DOCKETED	
Docket Number:	21-AFC-02
Project Title:	Willow Rock Energy Storage Center
TN #:	247661
Document Title:	20221027_WRESC_Data Request_Responses Set 2 Final PDF_and_Attachments
Description:	N/A
Filer:	Elizabeth Diaz
Organization:	Golder Associates
Submitter Role:	Applicant Consultant
Submission Date:	11/22/2022 3:48:35 PM
Docketed Date:	11/22/2022

Willow Rock Energy Storage Center (21-AFC-02)

DATA REQUEST RESPONSE SET 2

Response to California Energy Commission Staff

DR113 and DR114
DR115 and DR116
DR117, DR118, and DR119
DR120, DR121, DR122, DR123, DR124, DR125, DR126, and DR127
DR128, DR129, DR130, and DR131
DR132 and DR133
DR134 and DR135
DR136, DR137, and DR138
DR139, DR140, DR141, and DR142
DR143
DR144

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November 22, 2022

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ATTACHMENTS

Attachment DR115-1	Shapefiles for BUOW and SWHA (Provided under confidential cover)
Attachment DR118-1	Updated Demarais et al. 2022 Appendix A, Site Forms (DPR 523A & B)
Attachment DR139-1	HARP Files for Construction {Submitted using CEC Kiteworks}
Attachment DR139-2	HARP Files for Operation {Submitted using CEC Kiteworks}
Attachment DR141-1	Resubmitted Att DA5.1-2 - Appendix 5.9F_Modeling Files_UPDATED {Submitted using CEC Kiteworks}
Attachment DR144-1	Additional Information to Support VMT Information

Acronyms and Abbreviations

acfm	actual cubic feet per minute
ACSR	aluminum conductor steel-reinforced
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
AFC	Application for Certification
Bgs	below ground surface
BLM	U.S. Bureau of Land Management
BUOW	Burrowing Owl
CARB	California Air Resource Board
CBOC	California Burrowing Owl Consortium
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CCR	California Code of Regulations
cfm or ft3/min	cubic feet per minute
CHRIS	California Historical Resources Information System
CNDDB	California Natural Diversity Database
CRMIMP	Cultural Resources Mitigation Implementation and Monitoring Plan
CUP	Conditional Use Permit
DKF	desert kit fox
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
DR	Data Request
EKAPCD	Eastern Kern Air Pollution Control District
EPC	Engineering, Procurement and Construction
FSA	Final Staff Assessment
ft	feet
HARP	Hotspots Analysis And Reporting Program
HCM	Highway Capacity Manual
HRA	Health Risk Assessment
ITE	Institute of Transportation Engineer
Kcmil	Kilo Circular Mills
KOG	council of governments

kV	kilovolt
LADWP	Las Angeles Department of Water and Power
LORS	Laws, Ordinances, Regulations and Standards
m^3	square meters
m/s	meters per second
mph	miles per hour
NAHC	Native American Heritage Commission
OHP	Office of Historic Preservation
PG&E	Pacific Gas and Electric
PM10	particulate matter
PMI	point of maximum impact
PSA	Preliminary Staff Assessment
ROW	Right of Way
SCE	Southern California Edison
SIS	System Impact Study
SWHA	Swainson's Hawk
TLRW	Transmission Line Right of Way
TOC	Table of Contents
UTMs	Universal Transverse Mercator
VMT	vehicle miles travelled
WDR	Waste Discharge Requirement
WEAP	Worker Environmental Awareness Program
WJT	Western Joshua Tree
WRESC	Willow Rock Energy Storage Center

1.0 INTRODUCTION

GEM A-CAES LLC's (the "Applicant") is responding to the California Energy Commission (CEC) Staff Data Requests Set 2, numbers:

> *DR113 and DR114, DR115 and DR116, DR117 - 119, DR120 - DR127, DR128 – DR131, DR132 and DR133, DR134 and DR135, DR136 – DR138, DR139 – DR142, DR143, and DR144, for the Willow Rock Energy Storage Center (WRESC) (21-AFC-2).*

This response document addresses comments where the applicant requested additional time to respond. The responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as presented by CEC Staff and are keyed to the Data Request (DR) numbers (DR#). New or revised graphics, tables or attachments are provided as attachments and are numbered in reference to the Data Request number. For a hypothetical example, the first attachment used in response to Data Request DR10 would be numbered Attachment DR10-1. Each page in this response document is sequentially page-numbered consistently with the remainder of the document, although some attachments may also have their own internal page numbering system.

2.0 AIR QUALITY

2.1 Construction PM10 Emissions (DR113 and DR114)

2.1.1 Data Request DR113

DR113: *Please provide justifications to show why the proposed mitigation measures are sufficient for the proposed project.*

Response: The results shown in Table 1 and 2 of Appendix 5.1C are controlled emissions after applying an 85% control efficiency to unpaved roads and 70% control efficiency to open areas due to watering. In addition, the Applicant has agreed to a number of best practice mitigation measures including the following:

Land Preparation, Excavation and/or Demolition Activities

- All soil excavated or graded should be sufficiently watered to prevent excessive dust. Watering should occur as needed with complete coverage of disturbed soil areas. Watering should be performed at a minimum of twice daily on unpaved/untreated roads and on disturbed soil areas with active operations.
- All clearing, grading, earth moving, and excavation activities should cease − during periods of winds greater than 20 miles per hour mph (averaged over one hour), if disturbed material is easily windblown, or − when dust plumes of 20 percent or greater opacity impact public roads, occupied structures, or neighboring properties.
- All fine material transported offsite should be sufficiently watered or securely covered to prevent excessive dust.
- If more than 5,000 cubic yards of fill material will be imported or exported from the site, all haul trucks should be required to exit the site via an access point where a gravel pad or grizzly has been installed.
- Areas disturbed by clearing, earth moving, or excavation activities should be minimized.

- Stockpiles of soil or other fine loose material shall be stabilized by watering or other appropriate method to prevent wind-blown fugitive dust.
- Where acceptable to the fire department, weed control should be accomplished by mowing instead of discing, thereby, leaving the ground undisturbed and with a mulch covering.

Building Construction Activities

- Once initial leveling has ceased, all inactive soil areas within the construction site should either be seeded and watered until plant growth is evident, treated with a dust palliative, or watered twice daily until soil has sufficiently crusted to prevent fugitive dust emission.
- All active disturbed soil areas should be sufficiently watered to prevent excessive dust, but no less than twice per day.

Vehicular Activities

- Onsite vehicle speed should be limited to 15 mph.
- All areas with vehicle traffic should be paved, treated with dust palliatives, or watered a minimum of twice daily.
- Streets adjacent to the project site should be kept clean and accumulated silt removed.
- Access to the site should be by means of an apron into the project from the adjoining surfaced roadways.
- The apron should be surfaced or treated with dust palliatives. If operating on soils that cling to the wheels of the vehicles, a grizzly or other such device should be used on the road exiting the project, immediately prior to the pavement, to remove most of the soil material from the vehicle's tires.
- Properly maintain and tune all internal combustion engine powered equipment.
- Require employees and subcontractors to comply with California's idling restrictions for compression ignition engines.
- Use low sulfur (CARB) diesel fuel.

These proposed mitigation measures are considered best practices for the construction phase and are consistent with mitigations proposed for other CEC-jurisdictional projects.

The roads used for construction will differ from roads used for operation. Therefore, pavement is not a reasonable alternative for construction roads which are going to change throughout the project according to the 63-month construction schedule.

PM_{10} air quality in this area and the majority of the State already exceeds the 24-hr standard. The short-term impacts from construction of this project will therefore not cause a new violation of the standard.

The maximum H6H PM_{10} modeled concentration is 37.4 micrograms per cubic meter (ug/m^3) which is less than 25% of the NAAQS. The analysis is conservative in that it assumes continuous steady-state emissions at the highest monthly activity level that is expected during construction. The model also assumes wind speed and

direction are steady-state through each individual hour, when in fact, these conditions are likely to vary, which would result in lower concentrations at any given location. It is also true that background levels vary each day and the probability that the maximum daily background would coexist with the exact period of maximum impact is quite low. Finally, there are simplifying assumptions in creating the model source configurations themselves. All of these factors, generally lead to overestimation of construction impacts.

The maximum construction PM_{10} impact is at the property fenceline, a location where no member of the public would be expected to be located. Residential receptors are located further away and would not be exposed to the fenceline maximum impacts. The modeled 24-hr concentrations of PM_{10} decrease quite rapidly with distance.

The proposed mitigation conforms with all applicable laws, ordinances, regulations and standards, is consistent with mitigation proposed for construction of other California energy projects, and with these measures in place, potential PM_{10} impacts would be considered insignificant and there is no need for additional construction mitigation beyond that already incorporated into the project design.

2.1.2 Data Request DR114

DR114: *Please provide additional mitigation measures to control construction PM10 emissions if necessary (e.g., graveling or paving onsite, unpaved haul roads and parking lots early in the construction schedule to prevent extensive, prolonged fugitive dust emissions).*

Response: As discussed in DR113, the mitigation measures proposed for construction phase are sufficient and reasonable. Additional mitigation measures are not necessary or justified based on expected impacts.

3.0 BIOLOGICAL RESOURCES

3.1 GIS Data (DR115 and DR116)

3.1.1 Data Request DR115

DR115: *Please provide (under confidential cover) the shapefiles for BUOW including suitable burrows and sign.*

Response: Refer to confidential Attachment DR115-1 submitted under a separate confidentiality request for all the shapefiles, including BUOW suitable burrows and sign.

3.1.2 Data Request DR116

DR116: *Please provide (under confidential cover) the shapefiles for SWHA including potential nest locations, active competitor nest locations, and active nest location 2021.*

Response: Refer to confidential Attachment DR115-1 submitted under a separate confidentiality request for all the shapefiles, including SWHA potential nest locations, active competitor nest locations and active nest locations identified in 2021.

4.0 CULTURAL/TRIBAL CULTURAL RESOURCES

4.1 Willow Springs Village (DR117 through DR119)

4.1.1 Data Request DR117

DR117: *Please provide a discussion of whether the Willow Springs Village assemblage of buildings and structures should be recorded and evaluated as a site or as a district and the reasons why it was recorded and evaluated as a site containing buildings and structures and not as a district.*

Response: PaleoWest 2022 Historic Resources Evaluation report (Demarais et al. 2022), submitted under TN 243019 on May 11, 2022, addresses the characterization of Willow Springs Village and initially lists the village as both a site and a district, including in Table 5-1. Based on subsequent re-evaluation of Willow Springs Village, Demarais et al. 2022 is being revised in response to this data request. The resource will now be recorded and evaluated as a district due to a high level of cohesion in the historic settlement. Revisions will be made throughout the report to support the categorization of Willow Springs Village as a district. The applicant expects to docket the report by December 2, 2022.

4.1.2 Data Request DR118

DR118: *If in fact the applicant finds it more appropriate to record and evaluate Willow Springs Village as a district, please provide an updated evaluation in Demarais et al. 2022, Section 6.2.1 and appropriate DPR 523 forms. Include conclusions as to whether Willow Springs Village evaluated as a district as opposed to a site would change the boundary selected for the resource.*

Response: As discussed in DR117, Demarais et al. 2022 will be updated in multiple sections to address the recording and evaluation of Willow Springs Village as a district.

Updated Appendix A of Demarais et al. 2022 Historic Resources Evaluation Report (HRER) presents Site Forms pp. 1-3 (DPR 523 forms). As shown on the updated site forms, District and Element of District are checked as 'Resources Present' for Willow Springs Village Historic District. Furthermore, the site forms have been changed to indicate the following descriptions related to the resource and boundary description:

> *"The setting is rural… Overall, the district has a high level of cohesion, tied together by the rural desert landscape, density of development, the use of masonry construction materials, and the shared scale and massing of the buildings."* (Demarais et al. 2022).
>
> *"The boundary for the Willow Springs Village Historic District is proposed as including assessor parcel numbers (APNs) 315-012-01 (73.85 acres), 252-341-05 (1.98 acres), and 315-012-02 (0.79 acres) and two discontiguous areas on adjacent parcels (APNs 252-341-06 and 252-351-48) for a total of approximately 77 acres."* (Demarais et al. 2022).

Please refer to Attachment DR118-1 for updated HRER Appendix A. Site Forms (DPR 523A & B).

4.1.3 Data Request DR119

DR119: *Discuss whether the suggested mitigation (Demarais et al. 2022, pp.75 and 78) to reduce impacts to the resource might change if it were evaluated as a district rather than a site.*

Response: Please see DR117.

5.0 MULTIPLE APPLICATION FOR CERTIFICATION DATA ADEQUACY SUBMITTALS - UPDATE SECTION 5.3

5.1 Data Responses (DR120 through DR127)

5.1.1 Data Request DR120

DR120: *Section 5.3.2.1.1, Archival Research: Update the Archival Research discussion with the information gathered in the additional data adequacy submittals, including a description of the entirety of the study area and project components, and the additional literature searches conducted at the Southern San Joaquin Valley Information Center.*

Response: On June 27, 2022, the applicant submitted TN243731, *Data Adequacy Response 3* (Cultural Resources), to provide additional information in response to the California Energy Commission (CEC) Staff's data adequacy review of the AFC. The information contained in Data Adequacy Response 3 has been used to update AFC Section 5.3.2.1.1, Archival Research. Please see below for updated Section 5.3.2.1.1. that includes updates submitted in Data Adequacy Response 3 and additional data adequacy submittals.

5.3.2.1.1 Archival Research

The Applicant's cultural resources team conducted a literature review and records search at the Southern San Joaquin Valley Information Center (SSJVIC), housed at California State University, Bakersfield, on the following dates:

- November 5, 2020 (Rincon 2021)
- November 5, 2020 (PaleoWest, LLC. (PaleoWest) 2021)
- August 18, 2021. (PaleoWest 2021)
- March 18, 2022 (Rincon 2022a)
- June 5, 2022 (Rincon 2022b)

This inventory effort included the Project area, 1-mile around the WRESC site, and a one-half-mile radius around the Gen-Tie project area. The following summarizes the findings of the literature review and records search:

- **WRESC Project Area:** The Rincon February 2021 cultural resources assessment for the WRESC project area identified 58 previously conducted cultural resource surveys within a 0.5-mile buffer of the site.
  - In the spring of 2022, Rincon identified four (4) additional previously conducted cultural resource surveys within the 1-mile extended project site buffer (Rincon 2022a).
  - Of the 58 previously conducted cultural resource surveys that occurred within the 0.5-mile buffer, 24 extended into the expanded buffer area.
- **10-acre Strickland Property**: Rincon's June 2022 cultural resource assessment of the 10-acre Strickland property **did not** identify any previously conducted cultural resources studies within the new records search area.

- **Gen-tie Line:** PaleoWest's data review indicates that no fewer than 68 previous investigations have been conducted and documented within 0.5-miles of the Gen-Tie project area since 1961. Forty-seven of these studies encompass portions of the Project area.

PaleoWest 2021 Cultural Resources Assessment

In 2021, PaleoWest conducted a cultural resources assessment for the proposed Hydrostor A-CAES Project located near Willow Springs in Kern County, California. Results of the cultural resources assessment were presented to WRESC in a 2021 Cultural Resources Technical Report (PaleoWest 2021). The following describes the details of the PaleoWest 2021 cultural resources assessment report.

- This report summarizes the methods and results of the cultural resource assessment of the approximately 400 Project area, which includes the proposed gen-tie alignment plus a 50-foot buffer on each side.
- This investigation includes background research and an intensive pedestrian survey of the Project area.
- Existing cultural resources records search data were compiled from the SSJVIC of the California Historical Resources Information System using a study area of 0.5 miles around the Project area. The survey area for architectural history utilized the same study are as the records search per CEC guidance.
    - Results of the record search indicate that 20 cultural resources have been previously recorded in the Project area
- A Sacred Lands File search was also conducted by the Native American Heritage Commission on August 24, 2021, with negative results.
- PaleoWest archaeologists conducted an intensive pedestrian survey and site inventory of the Project area between August 23 and September 28, 2021.
    - The survey resulted in the documentation of 53 cultural resources, including 14 previously recorded archaeological sites, 1 previously recorded built-environmental resource with archaeological components, 2 previously recorded isolated objects, 26 newly recorded archaeological sites, and 10 newly recorded isolated objects. The architectural survey resulted in the documentation of 36 built-environment resources.
- PaleoWest analyzed the CRHR eligibility of all archaeological resources within the Project area under Criteria 1, 2, 3, and 4.

The objective of this records search was to identify prehistoric or historical cultural resources that have been previously recorded within the study area during prior cultural resource investigations (PaleoWest 2021).

As part of the cultural resources inventory, historical maps and aerial images were reviewed to characterize the developmental history of the Project area and surrounding area. Historical maps consulted include the following:

- Elizabeth Lake, CA (1915 and 1915) 30-minute,
- Willow Springs, CA (1943 and 1965) 15-minute,
- Los Angeles, CA (1949, 1955, and 1959) 1-degree,

- Little Buttes, CA (1965) 7.5-minute,
- Fairmont Butte, CA (1965) 7.5 minute,
- Tylerhorse Canyon, CA (1965) 7.5-minute USGS quadrangles, and
- Historical aerial images from NETROnline dated 1948, 1959, 1963, 1974, and 1994.

Results of the archival research indicate that by the early 1940s, portions of Hamilton Road and Rosamond Boulevard were present, with a few dirt roads connecting sparse structures to these relatively more major routes. The area remained relatively undeveloped until the 1960s, when a series of grid-oriented dirt roads were established throughout the Project area and the general vicinity. These road grids were presumably built for planned communities that were never established. Most of the roads visited during the survey exhibit some degree of use by residents. The most significant development in the area has been wind and solar energy development, with the Project vicinity remaining relatively undeveloped and retaining its rural character.

