, Field Director	3/1/99	Historic bottle fragments in a mound of very disturbed dirt adjacent to the tracks.	KH-74	20 ft west of CL	AVOID - Go east of tracks; or have JRP research.		
MP 94	RRROW	Lathrop 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stamslaus, File # 33741LN	Kim Holanda, Field Director	3/1/99	RR Spur west side of tracks. Engineer maps are unclear as to whether or not this spur will be bored, tunneled or removed.	KH-75	Feature is a portion of the RR.	AVOID - Either bore, go east of tracks; or have JRP evaluate.		
MP 91	RRROW	Lathrop 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stamslaus, File # 33741LN	Kim Holanda, Field Director	3/1/99	1910 culvert under RR tracks.		Feature is a portion of the RR.	AVOID - will be avoided per contract.		
MP 95	RRROW	Lathrop 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stamslaus, File # 33741LN	Michael Darcangelo, Crew Chief	3/1/99	Recorded segment of abandoned railroad.		Feature is a portion of the RR.	AVOID - will be avoided per contract.		
MP 95	RRROW	Lathrop 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stamslaus, File # 33741LN	Michael Darcangelo, Crew Chief	3/1/99	Irrigation canals operated by SSJID; parallels RR tracks.		Within 50 ft either side of tracks.	AVOID - will be avoided by boring under.		
MP 102.3	RRROW	Lathrop 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stamslaus, File # 33741LN	Kim Holanda, Field Director	3/1/99	Concrete irrigation canal which crosses beneath the tracks. Dated by a US Coast Guard benchmark, "1930" EL. 49.478 above mean sea level.		30ft east of tracks.	AVOID - Go west of tracks; or have JRP evaluate.		
MP 107	RRROW	Lathrop 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stamslaus, File # 33741LN	Michael Darcangelo, Crew Chief	3/1/99	Concrete wells/irrigation features.		30ft west of tracks.	AVOID - Go west of tracks; or have JRP evaluate.		
MP 111	RRROW	Lathrop 7.5	Darren Miller / Archaeological Technician	CCIC, CSU, Stamslaus, File # 33741LN	Michael Darcangelo, Crew Chief	3/1/99	Concrete wells/irrigation features.		Not in ROW.	AVOID - will be avoided by boring under.		

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1026.7	RRROW	Kismet 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Michael Darcangelo, Field Director	3/31/99	Concrete culvert dated 1918.	Feature is a portion of the RR.	AVOID -will be avoided per contract.
1026.8	RRROW	Kismet 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Michael Darcangelo, Field Director	3/31/99	Concrete culvert dated 1920.	Feature is a portion of the RR.	AVOID -will be avoided per contract.
1025.4	RRROW	Kismet 7.5	Darren Miller / Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Michael Darcangelo, Field Director	Concrete culvert, no date.	Concrete culvert, no date.	Feature is a portion of the RR.	AVOID -will be avoided per contract.
1025.3	RRROW	Kismet 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Michael Darcangelo, Field Director	Concrete culvert, no date.	Concrete culvert, no date.	Feature is a portion of the RR.	AVOID -will be avoided per contract.
1024.4	* RR 005	Kismet 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Michael Darcangelo, Field Director	Concrete culvert dated 1920.	Concrete culvert dated 1920.	Feature is a portion of the RR.	AVOID - will be avoided per contract.
1024.2	RRROW	Kismet 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Richard Fitzgerald, Crew Chief	Concrete culvert dated 1916.	Concrete culvert dated 1916.	Feature is a portion of the RR.	AVOID - will be avoided per contract.
1024.1	RR 005	Kismet 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Richard Fitzgerald, Crew Chief	Twin concrete culverts dated 1915.	Concrete culvert numbered 1-15.	Feature is a portion of the RR.	AVOID - will be avoided per contract.
1023.6	RR ROW	Madera 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Richard Fitzgerald, Crew Chief	Concrete culvert dated 1918; the west side is constructed of both brick and concrete.	Concrete culvert numbered 1-15.	Feature is a portion of the RR.	AVOID - will be avoided per contract.
1019.6	RR ROW	Madera 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Richard Fitzgerald, Crew Chief	Nine steel storage tanks (grain silos?) of an unknown age.	Concrete culvert dated 1920.	Feature is a portion of the RR.	AVOID - Go west of tracks; or have JRP evaluate.
1019.4	RR ROW	Gregg 7.5	Darren Miller/ Archaeological Technician	SSTVIC, CSU Bakersfield, account #3010-343	Richard Fitzgerald, Crew Chief	Concrete culvert dated 1920.	Concrete culvert dated 1920.	Feature is a portion of the RR.	AVOID -will be avoided per contract.
1016.2	RRROW	Gregg 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Richard Fitzgerald, Crew Chief	Concrete culvert numbered 1-16.	Concrete culvert numbered 1-16.	Feature is a portion of the RR.	AVOID -will be avoided per contract.
1014.4	RRROW	Gregg 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Michael Darcangelo, Field Director	Concrete culvert with no date, same construction as the neighboring culverts dated to the early 1900s.	Concrete culvert with no date, same construction as the neighboring culverts dated to the early 1900s.	Feature is a portion of the RR.	AVOID -will be avoided per contract.
1011.1	RRROW	Gregg 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Michael Darcangelo, Field Director	Concrete culvert dated 1926.	Concrete culvert dated 1926.	Feature is a portion of the RR.	AVOID - will be avoided per contract.
-1008.5	RRROW	Hendon 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Richard Fitzgerald, Crew Chief	Isriahie, Obsidian biface (mid section of projectile point); 2.1 cm long x 1.5 cm wide x 0.7 cm thick. One broken obsidian interior flake.	Isriahie, Obsidian biface (mid section of projectile point); 2.1 cm long x 1.5 cm wide x 0.7 cm thick. One broken obsidian interior flake.	Feature is a portion of the RR.	AVOID - will be avoided per contract.
1007.2	RRROW	Hendon 7.5	Darren Miller/ Archaeological Technician	SSJVIC, esu Bakersfield, account #3010-343	Richard Fitzgerald, Crew Chief	Concrete culvert dated 1915.	Concrete culvert dated 1915.	Feature is a portion of the RR.	AVOID - will be avoided per contract.

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1001K	RRROW	Fresno North 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Kone	Michael Darcangelo, Field Director	4/1/99	Twin concrete culverts; two openings side by side, dated 1918 on the west side above and between the two openings.	-	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
999	RRROW	Fresno South 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	P-10-3771-173; Santa Fe Depot	Michael Darcangelo, Field Director	-	Empty field where depot once stood.	-	Within ROW on SW side of tracks.	AVOID - Go northeast of tracks; or have JRP research.	
995	RRROW	Fresno South 7.5	Kim Halanda/ Field Director	PB Engineering Maps (11/4/98)	BNSF Train Depot	Michael Darcangelo, Field Director	4/28/99	Engineer maps note BNSF Depot within right of way on east side of tracks.	-	Within the ROW on the east side.	AVOID - Go west of tracks; or have JRP evaluate.	
985.5	RR	Conejo 7.5	Kim Halanda/ Field Director	PB Engineering Maps (11/4/98)	Loading Dock	Kim Halanda, Field Director	-	Engineer maps note loading dock within right of way on east side of tracks.	-	Within the ROW on the east side.	AVOID - Go west of tracks; or have JRP evaluate.	
949	RR ROW	Conejo 7.5	Darren Miller/ Archaeological Technician	ssjvic: CSU Bakersfield, account #3010-343	None	Darren Miller, Archaeological Technician	4/28/99	1925 concrete V shaped irrigation culvert headers on both sides of tracks.	DM 300	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
974.2	RRROW	Laton 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Michael Darcangelo, Field Director	4/28/99	Concrete culvert dated 1921.	NIO-E00	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
969.4	RRROW	Hanford 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Darren Miller, Archaeological Technician	4/28/99	Concrete culvert dated 1919.	DM 302	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
969.3	RR ROW	Hanford 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Darren Miller, Archaeological Technician	4/28/99	Concrete culvert dated 1924.	DM 302	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
955.7	RRROW	Hanford 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	HRI # 3230-7; Hanford Santa Fe Depot, 1887.	Darren Miller, Archaeological Technician	4/28/99	Hanford Santa Fe Depot: Red brick building with plaque. Built in 1897, renovated in 1992. 200 Santa Fe Ave. Appears eligible for the National Register.	-	In ROW on east side of tracks.	AVOID - Go west of tracks; or have JRP evaluate.	
951.67	RR	Corcoran 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Michael Darcangelo, Field Director	4/29/99	Concrete culvert dated 1921.	DM 303	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
945.85	RR ROW	Corcoran 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Darren Miller, Archaeological Technician	4/29/99	Isolate, Stage 4/5 obsidian biface. Proximal end. L = 66mm; TH = 8mm; W = 24mm.	DM 305	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
901.2	RRROW	Corcoran 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Darren Miller, Archaeological Technician	4/29/99	Isolate, Chert Flake.	DM 305	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
MP 940	RRROW	Salida 7.5	Kim Halanda/ Field Director	PB Engineering Maps (11/4/98)	Building within the ROW on the east side.	Kim Halanda, Field Director	4/29/99	Engineer maps note building on east side of RR tracks within ROW. Not field checked.	DM 305	Feature is a portion of the RR.	AVOID - Go west of tracks; or have JRP evaluate.	
MP 940	RRROW	Salida 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	Building within the ROW on the east side.	Michael Darcangelo, Field Director	4/29/99	Very Sparse lithic scatter consisting of obsidian and chert flakes, 1 Flake per 5 meters.	DM 305	Feature is a portion of the RR.	AVOID - Go east of tracks; or test for impact.	

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Feature ID	Survey	Location	System	Account	Key W/L	Material	Date	Description	Feature ID	Description	Notes	Contract
936.4	RRROW	Alpaugh 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account # 3010-343	None	Michael Darcangelo, Field Director	4/30/99	Two rows of mature palm trees parallel RR tracks, concrete steps adjacent to tracks. No structures noted.	MD-303	West side of tracks within 50 feet	AVOID - Go east of tracks; or have JRP evaluate.	
939.1	RRROW	Delano West 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Michael Darcangelo, Field Director	4/30/99	Concrete culvert dated 1921.	MD-303	Feature is a portion of the RR.	AVOID -will be avoided per contract.	
939.2	RRROW	Delano West 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Michael Darcangelo, Field Director	4/30/99	Concrete culvert dated 1921.	MD-304	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
925.6	RRROW	Delano West 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Darren Miller, Archaeological Technician	4/30/99	Concrete culvert dated 1920.	MD-306	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
916.2	RRROW	Pond 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Darren Miller, Archaeological Technician	4/30/99	Concrete culvert dated 1924.	MD-308	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
914.8	RRROW	Wasco 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Michael Darcangelo, Field Director	4/30/99	Concrete culvert dated 1930.	MD-306	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
914.7	RRROW	Wasco 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account # 3010-343	None	Michael Darcangelo, Field Director	4/30/99	Long, white wooden structure with loading ramps. Appears to be associated with packing and shipping.	MD-307	In ROW on west side of tracks.	AVOID - Go east of tracks; or have JRP evaluate.	
906.3	RRROW	Wasco 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Michael Darcangelo, Field Director	4/30/99	Concrete culvert dated 1924.	MD-308	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
905.8	RRROW	Wasco 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	P-15-007055: Santa Fe Depot in Shafter. 1907	Darren Miller, Archaeological Technician	4/30/99	Located on the west side of tracks, site is currently used as a museum in the town of Shafter. Listed in the National Register.	MD-309	Feature is a portion of the RR.	AVOID - will be avoided per contract.	
904.6	RRROW	Wasco 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Darren Miller, Archaeological Technician	4/30/99	L-shaped concrete loading platform associated with RR. RR siding.	MD-310	Adjacent to RR on the west side.	AVOID - Go east of tracks; or have JRP evaluate.	
904.13	RRROW	Wasco 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account #3010-343	None	Darren Miller, Archaeological Technician	4/30/99	L-shaped concrete loading platform associated with RR. RR siding.	MD-311	Adjacent to RR on the west side.	AVOID - Go east of tracks; or have JRP evaluate.	
900.4	RRROW	Rosedale 7.5	Darren Miller/ Archaeological Technician	SSJVIC, CSU Bakersfield, account # 3010-343	None	Michael Darcangelo, Field Director	4/30/99	Concrete culvert; no date.	MD-312	Feature is a portion of the RR.	AVOID - will be avoided per contract.	

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901.4	RRROW	Roseale	Darren Miller/ Archaeological Technician	SSIVIC, CSU Bakersfield, account #3010-343	N 1	Michael Darcangelo, Field Director	MD310	Brick and mortar culvert; no date.	Feature is a portion of the RR.	AVOID - will be avoided per contract.
900.6	RR	Roseale	Darren Miller/ Archaeological Technician	SSIVIC, CSU Bakersfield, account #3010-343	N 50	Michael Darcangelo, Field Director	MD311	Concrete culvert dated 1921.	Feature is a portion of the RR.	AVOID - will be avoided per contract.
896.62	RRROW	Roseale	Darren Miller/ Archaeological Technician	SSIVIC, CSU Bakersfield, account #3010-343	N 50	Darren Miller/ Archaeological Technician	DM313	Concrete culvert dated 1921.	Feature is a portion of the RR.	AVOID - will be avoided per contract.
896.62	RRROW	Roseale	Darren Miller/ Archaeological Technician	SSIVIC, CSU Bakersfield, account #3010-343	N 50	Michael Darcangelo, Field Director	MD312	Brick and mortar culvert; no date.	30 feet east of tracks.	AVOID - Go west of tracks, or have JRP evaluate.
896.62	RRROW	Roseale	Darren Miller/ Archaeological Technician	SSIVIC, CSU Bakersfield, account #3010-343	N 50	Michael Darcangelo, Field Director	MD313	Historic locality noted. Site is being severely looted by pothunters. Heavy equipment has recently impacted the site. Frontage road has been recently widened and is impacting the site from heavy equipment using location as a turn around.	Within 50 feet on east side of RR.	AVOID - Go west of tracks, or have JRP research.
313.1	RRROW	Oil center	Darren Miller/ Archaeological Technician	SSIVIC, esu Bakersfield, account #3010-343	N 50	Michael Darcangelo, Field Director	MD313	Bakersfield Train Depot; 1886. 700 Summer Street. Currently in use as a Union Pacific Office.	Within 50 feet on west side of RR.	AVOID - Go east of tracks, or have JRP evaluate.

Note: N/A - Not Applicable; MP - Mule Posts RR; Railroad; ROW = Right-Of-Way; Iso - Isolate; NFM = No Further Management; BRI = Historical Resource Inventory; CCIC = Central Coast h formation Center (at Cal State University); NCIC = North
Central Information Center (at Sacramento State University); SSIVIC = Southern San Joaquin Valley Information Crater (at Cal State Bakersfield); SSID = Southern San Joaquin Irrigation District; RS = Record Search.

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KE-2396

APPENDIX E: ILA SURVEY

In May 1999, a records search and archaeological field reconnaissance survey was completed for the proposed In Line Amplification (ILA) Station near the town of Lathrop. Two nearly adjacent parcels were selected by Level 3: Lathrop Site B at the northeast corner of Roth and McKinley; and Lathrop Site C at 815 Roth Road (near Harlan and Roth). CEQA environmental checklists were completed for both proposed sites. A summary of Far Western's findings is provided below.

Lathrop ILA sites B and C

Both proposed ILA sites are located on the Lathrop 7.5 minute quadrangle, north of the town of Lathrop (see Map A). Ethnographically, the project area was inhabited by the Northern Valley Yokuts, specifically situated between the territories of two northern groups, *Chulamni* and *Laldsamne* (Wallace 1978). The Northern Valley Yokuts inhabited the northern portion of the San Joaquin river valley from just north of Stockton, south to the present day town of Mendota. Ethnographic data suggest that the Northern Yokuts subsisted on an abundance of wetland resources including plants such as Tule, fish (primarily salmon), and waterfowl. Other resources exploited by this group include acorns, antelope, elk, and a variety of other mammals (both small and large). Most Yokuts settlements are said to have been situated on low mounds near the edges of large waterways.

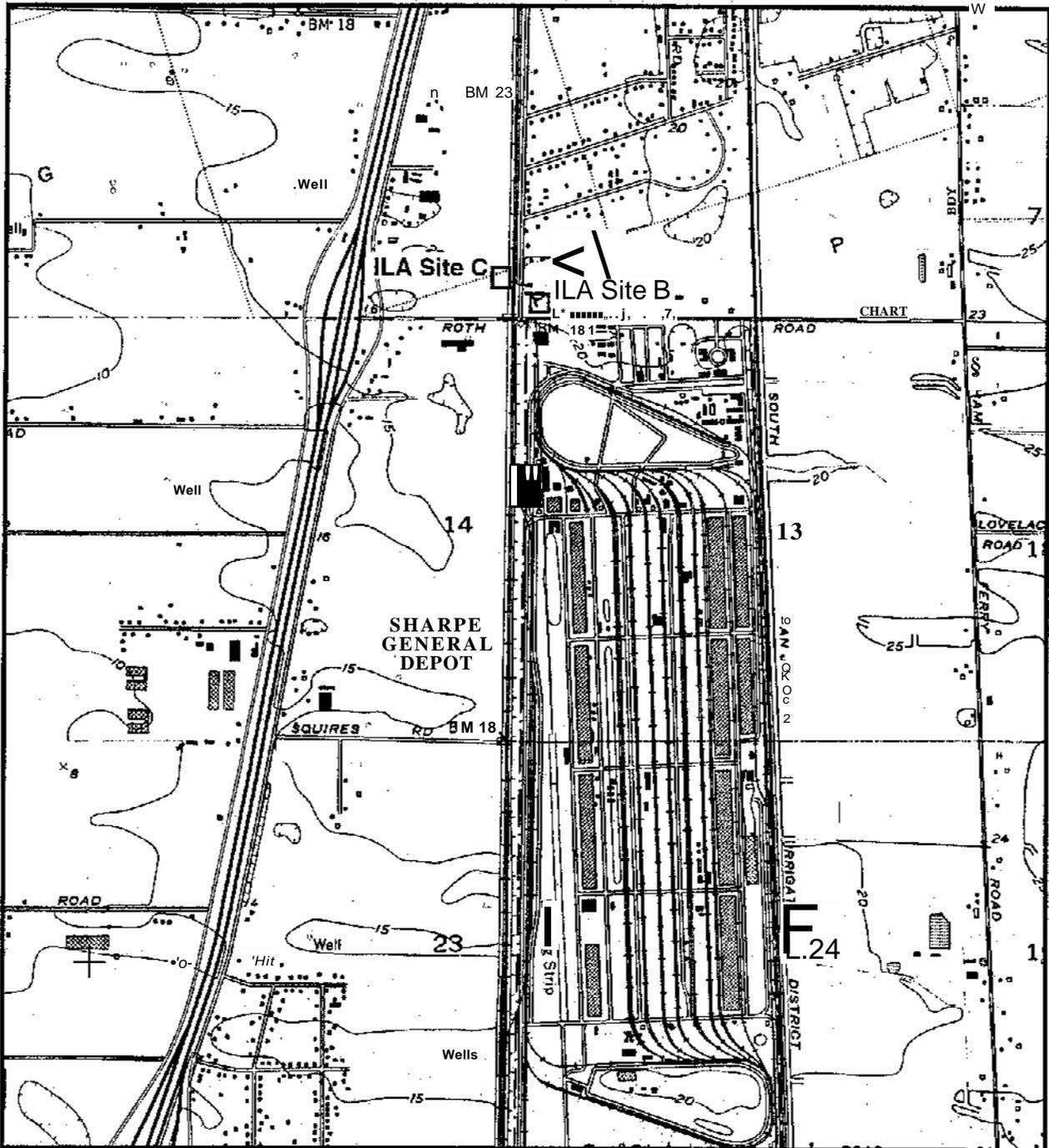
A records search was completed at the Central Office of the California Historical Resources Information Center located at California State University, Stanislaus (CCIC File # 3438L, 1999). This records search included a review of maps for the project area, as well as a review of the National Register of Historic Places (1999 and updates), the California Register of Historical Resources (1999 and updates), the California Inventory of Historic Resources (1976), the California Historical Landmarks (1996), and the California points of Historical Interest listing (May 1992 and updates), the Historic Property Directory (Office of Historic Preservation current computer list), the Survey of Surveys (1989), GLO Plats, and other pertinent historic data available at the CCIC for San Joaquin County.

This records search was completed to determine whether or not previous archaeological investigations have been completed in the project area, and to provide information on known historic sites or culturally sensitive areas. No previously recorded prehistoric resources have been documented within 1/4 mile of the project area. A single historic building (Building 75) of the Army Reserve Center is located on Roth Road, approximately 1/4 mile from the project area. The project area was surveyed by qualified archaeologists for cultural resources. No historic or prehistoric resources were identified during the field survey.

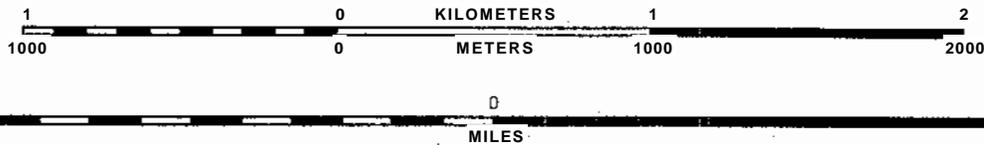
Wallace, W.J.

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KE-2396



A PORTION OF
LATHROP QUADRANGLE
7.5 MINUTE
1952 PHOTOREVISED 1987 MINOR REVISION 1994



Map A. Lathrop ILA Sites.

1	ILA Station (Lathrop Site B)	Lathrop 7.5 Director	KimHolanda Field Director	5 - 99	N/A	Mike Darcangelo Field Director	S/6/99	Nothing Found	1	N/A	1	NFM
N/A	ILA Station (Lathrop Site C)	Lathrop 7.5 Director	KimHolanda Field Director	5 - 99	1	Mike Darcangelo Field Director	S/6/99	Nothing Found	1	N/A	1	NFM

Note: N/A = Not Applicable; MP = Mile Post; RR = Railroad tracks; ROW = Right-of-way; WA = Work Around; NFM = No further Management; CCIC = Central California Information Center (at Stanislaus State University); ILA - In Line Amplification Sites.

September 22, 2015

41MB 8ME LLC
5455 Wilshire Blvd., Suite 2010
Los Angeles, CA 90036

Re.: Additional Cultural Resources Services for the Lotus Solar Project, Madera County, California.

Dear Sir/Madame:

This letter report documents the results of additional cultural resources survey in support of the proposed Lotus Solar Farm in Madera County, California. The project area is located between Avenues 12 and 13, approximately one mile west of Road 32 (Maps 1 and 2).

Project Description. The Lotus Solar Farm Project is in Township 11 South, Range 18 East, Sections 34 and 35 depicted on the on the Gregg, California U.S. Geological Survey 7.5-minute quadrangle. The alignment was originally surveyed in 2012 as part of the cultural resources services for the entire Lotus Solar Farm project (Armstrong et al. 2012). This additional seven acres of survey was due to a clarification in the transmission line alignment, particularly to accommodate the existing railroad and in anticipation of the California High Speed Rail corridor. Survey coverage around this refinement of the transmission line alignment was completed to document consistency and compliance.

Previously Recorded Cultural Resources. There is one previously recorded resource within the area identified by the 2012 cultural resources study (Armstrong et al. 2012). The Burlington Northern Santa Fe (BNSF) railroad grade (P-20-002662) has been previously determined not eligible for the state and federal registers. It, therefore, does not require any further management consideration.

Pedestrian Survey Methods. On September 3, 2015, two archaeologists Katie Asselin and Kathleen Jernigan conducted a pedestrian survey of the refined transmission line alignment. The total area surveyed was 6.5 acres (Map 3).

The surveyor systematically traversed the survey area on foot with meandering and parallel transects spaced no more than 10 to 15 meters apart. Ground visibility varied from 10 to 100 percent. Visibility was excellent on the plots that were currently being cultivated with grape and almond crops, with 80-100 percent visibility between the rows with very minimal vegetation and duff (Figure 1). The areas of land that are currently uncultivated had poor visibility between 5 to 25 percent and were overgrown with



Figure 1 Overview of survey conditions in almond orchard, facing south.



Figure 2 Overview of survey conditions showing dirt road and area to left overgrown with weeds and grasses, facing south.



grasses and weeds (Figure 2). The dirt roads were free of vegetation. A portion of the area to be surveyed was not accessed per the request of the landowner.

Findings. /E did not observe any cultural material, artifacts, sites or features as a result of the pedestrian survey. It was noted that there was modern trash fragments of glass and plastic, as well as shotgun shells concentrated around Avenue 12 and the dirt roads.

Summary and Recommendations. ?E's additional survey of the Lotus Solar Farm transmission line refinement resulted in no new cultural resources being identified. So long as the project description and parameters do no change from this current alignment, there are no further recommendations for the protection of resources.

Sincerely,

Katie Asselin, M.A., RPA
Associate Archaeologist

Attachments:

Project Maps

Map 1: Project vicinity in Madera County, California

Map 2: Project area and survey coverage on Gregg, CA USGS 7.5-minute quadrangle

Map 3: Aerial view of project area and survey coverage

References Cited:

Armstrong, Matthew, Jay B. Lloyd, and Randy Baloian

2012 *Cultural Resources Survey for the Lotus Solar Farm, Madera County, California*. Applied Earthworks, Inc., Fresno, California. Submitted to 41MB 8ME, LLC, Los Angeles, California.

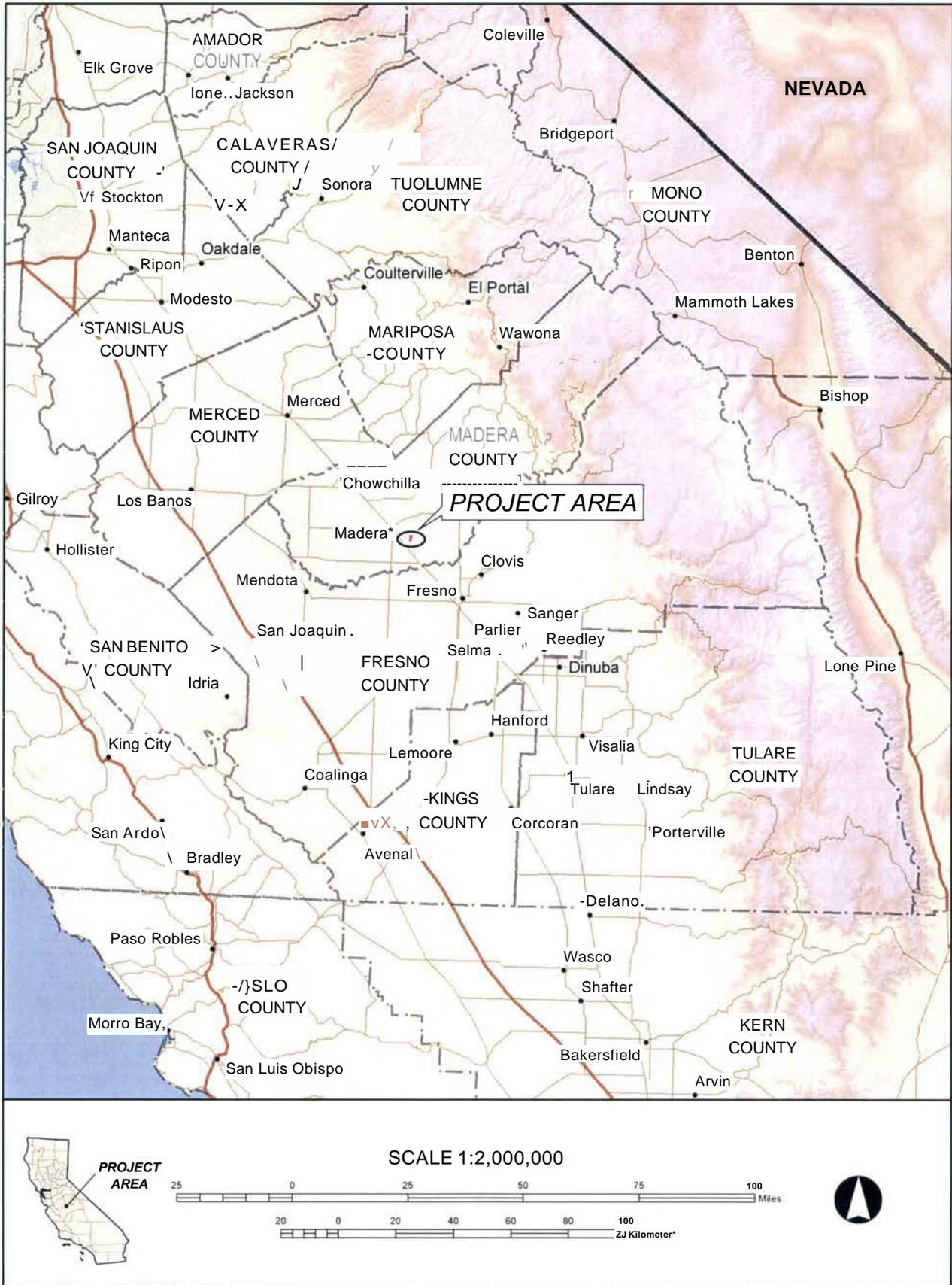


Figure 1-1 Project vicinity in Madera County, California.

MA-01256

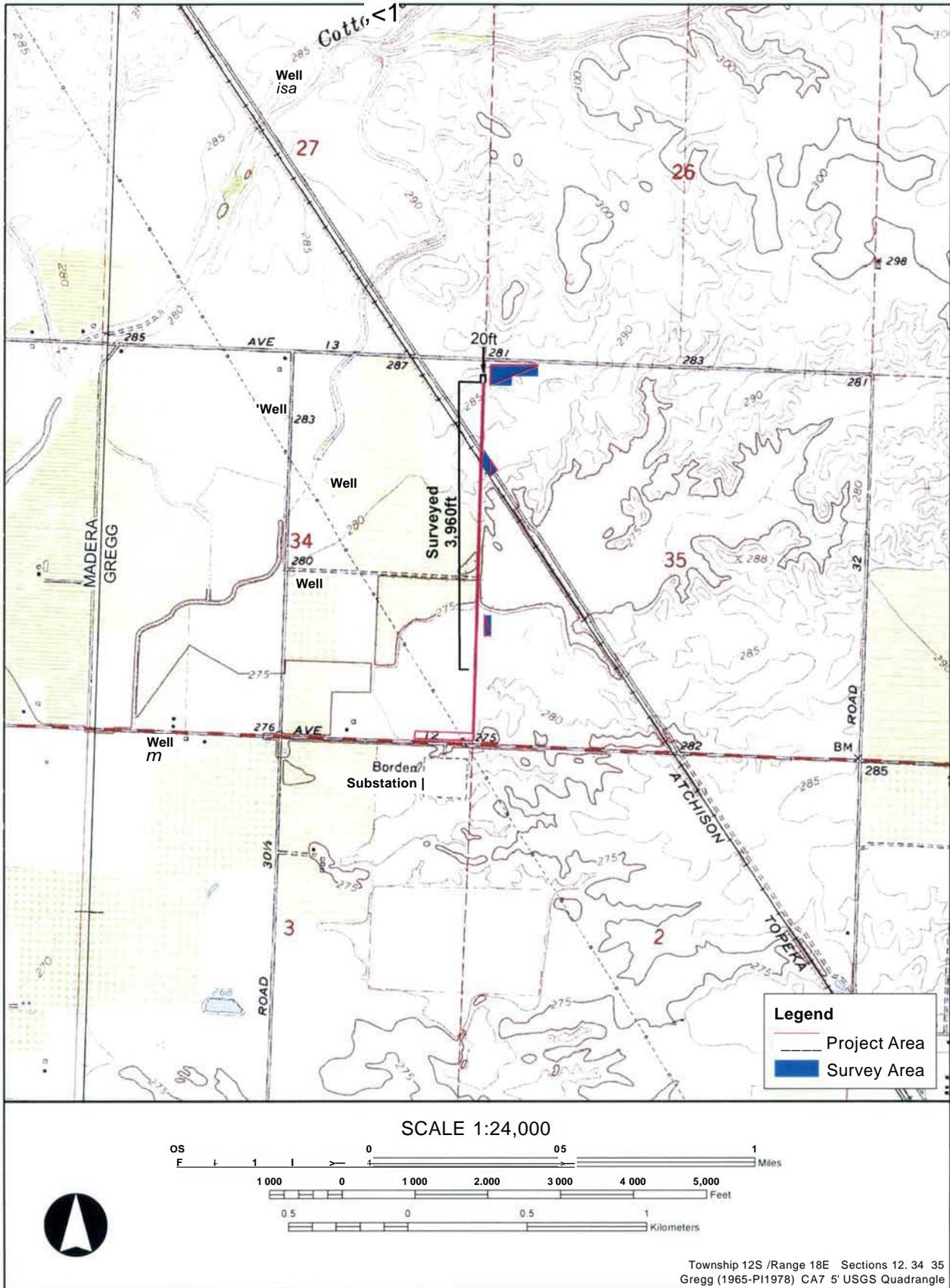
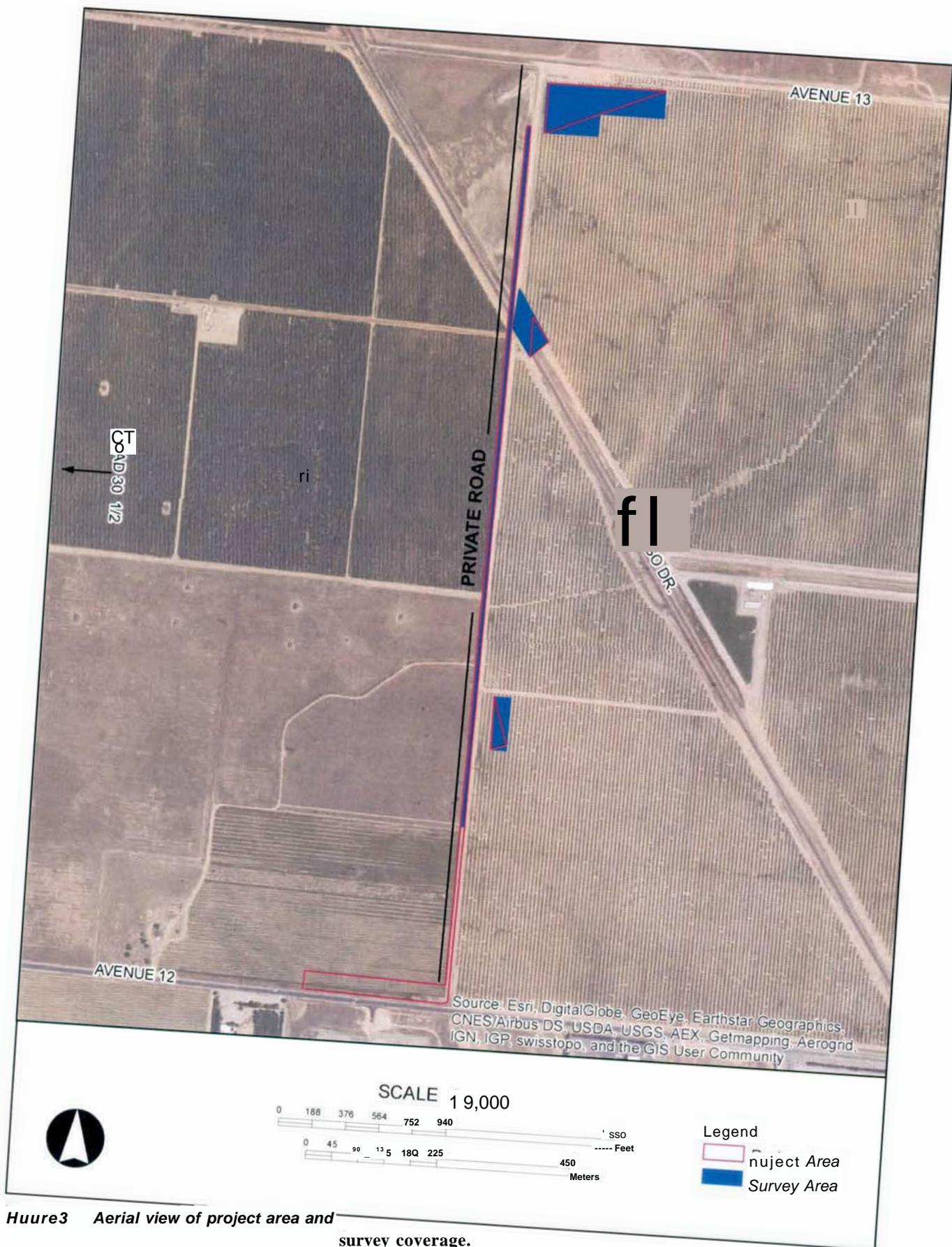


Figure 2 Project location and survey coverage on the Gregg, CA USGS 7.5-minute quadrangle.

MA-01256



Huure3 Aerial view of project area and survey coverage.

Resource Detail: P-20-002662

SSJVIC Record Search 24-335

Identifying information

Primary No.: P-20-002662

Trinomial:

Name: Atchison, Topeka, and Santa Fe Railroad; Burlington Northern Santa Fe Railway

Other IDs:	Type	Name
	Resource Name	Atchison, Topeka, and Santa Fe Railroad
	Resource Name	Burlington Northern Santa Fe Railway

Cross-refs: Extends into another county as 10-004675
Extends into another county as 15-000560
Extends into another county as 16-000120
Extends into another county as 54-004632

Attributes

Resource type: Site

Age: Historic

Information base: Survey

Attribute codes: AH07 (Roads/trails/railroad grades); HP39 (Other) - railroad

Disclosure: Not for publication

Collections: No

Accession no(s):

Facility:

General notes

Only some portions of this railroad have been formally recorded; the entire railroad has been mapped for number continuity.

Recording events

Date	Recorder(s)	Affiliation	Notes
1/16/2009	Josh Smallwood	CRM TECH	
12/15/2016	HDREOC, Inc.	HDR EOC, Inc.	Supplement

Associated reports

Report No.	Year	Title	Affiliation
MA-01112	2009	Historic Property Survey Report for the Gregg Double Track Project, Burlington Northern Santa Fe Railway, Stockton Subdivision, Northern California Division, Gregg-Trigo, Madera County, California	CRM TECH
MA-01267	2017	Cultural Resources Technical Report Avenue 26 and Road 29 Rehabilitation Project CA Flap Mad 26(1), Madera County, California	HDR, Inc

Location information

County: Madera

USGS quad(s): Berenda, Gregg, Herndon, Kismet, Le Grand, Madera

Address:

PLSS: T12S R18E Sec. 12 MDBM
T12S R18E Sec. 13 MDBM
T12S R19E Sec. 18 MDBM
T12S R19E Sec. 19 MDBM
T12S R19E Sec. 20 MDBM
T12S R19E Sec. 28 MDBM
T12S R19E Sec. 29 MDBM
T9S R17E Sec. 19 MDBM

UTMs: Zone 11 236336mE 4088573mN NAD83 (NAD not listed)
Zone 11 240750mE 4082201mN NAD83 (NAD not listed)
Zone 11 753057mE 4112781mN NAD83 (NW extent (2016 recording))
Zone 11 753077mE 4112751mN NAD83 (SE extent (2016 recording))

Resource Detail: P-20-002662

SSJVIC Record Search 24-335

Management status

Database record metadata

<i>Date</i>	<i>User</i>	
<i>Entered:</i> 4/15/2011	ssjvic	
<i>Last modified:</i> 6/16/2023	jdavid5	
<i>IC actions:</i>	<i>Date</i>	<i>User</i>
	4/15/2011	ssjvic
	4/15/2011	ssjvic
	4/15/2011	ssjvic
	6/16/2023	jdavid5
	5/25/2016	userl
	2/6/2017	User
	2/6/2017	User
	11/9/2011	ssjvic
	8/7/2014	user
	6/5/2019	dbuehler
	6/12/2023	kprince4

Action taken
Entered primary: CLC
Resource mapped: CLC
Gregg and Herndon
PDF Verified
updated database ST
entered supplement: cis
resource mapped in entirety: cis
Entered quad: JMW
Entered location: MMB
Linked other counties
PDF Rescanned

Record status: Database Complete

Resource Detail: P-20-002904

SSJVIC Record Search 24-335

Identifying information

Primary No.: P-20-002904

Trinomial:

Name: Wilson-Gregg Transmission Line

Other IDs: Type Name

Resource Name Wilson-Gregg Transmission Line

Cross-refs:

Attributes

Resource type: Structure

Age: Historic

Information base: Unknown

Attribute codes: HP11 (Engineering structure)

Disclosure: Unrestricted

Collections: No

Access/on no(s):

Facility:

General notes

Recording events

Date	Recorder(s)	Affiliation	Notes
2/16/2007	C. Brookshear	JRP Historical Consulting	

Associated reports

Location information

County: Madera

USGS quad(s): Gregg, Herndon, Madera

Address:

PLSS: T12S R19E Sec. 30 MDBM

T12S R19E Sec. 29 MDBM

UTMs:

Management status

Database record metadata

Date	User	Action taken
Entered: 11/22/2013	ssjvic	
Last modified: 6/16/2023	jdavid5	
IC actions: Date	User	Action taken
6/15/2023	kprince4	PDF Rescanned
12/17/2015	userl	updated: cis
12/17/2015	userl	mapped: unknown
11/22/2013	ssjvic	Entered: CT
6/16/2023	jdavid5	PDF Verified

Record status: Database Complete

State of California— The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # Madera HDR-3 ?-3J0-OOAUUa
 HRI #
 Trinomial
 NRHP Status Code

Other Listings
 Review Code

Reviewer

Date

Page 1 of 5

'Resource Name or #: MaderaHDR-3

P1. Other Identifier: Burlington Northern Santa Fe(BNSF) Railroad, formerly the Atchison, Topeka, and Santa Fe(AT & SF), and the San Francisco & San Joaquin Valley (SF & SA/)

P2. Location: Not for Publication Unrestricted

'a. County: Madera and (P2b and P2c or P2d. Attach a Location Map as necessary)

'b. USGS 7.5' Quad: Le Grand Date: 1983 T9SR17E N/ A/ < of N/ A/ « of Sec 19 M.D.B.M.

c. Address: 21021 Avenue 26 City: Chowchilla Zip: 93610

d. UTM: Zone: 11S NAD83: northwestern extent: 753057 mE/ 4112781 mN (G.P.S.) to
 southeastern extent: 753077 mE/ 4112751 mN (G P S.)

e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc. as appropriate) Elevation 299 ft.
 From CA-99 in Chowchilla travel east on Avenue 26 for approximately 5.5 miles to reach the railroad crossing.