Rincon 2021 Cultural Resources Assessment

In 2020, Rincon was retained to conduct a cultural resources assessment report for the Rosamond A-CAES Facility Project located near Rosamond, Kern County, California. Results of the cultural resources assessment were presented to WRESC in a February 2021 cultural resources assessment report (Rincon 2021). The following describes the details of the Rincon 2021 cultural resources assessment report:

- The February 2021 cultural resources assessment report (TN 243019) includes the results of a cultural resources records search, a Sacred Lands File search, a pedestrian survey, archival research, and cultural resource documentation and evaluation.
- The February 2021 technical report was prepared in accordance with the Archaeological Resources Management Report guidelines set by the California Office of Historic Preservation.
- The Gen-Tie line routings were still under development at the time the February 2021 assessment was performed, thus they are not addressed in the document.
- The cultural resources records search identified 58 previously conducted cultural resources studies. The SLF search from the Native American Heritage Commission (NAHC) was returned with negative results for site specific information regarding tribal heritage resources within the project site.

Based on the results of the February 2021 study, Rincon recommended a finding of no impact to archaeological resources.

Rincon 2022a Additional Cultural Resources Records Search

Rincon Consultants, Inc. was previously requested by Golder Associates, Inc. to prepare a Cultural Resources Assessment for the WRESC Energy Storage Project (Project) located in Rosamond, Kern County, California (Rincon 2021). In response to the CEC comments on the Cultural Resources Assessment (Rincon 2021), Rincon provided the results of an additional CHRIS records search extending from 0.5 to 1.0 mile surrounding the Project site, in accordance with CEC siting regulation Appendix B (g) (2) (B). The following describes the details of the results of this response:

- Results of the records search, including copies of records search maps and additional site records.
- A scaled topographic quadrangle map depicting the survey coverage including a 200-ft. buffer area for all project components surveyed, in accordance with CEC siting regulation Appendix B (g) (2) (C).

Rincon 2022b Cultural Resources Assessment

In 2022, Rincon was retained to conduct a cultural resources assessment report for the 10-acre Strickland parcel for the WRESC project located near Rosamond, Kern County, California (Rincon 2022b). The following describes the details associated with the assessment of the 10-acre Strickland parcel:

- The Strickland parcel was not evaluated in the previous cultural resources assessment or the additional letter reports; therefore, a cultural resources assessment of the Strickland parcel was conducted.
- Based on a recent re-evaluation of construction staging and laydown requirements, Hydrostor has determined that the 10-acre Strickland parcel will be sufficient to meet construction laydown needs.
- Accordingly, the 40-acre laydown area north of the project site is not needed for construction and was not surveyed.
- The June 2022 cultural resources assessment report for the 10-acre Strickland parcel includes the results of a cultural resources records search, archival research, a pedestrian survey, and cultural resource documentation and evaluation.
- The June 2022 technical report was prepared in accordance with the Archaeological Resources Management Report guidelines set by the California Office of Historic Preservation.
- Rincon performed the following activities as part of the cultural resources assessment:
  - A cultural resources records search was conducted to identify any previously conducted cultural resources studies and previously recorded resources within the portion of the 1.0-mile buffer surrounding the 10-acre Strickland parcel.
  - No previously conducted cultural resources studies were identified in the new records search area.
- A cultural resources survey was conducted for the Strickland parcel on June 10, 2022, and included a 200-foot (ft) buffer to the south and west.
- Rincon did not extend the survey buffer to the east as that area was included in the previous survey conducted for the project in 2021.
- Based on the current study, Rincon recommended a finding of no impact to archaeological resources.

5.1.2 Data Request DR121

DR121: *Table 5.3-1, Previous Cultural Studies: Update the table to include the Previous Cultural Studies identified in the subsequent literature searches with the expanded study area (PaleoWest 2022, Rotella et al. 2022a; Rotella et al. 2022b).*

Response: On June 27, 2022, the applicant submitted TN243731, *Data Adequacy Response 3* (Cultural Resources), to provide additional information in response to the California Energy Commission (CEC) Staff's data adequacy review of the AFC. The information contained in Data Adequacy Response 3 has been used to update the AFC by replacing Table 5.3-1 with Revised Table 5.3-1. See below for Revised Table 5.3-1.

Previous Cultural Studies within 1-Mile of the Project Area and 0.5-Miles of the Gen-Tie Lines

Revised Table 5.3-1 includes previous cultural studies within 1-mile of the project area and 0.5-miles of the Gen-Tie line study area. The list of studies provided in Revised Table 5.3-1 were presented in the following cultural resource assessments prepared by WRESC's cultural resource team:

- PaleoWest 2021. Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California by Knabb, et al.
- Rincon 2021. Cultural Resources Assessment Report by Montgomery et al. Rosamond A-CAES Facility Project[1].
- Rincon 2022b. Cultural Resources Assessment Report by Rotella et al. Rosamond A-CAES Facility: Strickland Parcel.

Table 5.3-1 (PaleoWest 2021) was revised and submitted in Data Adequacy Response #3 (TN243731) (Revised Table 5.3-1).

Revised Table 5.3-1: Previous Cultural Studies within 1-Mile of the Project Area and 0.5-Miles of the Gen-Tie Lines.

Report No.	Date	Author(s)	Title
PaleoWest 2021 Previous Cultural Studies			
KE-00101	1996	Kimball, Marcia	Cultural Resource Testing and Evaluation Report for the Cory and Minn Parcels of the Loomis Land Exchange
KE-00355	1994	Clift, Gregory R., and Sutton, Mark Q.	An Archaeological Assessment of Tentative Tract No. 5612, Rosamond, Kern County, California
KE-00519	1990	Jackson, Scott	An Archaeological Assessment of 470 Acres of Land Southwest of Willow Springs, Kern County, CA
KE-00634	1985	Macko, Michael E. and Wiesbord, Jill	Sylmar Expansion Project: Cultural Resources Inventory and Significant Evaluation Addendum to Final Report
KE-00634A	1985	Macko, Michael E. and Weisbord, Jill	Sylmar Expansion Project Cultural Resources Inventory and Significance Evaluation Final Report Volume II
KE-00802	1989	Parr, Robert E.	An Archaeological Assessment of 480 Acres of Land West of Rosamond, Kern County, California

[1] Note: In response to siting regulations that require a cultural resources records search 1-mile out from the project site, Rincon expanded their previous cultural studies search area from 0.5-miles to 1-mile from the WRESC site. Results from the expanded buffer area were submitted in an April 29, 2022, letter report addressed from Rincon to WRESC. The additional findings were submitted to the CEC as part of Data Adequacy Supplement # 2.

Report No.	Date	Author(s)	Title
KE-00803	1989	Parr, Robert E.	An Archaeological Assessment of 80 Acres of Land West of Rosamond, Kern County, California
KE-00869	1990	Parr, Robert E. and Jackson, Scott	An Archaeological Assessment of 840 Acres of Land Near Willow Spring, Kern County, California
KE-01010	1991	Robinson, R.W.	Regional Overview of the Cultural Resources of the Willow Springs Specific Plan Update, Southern Kern County, California
KE-01010A	1991	Bein, Robert	Environmental Impact Report Draft, Willow Springs Specific Plan Update
KE-01181	1990	Schiffman, Robert A.	Archaeological Investigation of 112 Acre Parcel West of Willow Springs Section 18, Township 9N, 13W. Kern County, California
KE-01182	1980	Schiffman, Robert A. and Garfinkel, Alan P.	Draft - Archaeological Overview of Kern County
KE-01183	1981	Schiffman, Robert A. and Garfinkel, Alan P.	Prehistory of Kern County - An Overview
KE-01196	1991	Robinson, R.W.	A Regional Overview of the Cultural Resources of the Willow Springs Specific Plan Update, Southern Kern County, California
KE-01286	1987	Schiffman, Robert A.	Archaeological Investigation for Parcel Map #8208, Kern County, California
KE-01341	1989	Schiffman, Robert A.	Archaeological Investigation for Parcel Map No. 9001, Kern County, California
KE-01355	1989	Schiffman, Robert A.	Archaeological Investigation for a 1900 Acres West of Rosamond, Kern County, California
KE-01605	1989	Sutton, Mark Q.	An Archaeological Survey of PM 8386, 20 Acres at 90th W. and Rosamond Blvd.
KE-01628	1987	Sutton, Mark Q.	On the Late Prehistory of the Western Mojave Desert
KE-01630	1978	Sutton, Mark Q., Forbes, Charles, and Robinson, Sylva	A Possible Paleo-Indian Site Complex in the Western Mojave Desert
KE-01867	1975	Hall, Matthew C., Barker, James P., Snyder, Toni B., Weaver, Richard A., and Lawton, Harry W.	Background to Prehistory of the El Paso/Red Mountain Desert Region
KE-01960	1986	Cleland, James H., Woods, Clyde M., Skinner, Elizabeth J., Kelly, Michael S., and Apple, Rebecca M.	Kern River Pipeline Cultural Resource Overview
KE-01993	1995	Hayden, William E., Macko, Michael E., and Earle, David D.	A Class III Intensive Survey of Five Land Exchange Sites for Hughes Land Company in the Rosamond and Palmdale Areas, Los Angeles and Kern Counties, California
KE-02002	1993	Meyers, Thomas B. and Trimble, Michael K.	Archaeological Curation - Needs Assessments for Fort Sill, Oklahoma, Fort Gordon, Georgia, Vandenberg Air Force Base, California, Camp

Report No.	Date	Author(s)	Title
			Pendleton Marine Corps Base, California, and Naval Air Weapons Station, China Lake, California
KE-02059	1997	Love, Bruce	Cultural Resources Survey Report: Bakersfield-Rialto Fiberoptic Line Project, Kern, Los Angeles, and San Bernardino Counties, California
KE-02232	1961	Cawley	Cawley Manuscript
KE-02244	1994	Everson, G. Dicken and Schneider, Joan S.	Kelso Conference Papers: A Collection of Papers and Abstracts from the First Five Kelso Conferences on the Prehistory of the Mojave Desert
KE-02825	2003	Hansen, Linda	Western Mojave Desert Off Road Vehicle Designation Project
KE-02826	2003	Pool, Mike and Hansen, Linda	Decision Record CDCA Plan Amendment: Western Mojave Desert Off Road Vehicle Designation Project
KE-02827	2003	Hansen, Linda, Hays, Michael E., Priester, Scott, and Pool, Mike	Draft Environmental Impact Report and Statement for the West Mojave Plan: A Habitat Conservation Plan and California Desert Conservation Area Plan Amendment Vol 1
KE-02954	2004	Schmidt, James	2004 Deteriorated Pole Replacement Project in the Willow Springs and Rosamond Areas, Kern County
KE-03212	2006	Romani, John	Archaeological Survey Report: Rosamond Boulevard from SR 14 to 90th Street West, Rosamond, Kern Co., CA
KE-03493	2005	Hudlow, Scott M.	A Phase I Cultural Resource Survey for Property at Hamilton Road and Willow Springs - Tehachapi Road, Kern County, California
KE-03534	2006	Nilsson, Elena, Bevill, Russel, Kelly, Michael S., and Dwyer, Erin	Archaeological Inventory of the First and Second Los Angeles Aqueducts and Selected Access Roads, Kern, Inyo, and Los Angeles Counties, CA
KE-03546	2006	Ahmet, Koral, Mason, Roger, and Bholat, Sara	Cultural Resources Survey Report for Antelope Transmission Project: Segments 2 & 3 Los Angeles and Kern Counties
KE-03781	2010	Orfila, Rebecca S.	RE: Archaeological Survey of the Southern California Edison Company Power Poles #1200431E, 1200439E, 549527E, 1433929E, and 549520E on the Oak Creek 21KV Circuit Near Willow Springs/ Rosamond, Kern County, California (IO# 312201; SAP# TD435806)
KE-03787	2010	Orfila, Rebecca S.	RE: Archaeological Survey of the Southern California Edison Company Power Pole #2007586E on the Oak Creek 12 KV Circuit Near Willow Springs, Kern County, California (IO# 314301, TD 479142)
KE-03793	2008	Romani, John F., and Gold (Garfinkel), Alan P.	Archaeological Survey Report Tehachapi Willow Springs Road from Rosamond Boulevard to 10 Miles North, Willow Springs Area, Kern County, California
KE-03874	2009	Glover, Amy and Gust, Sherri	Supplemental Cultural and Paleontological Resources Assessment, Segment 3A, Section1, Tehachapi Renewable Transmission Project
KE-03889	2009	DeCarlo, Matthew and Orfila, Rebecca	A Cultural Resources Assessment of Three Proposed Deteriorated Pole Replacement Projects (WO 4703-0455) Near Rosamond, Kern County, California
KE-03892	2009	Norwood, Richard H.	Phase I Cultural Resource Investigation for a 5-Acre Property North of the Intersection of 90th Street West and Rosamond Boulevard Rosamond, Kern County, California

Report No.	Date	Author(s)	Title
KE-03941	2009	Price, Barry A., Baloian, Mary Clark, Lichtenstein, Robert, and Linder, Marc	Confidential Specialist Report: Cultural Resources Inventory for the Tehachapi Renewable Transmission Project Kern, Los Angeles, and San Bernardino Counties, California
KE-04023	2010	Schmidt, June A.	Re: Archaeological Letter Report: Oak Creek Distribution Line Scott Bracket/Deteriorated Pole Replacement Project (WO 6036-4800; 0-4823), Willow Springs Area, Kern County, California
KE-04057	2011	Hudlow, Scott M.	Phase I Cultural Resources Survey for PV3, Willow Springs, Kern County, California
KE-04058	2011	Hudlow, Scott M.	Phase I Cultural Resources Survey for PV-11, (Rosamond Solar Array) Rosamond, Kern County, California
KE-04080	2010	Wilson, Stacie and Jordan, Stacey C.	Cultural Resources Report for the Proposed RRG Antelope Valley Solar Project Kern and Los Angeles Counties, California
KE-04099	2012	Miller, Jason Andrew	Results of the AV Solar Ranch Survey (LSA Project No. SCE1105S)
KE-04135	2011	Schmidt, James J.	Archaeological Letter Report: Rosamond Area (Willow Springs 12 kV, Lloyd, Huron, Alfalfa, and Muroc 12 kV) Deteriorated Pole Replacement Project (WO 6036-4800, K-4854 & K-4857), Kern and Los Angeles County, California
KE-04224	2010	Unknown	Supplemental Archaeological Investigation and National Register of Historic Places and California Register of Historical Resources Eligibility Evaluation of Archaeological Site CA-KER-7214H Southern California Edison Tehachapi Renewable Transmission Project, Segment 9, Kern County, California
KE-04225	2010	Jackson, Thomas, Armstrong, Matthew, and Sikes, Nancy	Cultural Resources Inventory of the Southern California Edison Company Whirlwind to Rosamond and Rosamond to Windhub Telecommunication Line, Kern County, California
KE-04226	2010	Schneider, Tsim D. and Holson, John	Supplemental Archaeological Survey Report #2, Tehachapi Renewable Transmission Project Segment 4, Kern and Los Angeles Counties, California
KE-04227	2010	Schneider, Tsim D. and Holson, John	Supplemental Archaeological Survey Report #2, Tehachapi Renewable Transmission Project Segment 10, Kern County, California
KE-04229	2010	Panich, Lee, Cimino, Stephanie, and Holson, John	Supplemental Archaeological Survey Report #1, Tehachapi Renewable Transmission Project Segment 10, Kern County, California
KE-04230	2011	Bischoff, Wayne	Third Supplemental Survey Report for Additional Roads on Segment 10, Tehachapi Renewable Transmission Project, Kern County, California
KE-04233	2010	Panich, Lee, Cimino, Stephanie, and Holson, John	Supplemental Archaeological Survey report #1, Tehachapi Renewable Transmission Project, Segment 4, Kern and Los Angeles Counties, California
KE-04234	2011	Bischoff, Wayne	Cultural Resources Survey Letter Report for the Variance Request for Disturbance Area Modifications for Towers M73-T3A and M73-T3B, Segment 4, Tehachapi Renewable Transmission Project, Kern County, California