'P3a. Description: (Describe resource and its major elements. Include design, materials condition, alterations, size setting, and boundaries)
 The resource is a 115 foot segment section of the AT & SF Railroad at the Avenue 26 crossing in Chowchilla, CA. While most of the railroads throughout California were built during the 1870s and 1880s, the SF & SI/ Railroad was constructed from 1895 to 1898. The line connected Stockton and Bakersfield and linked to the second transcontinental line in Bakersfield. The SF & SA/ Railroad was a competitor of the Southern Pacific Railroad and ran parallel to that line throughout the Central Valley. Construction of this rail line was facilitated by a desire to break the monopoly the Southern Pacific had over the agriculture industry in the Central Valley. With the completion of this line the Central Californian economic base was freed from what it viewed as tyranny and because of this relief the railroad was informally known as "The People's Railroad" and the "Valley Road." In 1899 the AT & SF Railroad acquired the SF & SA/ Railroad and operated the line until 1996 when the railroad was merged with the Burlington Northern Railroad, incorporated, and renamed the BNSF. The railroad segment currently consists of a double track standard gauge rail lines with creosote treated railroad ties.

*P3b. Resource Attributes: HP39 Railroad. AH7 Roads/trails/railroad grades

'P4. Resources Present: Building Structure Object Site District Element of District Other (isoiates. etc.)



P5b. Description of Photo:
 Ste overviw facing north.

*P6. Date Constructed/Age and Sources: Historic Prehistoric Both

*P7. Owner and Address:
 Burlington Northern Santa Fe
 Railroad Company
 2650 Lou Menk Drive
 Fort Worth, TX 76131

*P8. Recorded by:
 HDR EOC, Ina 8690 Balboa Avenue,
 Suite 200, San Diego, CA 92123

'P9. Date Recorded: 2016-12-15

*P10. Survey Type: Intensive Survey

*P11. Report Citation: Michael Connolly and Wayne Glenn 2017 *Cultural Resources Report: Avenue 26 and Road 29 Rehabilitation Project CA FLAP MAD 26(1), Madera County, California* Prepared by HDR, Inc. for the Federal Highway Administration, Central Federal Lands Highway Division.

'Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List)

State of California X The Resources Agency Pomary #
 DEPARTMENT OF PARKS AND RECREATION HRI#
BUILDING, STRUCTURE, AND OBJECT RECORD

'Resource Name or# Madera HDR-3

•NRHP Status Code _____

Page 2 of 5

B: Burlington Northern Santa Fe(BNSF) Railroad

B1. Historic Name: Atchison, Topeka, and Santa Fe(AT & SF), and theSan Francisco & San Joaquin Valley (SF & SA/) Railroads; informal names: "People's Railroad" and "Valley Railroad."

B2. Common Name: Burlington Northern Santa Fe(BNSF) Railroad

B3. Original Use: Agricultural transport and transportation through the Central Valley of California to break the Southern Pacific Railroad's monopoly.

B4 Present Use: Freight Transport through the Central Valley.

*B5. Architectural Style: N/ A

*B6. Construction History: TheSF & SA/ Railroad was constructed from 1895to 1898. The line connected Stockton and Bakersfield and linked to the second transcontinental line in Bakersfield. The SF & SA/ Railroad was a competitor of the Southern Pacific Railroad and ran parallel to that line throughout the Central Valley. Construction of this ral line was facilitated by a desire to break the monopoly the Southern Pacific had over the agriculture industry in the Central Valley. With the completion of this line the Central Californian economic base was freed from what it viewed as tyranny and because of this relief the railroad was informally known as "The People's Railroad" and the "Valley Road." In 1899theAT & SFRailroad acquired theSF& SA/ Railroad and operated the line until 1996 when the railroad was merged with the Burlington Northern Railroad, incorporated, and renamed theBNSF.

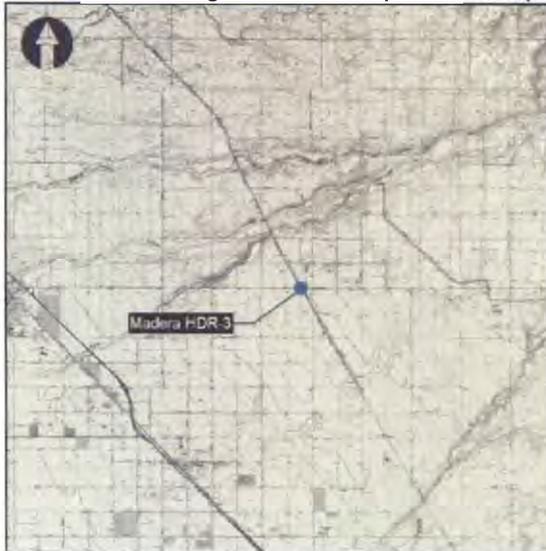
*B7. Moved? @No DYes Unknown Date: N/ A Original Location: N/ A

*B8. Related Features: None

B9a. Architect: Unknown b. Builder: TheSan Francisco & San Joaquin Valley Railroad Company

*B10. Significance: SeeBelow Theme: Municipal Recreation Facility Area: Chowchilla. CA

Period of Significance: 1895-present Property Type: Railroad Applicable Criteria: CRHR Criterion 1



Madera HDR-3 does not qualify for listing in the NRHP under Criteria A through D or the CRHR under Criteria 2 through 4 because it is not associated with any significant events at a national level, is not associated with any significant personages at a state or national level, does not embody any distinctive characteristics of design, and is unlikely to yield any information important in history or prehistory. However, Madera HDR-3 does qualify for the CRHR under Criterion 1 through its direct relationship to breaking the monopoly of the Southern Pacific Railroad in California. The development of this resource forced the Southern Pacific Railroad to lower its extortionate rates for passenger and freight travel through the Central Valley bringing economic relief to Californians in the region.

Although Madera HDR-3 is significant under Criterion 1 of the CRHR, it does not retain enough substantial historic integrity to convey this significance. Routine maintenance and repairs since the track was completed in 1898 have modernized the resource and removed the integrity of design, materials, workmanship, and feeling. Typically, ail rails, railroad ties, and ballast are replaced on a main line track every 20 years on average. The materials are repurposed on branch lines with less traffic (FOBNSF

2014). The rail line is still in the midst of farms, orchards, and ranch lands just as it was during the early 20th century. However, the integrity of setting has been reduced because the town of Medano, which was near this location, is no longer present. Only the integrity of location and association remain intact because the alignment of the track has not been altered and the resource still maintains its historic connection with breaking the Southern Pacific Railroad's monopoly. Therefore Madera HDR-3 is assessed as ineligible for the NRHP based on a lack of significance and the CRHR based on a lack of integrity.

(This space reserved for official comments.)

B11. Additional Resource Attributes: HP39. Railroad. AH7. Roads/trails/railroad grades

*B12. References: - Please see Continuation.

B13. Remarks: Currently work is scheduled to take place on Avenue 26; however, the work will not effect the railroad.

*B14. Evaluator: M. Connolly

'Date of Evaluation: 12-15-2016

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # P-20-002662

HRI#

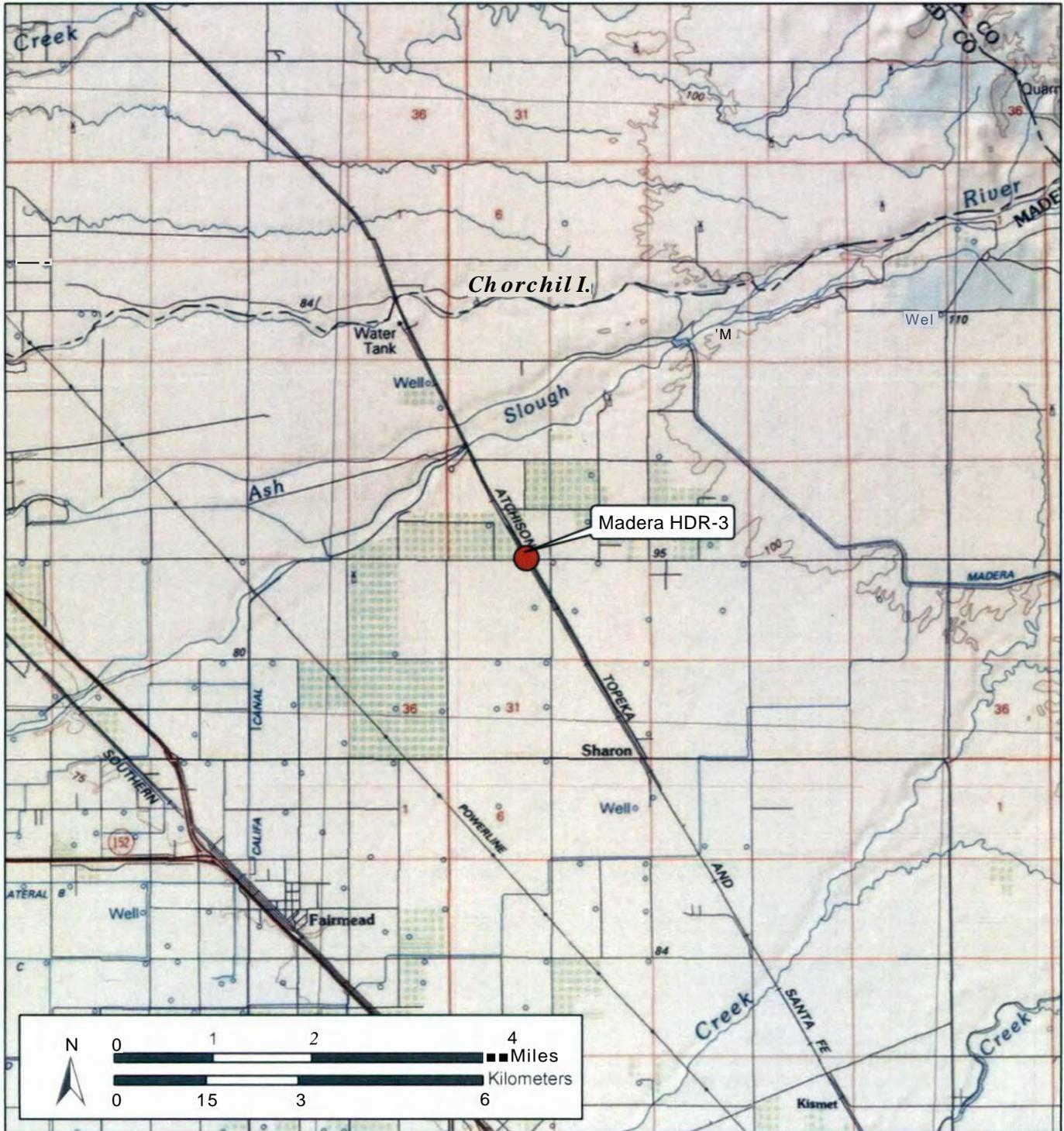
Trinomial:

LOCATION MAP

Page 3 of 5

'Resource Name or#: Madera HDR-3

'Map Name: Merced, CA 30x 60 min Quadrangle 'Scale: 1:100,000 'Date of Map: 1983



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #
HRI#
Trinomial:

SKETCH MAP

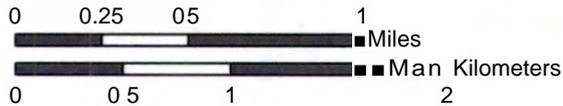
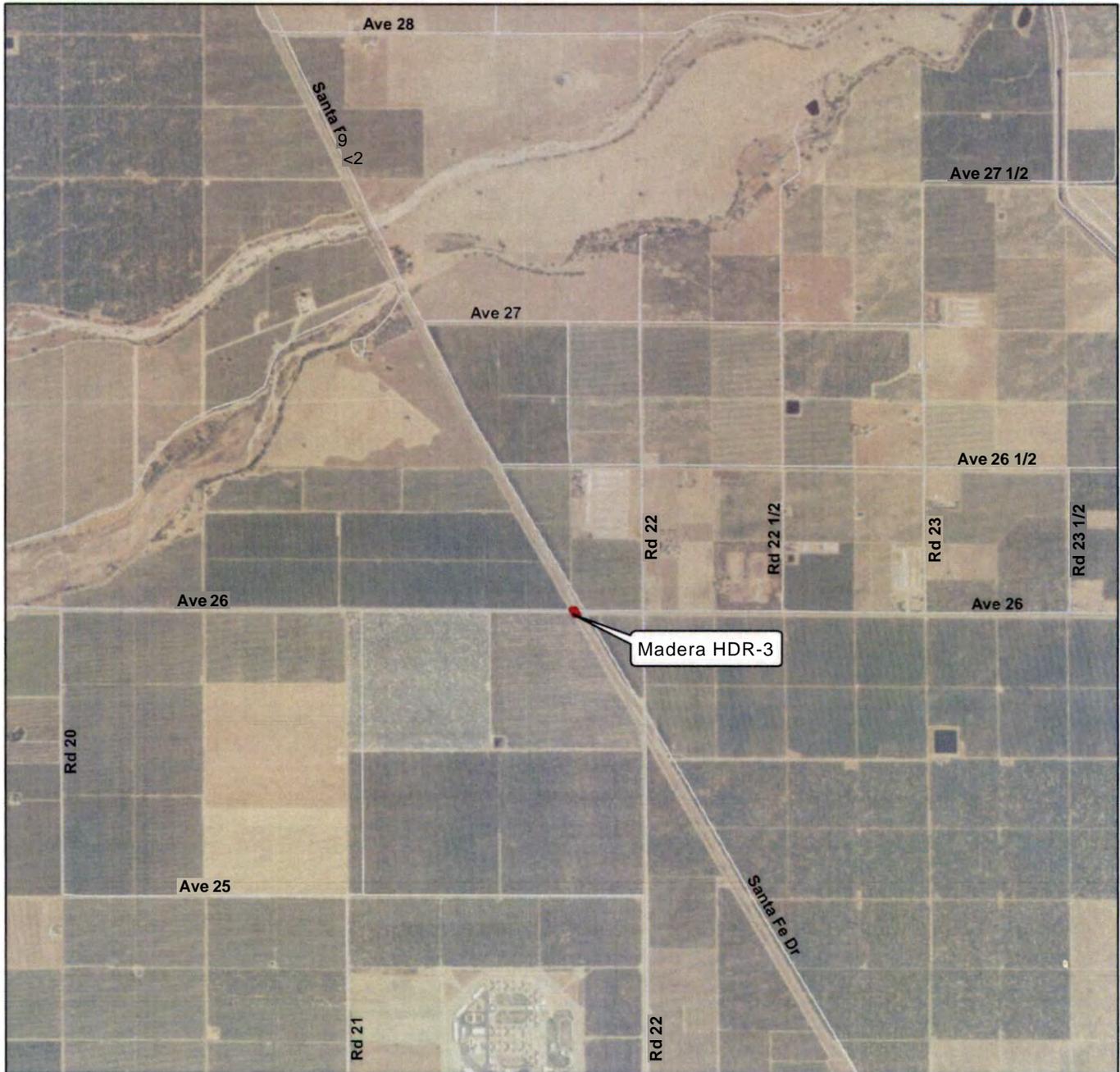
Page 4 of 5

'Resource Name or #: Madera HDR-3

'Drawn By: HDR

'Scale: 1:32,000

'Date of Map: 2017



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary# P-20-002662
HRI#
Trinomial

Page 5 of 5

•Resource Name or # Madera HDR-3

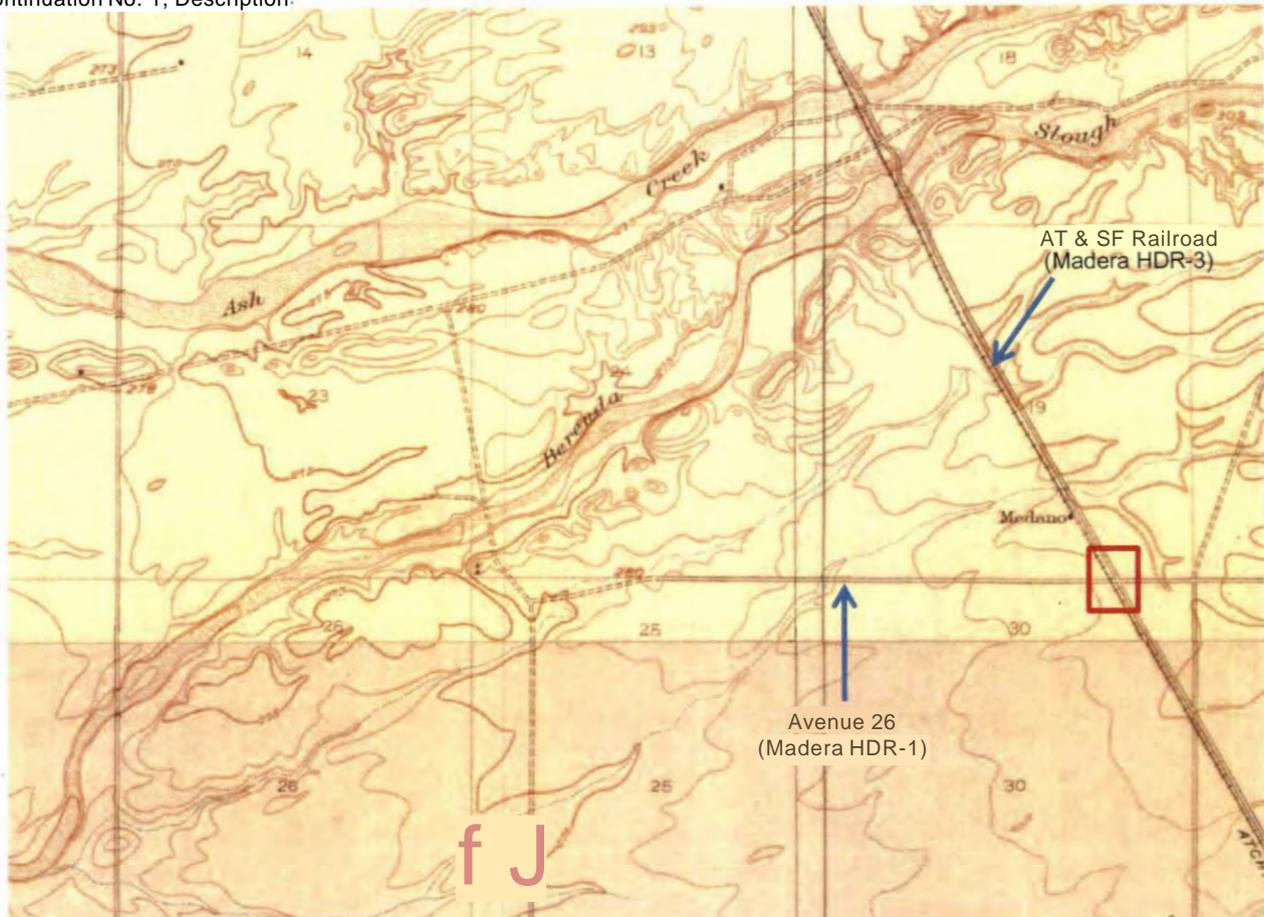
*Recorded by: HDR-EOC

*Date: 2016-12-15

£3 Continuation

Update

Continuation No. 1, Description:



Above is an excerpt from a 1918 topographic map depicting the AT & SF Railroad discussed in this record. Avenue 26 crosses the railroad from east to west and the now abandoned town of Medano is located along the tracks just north of Avenue 26. The segment of the railroad discussed in this record is outlined in red.

References:

Blaszak, Michael

1995 ATSF History, Santa Fe: A Chronology, <http://atsfirc.qstation.org/atsfhist.html>. Accessed on 30 December 2016.

Friends of BNSF (FOBNSF)

2014 A day on the rails with Tie Production Gang 06. <https://www.friendsofbnsf.com/content/day-the-rails-tie-production-gang-06>. Accessed on 04 January 2017.

Hayes, Derek

2007 Historical Atlas of California, University of California Press, Berkeley.

Hooper, Ken

2014 History: Bakersfield freed from railroad tyranny, <http://www.bakersfield.com/bakersfieldjife/history-bakersfield-freed-from-railroad-tyranny/artide>. Accessed on 30 December 2016.

Trains

2006 BNSF Railway merger family tree: A genealogy of the well-known railroads that make up today's system, <http://trn.trains.com/railroads/railroad-history/2006/06/>. Accessed on 30 December 2016.

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # 20-002662
HRI# _____
Trinomlal _____
NRHP Status Code 6Z
Other Listings _____

Review Code _____ Reviewer _____ Date _____

Page 1 of 7 'Resource Name or # (Assigned by recorder) CRM TECH 2310-1H

P1. Other Identifier: Burlington Northern Santa Fe (BNSF, formerly Atchison, Topeka and Santa Fe) Railway

*P2. Location: Not for Publication Unrestricted *a. County Madera
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

'b. USGS 7.5' Quads Gregg and Herndon, Calif. Date 1978
T12S; R18E; Sec 12 and 13; M.D. B.M.
T12S; R19E, Sec 18, 19, 20, 28, and 29; M.D. B.M.
Elevation: Approx. 270 feet above mean sea level

c. Address N/A City _____ Zip Code _____

d. UTM: Zone 11; A: 236,336 mE/ 4,088,573 mN; B: 240,750 mEZ 4,082,201 mN
UTM Derivation: USGS Quad GPS

e. Other Locational Data: (eg., parcel #, directions to resource, etc., as appropriate) The recorded segment of the railroad (BNSF Mile Post 1008.9 to 1013.9) extends from roughly Avenue 7 northwesterly to Avenue 11, near the rural communities of Gregg and Trigo.

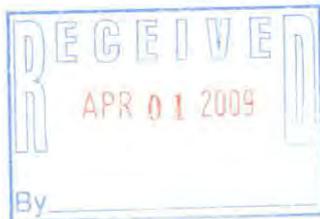
*P3a. Description: (Describe resource and its major elements Include design, materials, condition, alterations, size, setting, and boundaries) The site consists of a five-mile segment of the BNSF line situated between MP 1008.9 and MP 1013.9. The primary component of the site is a single standard-gauge track laid on a raised bed of earth and crushed rock ballast, and portions of the line are accompanied by sidings for passing trains. Other associated features recorded as part of the site include two historic-period concrete culverts (one of them stamped with the year 1926) and a short segment of an abandoned telegraph line near MP 1012.7. Both of the culverts are built of poured, board-formed cast concrete, and are plain (Continued on p. 5)

*P3b. Resource Attributes: (List attributes and codes) HP37: Railroad

*P4. Resources Present: Building Structure Object Site District Element of District
 Other (isolates, etc.) _____

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

(See pp. 6-7)



P5b. Description of Photo: (view, date, accession #)

Photos taken on January 16, 2009

*P6. Date Constructed/Age of Sources:
 Historic Prehistoric Both

*P7. Owner and Address:
Burlington Northern Santa Fe Railway Company, 2650 Lou Menk Drive, Fort Worth, TX 76131

*P8. Recorded by: (Name, affiliation, and address)
Josh Smallwood, CRM TECH, 1016 E. Cooley Drive, Suite A/B, Colton, CA 92324

*P9. Date Recorded: January 16, 2009

*P10. Survey Type: Project-related survey for CEQA- and Section 106-compliance purposes

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang, Michael Hogan, and Josh Smallwood (2009): Archaeological Survey Report/Historical Resource Evaluation Report: Gregg Double Track Project, Burlington Northern Santa Fe Railway, Stockton Subdivision, Northern California Division, Gregg-Trigo, Madera County, California, MP 1008.9 to 1013.9. On file, Southern San Joaquin Valley Information Center, California State University, Bakersfield.

*Attachments: None Location Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Resource Record Milling Station Record
 Rock Art Record Artifact Record Photograph Record Other (List): _____

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 7

*NRHP Status Code 6Z
'Resource Name or # (Assigned by recorder) CRM TECH 2310-1 H

B1. Historic Name: San Francisco and San Joaquin Valley Railway; Atchison, Topeka and Santa Fe Railway

B2. Common Name: Burlington Northern Santa Fe Railway

B3. Original Use: Railroad B4 Present Use: Railroad

*B5. Architectural Style: N/A

*B6. Construction History: (Construction date, alterations, and date of alterations) This segment of the BNSF line was originally constructed in 1895-1897 as a part of the San Francisco and San Joaquin Valley (SF&SV) Railway, which ran from Stockton to Bakersfield. The associated telegraph system evidently dated to the same period. The line was later acquired by the Atchison, Topeka and Santa Fe (ATSF) Railway Company in 1899 and became a part of the ATSF's first line to reach the port of San Francisco. Since then, it has served as a part of the ATSF/BNSF mainline across the Central Valley. The rails, ties, ballast, and other operational components have evidently been replaced and/or upgraded repeatedly since the original construction in the 1890s.

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: Bridges, culverts, and other common railroad features (see pp. 5-7)

B9a. Architect: N/A b. Builder: San Francisco and San Joaquin Valley Railway Company

*B10. Significance: Theme Railroad transportation Area California
Period of Significance 1890s Property Type Railroad Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) This segment of railroad line appears to meet Criterion A for the National Register of Historic Places and Criterion 1 for the California Register of Historical Resources because it is closely associated with an important event in 19th-century California history, namely the arrival of a second transcontinental railroad system in the Central Valley. The ATSF "invasion" spelled the end of the Southern Pacific Railway Company's virtual monopoly on modern transportation in California, which left profound and far-reaching impacts on the political, economic, and social life of the state. Most directly, the coming of a competing rail system served as a major boost to the growth of the Central Valley and the entire state.

However, as stated above, most of the physical components of the site have since been replaced or upgraded repeatedly in order to sustain continuous service through the past 110 years. As a result, other than the aspect of location, the existing railway and its associated features, as
(Continued on p. 5)

BI 1. Additional Resource Attributes: (List attributes and codes) HP20: Culverts

*B12. References: Lee Gustafson and Philip Serpico (1996): Santa Fe Coast Lines Depots, Valley Division (Omni Publications, Palmdale, California); Hemingray Database: Hemingray-21 (CD 145) and Hemingray-42 (CD 154) Telegraph Insulators (Http://www.hemingray.inf @./database).

B13. Remarks: _____ (Sketch Map with north arrow required.)

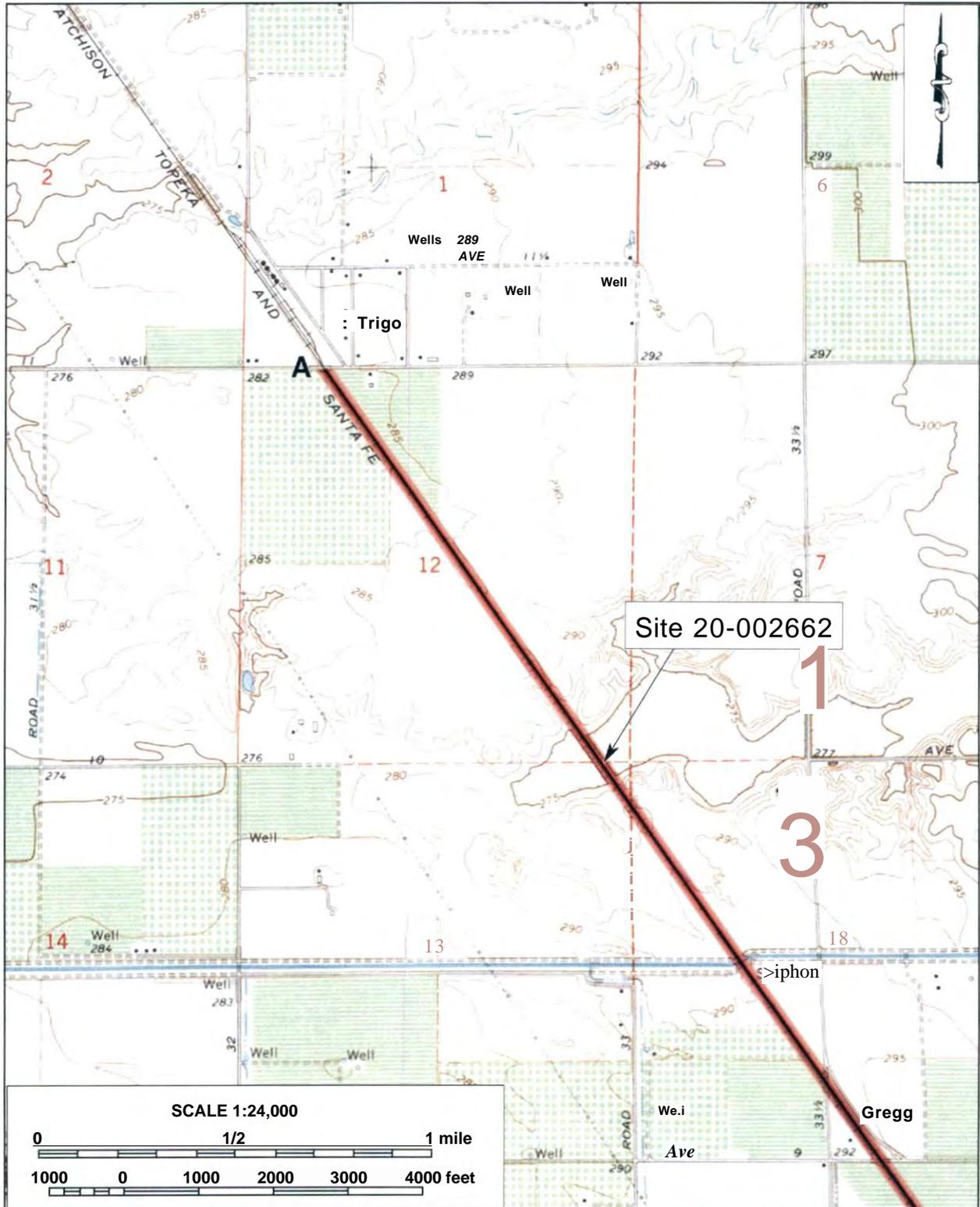
*B14. Evaluator: Bai "Tom" Tang and Josh Smallwood

*Date of Evaluation: January 2009

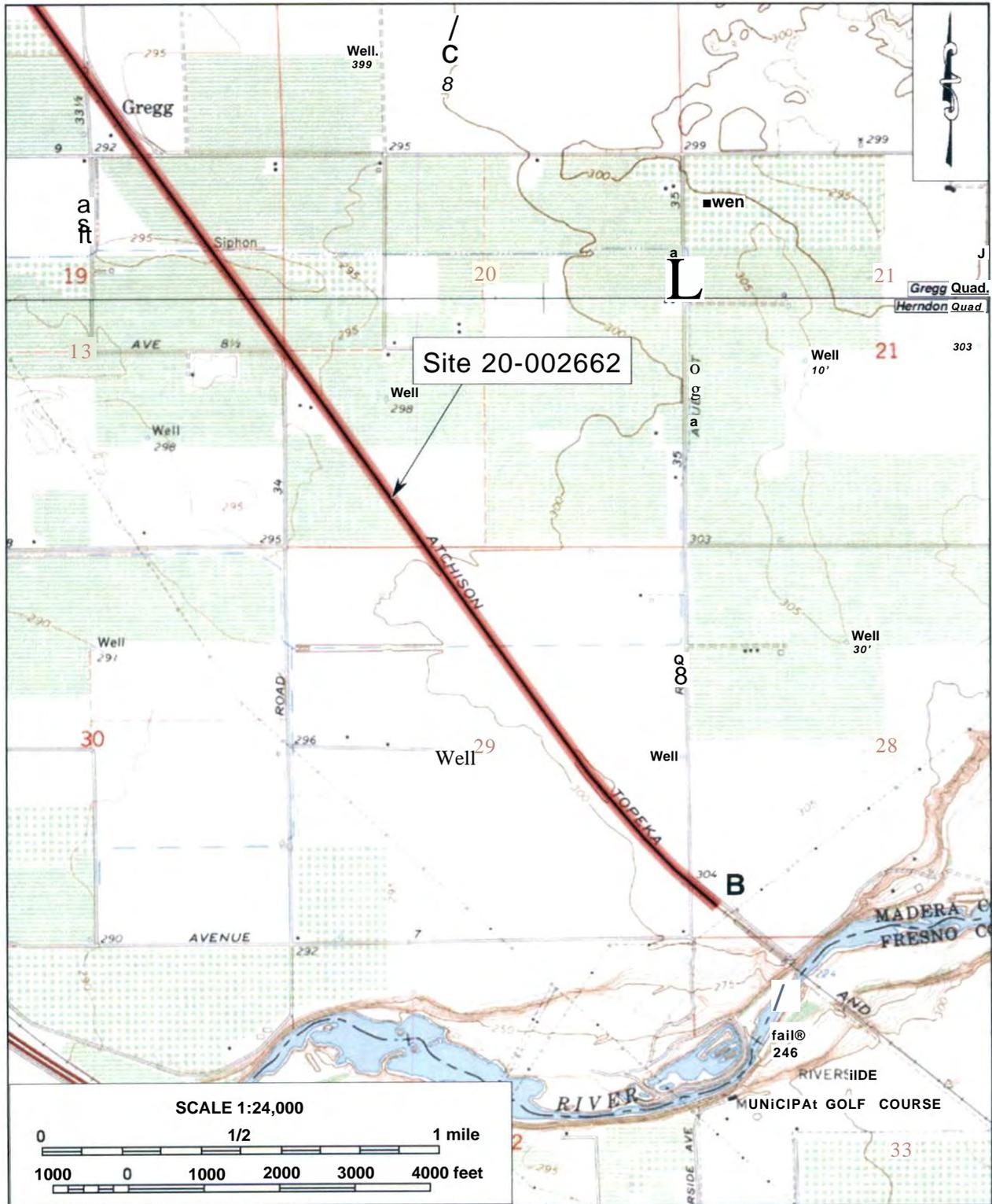
(See pp. 3-4)

(This space reserved for official comments.)

LOCATION MAP



LOCATION MAP



CONTINUATION SHEET

Recorded by Josh Smallwood "Date January 16, 2009 V Continuation Update

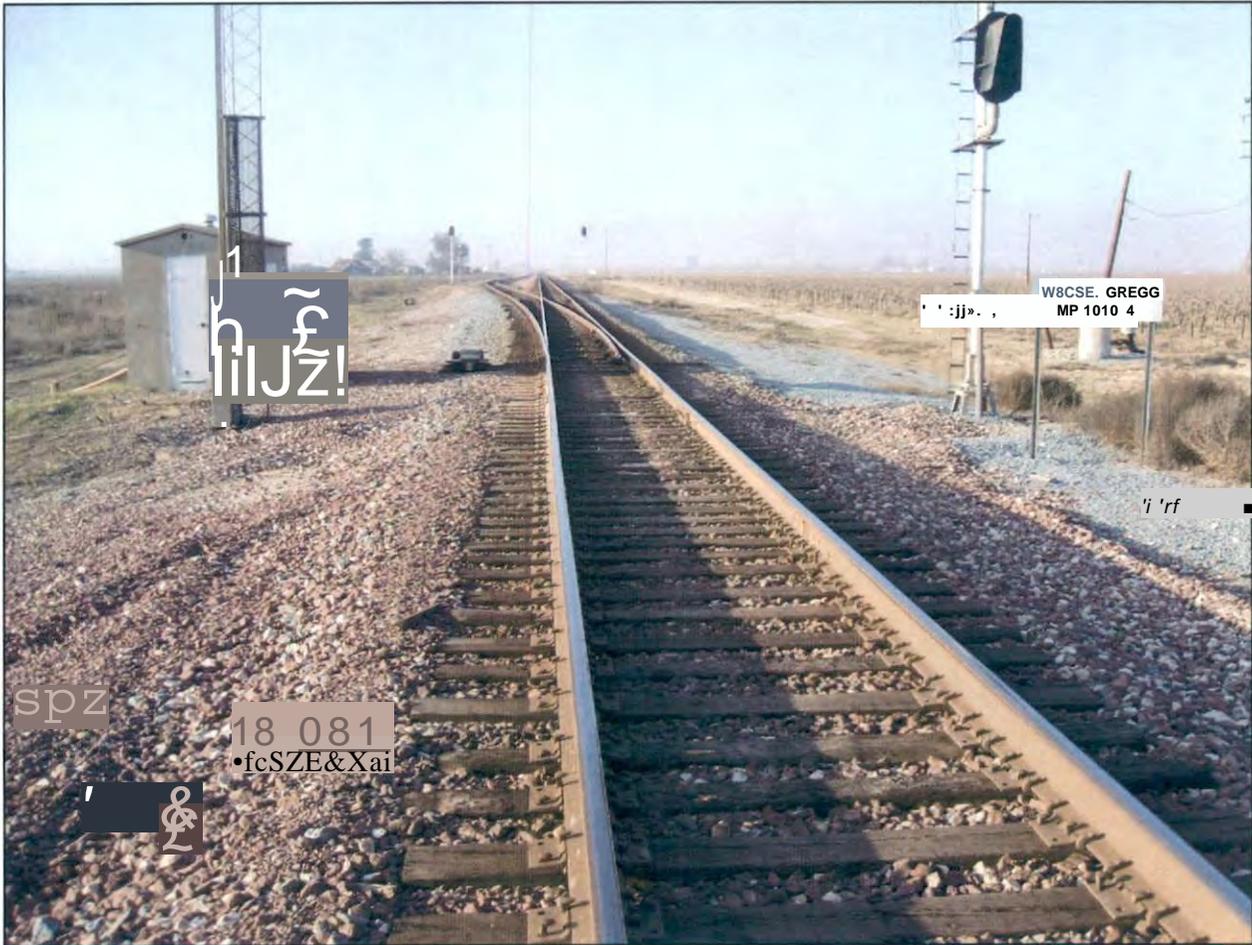
*P3a. Description (continued): in appearance. The only artifacts observed along this segment of the railway were aqua-glass and plastic insulators and coils of copper wire lying around the abandoned telegraph poles. Based on their design and markings, "Hemingray-21" and "Hemingray-42", the glass insulators date to the 1900s-1960s, and the plastic ones are later. The physical features associated with the railway have all been replaced and upgraded over the years, and many of them are clearly modern in origin. Consequently, the existing railway exhibits no particular historical characteristics, as can be expected from an active rail line that remains in use today.

*B10. Significance (continued): working components of the modern transportation infrastructure, do not retain sufficient historic integrity to relate to the site's period of significance. In addition, this segment of railway is not known to be an important or notable example of a type, period, region, or method of construction, it is not directly associated with the life of an important person, and it demonstrates little potential for any important archaeological data.

The abandoned telegraph line along the railway is in a state of disuse, neglect, and deterioration, and has also been altered over the years through various upgrades, resulting in a loss of historical integrity. The only features along this segment of railway that are relatively intact are the two concrete culverts that appear to date to at least the 1920s. As relatively minor structures of standard design and construction, the culverts alone do not convey any distinctive sense of history, nor do they represent an important example of their type, period, region, or method of construction.

Based on these considerations, Site 20-002662 does not appear to be eligible for listing in the National Register or the California Register.

CONTINUATION SHEET



Typical view of the existing railroad line

CONTINUATION SHEET



Abandoned telegraph line along the southwest side of the railroad track



Concrete culvert with date stamp of 1926

Primary # P-20-002904
HRI # _____
Trinomial _____
NRHP Status Code 6Z
Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 7

'Resource Name or # (Assigned by recorder) Wilson-Gregg Transmission Line

PI. Other Identifier: Wilson-Gregg Transmission Line

*P2. Location: Not for Publication E) Unrestricted
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*a. County Madera

'b. USGS 7.5' Quad Herndon Patel 978 T 12S; R_19E; ___ of Sec 30,29_j ___ M.D. B.M.

c. Address _____ City _____ Zip _____

d. UTM: (give more than one for large and/or linear resources) Zone _____; _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

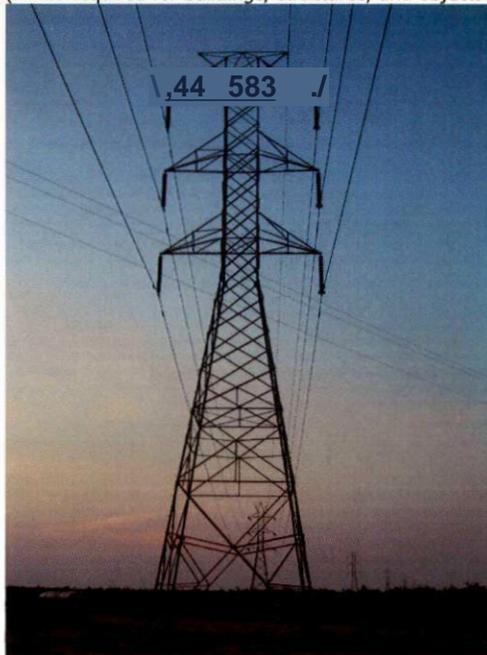
This form records a section of the PG&E Wilson-Gregg Transmission line constructed between 1942 and 1946 located in Madera county. The segment includes nine towers progressing northwest from the Gregg Substation. This line is part of a longer line that connects to Panoche and Henrietta Substations in the south, a system of power plants on the Kings River to the east and Brighton Substation in Sacramento to the north.

The line was constructed at some point between 1923 and 1946. The segment being recorded has nine towers not all of which are visible from the public right of way. Two tower styles were observed.

*P3b. Resource Attributes: (List attributes and codes) HP9 Public Utility

*P4. Resources Present: Building EI Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo of Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) Photograph 1, tower 101/675, camera facing northwest.

*P6. Date Constructed/Age and Sources:

EI Historic Prehistoric Both

1930-1946 Herndon Quad. Company history

*P7. Owner and Address:

PG&E
77 Beale Street
San Francisco, California 94105

*P8. Recorded by: (Name, affiliation, address)

Cheryl Brookshear
JRP Historical Consulting,
1490 Drew Ave, Suite 110,
Davis, CA 95618

*P9. Date Recorded: February 16, 2007

*P10. Survey Type: (Describe)
Site

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") None

'Attachments: None Location Map Sketch Map EI Continuation Sheet EI Building, Structure, and Object Record Archaeological Record
 District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record
 Other (list) _____

B1. Historic Name: _____

B2. Common Name: Wilson-Gregg Transmission Line

B3. Original Use: 230 kVA Transmission line B4. Present Use: 230 kVA Transmission line

*B5. Architectural Style: n/a

*B6. Construction History: (Construction date, alteration, and date of alterations) original construction between 1930 and 1946.