Report No.	Date	Author(s)	Title
KE-04435	2010	Meyer, Jack, Young, D. Craig, and Rosenthal, Jeffrey	Volume I: A Geoarchaeological Overview and Assessment of Caltrans Districts 6 and 9 - Cultural Resources Inventory of Caltrans District 6/9 Rural Conventional Highways - EA 06-0A7408 TEA Grant
KE-04435A	2010	Meyer, Jack, Young, D. Craig, and Rosenthal, Jeffrey S.	Volume II: Appendices A Geoarchaeological Overview and Assessment of Caltrans District 6 and 9 - Cultural Resources Inventory of Caltrans District 6/9 Rural Conventional Highways - EA 06-0A7408 TEA Grant
KE-04749	2015	Dice, Michael	Barren Ridge Renewable Transmission Project Historic Property Treatment Plan for Archaeological Sites TW-17, TW-18, and CA-KER-7034, Los Angeles and Kern Counties,
KE-04833	2016	Foglia, Shannon and Cooley, Theodore	Cultural Resources Survey Report for the Proposed Southern California Edison Company's Antelope-Magunden No. 1 Transmission Line Rating Remediation Project, Kern County, California
KE-04887	2009	Way, K. Ross, Jackson, Thomas L., and Jones, Kari	Results of the Evaluation of Eligibility of Archaeological Site CA-KER-2821/H (Bean Spring) for Listing in the California Register of Historical Resources and Data Recovery Program for Mitigating Unavoidable Impacts to the Site That May Result from Activities Associated with Construction of Segment 3 of the Tehachapi Renewable Transmission Project
KE-04953	2017	Whitley, David, Carey, Peter, and Azpitarte, Robert	Phase I Survey/Class III Inventory, AVEP Solar Project, Kern County, California
KE-05013	2017	Gilbert, Rebecca	Archaeological Survey Report for Southern California Edison's (SCE) North Rosamond Project near Whirlwind Substation, Kern County, California
KE-05043	2016	Whitley, David S. and Carey, Peter A.	Phase I Survey/Class III Inventory, Rosamond 5 and 6 Solar Project Areas, Kern County, California
KE-05163	2019	Hudlow, Scott M.	A Phase I Cultural Resource Survey for Property at the Northeast Corner of 170th Street West and Rosamond Boulevard, Rosamond, Kern County, California
KE-05178	2019	Gilbert, Rebecca	Cultural and Paleontological Resources Monitoring Report for the Valentine Solar Project Located in Kern County, CA
KE-05192	2009	Harper, Veronica and Glover, Amy	Archaeological Assessment, Tehachapi Renewable Transmission Project, Segments 4 and 10 Rosamond to Whirlwind and Rosamond to Windhub Proposed Telecommunications Line, Kern County, California
KE-05194	2014	Valasik, Molly and Gust, Sherri	Pacific Wind and Catalina Solar DIMP Cultural Resources Assessment, Kern County, California
Rincon 2021 Identified Studies			
KE- 00355	1994	Clift, Gregory R. and Sutton, Mark Q.	An Archaeological Assessment of Tentative Tract No. 5612, Rosamond, Kern County, California
KE- 00519	1990	Jackson, Scott	An Archaeological Assessment of 470 Acres of Land Southwest of Willow Springs, Kern County, CA
KE- 00634	1985	Macko, Michael E. and Wiesbord, Jill	Sylmar Expansion Project: Cultural Resources Inventory and Significant Evaluation Addendum to Final Report

Report No.	Date	Author(s)	Title
KE- 00802	1989	Parr, Robert E.	An Archaeological Assessment of 480 Acres of Land West of Rosamond, Kern County, California
KE- 00803	1989	Parr, Robert E.	An Archaeological Assessment of 80 Acres of Land West of Rosamond, Kern County, California
KE- 00869	1990	Parr, Robert E. and Jackson, Scott	An Archaeological Assessment of 840 Acres of Land Near Willow Spring, Kern County, California
KE- 01010	1991	Robinson, R.W.	Regional Overview of the Cultural Resources of the Willow Springs Specific Plan Update, Southern Kern County, California
KE- 01181	1990	Schiffman, Robert A.	Archaeological Investigation of 112 Acre Parcel West of Willow Springs Section 18, Township 9N, Range 13W. Kern County, California
KE- 01182	1980	Schiffman, Robert A. and Garfinkel, Alan P.	Draft - Archaeological Overview of Kern County
KE- 01183	1981	Schiffman, Robert A. and Garfinkel, Alan P.	Prehistory of Kern County - An Overview
KE- 01196	1991	Robinson, R.W.	A Regional Overview of the Cultural Resources of the Willow Springs Specific Plan Update, Southern Kern County, California
KE- 01286	1987	Schiffman, Robert A.	Archaeological Investigation for Parcel Map #8208, Kern County, California
KE- 01341	1989	Schiffman, Robert A.	Archaeological Investigation for Parcel Map No. 9001, Kern County, California
KE- 01355	1989	Schiffman, Robert A.	Archaeological Investigation for a 1900 Acres West of Rosamond, Kern County, California
KE- 01628	1987	Sutton, Mark Q.	On the Late Prehistory of the Western Mojave Desert
KE- 01630	1978	Sutton, Mark Q., Forbes, Charles, and Robinson, Sylva	A Possible Paleo-Indian Site Complex in the Western Mojave Desert
KE- 01867	1975	Hall, Matthew C., Barker, James P., Snyder, Toni B., Weaver, Richard A., and Lawton, Harry W.	Background to Prehistory of the El Paso/Red Mountain Desert Region
KE- 01960	1986	Cleland, James H., Woods, Clyde M., Skinner, Elizabeth J., Kelly, Michael S., and Apple, Rebecca M.	Kern River Pipeline Cultural Resource Overview
KE- 02002	1993	Meyers, Thomas B. and Trimble, Michael K.	Archaeological Curation - Needs Assessments for Fort Sill, Oklahoma, Fort Gordon, Georgia, Vandenberg Air Force Base, California, Camp Pendleton Marine Corps Base, California, and Naval Air Weapons Station, China Lake, California

Report No.	Date	Author(s)	Title
KE- 02059	1997	Love, Bruce	Cultural Resources Survey Report: Bakersfield-Rialto Fiberoptic Line Project, Kern, Los Angeles, and San Bernardino Counties, California
KE- 02232	1961	Cawley	Cawley Manuscript
KE- 02244	1994	Everson, G. Dicken and Schneider, Joan S.	Kelso Conference Papers: A Collection of Papers and Abstracts from the First Five Kelso Conferences on the Prehistory of the Mojave Desert
KE- 02825	2003	Hansen, Linda	Western Mojave Desert Off Road Vehicle Designation Project
KE- 02826	2003	Pool, Mike and Hansen, Linda	Decision Record CDCA Plan Amendment: Western Mojave Desert Off Road Vehicle Designation Project
KE- 02827	2003	Hansen, Linda, Hays, Michael E., Priester, Scott, and Pool, Mike	Draft Environmental Impact Report and Statement for the West Mojave Plan: A Habitat Conservation Plan and California Desert Conservation Area Plan Amendment Vol 1
KE- 02954	2004	Schmidt, James	2004 Deteriorated Pole Replacement Project in the Willow Springs and Rosamond Areas, Kern County
KE- 03493	2005	Hudlow, Scott M.	A Phase I Cultural Resource Survey for Property at Hamilton Road and Willow Springs - Tehachapi Road, Kern County, California
KE- 03534	2006	Nilsson, Elena, Bevill, Russel, Kelly, Michael S., and Dwyer, Erin	Archaeological Inventory of the First and Second Los Angeles Aqueducts and Selected Access Roads, Kern, Inyo, and Los Angeles Counties, CA
KE- 03546	2006	Ahmet, Koral, Mason, Roger, and Bholat, Sara	Cultural Resources Survey Report for Antelope Transmission Project: Segments 2 & 3 Los Angeles and Kern Counties
KE- 03781	2010	Orfila, Rebecca S.	RE: Archaeological Survey of the Southern California Edison Company Power Poles #1200431E, 1200439E, 549527E, 1433929E, and 549520E on the Oak Creek 21KV Circuit Near Willow Springs/ Rosamond, Kern County, California (IO# 312201; SAP# TD435806)
KE- 03787	2010	Orfila, Rebecca S.	RE: Archaeological Survey of the Southern California Edison Company Power Pole #2007586E on the Oak Creek 12 KV Circuit Near Willow Springs, Kern County, California (IO# 314301, TD 479142)
KE- 03793	2008	Romani, John F. and Gold (Garfinkel), Alan P.	Archaeological Survey Report Tehachapi Willow Springs Road from Rosamond Boulevard to 10 Miles North, Willow Springs Area, Kern County, California
KE- 03874	2009	Glover, Amy and Gust, Sherri	Supplemental Cultural and Paleontological Resources Assessment, Segment 3A, Section1, Tehachapi Renewable Transmission Project
KE- 03889	2009	DeCarlo, Matthew and Orfila, Rebecca	A Cultural Resources Assessment of Three Proposed Deteriorated Pole Replacement Projects (WO 4703-0455) Near Rosamond, Kern County, California
KE- 03941	2009	Price, Barry A., Baloian, Mary Clark, Lichtenstein, Robert, and Linder, Marc	Confidential Specialist Report: Cultural Resources Inventory for the Tehachapi Renewable Transmission Project Kern, Los Angeles, and San Bernardino Counties, California
KE- 04023	2010	Schmidt, June A.	Re: Archaeological Letter Report: Oak Creek Distribution Line Scott Bracket/Deteriorated Pole Replacement Project (WO 6036-4800; 0-4823), Willow Springs Area, Kern County, California

Report No.	Date	Author(s)	Title
KE- 04057	2011	Hudlow, Scott M.	Phase I Cultural Resources Survey for PV3, Willow Springs, Kern County, California
KE- 04058	2011	Hudlow, Scott M.	Phase I Cultural Resources Survey for PV-11, (Rosamond Solar Array) Rosamond, Kern County, California
KE- 04080	2010	Wilson, Stacie and Jordan, Stacey C.	Cultural Resources Report for the Proposed RRG Antelope Valley Solar Project Kern and Los Angeles Counties, California
KE- 04099	2012	Miller, Jason Andrew	Results of the AV Solar Ranch Survey (LSA Project No. SCE1105S)
KE- 04224	2010	Unknown	Supplemental Archaeological Investigation and National Register of Historic Places and California Register of Historical Resources Eligibility Evaluation of Archaeological Site CA-KER-7214H Southern California Edison Tehachapi Renewable Transmission Project, Segment 9, Kern County, California
KE- 04225	2010	Jackson, Thomas, Armstrong, Matthew, and Sikes, Nancy	Cultural Resources Inventory of the Southern California Edison Company Whirlwind to Rosamond and Rosamond to Windhub Telecommunication Line, Kern County, California
KE- 04226	2010	Schneider, Tsim D. and Holson, John	Supplemental Archaeological Survey Report #2, Tehachapi Renewable Transmission Project Segment 4, Kern and Los Angeles Counties, California
KE- 04227	2010	Schneider, Tsim D. and Holson, John	Supplemental Archaeological Survey Report #2, Tehachapi Renewable Transmission Project Segment 10, Kern County, California
KE- 04229	2010	Panich, Lee, Cimino, Stephanie, and Holson, John	Supplemental Archaeological Survey Report #1, Tehachapi Renewable Transmission Project Segment 10, Kern County, California
KE- 04233	2010	Panich, Lee, Cimino, Stephanie, and Holson, John	Supplemental Archaeological Survey report #1, Tehachapi Renewable Transmission Project, Segment 4, Kern and Los Angeles Counties, California
KE- 04234	2011	Bischoff, Wayne	Cultural Resources Survey Letter Report for the Variance Request for Disturbance Area Modifications for Towers M73-T3A and M73-T3B, Segment 4, Tehachapi Renewable Transmission Project, Kern County, California
KE- 04435	2010	Meyer, Jack, Young, D. Craig, and Rosenthal, Jeffrey	Volume I: A Geoarchaeological Overview and Assessment of Caltrans Districts 6 and 9 - Cultural Resources Inventory of Caltrans District 6/9 Rural Conventional Highways - EA 06-0A7408 TEA Grant
KE- 04749	2015	Dice, Michael	Barren Ridge Renewable Transmission Project Historic Property Treatment Plan for Archaeological Sites TW-17, TW-18, and CA-KER-7034, Los Angeles and Kern Counties,
KE- 04833	2016	Foglia, Shannon and Cooley, Theodore	Cultural Resources Survey Report for the Proposed Southern California Edison Company's Antelope- Magunden No. 1 Transmission Line Rating Remediation Project, Kern County, California
KE- 04887	2009	Way, K. Ross, Jackson, Thomas L., and Jones, Kari	Results of the Evaluation of Eligibility of Archaeological Site CA-KER-2821/H (Bean Spring) for Listing in the California Register of Historical Resources and Data Recovery Program for Mitigating Unavoidable Impacts to the Site That May Result from Activities Associated with

Report No.	Date	Author(s)	Title
			Construction of Segment 3 of the Tehachapi Renewable Transmission Project
KE- 04953	2017	Whitley, David, Carey, Peter, and Azpitarte, Robert	Phase I Survey/Class III Inventory, AVEP Solar Project, Kern County, California
KE- 05013	2017	Gilbert, Rebecca	Archaeological Survey Report for Southern California Edison's (SCE) North Rosamond Project near Whirlwind Substation, Kern County, California
KE- 05043	2016	Whitley, David S. and Carey, Peter A.	Phase I Survey/Class III Inventory, Rosamond 5 and 6 Solar Project Areas, Kern County, California
KE- 05163	2019	Hudlow, Scott M.	A Phase I Cultural Resource Survey for Property at the Northeast Corner of 170th Street West and Rosamond Boulevard, Rosamond, Kern County, California
Rincon 2022a - Additional Previous Cultural Resource Studies			
KE-04136	2011	Parr, Robert E.	Cultural Resource Assessment for the Replacement of Twenty-three Southern California Edison Company Deteriorated Power Poles in Los Angeles and Kern Counties, California
KE-05192	2009	Harper, Veronica and Glover, Amy	Archaeological Assessment, Tehachapi Renewable Transmission Project, Segments 4 and 10 Rosamond to Whirlwind and Rosamond to Windhub Proposed Telecommunications Line, Kern County, California
KE-05199	2019	Mason, Roger D., et al.	Historical Context and Archaeological Research Design for the Antelope Valley Study Area Los Angeles and Kern Counties, California
KE-05199A	2018	Allen, Mark W.	Analysis of Four Lithic Assemblages from Archaeological Sites in the SR-138 Northwest Corridor Improvement Project Antelope Valley, Los Angeles County
Rincon 2022b - Additional Previous Cultural Resource Studies (10-acre Strickland Property)			
No Additional Records	**--**	**--**	**--**

Source: PaleoWest 2021.

5.1.3 Data Request DR122

DR122: *Table 5.3-2, Historic Built Environment Resources: Replace the Historic Built Environment Resources identified in the "desktop analysis" (Golder 2021, p. 5.3-21) with the actual results of the surveys conducted on the ground (Demarais et al. 2022, Table 5-1). Include a column in the table with the eligibility determinations found in Demarais et al. (2022, Section 6.2) and include a referral to Demarais et al. (2022, Sections 6.2 and 8.1) for further information.*

Response: On May 11, 2022, the applicant submitted TN243019, *Att DA53-6 Architectural History Survey Report.* This Historic Resources Evaluation Report was conducted by PaleoWest as an addendum to Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California (Paleo West, Demarais et al. 2022). The information contained in this report has been used to update AFC Table 5.3-2 with the content of

Paleo West, Demarais et al. 2022 Table 5-1, eligibility determinations from Section 6.2, and a referral to Sections 6.2 and 8.1. Please see below for Revised Table 5.3-2.

PaleoWest 2022 Historic Architectural Resources Survey

The Applicant's architectural historians from PaleoWest performed a field survey of the historic architectural resources in August 2021 and March 2022 (PaleoWest 2022). Results from the field survey of the historic architectural resources in the Area of Potential Impacts (API) provided details for the property descriptions and evaluations of eligibility under CRHR criteria (Revised Table 5.3-2).

- A total of 23 properties with extant built environment resources 45 years old or older are within, or intersect portions of, the API (Revised Table 5.3-2). Of these 23 resources, four have been previously recorded and evaluated for CRHR-eligibility, though these evaluations did not include segments within the API except for Willow Springs Village and the Vincent 220kV Transmission Line (Big Creek #3-Springville) of the SCE Big Creek Hydroelectric System Historic District.
- Three properties were inaccessible from the ROW due to obstructions or safety concerns and are thus indicated in Revised Table 5.3-2 as surveyed only at the reconnaissance level. To comply with CEQA and ensure due diligence was performed to the extent mandated, the inaccessible properties were assumed to be CRHR-eligible (CRHR Eligibility Recommendation = "Assumed Eligible**"). Thus, these three inaccessible properties are included in the assessment of potential impacts to historical resources.

Revised Table 5.3-2: Historic Resources Evaluation Report Table 5.1 Surveyed Cultural Resources in the API (PaleoWest 2022).

Survey Map No.	Name	Parcel Number (s)	Build Date	Resource Type	Survey Type	CRHR eligibility recommendation*
1	Willow Springs; California Landmark #130	315-012-01, 252-341-05, 315-012-02--	ca. 1900–1915	Site, District	Intensive	Eligible
2	Segment of the LADWP Easement Corridor (LADWP Owens Gorge 230kV Transmission Line; Owens Gorge Access Road)	--	1952–1955	Structure, Site	Intensive	Not Eligible

Survey Map No.	Name	Parcel Number(s)	Build Date	Resource Type	Survey Type	CRHR eligibility recommendation*
3	Segment of the Vincent 220kV Transmission Line, Big Creek #3-Springville; SCE Big Creek Hydroelectric System Historic District	315-230-10; 315-012-07	1925–1927	Structure; District	Intensive	Eligible
4	General Petroleum Access Road	–	ca. 1915	Site	Intensive	Not Eligible
5	14205 Irone Avenue	358-132-12	1957	Building	Intensive	Not Eligible
6	4040 Manly Road	315-012-01, 252-341-05	ca. 1970	Building	Intensive	Not Eligible
7	14101 Irone Avenue	358-132-10	ca. 1970	Building	Intensive	Not Eligible
8	14070 Lodestar Avenue	358-132-07	1946	Building	Intensive	Not Eligible
9	10145 Hamilton Road	358-052-08	ca. 1960	Building	Intensive	Not Eligible
10	10085 Hamilton Road	358-052-07	1940	Building	Reconnaissance	Assumed Eligible**
11	10057 Hamilton Road	358-052-06	1951	Building	Reconnaissance	Assumed Eligible**
12	9714 Rosamond Boulevard	374-042-03	1919	Building	Intensive	Not Eligible

Survey Map No.	Name	Parcel Number(s)	Build Date	Resource Type	Survey Type	CRHR eligibility recommendation*
13	9668 Rosamond Boulevard	374-042-04	1921	Building	Intensive	Not Eligible
14	9650 West Rosamond Boulevard	374-042-39	1950	Building	Intensive	Not Eligible
15	9580 Rosamond Boulevard	374-042-07	1955	Building	Intensive	Not Eligible
16	9009 Rosamond Boulevard	252-352-33	1959	Building	Intensive	Not Eligible
17	3045 90th Street West/High Desert Cellars	252-352-32	1956	Building	Intensive	Not Eligible
18	2973 95th Street	374-042-08	1942	Building	Intensive	Not Eligible
19	2860 West 100th Street	374-041-09	1940	Building	Intensive	Not Eligible
20	Unknown	358-131-02	1949	Building	Reconnaissance	Assumed Eligible**

Source: PaleoWest 2022.
--= data not available or applicable

* For more information regarding CRHR eligibility recommendations, refer to PaleoWest 2022 Historic Resources Evaluation Report (PaleoWest 2022) Sections 6.2 and 8.1.

** Three properties were inaccessible from the ROW due to obstructions or safety concerns and are thus indicated in Revised Table 5.3-2 as surveyed only at the reconnaissance level. To comply with CEQA and ensure due diligence was performed to the extent mandated, the inaccessible properties were assumed to be CRHR-eligible (CRHR Eligibility Recommendation = “Assumed Eligible”). Thus, these three inaccessible properties are included in the assessment of potential impacts to historical resources.

5.1.4 Data Request DR123

DR123: *Section 5.3.2.1.2, Archaeological Field Survey: Update the Archaeological Field Survey description to include the additional archaeological surveys and submittals that took place during the data adequacy phase, including the methods employed from Montgomery et al. (2021), Rotella et al. (2022a), and Rotella et al. (2022b).*

Response: The applicant submitted TN 243425, *Cultural Resources Assessment Report for the Rosamond A-CAES Facility Project* (Montgomery et al. 2021), in February 2021, *an Additional Cultural Resources Records Search and Updated Survey Coverage Map* (Rotella et al. 2022a) on April 29, 2022, and TN 243863, *Cultural Resources Assessment Report for Gem [WRESC] Energy Storage Center Project* (Rotella et al. 2022b) in June

2022 to support data adequacy for the AFC. Excerpts from these reports have been used to update Section 5.3.2.1.2 Archeological Field Survey to summarize the methods employed by these additional archaeological surveys and submittals. See below for an updated Section 5.3.2.1.2.

5.3.2.1.2 Archaeological Field Survey

The primary goal of the pedestrian surveys was to identify and document cultural resources and analyze their cultural constituents. It was anticipated that the results obtained from the survey would not only allow for the potential project effects to be better assessed but would also provide data with which to confirm or elaborate the current understanding of the prehistory and history of the region. The following describes the field surveys and methodologies performed in support of the AFC:

- The PaleoWest 2021 Cultural Resources Technical report presents the results of the cultural resource assessment of the project area, which includes the proposed gen-tie alignment plus a 50-foot buffer on each side. This investigation includes background research, an existing cultural resources records search using a study area of 0.5 miles around the project area, a Sacred Lands File search, an intensive pedestrian survey and site inventory of the project area, and an evaluation of CRHR eligibility of all archeological resources within the Project area.

- The Rincon February 2021 cultural resources assessment report presents the results for the project area within a 0.5-mile buffer of the site, which includes a cultural resources records search, a Sacred Lands File search, a pedestrian survey, archival research, and cultural resource documentation and evaluation.

- The Rincon June 2022 cultural resources assessment report presents the results for the 10-acre Strickland parcel, which includes the results of a cultural resources records search, archival research, a pedestrian survey, and cultural resource documentation and evaluation.

- The PaleoWest 2022 Historic Resources Evaluation Report was conducted as an addendum to the PaleoWest 2021 Cultural Resources Technical Report.

    - PaleoWest 2022 presents the results for the Area of Potential Impacts (API) defined for the Project, including the Area of Direct Impacts (ADI), which consists of the Project footprint for the proposed A-CAES facility and 50-foot buffer on either side of all proposed above ground linear facilities (Project area), and the Area of Indirect Impacts (AII), which consists of a ½-mile buffer around the Project area.

    - The PaleoWest 2022 report includes a field survey of the historic architectural resources in August 2021 and March 2022 (PaleoWest 2022). Results from the field survey of the historic architectural resources in the Area of Potential Impacts (API) provided details for the property descriptions and evaluations of eligibility under CRHR criteria (Table 5.3-2).

Survey Methodology for the Gen-Tie Line Area (PaleoWest 2021)

PaleoWest archaeologists conducted an intensive pedestrian surface survey and site inventory of the approximately 400-acre WRESC project area between August 23 and September 28, 2021 (PaleoWest 2021). The pedestrian survey was directed and supervised by Dr. Kyle Knabb and Dr. James Potter, and Gena Granger, all of whom meet the Secretary of Interior's Professional Qualifications Standards for Archaeology. The following describes the methodology used by PaleoWest:

- The survey methods followed CEC standards consisting of parallel pedestrian transects spaced at 10- to 15-meter (33- to 50-foot) intervals when allowed by terrain and vegetation. Crew members also opportunistically examined any subsurface exposures, including rodent burrows and cut banks. Survey crews navigated the transects using georeferenced maps on tablets using the Environmental Systems Research Institute *Fieldmaps* application and handheld global position system units.

- All cultural materials and features of an eligible age were recorded during the surveys in accordance with the California Office of Historic Preservation (OHP) guidelines (OHP 1995). Materials and features that could not be accurately dated in the field were also recorded. Historic period indicators include standing buildings, objects, structures such as sheds, or concentrations of materials at least 45 years in age, such as domestic refuse (e.g., glass bottles, ceramics, toys, buttons, and leather shoes), refuse from other pursuits such as agriculture (e.g., metal tanks, farm machinery parts, and horseshoes) or structural materials (e.g., nails, glass windowpanes, corrugated metal, wood posts or planks, metal pipes and fittings, and railroad spurs). Prehistoric site indicators include areas of darker soil with concentrations of ash, charcoal, animal bone (burned or unburned), shell, flaked stone, ground-stone, pottery, or even human bone.

Survey Methodology for the Gen-Tie Lines and Project Site (Rincon 2021)

For the Cultural Resources Assessment (Rincon 2021), a cultural resources records search of the CHRIS at SSJVIC was conducted to identify any previously conducted cultural resources studies and previously recorded resources within 0.5-mile of the A-CAES project site and preliminarily proposed 230-kV gen-tie routes. The following describes the survey methodology used by Rincon:

- Rincon archaeologists Alyssa Newcomb and Kyle Montgomery conducted a pedestrian survey of the A-CAES project site between November 16, 2020, and November 17, 2020.

- No survey of the preliminarily proposed gen-tie routes was conducted since the specific route locations were still being refined at the time of this assessment.

- The Rincon archaeologists completed the pedestrian survey using transects oriented generally north-south and spaced no more than 15 meters apart across the project site. Fifteen meter transects are consistent with current industry standards.

- The survey team examined exposed ground surfaces for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock [FAR]), ecofacts (bone), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structure or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramics).

- Ground disturbances such as burrows and drainages were visually inspected.

- Survey notes were prepared by the surveyors and are available upon request.

- Photographs and geospatial data were recorded with a handheld tablet with a submeter-accurate global positioning system (GPS) antenna using the Collector for ArcGIS application (Rincon 2021).

Survey Methodology for Additional Cultural Resources Records Search (Rincon 2022a)

In response to the CEC comments on the previously prepared Cultural Resources Assessment (Rincon 2021), Rincon conducted an additional CHRIS records search at the SSJVIC extending from 0.5 to 1.0 mile surrounding

the Project site, in accordance with CEC siting regulation Appendix B (g) (2) (B). The additional records search request, the response from the SSJVIC, and the results of the records search, including copies of records search maps and additional site records, were provided. The additional previous studies and recorded resources identified in the updated records search were listed, per citing regulation Appendix B (g) (2) (c) (i). Rincon also provided a scaled topographic quadrangle map depicting the previous survey coverage including a 200-ft. buffer area for all project components surveyed, in accordance with CEC siting regulation Appendix B (g) (2) (C) (Rincon 2022a).

Survey Methodology for the Strickland parcel (Rincon 2022b)

Rincon was retained by the Applicant to conduct a cultural resources assessment for the 10-acre Strickland parcel for the WRESC project located near Rosamond, Kern County, California. A cultural resources records search was conducted at the SSJVIC to identify any previously conducted cultural resources studies and previously recorded resources within the portion of the 1.0-mile buffer surrounding the 10-acre Strickland parcel that was not included in the previous records searches conducted for the project (Rincon 2021, Rincon 2022a).

- Rincon archaeologist Robert Guardado conducted a pedestrian survey of the 10-acre Strickland parcel on June 10, 2022. An additional 200-ft. survey buffer was included to the west and the south of the Strickland parcel; the 200-ft. buffer to the north was inaccessible due to private property, and the buffer to the east was surveyed during the previous pedestrian survey of the WRESC project site. Transects were spaced approximately 15 meters apart in a parallel north-south orientation.

- Mr. Guardado examined exposed ground surfaces for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools), ecofacts (bone), soil discoloration that might indicate the presence of a cultural midden, historic debris (e.g., metal, glass, ceramics), and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, foundations).

- Ground disturbances such as burrows were visually inspected for cultural materials. Survey notes were prepared by Mr. Guardado and are available upon request. Photographs and geospatial data were recorded with a handheld tablet with a submeter-accurate global positioning system (GPS) antenna using the Collector for ArcGIS application (Rincon 2022b).

5.1.5 Data Request DR124

DR124: *Section 5.3.2.1.3, Architectural Survey: Provide a summary of the methods employed in all architectural surveys that were undertaken during the data adequacy phase (Demarais et al. 2022; Demarais and Mills 2022).*

Response: The applicant submitted TN243019, Historic Resources Evaluation Report: An Addendum to the Cultural Resources Technical Report for the Hydrostor A-CAES Project (Paleo West, Demarais et al. 2022), on May 6, 2022, which contains Appendix A, Site Forms, and Form 523 (Paleo West, Demarais and Mills 2022). An excerpt from this report has been used to create section 5.3.2.1.3 Survey Methodology for Architectural Resources to summarize the methods employed in TN243019 (Paleo West, Demarais et al 2022), which encompasses the methodology for the report and Appendix A Site Forms (DPR 523A & B) (Paleo West, Demarais and Mills 2022). Refer to below for a new Section 5.3.2.1.3.

5.3.2.1.3 Survey Methodology for Architectural Resources (PaleoWest 2022)

Upon initial AFC submission, the Applicant's architectural historian has not yet performed a field survey of the study area's built environment; however, all cultural materials and features of an eligible age were recorded during

the archeological pedestrian surveys in accordance with OHP guidelines (OHP 1995). PaleoWest conducted original secondary and archival research to establish an appropriate historic context from which to evaluate historic architectural resources within the API for CRHR-eligibility in compliance with CEQA (PaleoWest 2022).

Specifically, research was conducted to develop an overview of the history of early settlement and exploration, development of agriculture and mining, founding of the community of Willow Springs, twentieth century commercial and residential development, and the evolution of energy infrastructure in and near the Project area.

- **Archival Research**: Site-specific archival research using newspaper and genealogical databases was conducted to determine whether any owners of the identified properties were historically significant for contributions to broad patterns of history. Historical maps and aerial photographs were reviewed to establish the property's connection to the development of the Antelope Valley and the immediate surrounding area of Willow Springs. Building permits, when publicly available, also provided construction history of the properties (PaleoWest 2022).

- **Records Search**: A records search was conducted at the SSJVIC on November 5, 2020, and again on August 18, 2021 (PaleoWest 2022). This inventory effort included the Project area and a 1/2-mi radius around all above ground linear routes and a 1-mi radius around the A-CAES facility, collectively termed the Study area.

  - The objective of this records search was to identify prehistoric or historical period resources that have been previously recorded within the Study area during prior cultural resource investigations as an addendum to PaleoWest 2021 (PaleoWest 2022).

  - Comprehensive lists of previous cultural resource investigations and cultural resources identified within the search radius were included in the original Cultural Resources Technical Report completed in 2021 (PaleoWest 2021).

- **Pedestrian Survey**: Intensive-level pedestrian survey of the API from the public ROW was conducted on August 30, 2021, and March 29, 2022, by Ms. Granger and Mr. Mills (PaleoWest 2022).

  - During the survey, high resolution photographs were taken of the properties determined to have extant buildings or structures at least 45 years old based on the records search results and desktop reconnaissance of the API.

  - To thoroughly document the built environment resources and their settings, field notes were also taken.

  - To determine whether the properties might be associated with a historic district, attention was paid to the setting, level of architectural cohesion, and historic integrity of the area.

  - All field survey materials were reviewed by Ms. Demarais and Ms. Keethler as part of the evaluations of eligibility against CRHR eligibility criteria, assessment of potential impacts, and in the preparation of this report (PaleoWest 2022).

5.1.6 Data Request DR125

DR125: *Section 5.3.3, Environmental Analysis: Include the mitigation measure(s) proposed to reduce potential impacts to Willow Springs Village, as detailed in Demarais et al. (2022, p.78), or as modified by the response to data request 119 above.*

Response: PaleoWest 2022 Historic Resources Evaluation report (Demarais et al. 2022), submitted under TN 243019 on May 11, 2022, addresses mitigation measures for historic resources. AFC Section 5.3.5.3 has been created to address the potential application of mitigation measures related to historic resources. Please refer below to DR126 for AFC Section 5.3.5.3.

5.1.7 Data Request DR126

DR126: *Section 5.3.5: Update the mitigation measures proposed to include the final recommendation for Willow Springs Village (see data request 119 above).*

Response: Demarais et al. 2022's CRHR Eligibility recommendation has been revised such that Willow Springs Village be considered a district. Mitigation measures will be considered to the extent practicable if impacts are determined to be significant. AFC Section 5.3.5.3, Mitigation of Adverse Impacts to a Historic Resource (Willow Springs Village), has been created to address the potential application of mitigation measures related to historic resources. Please refer below to new Subsection 5.3.5.3.

5.3.5.3 Mitigation of Adverse Impacts to a Historic Resource (Willow Springs Village)

Basis of Evaluation

Mitigation of adverse impacts is required if a proposed project will cause substantial adverse change to a historical resource (14 CCR §15064.5[b]). Mitigation measures must be enforceable through permit conditions, agreements, or other legal means and are proportional to the expected impacts. The measures seek to reduce impacts entirely or to a level considered not significant (14 CCR §15126.4). As such, the examples of mitigation measures provided may not satisfy CEQA requirements in every circumstance. Mitigation measures for historical resources may include but are not limited to:

1. Altering a proposed project to avoid damaging effects on any historical resource in a significant manner, such as by not taking a certain action or parts of an action.
2. Rectifying impacts through maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation, or reconstruction of the historical resource in a manner consistent with the SOI's Standards for the Treatment of Historic Properties.
3. Documentation of the historical resource, by way of historic narrative and photographs or architectural drawings meeting California OHP recommendations prior to demolition.
4. Deeding the site into a permanent conservation easement.
5. Abandonment of the proposed project.

CEQA Section 15064.5(b)(3) states that a project that follows the Standards for the Treatment of Historic Properties (SOI Standards) shall be considered as mitigated to a level of less than a significant impact on the historical resource.

Mitigation

The proposed Project will have no direct impact on the Willow Springs Village. As no direct impacts are anticipated, the location, materials, and workmanship of the elements of the historic district should remain unaffected by the Project. For the Willow Springs Village, PaleoWest will be developing revised recommendations based on a subsequent review of significance. Visual impacts to the Willow Springs Village are expected to be less than significant. A subsequent review of significance will be conducted to determine whether mitigation is

necessary. No significant impacts to the site are expected. Impacts to 10085 Hamilton Road, 10057 Hamilton Road, and APN 358-131-02 from the Project, as proposed, are also anticipated to be less than significant.

5.1.8 Data Request DR127

DR127: *Section 5.3.9, References: Provide an updated reference list that includes the additional filings submitted during the Data Adequacy phase.*

Response: Additional references as cited in the CEC's Willow Rock Data Requests Set 2 have been used to update AFC Section 5.3.9 References and create subsection 5.3.9.2 Additional References Acquired during the Data Adequacy Phase. Please refer below for subsection 5.3.9.2.

5.3.9.2 Additional References Acquired during the Data Adequacy Phase

PaleoWest LLC (PaleoWest). 2022. TN243019. Demarais, Lisa, Emma Keethler, Alex Bethke, Kyle Knabb, and Caity Chandler. Historic Resources Evaluation Report, An Addendum to the Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California. Prepared for Golder, Walnut Creek, CA. Prepared by Paleo West, LLC, Monrovia, CA. May 6, 2022.

PaleoWest LLC (PaleoWest). 2022. TN243019. Demarais, Lisa, and Evan Mills. Appendix A. California Department of Recreation Form 523, Willow Springs Village, P-19-000129. Update, April 29, 2022.

Rincon Consultants Inc (Rincon). 2021. TN243425. Montgomery, Kyle, Alyssa Newcomb, and Ryan Glenn. 2021. *Cultural Resources Assessment Report for the Rosamond A-CAES Facility Project.* Rincon Project No. 20-10466. On file with the South San Joaquin Valley Information Center, California State University, Bakersfield. February 2021

Rincon Consultants Inc (Rincon). 2022a. Confidential. Rotella, Brianna, Ken Victorino, and Christopher Duran. Additional Cultural Resources Records Search and Updated Survey Coverage Map, Gem [WRESC] Energy Storage Center Project in Rosamond, Kern County, California. (Results of a Records Search extending from 0.5 to 1.0 mile surrounding the project site). April 29, 2022.