*B7. Moved? 13 No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: n/a

B9. Architect: n/a b. Builder: n/a

◆BIO. Significance: Theme n/a Area n/a

Period of Significance n/a Property Type n/a Applicable Criteria n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Wilson-Gregg transmission line does not appear to meet the criteria for listing in the National Register of Historic Places, nor does it appear to be a historical resource for the purposes of CEQA. It does not appear eligible under Criterion A because it has not “made a significant contribution to the broad patterns of our history.” Furthermore, it does not appear to qualify for listing under Criterion B because it has no known associations with persons important to our history. Under Criterion C the transmission line does not appear to be eligible because it is not a distinctive or pioneering engineering feature, nor is it the work of a master designer. In rare instances, buildings and structures themselves can serve as sources of important information about historic construction materials or technologies under Criterion D; however, this property is otherwise documented and does not appear to be a principal source of important information in this regard. Furthermore, the transmission line has suffered a loss of historic integrity as a result of upgrades. (See Continuation Sheet)

BU. Additional Resource Attributes: (List attributes and codes) _____

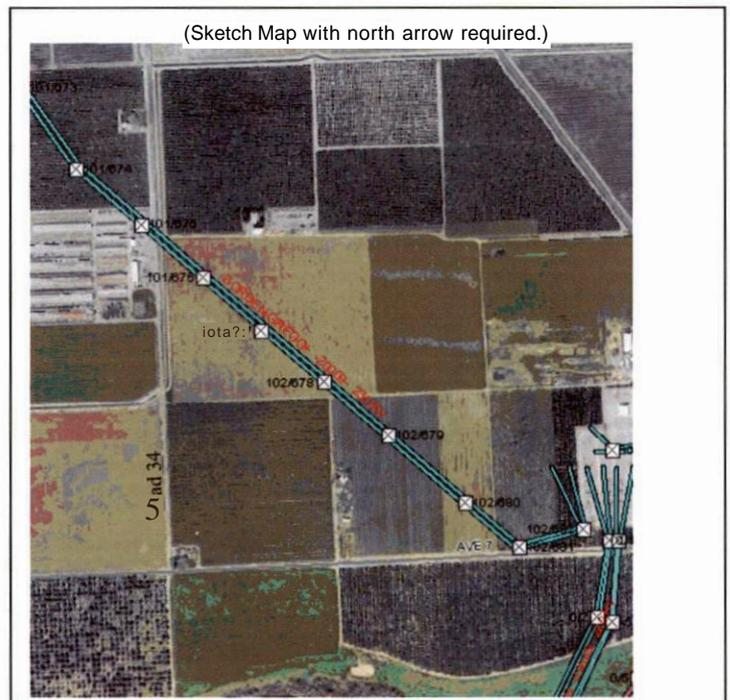
◆B12. References: See Footnotes

B13. Remarks:

◆B14. Evaluator: Cheryl Brookshear

◆Date of Evaluation: February 2007

(This space reserved for official comments.)



P3a. Description (continued):

Near the Gregg Substation the towers have four sides. The four main supports angle inwards until about half way up the tower, then they become vertical. Diagonal cross bracing stabilizes the main supports. Small horizontal rods add to the support. Three arms extend from the tower on each side. On the south side of the tower they remain as wide as the tower. The conductor is attached at three points where it enters, where it leaves and from a center insulator that is suspended from the center of the arm. On the north side the arms taper to a point. The conductor is only attached at two points; an insulator where it enters and an insulator where it leaves. Intervening farm fields prevented a full count of towers in this style. The two closest to the power plant are of this style and logically would include five towers labeled 102/678, 102/679, 102/680, 102/681 and 102/682.

The second tower style again had four sides with the base tapering to a vertical tower. Three arms extend to the sides. Each arm narrows to a point from which an insulator hangs. The conductor is attached to the suspended insulator at only one point. The tower has diagonal cross bracing and only three sets or horizontal braces. Four of these towers exist in the segment, 101/674, 101/675, 101/676 and 101/677.

B10. Significance (continued):

Historic Context

General History of Electrical Transmission in California

California's rugged terrain and often scattered settlement made the transmission of power an important factor in development. Mining settlements and cities quickly used up all easily accessible combustibles for steam power, and bringing in more from other sources was expensive and difficult. Mining communities discovered that nearby water sources could produce electricity that was easily transmitted to rugged isolated sites.¹ The problem was that the first electrical systems popularized by Edison were direct current (DC) and had a limited transmission distance. Most mining communities could find a hydroelectric site within transmission distance, but cities and agricultural settlements often could not.

The nature of this problem and its solution led to the great electrical battle between Westinghouse, building systems around high voltage alternating current (AC), and Edison, building systems around DC electricity. Westinghouse acquired patents for transformers from other inventors and a very important patent for poly-phase alternating current generators and motors from Nicola Tesla. The system his engineers devised used transformers to increase or "step up" the voltage, and at this higher voltage electricity could be transmitted longer distances with less loss. At the receiving end, another transformer would decrease or "step down" the voltage to a level suitable for use. Edison countered that the high voltages were unsafe and took the battle to the public with demonstrations of electrocutions. The two firms battled it out in public and the academic press and contract bids for the Columbia Exposition in Chicago and engineering and equipment bids for the proposed plant at Niagara Falls. While the battle raged over safety in the east, in the west there was no question of suitability.

California was introduced to AC by former Brush Electric Company engineer Almerian Decker. Decker came to California in 1891 for his health and became involved in a southern California electrical project. Decker and his partners, Cyrus G.

¹ James C. Williams, *Energy and the Making of Modern California* (Akron, Ohio: University of Akron Press, 1997) p.173.

Page of 7

'Resource Name or # (Assigned by recorder) Wilson-Gregg Transmission Line

'Recorded by Cheryl Brookshear 'Date February 2007 El Continuation Update

Baldwin and Henry Harrison Sinclair, opened the San Antonio Light and Power Company in 1892 using Westinghouse technology to transmit power over 14 miles to Pomona. Decker then went on to design Mill Creek, the first commercial American three-phase power plant.² In 1895 the Folsom power plant, designed by James Lighthipe of General Electric, supplied power to Sacramento 22 miles away. These projects were all completed before the eastern states recognized the value of long distance transmission demonstrated by the Niagara project.¹

California electrical companies, especially Eugene J. de Sabla's and John Martin's companies, continued to increase transmission voltages and distances. Bay Counties Power Company, owned by de Sabla and Martin, broke records in 1901 when they transmitted power generated in the Sierra-Nevada to San Francisco. Throughout the early 20th century California companies developed the hydropower resources of the mountains and transmitted the power across the state.

The shortage of oil and increasing demands for electricity during World War I challenged electrical companies to make more energy available without building more plants. The California State Railroad Commission and the Committee on Petroleum of the State Council on Defense suggested in 1917 that the companies integrate their transmission lines. These integrated lines would allow unused power from one source to be used elsewhere where generating capacity was not as large. This idea of interconnected generating pools was adapted both in the northeast and in neighboring western states following the California model.⁴

The post-World War II era was a time of rapid growth in California. Housing and populations swelled along with the business and industrial concerns. Fueled by wartime defense industries, California grew rapidly. Northern California utility Pacific Gas & Electric (PG&E) began a program of generation growth that included both hydroelectric and steam power. Steam turbine power plants were cheaper and quicker to build than hydroelectric plants and utilities companies moved away from hydroelectricity, establishing steam turbine power as the generator of choice. Such plants conserved water and kept costs down for the business and the consumer.⁵ The design criteria were the same in all cases: build the facility close to load centers to reduce transmission costs; locate near fuel supplies; locate near a water supply; and select a site where land was cheap and could support a good foundation. Even with these advance in technology and despite being closer to population centers, steam plants still needed transmission facilities and substations were constructed throughout the service area to connect the new power plants.⁶

Development of the San Joaquin Light and Power Company/ PG&E

The San Joaquin Power Company was formed from the failed San Joaquin Electric Company in 1902.⁷ The promoters of this young company negotiated a division of territory with the larger California Gas and Electric Corporation to avoid destructive competition. The San Joaquin Power Company would be undisturbed in the territory south of Stanislaus County. The company brought San Joaquin Powerhouse No. 1, built by the failed San Joaquin Electric Company, into profitability and expanded it. Power from the hydroelectric plant was transmitted to Fresno and the surrounding area. Albert G. Wishon, one of the founders, encouraged the use of electricity to pump water for irrigation and because of this vision the company served rural areas as well as towns. But in order to expand into new territory and aid the farmers of the San Joaquin Valley

² James C. Williams, *Energy and the Making of Modern California*, 175.

¹ James C. Williams, *Energy and the Making of Modern California*, 176-7.

⁴ James C. Williams, *Energy and the Making of Modern California*, 245.

⁵ Myers, *Iron Men and Copper Wires*, 200; James C. Williams, *Energy and the Making of Modern California*, 277-78, 282-83.

⁶ James C. Williams, *Energy and the Making of Modern California*, 284, 374.

⁷ Charles M. Coleman, *PG & E of California: The Centennial Story of Pacific Gas and Electric Company* (New York: McGraw-Hill Book Co., 1952) 189.

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*Resource Name or # (Assigned by recorder) Wilson-Gregg Transmission Line

*Recorded by Cheryl Brookshear *Date February 2007 El Continuation Update

the company needed capital. The company was reorganized at the San Joaquin Light and Power Company in 1905 with increased capital. The company began acquiring small local companies and connecting them to the larger hydroelectric system. The San Joaquin Light and Power Company became a corporation and extended its service as far as Bakersfield in 1910. Operations in Bakersfield supported oil pumping and were also the first intercompany transmission connections in 1913. San Joaquin Light and Power Corporation later connected with PG&E to the north to create an integrated system from southern California to southern Oregon.⁸ In 1912 the company expanded to the coast with the purchase of gas and electric works serving Paso Robles, Pismo and other small towns. Increasing needs led to the construction of more hydroelectric facilities and a steam plant at Midway near Buttonwillow, west of Bakersfield, in 1921.⁹

Despite being a growing and profitable company, San Joaquin Light and Power was not large enough to avoid purchase. In 1924 Great Western Corporation purchased the corporation. Great Western Corporation operated a system in northern California and connected to its newly acquired system via a transmission line constructed from Brighton substation near Sacramento, to the Wilson substation outside of Merced. Both companies became a part of the North American Company that had holdings that extended across the nation. In a later stock deal the North American Company turned control of the San Joaquin Light and Power and Great Western to PG&E and in return, North American received stock in PG&E. As a result, PG&E controlled electric companies throughout most of northern California.¹⁰

While San Joaquin Light and Power had been deeply involved in irrigation in the valley, PG&E had a different view. PG&E was strongly opposed to government run utilities and the new Central Valley Project (CVP), which it feared would bring the government into the arena as a producer of electricity. PG&E and the government entered into a period of competition beginning in 1923, and not settled fully until 1951. After years of conflict and lawsuit agreements between the federal government and the company established that the government would sell the generated power to PG&E, who would transmit it to customers. "Backbone" transmission lines from Shasta Dam to Tracy were built to distribute the power."

The decades of Depression and World War II saw limited growth of new generation facilities. Following World War II, PG&E began a program of expanded generation to serve the growing post-war population. One billion dollars was spent on new plants among them were Donbass (1946), Kern (1948), Electra (1948), West Point (1948) Moss Landing (1950), and Contra Costa (1951). PG&E was also able to develop new hydroelectric sites that were not available to southern California companies and World War II had also encouraged greater interconnectivity and transmission lines now connected companies from British Columbia to Mexico.¹²

Wilson-Gregg Transmission Line

The Wilson-Gregg Transmission line is part of a system that was constructed in the 1930s and 1940s as the San Joaquin Light and Power Company and PG & E merged. The original line can be traced on USGS quadrangles from the 1940s. The line headed south to Sanger and then west to the Kings River hydroelectric plants. Heading north the system connected west of Merced. A 1940-41 quadrangle *Aihlone* shows a 110 KV line and 230 KV line of PG&E connecting south of La Grange in 1939. The financial maneuvers that consolidated the two companies did not occur until 1930 and San Joaquin Power and Light was not fully absorbed until 1938.¹³ After 1978 the line was diverted to connect with the Gregg Substation. Previously it had crossed Avenue 7 in a straight line across the San Joaquin River with a small spur connecting it to the Herndon Substation. Today the line turns west at Avenue 7 and connects to the Gregg Substation before continuing across the river.

⁸ Charles M. Coleman, *PG & E of California*., 265.

⁹ Charles M. Coleman, *PG & E of California*., 193-196, 265.

¹⁰ Charles M. Coleman, *PG & E of California*., 293, 296.

¹¹ Charles M. Coleman, *PG & E of California*, 329.

¹² Charles M. Coleman, *PG & E of California*, 265.

¹³ Charles M. Coleman, *PG& E of California*, 296-7.

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'Resource Name or # (Assigned by recorder) Wilson-Gregg Transmission Line

'Recorded by Cheryl Brookshear 'Date February 2007 E) Continuation Update

Discussion of Significance

The transmission lines do not appear to meet any of the National Register's significance criteria. The potential of the Wilson-Gregg transmission lines to qualify for listing under Criterion A lies with their association with the merger of San Joaquin Light and Power and PG&E in California, and the development of long-distance high voltage electrical transmission systems. As discussed above, pioneering transmission lines were built between 1908 and 1910. This was an active period of hydroelectric development in California, with several companies, including Great Western Power, California G&E, the predecessor of PG&E and the American River Power Company, greatly expanding their transmission systems. The Wilson-Gregg transmission lines do not fall within that time period. Transmission lines that would meet the requirements of Criterion A would need to represent significant events or trends in the development of the electrical industry in California and electric transmission. The Wilson-Gregg line was a part of the lines that connected PG&E and San Joaquin Light and Power. However, throughout the history of electrical companies in California and the nation, power companies have merged and integrated systems. The Wilson-Gregg line is one of numerous facilities that were a result of company mergers.

Furthermore, the Wilson-Gregg Line does not appear to meet the requirements of Criterion C. Transmission lines that would be eligible for listing under this criterion would represent distinctive or pioneering engineering features in the field of long distance power transmission. This does not appear to be the case. The Wilson-Gregg lines were not the first to carry high-voltage electricity over a great distance, nor were they among the first to use steel towers rather than wooden ones. On the contrary, they utilize commonly accepted technology and engineering principles that were the result of more than half a century of development. They are typical examples of manufactured transmission towers for their period that are found in great numbers throughout California.

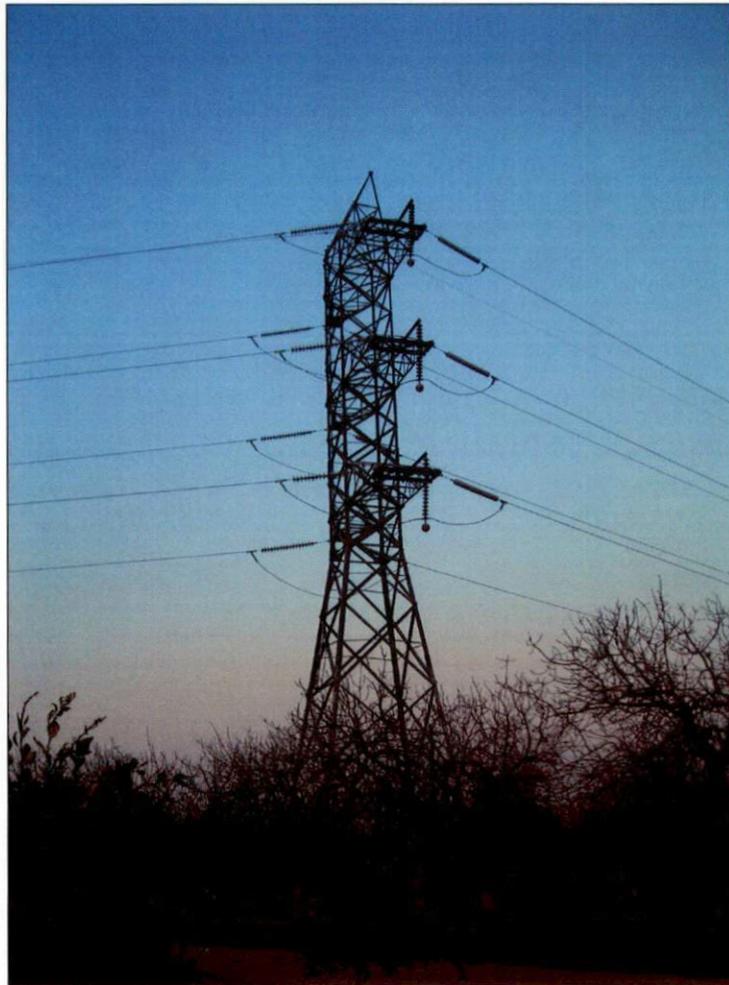
Also, available evidence does not indicate that the property is associated with any known significant persons (Criterion B). Finally, the resource has not yielded, nor is likely to yield, information important in prehistory or history (Criterion D). The Newark-San Jose transmission line has also been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using criteria outlined in Section 5024.1 of the California Public Resources Code. It does not appear to be a historical resource for the purposes of CEQA.

Page 1 of 7

*Resource Name or # (Assigned by recorder) Wilson-Gregg Transmission Line

◆Recorded by Cheryl Brookshear *Date February 2007 S Continuation Update

Photographs (cont):



Photograph 2. Tower 102/681, camera facing north.

Attachment C
Native American Heritage Commission

From: [Stoneman, Bradley](#)
To: nahc@nahc.ca.gov
Cc: [Pappas, Steve](#)
Subject: Request for AB 52 Consultation List
Date: Wednesday, November 29, 2023 8:55:00 AM
Attachments: [imageOOI.png](#)
[NAHC Tribal Consultation Request - Madera Station.pdf](#)

Hello,

I am requesting a CEQA Tribal Consultation List (AB-52) for a project in Madera County. The project includes improvements to a high-speed rail station that was previously approved. The project is located on existing agricultural land adjacent to the northerly side of Avenue 12 and an industrial area to the south of Avenue 12.

I have attached the Local Government Tribal Consultation List Request form.

Please contact me, Brad Stoneman, or Steve Pappas at (916) 231-7694 if you have any questions.

Thank you!

Brad

Brad Stoneman

1+1.916.210.5941 - direct

| 980 9th Street, Ste. 1200 Sacramento, CA 95814



Local Government Tribal Consultation List Request

Native American Heritage Commission

1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 - Fax
nahe@nahe.ca.gov

Type of List Requested

HI CEQA Tribal Consultation List (AB 52) - *Per Public Resources Code § 21080.3.1, subs, (b), (d), (e) and 21080.3.2*

General Plan (SB 18) - *Per Government Code § 65352.3.*

Local Action Type:

General Plan | **General Plan Element** | **General Plan Amendment**

specific Plan | **specific Plan Amendment** | **pre-planning Outreach Activity**

Required Information

X1VJVVV1 A1 • Madera High Speed Rail (HSR) Station Full-Build Project (Phase 3)

Local Government/Lead Agency: San Joaquin Joint Powers Authority (SJJPA)

Contact Person: Brad Stoneman/Steve Pappas

Street Address: 980 9th Street, Ste. 1200

City: Sacramento State: CA Zip: 95814

Phone: (916) 210-5941 (916) 231-7649 Fax: _____

Email: bradley.stoneman@icf.com steve.pappas@icf.com

Specific Area Subject to Proposed Action

County: MSCIGRS City/Community: _____

Project Description:

The Madera HSR Station Full-Build (Phase 3) Project (Project) is necessary to enable a high-speed rail (HSR) station in Madera County, California, for expanded HSR operations beyond the Merced-Bakersfield California HSR Early Operating Segment. The project includes a new single side-loaded platform, approximately 1,410 feet in length adjacent to siding track. The platform would include canopies and pedestrian bridge; trackwork and overhead contact system, and parking lot adjacent to previously approved parking area.

Additional Request

a Sacred Lands File Search - *Required Information:*

USGS Quadrangle Name(s): FGQg QIJ3C1

Township: 11S Range: 18E Section(s): 34

Native American Heritage Commission
Native American Contact List
Madera County
12/14/2023

County	Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax#	Email Address	Cultural Affiliation	Counties	Last Updated
Madera	Big Sandy Rancheria of Western Mono Indians	F	Tom Zizzo, Tribal Administrator	P.O. Box 337 37387 Auberry Mission Road Auberry, CA, 93602	(559) 374-0066		Tzizzo@bsrnation.com	Western Mono	Fresno, Madera, Tulare	5/25/2023
	Big Sandy Rancheria of Western Mono Indians	F	Joel Marvin, Vice Chairperson	P.O. Box 337 37387 Auberry Mission Road Auberry, CA, 93602	(559) 374-0066		Jmarvin@bsrnation.com	Western Mono	Fresno, Madera, Tulare	5/25/2023
	Big Sandy Rancheria of Western Mono Indians	F	Elizabeth Kipp, Chairperson	P.O. Box 337 37387 Auberry Mission Road Auberry, CA, 93602	(559) 374-0066	(559) 374-0055	Lkipp@bsrnation.com	Western Mono	Fresno, Madera, Tulare	5/25/2023
	Dumna Wo-Wah Tribal Government	N	Robert Ledger, Chairperson	2191 West Pico Ave. Fresno, CA, 93705	(559) 540-6346		ledgerrobert@gmail.com	Foothill Yokut Mono	Fresno, Madera, Merced	
	North Fork Rancheria of Mono Indians	F	Mary Stalter, Environmental/Heritage Manager	P.O. Box 929 North Fork, CA, 93643	(559) 877-2461		mstalter@nfr-nsn.gov	Mono	Fresno, Inyo, Madera, Mariposa, Merced, Mono, Tuolumne	6/26/2023
	North Fork Rancheria of Mono Indians	F	Fred Beihn, Chairperson	P.O. Box 929 North Fork, CA, 93643	(559) 877-2461	(559) 877-2467	fbeihn@nfr-nsn.gov	Mono	Fresno, Inyo, Madera, Mariposa, Merced, Mono, Tuolumne	6/26/2023
	Northern Valley Yokut/ Ohlone Tribe	N	John Murga, Tribal Historian	P.O. Box 717 Linden, CA, 95236	(209) 479-0546		johnmurga824@gmail.com	Costanoan Northern Valley Yokut	Alameda, Calaveras, Contra Costa, Fresno, Madera, Mariposa, Merced, Sacramento, San Benito, San Joaquin, Santa Clara, Solano, Stanislaus	11/21/2023
	Northern Valley Yokut/ Ohlone Tribe	N	Timothy Perez, Tribal Compliance	P.O. Box 717 Linden, CA, 95236	(209) 662-2788		huskanam@gmail.com	Costanoan Northern Valley Yokut	Alameda, Calaveras, Contra Costa, Fresno, Madera, Mariposa, Merced, Sacramento, San Benito, San Joaquin, Santa Clara, Solano, Stanislaus	11/21/2023
	Northern Valley Yokut/ Ohlone Tribe	N	Jessica Murga, Tribal Secretary	990 N. Fine Rd Linden, CA, 95236	(209) 401-6250			Costanoan Northern Valley Yokut	Alameda, Calaveras, Contra Costa, Fresno, Madera, Mariposa, Merced, Sacramento, San Benito, San Joaquin, Santa Clara, Solano, Stanislaus	11/21/2023

Northern Valley Yokut/Ohlone Tribe	N	Erolinda Perez, Tribal Administrator	P.O. Box 717 Linden, CA, 95236	(209) 649-3155		arr0604w@verizon.net	Costanoan Northern Valley Yokut	Alameda, Calaveras, Contra Costa, Fresno, Madera, Mariposa, Merced, Sacramento, San Benito, San Joaquin, Santa Clara, Solano, Stanislaus	11/21/2023
Picayune Rancheria of the Chukchansi Indians	F	Tracey Hopkins, Chairperson	P.O. Box 2226 Oakhurst, CA, 93644	(559) 412-5590		council@chukchansi-nsn.gov	Foothill Yokut	Fresno, Madera, Mariposa, Merced, Tuolumne	12/12/2023
Picayune Rancheria of the Chukchansi Indians	F	Heather Airey, Tribal Historic Preservation Officer	P.O. Box 2226 Oakhurst, CA, 93644	(559) 795-5986		hairey@chukchansi-nsn.gov	Foothill Yokut	Fresno, Madera, Mariposa, Merced, Tuolumne	6/20/2023
Southern Sierra Miwuk Nation	N	Sandra Chapman, Chairperson	P.O. Box 186 Mariposa, CA, 95338	(559) 580-7871		sandra47roy@gmail.com	Miwok Northern Valley Yokut Paiute	Madera, Mariposa, Merced, Stanislaus	
Table Mountain Rancheria	F	Brenda Lavell, Chairperson	P.O. Box 410 Friant, CA, 93626	(559) 822-2587	(559) 822-2693	rpennell@tmr.org	Yokut	Fresno, Madera, Merced	
Tule River Indian Tribe	F	Neil Peyron, Chairperson	P.O. Box 589 Porterville, CA, 93258	(559) 781-4271	(559) 781-4610	neil.peyron@tulerivertribe-nsn.gov	Yokut	Alameda, Amador, Calaveras, Contra Costa, Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Monterey, Sacramento, San Benito, San Joaquin, San Luis Obispo, Stanislaus, Tulare, Tuolumne	
Wuksachi Indian Tribe/Eshom Valley Band	N	Kenneth Woodrow, Chairperson	1179 Rock Haven Ct. Salinas, CA, 93906	(831) 443-9702		kwood8934@aol.com	Foothill Yokut Mono	Alameda, Calaveras, Contra Costa, Fresno, Inyo, Kings, Madera, Marin, Mariposa, Merced, Mono, Monterey, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Stanislaus, Tulare, Tuolumne	6/19/2023

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

Record: PROJ-2023-006142
Report Type: AB52 GIS
Counties: Madera
NAHC Group: All

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Madera High Speed Rail (HSR) Station Full-Build (Phase 3) Project, Madera County.

Attachment D
Survey Photographs



Photo 1. NE View of Survey Area with No Access Parcel



Photo 2. W Survey Area Overview



Photo 3. W Deteriorating Building in Background. West of Project Area



Photo 4. N Survey Area. No Access to the East



Photo 5. W Transmission Lines West of Project Area



Photo 6. NW Survey Overview



Photo 7. NW Survey Overview



Photo 8. NW Survey Overview, Vineyards and Road



©BIBS

Photo 9. NW NW Survey Overview, Vineyards and Road



Photo 10. S Survey Area-Overgrown Vinyards, Not Surveyed



Photo 11. S Survey Area-Overgrown Vinyards, Not Surveyed



Photo 12. NW Survey Overview



Photo 13. E NW East Towards Santa Fe Railroad Tracks



Photo 14. NW Vineyards and Access Road



Photo 15. W Survey Overview between Vinyard Rows



Photo 16. SE End of Accessible Survey Area. Facing SE.



Photo 17. NW End of accessible Survey Area. Facing NW towards Cottonwood Creek; Bridge Intersecting Cottonwood Creek



Photo 18. NW Southern most end of Survey Area. Western Boundary No Access.



Photo 19. W Southern Most End of Survey Area. Facing West towards Area with No Access



Photo 20. E East towards Santa Fe Railroad Tracks



Photo 21. N Santa Fe Railroad Tracks



Photo 22. SE Machienry in Use-Hazard, Portion of Vineyard Not Surveyed

**Appendix B-2
Cultural Resources**

**Historical Architectural
Survey Report**

Historic Architectural Survey Report

Madera High Speed Rail Full-Build Project

Prepared for:

San Joaquin Joint Powers Authority

949 Channel Street
Stockton, CA 95202

Prepared by:

ICF



980 9th St Suite 1200
Sacramento, CA 95814

April 2025

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Attachments

- Attachment A: Proposed Project Location and Vicinity Map
- Attachment B: Area of Potential Effects Map
- Attachment C: Programmatic Agreement
- Attachment D: Department of Parks and Recreation 523 Forms

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Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
APE	area of potential effects
AT&SF	Atchison, Topeka, and Santa Fe Railroad
Authority	California High-Speed Rail Authority
BNSF	Burlington Northern Santa Fe Railroad
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CEQA Guidelines	California Code of Regulations, Title 14, Section 15064
CFR	Code of Federal Regulations
CHL	California Historical Landmark
CRHR	California Register of Historical Resources
DPR	Department of Parks and Recreation
EIR	Draft Environmental Impact Report
FRA	Federal Railroad Administration
HASR	Historic Architectural Survey Report
kV	kilovolt
MOA	memorandum of agreement
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OCS	overhead contact system
OHP	California Office of Historic Preservation
PCR	Public Resources Code
PG&E	Pacific Gas and Electric
proposed Project	Madera High-Speed Rail Station Full-Build proposed Project (Phase 3)
QI	Qualified Investigators
ROW	right of way
Section 106 PA	<i>Programmatic Agreement among the Federal Railroad Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California High-Speed Rail Authority Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the California High-Speed Train proposed Project</i>
SHPO	State Historic Preservation Officer
SJIPA	San Joaquin Joint Powers Authority
SOI	Secretary of the Interior
SPRR	Southern Pacific Railroad
SSJVIC	Southern San Joaquin Valley Information Center
U.S.C.	United States Code

1. INTRODUCTION

This Historic Architectural Survey Report (HASR) has been prepared for the Madera High-Speed Rail Station Full-Build proposed Project (Phase 3) (proposed Project). The San Joaquin Joint Powers Authority (SJJPA) will serve as the lead agency under California Environmental Quality Act (CEQA). The California High-Speed Rail Authority (Authority) is expected to be the lead agency for environmental clearance to comply with the requirements of the National Environmental Policy Act (NEPA). This HASR will also satisfy the proposed Project's compliance with Section 106 of the National Historic Preservation Act (NHPA).

The purpose of this HASR is to document the identification and evaluation of built resources within the historic built resources area of potential effects (APE) for the proposed Project. The term *historic built resources* is used to indicate buildings, engineering structures, or landscapes that were created during the historic era (i.e., built-in 1974 or earlier), as well as districts or groupings of such resources. The location and vicinity maps are provided in Attachment A, and a description of the proposed Project is presented in Chapter 3, *Description of the Undertaking*. A thorough description of how the APE was delineated is presented in Chapter 4, *Area of Potential Effects*, and the APE maps are provided in Attachment B, *Area of Potential Effects Maps*. This HASR provides the summary of survey and evaluation findings as of November 2024. This study was prepared for SJJPA in compliance with Section 106 of the NHPA, and its implementing regulations issued by the Advisory Council on Historic Preservation (ACHP) that pertain to federally funded undertakings and their impacts on historic properties.

Although the Authority will be the lead federal agency for NEPA and Section 106 consultation, the Federal Railroad Administration (FRA) retains responsibility for formal government-to-government consultation with federally recognized Native American tribes.

This HASR follows the procedures set forth in *the Programmatic Agreement among the Federal Railroad Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California High-Speed Rail Authority Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the California High-Speed Train proposed Project* (Section 106 PA) (Authority and FRA 2011). The Section 106 PA provides overall guidance regarding compliance with Section 106 of the NHPA and direction for the development of the APE, the identification, documentation, and evaluation of historic properties, and the assessment of adverse effects. The Section 106 PA directs that "historic properties shall be identified to the extent possible within the APE," and requires that identified historic properties be evaluated in a manner consistent with the Secretary of the Interior's (SOI) Standards and Guidelines for Evaluation and that the evaluations be completed by Qualified Investigators (QI) per the standards of the SOI. All work for the proposed Project has been conducted in accordance with the guidelines outlined in the Section 106 PA. The Section 106 PA is provided in Attachment C, *Programmatic Agreement*. The format and content of this HASR document also follow subsequent technical guidance documents provided by the Authority. No historic properties were identified in the APE.

This HASR identifies and documents the eligibility status of each of the historic built resources within the Project APE. The surveyed resources fall into one of the following statuses: listed in or eligible for listing in the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR), or ineligible for listing in the NRHP and CRHR. Detailed documentation of these findings is included in Attachment D, *Department of Parks and Recreation (DPR) 523 Forms*, for properties evaluated as a result of this proposed Project, as well as DPR 526 Forms from the record search.

Detailed documentation is not provided for the following parcels types: parcels that did not include buildings or structures (or where such buildings or structures are located on large parcels, far from the Project footprint); or parcels that were exempt from evaluation because they are less than 50 years of age or meet one or more of

the criteria for exempt properties listed in the Section 106 PA, Attachment D. Table 1-1 summarizes the scope of these efforts.

Table 1-1: Summary of Evaluation Efforts

Type of Evaluation	Number of Properties
NRHP and CRHR listed or eligible	0
NRHP and CRHR ineligible; newly evaluated or re-evaluated for present undertaking	2
Exempt properties: Properties exempt from evaluation because they are less than 50 years of age or they meet one or more of the criteria for exempt properties as stated in the Section 106 PA	34
Total number of properties in the APE survey population (including district contributors)	36

Sources: Survey results quantifications generated from historic resources surveys and evaluation conducted during 2008-2012, and 2016-2018.

¹ "CEQA-only" resources do not meet the significance criteria for listing in the NRHP, but may meet CRHR criteria, or be listed in a local register and therefore may qualify as historical resources for the purposes of CEQA, see Section 1.2, *Section 106 and CEQA Cultural Resources*.

APE = area of potential effects

CEQA = California Environmental Quality Act

CRHR = California Register of Historical Resources

HASR = Historic Architectural Survey Report

NRHP = National Register of Historic Places

Section 106 PA = *Programmatic Agreement among the Federal Railroad Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California High-Speed Rail Authority Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the California High-Speed Train proposed Project*

Although analysis within this document is based on data associated with the Project footprint as of November 4, 2024, as planning proceeds and engineering revisions become available, the APE would continue to be revised, if needed, to reflect design refinements to the Project alternatives. Consequently, additional resources may need to be surveyed and evaluated.

1.1. Section 106 and CEQA Cultural Resources

Two properties containing buildings or structures built in 1974 or earlier were identified in the APE. None of these historic built resources could be exempted from NRHP and CRHR evaluation in accordance with Section 106 PA, Attachment D. Therefore, this HASR formally addresses these resources. A brief summary of findings for these resources is presented in this section. Chapter 8, *Properties Identified - Findings*, provides more detail on the findings for these resources.

None of the built resources in the APE that were constructed in or after 1974 (i.e., were less than 50 years old at the time of the survey) have the potential for exceptional significance and thus would not satisfy the NRHP consideration for properties that may have achieved significance within the last 50 years (NRHP Criteria Consideration G). Accordingly, these resources did not require further study.

2. REGULATORY SETTING

This HASR was prepared for the SJJPA and the Authority in their ongoing compliance with CEQA, NEPA, Section 106 of the NHPA, and its implementing regulations issued by the ACHP that pertain to federally funded undertakings and their impacts on historic properties. This report is part of the technical studies prepared in support of the Draft Environmental Impact Report (EIR) and subsequent NEPA compliance, which also address the proposed Project and its potential to affect historic properties.

The primary applicable federal and state laws and regulations protecting cultural resources are Section 106, NEPA, Section 4(f) of the Department of Transportation Act of 1966, CEQA, and California Public Resources Code (PCR) Sections 5024.1 and 21084.1. The identification of built resources in this HASR satisfies the requirements in each of those laws for identifying resources that could be affected by the proposed Project. This chapter summarizes key cultural resources regulations that are most relevant to the proposed Project.

As stated in Chapter 1, *Introduction*, the Section 106 PA provides overall guidance regarding compliance with Section 106 of the NHPA. All work for the proposed Project has been conducted in accordance with the guidelines outlined in the Section 106 PA. Properties addressed in this HASR were evaluated for both NRHP and CRHR eligibility, and in regard to their potential status as a historical resource under CEQA.

2.1. National Historic Preservation Act (54 U.S.C. § 300101 et seq.)

The NHPA (54 United States Code [U.S.C.] § 300101 et seq.) establishes the federal government policy on historic preservation and the programs, including the NRHP, through which this policy is implemented. Under the NHPA, significant cultural resources, referred to as *historic properties*, include any prehistoric or historic district, site, building, structure, or object included in, or determined eligible for inclusion in, the NRHP. Historic properties also include resources determined to be National Historic Landmarks, which are nationally significant historic places designated by the SOI because they possess exceptional value or quality in illustrating or interpreting U.S. heritage. A property is considered historically significant if it meets one or more of the NRHP criteria and retains sufficient historic integrity to convey its significance. The NHPA also established the ACHP, an independent agency responsible for implementing Section 106 of the NHPA by developing procedures to protect cultural resources included in, or eligible for inclusion in, the NRHP. Regulations are published in 36 Code of Federal Regulations (CFR) Parts 60, 63, and 800.

2.1.1. IMPLEMENTING REGULATIONS FOR SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT (36 CFR § 800)

Section 106 (36 CFR § 800) requires that effects on historic properties be taken into consideration in any federal undertaking. The process has five steps: (1) initiating the Section 106 process; (2) identifying historic properties; (3) assessing adverse effects; (4) resolving adverse effects; and (5) implementing stipulations in an agreement document.

Section 106 affords the ACHP and the State Historic Preservation Officer (SHPO), as well as other consulting parties, a reasonable opportunity to comment on any undertaking that would adversely affect historic properties. SHPOs administer the national historic preservation program at the state level, review NRHP nominations, maintain data on historic properties that have been identified, but not yet nominated, and consult with federal agencies during Section 106 review.

The NRHP uses eligibility criteria (36 CFR § 60.4) to evaluate the historic significance of resources within the undertaking's APE. The criteria for evaluation are as follows.

- **Criterion A:** Association with "events that have made a significant contribution to the broad patterns of our history."
- **Criterion B:** Association with "the lives of persons significant in our past."

- **Criterion C:** Resources "that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction."
- **Criterion D:** Resources "that have yielded, or may be likely to yield, information important to history or prehistory."

In addition to meeting one or more of the criteria, an eligible property must retain *integrity*, which is determined through the application of seven aspects: location, design, setting, workmanship, materials, feeling, and association. *Location* and *setting* relate to the relationship between the property and its surrounding environment. *Design, materials, and workmanship* relate to construction methods and architectural details. *Feeling* and *association* pertain to the overall ability of the property to convey a sense of the historical time and place in which it was constructed.

For HSR Projects, including the proposed Project, the Section 106 process is defined in the Section 106 PA, which provides an overall framework for conducting the Section 106 process throughout the HSR system, including guidance for establishing the APE and interested party consultation. The Section 106 PA also provides guidance for streamlining the inventory and evaluation of properties and outlines the approach for the treatment of historic properties, including guidance on developing a memorandum of agreement (MOA) to address the resolution of adverse effects for each section of the proposed Project.

2.2. National Environmental Policy Act

NEPA, as amended, establishes the federal policy of protecting important historic, cultural, and natural aspects of our national heritage during federal project planning. All federal or federally assisted projects requiring action pursuant to Section 102 of NEPA must take into account the effects on cultural resources. According to the NEPA regulations, in considering whether an action may "significantly affect the quality of the human environment," an agency must consider, among other things, unique characteristics of the geographic area, such as proximity to historic or cultural resources (40 CFR § 1508.27(b)(3)) and the degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP.

The NEPA regulations also require that, to the fullest extent possible, agencies prepare draft Environmental Impact Statements concurrently with and integrated into environmental impact analyses and related surveys and studies required by the NHPA. When Section 106 of the NHPA and NEPA are integrated, project impacts that cause adverse effects under Section 106 are usually considered to be significant under NEPA.

2.3. Section 4(f) of the Department of Transportation Act (49 U.S.C. § 303)

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 U.S.C. Section 303, prohibits use of a publicly owned park, recreation area, or wildlife or waterfowl refuge or publicly or privately owned historic site of national, state, or local significance for a transportation project unless the Secretary of Transportation has determined that there is no feasible and prudent alternative to such use, and the proposed Project includes all possible planning to minimize harm to the property resulting in such use.

Use in Section 4(f) is when the transportation project requires a physical taking or other direct control of the land for the purposes of a project. Section 4(f) use also includes adverse indirect impacts or *constructive use* when impacts substantially impair or diminish the activities, features, or attributes of the resources that contribute to its significance. A determination of a *de minimis* impact on a Section 4(f) historic property is when there is a Section 106 finding of no adverse effect on a historic property.

2.4. California Environmental Quality Act (PCR § 21083.2) and CEQA Guidelines (CCR, Title 14 § 15064.5)

Guidelines for the implementation of CEQA define procedures, types of activities, persons, and public agencies required to comply with CEQA. California Code of Regulations (CCR) Title 14, Section 15064.5b (CEQA Guidelines) prescribes that project effects that would "cause a substantial adverse change in the significance of a historical resource" are significant effects on the environment. *Substantial adverse changes* include physical

changes to both the historical resource and its immediate surroundings. CEQA Guidelines Section 15064.5 provides specific guidance for determining the significance of impacts on historical resources (CEQA Guidelines § 15064.5(b)) and unique archaeological resources (CEQA Guidelines § 15064.5(c) and PCR § 21083.2). Under CEQA, these two categories of resources are called *historical resources*, whether they are of historic or prehistoric age.

CEQA (PCR § 21084.1) defines *historical resources* as those listed, or eligible for listing, in the CRHR, or those listed in the historical register of a local jurisdiction (county or city) unless the preponderance of the evidence demonstrate that the resource is not historically or culturally significant. NRHP-listed historic properties located in California are considered historical resources for the purposes of CEQA and are also listed in the CRHR. The CRHR criteria for listing such resources are based on, and are very similar to, the NRHP criteria.

2.5. California Register of Historical Resources (PCR § 5024.1 and CCR, tit. 14 § 4850)

PCR Section 5024.1 establishes the CRHR, which lists all California properties considered to be significant historical resources. The CRHR also includes all properties listed or determined eligible for listing in the NRHP, including properties evaluated under Section 106.

CRHR regulations govern the nomination of resources to the CRHR (Cal. Code Regs, Title 14 § 4850). The regulations set forth the criteria for eligibility, as well as guidelines for assessing historical integrity and resources that have special considerations. The CRHR criteria closely parallel those of the NRHP. To be eligible, a resource must be determined to be significant at the national, state, or local level under one or more of the following four criteria.

- **Criterion 1:** Resources associated with important events that have made a significant contribution to the broad patterns of our history.
- **Criterion 2:** Resources associated with the lives of persons important to our past.
- **Criterion 3:** Resources that embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master.
- **Criterion 4:** Resources that have yielded, or may be likely to yield, information important in prehistory or history.

The CRHR definition of *integrity* and its special considerations for certain properties are slightly different than those for the NRHP. The CRHR defines *integrity* as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance." The CRHR further states that eligible resources must "retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance" and lists the same seven aspects of integrity used for evaluating properties under the NRHP criteria.

2.6. State-Owned Historical Resources (PCR §§ 5024 and 5024.5)

Under PCR Section 5024(f), a state agency must provide notification and submit to the SHPO documentation for any project having the potential to affect state-owned historical resources listed in or potentially eligible for inclusion in the NRHP or registered as or eligible for registration as a California Historical Landmark (CHL). PCR Section 5024(f) also applies to archaeological sites, landscapes, and other nonstructural resources that are listed in or have been determined eligible for inclusion in the NRHP or are registered or determined eligible for registration as a CHL. PCR Section 5024(f) further requires that state agencies request SHPO's comments and provide documentation of effects (i.e., No Historic Properties Affected, No Adverse Effect, or Adverse Effect) on NRHP listed/eligible or CHL registered/eligible archaeological sites, historic architectural or engineering resources, landscapes, and other nonstructural historical resources.

Like Section 106, but unlike CEQA, PCR Section 5024.5 uses the term *adverse effect* instead of *substantial adverse change* to describe effects on state-owned historic buildings and structures. PCR Section 5024.5 requires state agencies to adopt prudent and feasible measures that will eliminate or mitigate the adverse

effects on state-owned historic buildings and structures. Under PCR Section 5024.5, state agencies must seek SHPO's concurrence early in the planning process by providing SHPO with a notice and summary documentation of projects involving state-owned historic buildings and structures. As outlined in PCR Section 5024.5, SHPO makes the final determination as to whether an effect is adverse, not the state agency.