Rincon Consultants Inc (Rincon). 2022b. TN243863. Rotella, Brianna, Ken Victorino, and Christopher Duran. Cultural Resources Assessment Report for Gem [WRESC] Energy Storage Center Project. Prepared for Golder Associates, Walnut Creek, CA. Prepared by Rincon Consultants, Inc., Los Angeles. Rincon Project No. 22-12489. Confidential report on file, Southern San Joaquin Valley Information Center, California Historical Resources Information System, Bakersfield, June 2022.

6.0 MULTIPLE SUBMITTALS WITH SAME TITLE AND MISSING SUBMITTALS BASED ON TITLE

6.1 Data Responses (DR128 through DR131)

6.1.1 Data Request DR128

DR128: *Please provide an explanation of the discrepancy between the description of Appendix 5.3B on page 5.3-1 and the title on the cover sheet for Appendix 5.3B in TN 240771.*

Response: There are two versions of the Appendix 5.3B Report, a confidential version (TN 240820) and a public, non-confidential version (TN 240780) with confidential report appendices redacted.

TN 240771 includes only AFC Section 5.3 Appendices 5.3A and 5.3C. An Appendix 5.3B cover sheet was included between these two appendices in TN 240771 to document the existence of Appendix 5.3B and to indicate that the full, unredacted version of Appendix 5.3B is considered a confidential document that would be submitted in a separate confidential filing. The cover sheet title for Appendix 5.3B within TN 240771 is incorrectly shown as "NAHC Consultation Documents". The correct Appendix 5.3B title is *Cultural Resource Technical Report for the Hydrostor A-CAES Project, Kern County, California* produced by PaleoWest.

Appendix 5.3B as described on page 5.3-1 of Section 5.3 Cultural Resources section includes *a Cultural Resource Technical Report for the Hydrostor A-CAES Project, Kern County, California* produced by PaleoWest. Appendix 5.3B is a report that has; (1) California Department of Parks and Recreation (DPR) 523 forms for newly recorded and updated resources (2) archival research material, including copies of historic maps and aerial photographs of the project and a complete copy of the California Historical Resources Information System (CHRIS) literature search results and (3) copies of previous technical reports occurring within 0.25 miles of WRESC and DPR 523 forms for previously recorded resources occurring within 0.25 miles of WRESC and 0.25 miles of linear facilities.

6.1.2 Data Request DR129

DR129: *Please provide an explanation of why there are two different Appendices 5.3B.*

Response: As stated in DR128, due to confidential information provided in Appendix A, C, D and E of the *Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California,* there is a confidential version that includes the confidential appendices (TN 240820) and a non-confidential version (TN 240780) with the appendices redacted. The non-confidential version was submitted to afford the public the opportunity to review those portions of Appendix 5.3B that are not considered confidential.

6.1.3 Data Request DR130

DR130: *Staff is unable to locate Appendix B within the series of submittals Appendix A, C, D and E (TNs 241008 through 241032). Appendix B is not referenced in the Application for Confidential Designation submitted on December 3, 2021 (TN 240820). Appendix B is listed in TN 240780 in the Table of Contents (Knabb et al. 2021, page iv). Appendix B in the TOC is entitled "Sacred Lands File Search Results and Correspondence with Native American Groups", which sounds remarkably like Appendix 5.3A (TN 240771). Is the referenced Appendix B the same as Appendix 5.3A? If so, please state that is the case. If not, please provide a copy of Appendix B or clarification of where it was docketed.*

Response: Appendix 5.3A docketed as TN 240771 is the same document as Appendix B mentioned in TN 240780 (Knabb et al. 2021).

6.1.4 Data Request DR131

DR131: *Please provide the location and/or TN for the copies of historic maps and aerial photographs of the project that are described as included in the Appendix 5.3B materials (Golder 2021, p.5.3-1). Staff is unable to locate these documents in Appendix 5.3B.*

Response: The historical maps and aerial photographs referred to are the numerous maps and photographs scattered throughout copies of the archival research records that were included in Appendix E of this report

(TN 240771) as well as supplemental records requested and submitted during the data adequacy review (TNs 243639-243653 and TNs 243664-243667).

In addition, the Phase I Environmental Assessment prepared for the project (TN 240768-13) includes appendices containing historical maps and aerial photographs.

7.0 ELECTRIC TRANSMISSIONS

7.1 Transmission Lines (DR132 through DR133)

7.1.1 Data Request DR132

DR132: *Please identify or characterize the horizontal extent of ground-disturbing activities and the depths associated with the construction of the tie-line interconnect to the Whirlwind Substation and to the future LADWP Rosamond substation, including vegetation grubbing, pole foundations, access and maintenance roads, construction pads and/or lay down sites, and new equipment installation at the Whirlwind Substation, as well as associated fiber optic cables, ground wires, and vaults. Please identify any differences in ground-disturbing activities among the alternative tie-line routes.*

Response: Applicant expects to secure a 125-foot easement along the transmission right-of-way (ROW) from the various identified property owners. Once secured, the project will complete the preliminary line design for the transmission line assets. This will include pole specific, geotechnical studies to assist in the design of the pole foundations. The current route of the transmission ROW follows existing roads within Kern County and existing access roads. Construction of the transmission line will require service access for pole foundations, pole installations and stringing of the insulators and conductors. Existing access roads may be modified to support construction. Construction will take place within the 125-foot easement. Depending on existing conditions, existing access roads may be enhanced to make them year-round accessible. This might include minimal surface grading and graveling along portions of the route. This work will be dependent upon the geotechnical work results confirming the load bearing capacity of the existing access roads. Based on the current pole design, lightening and communication systems will be placed along the top ends of each pole.

As a portion of this line crossing under the existing Los Angeles Department of Water and Power (LADWP) ROW will be placed underground, there is expected to be a transition from the overhead conductors to an underground cable. Once clear of the LADWP easement, the transmission line will be brought back to an overhead system. The distance of this crossing is currently estimated at 650 feet. Construction of this underground section will likely require the installation of a concrete duct bank with the individual conductors running through a polyvinyl chloride (PVC)/steel conduit and then encased on concrete. The duct bank is expected to be approximately 3-4 feet in depth and approximately 4-6 feet in width. The design of this duct bank will be completed as part of the easement agreement with LADWP. Associated with this underground cable, additional surface fencing may be implemented to restrict access to the area to prevent interference. The transmission line will be required to cross under two existing Southern California Edison 500 kilovolt (kV) transmission lines along the exiting route. These crossings will be achieved utilizing overhead transmission line towers crossing under the 500 kV circuits.

These activities will be identical for the potential connection into the proposed LADWP substation.

7.1.2 Data Request DR133

DR133: *What attempts are being made to gain access to the portions of the project area inaccessible for pedestrian survey, and when can more complete coverage be expected and reported on?*

Response: Complete pedestrian surveys were performed for the entire project site and several transmission route corridor alternates with the exception of a small area that was inaccessible as identified. These areas remain inaccessible. It is the Applicant's expectation that future conditions of certification would include the requirement for preparation of a Cultural Resources Mitigation Implementation and Monitoring Plan (CRMIMP). The Applicant expects that the CRMIMP will include qualified cultural resources monitor to be present during ground disturbing activities. The Applicant expects to locate ground disturbing activities so as to avoid any previously identified and known cultural resources. In the unlikely event that previously unidentified cultural resources are encountered during construction, cultural resources would be avoided entirely by ceasing activity and relocating any planned disturbance a sufficient distance in consultation with the CEC cultural resources staff and the CEC Compliance Project Manager.

8.0 PROPOSED ROAD IMPROVEMENTS

8.1 Proposed Road Improvements (DR134 and DR135)

BACKGROUND

In its response to data request 90, the applicant indicated that Sweetser Road/Hamilton Road to the east of the intersection with Tehachapi-Willow Springs Road will be graded and widened to at least one lane in each direction, and crushed rock will be laid out to provide temporary access to the site during construction (Golder 2022).

8.1.1 Data Request DR134

DR134: *Please identify or characterize the horizontal extent of ground-disturbing activities and the depths associated with the improvements proposed to the intersection of Tehachapi-Willow Springs Road and Sweetser Road/Hamilton Road and the improvements to Sweetser Road to access the site.*

Response: The Applicant is in the process of scheduling a meeting with County staff to discuss the transportation-related improvements and County requirements. Following consultation with the County the Applicant will provide a response. We anticipate the response will be included with the January 31, 2023 submittal.

8.1.2 Data Request DR135

DR135: *Please indicate whether the areas of proposed transportation improvements have been subject to pedestrian survey to identify and document cultural resources, and if this survey has been completed, please provide the results.*

Response: This area is within the API intensive-level pedestrian survey from the public ROW reported in PaleoWest 2022 Historic resources Evaluation Report: An Addendum to Cultural Resources Technical Report (Figure 3-1, Built environment Survey area). It is also within the survey area documented in the original site survey reports submitted under Applicant's June 22, 2022 confidentiality request (TN 243633) as "Montgomery, Kyle, Alyssa Newcomb, and Ryan Glenn. 2021. Cultural Resources Assessment Report for the Rosamond A-

CAES Facility Project. Rincon Project No. 20-10466. On file with the South San Joaquin Valley Information Center, California State University, Bakersfield ("Rincon 2021 Report")" and under Applicant's June 28, 2022 confidentiality request (TN 243742) as "Rotella, Brianna, Ken Victorino, and Christopher Duran, 2022 Cultural Resources Assessment Report for WRESC project. Rincon Project No. 22-12489. On file with the South San Joaquin Valley Information Center, California State University, Bakersfield."

9.0 PUBLIC HEALTH

9.1 Health Risk Assessment (HRA) for Construction and Commissioning Phase (DR136 through DR138)

BACKGROUND

The construction phase of the project is expected to take approximately 63 months (followed by several months of start-up and commissioning). A screening health risk assessment was conducted for the construction period due to emissions of diesel particulate matter (DPM). The estimated cancer risks at Point of Maximum Impact (PMI) are 56.5 in one million, higher than the significance threshold. The applicant said that the cancer risk at PMI is elevated because it is located at the eastern property line and its proximity to emission points; the cancer risk decreases significantly with distance. Also, based on a cancer burden estimate, no significant public health effects are expected during the construction phase.

9.1.1 Data Request DR136

DR136: *In Table 2: Construction HRA Results (TN 242778, Appendix 5.9B), the risk at PMI is 56.5 in one million. This result is significant and needs to be evaluated. Please explain why the applicant did not evaluate this significant result and discuss how the applicant intends to use mitigation measures to reduce the cancer risk to a level of less than significant during construction.*

Response: The estimated cancer risk for the PMI of 56.5 in one million is located at the property line of the future facility (FC-GEM-117). This point is near the most intensive construction related activities at the mineshaft and with the construction-related emission sources identified. This PMI also assumes 5 years of continuous exposure to such construction activities. The PMI is, of course, a point, but not necessarily an occupied location. In this case, the PMI resulting from the analyses is at an unoccupied fence line location, not at a sensitive or residential receptor. Moreover, given the PMI's location, it is not reasonable to expect a member of the public, or any other person, to be located at this specific construction fence line location continuously, let alone for 5 years continuously. The modeled value at this location therefore does not indicate that a potentially significant public health impact could result, even assuming these public health-protective modeling assumptions. Moreover, and of greater importance, the same modeling confirms that all residential and sensitive receptors are estimated to have a cancer risk below 10 per million.

9.1.2 Data Request DR137

DR137: *Please re-evaluate the risk at PMI with all applicable mitigation measures applied.*

Response: We have not evaluated additional mitigation measures beyond those already incorporated because of the temporary nature of the potential risk due to construction activities. The mitigation measures incorporated into the project's design and construction practices are accounted for in the submitted results. Those results

demonstrated that there are no residential or sensitive receptors that would be exposed to a potentially significant risk level.

9.1.3 Data Request DR138

DR138: *If the results of any health risk assessment results in a health risk of greater than 10 in one million, please provide a map containing health risk isopleths, including an isopleth showing the risk value of 10 in one million.*

Response: A map of 5-Year Cancer Risk isopleths was provided in the AFC Appendix 5.9.B – Figure 2, showing cancer risks greater than 10, 5, and 1.0 in one million.

10.0 HEALTH RISK ASSESSMENT

10.1 (HRA) Modeling Files (DR139 through DR142)

BACKGROUND

The applicant filed DA51-1 - Revised AFC Section Public Health on April 25, 2022. The applicant also provided detailed risk and hazard values in the HARP output presented in Appendix 5.9F (electronic modeling files on CD-ROM). However, staff found these files provided by the applicant are not complete HARP files. There were no HARP input files; therefore, staff is unable to replicate or validate the HRA.

10.1.1 Data Request DR139

DR139: *Please provide the complete HARP files for both construction and operation.*

Response: HARP files for construction (GEM_CONST) and operation (GEM_OP) will be submitted as Attachments DR139-1 and DR139-2, using the CEC Kiteworks system due to restrictions in uploading this information to the standard docket.

10.1.2 Data Request DR140

DR140: *In more details, please provide the following input files:*

Emission inventory for construction sources

HARP INPUT\Data\GEM CONST_Sources.CSV

HARP INPUT\Data\GEM CONST_Pathway1.CSV

HARP INPUT\Data\GEM CONST_IMPORTPLOT.CSV

HARP INPUT\Data\GEM CONST_IMPORTEMS.CSV

HARP INPUT\Data\GEM CONST_GLCLIST.CSV

HARP INPUT\Data\GEM CONST_GLCPathwayLIST.CSV

HARP INPUT\Data\GEM OP_Sources.CSV

HARP INPUT\Data\GEM OP_Pathway1.CSV

HARP INPUT\Data\GEM OP_IMPORTPLOT.CSV

HARP INPUT\Data\GEM OP_IMPORTEMS.CSV

HARP INPUT\Data\GEM OP_GLCLIST.CSV

HARP INPUT\Data\GEM OP_GLCPathwayLIST.CSV

Please also provide the input ADM file.

Response: The requested documents are located in the following folders in the zip files to be submitted in Kiteworks.

Folder	Requested Data
GEM_CONST>DATA	HARP INPUT\Data\GEM CONST_Sources.CSV
	HARP INPUT\Data\GEM CONST_Pathway1.CSV
	HARP INPUT\Data\GEM CONST_IMPORTPLOT.CSV
	HARP INPUT\Data\GEM CONST_IMPORTEMS.CSV
	HARP INPUT\Data\GEM CONST_GLCLIST.CSV
	HARP INPUT\Data\GEM CONST_GLCPathwayLIST.CSV
GEM_OP>DATA	HARP INPUT\Data\GEM OP_Sources.CSV
	HARP INPUT\Data\GEM OP_Pathway1.CSV
	HARP INPUT\Data\GEM OP_IMPORTPLOT.CSV
	HARP INPUT\Data\GEM OP_IMPORTEMS.CSV
	HARP INPUT\Data\GEM OP_GLCLIST.CSV
	HARP INPUT\Data\GEM OP_GLCPathwayLIST.CSV
GEM_CONST	GEM CONST_INPUT (construction adm file)
GEM_OP	GEM OP_INPUT (operation adm file)

10.1.3 Data Request DR141

DR141: *Please provide the input files of data (i.e., the "*.ROU" files) for AERMOD and HARP which contain the information of sensitive receptors and residence receptors, including grid identification numbers (i.e., HARP receptor numbers), type (ex: day care centers, nursing homes, schools) and corresponding locations (UTMs), so that staff can differentiate them from all other grid receptors.*

Response: The ROU file was submitted electronically to leonidas.payne@energy.ca.gov, tao.jiang@energy.ca.gov, and ann.chu@energy.ca.gov on April 25, 2022 as part of a larger electronic zip file titled Att DA5.1-2 - Appendix 5.9F_Modeling Files_UPDATED.zip via Golder's secure file transfer systems. Applicant's representative David Stein of Golder subsequently received an email on April 25,2022 confirming the file was successfully viewed and downloaded by tao.jiang@energy.ca.gov.

The specific file name of the ROU file is: GEM_OP_ALLRECEP.ROU.

For convenience, the entire Att DA5.1-2 – Appendix 5.9F updated modeling files are being submitted via Kiteworks as Attachment DR141-1. The requested ROU file is located in the "Receptors" folder within the zip file.

10.1.4 Data Request DR142

DR142: *Please provide all other related files to enable staff to replicate the health risk assessment.*

Response: See Data Response 141.

11.0 KERN COUNTY PUBLIC WORKS TRANSPORTATION ANALYSIS STANDARDS (DR143)

BACKGROUND

The Kern County Public Works Development Standards, Division Nine, "Standards for Traffic Engineering" establishes the minimal acceptable standards for the application of traffic engineering and traffic planning principals in the design of the transportation system to promote the safe, efficient, and orderly movement of goods and people within unincorporated areas of Kern County. The traffic engineering standards presented in Division Nine are applicable to the proposed project. Staff needs to know more about the applicant's contact and coordination with Kern County planning staff to ensure the transportation analysis submitted in the project's Application for Certification (AFC) was prepared in accordance with all applicable laws, ordinances, regulations and standards (LORS).

For example, Section 902-1 Responsibility for Traffic Studies:

- *Section 902-1.04 states special traffic studies may be required where special circumstances dictate the need for a traffic study (such as issues of safe access concerns, significant public opposition, request for deviation of standards, and large commercial/industrial centers etc.).*
- *Section 902-1.06 states transportation consultants are required to discuss projects with the Development Review Division prior to starting the study.*
- *Section 902-1.07 requires traffic studies be prepared, stamped, and signed by a licensed Traffic Engineer or Civil Engineer experienced in preparing traffic studies.*

Section 902-2 Traffic Study Format:

- *902-2.01 Project Trip Generation and Design Hour Volumes must be calculated using the data contained within the Institute of Transportation Engineer's (ITE) Trip Generation Manual, latest edition, or more appropriate local data as approved by the Traffic Engineer. (Formula Averaging is NOT acceptable for the calculation of Peak Hour trip generation rates as published in the ITE Trip Generation Manual, latest edition.)*
- *902-2.02 Capacity Analysis must be determined by the methods contained within the Highway Capacity Manual (HCM), latest edition.*

The Willow Rock Energy Storage Center is a large industrial project that would require the construction of a new road (Sweetser Road) and improvements to Tehachapi-Willow Road to allow for primary and secondary access to

the site. These roads are classified as Future Expressway and Secondary (collector) Highway by the Willow Springs Specific Plan Circulation Element. Depending on the final project design, a Specific Plan Amendment may be required to delete or downgrade the alignment. Additionally, according to the applicant's trip calculations operation of the project would not generate more than 50 peak hour trips during morning and evening peak commute hours; however, construction of the project would generate a considerable amount of peak hour trips for approximately 60 months. Staff needs confirmation that the County would, or would not, require a special traffic study as stated in Section 902-1.04.

Lastly, staff reviewed the project AFC Transportation section and Appendix 5.12A "Turning Movement Counts" and could not locate a traffic engineer stamp or signature. Staff is concerned that the Transportation section has not been prepared in accordance with the Kern County Public Works Transportation Analysis standards and suggests the applicant contact and discuss the transportation analysis with Kern County Public Works and Kern County Planning and Natural Resource staff in order to be able to provide answers to the following data request.

11.1.1 Data Request DR143

DR143: *Provide a revised traffic study prepared, stamped, and signed by a licensed traffic engineer or civil engineer that meets all Kern County regulations and standards.*

Response: On November 10, 2022 the Applicant submitted a notice indicating the Applicant is in the process of scheduling a meeting with County staff to discuss the transportation analysis. If revisions are requested by the County, the Applicant will prepare a revised traffic study as part of the January 31, 2023 submittal.

12.0 KERN COUNTY COUNCIL OF GOVERNMENTS AND ESTIMATED VMT FOR ROSAMOND (DR144)

12.1 Estimated Vehicle Miles Travelled for Rosamond (DR144)

BACKGROUND

Section 5.12.2.1 Significance Criteria in the Transportation section of the AFC states Kern County Council of Governments (Kern COG) provided information regarding the average vehicle miles travelled (VMT) per service populations for the community of Rosamond. Staff has reviewed the 2021 Kern COG Regional Transportation Plan (RTP) and cannot locate this information.

12.1.1 Data Request DR144

DR144: *To confirm the accuracy of this information staff requests copies of correspondence with Kern COG staff and any other supporting documents.*

Response: The source of the VMT information is Kern COG data provided in conjunction with the traffic study performed for the nearby Big Beau Solar Project EIR (https://kernplanning.com/environmental-doc/big-beau-solar-project/). This document is included as Attachment DR144-1.

ATTACHMENT DR115-1

Shapefiles for BUOW and SWHA (Provided under confidential cover)

ATTACHMENT DR118-1

Updated Demarais et al. 2022 Appendix A. Site Forms (DPR 523A & B)

Appendix A.
Site Forms

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

PRIMARY RECORD

Primary # 15-000129
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code **Reviewer** **Date**

Page 1 of 17 ***Resource Name or #:** Willow Springs Village ☐ Continuation ☒ Update

P1. Other Identifier: Willow Springs Village Historic District, Willow Springs Station, California Historical Landmark #130

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**

***a. County:** Kern **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Willow Springs **Date** 1965 **T** 9N **R** 13W SE ¼ **of** SW ¼ **of** **Sec** 07 **S.B.B.M.**

c. Address Manly Road City Rosamond Zip 93560

d. UTM: (give more than one for large and/or linear resources) Zone 11N 381518 mE/ 3860375 mN

e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) Partially within SW ¼ of SW ¼ Sec 07, north of Truman Road

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

Willow Springs Village is a historic-era American rural residential settlement in the vicinity of natural springs in the western Mojave Desert, identified as a California Historical Landmark (#130) in 1934. The property was subsequently documented in 1959, 1965, 1980, and 1992. The springs were also known by the name Willow Springs, but no evidence of remaining springs was found during field survey. Water of the springs originated in the Tehachapi Mountains and flowed through Oak Creek to the village. The center of the village is approximately 0.25-mile north of Truman Road and west of Tehachapi-Willow Springs Road. The land surrounding the springs was first settled sparsely by Euro-Americans during the late nineteenth century, and the area developed into a small village at the beginning on the twentieth century. At the time of survey, there were 27 remaining cultural resources built during the original settlement period, ca. 1860-1915, identified. The identified built-environment resources included 16 standing unreinforced masonry buildings (one of which is in a state of substantial disrepair), two architectural ruins, four stone wells, one round concrete-lined pool, two historical markers, and a stone fence with a wooden gate. There is also a known cemetery attributed to the village (P-15-003560), but no headstones or other above-ground elements remain.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP3. Multiple Family Property, HP32. Rural Open Space

***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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Westerly view from near the Village center along Manly Road (March 29, 2022)

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1900-1915
Previous survey records

***P7. Owner and Address:**
Kathy and James Nelson
4040 Manly Road, Rosamond, CA 93560

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** April 26, 2022

***P10. Survey Type:** (Describe) Intensive, pedestrian right-of-way

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

***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): Primary Records

***P3a. Description:** (continued)

The setting is rural and agricultural with a mixture of open undeveloped land, farmland, residences, ancillary buildings, and various buildings no longer in use but are believed to have been additional residences and community buildings. There are various dirt roads as well as one paved road (Manly Road) throughout the property. Most of the roads are lined with planted trees. The landscape is defined by gentle hills and winding roads that provide a rustic and picturesque feeling. Vegetation includes a mixture of native grasses, shrubs, and trees as well as designed rows of shrubs flanking roadways. The vegetation is consistent with designed landscaping and permaculture in Southern Californian deserts, using predominantly low-water plants such as Oleander, Eucalyptus, and Joshua Trees. Vegetation includes freely growing native grasses, trees, and shrubs; limited decorative plantings of low-water and drought-resistant plants; and plantings of shrubs and trees along roads, property boundaries, and residences to serve as windbreaks and prevent flash-flooding of sandy soils in the event of rain. Overall, the district has a high level of cohesion, tied together by the rural desert landscape, density of development, the use of masonry construction materials, and the shared scale and massing of the buildings.

The extent of the village during its formal years of early development, ca. 1900-1915, is believed to have been approximately ¼ square-mile based on previous documentation by archaeologists and historians; however, no primary source maps or descriptions of the village's original boundary have been uncovered. Remains of a school and a known burial site indicate areas of the village beyond the primary grouping of buildings flanking Manly Road and a possibly larger boundary than previously recorded. The boundary was drawn in consideration of both this recorded 0.25-square-mile boundary estimating and the locations of known cultural resources. As to not include speculation, the boundary drawn possibly excludes land that may have once been within the Willow Springs Village but cannot be proven to or presumed as such. Additional areas that could be reasonably believed to have been part of the village but are excluded from the boundary are APNs 252-012-02, 252-341-07, 252-341-04, 315-152-01 through 315-152-08, and the full extent of 252-351-48. The boundary of Willow Springs Village is depicted on the Location Map. The boundary includes all of Assessor Parcel Number (APN) 315-012-01 (73.85 acres) and APN 315-012-02 (.79 acres) as well as portions of APN 252-341-06 and APN 252-351-48 where extant original elements of Willow Springs were identified.

Fifteen extant resources contributing to the proposed historic district were identified and documented with their own Primary Record Department of Parks and Recreation (DPR) forms:

- Saloon/Warehouse (Building 2)
- Old Meeting Hall (Building 3)
- Building 4
- Building 5
- School Ruin Site
- Ruin 2
- Pool
- Residence B (Building 14)
- Burial Site
- Building 13
- Grocery Store/Restaurant (Building 6)
- Building 7
- Building 8
- Building 9
- Building 11

In addition to the contributing resources described further in each of the attached Primary Records, the following 13 resources within the district boundary are not recommend as contributing elements of the proposed historic district:

Historical Marker 1 (1937)

The historical marker from 1937 honors the stage station and town of Willow Springs. The monument is constructed of cement with an inset bronze plaque. Although the marker is of historic age, it is entirely commemorative in nature and does not possess its own significance based on its own value rather than its association with Willow Springs which it memorializes. As such, PaleoWest does not recommend the marker be considered a contributing element to the proposed historic district nor individually eligible for listing in the NRHP/CRHR under any criteria.

Historical Marker 2 (1951)

The historical marker from 1951 recognizes the town of Willow Springs as a California Historic Landmark. The monument is constructed of stone masonry with an inset bronze plaque. Although the marker is of historic age, it is entirely commemorative in nature and does not possess its own significance based on its own value rather than its association with Willow Springs which it memorializes. As such, PaleoWest does not recommend the marker be considered a contributor to the proposed historic district nor individually eligible for listing in the NRHP/CRHR under any criteria.

Building 1/Residence A

Residence A is a one-story single-family fieldstone masonry residence at the southern boundary of APN 315-012-01, along Manly Road, and north of Truman Road. Residence A has a t-shaped plan, but aerial photographs over the twentieth century indicate that the residence is comprised of two separate Willow Springs cabins connected by a central addition. The central addition also extends north over an elongated porch and south as dwelling space to create the current t-shape plan. The residence, in its current form, is not in-keeping with the dwellings known to have been built in the village during the district's period of significance. Other features include a corrugated metal cross-gable roof and fieldstone masonry exterior walls. The north (primary) façade features a concrete slab front porch covered by a front-gable roof projection with closed wooden eaves. The porch roof is supported by simple wood Y-shaped columns. The east façade of the east-west oriented wing has a stone exterior chimney. The visible windows are a mixture of double-hung and horizontal slider types comprised of white aluminum frames and wood surrounds. The metal roof is a recent alteration.

The cladding of the entire building is rough fieldstone, indicating that materials from nearby structures were reused or purchased to match the original materials exactly. Various adjacent buildings are no longer extant and may have been the source of the extra material. Although other buildings in the village have also been altered, the reuse of materials (or lack of distinguishability between original and newly applied stone) gives Residence A a false sense of history. As such, Residence A cannot be considered a contributor to the district.

Building 15/Residence C

Residence C (Building 16) is a one-story building of stone construction. The building has a rectangular plan and a corrugated metal side gable roof with shed extensions from the north and south edges of the central side-gable. The south and north façades are clad with wood panels and appear to be an early addition and enclosed original porch upon comparison to other extant residences and historical photos of various houses in Willow Springs. A single wood personnel entry door is present on the south façade. The windows are a mixture of double hung, horizontal slider, and fixed types. Though difficult to tell from public rights-of-way, the windows appear to be a mixture of vinyl and wood framed types. A stove chimney pipe extends from the southern slant roof. Though the metal roof, non-wood windows, and enclose porch are not original features, the original rustic building and its features are clearly distinguishable from more recent materials and comparable to the few other remaining Willow Springs residences. The cladding and remaining wood windows of the additions indicate they are early alterations, likely completed ca. 1930-1945, while the vinyl windows and metal roof are post-World War II alterations. Residence C cannot be considered a contributor to the district due severe deficits in the integrity of materials, design, workmanship, and feeling.

Building 16/Residence D

Residence D is a rustic one-story single-family residence with a roughly L-shaped plan and a cross-gable metal panel roof. Kern County aerials indicate that the metal roof is a recent alteration made some time after January 2020. The residence lies west of Manly Road can be accessed from the north or south via dirt roads lined with planted trees. A porch on the north (primary) façade of the house is covered by a roof extension supported by simple wood columns. Only the north façade was clearly visible at the time of survey. Additional features noted included closed slightly overhanging wood eaves, double-hung windows (likely either aluminum or vinyl but unclear due to distance from ROW), decorative plantings, and loose stone landscaping. The original portion of the residence is of fieldstone construction, but additions with pale brick cladding have been added over the lifetime of the building to both the west and north façades. In the absence of historic photographs and due to the tree coverage of historic aerials, a specific date(s) of these alterations is unclear; however, no additions are present on an aerial from 1972 where there is a clear view of the residence, indicating these were relatively recent alterations made outside of the district's period of significance. Additional materials, window types, and other architectural features may be present on façades not observed from the ROW. Ultimately, Residence D is heavily altered to the extent that is it not readily associate with or representative of the unique history of the Willow Springs Village Historic District. As such, Residence D cannot be considered a contributor to the district due severe deficits in the integrity of materials, design, workmanship, and feeling.

Building 10

Building 10 is a one-story building of stone and brick construction situated immediately south of Building 9 along the eastern side of Manly Road. The building has an irregular plan and roof form but is broadly rectangular in footprint. Based on aerial photographs and the inspected building form, Building 10 is believed to be the amalgamation of two separate buildings. Though an exact date for the alteration is unknown, the blended roofline is first clearly visible on an aerial image from 1952.

The eastern section of the building is older and of fieldstone construction while the western section is brick construction with lime stucco and Portland cement stucco cladding. Both sections originally had side-gable roofs based on the shape and materials of their north and south façades. The roofline of the eastern section was raised ca. 1952 and filled with concrete to bridge the space between the original stone exterior wall and new roofline.

Although the major alteration to the original section of Building 10 was made relatively early in the building's history, the original section is the only portion of the building constructed during the period of significance for the Willow Springs Village Historic District. Thus, the addition of or connection to the brick section is not indicative of the historical significance of the district and Building 10 cannot be considered a contributor to the district due severe deficits in the integrity of materials, design, workmanship, and feeling.

Building 12/Residence E

Building 12 is a single-family residence with a large addition and a secondary dwelling unit or pool house. There is a rectangular in-ground swimming pool south of the secondary building. The pool is enclosed within an iron gate. The original ca. 1900 portion of Building 12 is a roughly t-shaped single-story residence with an irregular cross-gable wood shingle roof. There is one wood frame divided-lite window on the north façade of the original section of the building. Very little clearly identifiable historic material dating to the period of significance for the Willow Springs Village Historic District remains intact when viewed from the ROW. The windows, save for the one wood window, are newer double-hung vinyl types. Wood headings, inset into the stucco cladding are above each window on the primary (north) and west façades. A metal utility structure extends from the roof. A porch along the south façade is partially visible from the ROW. The eastern addition portion of the residence is an early ca. 1950s addition based on materials, style, and aerial imagery. It is a rustic-inspired mid-century modern residence with a corrugated metal side gable roof, board and batten cladding, a wide brick chimney, brick veneer, and a large front porch (on the north façade) supported by simple wood columns. The addition was built as a connection to the original residence design. The west façade of the addition attaches to the east façade of the original stuccoed portion of the residence. Most likely, the original residence was constructed of fieldstone as were all other known residences in Willow Springs during the early twentieth century and was stuccoed at a later date.

The ancillary dwelling/pool house is a small rectangular plan building with a wood shingle side-gable roof, stucco cladding, and vinyl double hung windows. Wood paneling and vents rest beneath each gabled end of the roof on the west and east façades. Like the original portion of the main residence, this building was likely originally fieldstone which may still exist beneath the stucco cladding alteration.

Although other buildings in the village have also been altered, the buildings of Residence E have been greatly altered to the extent that they are no longer recognizable to their period of construction or the period of significance for the district. Without the comparison of aerial imagery and professional assessment of what little original material remains, Residence E would not be recognizable for its association with Willow Springs. Due to the severe deficits in the integrity of materials, design, workmanship, association, and feeling, Residence E cannot be considered a contributor to the district.

Stone Fence

The fieldstone fence at Manly Road extends from Buildings 4 and 5, enclosing a square-shaped field with both buildings contributing to the southern boundary of the enclosure. There are two extant wood gates along the southern boundary and a break in the fence along the western wall where another gate was likely located. Although the fence is of historic age, it does not possess its own significance or a strong enough association with the district's areas of significance to be considered contributing resources.

Wells 1-4

The four extant wells are above ground fieldstone structures located within orchards on the east and west sides of Manly Road. Two wells (Wells 1 and 2) are 20 feet in diameter (Images 8 and 9, respectively), one well is 30 feet in diameter, and one is 5 feet in diameter. Wells 3 and 4 were not visible from the ROW but are visible on aerial images as recent as 2020. The documented wells stand approximately 4 feet above the ground. Historic aerial photographs indicate the four wells (as well as others that no longer appear on aerial imagery) have been present since at least the 1930s. The wells were most likely constructed at the time the other fieldstone structures at the village. Although the wells are of historic age, they do not possess their own significance or a strong enough association with the district's areas of significance to be considered contributing resources.

*NRHP Status Code: 3CS (previously 7L)

*Resource Name or # (Assigned by recorder) Willow Springs Village Historic District

D1. Historic Name: Willow Springs D2. Common Name: Willow Springs

***D3. Detailed Description** (Discuss overall coherence of the district, its setting, visual characteristics, and minor features. List all elements of district.):

See pages 1-5.