3. DESCRIPTION OF THE UNDERTAKING

3.1. Project Description

The SJJPA is proposing a project in Madera County that includes a new Phase 3 for the Madera HSR Station and additional design changes to specific components of the previously approved SJJPA Phase 1 and Phase 2 proposed Projects. The Project would be designed to serve as the key connection for Madera County and portions of Fresno County to the intercity rail network, supporting expanded HSR operations and service levels (beyond the early operating segment) associated with HSR Service (north to the Bay Area, south to Southern California, or both) and subsequently Phase 1 HSR service (San Francisco to Los Angeles) at the proposed Madera HSR Station. The Project would include improvements in addition to those previously cleared for Phases 1 and 2 in the 2021 IS/MND.

The components of the proposed Project include platforms, trackwork, bridges, overhead contact system, substations, grade separations, station and parking expansions, and culverts.

Design, construction, and operation of the Project's rail components would comply with applicable standards from the Federal Railroad Administration, California Public Utilities Commission, and the California High-Speed Rail Authority (CHSRA). Design, construction, and operation of Project site access improvements, including the modifications to the access road, would adhere to applicable standards such as the California Manual on Uniform Traffic Control Devices and local design guidelines and specifications. Design approval for specific components would be sought from the appropriate agencies as part of the detailed design and subsequent stages of the Project. Specific components of the Project are described in more detail in the following subsections.

3.1.1. PLATFORM

The Project would include a 1,410-foot platform along the west side of the station to accommodate the full length of the HSR trainsets. The Project also includes the extension of the eastside platform by 410 feet to 1,410 feet, matching the new westside platform. The platform height would be designed to accommodate the trainsets selected for the HSR system. Canopies would be provided on the new westside platform and on the extended portions of the eastside platform to protect passengers from the environmental elements.

Access between the platforms and the station would be provided by a new Americans with Disabilities Act-compliant accessible pedestrian crossing (i.e., footbridge) over the HSR mainline and station tracks.

3.1.2. TRACKWORK

In conjunction with the new westside platform, the Project would construct a new station siding track on the westside of the station. Together with the station siding track on the eastside of the station completed under Phase 2, the Project would provide the Madera HSR Station with a total of four tracks. These would be arranged in a typical "local" station layout: two through tracks in the center (for faster trains not stopping at the station) and one siding track on either side (for slower trains stopping at the station).

The entire length of the new siding track, from the turnout locations at the north and south, would be approximately 14,600 feet. The turnouts would be designed for speeds up to 110 miles per hour.

3.1.3. BRIDGES

The proposed Project would include three bridge structures: one track bridge at Cottonwood Creek; one pedestrian bridge at the Madera station; and expanding the roadway bridge at Avenue 12.

3.1.4. OVERHEAD CONTACT SYSTEM AND TRACTION POWER SUBSTATION

In conjunction with the proposed station siding track that would serve the proposed western platform, an overhead contact system (OCS) would be constructed along its entire length to provide electrical power to electrified trainsets. The OCS would consist of poles at intervals matching the OCS poles being constructed as part of the CHSRA Project. These OCS poles are expected to be approximately 30 feet tall and would have foundations extending approximately 6 to 10 feet below the ground surface. To provide power to the OCS, a small traction power substation may be needed, though there is a possibility that electrical power could be drawn from the OCS planned to be constructed in association with the CHSRA project's adjacent mainline tracks. If a traction power substation is required, it would be located near the northern end of the western platform.

3.1.5. PARKING

In order to accommodate more passengers, the proposed Project would extend the surface parking lots north of the already approved locations. The expanded parking lot would result in a net increase of approximately 542 parking spaces above the 401 parking spaces that were approved for Phases 1 and 2, for a new total of 943 parking spaces.

3.1.6. STATION BUILDING EXPANSION

The Project includes construction of an expanded or new separate station building, which would expand upon the station support services provided with the Phase 2 building identified in the prior IS/MND. The new station structure would also include a large canopy structure or structures that would extend out from the enclosed building portion to provide shaded outdoor plaza/seating areas. This station building (including the canopy) would be located adjacent to the eastern edge HSR platform (southern portion) and slightly west of the bus plaza. The total indoor building area would be expanded by approximately 5,000 square feet to provide space for enhanced passenger amenities and station support functions to accommodate the increased ridership from additional service, such as ticketing areas and waiting areas. The outdoor canopy could be designed to cover up to 20,000 square feet of outdoor plaza/seating space. A further 20,000 square feet of space would be reserved for expansion of the building/canopy structure in the future (when and if that becomes needed) but is not part of the Project. The Phase 3 building expansion would include a roof height of about 25 feet compared to the Phase 2 building roof height of about 15 feet.

3.1.7. CULVERTS

Ten drainage culverts are proposed as part of the proposed Project, all of which would be extensions of culverts originally constructed as part of Phase 2 of Madera Station.

3.1.8. WILDLIFE CROSSINGS

Two wildlife crossings are proposed as part of the proposed Project, all of which would be extensions of wildlife-crossing facilities originally constructed as part of Phase 2 of Madera Station.

3.1.9. RELOCATION OF PACIFIC GAS AND ELECTRIC COMPANY TRANSMISSION LINE

Pacific Gas and Electric Company (PG&E) is currently implementing the Borden-Gregg Transmission Line Re-Alignment Project (BGTLRP) in the vicinity of the Project. The BGTLRP would construct a portion of the re-aligned 230-kilovolt transmission line (including two transmission poles) in the Project footprint. The BGTLRP is currently in final design and is expected to be completed prior to the construction of the Project.

The BGTLRP conflicts with the location of the southern end of the western side station siding track and with a culvert extension, both of which would be constructed as part of the Project. Poles 003 and 004 from the BGTLRP would need to be relocated as part of the Project slightly to the west.

4. AREA OF POTENTIAL EFFECTS

The process for delineating the APE follows standard practice in compliance with CEQA, NEPA, the Section 106 guidelines, and Attachment B of the Section 106 PA.

4.1. Establishing the Built Resources Area of Potential Effects

The historic built resources APE for the proposed Project includes all legal parcels within or intersected by the proposed right of way (ROW) for the proposed Project and considered in the Draft EIR, including proposed ancillary features. The historic built resources APE has been delineated to take into consideration indirect effects, such as visual, audible, or atmospheric intrusions to a property, the potential for vibration-induced damage, or isolation of a property from its setting. Visual and audible changes have the potential to adversely affect character-defining features of some historic built resources in cases where visual context or auditory setting are important characteristics that convey the resource's historical significance.

The APE includes parcels containing buildings, structures, linear features, or objects 50 years of age or older in 2024 when research, fieldwork, and preliminary analysis occurred, including the following.

- Properties within the proposed ROW or potentially affected by new features, such as grade separations, maintenance facilities, station locations, traction-power facilities, communications towers, and construction staging areas.
- Properties where historic materials or associated landscape features would be demolished, moved, or altered by construction.
- Properties near the Project footprint where railroad materials, features, and activities have not been part of the historic setting and where the introduction of visual or audible elements may affect the use or characteristics of those properties that would be the basis for their eligibility for listing in the NRHP.
- Properties near the Project footprint that were either used by a railroad, served by a railroad, or where railroad materials, features, and activities have long been part of their historic setting, but only in such cases where the proposed Project would result in a substantial change from the historic use, access, or noise and vibration levels that were present 50 years ago, or during the period of significance of a property, if different.
- Parcels that would be included when delineating an APE, even if they are empty or would otherwise be exempt according to the Section 106 PA Attachment D. This provides a record of which properties were exempted; no other documentation of such properties is required.

The Madera HSR Station is located east of the urban development of Madera, in an area developed with industrial and agricultural parcels. Some portions of the Project footprint are within or immediately adjacent to existing rail ROW. The types of resources encountered in the proposed Project vicinity and the proposed Project activities guided the delineation of the APE.

To assess the potential for the proposed Project to affect historic properties, Qis developed a thorough understanding of the proposed Project description (see Chapter 3, *Description of the Undertaking*), reviewed the preliminary engineering/preliminary design engineering plans and footprint data in 2024 and discussed the proposed Project details with the Project engineering team.

The nature of the proposed Project was taken into account as follows in delineating the APE.

- The APE was drawn to include temporary construction easements because the detailed scope of activities within these areas has not yet been determined.

The map showing the APE is provided in Attachment B. The map illustrates the findings for all parcels in the APE.

5. IDENTIFICATION EFFORTS AND METHODS

This chapter describes the efforts to gather information about previously identified resources located in the APE and methods employed for research and field surveys. In addition, this chapter addresses approaches for determining the eligibility of specific resource types, considering Traditional Cultural Properties, and applying streamlined documentation guidance. Qis for built resources conducted research for this HASR in 2024.

For the purposes of explaining eligibility status findings for historic built resources in the APE, the term *historic properties* is used to refer to resources that are listed or determined eligible for listing in the NRHP/CRHR. The term *historical resources* refers to those properties locally listed and/or considered historical resources under CEQA. Those properties that were constructed in or before 1974 and do not meet the criteria for listing in either the NRHP or CRHR will be referred to as *ineligible resources*. Historic properties and historical resources can include buildings, structures, objects, or districts. Resources can exist individually or as part of a larger district, linear resource system, or historic cultural landscape.

5.1. Previously Identified Resources

5.1.1. RECORDS SEARCH SUMMARY

On July 29, 2024, a cultural resource records search was conducted by staff at the Southern San Joaquin Valley Information Center (SSJVIC) to identify any previous cultural resource studies or recorded cultural resources intersecting the APE, or within 0.25 mile of the APE (also referred to as the *record search radius*). The SSJVIC, an affiliate of the California Office of Historic Preservation (OHP), is the official state repository of cultural resource records and reports for Madera County.

The records search compiled the following bibliographic references, previous survey reports, historic maps, and cultural resources site records pertinent to the proposed Project to identify prior cultural resource studies and known cultural resources within 0.25 mile of the APE.

- NRHP and CRHR
- OHP Historic Property Directory (2010)
- California Inventory of Historic Resources (1976)
- California State Historic Landmarks (1996)
- California Points of Historical Interest (1992)
- Historic properties reference map

5.1.2. RECORD SEARCH RESULTS

The SJVIC identified six previous cultural resource studies completed within a 0.25-mile radius of the APE (Table 5-1); of these, three intersect the APE. The SSJVIC identified two previously recorded cultural resources within a 0.25-mile radius of the APE (Table 5-2); both are built-environment resources. P-20-002662 consists of the Atchison, Topeka, and Santa Fe (AT&SF) Railroad and Burlington Northern Santa Fe (BNSF) Railway. P-20-002904 is the Wilson-Gregg Transmission Line and intersects the APE. A full list of previous cultural resource studies and cultural resources is presented below.

Record searches identified two previously recorded historic built resources located in the APE, both of which are linear resources.

Table 5-1: Previous Cultural Resource Studies within or Adjacent to the Proposed Project

Study Number	Author	Year	Title	Intersects APE?
MA-00035	Jensen, Sean M.	1996	<i>Archaeological Inventory Survey for the Tracy to Fresno Long Haul Fiber Optics Data Transmission Line, Portions of Fresno, Madera, Merced, Stanislaus, and San Joaquin Counties, California</i>	Yes
MA-00216	Crist, Michael K.	1982	<i>Cultural Resource Reconnaissance for the Trigo Industrial Park EIR, Madera County</i>	Yes
MA-00455	Wren, Donald G.	1995	<i>An Archaeological Survey of the Weldon Property, 11 Ave. and Road 30, Madera County CUP#94-25</i>	No
MA-00739	Nelson, Wendy J.	2000	<i>Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics proposed Project: Segment WS04: Sacramento to Bakersfield</i>	No
MA-01256	Asselin, Katie	2015	<i>Additional Cultural Resources Services for the Lotus Solar Project, Madera County, California</i>	Yes
MA-01334	Unknown	2020	<i>Merced to Fresno proposed Project Section Final Archaeological Survey Report Addendum: HOG Flats/Curran Preservation Property</i>	No

Record searches identified two previously recorded historic built resources within the 0.25-mile search area. One is located in the APE. A summary of the built-environment resources identified from the records search is included in Table 5-2.

The Wilson-Gregg Transmission Line was previously evaluated and updated for this proposed Project. The BNSF Railroad is located immediately adjacent to, but outside of, the APE. The BNSF Railroad was exempted from NRHP evaluation in the *Historic Architectural Survey Report, Merced to Fresno Section Historic Architectural Survey Report* (Authority and FRA 2012), but was determined ineligible for listing in the NRHP and CRHR by the Federal Highway Administration (no SHPO concurrence was identified in the OHP's Built-Environment Directory [OHP n.d.]).

Table 5-2: Record Search Properties Located in the Area of Potential Effects - Previously Evaluated or Determined Ineligible

P Number	Common Name (if applicable)	APN	Address	City	County	Year Built	Previous OHP Code	Current OHP Code
P-20-002904	Wilson-Gregg Transmission Line	-	-	-	Madera	1930-1946	None	6Z

Source: Information generated from historic resources surveys and evaluations conducted during 2008-2012 and 2016-2018.

APN = Assessor's Parcel Number

OHP = California Office of Historic Preservation

6Z = Found ineligible for NR, CR, or Local designation through survey evaluation

5.1.3. BACKGROUND LITERATURE REVIEW

ICF reviewed historical maps and historical aerial photographs to determine the presence of historic-period buildings and/or structures within the APE and the general vicinity to assist in assessing the potential for potential historic properties.

By 1922, in the general vicinity of the APE, the AT&SF Railroad is present directly northeast-east of the proposed Project, and the Southern Pacific Railroad (SPRR) is present approximately 2 miles west-southwest of the APE.

The towns of Triago and Madera are present, and various homesteads are located on what is now Road 301/2, Avenue 11, Avenue 12, and Avenue 13. By 1946, transmission lines are present west of the APE, intersecting at Avenue 12 (USGS 1946). In 1965, Avenues 11, 12, and 13 are paved roads, various orchards and vineyards are present east and west of the proposed Project, and the Borden Substation is present 0.5 mile south of Avenue 12 (USGS 1965). The transmission lines, the AT&SF Railroad, and homesteads are visible in historical aerials from 1946, 1957, and 1962 (NETR 2024).

IGF also reviewed the previously prepared *Cultural Resources Technical Memorandum for the Madera Station Relocation* (AECOM 2020). This included background research and information about previously documented resources in the proposed Project area.

5.1.4. CEQA HISTORICAL RESOURCES

The Qis included the Madera City and County planning departments as potential interested parties to determine if there were any designated historical resources in the APE within their jurisdictions. Locally identified resources are *presumed* to be historical resources for the purposes of CEQA if they meet the criteria set forth in CCR Title 14, Chapter 3, Section 15064.5(a)(2) of the State CEQA Guidelines, as follows.

A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements in section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

5.1.4.1. Inclusion in a Qualified Local Register

PCR Section 5020.1(k) defines a qualified local register of historical resources that has been adopted by a local government: "*Local register of historical resources* means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution."

When read in conjunction with Section 15064.5(a)(2), this language indicates that a list of resources that has been adopted by an official body of a local jurisdiction, such as the city council or board of supervisors, qualifies as a local register of historical resources for the purposes of CEQA. Because Section 15064.5(a)(2) only requires that such a register meet either PCR Section 5020.1(k) or 5024.1(g), it is not necessary to determine whether the local ordinance or resolution criteria for historical significance is consistent with survey and reporting criteria established in PCR Section 5024.1(g). Local registers of historical resources are reviewed in Section 6.1.4.3, *Local Registers of Historical Resources*.

5.1.4.2. Previously Evaluated in a Qualified Survey

PCR Section 5024.1 established the CRHR and defines the criteria required for presuming or determining eligibility for listing in the CRHR. CRHR evaluations may be contained in survey reports that have been prepared under CEQA and are thus not subject to a SHPO review. Section 5024.1(g) specifies how resources that have been evaluated as significant as part of a cultural resources survey may be presumed eligible for listing in the CRHR and thus considered a historical resource for the purposes of CEQA, as follows.

A resource identified as significant in a historical resource survey may be listed in the California Register if the survey meets all of the following criteria.

1. The survey has been or will be included in the State Historic Resources Inventory.
2. The survey and the survey documentation were prepared in accordance with office procedures and requirements.
3. The resource is evaluated and determined by the office to have a significance rating of Category 1 to 5 on DPR Form 523.
4. If the survey is five or more years old at the time of its nomination for inclusion in the California Register, the survey is updated to identify historical resources which have become eligible or ineligible due to

changed circumstances or further documentation and those which have been demolished or altered in a manner that substantially diminishes the significance of the resource.

5.1.4.3. Local Registers of Historical Resources

The APE is entirely within Madera County. Qis examined the local registers of historic resources maintained by the county for evidence that they had been officially designated by a local government pursuant to a local ordinance or adopted per a local resolution (City of Madera 1995).

5.2. Research Methods

Qis conducted research in conjunction with the field survey to develop relevant historical contexts and refined those research efforts in response to field survey results. Qis also continued property-specific research to confirm specific construction dates for individual properties and to narrow estimated dates of construction.

The historical overview presented in this report and the property-specific research conducted for the significance evaluations were based on a wide range of primary and secondary material gathered by Qis. Research on the historic themes and survey population was conducted in both archival and published records, including, but not limited to, the following statewide sources.

- Online Archive of California (www.oac.cdlib.org)
- Historic Aerials (historicaerials.com)
- ParcelQuest (pqweb.parcelquest.com)

5.3. Field Identification Methods

Qis for archaeology, as directed by a senior QI for architectural history, completed field photography for built-environment resources on July 19, 2024. All survey work was conducted from the public ROW). Consistently with the Section 106 PA, Qis conducted an intensive-level survey of known historic properties and as-yet-unevaluated historic built resources within the APE.

5.3.1. ESTABLISHING THE SURVEY POPULATION

This survey took into account known resources identified through the record search and parcels included in the APE for the proposed Project. The survey population is based on the APE established in August 2024. The parcels in the APE vary from long, narrow railroad ROWs to large agricultural parcels that consist of several acres. No year-of-construction information was available for parcels in the APE. As part of the survey methods, the Qis reviewed historic aerial photographs to categorize all legal parcels in the APE to determine which properties contained buildings or structures built in or before 1974. Parcels containing buildings or structures identified as being constructed in or before 1974 were included in the population of properties evaluated through intensive-level surveys.

Surveyed properties were recorded using DPR 523 Forms. Methods for property recordation and evaluation are further addressed in Section 6.4, *Department of Parks and Recreation Evaluation Forms*.

Parcels that did not require recordation were divided into the following two survey status groupings.

- **Vacant, Agricultural, and No Effect:** This category is characterized by parcels that are vacant, support row and field crops that are not associated with a historic rural landscape, or contain buildings or structures at least 1,000 feet from the edge of the Project footprint. The QI determined that the proposed Project would have no potential to affect historic resources in this category.
- **Modern or Exempt Property Types:** This category includes properties that were categorized as modern because buildings on the parcel are not yet 50 years of age (i.e., built in 1974 or earlier), or they meet one or more of the criteria for exempt properties as stated in the Section 106 PA.

5.3.1.1. Built-Resources Field Survey

In accordance with Section 106 Regulation 800.4(b) and the PA, the SJJPA and the Authority took steps necessary to identify historic properties within the APE by conducting a field survey by historians and

architectural historians who meet the SOI's Professional Qualifications Standards (36 CFR Part 61) in those disciplines. The field survey of the APE occurred in July 2024.

To facilitate the field survey, the APE was mapped using Esri software. Potential historic built resources were documented using a geographic information system-based application to record georeferenced field notes and digital photographs.

5.4. Department of Parks and Recreation Evaluation Forms

Either as newly evaluated properties or in update form, Qis completed DPRs for the following.

1. Properties identified as historic-age and, therefore, potentially NRHP-eligible as part of the present undertaking
2. Properties stated by a consulting party or interested party of interest for potential historic significance

The completion of each DPR followed guidance set forth in the OHP's *Instructions for Recording Historical Resources* (1995). Each DPR includes a thorough property description as viewed from the public ROW or by formal permission to enter. Additionally, the setting and all seven aspects of integrity are addressed in each DPR. The significance statement of each DPR steps through the combined NRHP and CRHR Criteria A/1, B/2, C/3, and D/4. Each significance statement references, as full text, sections as applicable of the developed historic context statement, combined with targeted, property-specific information as necessary to determine NRHP/CRHR eligibility or lack thereof. Each DPR evaluation is assigned a California Historical Resource Status Code.

6. HISTORIC CONTEXT

The following section addresses the historic context for the potential historic properties within the Project APE. The contexts explore the major historic events, development trends, and built resources typologies that occur within the APE, which sits in the San Joaquin Valley between Trigo to the south and Storey to the north, parallel to Sante Fe Drive in Madera County. Material for this section was primarily drawn from the *Merced to Fresno Section: Central Valley Wye Historic Architectural Survey Report* (Authority and FRA 2016).

6.1. The Establishment of Madera County

Early Spanish explorers never visited the area that became Madera County (formerly a portion of Fresno County); however, the first post-contact accounts of visits to the region by nonindigenous peoples were from trappers and explorers. Lumbermen were specifically drawn to the region for its timber; the first mill was built in the central portion of the county in 1852. After 1870, the Central Pacific Railroad's establishment and growth throughout the region spurred the development of the area that became the city of Madera. Madera was established at the terminus of a 63-mile-long water flume built by the California Lumber Company in 1874 (AECOM 2020:28-29). In 1876, the California Lumber Company began planning Madera County when the first land plots were put up for auction. The SPRR's infrastructure and reach transformed the landscape of the San Joaquin Valley, helping to give rise to towns like Modesto, Merced, Minturn, Borden, and Berenda. In the foothills, mining communities like Buchanan and Grub Gulch thrived (City of Madera 2024).

By 1890, Madera was the second largest city in Fresno County, developing quickly as the railroad distribution point for a number of surrounding towns and a hub of lumber production. In 1893, the California State Legislature established Madera County from a portion of Fresno County north and west of the San Joaquin River. The County was named after its primary town of Madera, the Spanish word for lumber, named for its close association with the California Lumber Company (AECOM 2020:28-29; City of Madera 2024).

6.2. Agricultural Development

Railroad development influenced the locations of some of the first towns in western Madera County as new lines traversed through large agricultural settlements in the mid-nineteenth century (Bean and Rawls 2003:181-182). In the mid-to-late nineteenth century, wheat was the primary crop in the San Joaquin Valley and elsewhere in California. However, barley production was also widespread, as well as cattle and sheep ranching.

Farming in the Madera County plains was sustained by dams and weirs put in regional waterways, including Fresno River, Chowchilla River, Cottonwood Creek, and other creeks, rivers, and streams. The Fresno River was the origin of the Madera Canal and Irrigation Company, which supplied water to the farms surrounding the county seat and outward (Barcroft 1933). In addition to wheat and barley farming, large-scale livestock ranching, lumbering, and mining were major economic and settlement drivers in Madera County from the late nineteenth to twentieth centuries. The construction and continued development of railroad infrastructure provided access to distant markets and boosted wheat production in the San Joaquin Valley, as did advances in plowing technology, such as steam-powered tractors and harvesters (Cabezut-Ortiz 1987:37-38; Bean and Rawls 2003:201-202; Clough 1983:25-28).

Lumber production played a crucial role in the establishment and early growth of the region around the town of Madera's election as county seat. Despite facing challenges like droughts, fires, and economic depressions, lumber production, including the formation of large companies like the Madera Sugar Pine Lumber Company, sustained the Madera region's economy and influenced physical development and settlement for over five decades. However, the economic decline of the Great Depression led to the closure of the lumber industry in Madera. After the lumber industry's decline, diversified agricultural production again became a driving force in the region's economy, including various nuts, grapes, and legumes, as well as cattle and chicken ranching (City of Madera 2024; County of Madera 2024).

6.3. Power-Transmission Infrastructure

Demand for electricity within the context of high fuel costs in California during the early twentieth century spurred technological innovation. Hydroelectric power systems were developed as alternatives to steam-generated electricity. In hydroelectric systems, falling water is used to turn electric generators. Landscape conditions in the Sierra Nevada region were particularly well suited to this technology because streams flowing from the mountains into the Central Valley carry small volumes of water that descend rapidly. These conditions, unlike those typically found in the east, where large volumes of water traveled without significant elevation change, made hydroelectric-power generation feasible. As a result, engineers and entrepreneurs in California became leaders in the field of hydroelectric-power innovation (Williams 1997:171-172).

Specifically, the geographic challenge of transmitting power generated in the Sierra Nevada to urban areas required the development of revolutionary engineering solutions. During the mid-1880s, direct current technology could only transmit power for approximately 10 miles—transmitting further distances resulted in 40-60 percent power losses—and it was not until the development of alternating current systems that long-distance transmission became realistic (Williams 1997:173).

6.4. Resource Typologies

The resource typologies described in this section inform the identification of properties with significance under Criterion C/3 and the evaluation of integrity for those properties. Typologies are described for linear resources and buildings. The focus of this section is on describing the resource type and its various sub-types and establishing a baseline for determining what examples would be considered remarkable examples of the type versus those that would be considered unremarkable or ubiquitous. This section does not delve into the methods or criteria for evaluating particular property types; such discussion is provided in Chapter 6, *Identification Efforts and Methods*.

6.4.1. LINEAR RESOURCES

6.4.1.1. Power-Transmission Infrastructure

Power-transmission infrastructure resources are found throughout California. Electrical generators convert mechanical power into electrical power at the generating power plants (i.e., *powerhouses*). Power from the generator is transferred to transmission stations and power substations, where transformers intensify the voltage and distribute the electricity via high-voltage transmission lines. High-voltage transmission lines mounted to towers convey the electricity to substations, where the high-voltage electricity is reduced to lower

voltage and distributed for use using low-voltage power lines mounted to poles (Becker et al. 2015:38). Historically, associated infrastructure also included residential complexes for operators and maintenance crews at generating power plants (Becker et al. 2015:21).

Transmission Lines, Towers, and Poles

The design of transmission line support structures was initially derived from telegraph transmission predecessors. Wooden poles were the first type of support structure to be used for electrical lines in the nineteenth century. Although the wires used to conduct electricity could be attached directly to the poles via glass or glazed porcelain insulators, wooden poles also featured cross arms positioned perpendicular to the main pole, which allowed for the horizontal suspension of wires (Becker et al. 2015:42). During these early years of electrical transmission, poles typically spanned short distances and carried low voltages, but with the advent of hydroelectric power, infrastructure needs evolved (Becker et al. 2015:15-16).

As electrical transmission lines traversed longer distances and spanned greater geographical areas, steel was used for support structures because the stronger material could accommodate heavier wires, more circuits, and larger insulators. Iron and steel poles were first used in the 1890s. Designs included iron pipe poles, lattice poles, and tubular steel poles (Becker et al. 2015:15-16, 42).

Iron pipe poles, the earliest example of metal poles, were composed of wrought-iron pipe sections joined together to achieve the desired height (Becker et al. 2015:42). Iron, which is a conductor of electricity and vulnerable to incidences of lightning strikes, was replaced with steel. Lattice-riveted steel poles were constructed with four main vertical members at each corner. The latticing was composed of flat bars connecting the vertical members in a trellised fashion. In plan, the footprint of the structure was square, and the elevation was characterized by a taper that was narrower at the top. Although steel cross-arms are most common for lattice-riveted steel poles, wooden arms appear occasionally (Becker et al. 2015:45). Tubular steel poles consist of a single steel shaft, often tapered with a narrow peak and broader base, with cross arms for wire suspension.

Transmission infrastructure engineers transitioned to a preference for towers over poles at the beginning of the twentieth century. Tower structures were similar to lattice poles, but differed in that they had four angled legs braced by flat bars and diagonal rods that supported the horizontal arms used for wire suspension (Becker et al. 2015:42-45). In 1907, Edison Electric Company's Kern River to Los Angeles Transmission Line included galvanized-steel transmission towers that supported 117 miles of line. These towers were modeled after windmills, built by a windmill manufacturer, and are considered the first steel-lattice transmission towers used in the United States (Becker et al. 2015:17-18). The Big Creek hydroelectric power-transmission system, developed by the Pacific Light and Power Company (beginning in 1911 and listed in the NRHP in 2016), set a new standard with steel-lattice towers that were 41 feet in height with cross arms approximately 34 feet wide. These structures were designed to carry wires at average lengths of 660 feet between tower locations (Becker et al. 2015:46).

Towers became larger and more robustly constructed over the course of the early twentieth century. For example, in the late 1930s, transmission towers associated with Hoover Dam's Boulder Lines (220 kilovolt [kV]) were single-circuit lattice-steel, standing 82 feet tall, with cross arms 42 feet wide. Innovation also included expansion to double-circuit towers, 4-circuit towers, and 12-circuit towers, with some multi-circuit examples featuring a form where two towers anchored a spanning frame for suspension of wires between them. In the 1960s, steel-lattice towers developed for the Pacific Intertie Project were designed to carry 500-kV lines and "featured a 'cinched waist' massing with a wide base, narrow mid-point, and extended horizontal cross arms" with larger insulators (Becker et al. 2015:49-51, 59).

Power-transmission infrastructure that is considered to be eligible under Criterion A is historically significant for associations with the expansion of science and technology in the form of engineering and invention related to power distribution (Page et al. 1998:1-9, 1-10) or for associations with individuals such as engineers considered to be masters of their discipline. An example could be eligible if it were the earliest example of a transmission

system or if it were technologically innovative. Technological innovation could be achieved through design, voltage transmitted, or materials used (Becker et al. 2015:4-5). Important periods of power transmission infrastructure energization depend on the line's voltage: 1901 to 1931 for 51-220 kV and 1963 to 1968 for 500 kV. A transmission line that was developed within the first 2 or 3 years of its voltage's conceptual and engineering development and that embodies a direct physical and operational association to a key technological innovation or period of innovation identified in the historic contexts that fundamentally changed commercial, geographic, and structural patterns of electrical generation and consumption would be considered eligible under Criterion A.

An example could also be eligible under Criterion A if it were associated with a major power-transmission infrastructure project as part of the first phase of that project's development. Association with development, in general, is not sufficiently significant to merit eligibility because all power-transmission infrastructure is inherently associated with development. Development patterns that would be considered significant would include population increases that occurred because of electrification, industry expansion that occurred because of electrification, residential districts that were developed with street lights, or transportation systems that were implemented because of electrification (Becker et al. 2015:5). For example, a first or foremost example of electrical transmission to a region that experienced notable change in population or economic activity because of electrification would be considered eligible under Criterion A.

In contrast, examples of power-transmission infrastructure that would be considered unremarkable, ubiquitous, derivative, or common would not be considered significant. These resources would include power transmission infrastructure that is not the first of its kind, nor the first of its kind in the region. For example, "the common and indistinctive nature of wood-pole transmission or distribution line structures disqualify them as potentially National Register eligible" (Becker et al. 2015:64).

Power-transmission infrastructure that would be considered eligible under Criterion C embodies important, leading-edge engineering that relies on or allows for demonstrable innovations in transmission design, voltage regulation, voltage level, or transmission distance dating to the period(s) of significance. An example could be eligible if it were the first or foremost expression of the transmission voltage or if it exemplified a certain type of transmission line, tower, or pole design. For example, a first or foremost expression of H-frame towers or bound conductors for long spans of extra-high voltage (e.g., 1963-1965) would be considered eligible under Criterion C.

An example could also be eligible under Criterion C if it conveyed distinctive operational characteristics of utility engineering and design into a region that directly spurred specific aspects of community development or notably contributed to the significance of an established or potential historic district. For example, a transmission alignment that directly contributes to a wider power-generation system identified in an established or potential historic district would be considered eligible under Criterion C.

Due to the type of structure, development patterns, and designs, power-transmission infrastructure would not best reflect significance under Criterion B. Likewise, as aboveground structures with limited-to-no ground disturbance, power-transmission infrastructure would not best reflect significance under Criterion D.

Examples of power-transmission infrastructure that are considered historically significant must also contain aspects of integrity to convey such significance. The key aspects of integrity in a significant example of power-transmission infrastructure include design, association, and feeling. Moreover, a critical facet of feeling is the transmission line's historic use and retention of its original function as a transmission line. Additionally, integrity of location and design are important to power-transmission infrastructure. Significant examples retain original alignment with the same beginning and end points—and largely the same corridor—as in the period of significance. New substation interconnections, tower structures, branch lines, or other compatible features may exist and not undermine integrity, as long as the core historical alignment remains intact and existing features remain as constructed during the period of significance.

Examples that have historic significance, but are no longer able to convey that significance, often lose that ability through processes such as the alteration of power-transmission components. Because power-conveyance systems are often incrementally improved, loss of integrity is common. As such, secondary aspects of integrity to consider include materials and workmanship. Routine maintenance of ubiquitous features to sustain the system's function (e.g., insulators, conductors, minor additive features like spark arrestors or bird control features) does not undermine integrity.

6.4.2. BUILDINGS

This section addresses one component of identifying and describing historic buildings: building type. This section addresses residential and agricultural building typologies. The second component, building style, refers to the styles of architecture that characterize a building type. Due to the low number of historic-age buildings in the APE and the single building type present, building styles are not applicable to the built resources within the APE.

6.4.2.1. Building Types

Agriculture

California agricultural property types can be divided into three broad functional categories: farm; ranch; and multiple-use. Farms are composed of buildings and structures used for growing and production of food, as well as materials used in manufacturing. California farms range in size from relatively small (i.e., 10 acres) to more than 1,000 acres. Buildings and structures on farm properties are typically more clustered. Ranches include buildings and structures used in the process of raising livestock for domestic and commercial use and are typically a minimum of 40 acres, although some ranches may contain thousands of acres. The structures on ranch properties are often dispersed across the landscape in response to the needs of managing ranging livestock. Multiple-use properties combined animal husbandry with crop cultivation (Caltrans 2007:145-146). In addition to residences, domestic structures featured on agricultural properties include cellars, privies, wells, sheet refuse, trash dumps, and cisterns (Caltrans 2007:146). Features associated with the agricultural function of ranch, farm, and multiple-use properties include barns, fencing, corrals, pens, fields, orchards, activity areas, trash dumps, agricultural machinery, water-conveyance systems/irrigation features, access roads, silos, milk houses or creameries, long rectangular poultry sheds, slaughterhouses, blacksmithing areas, cold storage/ice houses, loading chutes, and smokehouses (Caltrans 2007:154). Agricultural building types are typically vernacular in style. Barns (i.e., transverse crib barns and manufactured pole barns), tank houses, and silos are described in more detail in the following subsections.

Barns

A large portion of the APE consists of open agricultural property. Barns, which are a prominent and recurring building type in the vicinity of the APE, are usually the largest and most-prominent structures on an agricultural property. In construction use and building type, barns are of a different and, in some ways, more involved nature than the farmhouses themselves. As R.W. Brunskill has noted (in Noble 1984:1),

the sheer volume of space enclosed, quite apart from the construction problems presented by farm buildings, should remind us that the expense and effort devoted to farm buildings have, for the past three centuries, been greater than that devoted to farm houses, whereas the architectural qualities of cathedral-like barns and elegant granaries are often superior to the farm-houses that they served.

The types of barns primarily used on California ranches include cattle barns, sheep barns, and horse barns. Although ranches typically have multiple barns, farms often only have one barn, with numerous purpose-specific sheds. Most of the barns built in California have been classified as "Western" barn types and are most frequently made from wood, either with mortise and tenons or as stick-frame. However, less-common examples include adobe, log, and stone barns. Additional outbuildings, ancillary structures, and objects associated with agricultural properties include cisterns, water storage towers and windmills, cold-storage or icehouses, smokehouses, watering troughs, wells, silos, granaries, and privies (Caltrans 2007:155).

Transverse Crib Barns

First developed in eastern Tennessee (Appalachia) after 1810, transverse crib barns became common in the western United States, including within the APE. This barn type features six or more cribs symmetrically arranged around a central passageway running the length of the longitudinal, rectangular plan. A large entranceway, able to fit horse-drawn vehicles, tractors, or other equipment, is centered beneath the front-facing gable. Such barns have also been referred to as *feeder barns* due to the presence of animals within them. Animals would be kept in various pens, and the hay or other feed for the animals would be located on a large, second-level platform. Transverse crib barns may have an opening just beneath the front gable for bringing in hay, below an extended peak called a *hay hood*, which protects the hoist from the elements when hay is hoisted in (Noble 1984:6).

Beginning in the latter half of the nineteenth century, the transverse crib barn spread from eastern Tennessee to the Midwest, where it became the prominent barn type. Because the Midwest is the country's most productive agricultural region, and because this same barn ultimately became ubiquitous in the West, the transverse crib barn has become one of the most-common barn types in the country. During the late nineteenth century, a common variant of the transverse crib barn developed, called the *Midwest three-portal barn*, which features parallel longitudinal passageways at either end of the cribs for three symmetrically placed openings, instead of one at the front elevation (Noble 1984:13).

7. PROPERTIES IDENTIFIED - FINDINGS

This HASR has been prepared as part of the SJJPA's compliance with CEQA and will be used to support the Authority's compliance with the Section 106 PA, applicable sections of the NHPA, and its implementing regulations of the ACHP as these pertain to federally funded undertakings and their impacts on historic properties. All built resources were also evaluated in accordance with CEQA Guidelines Section 15064.5(a)(2)-(3) using the criteria outlined in PCR Section 5024.1. This HASR will be submitted to the California SHPO for concurrence with the adequacy of the identification and evaluation findings.

This chapter focuses on the summary of eligibility findings for all properties within the APE survey population (see Chapter 6, *Identification Efforts and Methods*, for the definition of the survey population). A total of two properties in the APE required evaluation for NRHP/CRHR eligibility. Table 7-1 provides a breakdown of all NRHP/CRHR-eligible and NRHP/CRHR-ineligible resources.

The Authority will consult with SHPO at the time of Section 106 consultation.

Table 7-1: Area of Potential Effects Survey Population Summary

County	Number of Parcels or Resources Per County	Listed Properties	NRHP/CRHR Eligible	NRHP/CRHR Ineligible (DPR)	NRHP/CRHR Ineligible (Streamline)	CEQA Only (NRHP/ CRHR- Ineligible)	Vacant, Agricultural, or Exempt
Madera	36	0	0	2	0	0	34

Sources: Survey results quantifications generated from historic resources surveys and evaluations conducted during 2010-2017.

CRHR = California Register of Historical Resources

ID = Identification

NRHP = National Register of Historic Places

7.1. Properties Eligible for Listing in the NRHP/CRHR

No NRHP/CRHR-eligible resources are present in the APE.

7.2. Properties Ineligible for the NRHP and CRHR

Based on work conducted as part of this study, the two historic-age built resources in the APE are not eligible for listing in the NRHP or CRHR. The DPR 523 forms for these evaluated resources are included in Attachment D. SJJPA and the Authority have determined that both historic-age properties in the APE are not eligible for listing in the NRHP or CRHR and seek SHPO's concurrence on the finding.

7.2.1. WILSON—GREGG TRANSMISSION LINE

The Wilson-Gregg 230-kV Transmission Line, in the vicinity of the proposed Project, consists of self-supporting lattice towers, with six projecting arms (three on each side), and a total of six insulators per tower. Intervening farmland and an asphalt paved road sit between each tower. No additional tower styles were observed in this area (Google 2024).

A previous evaluation, completed by JRP Historical Consulting (Brookshear 2007), determined that the Wilson-Gregg 230-kV Transmission Line does not meet the criteria for the NRHP. The agency determination and subsequent SHPO concurrence was not found during research. The Wilson-Gregg 230-kV Transmission Line was found ineligible under Criterion A because it did not contribute significantly to broad historical patterns, being built after California's pioneering phase in long-distance transmission. It lacks associations with historically significant individuals, thereby excluding it under Criterion B. Criterion C does not apply because the line does not showcase distinctive nor innovative engineering; instead, it follows typical transmission design of its time. Lastly, it does not meet Criterion D because it offers no unique information about historical construction methods or materials, which are already well-documented.

For the proposed Project, the Wilson-Gregg 230-kV Transmission Line was evaluated under the Madera County, Power Transmission Infrastructure historic context statement in Chapter 7, *Historic Context*, of this report. The Wilson-Gregg 230-kV Transmission Line does not meet the criteria for listing in the NRHP or CRHR. Please refer to Attachment D for the 2007 and 2024 DPR forms (Brookshear 2007:2-7).

Under NRHP/CRHR Criterion A/1, the Wilson-Gregg 230-kV Transmission Line does not have important associations with historic events, patterns, nor trends of development. The transmission line was constructed between 1930 and 1946, during a period when the San Joaquin Light and Power Company was merging with PG&E. Based on the historic context, 230-kV lines are significant when energized between 1901 and 1931. This line was energized just after the period of significance for 230-kV transmission lines. Furthermore, research did not produce any evidence that the structure was the site of an important historical event nor pattern of events that helped shape the built environment in the area. The structure did not serve as a catalyst for development in Madera County area or the larger region. As such, the Wilson-Gregg 230-kV Transmission Line is not significant under NRHP/CRHR Criterion A/1.

Under NRHP/CRHR Criterion B/2, the structure does not share significant associations with the lives of persons important to history. Properties that are eligible under this criterion are typically associated with the productive life of a person. Research did not yield evidence of the structure being associated with the professional life or activities of key utility leadership within PG&E. As such, the structure is not significant under NRHP/CRHR Criterion B/2.

Under NRHP/CRHR Criterion C/3, the Wilson-Gregg 230-kV Transmission Line is not a significant example of its type, style, or era, it lacks high artistic value, and it is not the work of a master architect, builder, designer, or engineer. The transmission line and lattice towers are common examples of transmission-line infrastructure from the twentieth century across California. The transmission line does not embody important, leading-edge engineering that relied on, or allowed for, demonstratable innovations in transmission design, voltage regulation, voltage level, or transmission distance dating to the period(s) of significance. The line does not convey distinctive operational characteristics of utility engineering and design into a region that directly spurred specific aspects of community development. Finally, it does not contribute to the significance of an established or potential historic district (e.g., a wider power-generation system). The transmission line lacks artistic value

and is an unremarkable example of its type. Research did not uncover any information regarding its engineer or builder. As such, the structure is not significant under NRHP/CRHR Criterion C/3.

Under NRHP/CRHR Criterion D/4, the structure has neither yielded nor is likely to yield important information about our past. Typical of similar structures, the Wilson-Gregg 230-kV Transmission Line does not have the potential to yield important information regarding construction or engineering materials, methods, or technologies used in the 1930s. As such, the structure is not significant under NRHP/CRHR Criterion D/4.

7.2.2. 30635 AVENUE 12

The property at 30635 Avenue 12 is located on a 5,707,231-square-foot parcel on the northern side of Avenue 12, at the northeastern corner of the Road 30% and Avenue 12 intersection near Madera. The building on the property faces south, toward Avenue 12. An unpaved driveway starts off center at the southern boundary and extends north from Avenue 12, toward the building on the parcel, where it splits into two driveways: the western path encircles the building, and the eastern path winds diagonally toward the northeastern corner of the parcel. Agricultural and institutional uses surround the property.