***D4. Boundary Description** (Describe limits of district and attach map showing boundary and district elements.):

The boundary for the Willow Springs Village Historic District is proposed as including assessor parcel numbers (APNs) 315-012-01 (73.85 acres), 252-341-05 (1.98 acres), and 315-012-02 (.79 acres) and two discontiguous areas on adjacent parcels (APNs 252-341-06 and 252-351-48) for a total of approximately 77 acres.

***D5. Boundary Justification:**

The extent of the village during its formal years of early development (ca. 1900–1915) is believed to have been approximately ¼ sq mi based on previous documentation by archaeologists and historians and up to 300 acres (.47 sq mi) by local news; however, no primary source maps or descriptions of the village's original boundary have been uncovered. The proposed boundary was drawn in consideration of the original approximation of the district's area, locations of known extant and formerly extant resources, ownership history, and assessor map records. Original parcel boundaries and remains of a school and a known burial site indicate areas of the village beyond the primary grouping of buildings flanking Manly Road and a possibly larger boundary than previously recorded. Additional areas that could be reasonably believed to have been part of the village but are excluded from the boundary due to lack of evidence are APNs 252-012-02, 252-341-07, 252-341-04, 315-152-01 through 315-152-08, and the full extent of 252-351-48.

***D6. Significance: Theme:** American Settlement of California **Area:** Townsite Development in the Mojave Desert; Recreation
Period of Significance: 1860-1918 **Applicable Criteria:** A, B, C

(Discuss district's importance in terms of its historical context as defined by theme, period of significance, and geographic scope. Also address the integrity of the district as a whole.)

American exploration into the Mojave Desert began with the entry of explorer and pioneer Jedediah Smith in 1826, and American migration and exploration into the region continued during the early nineteenth century (Pourade 1961). The Antelope Valley of the Mojave Desert remained sparsely populated throughout the nineteenth century, but the Homestead Act of 1862 and the Desert Land Act of 1877 generated some American settlement. Individuals could apply for land grants and would receive land in exchange for an agreement to improve the land; under the Desert Land Act, settlers specifically had to irrigate and cultivate arid and semi-arid public lands to gain ownership. In the Antelope Valley, settlement primarily followed agriculture, gas, and mining endeavors (Environmental Science Associates 2008: 3.4-6). In 1866, Kern County was formed from portions of Los Angeles and Tulare counties.

The opportunistic founding of towns by both individuals and large developers is a key characteristic of frontier colonization in California. Many settlements in California have a shared history in the evolution of transportation networks, natural water features, water conveyance projects, agriculture, mining, and development of energy resources. While a very small community, the Willow Springs townsite reflects many of the developmental trends throughout California and particularly in the South Desert during the nineteenth and twentieth centuries. Specifically, the evolution of Willow Springs reflects the ad hoc development approach typical of rural Californian townsites. Willow Springs, like most small California towns founded during the nineteenth century, would also grow and decline based on factors like industry conditions and railroad access, or lack of access (Caltrans, et al. 2010: 142-143). In 1934, Willow Springs became California Historic Landmark #130 (California Office of Historic Preservation 2022).

(continued on page XX)

***D7. References** (Give full citations including the names and addresses of any informants, where possible.):

See pages XX

***D8. Evaluator:** Lisa Demarais, M.A., Associate Architectural Historian **Date:** April 26, 2022
Affiliation and Address: PaleoWest
571 S. Ivy Avenue, Monrovia, CA 91016

***B10. Significance:** (continued)

Willow Springs is a natural water feature in the Antelope Valley that was first depicted next to "Tehicipi Road" [sic] between Elizabeth Lake and Oak Cree an 1856 General Land Office (GLO) map of Township 9 North, Range 13 East within the San Bernardino Meridian (GLO 1856). Willow Springs was one of three natural oases in the Antelope Valley and thus made an ideal stopping point in the Mojave Desert, which resulted in the founding of a community and construction of a stagecoach station near the springs. Without the springs, early American travelers through the Mojave Desert would have faced even more grueling and deadly conditions. Even before a stagecoach station was built, the springs provided respite to a variety of travelers from different cultures using local overland trails.

The first recorded mention of Willow Springs dates to 1776 when Friar Garcés stopped at the springs. Explorer and pioneer John C. Frémont also stopped there in 1844. The discovery of gold along the Kern River in the 1850s led to an influx of visitors to the springs looking to quench themselves of thirst during their pursuit of gold and other valuable minerals. In 1862, Willow Springs was transferred from public domain to private land when it was awarded to General Edward Fitzgerald Beale. The Willow Springs stagecoach station and the springs themselves remained a sought-after stopping point throughout the 1860s, providing clean water to an increasing number of miners and cattle ranchers moving across the region during the late nineteenth century. (Bostwick 2010, Lien 2021). Due to right of way disputes with Beale, construction of the SPRR in the Antelope Valley was planned to bypass Willow Springs and instead route through Rosamond to the east. Completion of the SPRR in 1876 would have a profound effect upon the community (Lien 2021).

Willow Springs soon attracted Nelson and Adelia Ward, who are the next known owners of the land. The Wards purchased Willow Springs and endeavored to capitalize on the popularity of the natural waters by further developing the area. The Wards built an adobe boarding house next to the springs and in support of the stagecoach station, which they used to host freighters, travelers, and temporarily house horse and mule teams making their way across the region along the Los-Angeles-Havilah and Inyo Stage Lines. The accommodations were small compared to the rate of local traffic across the two routes, which were primarily in use 1864 to 1872, earning the boarding house the unofficial name "Hotel de Rush." In 1875, two years after the death of Nelson Ward, the silver freighting company, Cerro Gordo Freighting Company, chose a new route that bypassed Willow Springs, which resulted in less traffic to the Wards' boarding house and the stagecoach station. The loss of income prompted Adelia Ward to sell the land and move elsewhere with her five children. The new owners, a couple only documented by the surname Riley, operated the station for a year until completion of the SPRR through Rosamond in 1876 made stagecoach travel through Willow Springs effectively obsolete (GLO 1856; Lien 2021 July 7; Bostwick 2010). By the 1880s, the adobe boarding house was in ruins (Bostwick 2010).

After completion of the SPRR through the Antelope Valley, Willow Springs was essentially abandoned until 1900 when pioneer and stonemason Ezra Hamilton purchased the springs and the surrounding 160-acres. Hamilton struck gold a few miles east of Willow Springs four years earlier and wanted a set up his own gold mill. However, enamored with the oasis in the desert landscape, Hamilton sold his mine and used the proceeds to settle there with his family and built a resort, beginning with a hotel for up to 30 guests. The resort thrived and served as a gathering place for long-range travelers and settlers within the surrounding 15 miles. The hotel was named Hotel Rosamond and was equipped with fresh ice, flush toilets, and electricity (Lien 2021, Orr 2021a). Historical photos of the hotel show that like most original buildings built in Willow Springs, Hotel Rosamond was of stone construction. The hotel is no longer extant.

Hamilton desired to make Willow Springs a true town, and thus invested further to build necessary amenities such as a school, restaurant, general store, an auditorium, water reservoirs, and a swimming pool. He also built greenhouses to stock the restaurant and store with fresh produce, and he experimented with silkworms for silk production. Believing the springs and desert air should be accessible to anyone needing healing, Hamilton built homes and cottages that could be rented for a modest fee. From 1900-1915, other families besides the Hamiltons also settled near the resort, populating the burgeoning town. In total, during this time Hamilton invested approximately $40,000 and built 27 stone buildings including cottages, a hotel, a stone schoolhouse, a sanitorium, an opera house, and a concrete-lined swimming pool (Bostwick 2010, Lien 2021, Morgan 1914: 999). Like the Hotel Rosamond, historical photos indicate that most, if not all, of these structures were stone with wood roofs. The swimming pool is depicted as a round structure adjacent to a stone well. The cabins and homes in surviving photos appear nearly identical with modest single-story rectangular plans, stone chimneys, and wood doors and roofs. By July 1904, Willow Springs had upwards of 50 residents including Hamilton, his new bride Eliza Galloway, and his adult children from a previous marriage (Bakersfield Morning Echo 1904: 4). Willow Springs also gained a post office in 1909, and as Ezra Hamilton was the first person in Antelope Valley to own an automobile, he built garage and gas pump in the community. Hamilton died in 1915, and the resort village was closed and sold three years later by his heirs. Willow Springs and the immediately surrounding area where other families had settled would eventually be incorporated into the town of Rosamond which was founded in 1877 by the SPRR (The Bakersfield Californian 1938: 5, Lien 2021, Orr 2021b).

The village of Willow Springs was sold multiple times between 1918 and 1947, but people continued living there under leases regardless of ownership, the decline in travelers, and closing of Hamilton's resort. The growing accessibility of automobile travel and improvements in water conveyance meant that stopping at Willow Springs, one of the few natural springs in the western Mojave Desert, was no longer a necessary part of travel through the region. Additionally, since WWII, the springs have been severely depleted due to drought. The most recent previous survey of Willow Springs indicated that the smaller springs had gone entirely dry by 1992 and the others were at risk of running dry. Due to these changes, development and population growth in Willow Springs and its immediate surrounding area was slow throughout much of the twentieth century (Tipton 1988; OHP 2021). Agriculture remained a primary industry in Kern County, but the growth of the aerospace industry has been a major change to the economic landscape of the region in the twentieth century. Agriculture in Willow Springs and its immediate surrounding area has remained a steady yet small contributor to the industry of the region (Caltrans 2008: 17-18, Dunne 2016, Tipton 1988, Greene and Knight 1992).

California Register of Historical Resources Eligibility

Willow Springs was first formally identified as historically significant in the 1930s. As a California Historical Landmark, the district was documented multiple times over the twentieth century, most recently in 1992. Because Willow Springs became a state landmark prior to January 1998 and the establishment of the California Register of Historical Resources (CRHR), the property must be reevaluated using current standards. Willow Springs Village (15-000129) was thus evaluated for historical significance under CRHR Criteria 1-4 as follows.

Willow Springs serves as a vivid and physical manifestation of the theme of American settlement and exploration in the Mojave Desert and is a good representative of a small agricultural community. From this property, Ezra Hamilton founded a resort that catered to residents of the region and travelers emigrating from the interior of the U.S. Pears were grown and exported in the area, and the discovery of gold in the Lida Mine spurred further development in the Antelope Valley. Thus, Willow Springs was a significant community integral to various community, commercial, and industrial developments in the region. For these significant historical associations, PaleoWest recommends Willow Springs Village eligible for the CRHR under Criterion 1.

Ezra Hamilton, the founder of Willow Springs Village, was a distinguished pioneer in the history of the Antelope Valley and he was the first American recorded to have discovered gold in the Antelope Valley. He also served in the local government in Los Angeles and patented the peat-pressing machine in 1867 before finally settling in Willow Springs. Willow Springs Village is the only known physical representation of Hamilton's significance as a pioneer, inventor, and prospector in Southern California. He is also significant as the founder of Willow Springs, one of the most distinguished settlements in the western Mojave Desert in the late nineteenth to early twentieth centuries. For its direct and strong connection to Ezra Hamilton, a historically important person who contributed to broad patterns of history in Southern California, Willow Springs Village is considered significant. The proposed district clearly represents its time period and its original function as a small settlement engrained in agriculture. As such, PaleoWest recommends Willow Springs Village eligible for the CRHR under Criterion 2.

The extant buildings and structures of Willow Springs were constructed ca. 1900-1915 with locally sourced fieldstone. They are the last remaining buildings of this once prominent village in the western Mojave Desert and the last known buildings dating to that period and constructed of local stones The buildings are also significant for their unique masonry-based rustic style that is rarely seen in Southern California outside of forests, parks, and mountain communities. They are also the oldest buildings in the surrounding unincorporated area of Kern County. The buildings are also a testament to quality construction, likely designed by stonemason and founder Ezra Hamilton himself. Despite not being specially altered and reinforced to survive earthquakes, they have mostly withstood various earthquakes throughout the twentieth century. As such, PaleoWest recommends Willow Springs Village eligible under Criterion 3 for its significant unique and rare architecture.

The Willow Springs Village Historic District is a historically significant property in American history of California, and it was also once the site of a Kitanemuk village. The village has been documented through archaeological and architectural survey in the past, and it is our professional opinion that the property is unlikely to yield additional vital information about the history or prehistory of these two former settlements that is not readily available through research or provided in the previous recordings of the site. As such, the property is recommended not eligible under CRHR Criterion 4.

Integrity

Although some elements such as the original stagecoach center, the schoolhouse, and the cemetery gravestones are no longer extant or in a ruinous condition, the Willow Springs Village Historic District overall retains its integrity to adequately convey its historical significance. Specifically, the property's location, workmanship, feeling, and associations with Ezra Hamilton, townsite development, recreation, and stone architecture are retained. A few buildings have been altered with additions, new roofing, and new windows where necessitated by deterioration; however, the majority of the extant built environment elements clearly represent their period of significance and historical connections to important events and persons as well as their unique architecture. Any buildings that were extremely altered were not recommended as contributors to the district. Most original materials throughout the village, most notably the abundance of character-defining fieldstone, are retained. Many alterations to the standing structures also appear to be easily reversible without the destruction of historical materials. Willow Springs Village remains as a distinguished example of an early twentieth century American settlement in the western Mojave Desert, representative of a local American pioneer, and early twentieth century stone architecture in the region.

In summary, PaleoWest's professional opinion is that the district retains sufficient integrity to convey its historical significance under the CRHR Criteria and guidelines. Therefore, the assessment of integrity does not change PaleoWest's recommendation that Willow Springs Village is eligible for listing in the CRHR as a historic district under Criteria 1-3.

***P3b. Resource Attributes:** (continued from page 1)

HP11. Engineering Structure, AH12. Graves/cemetery, HP45. Unreinforced masonry buildings, HP46. Walls/gates/fences, HP39. Other: Architectural ruins, AH2. Foundations, AH5. Wells/cisterns, HP39. Other: Recreational pool

***B12. References:** (continued)

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1904 "Gala Day at Willow Springs: Ezra M. Hamilton and Mrs. Galloway Wed," Thursday July 7, page 4. Bakersfield, California. Available at: https://www.newspapers.com/, accessed April 2022.

Image 2. The 1951 historical marker, view facing east-southeast.

Image 3. The 1937 historical marker and stone trough, view facing southwest.

Image 4. Stone fencing at Manly Road, view facing east-northeast.

Image 5. The 1937 historic marker, view facing southwest (Craig Baker 2022).

Image 6. Building 10 (left), view facing northeast.

Image 7. Building 10 (right) and Building 11 (left), view facing northwest (Historical Marker Database 2011).

Image 8. Well 1, view facing northeast from Manly Road.

Image 9. Well 2, view facing northeast. .

Image 10. Ezra Hamilton at Willow Springs, ca. 1900 (Lancaster Museum of Art & History). .

Image 11. Residence A, view facing southeast.

Image 12. Overview of Residence D facing west.

Image 13. Residence D facing southwest.

Image 14. Residence at Willow Springs, ca. 1900 (Lancaster Museum of Art & History).

Image 15. Willow Springs cabins, ca. 1900 (Lancaster Museum of Art & History)

Image 16. Rear of Grocery/Dining Building and dwellings to its south (California Historical Society).

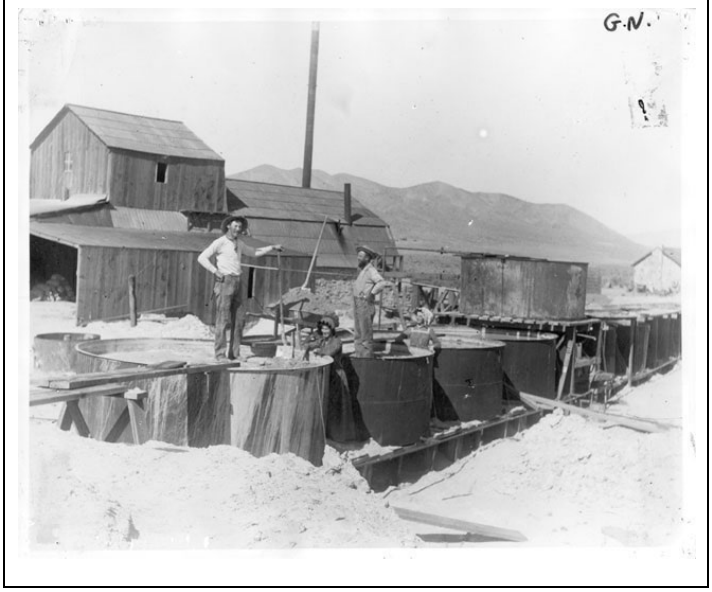


Image 17. Men and women at Hamilton's Lida Mill, ca. 1900 (Lancaster Museum of Art & History) .

Image 18. Residence E, primary residence.

Image 19. Residence E, secondary dwelling building east of main residence (Image 18).