A rectangular, one-story barn clad in vertical wood shiplap sits west of the center, approximately 200 feet north of the parcel's southern boundary. A medium-pitched gable roof with collapsing corrugated metal and a shallow overhang caps the barn. The primary (south) elevation is arranged into three bays. On the central bay, the centered entrance consists of a pair of wooden sliding doors on upper rails, with small rectangular viewing windows cut out of the doors. East of the entrance, a small, rectangular opening pierces the eastern bay. West of the main entrance, a single-leaf wooden door on the upper rails provides a pedestrian entry to the barn. A covered outdoor area abuts the west elevation of the building, consisting of a wooden shed roof supported by simple wooden poles. The east and west side elevations appear to lack openings or fenestration; however, they are not very visible from the public ROW, particularly toward the rear (north) end of the barn. The north elevation was not visible from the public ROW.

This property was evaluated under the Agricultural Development and Barn historic contexts presented in this report. The property at 30635 Avenue 12 does not meet the criteria for listing in the NRHP or CRHR individually or as a contributor to a previously unidentified historic district. Please refer to Attachment D for the complete evaluation.

Under NRHP/CRHR Criterion A/1, the subject property at 30635 Avenue 12 does not have important associations with historic events, patterns, or trends of development. The property dates to circa 1934, which was a period of agricultural growth and expansion in Madera. Thus, many agricultural properties date to this period, and the subject property does not exhibit individual significance over other surrounding agricultural properties in the area. Although it features agricultural resources, such as a barn, an irrigation well system, crop fields, orchards, and pastures, these are common and ubiquitous resources individually and together do not represent a cohesive rural-residential agricultural property. The subject property also lost its circa-1952 residence, which was demolished sometime between 2009 and 2011 and was the sole residential built element of the parcel. Thus, the property no longer serves a residential use. Also, the subject property is not associated with a significant agricultural innovation nor particular type of crop within Madera. Although the property retains its agricultural use, the type of crops harvested has changed a few times throughout its history. The subject property is not significant under NRHP/CRHR Criterion A/1.

Under NRHP/CRHR Criterion B/2, the subject property does not share significant associations with the lives of persons important to history. Research into publicly available records, including Ancestry.com, newspaper databases, and accessible government records, did not provide evidence that the current owner, Everspring Alliance LP, was a prominent figure in national, state, or local history. Likewise, research did not reveal any associations between the subject property and early settlers, nor with any persons of significance in Madera, nor is the property associated with any individuals who made discoveries or advancements in farming or agriculture. The subject property is not significant under NRHP/CRHR Criterion B/2.

Under NRHP/CRHR Criterion C/3, the subject property is not a significant example of its type, style, or era, lacks high artistic value, nor is it the work of a master architect, builder, designer, or engineer. It is currently a common example of a nonresidential agricultural property and exhibits some typical farming-related elements, such as a barn, an irrigation well system, and the surrounding crop fields, orchards, and pastures. However, although the barn is a typical example of a transverse frame barn, the building lacks quality of design and high artistic value. Research yielded no evidence of an architect or builder associated with the property. The subject property is not significant under NRHP/CRHR Criterion C/3.

Under NRHP/CRHR Criterion D/4, the subject property has neither yielded nor is likely to yield important information about our past. Typical of similar buildings, the subject property's wood-frame construction does not have the potential to yield important information regarding construction or engineering materials, methods, or technologies used in the 1930s. The subject property is not significant under NRHP/CRHR Criterion D/4.

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9. PREPARER QUALIFICATIONS

The cultural resources study presented in this HASR was conducted by or under the supervision of persons who qualify as historians and/or architectural historians under the Professional Qualification Standards of the U.S. SOI (as defined in 36 CFR § 61). The staff listed in this section meet the standards for QI, as defined in the Section 106 PA (Authority and FRA 2011).

9.1. Document Preparation and Field Survey

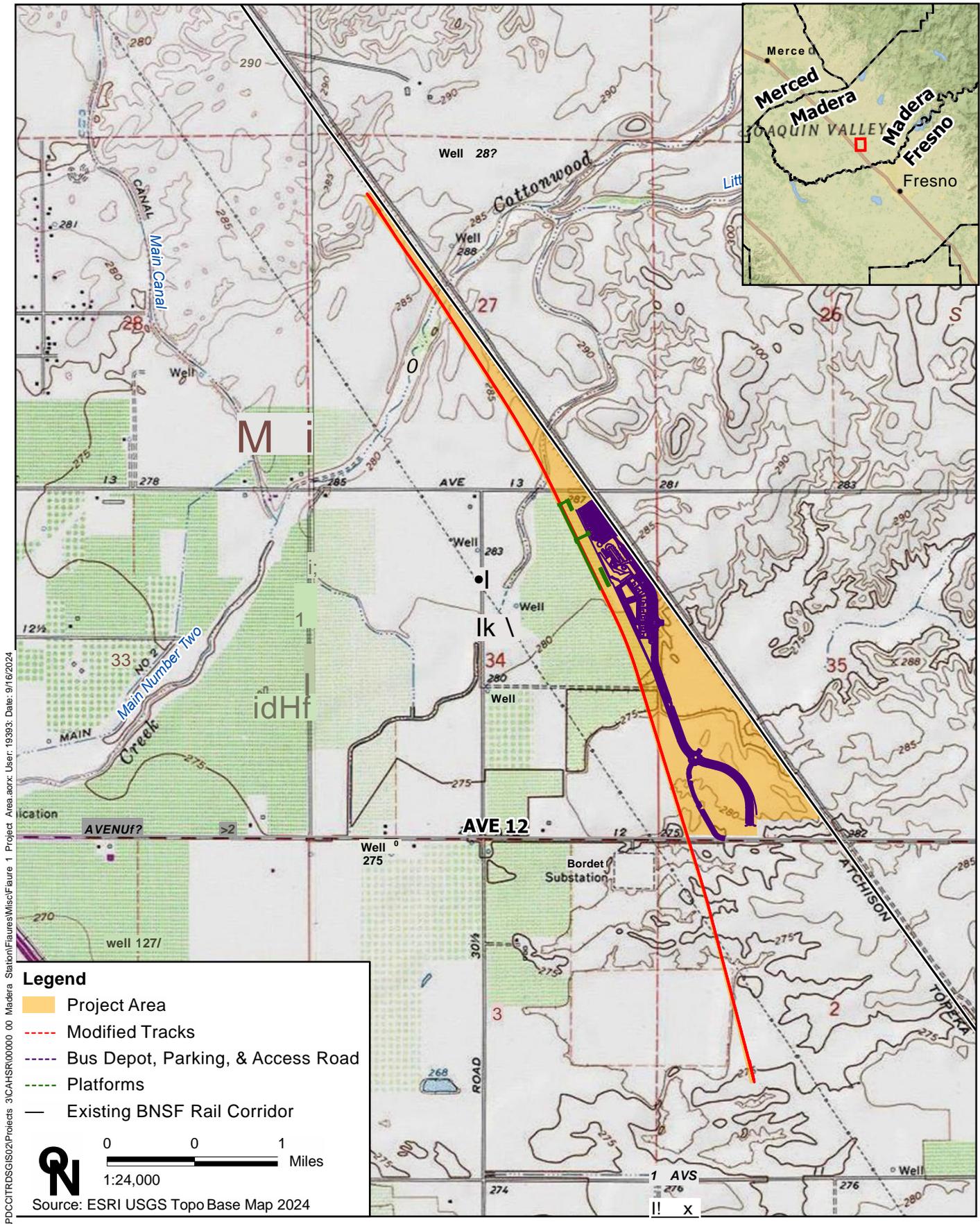
Christine Cruiss (B.A. Classical Archaeology and Anthropology, University of Michigan; M.S. Historic Preservation, University of Pennsylvania) is a Senior Historic Preservation Specialist and meets the SOI's Professional Qualifications for Architectural History and History. Ms. Cruiss has 24 years of specialized experience in architectural history, historic preservation, and architectural conservation. Ms. Cruiss' work has focused on CEQA, NEPA, and NRHP Section 106 cultural resources assessments throughout the mid-Atlantic states and California.

Millie Mujica (B.S. Architectural Studies, Philadelphia University; M.F.A. Architectural History, Savannah College of Art and Design) is an architectural historian who meets the SOI's Professional Qualifications for Architectural History and History. Ms. Mujica has more than 5 years of experience in architectural history, historic preservation, and cultural resource management. Her work has focused on Section 106 and CEQA cultural resources assessments and analysis of project impacts. She has experience conducting fieldwork and writing DPR 523 form sets for a variety of California built-environment property types, as well as technical reports and historic context statements.

Magaly Colon-Morales (B.A. History, Universidad Interamericana de Puerto Rico; M.S. Historic Preservation, School of the Art Institute Chicago) is an architectural historian who meets the SOI's Professional Qualifications for Architectural History and History. Ms. Colon-Morales has more than 6 years of experience in the historic preservation field, CEQA, NEPA, and NRHP Section 106 cultural resources assessments throughout the United States, Puerto Rico, and California.

Nicole Felicetti (B.A. Architecture, University of Kentucky; M.S. Historic Preservation, University of Pennsylvania) is an architectural historian who meets the SOI's Professional Qualification Standards for architectural history. She has 4 years of specialized experience in architectural history and cultural resource management and interpretation. Ms. Felicetti's work has focused on CEQA, NEPA, and NRHP Section 106 cultural resources assessments and resources and analysis of project impacts. She is experienced in writing DPR 523 form sets for a variety of California built-environment property types, technical reports, and historic contexts statements, as well as preparing documentation for a Historic American Landscapes Survey.

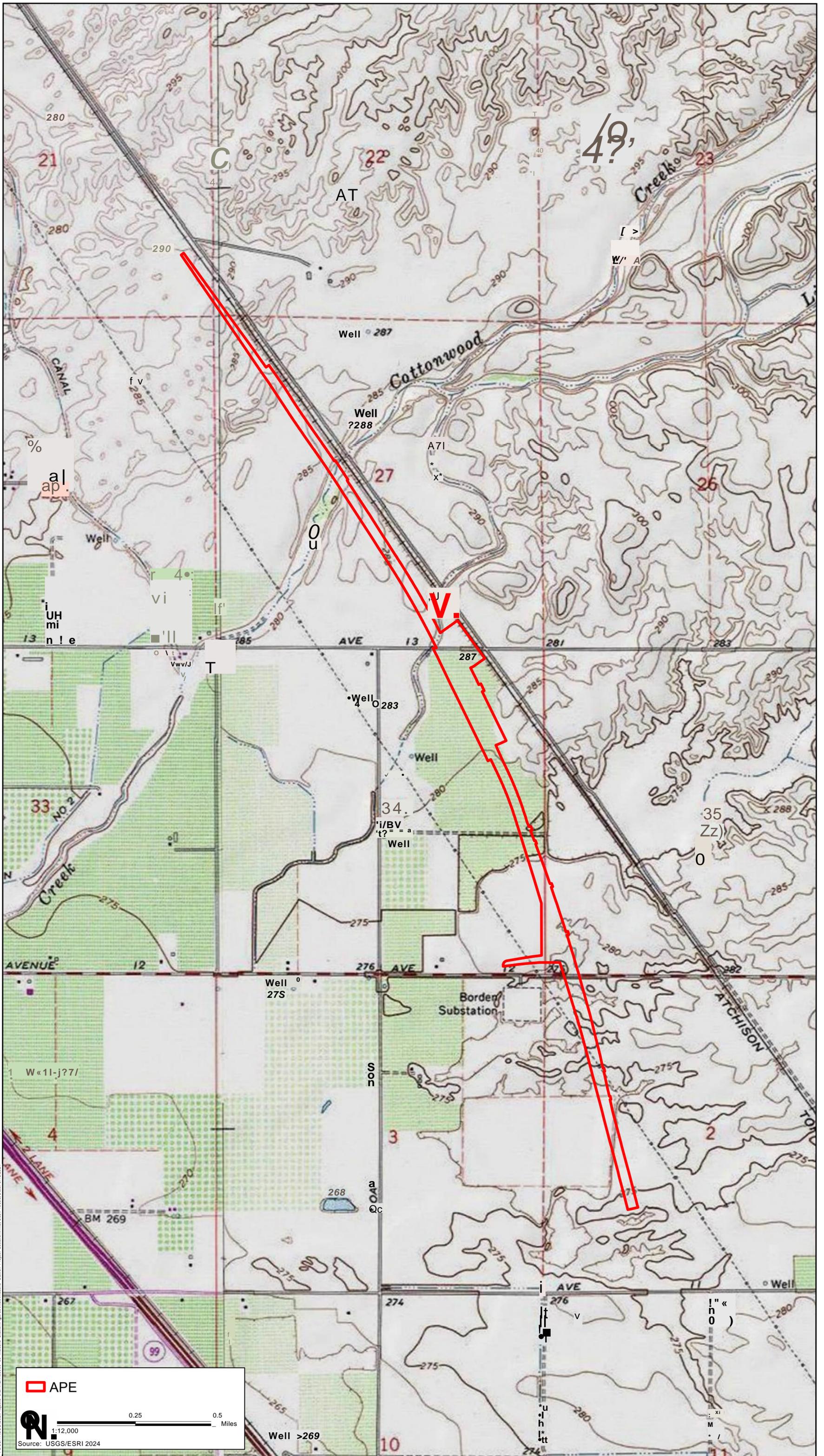
ATTACHMENT A: PROPOSED PROJECT LOCATION AND VICINITY MAP



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Figure 1
Project Area
CAHSR Madera Station

ATTACHMENT B: AREA OF POTENTIAL EFFECTS MAP



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Figure 1
Madera HSR APE

ATTACHMENT C: PROGRAMMATIC AGREEMENT

California High Speed Rail Section 106 Programmatic Agreement

APPENDIX 3.17-B: SECTION 106 PROGRAMMATIC AGREEMENT AND MERCED TO FRESNO SECTION MEMORANDA OF AGREEMENT

**PROGRAMMATIC AGREEMENT AMONG
THE FEDERAL RAILROAD ADMINISTRATION,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER, AND
THE CALIFORNIA HIGH-SPEED RAIL AUTHORITY
REGARDING
COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT,
AS IT PERTAINS TO THE CALIFORNIA HIGH-SPEED TRAIN PROJECT**

WHEREAS, The California High Speed Rail Authority (Authority), an agency of the State of California, proposes to construct and operate a Statewide High Speed Train (HST) System comprised of nine independent sections between major metropolitan areas of California. The following HST System sections (see map, Attachment A) comprise the nine separate undertakings covered by this Programmatic Agreement (hereafter, Agreement), which are subject to review under Section 106 of the National Historic Preservation Act and its implementing regulations, 36 Code of Federal Register (CFR) Part 800:

- San Francisco to San Jose.
- San Jose to Merced.
- Merced to Sacramento.
- Merced to Fresno.
- Fresno to Bakersfield.
- Bakersfield to Palmdale.
- Palmdale to Los Angeles.
- Los Angeles to Anaheim.
- Los Angeles to San Diego.

WHEREAS, in 2005 the Federal Railroad Administration (FRA), acting as the Federal agency, and the Authority completed a Statewide Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) in accordance with the requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) as the first phase of the tiered environmental review process. In 2008 the FRA and the Authority completed a second program EIR/EIS on the Central Valley to Bay Area portion of the HST System. The Record of Decision (ROD) for the Statewide Program EIR/EIS indicated that project-level environmental analysis would be conducted for sections of the Statewide HST System as the next phase of environmental review and project approval; and

WHEREAS, pursuant to the requirements of CEQA and NEPA, the Authority and the FRA conducted a public and agency involvement program as part of the program environmental review process for the Statewide Program EIR/EIS. As part of this outreach, information was provided to 15,500 federal, state, and local agency representatives; elected officials; property owners; interested persons; and interested organizations. Approximately 25 informal and formal public meetings were held statewide during the Program EIR/EIS process. The Authority and the FRA convened staff representatives from 27 interested federal and state agencies to provide input on the environmental review process. Targeted interested groups included non-governmental organizations, community planning organizations, and public interest discussion/research groups; and

WHEREAS, for the Statewide Program EIR/EIS, the FRA and the Authority initiated consultation with Native American groups and sent letters providing information about the proposed project alternatives and requesting information about any traditional cultural properties that could be affected by the project. The FRA and Authority also contacted the California Native American Heritage Commission for a search of their Sacred Lands files and to provide a list of Native American tribes or groups for Section 106 consultation.

WHEREAS, in addition to consultation with the Federally-recognized Native American tribes, and other federal, state, regional, and local agencies, as appropriate, the FRA, as the Federal agency, and the Authority, as a responsible state agency, consulted with the Advisory Council on Historic Preservation (Council) and the State Historic Preservation Officer (SHPO) on the historic properties identified in the Program EIR/EIS and on measures to avoid, minimize, and mitigate potentially significant impacts; and

WHEREAS, the FRA has determined that each of the nine independent sections of the proposed HST System that include rail lines, associated structures, maintenance and ancillary facilities, construction easements, and staging areas, is an undertaking of this Agreement that may have an effect upon historic properties included on or eligible for inclusion on the National Register of Historic Places (NRHP); and

WHEREAS, the construction schedule is different for each undertaking, and Section 106 of the National Historic Preservation Act (16 U.S.C. §470f, hereafter Section 106) may be conducted and concluded at different times for each undertaking; and

WHEREAS, the purpose of this Agreement is to provide statewide consistency in consultation procedures, documentation standards, and federal agency oversight in compliance with Section 106 of the National Historic Preservation Act for each undertaking, each of which would be subject to an individualized consultation process under the terms of the PA; and

WHEREAS, the Authority has received a grant from the FRA through the High-Speed Intercity Passenger Rail Program funded in part through the American Recovery and Reinvestment Act (ARRA), to construct a section of the California High-Speed Train consisting of portions of the Merced to Fresno and Fresno to Bakersfield undertakings, and this Agreement streamlines the Section 106 compliance process, thereby expediting the obligation of ARRA funds; and

WHEREAS, the FRA has a statutory obligation, as the federal agency, to fulfill the requirements of Section 106 (36 CFR 800). The FRA, in consultation and cooperation with the Authority, shall ensure that the measures in the following stipulations are carried out. The FRA authorizes the Authority to initiate consultation with the SHPO pursuant to 36 CFR 800.14(b)(1)(iii) for the undertakings covered by this Agreement; and

WHEREAS, pursuant to 36 CFR 800.14, the FRA delegates major decision-making responsibility to the Authority including identification of historic resources, findings of eligibility, findings of effect, consultation, and the development and implementation of individual Memoranda of Agreement (MOAs) and treatment plans for each undertaking. The Authority will submit documents specified in this Agreement to the SHPO on behalf of the FRA: and

WHEREAS, the FRA and the Authority will jointly prepare environmental studies of the HST Projects (undertakings) in accordance with NEPA, including cultural resource studies required for Section 106, to coordinate the NEPA and Section 106 processes to the maximum extent possible; and

WHEREAS, the FRA, the Council, the Authority, and the SHPO are signatories pursuant to 36 CFR 800.6(c)(1) and have authority to execute, amend, or terminate this Agreement; and

WHEREAS, the FRA and the authority will continue to consult with Federally recognized Native American Tribes, concerning properties of traditional religious and cultural significance, and the Pechanga and Soboba Band of Luiseno Indians have requested to be concurring tribes under this Agreement; and

WHEREAS, all of the signatories to this Agreement accede to implement the procedure and measures described herein for each undertaking in keeping with the following stipulations; and

NOW, THEREFORE, the signatories agree that the proposed undertakings covered by this Agreement shall be implemented in accordance with the following stipulations in order to consider the effect of each undertaking on historic properties and that these stipulations shall govern compliance of the proposed HST System with Section 106 of the NHPA until this Agreement expires or is terminated.

STIPULATIONS

I. APPLICABILITY

- A. This Agreement shall apply to all the FRA and Authority undertakings administered under the HST Project for which the FRA is the Federal agency.
- B. This Agreement shall not apply to undertakings that occur on or affect tribal lands as defined in Section 301(14) of the NHPA. While no use of tribal land is anticipated, if such undertakings occur, the FRA shall follow the procedures in 36 CFR Part 800.
- C. In the event that the Authority applies for additional federal funding or approvals for the undertakings from another agency that is not party to this agreement and the undertakings as described herein remain unchanged, such funding or approving agency may comply with Section 106 by agreeing in writing to the terms of this Agreement and notifying and consulting with SHPO and Council. Any necessary modifications will be considered in accordance with Stipulation XVII.B of this Agreement.

II. ROLES AND RESPONSIBILITIES

A. FRA

As the Federal agency, the FRA has primary responsibility pursuant to 36 CFR 800.2(a)(2) to ensure that the provisions of this Agreement are carried out. The FRA will conduct government-to-government consultation with Federally-recognized Native American tribes, execute MOAs for each of the Undertaking sections, and participate in the resolution of disputes. The FRA is responsible for all determinations of eligibility and effect of the undertakings. Consistent with the requirements of 36 CFR 800.2(a) and 800.2(c)(4), the FRA remains legally responsible for ensuring that the terms of this Agreement are carried out and for all findings and determinations made pursuant to this Agreement.

B. Authority

The FRA has delegated to the Authority responsibility for the implementation of the following provisions of this Agreement: Consult with non-Federally-recognized Native American groups, other consulting parties and the public; conduct Section 106 reviews in a timely manner; delineate and change the APE as needed and inform signatories of the change; prepare documentation for the SHPO and the FRA including determinations of eligibility and effect; circulate comments from signatories; maintain documentation of the Section 106 compliance for each Undertaking; develop a prototype MOA for each Undertaking; invite local agencies, Native American groups, interested non-governmental organizations, and individuals to participate in the development of each Undertaking MOA to agree upon means to avoid, minimize, and/or mitigate adverse effects to historic properties; develop and implement MOAs for each Undertaking; develop a built-environment treatment plan and an archaeological treatment plan prototype to be used for each Undertaking; develop and implement the individual Undertaking treatment plans, as provisions in the MOAs for each Undertaking; and ensure project information is available to consulting parties and the public in concert with the CEQA/NEPA process for each undertaking.

C. SHPO

The SHPO shall be responsible for reviewing project documentation in a timely manner and participating in consultation as set forth in this PA.

D. Council

The Council shall be responsible for providing technical guidance, participating in dispute resolutions if needed, and monitoring the effectiveness of this Agreement.

III. PROFESSIONAL QUALIFICATIONS STANDARDS

All actions prescribed by this Agreement that involve the identification, evaluation, analysis, recording, treatment, monitoring, or disposition for historic properties, or that involve reporting or documentation of such actions in the form of reports, forms, or other records, shall be carried out by or under the direct supervision of a person or persons who meet, at a minimum, the Secretary of the Interior's Professional Qualifications Standards (48 FR 44738-44739) (Appendix A to 36 CFR Part 61) in the appropriate discipline. Hereinafter, such persons shall be referred to as Qualified Investigators (Qis). The Authority shall ensure that the work outlined in this Agreement is conducted by staff meeting these qualifications standards. However, nothing in this stipulation may be interpreted to preclude the FRA or the Authority or any agent or contractor thereof from using the services for persons who are not Qis, as long as their activities are overseen by Qis.

IV. ON-GOING CONSULTATION WITH NATIVE AMERICAN TRIBES

A. FRA

1. As the Federal agency with responsibility for Section 106 compliance, the FRA is responsible for all government to government consultation with federally-recognized tribes. A list of federally-recognized Native American tribes contacted can be found in Attachment (F).
2. The FRA initiated government-to-government consultation by letter to all Federally-recognized Native American tribes that could be affected by the undertakings. Tribal Representatives have also been contacted by telephone.
3. The FRA shall ensure that on-going consultation with Federally-recognized Native American tribes continues early in the project development process for each undertaking to identify cultural, confidentiality, or other concerns including those about historic properties, and to allow adequate time for consideration of such concerns whenever they may be expressed.
4. The FRA provided the draft Agreement to Federally-recognized Native American tribes for review and comment. Federally-recognized Native American tribes were provided a 30 calendar day opportunity to comment. All comments received by Federally-recognized Native American tribes were considered by the signatory parties and where appropriate incorporated herein.
5. In accordance with 36 CFR 800.2(c)(2), Federally-recognized Native American tribes may be identified as consulting parties for individual undertakings and in subsequent MOAs that are prepared for an undertaking covered by this Agreement as described further in Stipulation VIII.A.
6. Consultation with Federally-recognized Native American tribes shall continue throughout the development of subsequent undertakings regardless of whether such tribes have chosen to concur with this Agreement.

7. The FRA shall identify tribes who will participate in an undertaking as a consulting party and shall consider future written requests to participate as consulting parties in an undertaking.

B. The Authority

1. The Authority may consult informally with the federally recognized tribes and will coordinate such consultation with the FRA. The Authority is responsible for consultation with non-federal recognized Native American groups. A list of non-federally-recognized Native American groups contacted can be found in Attachment (F).
2. Authority shall ensure that consultation with non-Federally-recognized Native American groups, as appropriate, is initiated early in the project planning process for each undertaking to identify cultural, confidentiality, or other concerns and to allow adequate time for consideration of such concerns.
3. The Authority sent letters to all non-Federally-recognized Native American groups to begin consultation. Tribal Representatives have also been contacted by telephone.
4. The Authority shall ensure that consultation continues with non-federally-recognized Native American groups respectively throughout the Section 106 compliance process and whenever such groups express a concern about the undertaking or about historic properties that may be affected by an undertaking.
5. In accordance with 36 CFR 800.2(c)(2), non-Federally-recognized Native American groups may be identified as consulting parties in subsequent MOAs that are prepared for an undertaking covered by this Agreement as described further in Stipulation VIII. A.
6. The FRA and the Authority shall ensure that consultation continues with non-federally-recognized Native American groups respectively throughout the Section 106 compliance process and when such groups express a concern about an undertaking or about historic properties that may be affected by an undertaking.
7. The Authority provided the draft Agreement to non-Federally-recognized Native American groups. Native American groups were provided 30 calendar days to comment on the document.

C. Consultation for each Undertaking

1. The Authority shall hold informal informational meetings with both Federally-recognized Native American tribes and non-Federally-recognized Native American groups specific to each undertaking to help provide project updates and to identify potential consulting parties for an MOA.
2. The FRA shall consult on a government to government basis with Federally-recognized Native American tribes identified as consulting parties that attach religious and cultural significance to historic properties that may be affected by an undertaking at key milestones in the Section 106 and NEPA processes to gain input from Tribal governments. The Authority shall consult with all other involved Native American groups. The Tribal consultation will follow a process depicted in Attachment E and includes the following Native American consultation points:
 - i. During identification of historic properties, to confirm the historic properties identified.
 - ii. During assessment of adverse effects, (a) to provide requested Site Records of historic properties adversely affected for review, (b) to determine when and where tribal monitors may be needed during ground disturbing activities in previously identified sensitive areas or known sites, and (c)

to develop avoidance, minimization and treatment measures for adverse effects to both archaeological and built resources.

- iii. During resolution of adverse effects, (a) to develop and finalize treatment plans for archaeology and built resources, (b) develop and execute MOAs, and (c) to determine when and where tribal monitors may be needed during treatment plan implementation or construction.
- iv. During treatment plan and MOA implementation, (a) to provide for Tribal Monitors where agreed upon, (b) to review and comment on the Programmatic Agreement Annual Report, including input on the treatment plan and MOA implementation.

V. PARTICIPATION OF OTHER CONSULTING PARTIES AND THE PUBLIC

A. Public Involvement

Public involvement in planning and implementation of undertakings covered by this Agreement shall be governed by the FRA's and the Authority's environmental compliance procedures, as set forth by the Authority's environmental analysis methods, and any advice and guidance documents. Historic resources will be identified and effects will be disclosed to the extent allowable under 36 CFR 800.2(d)(1-2), 800.3(e), and 800.11(c)(1 and 3) and Stipulation XII of this Agreement. Consistent with Section 106, the public and consulting parties will have an opportunity to comment and have concerns taken into account on findings identified in Section 106 survey and effects documents via attendance at public meetings where they can submit comments on the information presented, as well as access the Section 106 documents via email requests to the Authority's web site. Project information and announcements are posted on the Authority's web site (www.cahighspeedrail.ca.gov). Public involvement and the release of information hereunder shall be consistent with 36 CFR 800.2(d)(1-2), 800.3(e), and 800.11(c)(1 and 3), the Freedom of Information Act, 49 CFR. part 7, and Section 6254.10 of the California Government Code.

The FRA and the Authority have contacted local groups and individuals known to have interests in historic properties regarding the identification of historic properties in each section. Public meetings specific to historic properties and the effects of the project and treatment of these properties will be held in communities within each section. These interest groups and interested individuals will be invited to comment on the treatments proposed and those with demonstrated interest in the project will be invited to participate as consulting parties to the individual section MOAs. Public involvement and the release of information hereunder shall be consistent with 36 CFR 800.2(d)(1-2), 800.3(e), and 800.11(c)(1 and 3), the Freedom of Information Act, 49 CFR. part 7, and Section 6254.10 of the California Government Code.

B. Consulting Parties

Consulting parties shall participate in undertakings covered by this Agreement in accordance with 36 CFR 800.2(c)(3) through (5) and 800.3(f). Consulting parties may include other federal, state, regional, or local agencies that may have responsibilities for historic properties and may want to review reports and findings for an undertaking within their jurisdiction.

The Authority shall submit to the ACHP and SHPO a list of consulting parties for each undertaking and a summary of coordination efforts and comments received. The SHPO shall submit comments, including recommendations for additional parties to the Authority within 30 days. The Authority shall revise and update this information as necessary based on SHPO's comments, and re-submit them to SHPO as part of the reports to be prepared under Stipulation VI. The Authority and FRA shall also consider individuals' written requests to participate as consulting parties in the development of measures to avoid, minimize and mitigate adverse effects to historic properties. Pursuant to 36 CFR

800.11(e) through (g), views of the public will be included in documentation of project effects to historic properties and the individual section MOAs

VI. IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES

A. Area of Potential Effects

The Area of Potential Effects (APE) for each undertaking will be determined by the Authority in accordance with the APE Delineation guidelines (Attachment B). As described in Attachment B, throughout the design process, the Authority will determine if revisions to an undertaking require modifications to the APE. If an APE requires revisions, the Authority is responsible for informing the signatories, consulting Federally-recognized Native American tribes, and other consulting parties within 15 days of identification of the needed changes.

B. Identification of Historic Properties

1. The signatories to this Agreement along with the concurring tribes agree that the Authority will identify historic properties and prepare documentation in accordance with Attachment C. As appropriate, these methods may be modified for undertaking-specific needs in consultation with the signatories and in accordance with QI review and current professional standards. Findings shall be made by the Authority to the FRA based on National Register of Historic Places (NRHP) criteria (36 CFR 60.4) and evaluated in accordance with provisions of 36 CFR §800.4(c). Evaluation methods and criteria shall be consistent with the Secretary of the Interior's Standards and Guidelines for Evaluation (48 Federal Register 44729-44738) (36 CFR §63) and shall be completed by Qis qualified in the appropriate discipline: archaeology, architectural history, or history.
2. Historic properties shall be identified to the extent possible within the APE for each of the nine undertakings that comprise the California HST System and will be documented in the Project EIR/EIS and the Historic Property Survey Report (HPSR) as described in Attachment C. The content, methodology, level of effort, and documentation requirements for the HPSR shall follow federal and state guidelines and instructions, and are provided in detail in Attachment C. The identification effort and ineligible properties shall be documented in separate technical reports for archaeological properties and historic architectural properties, the drafts of which will be submitted for review by the signatories and other consulting parties including tribal historic preservation officers (THPOs) and tribal representatives who have expressed an interest in the undertaking.
 - i. Archaeological properties include prehistoric and historic archaeological sites, properties identified as per 800.4(a)(4), objects and districts. Evaluations shall be made by Qis fully qualified in the discipline of archaeology. Archaeological properties within the APE that are identified by Qis as historic properties or presumed to be historic properties shall be documented in the HPSR. Archaeological properties evaluated as ineligible for the NRHP by Qis shall be documented in Archaeological Survey Reports (ASR). The content, methodology, level of effort, and documentation requirements for the ASR are provided in detail in Attachment C. A list of archaeological resources exempt from evaluation is provided in Attachment D.
 - ii. Historic architectural properties include historic buildings, structures, objects, sites, landscapes and districts. Evaluations shall be made by Qis. Historic architectural properties within the APE that are identified by Qis as historic properties shall be documented in the HPSR. Historic architectural properties evaluated as ineligible for the NRHP by Qis shall be documented in Historic Architectural Survey Reports (HASR). The content, methodology, level of effort, and documentation requirements for the HASR are provided in detail in Attachment C. A list of historic architectural property types exempt from evaluation is provided in Attachment D.

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3. Other categories of properties that do not warrant evaluation, including those that are minor, fragmentary, or do not meet age or integrity requirements, are exempt from evaluation in the HPSR, ASR, or HASR, and are identified in Attachment D.
 4. A property less than 50 years old with potential exceptional significance or a property greater than 50 years old with characteristics indicating potential eligibility for the NRHP that is determined by a QI as ineligible for the NRHP that is not among the exempt property types identified in Attachment D shall be evaluated and documented in the HPSR if it meets one of the following conditions:
 - i. The property was identified as significant in a state, regional, or local survey of historic properties.
 - ii. The property was designated under a state, regional, or local ordinance with criteria for evaluating properties with historic or architectural significance.
 - iii. The property was identified by the SHPO, THPO, or any party identified as a result of Stipulations IV and V.
 - iv. The property would be acquired, destroyed, demolished, or substantially altered as a result of the undertaking.

C. Evaluation of Historic Properties

1. Upon review and concurrence of the findings by the FRA, a Draft HPSR would be submitted by the Authority to the signatories and identified consulting parties, including Native American tribes, upon request prior to the public circulation of each project DEIS, and would include documentation of all properties in the APE that are listed in the NRHP, previously determined eligible for the NRHP, found eligible for the NRHP by Qis, or that appear ineligible for the NRHP but meet one of the conditions in B.4. of this stipulation. Known archaeological properties that cannot be evaluated prior to approval of an undertaking will be presumed NRHP eligible. Where archaeological testing to determine NRHP eligibility is feasible, project-specific MOAs may include a provision for treatment plans that include archaeological testing or use of a combined archaeological testing and data recovery program.
2. The Authority shall submit its findings in the HPSR to the signatories and consulting parties, including Native American tribes, identified as a result of Stipulations IV.C and V.B, who shall have 30-days to review the HPSR findings and provide their recommendations for changes to the findings based on National Register criteria. If no objection is made, consistent with Stipulation VI.D, within the 30-day period, the findings for those historic properties would become final.
3. Other non-eligible properties not already reported in the HPSR within the APE will be evaluated by Qis, documented for each undertaking in an ASR and/or HASR, and submitted to the SHPO for review and concurrence at the same time as the HPSR or no later than the end of the comment period of the DEIS. If the SHPO, agency reviewer, consulting Native American tribe, or other consulting party asks for additional information or a re-evaluation of a property, that property and the updated finding of eligibility or non-eligibility shall be included in the Final HPSR. Comments received from the SHPO, the THPO, agency reviewer(s), consulting Native American Tribe(s), and other consulting parties will be considered and may be incorporated into a Final HPSR.
4. If, after the submission of the Final HPSR, there are changes to the APE that includes additional properties not exempt from evaluation or information is received that there may be additional historic properties within the APE, a Supplemental HPSR will be prepared, and distributed following review by the FRA, to the SHPO and all parties who received the Final HPSR for a review and comment period of 30 days. If no objection is made, consistent with Stipulation VI.D, within the 30-day period, the findings for those historic properties in the Supplemental HPSR would become final.

D. Eligibility Disagreements

Should a disagreement arise regarding the NRHP eligibility of a property in the APE for an undertaking, the FRA shall forward a Determination of Eligibility documentation to the Keeper of the National Register (Keeper) for resolution in accordance with 36 CFR 800.4(c)(2) if:

1. The SHPO or a federal agency with jurisdiction over the involved lands objects in writing within 30 days to a finding of eligibility, or
2. A Native American tribe or group that ascribes traditional religious and cultural significance to a property objects in writing within 30 days to a Finding of Eligibility regarding that property; and
3. The FRA is not able to resolve that objection through consultation with the SHPO and the objecting party as provided for in Stipulation XVILA.

Should a member of the public disagree with any NRHP eligibility determinations, the Authority shall immediately inform the other signatories in writing and take the objection into account. The Authority shall consult with the objecting party and, if the objecting party so requests, with any or all of the other signatories for no more than 30 days. The Authority shall document such consultation efforts and submit the findings to the FRA for review. Within 14 days following closure of the consulting period, the FRA shall render a decision regarding the objection and notify all parties of this decision in writing. In reaching the decision, the FRA shall take comments from all parties into account and make a good faith effort to resolve the dispute. The FRA's decision regarding resolution of the objection from a member of the public will be final.

E. Phased Identification

In accordance with 36 CFR 800.4(b)(2), phased identification may occur in situations where identification of historic properties cannot be completed. In these cases, subsequent MOAs will provide a provision for the development and implementation of a post-review identification and evaluation effort as applicable to the undertaking.

VII. ASSESSMENT OF ADVERSE EFFECTS

- A. If historic properties are identified within an undertaking, the Authority shall assess adverse effects in accordance with 36 CFR 800.5 and distribute a Findings of Effect report (FOE) to the FRA for review, for each undertaking where historic properties were identified within the APE. The FOE shall describe the assessment of potential adverse effects to historic properties that would result from the construction or operation of the project, and identify mitigation measures that would eliminate or minimize effects to be incorporated into the design and construction documents of the undertaking. Following the FRA review and concurrence, the Authority shall distribute the FOEs to the signatories, and other consulting parties, including Native American tribes, identified as a result of Stipulations IV.C and V.B, who shall have a 30-day review and comment period. The Authority shall ensure that comments are considered prior to finalizing the FOE(s) for submission to the SHPO for final review and concurrence. The SHPO shall have an additional 30 days for review and concurrence with the final FOE(s).
- B. FRA will notify and invite the Secretary of the Interior (represented by the National Park Service regional office's program coordinator) when any project section may adversely affect a National Historic Landmark (NHL) pursuant to 36 CFR 800.10 and Section 110(f) of the NHPA.

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- C. Consistent with 36 C.F.R. § 800.5(b) and (d)(1), the FRA may determine that there is no adverse effect on historic properties within the APE for an undertaking when the effects of the undertaking would not meet the Criteria of Adverse Effect at 36 CFR 800.5(a)(1), the undertaking is modified to avoid adverse effects, or if conditions agreed upon by SHPO are imposed, such as subsequent review of plans for rehabilitation by the SHPO/THPO to ensure consistency with the Secretary's Standards for the Treatment of Historic Properties (36 CFR Part 68) and applicable guidelines, to avoid adverse effects. Any conditions would be included in the DEIS or Final EIS (FEIS).

VIII. TREATMENT OF HISTORIC PROPERTIES

A. Memoranda of Agreement

1. A MOA will be developed by the Authority for each undertaking where the FRA determines there would be an adverse effect to historic properties or when phased identification is necessary and adverse effects would occur.
2. Each MOA will include avoidance, minimization, and protective measures for eligible properties identified in the HPSRs such as preservation-in-place; processes for addressing project design changes or refinements after the HPSRs, FOEs and project EISs are completed, incomplete identification of buried resources, and unanticipated discoveries.
3. The FRA will notify the Council of any findings of adverse effect and invite the Council to participate in the development of the MOAs pursuant to 36 CFR 800.6(a)(1)(i)(c) as appropriate.
4. Should Native American tribes or groups decline to participate as signatories to an MOA, they will not be provided documentation regarding treatment that is called for in this Agreement or in subsequent MOAs unless they expressly request such information. Native American tribes and groups will continue to receive information on the undertakings as part of the NEPA process and may request to consult on an undertaking, or request additional coordination with the Authority or the FRA.
5. Pursuant to 36 CFR 800.11(e) through (g), views of the public will be considered and included where appropriate in individual section MOAs.
6. Upon review, concurrence, and execution of the MOA, Section 106 will be considered concluded for that undertaking.

B. Treatment Plans

1. Prototype treatment plans will be developed by the Authority. Two treatment plans will be developed by the Authority for each undertaking: a Built Environment Treatment Plan and an Archaeological Treatment Plan.
 - i. The Built Environment Treatment Plan (BETP) will provide detailed descriptions of treatment measures for eligible buildings, structures, objects, landscapes and districts that will be affected by the undertaking. The BETP will also include descriptions of measures to be taken to protect historic properties and to avoid further adverse effects to historic properties.
 - ii. The Archaeological Treatment Plan (ATP) will provide detailed descriptions of protection measures for archaeological resources and resources of importance to Federally Recognized Native American Tribes or Native American groups because of cultural affinity. The ATP could include but is not limited to the establishment of environmentally sensitive areas (ESAs), use of preconstruction archaeological excavation, preservation-in-place, avoidance, minimization, monitoring during construction where appropriate, procedures to be followed when unanticipated

discoveries are encountered, processes for evaluation and data recovery of discoveries, responsibilities and coordination with Federally Recognized Native American Tribes, Native American groups, NAGPRA compliance, and curation of recovered materials.

2. Each treatment plan will address historic properties adversely affected and set forth means to avoid, protect, or develop treatment measures to minimize the undertaking's effects where the Authority, in consultation with the appropriate agencies, the SHPO, and other MOA signatories, determines that adverse effects cannot be avoided. The Treatment Plans will conform to the principles of the Council's Treatment of Archaeological Properties: A Handbook Parts I and II, the "Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation" (Federal Register, Vol. 48, September 29, 1983, pp. 44716-44742) and appropriate SHPO Guidelines. The Authority will take into consideration the concerns of the consulting parties in determining the measures to be implemented.
3. Each treatment plan will include, but not be limited to; the content outlined in Attachment C for treatment plans. The consultative procedure through which a treatment plan is developed will address the adverse effect of any undertaking on historic properties and indicate that the treatment plan will be incorporated into an MOA.

C. Treatment Plan Reviews

1. Signatory Review

The Authority shall provide the treatment plans to the MOA signatories and MOA concurring parties for a 30-day review and comment period. Based on comments received, treatment plans will be revised and resubmitted for a final 30-day review. If the MOA signatories and/or MOA concurring parties fail to comment within 30-days of receiving the treatment plan, the Authority shall confirm with the MOA signatories and/or MOA concurring parties that no comments will be made and may then proceed with the undertaking. Treatment plans can be amended by the Authority without amending the MOAs. Disputes will be resolved in accordance with the Dispute Resolution clause in Stipulation XVII.A.

2. Public Participation

The Authority shall take reasonable steps to provide opportunities for members of the public to express their views on the Treatment Plans. Opportunities for public input may include the distribution of treatment plans consistent with 36 CFR 800.2(d)(1-2), 800.3(e), and 800.11(c)(1 and 3). Where appropriate, the Authority will hold informational meetings with the public to explain the treatment plans and obtain comment. Any public comments received will be considered and incorporated into the treatment plans as appropriate.

D. Treatment Plan Implementation

1. Upon execution of each MOA and prior to the commencement of construction activities, each related treatment plan will be implemented. Depending upon the nature of the treatment, the treatment may not be completed until after the undertaking is completed. Termination of the project after initiation of the treatment plans will require completion of any work in progress, and amendment of each treatment plan as described below. Amendments to the treatment plans will be incorporated by written agreement among the signatories to the MOA. Each MOA will outline appropriate reporting processes for the treatment plans.
2. Dispute Resolution

The parties participating in the development and implementation of the Treatment Plans will come to agreement on the treatment prescribed in and the implementation of the Treatment Plan in the MOA. If the parties are unable to come to agreement on the treatment of adverse effects in the MOA, the procedures outlined in XVILA will be followed to resolve the dispute.

IX. CHANGES IN ANCILLARY AREA/CONSTRUCTION RIGHT-OF-WAY

The Authority will notify the MOA signatories and consulting parties of changes in the size or location of ancillary areas or the construction right-of-way that result in changes to the APE, or effects to historic properties (see Attachment B) as appropriate by undertaking. If any changes result in the use of unsurveyed areas, the Authority will ensure that these areas are subject to survey in order to locate any potentially significant cultural resources and that those resources are evaluated for NRHP eligibility. The Authority will consult with the MOA signatories and consulting parties regarding any newly identified historic properties that cannot be avoided. Protective and/or mitigation measures will be developed and the treatment plans will be amended and implemented in accordance with Stipulation VIII. All such changes will be documented in the annual Programmatic Agreement report.

X. CONSTRUCTION APPROVAL

Upon the completion of the pre-construction activities prescribed in the treatment plans, the Authority may authorize construction within portions of the APE after conclusion of treatment plan implementation where adverse impacts would occur and in accordance with the provisions of the applicable MOA, or where no historic properties were identified. If concurrence of the approval to proceed cannot be reached among the signatories, the dispute will be resolved in accordance with Stipulation XVILA.

XI. DISCOVERIES, UNANTICIPATED ADVERSE EFFECTS, UNANTICIPATED DAMAGE

In accordance with 36 CFR 800.13(a)(2), the Authority will ensure that treatment plans prepared prior to implementation of the undertaking include measures to be completed in the event of a discovery or unanticipated adverse effect or damage. If a previously undiscovered archaeological, historical, or cultural property is encountered during construction, or previously known properties will be affected or have been affected in an unanticipated adverse manner, all activity will cease within 50 feet of the property to avoid or minimize harm to the property until the Authority in consultation with the MOA signatories can determine the resource's eligibility, identify the effects, determine if adverse effects can be avoided by alteration of construction methods or the installation of protective measures, and, if not mitigate impacts to the new discoveries or newly affected properties in accordance with the stipulations of project-specific MOAs and treatment plans.

At a minimum, the treatment plan developed for each undertaking as part of the development of each MOA will outline the process to be followed if historic properties are discovered or there are unanticipated effects on historic properties located within a project's APE after the undertaking has been initiated. The Authority will implement the following procedures:

- A. The Authority shall ensure that all operations for the portion of the undertaking with the potential to affect an historic property are immediately ceased and will contact the FRA upon unanticipated resource discovery;
- B. The Authority shall make a preliminary determination of the National Register eligibility of the historic property and the potential for the undertaking to adversely affect the resource and shall forward that finding to FRA who will make the final eligibility determination. If adverse effects to the resource can be avoided, no consultation with MOA signatories and consulting parties is necessary. If adverse effects cannot be avoided, the Authority will consult with the MOA signatories and propose treatment measures to minimize the effects.

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- C. The Authority shall notify Federally-recognized Native American tribes of any discoveries that have the potential to adversely affect properties of religious or cultural significance to them within 24 hours of the discovery. After reviewing such discoveries, the Native American tribes can request further consultation on the project by notifying the Authority, in writing or other documented means within 48 hours, as feasible. For interested Native American groups that are not Federally-recognized, the Authority shall notify them of any discoveries that have the potential to adversely affect properties of religious or cultural significance to them within 24 hours of the discovery. After reviewing such discoveries, such interested Native American groups can request further consultation on the project by notifying the Authority in writing within 48 hours, as feasible; and
 - D. The Authority shall implement the avoidance, minimization, or treatment plan and advise the FRA and other signatories of the satisfactory completion of the approved work. Once the approved work is completed, the activities that were halted to address the discovery situation may resume; and
 - E. Any treatment to damaged properties will follow the Secretary of the Interior's Standards for the treatment of historic properties. If the Authority determines damaged property should be repaired after construction is completed, then stabilization measures that will prevent and not cause further damage will be installed; and
 - F. If a National Historic Landmark is affected, the Authority shall include the Secretary of the Interior (represented by the National Park Service regional office's program coordinator) and the Council in the notification process.

XII. CONFIDENTIALITY

All parties to this Agreement shall ensure that shared data, including data concerning the precise location and nature of historic properties and properties of religious and cultural significance are protected from public disclosure to the greatest extent permitted by law, including conformance to Section 304 of the NHPA, as amended and Section 9 of the Archaeological Resource Protection Act and Executive Order on Sacred Sites 13007 FR 61-104 dated May 24, 1996.

XIII. HUMAN REMAINS

A. Notification and Treatment

1. If human remains are inadvertently discovered during construction activities, all construction will cease within 100 feet in all directions of human remains and the Authority will immediately notify the appropriate parties in accordance with the project specific Treatment Plan. Human remains and grave goods will be treated in accordance with the Treatment Plan.
2. Federal agencies party to this Agreement will be responsible for curation of all records and other archaeological items resulting from identification and data recovery efforts on Federal lands within the agency's jurisdiction. This includes ensuring that the disposition of any human remains and associated funerary objects of Native American origin encountered on federal land during any action subject to this Agreement complies with § 3(c)(d) of the Native American Graves Protection and Repatriation Act and its implementing regulations codified at 43 CFR Part 10.
3. Any human remains and funerary objects discovered on non-federal land during the implementation of the terms of this Agreement and during the implementation of the undertaking itself will be treated by the Authority, in accordance with the requirements of § 7050.5(b) of the California Health and Safety Code. If, pursuant to § 7050.5(c) of the California Health and Safety Code, the county coroner/medical examiner determines that the human remains are or may be of Native American

origin, the discovery shall be treated in accordance with the provisions of §§ 5097.98 (a) - (d) of the California Public Resources Code. The Authority will ensure that to the extent permitted by applicable law and regulation, the views of the Most Likely Descendant(s) are taken into consideration when the Authority makes decisions about the disposition of Native American human remains and funerary objects, and will further ensure the respectful treatment of each such set of remains and funerary objects.

B. Final Disposition of Human Remains

The FRA and Authority will ensure that every effort is taken to avoid disturbing known human burial sites. Where avoidance is not possible, and in consultation with appropriate tribal representatives and if applicable, Federal land management agencies with jurisdiction, burials will be removed prior to construction and treated in accordance with applicable federal and state laws and as outlined in the treatment plan developed for each undertaking.

XIV. CURATION

A. Collections from Federal Lands

Federal agencies party to this Agreement will be responsible for curation of all records and other archeological items resulting from identification and data recovery efforts on Federal lands is completed in accordance with 36 CFR Part 79, and if the archeological materials are determined to be of Native American origin, the agencies will follow NAGPRA regulations and procedures set forth in 43 CFR Part 10. The Authority shall ensure that documentation of the curation of these materials is prepared and provided to the affected parties to this Agreement within 10 days of receiving the archeological materials.

B. Collections from Private Lands

Private landowners will be encouraged to curate archeological materials recovered from their lands in accordance with 36 CFR Part 79 and the provisions of 43 CFR Part 10. Materials from private lands to be returned to the private landowners after completion of the undertaking shall be maintained in accordance with 36 CFR Part 79, and 43 CFR Part 10 if the archeological materials are determined to be of Native American origin, until all necessary analysis has been completed. The Authority shall document the return of materials to private landowners or alternate curation facilities and submit copies of this documentation to the affected parties to this Agreement. Landowners will be encouraged to rebury items close to their original location.

C. State Lands

The Authority will ensure that all cultural materials discovered on state lands will be curated in accordance with 36 CFR Part 79, the provisions of 43 CFR 10 if the archeological materials are determined to be of Native American origin, and California Guidelines for the Curation of Archeological Collections (May 7, 1993). The Authority will encourage state land agencies to consult with Native American tribes and groups, affiliated with the cultural materials, on repatriation. Appropriate treatment and disposition may occur through onsite reburial of the cultural materials recovered from state lands. In the event that the state agencies and consulting tribes cannot agree, the FRA will ensure that all cultural materials discovered on state lands will be curated in accordance with the project MOA and Treatment Plan.

XV. DOCUMENTATION STANDARDS

- A. All documentation that supports the findings and determinations made under this Agreement shall be consistent with 36 CFR 800.11 and shall be in accordance with the Authority's requirements and its subsequent revisions or editions and with attachments to this Agreement. Documentation shall be submitted to the Authority and prepared by Qis who, at a minimum, meet the Secretary of the Interior's Professional Qualifications Standards (48 FR 44738-44739) (Appendix A to 36 CFR Part 61). The Authority shall review the documentation for adequacy, and transmit all documentation cited herein as stipulated by this Agreement.
- B. All documentation prepared under this Agreement shall be kept on file at the Authority and the FRA and made available to the public without the inclusion of culturally sensitive information that may jeopardize confidentiality as stipulated by this Agreement, consistent with applicable confidentiality requirements and Federal records management requirements.

XVI. AUTHORITIES

Compliance with the provisions of this Agreement does not relieve the FRA or other federal agencies of their responsibilities to comply with other legal requirements, including those imposed by the NAGPRA (25 U.S.C. Section 3001 and 43 CFR 10), the ARPA (16 U.S.C. Section 470 aa-47011), and the NEPA (42 U.S.C. Section 4321-4347), and applicable Executive Orders.

XVII. ADMINISTRATIVE STIPULATIONS

A. Dispute Resolution

1. Should any signatory to this Agreement object within 30 days to any action proposed or any document provided for review pursuant to this Agreement, the FRA shall consult with the objecting signatory to resolve the objection. If the FRA determines that the objection cannot be resolved within 15 days, the FRA shall forward all documentation relevant to the dispute, including the FRA's proposed resolution, to the Council. The FRA will also provide a copy to all signatories and consulting parties for the undertaking. The Council shall provide the FRA with its advice on the resolution of the objection within 30 days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the FRA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the signatories and consulting parties, including Native American tribes, and provide them with a copy of this written response. The FRA will then proceed according to its final decision.

If the Council does not provide its advice regarding the dispute within 30 days, the FRA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the FRA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and consulting parties for the undertaking, and provide them and the Council with a copy of such written response.

2. Should a consulting party or member of the public disagree with findings, made pursuant to this Agreement, the Authority shall immediately inform the signatories in writing and take the objection into account. The Authority shall consult with the objecting party and, if the objecting party so requests, with any or all of the other signatories for no more than 30 days. Within 14 days following closure of the consulting period, the FRA shall render a decision regarding the objection and notify all parties of this decision in writing. In reaching the decision, the FRA shall take comments from all parties into account. The FRA's decision regarding resolution of the objection will be final.

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3. The FRA's and the Authority's responsibility to carry out all other actions under this Agreement that are not subject to dispute will remain unchanged.

B. Amendment

1. The signatories to this Agreement may request that it be amended, whereupon the signatories will consult to consider such amendment. This agreement may be amended only upon written concurrence of all signatory parties.
2. To address minor changes in the undertaking or the treatment of historic properties affected by the undertaking, the Authority may propose revisions to the treatment plans rather than to this Agreement. Upon the written concurrence of the signatories, the FRA may revise the treatment plans to incorporate the agreed upon changes without executing a formal amendment to this agreement.
3. Revisions to an attachment to this Agreement would be implemented through consultation and include any necessary revisions to the Agreement itself that may result from modification of an attachment.

C. Review and Reporting

1. The signatories and consulting parties, including Native American tribes, may review activities carried out by the Authority pursuant to this Agreement. The Authority shall facilitate this review by compiling specific categories of information to document the effectiveness of this Agreement and by making this information available in the form of a written annual Programmatic Agreement report. Categories of information shall include, but are not limited to, a summary of actions taken under this Agreement, including all findings and determinations, public objections, and inadvertent effects or foreclosures. The range and type of information included by the Authority in the written report and the manner in which this information is organized and presented must be such that it facilitates the ability of the reviewing parties to assess accurately the degree to which the Agreement and its manner of implementation constitute an efficient and effective program under 36 CFR Part 800.
2. The Authority shall prepare the written report of these findings annually following execution of this Agreement. The Authority shall submit the annual reports to the FRA, the SHPO, and the Council no later than three (3) months following the end of the State fiscal year until all treatment is completed. There will be a 30-day period to review and comment on the report. The Annual Programmatic Agreement Report will be finalized within 30 days of receipt of comments.
3. The Authority shall provide that the report herein prescribed is available for public inspection. The report will be sent to signatories and consulting parties, including Native American tribes, of this Agreement and any subsequent MOAs, and a copy available to members of the public for comment, upon request.
4. In conjunction with the review of the reports prepared by the Authority, the signatory parties shall consult in an annual teleconference to review the overall effectiveness and benefits of this Agreement, determine if its requirements are being met, decide if amendments to the Agreement are warranted, review the reporting format and categories for adequacy, and identify any other actions that may be needed in order to take into account the effects of the undertakings on historic properties in California.

D. Termination

The FRA, the Council, the SHPO, or the Authority may terminate this Agreement by providing 30 days written notice to the other signatories; the signatories shall consult during the 30-day period prior to

termination to seek agreement on amendments or other actions that would avoid termination. Should such consultation result in an agreement on an alternative to termination, the signatory parties shall proceed in accordance with that agreement. Should a signatory party propose termination of this Agreement, they will notify the other parties in writing. If any of the signatories individually terminates their participation in the Agreement, then the Agreement is terminated in its entirety. In the event of termination, then the FRA shall either consult in accordance with 36 CFR 800.14(b) to develop a new Agreement or request the comments of the Council pursuant to 36 CFR 800. Beginning with the date of termination, the FRA shall ensure that until and unless a new Agreement is executed for the actions covered by this Agreement, such undertakings shall be reviewed individually in accordance with 36 CFR 800.4-800.6.

E. Duration of this Agreement

In the event that the terms of this Agreement are not carried out within 10 years, this Agreement shall be assessed by the signatories to determine if it is working well, or whether it should be terminated. If the Agreement is effective and its duration needs to be extended, the signatories can decide to extend the duration of the Agreement. If the signatories determine that the Agreement is effective, but needs revisions appropriate revisions based on evaluation of patterns in the implementation of the Agreement over the first 10 years will be made. In the event the signatories determine that the Agreement is not effective and cannot be amended to address concerns, the Agreement shall be considered null and void, memorialized in a letter to the signatories from the FRA. If the FRA or another Federal agency party to this agreement chooses to continue with the undertaking, it shall re-initiate review of the undertaking in accordance with 36 CFR Part 800. Otherwise, the FRA and all other appropriate signatories shall comply with 36 CFR 800 Subpart B with regard to individual actions covered by this Agreement.

F. Execution and Implementation of the Agreement

This Agreement and its attachments shall take effect following execution by the Council. Additional attachments or amendments to this Agreement shall take effect on the dates they are fully executed by the FRA, the SHPO, the Council, and the Authority.

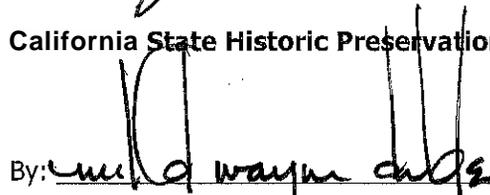
Execution of this Agreement by the FRA, the Authority, SHPO, and the Council and implementation of its terms evidence that the FRA has taken into account the effects of this undertaking on historic properties and afforded the Council an opportunity to comment.

SIGNATORY PARTIES

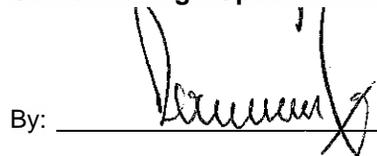
Federal Railroad Administration

By:  Date: 7/15/11

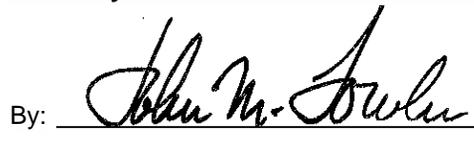
California State Historic Preservation Officer

By:  Date: 14 JUL 2011

California High-Speed Rail Authority

By:  Date: 6/28/2011

Advisory Council on Historic Preservation

By:  Date: 7/22/11

CONCURRING PARTY

Soboba Band of Luiseno Indians

By: _____ Date: _____

CONCURRING PARTY

Pechanga Band of Luiseno Mission Indians

By: _____ Date: _____

ATTACHMENT A

High-Speed Train System Map



ATTACHMENT B

AREA OF POTENTIAL EFFECTS DELINEATION

In accordance with Stipulation VLA. of this Agreement, The Authority shall establish the Area of Potential Effects (APE) for undertakings covered by this Agreement. The Authority using Qualified Investigators (Qis) would be responsible for describing and establishing the APE and will sign any maps or plans that define or redefine an APE.

As defined in 36 CFR 800.16(d), an APE is "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking."

Different APEs may be established for archeological properties and historic architectural properties:

Archaeological Properties

For archeological properties, an APE is typically established based on an undertaking's potential for direct effects from ground-disturbing activities. On occasion, archeological sites may also have qualities that could be affected indirectly.

The APE for archaeological properties is the area of ground proposed to be disturbed during construction of the undertaking, including grading, cut-and-fill, easements, staging areas, utility relocation, borrow pits, and biological mitigation areas, if any.

Traditional cultural properties and cultural landscapes are more likely to be subject to indirect, as well as direct, effects, thus the APE for such properties is usually broader than the archeological APE in order to include the potential for such effects. For instance, the first row of potential properties beyond the right-of-way may be subject to such effects and thus included in an indirect APE when warranted.

Historic Architectural Properties

The APE for historic architectural properties includes all properties that contain buildings, structures or objects more than 50 years of age at the time the intensive survey is completed by the Qis, as follows:

1. Properties within the proposed right-of-way;
2. Properties where historic materials or associated landscape features would be demolished, moved, or altered by construction;
3. Properties near the undertaking where railroad materials, features, and activities *HAVE/CT*been part of their historic setting and where the introduction of visual or audible elements may affect the use or characteristics of those properties that would be the basis for their eligibility for listing in the National Register; and
4. Properties near the undertaking that were either used by a railroad, served by a railroad, or where railroad materials, features, and activities *//4l/£*long been part of their historic setting, but only in such cases where the undertaking would result in a substantial change from the historic use, access, or noise and vibration levels that were present 50 years ago, or during the period of significance of a property, if different.

For the California High-Speed Train Project, a key phrase in the APE definition in the Section 106 regulations contained within 36 CFR 800.16(d) is "may...cause alterations in the character or use of historic properties" because many of the undertakings involve the construction of high speed rail alongside existing railroads. In such cases, potential historic properties near the proposed undertaking

historically had railroad features, materials, and activities within their setting that contributed to their character, or may even have been used by or served by the railroad. For example:

- the character and use of a historic railroad passenger or freight depot or railroad bridge *would not change* unless it would be put out of service, destroyed, altered, or moved for the undertaking;
- the character and use of an industrial building next to existing railroad tracks *would not change*, unless freight railroad service was an important association and the spur lines or loading areas would be removed by the undertaking;
- The character and use of buildings *would not change* if they would be separated from the undertaking by an existing railroad; however,
- the character of a non-railroad or non-industrial building *would likely change* if the building is visually sensitive and the proposed undertaking introduces an elevated grade separation or other large building or structure;
- the use of a non-railroad or non-industrial building *would likely change* if the building is sensitive to noise, like a school, museum or library, and the frequency of noise or vibration events from passing trains is increased over historic-era railroad events.

However, some sections of an undertaking may be introducing rail service where none existed during the historic era, for example along a highway or through agricultural fields. For such sections, the undertaking is more likely to change the character or use of a historic property, and the APE would take into account changes to its setting and the introduction of visible or audible elements that are out of character with the property. Other effects to be considered when delineating the APE may include, but are not limited to, physical damage or destruction of all or part of a property; physical alterations; moving or realigning a historic property; isolating a property from its setting; visual, audible, or atmospheric intrusions; shadow effects; damage from vibrations; and change in access or use.

When delineating the APE, the Qis shall follow the identification methodology in Stipulation VLB., which are different for archaeological properties and historic architectural properties. The Qis shall take into account the nature of the proposed undertaking and whether or not it has the potential to affect the characteristics that might qualify the property for eligibility to the NRHP. Whenever an undertaking is revised (e.g., design changes, utility relocation, or additional off-site mitigation areas), the Qis will determine if changes require modifying the APE. If an APE proves to be inadequate, the Authority is responsible for informing consulting parties in a timely manner of needed changes. The APE should be revised commensurate with the nature and scope of the changed potential effects.

ATTACHMENT C

HST PROGRAM DOCUMENTATION AND FORMAT GUIDELINES

PURPOSE

The purpose of the HST program method for evaluation of cultural resources is to describe, in greater detail, how the FRA and the Authority will implement the Section 106 process for each HST section and ensure that the identification and evaluation of cultural resources is conducted in accordance with the *Secretary of Interior's Standards and Guidelines for Archeology and Historic Preservation (Standards and Guidelines)* (48 CFR 44716-44742) and 36 CFR 800.4.

The historic properties that should be identified include any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places (NRHP) maintained by the Secretary of Interior. This includes artifacts, records, and remains which are related to such district, site, building, structure, or object (16 U.S.C. Section 470(w)(5)). The term includes properties of traditional religious and cultural importance to an Indian Tribe or organization that meet the National Register criteria. Properties eligible for inclusion in the National Register can be properties that are formally determined as such in accordance with regulations of the Secretary of Interior and all other properties that meet the National Register criteria. The level of identification needed varies depending on the nature of the property or property type, the nature of the agency's authority, and the nature of the proposed undertaking's possible effects on the property. Properties that the Qis may find exempt from evaluation are described in Stipulation VLB.3 and Attachment D.

METHODOLOGY FOR IDENTIFICATION OF HISTORIC PROPERTIES

The Area of Potential Effects (APE) would be delineated as described in Stipulation VI.A and Attachment B, using the best professional judgment of the Qis and taking into account historic property sensitivity and the effects that would occur from construction and operation of the undertaking. An APE Map showing the most current engineering available for the undertaking and the boundary delineated by Qis would be submitted to SHPO with the Historic Property Survey Report (HPSR) or separately if SHPO concurrence with adequacy of the APE is desired prior to the HPSR. The APE maps would be on an aerial base at a scale of 1"=250' in urban areas and 1"=400' in rural areas and indicate whether the project is at-grade, elevated, or in tunnel configuration.

In consultation with the SHPO and other parties to the Section 106 process, including Native American tribes, FRA and the Authority will identify resources, determine eligibility, and treat any adverse effects, as outlined in 36 CFR Part 800 following guidance developed by the National Park Service and in conformance with the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation 1983 (48 FR 44716, as amended) as enumerated below:

- To identify known locations of historic properties within the APE, review the records for previously recorded archaeological properties and historic architectural properties at the local Information Center (IC) of the California Historical Resources Information System (CHRIS). While at the IC, collect information on recorded sites within the APE, for the range of alternative HST project alignments. Review previous survey technical reports conducted within the APE for historic contexts, bibliography, and determination of significance of sites. Review historic USGS maps. Review properties listed in the National Register of Historic Places and the California Register of Historical Resources, the California Historical Landmarks and Points of Historical Interest lists, Land Grant maps, Online Archive of California, Government Land Office Plat Maps, and Sanborn Fire Insurance Maps for urban areas as appropriate.

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- Review survey findings conducted by local governments, historical societies, or historic preservation organizations, local historic landmark or monument designations, and any other inventories that may help identify or establish the significance of historic properties.
 - Review subdivision maps, assessor maps, county/city directories, utility records, building permits, photographs, newspapers, diaries/journals, architectural drawings, Agency Records, Residential- and Commercial-Building Records, oral histories, thesis/dissertations, and preferred local and credible history studies. Research should be conducted with the appropriate agencies, knowledgeable individuals, local and regional historical societies, archives, and libraries.
 - Develop relevant historic themes and contexts for the identification and evaluation efforts of historic properties within the APE. Use National Register Bulletin No. 15 for guidance.
 - Employ standard archaeological inventory methods. Conduct presence/absence testing, if necessary, in areas where subsurface remains may be present. For resources that cannot be avoided conduct test excavations to determine resource significance in accordance with the research design.
 - Consult with interested Native American Tribe(s) and other cultural groups to identify and evaluate any potential TCPs and cultural landscapes that could be affected by the project following the methods outlined in the National Register Bulletin 38 and the Secretary of the Interior's Standards for the Treatment of Historic Properties, respectively.
 - Perform an intensive survey to identify, record, and evaluate architectural properties adjacent to the proposed alignment, stations and support facilities built within the time period identified in the plan to document and inventory all historic buildings, structures, objects, districts, and cultural landscapes in sufficient detail to permit evaluation for the NRHP (per Section 106 of the NHPA) and the California Register of Historic Resources (CRHR) (per California Public Resources Code Section 5024.1 and 21084.1). Use field maps at 1" = 250' scale that have delineated parcel boundaries, APE boundaries, Assessor Parcel Numbers (APNs), street names, prominent natural and man-made features, and previously recorded sites. Based on the number of historic properties within the APE, a field database may be required. Documentation and evaluation efforts will follow the guidelines of National Register Bulletin No. 15 and the California Office of Historic Preservation (OHP) Instructions for Recording Historic Properties (DPR 523 series forms). Private spaces (i.e., building interiors), suburban backyards, and restricted areas will not be surveyed. Surveys will occur from public vantage points, and if access is infeasible, then the property will be evaluated solely on available information or right-of-entry will be coordinated by the Authority.

TECHNICAL REPORTS

- After completion of the archaeological and historic architectural research, inventories and evaluations, and tribal consultations prepare reports to document the findings and identification effort, and if any historic properties are identified for an undertaking, prepare a report to analyze the effects of the undertaking. Technical reports will be submitted to SHPO in both hard copy and electronic format, and the evaluations made on DPR 523 forms will also be submitted in a data format that is compatible for uploading to SHPO's historical resource inventory database. At a minimum, the technical reports shall follow the following format and content requirements.

A. Historic Property Survey Report (HPSR)

The HPSR would include documentation of all properties in the APE that are:

1. listed in the NRHP,
2. previously determined eligible for the NRHP,
3. found eligible for the NRHP by Qis,
4. presumed eligible for the NRHP by Qis, or
5. that are ineligible for the NRHP and meet one of the following conditions:
 - a. The property was identified as significant in a state, regional, or local survey of historic properties.
 - b. The property was designated under a state, regional, or local ordinance with criteria for evaluating properties with historic or architectural significance.
 - c. The property was identified by the SHPO, THPO, or any party identified as a result of Stipulations IV and V.
 - d. The property is not exempt from evaluation as identified in Attachment D and would be acquired, destroyed, demolished, or substantially altered as a result of the undertaking.

The HPSR would ~~NOT~~ include documentation of:

1. Properties that are exempt from evaluation as identified in Attachment D.
2. Non-exempt and non-NRHP eligible properties with the exception of Section A.5, above. Such properties would be documented in the Archaeological Survey Report (ASR) or Historic Architectural Survey Report (HASR).

The HPSR format and content is as follows:

1. Description of the Undertaking

This section shall summarize the description of the undertaking, its location, and any alternatives being considered. If alternatives have been developed to avoid or minimize effects on historic properties, those alternatives may be described here or in the Findings of Effect report.

2. Summary of Findings

This section should include findings for historic properties identified in the APE, and for any non-eligible properties for which SHPO concurrence on ineligibility is needed early in the environmental process.

3. Consulting Parties, Public Participation

This section shall summarize the coordination efforts and public comments received to date from federal, state, and local government agencies, Native American groups, historical societies, or other interest groups. The summary should include outreach done specifically for Section 106 as well as for NEPA.

4. Summary of Identification Effort

Include inventories, facilities, groups, and persons consulted to identify previously determined and potential historic properties.

5. Historic Context

Include those historic contexts developed to evaluate the historic properties identified. Other historic contexts that were developed may be listed in the HPSR, and reported in the ASR or HASR.

6. Historic Properties Identified

Provide a list of historic properties identified within the APE, and a brief description of their significance, including the applicable NRHP criterion or criteria, and level, period, and area of significance. Include, as appropriate:

- a. Historic properties listed in the NRHP.
- b. Historic properties previously determined eligible for the NRHP.
- c. Historic properties determined eligible for the NRHP for which SHPO concurrence is requested.
- d. Archaeological properties that are currently being evaluated and are presumed eligible for the NRHP
- e. Properties evaluated as not eligible for the National Register, for which SHPO concurrence is needed early in the NEPA process.

7. Findings

Summarize the findings for historic properties identified within the APE for which SHPO concurrence is sought.

8. References

Include bibliographic references used for the historic contexts and any literature, inventories or surveys used to identify or evaluate historic properties.

9. Preparer qualifications

List the Qis and their qualifications who prepared the HPSR and evaluated the historic properties.

Attachments to the HPSR:

1. Project location and vicinity maps
2. Area of Potential Effects Map
3. Letters from historical societies, Native American groups, local governments, other special interest groups, etc.
4. DPR 523 forms supporting the findings for historic properties in the HPSR. The DPR 523 forms shall be prepared in accordance with the California Office of Historic Preservation's *Instructions for Recording Historical Resources* (March 1995) for intensive survey level of effort.

B. Archaeological Survey Report (ASR)

The ASR includes all documentation for the identification and evaluation of archaeological resources not submitted to SHPO in the HPSR. This includes those resources that are not eligible for the NRHP and are non-exempt according to Attachment D. The ASR may be submitted as an attachment to the HPSR or as a subsequent document in support of the overall Section 106 findings. The ASR format and content is as follows:

1. Introduction
 - a. This section should include a discussion about the PA and how it was followed in this document.
2. Summary of Findings
 - a. This section should include The Authority's findings for any archaeological properties evaluated and determined not eligible for the NRHP for which SHPO concurrence is being requested within 30 days of receipt of the ASR.
 - b. For reference, this section should include a summary of those archaeological properties reported to SHPO in the HPSR.
3. Description of the Undertaking
 - a. This section shall summarize the description of the undertaking, its location, and any alternatives being considered.
4. Description of the APE
 - a. This section should include a description of the APE, the application of the PA guidance and how the boundary was determined.
5. Summary of Identification Effort
 - a. Include inventory and field methodologies (including a description of any sub-surface investigation, if appropriate), results of archival research including Sanborn mapping as appropriate, and involvement of the public including Native American groups, and individuals.
6. Historic and Geomorphic Context
 - a. Include those historic contexts developed to evaluate the archaeological resources to determine if they are historic properties eligible for the National Register of Historic Places. The report should also describe the geomorphology of the project area and assess the potential for previously unrecorded buried archaeological resources.
7. Findings
 - a. Summarize the findings for properties determined eligible for the NRHP, that were identified within the APE and for which SHPO concurrence is sought. Provide a

description of properties found not eligible for the NRHP within the APE, and a description of the property, its location, and why it lacked significance.

8. References

- a. Include bibliographic references used for the historic contexts and any literature, inventories or surveys used to help evaluate the properties according to NRHP criteria.

9. Preparer qualifications.

- a. List the Qis and their qualifications, that prepared the ASR and evaluated the properties ineligible for the NRHP.

Attachments to the ASR:

1. Project location and vicinity maps
2. Area of Potential Effects Map
3. Letters from Native American groups, local governments, historical societies, other special interest groups, etc.
4. DPR 523 forms supporting the findings for properties ineligible for the NRHP in the ASR. The DPR 523 forms shall be prepared in accordance with the California Office of Historic Preservation's *Instructions for Recording Historical Resources* (March 1995) for intensive survey level of effort.

C. Historic Architectural Survey Report (HASR)

The HASR includes the documentation for evaluating historic architectural properties that are not eligible for the NRHP, are non-exempt according to Attachment D, and were not reported in the HPSR. The HASR may be submitted as an attachment to the HPSR or as a subsequent document. The HASR format and content is as follows:

1. Introduction

- a. A discussion about the PA and how it was followed in this document.

2. Summary of Findings

- a. This section should include The Authority's findings for any non-eligible properties for which SHPO concurrence is requested within 30 days of receipt of the HASR, but which were not submitted in the HPSR.

For reference, this section should include a summary of those historic architectural properties reported to SHPO in the HPSR.

3. Description of the Undertaking

- a. This section shall summarize the description of the undertaking, its location, and any alternatives being considered.

4. Description of the APE

-
- a. Description of the APE, the application of the PA guidance and how the boundary was determined.
5. Summary of Identification Effort
 - a. Include inventories, facilities, groups, and persons consulted to identify previously determined and potential historic properties not reported in the HPSR.
 6. Historic Context
 - a. Include those historic contexts developed to evaluate the properties evaluated in the HASR that are not eligible for the NRHP.
 7. Properties Identified as Not Eligible for the NRHP,
 - a. Provide a list of properties found not eligible for the NRHP within the APE, and a brief description of that describes the property, its location, and why it lacked significance. This may be done in a simple table format.
 8. Findings
 - a. Summarize the findings for properties not eligible for the NRHP that were identified within the APE and for which SHPO concurrence is sought.
 9. References
 - a. Include bibliographic references used for the historic contexts and any literature, inventories or surveys used to help evaluate the properties according to NRHP criteria.
 10. Preparer qualifications
 - a. Identify and list the qualifications of the Qis who prepared the HASR and evaluated the properties ineligible for the NRHP.

Attachments to the HASR:

1. Project location and vicinity maps
2. Area of Potential Effects Map
3. Letters from historical societies, Native American groups, local governments, other special interest groups, etc.
4. DPR 523 forms supporting the findings for properties ineligible for the NRHP in the HASR. The DPR 523 forms shall be prepared in accordance with the California Office of Historic Preservation's *Instructions for Recording Historical Resources* (March 1995) for intensive survey level of effort.
5. Streamlined documentation format for *substantially altered* properties constructed more than 50 years ago will be provided as follows:
 - a. Address

-
- b. Year constructed
 - c. List of substantial alterations and/or lost aspects of integrity
 - d. Photograph (may be less than 3"x5" but legible)
 - e. Date surveyed
 - f. Optional information. The following documentation may be provided, but is optional at the discretion of the QI:
 - i. Construction or historical information to understand the historic context {e.g., original use, original owner, architect, engineer, builder, and/or historic resident/tenant/user.}
 - ii. Historic contexts considered, if any, or state "no important historic context"
6. Streamlined documentation format for tract homes and pre-fabricated homes more than 50 years old that are *A/* Eligible for the National Register but are *NOT substantially altered*.
- a. Tract homes within the APE that are part of the same tract may be treated as a group with a common construction history and evaluated on a Primary Record (DPR 523A), District Record (DPR 523 D), and Continuation sheets (DPR 523L) that have photographs of representative house models.
 - b. Pre-fabricated homes that are not associated with permanent buildings or a historic district of pre-fabricated homes will be provided:
 - i. Address
 - ii. Photograph (may be less than 3"x5", but legible)
 - iii. Date surveyed
 - iv. Optional information. The following documentation may be provided, but is optional at the discretion of the QI:
 - a) Approximate year fabricated
 - b) Name of fabricator or model

D. Findings of Effect (FOE)

The Findings of Effect (FOE) report documents the application of the Section 106 criteria for adverse effect (36 CFR 800.5) for each historic property identified within the APE, including all properties reported in the HPSR. The FOE also includes any avoidance alternatives, mitigation measures, or treatment plan as needed for each historic property or property type being adversely affected. Such mitigation and treatment would form the basis for the stipulations in the subsequent MOAs. The FOE should be organized to report on the following findings for an undertaking:

- No effect on historic properties.
- No adverse effect on historic properties (with no mitigation or after standard mitigation).
- Adverse effect on historic properties.

The FOE format and content is as follows:

1. Summary of Findings of Effect

This section should include a summary of findings for any historic properties identified, and whether the effect on them would be negative, not adverse, or adverse, and how the effect is taken into account.

2. Description of the Undertaking

This section shall summarize the description of the undertaking, its location, and any alternatives being considered.

3. Public Participation

Discuss consultation about effects and mitigation with federal, state, and local government agencies, Native Americans, historical societies, or other interest groups. The summary should include outreach done specifically for Section 106 as well as for NEPA. Identify any parties who would be consulting parties in the subsequent MOA.

4. Description of Historic Properties

Using information developed in the HPSR, summarize the historic properties identified in the APE, and describe the essential physical features that comprise the characteristics that qualify each property for the NRHP.

5. Application of the Criteria of Adverse Effect

Discuss the application of the Criteria of Adverse Effect for each historic property. State the most relevant of the criteria and describe in detail the nature of the effect on its essential physical features and how it is adverse or not adverse.

6. Conditions Proposed

Discuss in detail any conditions proposed to avoid adverse effect to each historic property. Present separate sub-sections for any alternatives proposed, or design changes that would be a condition to mitigate the adverse effect, including design considerations to ensure meeting the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR part 68). With SHPO concurrence on the FOE, such mitigation would form the basis for stipulations in a subsequent MOA for the undertaking.

E. Treatment Plans

All Treatment Plans for the independent undertakings of the HST Project will include, but not be limited to:

1. Specification of all historic properties to be affected by the project, including a description of the nature of the effects.
2. A detailed description of the treatments proposed for historic properties or portions of historic properties eligible for the NRHP under 36 CFR Part 60.4 criteria (a), (b), (c) or (d), with an explanation or rationale provided for the choice of the proposed treatments. These treatments will take into account the setting, including but not limited to, visual and atmospheric elements, and vibration, as appropriate, and be responsive to the qualities that contribute to the significance of the affected properties.

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3. Provisions for the creation of a popular account for disseminating the results of the Treatment Plans to the general public, consistent with the Archaeological Resources Protection Act (ARPA), Executive Order on Sacred Sites, the Freedom of Information Act and Section 304 of the NHPA (16 U.S.C. 4702-3).
 4. The archaeological Treatment Plan will, at a minimum, include:
 - A. The Authority's intent to recover a reasonable sample of the intact archaeological deposits from eligible archaeological sites that the agency determines, through the process set out in Stipulation VII of the Agreement, that may be adversely affected by the implementation of the Undertaking;
 - B. Specify the research issues/questions to be addressed through the recovery of data, and provide for a process whereby the research issues/questions will be refined to reflect the information that the Authority gathers as a result of the investigation set out in Stipulation VII of the Agreement;
 - C. Explain why it is in the public interest to address those research issues;
 - D. Explain how data from the historic property will address those research issues/questions;
 - E. Specify the methods to be used in fieldwork and analysis, and explain how these methods are relevant to the research issues/questions;
 - F. Specify the methods to be used in data management and data dissemination;
 - G. Indicate how recovered materials and records will be curated, taking into account the expressed wishes of the consulting Native Americans;
 - H. Include a schedule for providing the consulting Native American Tribes with periodic updates on implementation of the data recovery plan;
 - I. Include a curation agreement that ensures that all materials (other than Native American human remains and grave associated materials) and records are maintained in accordance with 36 CFR 79. Materials recovered from privately owned lands, other than Native American human remains and grave-associated materials that are to be returned to their owners, will be maintained in accordance with 36 CFR 79 until their analysis is completed; and
 - J. Specify the manner in which human remains and grave associated artifacts recovered during data recovery will be treated according to applicable laws and regulations, and in consultation with the wishes of the consulting Native Americans.

ATTACHMENT D

PROPERTIES EXEMPT FROM EVALUATION

Section 106 regulations require a "reasonable and good faith effort" to identify historic properties (36 CFR 800.4[b][1]). The procedures in this attachment concentrate the Authority's efforts on properties that have the potential to be historic properties. A property should be evaluated only if Qis reasonably determine that the property has a demonstrable potential for historic significance. Evidence of such potential consists of associations with significant historic events or individuals (NRHP Criteria A or B); engineering, artistic, design, or aesthetic values (NRHP Criterion C); information value (NRHP Criterion D); the presence of community concerns; or inclusion as a potential contributing element within a larger property requiring evaluation, such as a historic or cultural landscape, traditional cultural property, or historic district. This attachment defines categories of properties that do not warrant evaluation unless deemed otherwise in the professional judgment of Qis. Exempted properties do not require documentation.

ARCHEOLOGICAL PROPERTIES (PREHISTORIC AND HISTORIC) EXEMPT FROM EVALUATION

The following properties are exempt from evaluation, based on the professional judgment of Qis qualified in the area of archaeology:

- Isolated prehistoric finds consisting of fewer than three items per 100 square meters
- Isolated historic finds consisting of fewer than three artifacts per 100 square meters (e.g., several fragments from a single glass bottle are one artifact)
- Refuse scatters less than 50 years old (scatters containing no material that can be dated with certainty as older than 50 years old)
- Features less than 50 years old (those known to be less than 50 years old through map research, inscribed dates, etc.)
- Isolated refuse dumps and scatters over 50 years old that lack specific associations
- Isolated mining prospect pits
- Placer mining features with no associated structural remains or archeological deposits
- Foundations and mapped locations of buildings or structures more than 50 years old with few or no associated artifacts or ecofacts, and with no potential for subsurface archeological deposits
- Building and structural ruins and foundations less than 50 years old.

Qis qualified in California archaeology shall apply professional judgment as to the level of identification effort, in consultation with consulting Native American Tribe(s) where appropriate. This exemption process does not include archeological sites, traditional cultural properties, or other cultural remains or features that may qualify as contributing elements of districts or landscapes.

HISTORIC ARCHITECTURAL PROPERTIES EXEMPT FROM EVALUATION

Qis qualified in the disciplines of history or architectural history may find the following types of historic architectural properties exempt from evaluation and documentation, or have a lesser level of documentation in the HASR:

1. Properties less than 50 years old at the time of the intensive survey unless they may have achieved exceptional significance in accordance with NRHP Bulletin 22.
2. Properties moved within the past 50 years unless they are among the exceptions noted in "Criteria Consideration B: Moved Properties" of National Register Bulletin 15.

The historical architectural property types listed below are exempt from evaluation and will not require documentation, based on the professional judgment of Qis qualified in the disciplines of history or architectural history.

Railroad Related Features:

- Railroad maintenance facilities
- Railroad communication and signaling systems
- Switching and crossing equipment
- Railroad structures such as grade separations, pedestrian overcrossings and underpasses
- Railroad culverts and drainage systems
- Railroad fencing and other right-of-way features
- Access roads for railroads
- Railroad maintenance materials (e.g., ties, track, ballast, etc.)
- Railroad grades converted to other uses, such as roads, levees, or bicycle/pedestrian paths

Water Conveyance and Control Features:

- Natural bodies of water providing a water source, conveyance, or drainage
- Modified natural waterways
- Concrete-lined canals less than 50 years old and fragments of abandoned canals
- Roadside drainage ditches and secondary agricultural ditches
- Small drainage tunnels
- Flood storage basins
- Reservoirs and artificial ponds
- Levees and weirs
- Gates, valves, pumps, and other flow control devices
- Pipelines and associated control devices
- Water supply and waste disposal systems

Recent Transportation or Pedestrian Facilities:

- Light rail systems, including shelters, benches, and platforms
- Bus shelters and benches
- Airstrips and helicopter landing pads
- Vista points and rest stops
- Toll booths
- Truck scales and inspection stations
- City streets, alleys, and park strips
- Sidewalks, curbs, berms, and gutters
- Bike paths, off-road vehicle trails, equestrian trails, and hiking trails
- Parking lot and driveways

Highway and Roadside Features:

- Isolated segments or bypassed or abandoned roads
- Retaining walls
- Curbs, gutters, and walkways
- Highway fencing, soundwalls, guard rails, and barriers
- Drains and culverts, excluding culverts assigned a Caltrans bridge number
- Cattle crossing guards
- Roadside, median, and interchange landscaping and associated irrigation systems
- Street furniture and decorations
- Signs and reflectors
- Parking meters
- Street lighting and controls
- Traffic lights and controls
- Highway operation control, maintenance, and monitoring equipment

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- Telecommunications services, including towers, poles, dishes, antennas, boxes, lines, cables, transformers, and transmission facilities
 - Utility services, including towers, poles, boxes, pipes, lines, cables, and transformers
 - Oil and gas pipelines and associated control devices

Adjacent Features:

- Prefabricated buildings less than 50 years old not associated with permanent buildings or a historic district
- Fences, walls, gates, and gateposts
- Isolated rock walls and stone fences
- Telephone booths, call boxes, mailboxes, and newspaper receptacles
- Fire hydrants and alarms
- Markers, monuments, signs, and billboards
- Fragments of bypassed or demolished bridges
- Temporary roadside structures, such seasonal vendors' stands
- Pastures, fields, crops, and orchards
- Corrals, animal pens, and dog runs
- Open space, including parks and recreational facilities

Movable or Minor Objects:

- Movable vehicles
- Stationary vehicles less than 50 years old or moved within the last 50 years
- Agricultural, industrial, and commercial equipment and machinery
- Sculpture, statuary, and decorative elements less than 50 years old or moved within the last 50 years.

The exemption does not apply to properties 50 years old or older that could be important, nor does it apply to properties that may contribute to the significance of larger historic properties such as districts or landscapes.

MEMORANDUM OF AGREEMENT

AMONG THE FEDERAL RAILROAD ADMINISTRATION, THE CALIFORNIA HIGH-SPEED RAIL AUTHORITY, AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE MERCED-FRESNO SECTION OF THE CALIFORNIA HIGH-SPEED TRAIN SYSTEM IN MERCED, MADERA, AND FRESNO COUNTIES

WHEREAS the Federal Railroad Administration (FRA) and the California High-Speed Rail Authority (Authority) propose to construct a high-speed train (HST) system in California and have completed a Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Merced to Fresno Section of the HST Project (Undertaking); and

WHEREAS a Programmatic Agreement (PA) among FRA, the Advisory Council on Historic Preservation (ACHP), the California State Historic Preservation Officer (SHPO), and the Authority regarding compliance with Section 106 of the National Historic Preservation Act (16 United States Code [U.S.C.] § 470f) and in accordance with its implementing regulations (36 Code of Federal Regulations [CFR] Part 800), as it pertains to the California High-Speed Train Project, was executed on June 15, 2011 (**Attachment 1**); and

WHEREAS the Undertaking consists of constructing a new rail alignment, stations, maintenance facilities, electrical substations, and other appurtenant facilities between Merced and Fresno; and

WHEREAS FRA has concluded that the Undertaking will have an adverse effect on historic properties, as documented in the Findings of Effect report for the Merced to Fresno Section of the high-speed rail system; and

WHEREAS FRA and the Authority have consulted with the SHPO and the ACHP pursuant to the PA and to 36 CFR Part 800 regulations regarding the Undertaking's adverse effects on historic properties, and have notified the ACHP of the adverse effect finding pursuant to 36 CFR § 800.6(a)(1). The FRA and the Authority have invited the ACHP to participate in this Memorandum of Agreement (MOA), and in a letter dated April 23, 2012, the ACHP declined to participate.

WHEREAS FRA and the Authority have determined that the character of the proposed Undertaking's operation and maintenance constrains the Undertaking's design in a manner that precludes the possibility of avoiding adverse effects on the subject historic properties as a result of the Undertaking's implementation, and have further determined that they will resolve such effects through the execution and implementation of this MOA, as well as the Archaeological Treatment Plan (ATP; **Attachment 2**) and the Built Environment Treatment Plan (BETP; **Attachment 3**); and

WHEREAS, FRA and the Authority propose to phase identification of archaeological properties as provided for in Stipulation VI.E of the PA;

WHEREAS, in accordance with Stipulation V.A and V.B of the PA, the FRA and Authority have consulted with affected local governments and other interested parties about the Undertaking and its effects on historic properties and have taken into account all comments received from them. The City of Madera, the City of Fresno, and Fresno County have participated in the consultation and have accepted FRA's and the Authority's invitation to be consulting parties to the development of this MOA, the ATP, and the BETP; and

WHEREAS in accordance with Stipulation IV.A.5 and IV.C.2 of the PA, FRA has formally consulted with or has made a good faith effort to formally consult with the following federally recognized Native American tribes with ancestral ties to Madera, Merced, or Fresno counties and has invited them to participate as consulting parties in the development of this MOA and the ATP: Big Sandy Rancheria of Mono Indians, Cold Springs Rancheria of Mono Indians, Santa Rosa Rancheria Tachi Tribe, the North Fork

Rancheria of Mono Indians, the California Valley Miwok Tribe, the Table Mountain Rancheria, and the Picayune Rancheria of Chuckchansi; and

WHEREAS the California Valley Miwok Tribe, the Cold Springs Rancheria of Mono Indians, the North Fork Rancheria of Mono Indians, and the Santa Rosa Rancheria Tachi Tribe have accepted FRA's invitation to be consulting parties to the development of this MOA and the ATP; and

WHEREAS in accordance with Stipulation IV.B.5, IV.C.1, and IV.C.2 of the PA, the Authority has consulted with or made a good faith effort to consult with the following non-federally recognized Native American tribes with ancestral ties to Madera, Merced, or Fresno counties and has invited them to participate as consulting parties in the development of this MOA and the ATP: Kings River Choinumni Farm Tribe, Dunlap Band of Mono, Choinumni Tribe of Yokuts, the Choinumne Tribe, the Traditional Choinumni Tribe, the North Fork Mono Tribe, the Sierra Nevada Native American Coalition, the Southern Sierra Miwok Nation, the North Valley Yokuts Tribe, and the Chowchilla Tribe of Yokuts; and

WHEREAS the North Fork Mono Tribe and the Chowchilla Tribe of Yokuts have accepted the Authority's invitation to be consulting parties to the development of this MOA and the ATP; and

WHEREAS a list of abbreviations and acronyms, of which shall apply to this MOA, is included in **Attachment 5**;

NOW, THEREFORE FRA, the Authority, and SHPO agree the Undertaking will be implemented in accordance with the following stipulations in order to resolve the effects of the Undertaking on historic properties, and further agree that these stipulations shall govern the Undertaking and all its parts until this MOA expires or is terminated.

STIPULATIONS

The FRA shall ensure that the following stipulations of this MOA are carried out as follows:

I. MODIFICATIONS TO THE AREA OF POTENTIAL EFFECTS

The Area of Potential Effects (APE) for the Undertaking consists of both a Built Environment and Archaeological APE and is described and depicted in **Attachment 4** (Figures 1 to 3) of this MOA. The APE consists of approximately 60 linear miles of track on new alignment, with a right-of-way anticipated to average about 100 feet. The APE represents the maximum extent of any potential direct ground disturbance and of any indirect effects from the construction of the Undertaking. The APE was developed and agreed upon among FRA, the Authority, and the SHPO, and accounts for potential impacts on both archaeological and built-environment resources that may result from the construction and operation of the Undertaking.

If modifications to the Undertaking, subsequent to the execution of this MOA, necessitate the revision of the APE, FRA and the Authority shall submit the revised proposed APE to SHPO. SHPO will have 15 days to review and concur on the APE. If SHPO does not concur, FRA and the Authority will revise the APE based upon SHPO comment and resubmit for concurrence. SHPO will have 15 days to review and concur on this revised APE. Actions to be taken after any such modification shall be conducted in accordance with Stipulations VI.A and IX of the PA.

II. COMPLETION OF HISTORIC PROPERTIES IDENTIFICATION EFFORT FOR THE ARCHAEOLOGICAL APE PRIOR TO CONSTRUCTION

FRA and the Authority acknowledge that approximately 80% of the land in the Undertaking's APE has yet to be surveyed for archaeological resources at the time of the execution of this MOA, due to a lack of legal access to that land. As provided for in Stipulation VI.E of the PA, this MOA addresses the

development and implementation of a post-review identification and evaluation effort for the Undertaking. Completion of the historic properties identification effort will be consistent with Stipulation VI of the PA. FRA and the Authority shall provide the SHPO with the information necessary to document that efforts to identify and evaluate historic properties in the Undertaking's APE are sufficient to comply with 36 CFR § 800.4(b) and (c).

The completion of the phased historic properties identification effort may occur incrementally throughout the APE and will entail pedestrian archaeological survey of the as-yet unsurveyed portions of the APE and testing and evaluation of archaeological sites within the APE that cannot be avoided. For any archaeological site (except those identified as exempt from evaluation, per Attachment D of the PA) identified as a result of the post-review archaeological identification effort, the FRA and the Authority shall provide the SHPO with the information necessary to document that efforts to evaluate resources in the Undertaking's APE are sufficient to comply with 36 CFR § 800.4(c). The ATP describes the methods that will be employed to conduct archaeological site evaluations and specifies where and under what circumstances further efforts to identify significant archaeological deposits will take place within the areas of direct impact.

If testing is not combined with data recovery, the results of testing and evaluation work will be documented in an Archaeological Evaluation Report or Reports (AER). The results of the investigation will provide the basis for National Register of Historic Places (NRHP) and California Register of Historic Places (CRHR) eligibility recommendations. After review and concurrence of the findings by the Authority and FRA, the AER will be submitted to the SHPO and consulting parties for a concurrent 15-day review and comment period. If no objection is made within the 15-day review period, the AER will become final. Any disputes will be addressed under Stipulation V.C of this MOA.

As allowed under Stipulation VI.C of the PA, this MOA includes provisions for treatment plans that include use of a combined archaeological testing and data recovery program. When this approach is implemented, within 14 days of completion of the testing field work within a designated portion of the APE, the Principal Investigator will prepare a Field Summary Letter Report that describes the testing efforts and results within the designated area. The report will include recommendations regarding site eligibility based on the site integrity and the ability to address relevant research questions. With approval from the Authority and FRA, the letter will be submitted to SHPO with a request for concurrence within 15 days. If there is a disagreement, SHPO may conduct a field visit. If a disagreement remains after a field visit, then under Stipulation VI.D of the PA, FRA may forward a Determination of Eligibility documentation to the Secretary of the Interior for resolution in accordance with 36 CFR 800.4(c)(2). Upon SHPO concurrence, treatment will move into the data recovery phase for those resources identified as eligible properties. Where testing and data recovery are combined within a designated portion of the APE, the results of the treatment will be documented in a combined testing and data recovery report for the designated area. After completion of the analysis, a report will be submitted to SHPO and consulting parties for a concurrent 15-day review. If no objection is made within the 15-day review period, the report will become final. Any disputes will be addressed under Stipulation V.C of this MOA.

III. TREATMENT OF HISTORIC PROPERTIES IDENTIFIED IN THE APE

This MOA outlines FRA's and the Authority's commitments regarding the treatment of all historic properties, both currently known and yet-to-be-identified, that will be affected by the Undertaking. Two detailed historic property treatment plans have been prepared for the Undertaking. The **ATP, Attachment 2**, describes treatments for effects on archaeological properties and Native American traditional cultural properties. The **BETP, Attachment 3**, describes the treatments for effects on the built environment resources. The work described in the treatment plans will be conducted prior to construction, during construction, and/or after construction of the Undertaking. The treatments to historic properties known at the time of execution of this MOA are summarized in an impact/treatment table, organized by historic property, in **Attachment 6**. The treatment measures listed will be applied to

historic properties affected in order to avoid, minimize, and/or mitigate impacts of the Undertaking. The Authority shall implement and complete the treatment measures within 2 years of completion of construction of the Undertaking, or earlier if so specified.

The Authority shall ensure that sufficient time and funding are provided to complete all necessary preconstruction commitments before disturbances related to the Undertaking occur. The contractor will consult with the Authority on each portion of the Undertaking to ensure that ground-disturbing activities are approved to proceed before any such activities occur.

A. Archaeological Treatment Plan

The ATP describes in detail the methods that will be employed to complete the historic properties identification effort within the Undertaking's APE as part of the phased identification of archaeological resources. More specifically, the ATP builds upon the identification efforts completed to date and specifies where and under what circumstances further efforts to identify significant archaeological deposits will take place within the Undertaking's areas of direct impact. The ATP also describes in detail the avoidance, minimization, and/or mitigation treatment measures for all currently known and yet-to-be-identified significant archaeological resources and Native American cultural resources affected by the Undertaking. FRA and the Authority commit to implementing the terms of the ATP. The major elements and commitments in the ATP include the following:

- **Project Personnel Roles and Responsibilities**
- **Archaeological survey/identification**
- **Archaeological evaluations/eligibility determinations**
- **Findings of effect determinations**
- **Establishment of environmentally sensitive areas (ESAs), where feasible**
- **Intentional site capping for preservation in place of significant archaeological sites, where feasible**
- **Data recovery excavations**
- **Procedures and protocols for archaeological monitoring during construction**
- **Procedures and protocols for unanticipated discoveries during construction**
- **Protocols for the treatment of human remains of Native American origin**
- **Responsibilities for consultation and coordination with Indian tribes**
- **Native American Graves Protection and Repatriation Act (NAGPRA) compliance (where applicable)**
- **Ownership and curation of archaeological materials**

As described in the Project Roles and Responsibilities section of the ATP, the cultural resources Principal Investigator (PI) is responsible for the preparation of all technical reports/deliverables necessary to satisfy the commitments of the ATP and for the submittal of those reports and

deliverables to the Authority and FRA for review and approval. Upon review and approval by the Authority and FRA, the Authority is responsible for submitting the documentation to the SHPO and the consulting parties to this MOA. The SHPO and the consulting parties to this MOA shall have the opportunity to review and comment on all cultural resources documentation prepared under the terms of the ATP within 15 days, unless otherwise stated in the ATP. The documents and deliverables associated with the commitments detailed in the ATP are listed in Section 14.0 of the ATP. If the SHPO does not comment within 15 days, then the documentation will be considered final and work will proceed. Electronic submittals of draft documents for review and comment are acceptable.

B. Built Environment Treatment Plan

The BETP provides detailed descriptions of treatment measures for built environment historic properties located within the APE that will be affected by the Undertaking and are listed in **Attachment 6**. The treatments will be carried out by qualified professionals (see Section V.A, below). The treatment measures are included in the BETP and are intended to avoid, minimize, and/or mitigate adverse effects caused by the Undertaking. FRA and the Authority commit to implementing the terms of the BETP. The major elements and commitments in the BETP include the following:

- **Roles and Responsibilities**
- **Reporting, Monitoring, and Scheduling Procedures**
- **Pre- and Post-Construction Conditions Assessments**
- **Protection and Stabilization Plans**
- **Response Plan for Unanticipated Effects and Inadvertent Damage**
- **Historic American Landscape Survey /Historic American Engineering Record (HALS/HAER) Documentation Procedures**
- **Avoidance of Vibration Effects**
- **Avoidance and Mitigation of Noise Effects**
- **Historic Preservation Design Review**
- **Salvage of Architectural Details**
- **Preparation of Interpretive Materials and Exhibits**

As described in the Roles and Responsibilities section of the BETP, the Architectural History Principal Investigator is responsible for the preparation of all reports/deliverables necessary to satisfy the commitments of the BETP and for the submittal of those reports and deliverables to the Authority and FRA for review. Upon review and concurrence by the Authority and FRA, the Authority is responsible for submitting the documentation to the SHPO and consulting parties for review and comment. The SHPO and consulting parties to this MOA shall have 15 days to review and comment on all cultural resources documentation prepared under the terms of the attached BETP, unless otherwise stated in the BETP. If the SHPO does not comment within 15 days, then the documentation will be considered final and work will proceed. Electronic submittals of draft documents for review and comment are acceptable.

IV. Unanticipated Discoveries During Construction

As described in the ATP, it is possible that previously unknown archaeological resources could be discovered during ground-disturbing construction activities associated with the Undertaking. The following protocols, which are also presented in the ATP, will be implemented in the event of such discoveries.

A. Protocols for Discoveries

If any potential archaeological resources are observed or suspected during construction, the onsite archaeological monitor will issue a temporary work stoppage to the equipment operator to allow for a closer inspection of the discovery. Work will be stopped within 50 feet of the discovery, or other such distance that is determined by the archaeological monitor to be necessary to avoid or minimize harm to the discovered archaeological resources. Construction activities may continue outside the area of the discovery, but the area of the discovery will remain undisturbed by construction activities until the archaeological monitor can complete an inspection. If the archaeological monitor determines that further investigation may be necessary, the archaeological monitor will notify and consult with the PI regarding the discovery. In accordance with Stipulation XI.B of the PA, if the PI determines that adverse effects on the resource can be avoided, no consultation with MOA signatories and consulting parties is necessary. If the PI determines that the archaeological discovery appears NRHP-eligible and adverse effects cannot be avoided, the PI will issue a stop work order and will notify the Authority Representative (AR) of the discovery.

B. MOA Signatory Consultation

In accordance with Stipulation XI.B of the PA, the Authority will consult with the FRA within 24 hours of a discovery for which a stop work order has been issued to determine whether the unanticipated discovery is an eligible or potentially eligible property that will be adversely affected by the Undertaking. If the Authority and FRA determine that the property is likely an eligible or potentially eligible property that would be adversely affected by the Undertaking, they will develop recommendations regarding the proposed treatment measures to minimize adverse effects on the discovered resource. Within 48 hours of the discovery, the Authority will notify the SHPO of the discovery by phone or email. The Authority, in consultation with the FRA, will provide the SHPO with the recommended approach to treating the discovery. Consultation with the SHPO on the discovery will be conducted via email and phone, with hard copy documentation on the treatment to follow. If the Authority and FRA determine, in consultation with the SHPO, that the unanticipated discovery is not eligible and no further investigation is warranted, the AR will notify the resident engineer that clearance has been granted to resume work in the area.

C. Consultation with Native American Tribes

In accordance with Stipulation XI.C of the PA, the Authority shall notify the FRA and then the Authority shall notify local affiliated Native American tribes (see recitals above) of any discoveries that have the potential to adversely affect properties of religious or cultural significance to them within 24 hours of the discovery. After reviewing such discoveries, the aforementioned Native American tribes can request further consultation on the Undertaking by notifying the FRA in writing within 48 hours of FRA providing notice of the discovery. For interested Native American groups that are not federally recognized, the Authority shall notify them of any discoveries that have the potential to adversely affect properties of religious or cultural significance to them within 24 hours of the discovery. After reviewing such discoveries, the interested Native American

groups can request further consultation on the Undertaking by notifying the Authority in writing within 48 hours of the Authority providing notice of the discovery.

D. Evaluation and Treatment of Unanticipated Discoveries

Upon agreement between the signatories to this MOA regarding the appropriate treatment for an unanticipated discovery, the Authority will direct that data recovery be conducted in accordance with an Unanticipated Discovery Memorandum, as described in the ATP. As soon as the data recovery fieldwork is completed, work in the area of the discovery can resume. An Archaeological Data Recovery Report will be prepared subsequently in accordance with the ATP.

V. ADMINISTRATIVE STIPULATIONS

A. Professional Standards and Report Dissemination

All activities regarding history, collections management, historical archaeology and prehistoric archaeology, architecture, landscape architecture, and architectural history that are accomplished pursuant to this MOA will be carried out by or under the direct supervision of persons meeting the "Secretary of the Interior's Professional Qualification Standards" (36 CFR Part 61).

The Authority and FRA will ensure that any additional professionals required to implement any of the provisions in this MOA, the ATP, and/or the BETP will be appropriately qualified to undertake such tasks.

The Authority and FRA shall ensure that all reports resulting from implementation of the ATP and the BETP meet contemporary professional standards as specified in "The Secretary of the Interiors Standards for the Treatment of Historic Properties" (National Park Service 1995 and updates); the "Secretary of the Interior's Standards and Guidelines for Archaeological Documentation" (National Park Service 1983 and updates); and "The Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation" (*Federal Register* 2003) as well as applicable standards and guidelines outlined in the California Office of Historic Preservation's *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format* (OHP 1990) and California Office of Historic Preservation's *Guidelines For Archaeological Research Designs* (OHP 1991). Copies of all final reports will be provided to the SHPO, the Central California Information Center and the consulting parties.

FRA and the Authority shall ensure that the materials and records resulting from the activities prescribed by this MOA are curated in accordance with 36 CFR Part 79 to the extent feasible.

B. Confidentiality

The signatories to this MOA acknowledge that the handling of documentation regarding historic properties covered by this MOA are subject to the provisions of § 304 of the National Historic Preservation Act of 1966, where federal land is involved and § 6254.10 of the California Government Code (Public Records Act), relating to the disclosure of archeological site information, where non-federal land is involved. Having so acknowledged, the signatories will ensure that all actions and documentation prescribed by this MOA are consistent with said sections, as applicable. Stipulation XII of the PA regarding confidentiality remains in effect and also applies to actions and documentation prescribed by the MOA.

C. Dispute Resolution

Should any signatory to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FRA shall consult with such party to resolve the

objection. If FRA determines that such objection cannot be resolved within fifteen (15) calendar days, FRA shall forward all documentation relevant to the dispute, including the FRA's proposed resolution, to the ACHP. FRA will also provide a copy to all signatories and concurring parties. The ACHP shall provide FRA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FRA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. FRA will then proceed according to its final decision.

If the ACHP does not provide its advice regarding the dispute within the thirty-day (30-day) time period, FRA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FRA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.

FRA's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remains unchanged.

D. Amendment

Any signatory party to this MOA may propose that this MOA be amended, whereupon all signatory parties shall consult for no more than 15 days to consider such an amendment. The amendment will be effective on the last date a copy of it is signed by all of the signatories in counterpart. If the signatories cannot agree to appropriate terms to amend the MOA, any signatory may terminate the MOA in accordance with Stipulation V.E, below.

To address changes in the Undertaking or the treatment of historic properties affected by the Undertaking, the Authority may propose revisions to one or both historic property treatment plans to the other parties to this MOA. Upon the written concurrence of the SHPO, the Authority in coordination with FRA may revise the plan(s) to incorporate the agreed-upon changes without executing a formal amendment to this MOA.

E. Termination

If any signatory believes that the terms of this MOA are not being carried out or cannot be carried out, that party shall immediately consult with the other parties for a period of at least 30 days to attempt to develop an amendment per Stipulation V.D above. Should such consultation result in an agreement on an alternative to termination, the signatory parties shall proceed in accordance with the terms of that agreement.

If within thirty (30) days, or another time period agreed to by all signatories, an agreement for the amendment to the MOA cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories. Termination hereunder shall render this MOA without further force or effect.

If this MOA is terminated for any reason, and FRA determines that the Undertaking will proceed, FRA will either execute a new MOA with the signatories under 36 CFR § 800.6(c)(1), or request, take into account, and respond to, the comments of the ACHP pursuant to 36 CFR § 800.7. FRA shall notify the signatories as to the course of action it will pursue.

F. Resolution of Public Objections

At any time during implementation of the measures stipulated in this MOA, should a member of the public raise an objection in writing pertaining to such implementation to any signatory party

to this MOA, that signatory party shall immediately notify the other signatory parties in writing of the objection. FRA shall consult with the objecting party and with the other signatories for no more than thirty (30) days. FRA will take all comments from the other signatory parties into account. Within fifteen (15) days following closure of the consultation period, FRA shall render a decision regarding the objection and notify all parties of this decision in writing, including a copy of the response to the objecting party. FRA's decision regarding resolution of the objection will be final. Following issuance of its final decision, FRA may authorize the action subject to the objection to proceed in accordance with the terms of that decision.

G. Notice to Proceed

Upon completion of reviews without objection, or with resolution of objections under Stipulation V.C or V.F of this MOA, the Authority will issue a notice to proceed in areas where adverse effects on historic properties have been addressed through this MOA and supporting documentation.

H. Duration

If FRA determines that construction of the Undertaking has not been initiated within ten (10) years following execution of this MOA, the signatories shall consult to reconsider its terms. Reconsideration may include continuation of the MOA as originally executed, amendment, or termination.

This MOA will be in effect through the Authority's implementation of the Undertaking and will terminate and have no further force or effect when FRA, in consultation with the other signatories, determines that the terms of this MOA have been fulfilled in a satisfactory manner. FRA shall provide the other signatories with written notice of its determination and of termination of this MOA

I. Reporting

Electronic submittals are acceptable to expedite reviews.

1. Annual Report

An annual report (Report) shall be prepared by the Authority, in consultation with FRA, documenting the implementation of this MOA. The reporting period shall begin on the date the Notice to Proceed is given to the contractor, and shall end for that reporting year 365 days after that date. Annual reporting will be required so long as this MOA is in effect.

The Report shall include, at a minimum:

- List of all studies, reports, actions, evaluations, or monitoring reviewed or generated under the Stipulations of this MOA.
- Record of all consultation and outreach efforts related to the implementation of this MOA.
- Record of all efforts to identify and/or evaluate potential historic properties, monitoring efforts, archaeological management assessments or research designs, and treatment of historic properties.

- Any recommendations to amend this MOA or improve communications among the parties.

The Authority shall submit the Report to FRA, and after review by FRA, the report will be provided to the SHPO, the signatories and the consulting parties, and the Authority shall ensure that the Report is made available to the public, upon request. At the request of the SHPO or the signatories and consulting parties, the Authority, in consultation with FRA, shall supplement this process through meeting(s) to address comments and/or questions.

The Authority shall submit an annual report to the FRA, the SHPO, and the ACHP no later than three (3) months following the end of the State fiscal year until all treatment is completed. There will be a thirty-day (30-day) period to review and comment on the report. The Annual Report will be finalized after the close of the thirty-day (30-day) comment period.

The Authority shall provide that the report herein prescribed is available for public inspection. The report will be sent to signatories and consulting parties of this Agreement, including Native American tribes, and a copy made available to members of the public for comment, upon request.

2. Monthly Progress Reports

Monthly progress reports documenting the implementation of the ATP and BETP will be prepared by the implementing contractor and submitted to the cultural resources point of contact at the Authority and FRA. Upon request, the monthly report will be provided to the SHPO and consulting parties to this MOA. The progress report may be submitted in digital form and will at a minimum include the following:

- Name of project segment.
- Reference to the specific treatment(s) and historic properties being treated.
- Date, person, professional area of qualification, and entity/firm preparing and submitting the report.
- Activities conducted since the previous progress report, including the status of any field work, analysis, or document preparation. Report of inadvertent discoveries or effects, and the result of any response activities implemented.
- Activities planned for the upcoming month.
- Known issues affecting the implementation of the ATP, BETP, or project schedule.
- Potential issues that could affect the implementation of the ATP, BETP, or project schedule.

VI. EFFECTIVE DATE AND EXECUTION

This MOA will take effect on the date that it has been executed by the Authority, FRA, and the SHPO.

Execution of this MOA by FRA and the Authority, its filing with the ACHP in accordance with 36 CFR 800.6(b)(1)(i), and subsequent implementation of its terms, shall evidence, pursuant to 36 CFR 800.6(c), that this MOA is an agreement with the ACHP for purposes of Section 106 of the National Historic Preservation Act (NHPA), and shall further evidence that FRA and the Authority has afforded the ACHP an

opportunity to comment on the Undertaking and its effects on historic properties, and that FRA and the Authority has taken into account the effects of the Undertaking on historic properties.

SIGNATORIES

FEDERAL RAILROAD ADMINISTRATION

By: Corey Hill Date: 8/28/12

Name: Corey Hill

Title: Director, Rail Project Development and Delivery

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

By: Jeff Morales Date: 8-3-12

Name: Jeff Morales

Title: Chief Executive Officer

CALIFORNIA STATE-HISTORIC PRESERVATION OFFICER

By: [Signature] Date: 8/31/12

WJ Name: Milford Wayne Donaldson, FAIA

Title: California State Historic Preservation Officer

CONCURRING PARTIES

CALIFORNIA VALLEY MIWOK TRIBE

By: _____ Date: _____

Name:

Title:

COLD SPRINGS RANCHERIA OF MONO INDIANS

By: _____ Date: _____

Name:

Title:

NORTH FORK RANCHERIA OF MONO INDIANS

By: _____ Date: _____

Name:

Title:

SANTA ROSA RANCHERIA TACHI TRIBE

By: _____ Date: _____

Name:

Title:

NORTH FORK MONO TRIBE

By: _____ Date: _____

Name:

Title:

CHOWCHILLA TRIBE OF YOKUTS

By: _____ Date: _____

Name:

Title:

CITY OF MADERA

By: _____ Date: _____

Name:

Title:

CITY OF FRESNO

By: _____ Date: _____

Name:

Title:

COUNTY OF FRESNO

By: _____ Date: _____

Name:

Title:

**FIRST AMENDMENT TO
MEMORANDUM OF AGREEMENT**

AMONG THE FEDERAL RAILROAD ADMINISTRATION, THE SURFACE TRANSPORTATION BOARD, THE CALIFORNIA HIGH-SPEED RAIL AUTHORITY, AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE MERCED-FRESNO SECTION OF THE CALIFORNIA HIGH-SPEED TRAIN SYSTEM IN MERCED, MADERA, AND FRESNO COUNTIES

WHEREAS, the Federal Railroad Administration (FRA) and the California High-Speed Rail Authority (Authority) propose to construct a high-speed train (HST) system in California and have completed a Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Merced to Fresno Section of the HST Project (Undertaking), which consists of constructing a new rail alignment, stations, maintenance facilities, electrical substations, and other appurtenant facilities between Merced and Fresno; and

WHEREAS a Programmatic Agreement (PA) among FRA, the Advisory Council on Historic Preservation (ACHP), the California State Historic Preservation Officer (SHPO), and the Authority regarding compliance with Section 106 of the National Historic Preservation Act (16 United States Code [U.S.C.] § 470f) and in accordance with its implementing regulations (36 Code of Federal Regulations [CFR] Part 800), as it pertains to the California High-Speed Train Project, was executed on June 15, 2011 (**Attachment 1**); and

WHEREAS FRA has concluded that the Undertaking will have an adverse effect on historic properties, as documented in the Findings of Effect report for the Merced to Fresno Section of the high-speed rail system; and

WHEREAS, on August 31, 2012, the FRA, the Authority, and the California State Historic Preservation Officer (SHPO) entered into a Memorandum of Agreement (MOA) to fulfill the requirements of Section 106 of the National Historic Preservation Act (NHPA) for construction of the Undertaking; and

WHEREAS, on April 18, 2013, the Surface Transportation Board (STB) concluded that it has jurisdiction over the proposed California high-speed train system including the Merced to Fresno Section; and

WHEREAS, on May 2, 2013, the STB requested that it be added as a signatory to the MOA to fulfill its obligations under Section 106 of NHPA and the current signatories to the MOA concurred with STB's request to be added as a signatory to the MOA;

WHEREAS, the FRA shall remain the lead Federal agency for the undertaking; and

WHEREAS FRA and the Authority consulted with the SHPO and the ACHP pursuant to the PA and to 36 CFR Part 800 regulations regarding the Undertaking's adverse effects on historic properties, and have notified the ACHP of the adverse effect finding pursuant to 36 CFR § 800.6(a)(1). The FRA and the Authority invited the ACHP to participate in the MOA, and in a letter dated April 23, 2012, the ACHP declined to participate.

WHEREAS FRA and the Authority have determined that the character of the proposed Undertaking's operation and maintenance constrains the Undertaking's design in a manner that precludes the possibility of avoiding adverse effects on the subject historic properties as a result of the Undertaking's implementation, and have further determined that they will resolve such effects through the execution and implementation of this Amended MOA, as well as the Archaeological Treatment Plan (ATP; **Attachment 2**) and the Built Environment Treatment Plan (BETP; **Attachment 3**); and

WHEREAS, FRA and the Authority propose to phase identification of archaeological properties as provided for in Stipulation VI.E of the PA;

WHEREAS, in accordance with Stipulation V.A and V.B of the PA, the FRA and Authority consulted with affected local governments and other interested parties about the Undertaking and its effects on historic properties and have taken into account all comments received from them. The City of Madera, the City of Fresno, and Fresno County participated in the consultation and accepted FRA's and the Authority's invitation to be consulting parties to the development of the MOA, the ATP, and the BETP; and

WHEREAS in accordance with Stipulation IV.A.5 and IV.C.2 of the PA, FRA formally consulted with or has made a good faith effort to formally consult with the following federally recognized Native American tribes with ancestral ties to Madera, Merced, or Fresno counties and invited them to participate as consulting parties in the development of the MOA and the ATP: Big Sandy Rancheria of Mono Indians, Cold Springs Rancheria of Mono Indians, Santa Rosa Rancheria Tachi Tribe, the North Fork Rancheria of Mono Indians, the California Valley Miwok Tribe, the Table Mountain Rancheria, and the Picayune Rancheria of Chuckchansi; and

WHEREAS the California Valley Miwok Tribe, the Cold Springs Rancheria of Mono Indians, the North Fork Rancheria of Mono Indians, and the Santa Rosa Rancheria Tachi Tribe accepted FRA's invitation to be consulting parties to the development of the MOA and the ATP; and

WHEREAS in accordance with Stipulation IV.B.5, IV.C.1, and IV.C.2 of the PA, the Authority consulted with or made a good faith effort to consult with the following non-federally recognized Native American tribes with ancestral ties to Madera, Merced, or Fresno counties and invited them to participate as consulting parties in the development of the MOA and the ATP: Kings River Choinumni Farm Tribe, Dunlap Band of Mono, Choinumni Tribe of Yokuts, the Choinumne Tribe, the Traditional Choinumni Tribe, the North Fork Mono Tribe, the Sierra Nevada Native American Coalition, the Southern Sierra Miwuk Nation, the North Valley Yokuts Tribe, and the Chowchilla Tribe of Yokuts; and

WHEREAS the North Fork Mono Tribe and the Chowchilla Tribe of Yokuts accepted the Authority's invitation to be consulting parties to the development of the MOA and the ATP; and

WHEREAS a list of abbreviations and acronyms, of which shall apply to this Amended MOA, is included in **Attachment 5**;

NOW, THEREFORE FRA, STB, the Authority, and SHPO agree the Undertaking will be implemented in accordance with the following stipulations in order to resolve the effects of the Undertaking on historic properties, and further agree that these stipulations shall govern the Undertaking and all its parts until this amended MOA expires or is terminated.

STIPULATIONS

The FRA shall ensure that the following stipulations of this Amended MOA are carried out as follows:

I. MODIFICATIONS TO THE AREA OF POTENTIAL EFFECTS

The Area of Potential Effects (APE) for the Undertaking consists of both a Built Environment and Archaeological APE and is described and depicted in **Attachment 4** (Figures 1 to 3) of this Amended MOA. The APE consists of approximately 60 linear miles of track on new alignment, with a right-of-way anticipated to average about 100 feet. The APE represents the maximum extent of any potential direct ground disturbance and of any indirect effects from the construction of the Undertaking. The APE was developed and agreed upon among FRA, the Authority, and the SHPO, and accounts for potential impacts on both archaeological and built-environment resources that may result from the construction and operation of the Undertaking.

If modifications to the Undertaking, subsequent to the execution of this Amended MOA, necessitate the revision of the APE, FRA, STB, and the Authority shall submit the revised proposed APE to SHPO. SHPO will have 15 days to review and concur on the APE. If SHPO does not concur, FRA, STB, and the

Authority will revise the APE based upon SHPO comment and resubmit for concurrence. SHPO will have 15 days to review and concur on this revised APE. Actions to be taken after any such modification shall be conducted in accordance with Stipulations VI.A and IX of the PA.

II. COMPLETION OF HISTORIC PROPERTIES IDENTIFICATION EFFORT FOR THE ARCHAEOLOGICAL APE PRIOR TO CONSTRUCTION

FRA, STB, and the Authority acknowledge that approximately 80% of the land in the Undertaking's APE had yet to be surveyed for archaeological resources at the time of the execution of the MOA, due to a lack of legal access to that land. As provided for in Stipulation VI.E of the PA, this Amended MOA addresses the development and implementation of a post-review identification and evaluation effort for the Undertaking. Completion of the historic properties identification effort will be consistent with Stipulation VI of the PA. FRA, STB, and the Authority shall provide the SHPO with the information necessary to document that efforts to identify and evaluate historic properties in the Undertaking's APE are sufficient to comply with 36 CFR § 800.4(b) and (c).

The completion of the phased historic properties identification effort may occur incrementally throughout the APE and will entail pedestrian archaeological survey of the as-yet unsurveyed portions of the APE and testing and evaluation of archaeological sites within the APE that cannot be avoided. For any archaeological site (except those identified as exempt from evaluation, per Attachment D of the PA) identified as a result of the post-review archaeological identification effort, the FRA, STB, and the Authority shall provide the SHPO with the information necessary to document that efforts to evaluate resources in the Undertaking's APE are sufficient to comply with 36 CFR § 800.4(c). The ATP describes the methods that will be employed to conduct archaeological site evaluations and specifies where and under what circumstances further efforts to identify significant archaeological deposits will take place within the areas of direct impact.

If testing is not combined with data recovery, the results of testing and evaluation work will be documented in an Archaeological Evaluation Report or Reports (AER). The results of the investigation will provide the basis for National Register of Historic Places (NRHP) and California Register of Historic Places (CRHR) eligibility recommendations. After review and concurrence of the findings by the Authority and FRA, and STB, the AER will be submitted to the SHPO and consulting parties for a concurrent 15-day review and comment period. If no objection is made within the 15-day review period, the AER will become final. Any disputes will be addressed under Stipulation V.C of this Amended MOA.

As allowed under Stipulation VI.C of the PA, this Amended MOA includes provisions for treatment plans that include use of a combined archaeological testing and data recovery program. When this approach is implemented, within 14 days of completion of the testing field work within a designated portion of the APE, the Principal Investigator will prepare a Field Summary Letter Report that describes the testing efforts and results within the designated area. The report will include recommendations regarding site eligibility based on the site integrity and the ability to address relevant research questions. With approval from the Authority, FRA, and STB, the letter will be submitted to SHPO with a request for concurrence within 15 days. If there is a disagreement, SHPO may conduct a field visit. If a disagreement remains after a field visit, then under Stipulation VI.D of the PA, FRA may forward a Determination of Eligibility documentation to the Secretary of the Interior for resolution in accordance with 36 CFR 800.4(c)(2). Upon SHPO concurrence, treatment will move into the data recovery phase for those resources identified as eligible properties. Where testing and data recovery are combined within a designated portion of the APE, the results of the treatment will be documented in a combined testing and data recovery report for the designated area. After completion of the analysis, a report will be submitted to SHPO and consulting parties for a concurrent 15-day review. If no objection is made within the 15-day review period, the report will become final. Any disputes will be addressed under Stipulation V.C of this Amended MOA.

III. TREATMENT OF HISTORIC PROPERTIES IDENTIFIED IN THE APE

This MOA outlines FRA's, STB's, and the Authority's commitments regarding the treatment of all historic properties, both currently known and yet-to-be-identified, that will be affected by the Undertaking. Two detailed historic property treatment plans have been prepared for the Undertaking. The **ATP, Attachment 2**, describes treatments for effects on archaeological properties and Native American traditional cultural properties. The **BETP, Attachment 3**, describes the treatments for effects on the built environment resources. The work described in the treatment plans will be conducted prior to construction, during construction, and/or after construction of the Undertaking. The treatments to historic properties known at the time of execution of the MOA are summarized in an impact/treatment table, organized by historic property, in **Attachment 6**. The treatment measures listed will be applied to historic properties affected in order to avoid, minimize, and/or mitigate impacts of the Undertaking. The Authority shall implement and complete the treatment measures within 2 years of completion of construction of the Undertaking, or earlier if so specified.

The Authority shall ensure that sufficient time and funding are provided to complete all necessary preconstruction commitments before disturbances related to the Undertaking occur. The contractor will consult with the Authority on each portion of the Undertaking to ensure that ground-disturbing activities are approved to proceed before any such activities occur.

A. Archaeological Treatment Plan

The ATP describes in detail the methods that will be employed to complete the historic properties identification effort within the Undertaking's APE as part of the phased identification of archaeological resources. More specifically, the ATP builds upon the identification efforts completed to date and specifies where and under what circumstances further efforts to identify significant archaeological deposits will take place within the Undertaking's areas of direct impact. The ATP also describes in detail the avoidance, minimization, and/or mitigation treatment measures for all currently known and yet-to-be-identified significant archaeological resources and Native American cultural resources affected by the Undertaking. FRA, STB, and the Authority commit to implementing the terms of the ATP. The major elements and commitments in the ATP include the following:

- **Project Personnel Roles and Responsibilities**
- **Archaeological survey/identification**
- **Archaeological evaluations/eligibility determinations**
- **Findings of effect determinations**
- **Establishment of environmentally sensitive areas (ESAs), where feasible**
- **Intentional site capping for preservation in place of significant archaeological sites, where feasible**
- **Data recovery excavations**
- **Procedures and protocols for archaeological monitoring during construction**
- **Procedures and protocols for unanticipated discoveries during construction**
- **Protocols for the treatment of human remains of Native American origin**

- **Responsibilities for consultation and coordination with Indian tribes**
- **Native American Graves Protection and Repatriation Act (NAGPRA) compliance (where applicable)**
- **Ownership and curation of archaeological materials**

As described in the Project Roles and Responsibilities section of the ATP, the cultural resources Principal Investigator (PI) is responsible for the preparation of all technical reports/deliverables necessary to satisfy the commitments of the ATP and for the submittal of those reports and deliverables to the Authority, FRA, and STB for review and approval. Upon review and approval by the Authority, FRA, and STB, the Authority is responsible for submitting the documentation to the SHPO and the consulting parties to this Amended MOA. The SHPO and the consulting parties to this Amended MOA shall have the opportunity to review and comment on all cultural resources documentation prepared under the terms of the ATP within 15 days, unless otherwise stated in the ATP. The documents and deliverables associated with the commitments detailed in the ATP are listed in Section 14.0 of the ATP. If the SHPO does not comment within 15 days, then the documentation will be considered final and work will proceed. Electronic submittals of draft documents for review and comment are acceptable.

B. Built Environment Treatment Plan

The BETP provides detailed descriptions of treatment measures for built environment historic properties located within the APE that will be affected by the Undertaking and are listed in **Attachment 6**. The treatments will be carried out by qualified professionals (see Section V.A, below). The treatment measures are included in the BETP and are intended to avoid, minimize, and/or mitigate adverse effects caused by the Undertaking. FRA, STB, and the Authority commit to implementing the terms of the BETP. The major elements and commitments in the BETP include the following:

- **Roles and Responsibilities**
- **Reporting, Monitoring, and Scheduling Procedures**
- **Pre- and Post-Construction Conditions Assessments**
- **Protection and Stabilization Plans**
- **Response Plan for Unanticipated Effects and Inadvertent Damage**
- **Historic American Landscape Survey /Historic American Engineering Record (HALS/HAER) Documentation Procedures**
- **Avoidance of Vibration Effects**
- **Avoidance and Mitigation of Noise Effects**
- **Historic Preservation Design Review**
- **Salvage of Architectural Details**
- **Preparation of Interpretive Materials and Exhibits**

As described in the Roles and Responsibilities section of the BETP, the Architectural History Principal Investigator is responsible for the preparation of all reports/deliverables necessary to satisfy the commitments of the BETP and for the submittal of those reports and deliverables to the Authority, FRA, and STB for review. Upon review and concurrence by the Authority, FRA, and STB, the Authority is responsible for submitting the documentation to the SHPO and consulting parties for review and comment. The SHPO and consulting parties to this Amended MOA shall have 15 days to review and comment on all cultural resources documentation prepared under the terms of the attached BETP, unless otherwise stated in the BETP. If the SHPO does not comment within 15 days, then the documentation will be considered final and work will proceed. Electronic submittals of draft documents for review and comment are acceptable.

IV. Unanticipated Discoveries During Construction

As described in the ATP, it is possible that previously unknown archaeological resources could be discovered during ground-disturbing construction activities associated with the Undertaking. The following protocols, which are also presented in the ATP, will be implemented in the event of such discoveries.

A. Protocols for Discoveries

If any potential archaeological resources are observed or suspected during construction, the onsite archaeological monitor will issue a temporary work stoppage to the equipment operator to allow for a closer inspection of the discovery. Work will be stopped within 50 feet of the discovery, or other such distance that is determined by the archaeological monitor to be necessary to avoid or minimize harm to the discovered archaeological resources. Construction activities may continue outside the area of the discovery, but the area of the discovery will remain undisturbed by construction activities until the archaeological monitor can complete an inspection. If the archaeological monitor determines that further investigation may be necessary, the archaeological monitor will notify and consult with the PI regarding the discovery. In accordance with Stipulation XI.B of the PA, if the PI determines that adverse effects on the resource can be avoided, no consultation with Amended MOA signatories and consulting parties is necessary. If the PI determines that the archaeological discovery appears NRHP-eligible and adverse effects cannot be avoided, the PI will issue a stop work order and will notify the Authority Representative (AR) of the discovery.

B. MOA Signatory Consultation

In accordance with Stipulation XI.B of the PA, the Authority will consult with the FRA and notify STB within 24 hours of a discovery for which a stop work order has been issued to determine whether the unanticipated discovery is an eligible or potentially eligible property that will be adversely affected by the Undertaking. If the Authority and FRA determine that the property is likely an eligible or potentially eligible property that would be adversely affected by the Undertaking, they will develop recommendations regarding the proposed treatment measures to minimize adverse effects on the discovered resource. Within 48 hours of the discovery, the Authority will notify the SHPO of the discovery by phone or email. The Authority, in consultation with the FRA, will provide the SHPO with the recommended approach to treating the discovery. Consultation with the SHPO on the discovery will be conducted via email and phone, with hard copy documentation on the treatment to follow. If the Authority and FRA determine, in consultation with the SHPO, that the unanticipated discovery is not eligible and no further investigation is warranted, the AR will notify the resident engineer that clearance has been granted to resume work in the area.

C. Consultation with Native American Tribes

In accordance with Stipulation XLC of the PA, the Authority shall notify the FRA and then the Authority shall notify local affiliated Native American tribes (see recitals above) of any discoveries that have the potential to adversely affect properties of religious or cultural significance to them within 24 hours of the discovery. After reviewing such discoveries, the aforementioned Native American tribes can request further consultation on the Undertaking by notifying the FRA in writing within 48 hours of FRA providing notice of the discovery. For interested Native American groups that are not federally recognized, the Authority shall notify them of any discoveries that have the potential to adversely affect properties of religious or cultural significance to them within 24 hours of the discovery. After reviewing such discoveries, the interested Native American groups can request further consultation on the Undertaking by notifying the Authority in writing within 48 hours of the Authority providing notice of the discovery.

D. Evaluation and Treatment of Unanticipated Discoveries

Upon agreement between the signatories to this Amended MOA regarding the appropriate treatment for an unanticipated discovery, the Authority will direct that data recovery be conducted in accordance with an Unanticipated Discovery Memorandum, as described in the ATP. As soon as the data recovery fieldwork is completed, work in the area of the discovery can resume. An Archaeological Data Recovery Report will be prepared subsequently in accordance with the ATP.

V. ADMINISTRATIVE STIPULATIONS

A. Professional Standards and Report Dissemination

All activities regarding history, collections management, historical archaeology and prehistoric archaeology, architecture, landscape architecture, and architectural history that are accomplished pursuant to this Amended MOA will be carried out by or under the direct supervision of persons meeting the "Secretary of the Interior's Professional Qualification Standards" (36 CFR Part 61). The Authority and FRA will ensure that any additional professionals required to implement any of the provisions in this Amended MOA, the ATP, and/or the BETP will be appropriately qualified to undertake such tasks.

The Authority, FRA, and STB shall ensure that all reports resulting from implementation of the ATP and the BETP meet contemporary professional standards as specified in "The Secretary of the Interiors Standards for the Treatment of Historic Properties" (National Park Service 1995 and updates); the "Secretary of the Interior's Standards and Guidelines for Archaeological Documentation" (National Park Service 1983 and updates); and "The Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation" (*Federal Register* 2003) as well as applicable standards and guidelines outlined in the California Office of Historic Preservation's *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format* (OHP 1990) and California Office of Historic Preservation's *Guidelines For Archaeological Research Designs* (OHP 1991). Copies of all final reports will be provided to the SHPO, the Central California Information Center and the consulting parties.

FRA, STB, and the Authority shall ensure that the materials and records resulting from the activities prescribed by this Amended MOA are curated in accordance with 36 CFR Part 79 to the extent feasible.

B. Confidentiality

The signatories to this Amended MOA acknowledge that the handling of documentation regarding historic properties covered by this Amended MOA are subject to the provisions of § 304 of the National Historic Preservation Act of 1966, where federal land is involved and § 6254.10 of the California Government Code (Public Records Act), relating to the disclosure of archeological site information, where non-federal land is involved. Having so acknowledged, the signatories will ensure that all actions and documentation prescribed by this Amended MOA are consistent with said sections, as applicable. Stipulation XII of the PA regarding confidentiality remains in effect and also applies to actions and documentation prescribed by this Amended MOA.

C. Dispute Resolution

Should any signatory to this Amended MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FRA shall consult with such party to resolve the objection. If FRA determines that such objection cannot be resolved within fifteen (15) calendar days, FRA shall forward all documentation relevant to the dispute, including the FRA's proposed resolution, to the ACHP. FRA will also provide a copy to all signatories and concurring parties. The ACHP shall provide FRA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FRA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. FRA will then proceed according to its final decision.

If the ACHP does not provide its advice regarding the dispute within the thirty-day (30-day) time period, FRA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FRA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to this Amended MOA, and provide them and the ACHP with a copy of such written response.

FRA's responsibility to carry out all other actions subject to the terms of this Amended MOA that are not the subject of the dispute remains unchanged.

D. Amendment

Any signatory party to this Amended MOA may propose that the MOA be further amended by notifying the other signatory parties in writing, whereupon all signatory parties shall consult for no more than 15 days to consider such an amendment. The amendment will be effective on the last date a copy of it is signed by all of the signatories in counterpart. If the signatories cannot agree to appropriate terms to amend the MOA, any signatory may terminate the MOA in accordance with Stipulation V.E, below.

To address changes in the Undertaking or the treatment of historic properties affected by the Undertaking, the Authority may propose revisions to one or both historic property treatment plans to the other parties to this Amended MOA. Upon the written concurrence of the SHPO, the Authority in coordination with FRA and STB may revise the plan(s) to incorporate the agreed-upon changes without executing a formal amendment to the MOA.

E. Termination

If any signatory believes that the terms of this Amended MOA are not being carried out or cannot be carried out, that party shall immediately notify the other parties in writing and consult with the other parties for a period of at least 30 days to attempt to develop an amendment per Stipulation

V.D above. Should such consultation result in an agreement on an alternative to termination, the signatory parties shall proceed in accordance with the terms of that agreement.

If within thirty (30) days, or another time period agreed to by all signatories, an agreement for the amendment to the MOA cannot be reached, any signatory may terminate the Amended MOA upon written notification to the other signatories. Termination hereunder shall render this Amended MOA without further force or effect.

If this Amended MOA is terminated for any reason, and FRA determines that the Undertaking will proceed, FRA will either execute a new MOA with the signatories under 36 CFR § 800.6(c)(1), or request, take into account, and respond to, the comments of the ACHP pursuant to 36 CFR § 800.7. FRA shall notify the signatories as to the course of action it will pursue.

F. Resolution of Public Objections

At any time during implementation of the measures stipulated in this Amended MOA, should a member of the public raise an objection in writing pertaining to such implementation to any signatory party to this Amended MOA, that signatory party shall immediately notify the other signatory parties in writing of the objection. FRA shall consult with the objecting party and with the other signatories for no more than thirty (30) days. FRA will take all comments from the other signatory parties into account. Within fifteen (15) days following closure of the consultation period, FRA shall render a decision regarding the objection and notify all parties of this decision in writing, including a copy of the response to the objecting party. FRA's decision regarding resolution of the objection will be final. Following issuance of its final decision, FRA may authorize the action subject to the objection to proceed in accordance with the terms of that decision.

G. Notice to Proceed

Upon completion of reviews without objection, or with resolution of objections under Stipulation V.C or V.F of this Amended MOA, the Authority will issue a notice to proceed in areas where adverse effects on historic properties have been addressed through this Amended MOA and supporting documentation.

H. Duration

If FRA determines that construction of the Undertaking has not been initiated within ten (10) years following execution of this Amended MOA, the signatories shall consult to reconsider its terms. Reconsideration may include continuation of the MOA as amended, further amendment, or termination.

This Amended MOA will be in effect through the Authority's implementation of the Undertaking and will terminate and have no further force or effect when FRA, in consultation with the other signatories, determines that the terms of this Amended MOA have been fulfilled in a satisfactory manner. FRA shall provide the other signatories with written notice of its determination and of termination of this Amended MOA.

I. Reporting

Electronic submittals are acceptable to expedite reviews.

1. Annual Report

An annual report (Report) shall be prepared by the Authority, in consultation with FRA and STB, documenting the implementation of this Amended MOA. The reporting period

shall begin on the date the Notice to Proceed is given to the contractor, and shall end for that reporting year 365 days after that date. Annual reporting will be required so long as this Amended MOA is in effect.

The Report shall include, at a minimum:

- List of all studies, reports, actions, evaluations, or monitoring reviewed or generated under the Stipulations of this Amended MOA.
- Record of all consultation and outreach efforts related to the implementation of this Amended MOA.
- Record of all efforts to identify and/or evaluate potential historic properties, monitoring efforts, archaeological management assessments or research designs, and treatment of historic properties.
- Any recommendations to further amend the MOA or improve communications among the parties.

The Authority shall submit the Report to FRA and STB, and after review by FRA and STB, the report will be provided to the SHPO, the signatories and the consulting parties, and the Authority shall ensure that the Report is made available to the public, upon request. At the request of the SHPO or the signatories and consulting parties, the Authority, in consultation with FRA, shall supplement this process through meeting(s) to address comments and/or questions.

The Authority shall submit an annual report to the FRA, the STB, the SHPO, and the ACHP no later than three (3) months following the end of the State fiscal year until all treatment is completed. There will be a thirty-day (30-day) period to review and comment on the report. The Annual Report will be finalized after the close of the thirty-day (30-day) comment period.

The Authority shall provide that the report herein prescribed is available for public inspection. The report will be sent to signatories and consulting parties of this Agreement, including Native American tribes, and a copy made available to members of the public for comment, upon request.

2. Monthly Progress Reports

Monthly progress reports documenting the implementation of the ATP and BETP will be prepared by the implementing contractor and submitted to the cultural resources point of contact at the Authority, FRA, and STB. Upon request, the monthly report will be provided to the SHPO and consulting parties to this Amended MOA. The progress report may be submitted in digital form and will at a minimum include the following:

- Name of project segment.
- Reference to the specific treatment(s) and historic properties being treated.
- Date, person, professional area of qualification, and entity/firm preparing and submitting the report.
- Activities conducted since the previous progress report, including the status of any field work, analysis, or document preparation. Report of inadvertent discoveries or effects, and the result of any response activities implemented.

- Activities planned for the upcoming month.
- Known issues affecting the implementation of the ATP, BETP, or project schedule.
- Potential issues that could affect the implementation of the ATP, BETP, or project schedule.

VI. EFFECTIVE DATE AND EXECUTION

This Amended MOA will take effect on the date that it has been executed by the Authority, FRA, STB, and the SHPO.

Execution of this Amended MOA by FRA, STB, and the Authority, its filing with the ACHP in accordance with 36 CFR 800.6(b)(1)(i), and subsequent implementation of its terms, shall evidence, pursuant to 36 CFR 800.6(c), that this MOA is an agreement with the ACHP for purposes of Section 106 of the National Historic Preservation Act (NHPA), and shall further evidence that FRA, STB, and the Authority have afforded the ACHP an opportunity to comment on the Undertaking and its effects on historic properties, and that FRA, STB, and the Authority have taken into account the effects of the Undertaking on historic properties.

SIGNATORIES

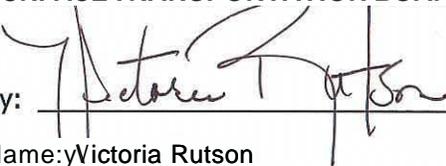
FEDERAL RAILROAD ADMINISTRATION

By:  Date: June 10, 2013

Name: David Valenstein

Title: Chief, Environment & Systems Planning Division

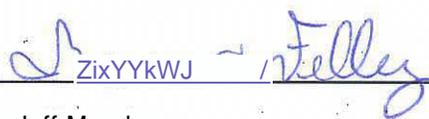
SURFACE TRANSPORTATION BOARD

By:  Date: June 10, 2013

Name: Victoria Rutson

Title: Director, Office of Environmental Analysis

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

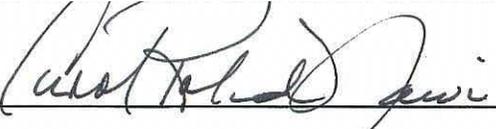
By:  ZixYYKWJ - Felley Date: 6/11/13

FOR

Name: Jeff Morales

Title: Chief Executive Officer

CALIFORNIA STATE HISTORIC PRESERVATION OFFICER

By:  Date: 6 - '13

Name: Carol Roland-Nawi, Ph.D.

Title: California State Historic Preservation Officer

CONCURRING PARTIES

CALIFORNIA VALLEY MIWOK TRIBE

By: _____ Date: _____

Name:

Title:

COLD SPRINGS RANCHERIA OF MONO INDIANS

By: _____ Date: _____

Name:

Title:

NORTH FORK RANCHERIA OF MONO INDIANS

By: _____ Date: _____

Name:

Title:

SANTA ROSA RANCHERIA TACHI TRIBE

By: _____ Date: _____

Name:

Title:

NORTH FORK MONO TRIBE

By: _____ Date: _____

Name:

Title:

CHOWCHILLA TRIBE OF YOKUTS

By: _____ Date: _____

Name:

Title:

CITY OF MADERA

By: _____ Date: _____

Name:

Title:

CITY OF FRESNO

By: _____ Date: _____

Name:

Title:

COUNTY OF FRESNO

By: _____ Date: _____

Name:

Title:

SECOND AMENDMENT TO THE
MEMORANDUM OF AGREEMENT

AMONG THE FEDERAL RAILROAD ADMINISTRATION, THE SURFACE TRANSPORTATION BOARD, THE UNITED STATES ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT, THE CALIFORNIA HIGH-SPEED RAIL AUTHORITY, AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE MERCED-FRESNO SECTION OF THE CALIFORNIA HIGH-SPEED TRAIN SYSTEM IN MERCED, MADERA, AND FRESNO COUNTIES

WHEREAS, the Federal Railroad Administration (FRA) and the California High-Speed Rail Authority (Authority) propose to construct a high-speed rail (HSR) system in California and have completed a Final Environmental Impact Report/Final Environmental Impact Statement (EIR/EIS) for the Merced to Fresno Section of the HST Project (Undertaking), which consists of constructing a new rail alignment, stations, maintenance facilities, electrical substations, and other appurtenant facilities between Merced and Fresno; and

WHEREAS, the *Programmatic Agreement (PA) Among FRA, The Advisory Council On Historic Preservation (ACHP), The California State Historic Preservation Officer (SHPO), And The Authority Regarding Compliance With Section 106 Of The National Historic Preservation Act (NHPA) (16 United States Code [U.S.C.] § 470f) And In Accordance With Its Implementing Regulations (36 Code Of Federal Regulations [CFR] Part 800)*, As It Pertains To The California High-Speed Train Project, was executed on June 15, 2011; and

WHEREAS, on June 29, 2016, the United States Army Corps of Engineers, Sacramento District (USACE) requested that it be added as a signatory to the MOA to fulfill its obligations under Section 106 of the NHPA and the FRA, STB, the Authority, and SHPO concurred with USACE'S request; and

WHEREAS, the FRA remains the lead Federal agency for the Undertaking; and

WHEREAS, the Signatories have proposed this Second Amendment to the MOA (Amendment) in order to (1) add the USACE as a signatory to the MOA; (2) establish an efficient and effective program alternative for classes of project construction activities that have the potential to affect historic properties, but following appropriate screening as outlined in Attachment 1, may be determined to be exempt from further Section 106 review; and (3) establish a streamlined documentation and review alternative for continued phased identification efforts as outlined in Attachment 2 of this Agreement for surveys that result in negative findings of archaeological sites; and

WHEREAS, pursuant to the consultation conducted under 36 CFR § 800.14 (b)(ii), the concurring parties to the First Amended MOA have been consulted regarding the establishment of the screening and streamlining processes as outlined in Attachments 1 and 2; and

WHEREAS, the concurring parties to this second amendment to the MOA, the North Fork Rancheria of Mono Indians, Santa Rosa Rancheria Tachi Tribe; North Fork Mono Tribe, Chowchilla Tribe of Yokuts, and the city of Fresno have been consulted regarding this amendment; and

WHEREAS, the Signatories of this MOA agreed to change the review period from 15 calendar days to 30 calendar days for any post-Record of Decision historic properties identification efforts that require review and concurrence, for program consistency; and

WHEREAS, this Amendment will be referenced in all future documentation as the *Second Amendment to the Memorandum of Agreement Among the Federal Railroad Administration, the Surface Transportation Board, the United States Army Corps of Engineers, Sacramento District, the California High-Speed Rail Authority, and the California State Historic Preservation Officer Regarding the Merced-Fresno Section of the California High-Speed Train System in Merced, Madera, and Fresno Counties*; and

WHEREAS, the FRA will send a copy of this executed Amendment to the Advisory Council on Historic Preservation;

NOW, THEREFORE, the FRA, STB, USAGE, the Authority, and SHPO (the Signatories) agree that the Undertaking will be implemented in accordance with the Stipulations of the First Amendment to the MOA and the following Stipulations.

STIPULATIONS

The FRA and the Authority shall ensure that the following stipulations of this Amendment are carried out as follows:

I. SCREENED CONSTRUCTION ACTIVITIES EXEMPT FROM FURTHER REVIEW

The Signatories have identified classes of construction activities that have the potential to affect historic properties, but following appropriate screening in accordance with the screening process outlined in Attachment 1 to this Amendment, may be determined exempt from further Section 106 review (Screened Activities). The Authority will ensure that this process is satisfactorily followed and adequately documented. Notwithstanding the foregoing, the Authority will ensure that activities that occur in areas of archaeological sensitivity will be monitored by Qualified Investigators and consulting Native American Tribes during all ground disturbing activities, regardless of the outcome of the screening process.

II. STREAMLINED NEGATIVE ARCHAEOLOGICAL SURVEY RECORDING AND REPORTING

The Signatories have established procedures for documenting negative archaeological survey findings as part of the phased identification program, which are provided in Attachment 2 to this Amendment. The Authority will complete (or cause to be completed) detailed supplemental negative Archaeological Survey Reports (NASR) consistent with the requirements outlined in Attachment 2. The Authority will report on the negative ASRs with the PA/MOA annual report to signatories and consulting parties. The annual report sent to all signatories, except for the ACHP, will include a compact disk of all NASRs. If any signatory or Native American tribal consulting party requests a copy of any NASR, the Authority will provide it within ten business days of the request.

III. REVISIONS TO ATTACHMENTS

Each attachment to this Agreement may be individually revised or updated through consultation and agreement in writing from the Signatories without requiring amendment of this Agreement,

unless the Signatories through such consultation decide otherwise. Upon revising any attachment or appendix, the Authority and FRA shall append any revised documents to this Agreement and distribute the final revised attachments to the other parties to this Agreement.

IV. REPORTING

The Authority will prepare a single annual report documenting the implementation of this MOA, all other project section MOAs, and the PA. The reporting period will be consistent with the state of California's fiscal year, July 1 through the following June 30, and be submitted to all signatories and consulting parties for review within three months of the end of the state fiscal year, September 31, until all treatment is completed. There will be a thirty-day (30-day) period to review and comment on the Report. The Report will be finalized after the close of the thirty-day (30-day) comment period.

SIGNATORIES

FEDERAL RAILROAD ADMINISTRATION

By: vU (btUzAQ *Marlys* //O Date: 12-2-16
Name: Marlys A. Osterhues
Title: Chief, Environmental and Corridor Planning

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

By: *Jeff Morales* Date: Z?W/
Name: Jeff Morales
Title: Chief Executive Officer

CALIFORNIA STATE HISTORIC PRESERVATION OFFICER

By: *[Signature]* Date: 4 Jan 2017
Name: Julianne Polanco
Title: California State Historic Preservation Officer

SURFACE TRANSPORTATION BOARD

By: *Shelli-Jane Bull for VR* Date: 12/22/16
Name: Victoria Rutson
Title: Director, Office of Environmental Analysis

UNITED STATES ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT

By: _____ Date: _____
Name: Michael S. Jewell
Title: Chief, Regulatory Division

SIGNATORIES

FEDERAL RAILROAD ADMINISTRATION

By: _____ Date: _____

Name: Marlys A. Osterhues

Title: Chief, Environmental and Corridor Planing

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

By: _____ Date: _____

Name: Jeff Morales

Title: Chief Executive Officer

CALIFORNIA STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: _____

Name: Julianne Polanco

Title: California State Historic Preservation Officer

SURFACE TRANSPORTATION BOARD

By: _____ Date: _____

Name: Victoria Rutson

Title: Director, Office of Environmental Analysis

UNITED STATES ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT

By: Michael S. Jewell Date: 19 Dec 06

Name: Michael S. Jewell

Title: Chief, Regulatory Division

ATTACHMENT 1
TO THE SECOND AMENDED MOA FOR THE MERCED-FRESNO SECTION
SCREENED ACTIVITIES

Screened Activities are classes of construction-related activities that have the potential to affect historic properties, but following appropriate screening, may be determined exempt from further Section 106 review under this Amendment. As with all construction activities, screened activities may only be undertaken within Authority-approved APE delineations.

This Attachment applies only when the activity is limited exclusively to one or more of the classes of Screenable Construction Activities listed below. The Authority must document any decision to "screen" an activity prior to commencing with any construction activities. A construction activity will not qualify as exempt if there may be historic properties present that could be affected, nor will it qualify as exempt from review if conditions must be imposed to ensure that potential historic properties would not be affected. If the Authority determines through the screening process that a listed project construction activity has the potential to affect historic properties, the Authority will instead follow Stipulation II of this agreement, if appropriate, and Attachment C of the PA.

The Authority is responsible for ensuring that a Qualified Investigatory (QI) review all individual construction activities that fall within the classes of construction activities listed below to determine if the individual construction activity requires further consideration. All construction activities, including the identification of mandatory and/or designated storage, disposal, or borrow areas, depth of disturbance, and construction easements, must be identified prior to the screening process. If additional features or activities are added to a previously screened activity, that activity must also be screened.

The Screening Process

The screening process must be appropriate to the specific complexity, scale, scope, and location of the construction activities. It is the responsibility of the Design Builder's (DB) QI to complete a Cultural Resources Screening Memorandum and acquire approval from the Authority's Project Construction Manager's (PCM) QI that the activity is screenable and that the documentation presented in the Screening Memorandum sufficiently supports this determination. The PCM will forward the approval memo to the Authority for final approval, prior to commencing with any ground-disturbing activities, thus exempting the proposed construction activities from further review under Section 106. At a minimum, each screening process shall include the following procedures:

- Literature/records review to determine potential for presence of historic properties.
- Review of archaeological sensitivity maps prepared during the environmental process, appended to the Archaeological Treatment Plan (ATP).
- Review of detailed construction activity plans that include depth of disturbance, identification of storage, disposal or borrow areas, easements, and access routes.
- Review of aerial photographs, historic maps, or as-built records.

The screened activities will be summarized in the PA/MOA annual report. The memos will be available to the SHPO or any other MOA signatory or consulting party upon request.

"Screenable" Construction Activities

The following activities may be subject to screening provided the process outlined above is followed and that the PCM's QI concurs by signature, and the Authority agrees via email, that the memo adequately supports the decision.

- Minor utility installation or relocation in previously disturbed areas.
- Utility potholing and relocation within existing utility easements.
- Addition or replacement of design features, such as fencing, safety barriers, or signs.
- Modification of traffic control systems or devices utilizing existing infrastructure, including installation, removal, or modification of regulatory, warning, or informational signs or signals.
- Removal of landscaping, vegetation or irrigation systems.
- Preliminary engineering tests, such as seismic, geologic, or hazardous materials testing that require potholing or drilling, provided qualified archaeological monitors are present, and, if available, consulting Native Americans. If the tests are being conducted in an archaeologically sensitive area, the activity will not be screened.

ATTACHMENT 2
TO THE SECOND AMENDED MOA TO THE MERCED-FRESNO SECTION
NEGATIVE ARCHAEOLOGICAL SURVEY REPORT PROTOCOLS

The protocol described in this Attachment applies only when the phased historic properties identification effort results in a negative records search and negative findings through archaeological survey, as noted below. If the Authority's OBQI determines that an Archaeological Survey is negative, the Authority will ensure that the QI completes an addendum ASR, including the content, methodology, level of effort, and documentation requirements as described in PA Attachment C, with all relevant supporting data included. To be considered to be a negative addendum ASR (NASR), each of the following criteria must be met:

1. Archaeological pedestrian survey has been completed with no resources identified, or the area is completely covered/paved.
2. Record search has been completed and no archaeological resources are recorded in the APE, with a buffer agreed upon in consultation with the Authority.
3. A designated tribal participant (as pre-identified by the Authority) accompanied the archaeological surveyors. Or, a tribal participant was invited to accompany the surveyors, but declined to participate.

A NASR will be approved through the following process:

1. DB submits draft NASR to the PCM QI.
2. PCM QI reviews for adequacy, finalizes and approves draft for forwarding.
3. PCM QI submits draft NASR to Authority.
4. Authority reviews and approves draft NASR.
5. Authority approves work to proceed.
6. PCM QI submits final NASR to Authority
7. Authority ensures all final NASRs produced during each Annual Report reporting period are documented in the Annual Report; a CD of all NASRs produced during the reporting period will be provided to MOA signatories and tribal consulting parties.

Once a NASR has been approved by the Authority through this process, work may proceed at that location subject to any archaeological and/or tribal monitoring requirements as recommended in the NASR. Monitoring will be required if the area is determined to be sensitive pursuant to parameters defined in the monitoring plan or geotechnical technical studies, or if ground surface visibility is very limited, such as paved or covered with fill.

ATTACHMENT D: DEPARTMENT OF PARKS AND RECREATION 523 FORMS

BUILDING, STRUCTURE, AND OBJECT RECORD

♦Resource Name or #: 30635 Avenue 12
NRHP Status Code: 6Y

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B1. Historic Name: N/A

B2. Common Name: 30635 Avenue 12

B3. Original Use: Barn **B4. Present Use:** Barn

***B5. Architectural Style:** N/A

***B6. Construction History:** Barn built c. 1934. See Site History.

***B7. Moved?** Yes No Unknown **Date:** N/A **Original Location:** N/A

***B8. Related Features:** N/A

B9a. Architect: N/A **B9b. Builder:** N/A

***B10. Significance:** Theme: N/A Area: N/A

Period of Significance: N/A **Property Type:** N/A **Applicable Criteria:** N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity):

This property is evaluated under the Agricultural Development and Barn historic contexts presented in the *Historic Architectural Survey Report for the Madera HSR Station Full-Build Project Section* (IGF 2024). The property at 30635 Avenue 12 does not meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR) individually or as a contributor to a previously unidentified historic district. See continuation sheet. *See continuation sheet.*

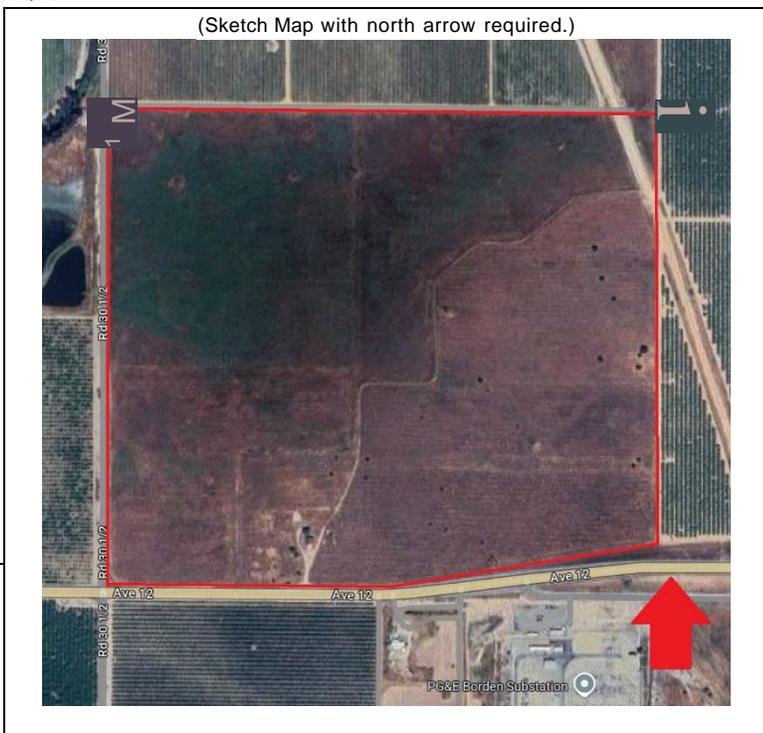
B11. Additional Resource Attributes *(List attributes and codes)*- N/A

***B12. References:**
See continuation sheet.

B13. Remarks:

***B14. Evaluator:** Millie Mujica, ICF
***Date of Evaluation:** October 30, 2024

(This space is reserved for official comments)



Primary #: _____

HRI #: _____

Trinomial: _____

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◆Resource Name or #: 30635 Avenue 12

◆Recorded by: Millie Mujica, ICF

Date: October 30, 2024 KI Continuation Update

P3a. Description (continued):

A rectangular, one-story barn clad in vertical wood shiplap sits west of the center, approximately 200 feet north of the parcel's southern boundary. A medium-pitched gable roof with collapsing corrugated metal and a shallow overhang caps the barn. The primary (south) elevation is arranged into three bays. On the central bay, the centered entrance consists of a pair of wood sliding doors on upper rails, with small rectangular viewing windows cut out of the doors. East of the entrance, a small, rectangular opening pierces the eastern bay. West of the main entrance, a single-leaf wood door on the upper rails provides a pedestrian entry to the barn. A covered outdoor area abuts the west elevation of the building, consisting of a wood shed roof supported by simple wood poles. The east and west side elevations appear to lack openings or fenestration; however, they are not very visible from the public right-of-way, particularly toward the rear (north) end of the barn. The north elevation was not visible from the public right-of-way.

Built components of an irrigation well system are visible at the northwest corner of the parcel. They consist of an in-ground well with an above-ground square concrete opening, a metal pump enclosed by an above-ground square concrete opening, a metal motor, and metal piping connecting the different elements.

B6. Construction History:

The barn at 30635 Avenue 12 dates to c. 1934 (IISGS 1922, 1946). In 1922, a single building of unknown purpose sat on the property (IISGS 1922). By 1946, the building was demolished, and the extant barn and auxiliary small sheds occupied the parcel; two unpaved driveways (non-extant) ran from Avenue 12 to either side of the barn (IISGS 1946; Nationwide Environmental Title Research, LLC [NETR] 1946). A decade later, an L-shaped single-family residence sat on the parcel, situated just southwest of the barn; by 1957, the previous driveways leading up to the barn were replaced with a long unpaved driveway that extended to the northeast corner of the parcel (NETR 1957). The auxiliary sheds were dismantled by 1981, and the current driveway paths were established by 2005 (NETR 1981, 2005). The residence was demolished between 2009 and 2011 (Google Earth Pro 2009, 2011). The type of crops grown on the property appears to have changed multiple times over the years, based on patterns visible in the fields over several decades of aerial photographs (NETR 1946, 1957, 1981, 2005, 2008, 2020). However, aerial imagery shows these crop patterns have remained consistent since approximately 2020 (NETR 2020). Everspring Alliance LP currently owns the property (ParcelQuest 2024). Research did not reveal any further information about the demolished buildings, previous owners, or the property as a whole.

B10. Significance (continued):

Under NRHP/CRHR Criterion A/1, the subject property at 30635 Avenue 12 does not have important associations with historic events, patterns, or trends of development. The property dates to c. 1934, which was a period of agricultural growth and expansion in Madera. Thus, many agricultural properties date to this period and the subject property does not exhibit individual significance over other surrounding agricultural properties in the area. Although it features agricultural resources such as a barn, an irrigation well system, crop fields, orchards, and pastures, these are common and ubiquitous resources individually and together do not represent a cohesive rural residential agricultural property. The subject property also lost its c. 1952 residence, which was demolished sometime between 2009 and 2011 and was the sole residential built element of the parcel. Thus, the property no longer serves a residential use. The subject property is also not associated with a significant agricultural innovation or a particular type of crop within Madera. Although the property retains its agricultural use, the type of crops harvested has changed a few times throughout its history. The subject property is not significant under NRHP/CRHR Criterion A/1.

CONTINUATION SHEET

Primary #: _____

HRI #: _____

Trinomial: _____

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♦Recorded by: Millie Mujica, ICF

*Resource Name or #: 30635 Avenue 12

Date: October 30, 2024 Continuation Update

Under NRHP/CRHR Criterion B/2, the subject property does not share significant associations with the lives of persons important to history. Research into publicly available records, including Ancestry.com, newspaper databases, and accessible government records, lacked evidence that the current owner, Everspring Alliance LP, was a prominent figure in local, state, or national history. Research also did not reveal any associations between the subject property and early settlers, or with any persons of significance in Madera. The property is also not associated with any individuals who made discoveries or advancements in farming or agriculture. The subject property is not significant under NRHP/CRHR Criterion B/2.

Under NRHP/CRHR Criterion C/3, the subject property is not a significant example of its type, style, or era, lacks high artistic value, and is not the work of a master architect, builder, designer, or engineer. It is currently a common example of a non-residential agricultural property and exhibits some typical farming-related elements such as a barn, an irrigation well system, and the surrounding crop fields, orchards, and pastures. However, although the barn is a typical example of a transverse frame barn, the building lacks quality of design and high artistic value. Research yielded no evidence of an architect or builder associated with the property. The subject property is not significant under NRHP/CRHR Criterion C/3.

Under NRHP/CRHR Criterion D/4, the subject property has neither yielded nor is likely to yield important information about our past. Typical of similar buildings, the subject property's wood frame construction does not have the potential to yield important information regarding construction or engineering materials, methods, or technologies used in the 1930s. The subject property is not significant under NRHP/CRHR Criterion D/4.

***B12. References:**

Google Earth Pro. 2009. *30635 Ave 12, Madera, CA 93638, Photograph*. Mountain View, CA: Google, LLC, September. Accessed October 29, 2024. Available: <https://maps.app.goo.gl/kQMiqu8jnx1yKSkQ9>.

----. 2011. *30635 Ave 12, Madera, CA 93638, Photograph*. Mountain View, CA: Google, LLC, April. Accessed October 29, 2024. Available: <https://maps.app.goo.gl/kQMiqu8jnx1yKSkQ9>.

Nationwide Environmental Title Research, LLC (NETR). 1946, 1957, 1981, 2005, 2008, and 2020. 30635 Ave 12, Madera, CA 93638, Aerial Photograph. Accessed October 29, 2024. Available: <https://www.historicaerials.com/viewer>.

ParcelQuest. 2024. 30635 Ave 12, Madera, CA 93638. Accessed October 29, 2024. Available: <https://www.parcelquest.com/>.

U.S. Geological Survey (USGS). 1922. Gregg, California [map]. 1:31,680, 7.5' Series. Reston, Va: U.S. Department of the Interior. Surveyed 1919.

----. 1946. Gregg, California [map]. 1:24,000, 7.5' Series. Reston, Va: U.S. Department of the Interior. Surveyed 1946.

State of California - The Resources Agency	Primary #:	P-20-0020904
DEPARTMENT OF PARKS AND RECREATION	HRI #:	
CONTINUATION SHEET	Trinomial:	—

* Recorded by: Magaly Colon-Morales, ICF

* Resource Name or #: Wilson-Gregg Transmission Line

Date: 10/31/2024 Continuation **8** Update

P3a. Description (continued):

The Wilson-Gregg 230 kV Transmission Line, in the vicinity of the project, consists of self-supporting lattice towers, with six projecting arms, three on each side, and a total of six insulators per tower. Intervening farmland and an asphalt paved road sit between each tower. No additional tower styles were observed in this area (Google 2024). Due to the overall size of the transmission line, a full count of towers in either style is not included in this evaluation.

B10. Significance (continued):

This property is evaluated under Madera County, Power Transmission Infrastructure, and Transmission Lines, Towers, and Poles historic context statements presented in the *Historic Architectural Survey Report for Madera HSR Station Full-Build Project Section* (ICF 2024). As shown below, the Wilson-Gregg 230 kV Transmission Line, located in the area of potential effect, does not meet the criteria for listing in the NRHP or the California Register of Historical Resources (CRHR). Please refer to original DPR form for a complete site history (Brookshear 2007:2-7).

Previous evaluation completed by JRP Historical Consulting determined that the Wilson-Gregg transmission line does not meet the criteria for the NRHP. It was found ineligible under Criterion A, as it did not contribute significantly to broad historical patterns, being built after California's pioneering phase in long-distance transmission. It lacks associations with historically significant individuals, excluding it under Criterion B. Criterion C does not apply because the line does not showcase distinctive or innovative engineering; instead, it follows typical transmission design of its time. Lastly, it does not meet Criterion D since it offers no unique information on historical construction methods or materials, which are already well-documented.

EVALUATION

Under NRHP/CRHR Criterion A/1, the Wilson-Gregg 230 kV Transmission Line does not have important associations with historic events, patterns, or trends of development. The transmission line was constructed between 1930 and 1946, during a period when the San Joaquin Light and Power Company was merging with PG&E. Based on the historic context, 230 kV lines were significant when energized between 1901 and 1931. This line was energized just after the period of significance for 230 kV transmission lines. Furthermore, research did not produce any evidence that the structure was the site of an important historical event, or pattern of events that helped shape the built environment in the area. The structure did not serve as a catalyst for development in Madera County area or the larger region. As such, the Wilson-Gregg 230 kV Transmission Line is not significant under NRHP/CRHR Criterion A/1.

Under NRHP/CRHR Criterion B/2, the structure does not share significant associations with the lives of persons important to history. Properties that are eligible under this criterion are typically associated with the productive life of a person. Research did not yield evidence of the structure being associated with the professional life or activities of key utility leadership within PG&E. As such, the structure is not significant under NRHP/CRHR Criterion B/2.

Under NRHP/CRHR Criterion C/3, the Wilson-Gregg 230 kV Transmission Line is not a significant example of its type, style, or era, it lacks high artistic value, and it is not the work of a master architect, builder, designer, or engineer. The transmission line and lattice towers are a common example of transmission line infrastructure from the 20th century across California. The transmission line does not embody important, leading-edge engineering that relied on, or allowed for, demonstrable innovations in transmission design, voltage regulation, voltage level, or transmission distance dating to the period(s) of significance. The line does not convey distinctive operational characteristics of utility engineering and design into a region that directly spurred specific aspects of community development. Finally, it does not contribute to the significance of an established or potential historic district (such as wider power generation system). They lack artistic

CONTINUATION SHEET

Primary #: P-20-002904

HRI #:

Trinomial:

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◆Recorded by: Magaly Colon-Morales, ICF

*Resource Name or #: Wilson-Gregg Transmission Line

Date: 10/31/2024 Continuation **B** Update

value and are an unremarkable example of its type. Research did not uncover any information regarding its engineer or builder. As such, the structure is not significant under NRHP/CRHR Criterion C/3.

Under NRHP/CRHR Criterion D/4, the structure has neither yielded nor is likely to yield important information about our past. Typical of similar structures, the Wilson-Gregg 230 kV Transmission Line does not have the potential to yield important information regarding construction or engineering materials, methods, or technologies used in the 1930s. As such, the structure is not significant under NRHP/CRHR Criterion D/4.

***B12. References:**

Brookshear, Cheryl (JRP Historical Consulting). 2007. "P-20-002904." Department of Parks and Recreation Form 523A and 523B. California.

Google Maps. 2024. Madera, CA 93638, Street View. Mountain View, CA: Google, LLC, 2007. Accessed October 30, 2024. Available: <https://www.google.com/maps>.