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

LOCATION MAP

Primary
HRI

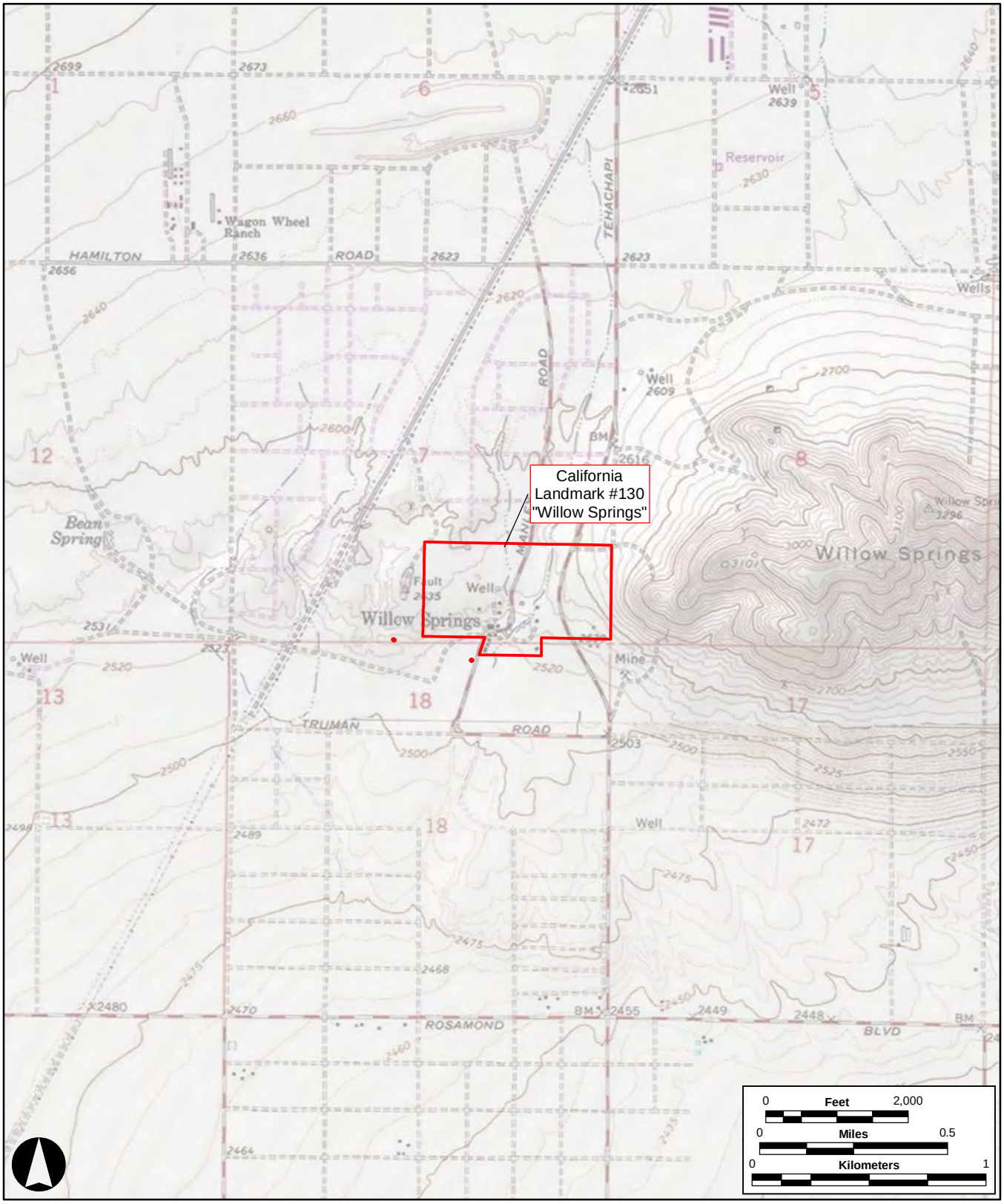
Trinomial

Resource Name or #: California Landmark #130 "Willow Springs"

Scale: 1:24,000

Map Name: Willow Springs, Ca (1977) 7.5' USGS Quad.

Date: 2022



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
SKETCH MAP

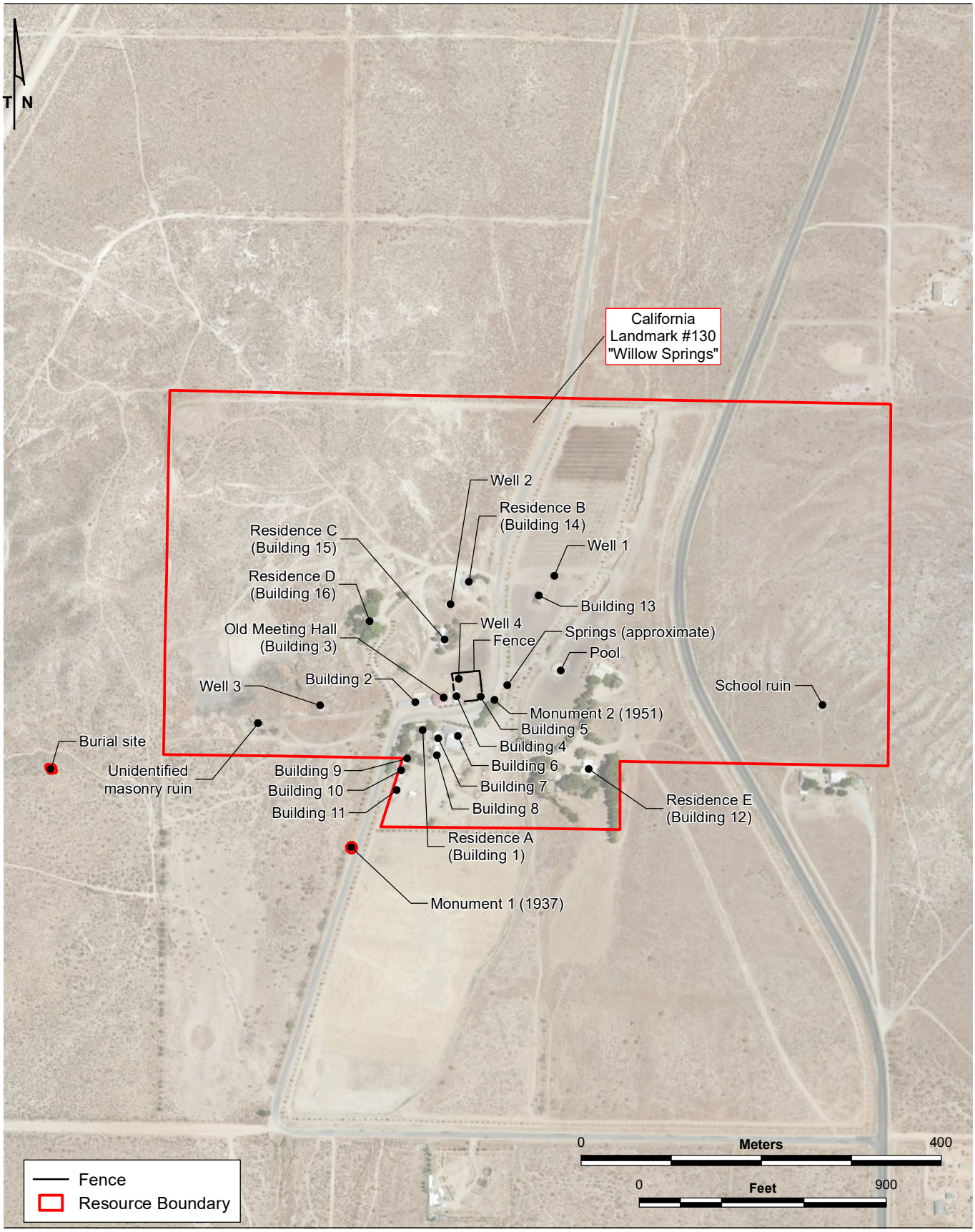
Primary #
HRI#
Trinomial

*Resource Name or #: California Landmark #130 "Willow Springs"

*Drawn by: B. Spelts

*Scale: 1:6,000

*Date of map: April 2022



*Required information

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

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code | Reviewer | Date

Page 1 of 2 ***Resource Name or #:** Old Meeting Hall (Willow Springs Village, 15-000129)

P1. Other Identifier: Building 3

***P2. Location:** ☐ Not for Publication ☒ Unrestricted

***a. County:** Kern **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Willow Springs **Date** 1965 **T** 9N **R** 13W ; **Sec** 07; 18 **S.B.B.M.**

c. Address 4040 Manly Road City Rosamond Zip 93560

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

e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) On the northern side of Manly Road and approximately .32-mile northeast of the intersection of Manly and Truman roads.

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

The Old Meeting Hall is a one and one-half story rectangular plan building with a side gable roof within Willow Springs, California Historical Landmark #130. It is immediately north of Manly Road and northeast of Residence A. The Old Meeting Hall is of fieldstone construction and has a wood framed roof with exposed wood rafter tails and corrugated metal sheets for roof cladding. The south (primary) façade features concrete steps that lead to a full porch constructed of open poured concrete block and wooden double batwing doors that serve as the primary entrance. The batwing doors are inset into a small stone projection covered by a shed-shaped roof extension. Historical photos indicate the entrance originally featured a front gable while the main roof was hipped. The concrete steps are flanked by metal tube railings. There are two additional entrances on the south façade, a glass inset divided-light wood door and a faux-paneled fiberglass door. Each door is topped with a single-lite transom. The south façade also features a small horizontal-oriented fixed window and a tall double-hung window.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP13. Community center/social hall

***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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Overview facing north and showing the south (primary) façade. March 28, 2022

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1900
Historical photograph, California Historical Society (page 2); Report cited in *P11

***P7. Owner and Address:**
Kathy and Robert Nelson
4040 Manly Road, Rosamond, California 93560

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** May 3, 2022

***P10. Survey Type:** (Describe) Intensive, pedestrian right-of-way

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

***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):

***P3a. Description:** (continued from page 1)

The windows of the east and west façades are all tall double-hung wood frame types. The east façade has a wooden exterior stairway that leads to a flat wood door on the upper floor. A window insert air-conditioning unit is above the door, blocking off what was likely a single-lite transom. The wood paneling and wood-frame windows beneath the side gables on the east and west façades are not original.

Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

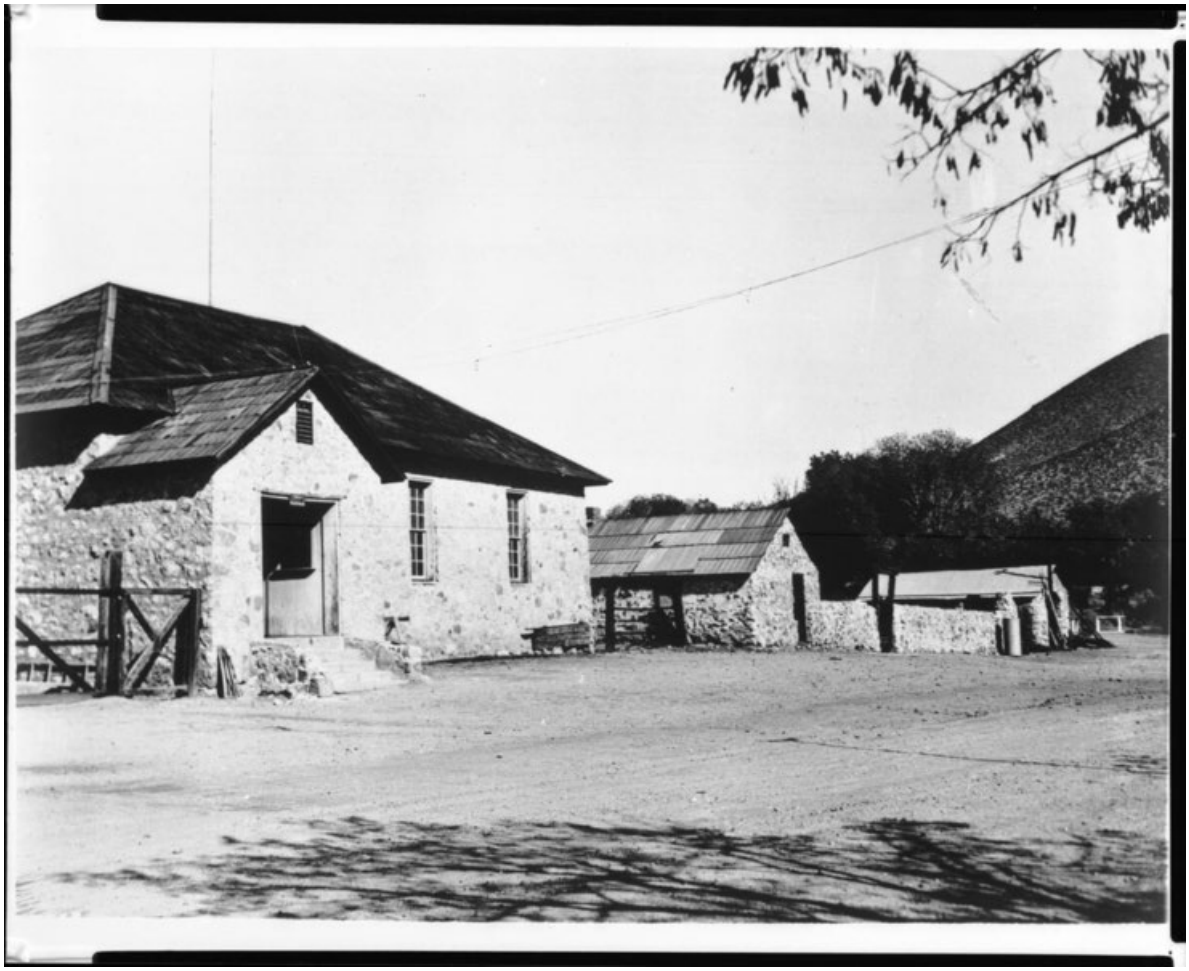


Photo 2. Old Meeting Hall (left) and two ancillary buildings ca. 1900 (California Historical Society CHS-7665).

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PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
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Page 1 of 2 ***Resource Name or #:** Saloon (Willow Springs Village, 15-000129)

P1. Other Identifier: Building 2, Warehouse

***P2. Location:** ☐ Not for Publication ☒ Unrestricted

***a. County:** Kern **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Willow Springs **Date** 1965 **T** 9N **R** 13W ; **Sec** 07; 18 **S.B.B.M.**

c. Address 4040 Manly Road City Rosamond Zip 93560

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

e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) On the northern side of Manly Road and approximately .32-mile northeast of the intersection of Manly and Truman roads and immediately west of the Old Meeting Hall.

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

Building 2 is a long rectangular plan one-story utilitarian structure with a corrugated metal side gable roof within California Historical Landmark #130. A historical photo (ca. 1900) of the building shows the word "SALOON" on the south façade and that the building has a western addition. The name "Willow Springs" is emblazoned across the southern slant of the roof, though the signage is faded. Circulation vents lie below each gable end. The exterior of the building is comprised of white limestone block. A stone raised porch is on the original portion of the south façade. The west addition appears to have been early based on materials and condition, and was likely completed ca. 1945-1955. The south (primary) façade features two single personnel entrance doors and four metal double barn doors with iron strap hinges. The addition's barn-style doors indicate it was, and/or is, in use as a storage facility and/or for agricultural purposes. One personnel door is flat metal and the other is wooden with a square glass insert. The building measures approximately 115 feet wide by 25 feet deep. Windows are double-hung with wooden frames.

***P3b. Resource Attributes:** (List attributes and codes) HP6. 1-3 story commercial building (formerly), HP4. Ancillary building

***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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Overview facing northeast showing the south (primary) and west façades. March 28, 2022

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1900
Historical photograph (Lancaster Museum of Art & History); report cited in *P11

***P7. Owner and Address:**
Kathy and Robert Nelson
4040 Manly Road, Rosamond, California 93560

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** May 3, 2022

***P10. Survey Type:** (Describe) Intensive, pedestrian right-of-way

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

***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):

***P3a. Description:** (continued)

A photograph from the 1980s (Photo 3) shows a free-standing gas pump in front of the building on the east façade.

Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

Photo 2. Overview of buildings in central Willow Springs Village (ca. 1900) showing portiosns of the Old Meeting Hall (front right), original portion of the Saloon (back right) along the future path of Manly Road (Lancaster Museum of Art & History).

Photo 3. Saloon ca. 1987 showing abandoned gas pump (Don Graham).

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Page 1 of 3 ***Resource Name or #:** Building 4 (Willow Springs Village, 15-000129)

P1. Other Identifier:

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**

***a. County:** Kern **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Willow Springs **Date** 1965 **T** 9N **R** 13W ; **Sec** 07; 18 **S.B.B.M.**

c. Address 4040 Manly Road City Rosamond Zip 93560

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

e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) On the northern side of Manly Road and approximately .32-mile northeast of the intersection of Manly and Truman roads and immediately east of the Old Meeting Hall.

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

Building 4 is a rectangular plan one and one-half story rustic structure with a red corrugated metal front-gable roof within California Historical Landmark #130. The exterior of the building is comprised of lime fieldstones. Other features include wood shingle and a wood double-hung window beneath the front gable, wooden overhanging eaves with exposed raftertails, a single wood paneled personnel entry door with an inset fixed window on the south (primary) façade. The east façade includes an oversized single personnel entrance door. The building measures approximately 45 feet long by 18 feet wide. Stone fencing extends from the southeast and northwest corners of the exterior façades. No information was observed or uncovered through research to definitively determine past or current use(s) of Building 4, but the building was likely used for storage at one time.

***P3b. Resource Attributes:** (List attributes and codes) HP1. Unknown

***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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Overview facing north showing the south (primary) façade. March 28, 2022

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1900
Historical photo, California Historical Society; Report cited in *P11.

***P7. Owner and Address:**
Kathy and Robert Nelson
4040 Manly Road, Rosamond, California 93560

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
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571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** May 3, 2022

***P10. Survey Type:** (Describe) Intensive, pedestrian right-of-way

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

***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):

***P3a. Description:** (continued)

Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

Photo 2. Old Meeting Hall (left), Building 4 (center), and Building 5 (right) ca. 1900 (California Historical Society CHS-7665).

Photo 2. View facing northeast from Manly Road showing the south and west façades.

Photo 3. Building 4 prior to roof replacement, ca. 1987 (Don Graham).

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Trinomial
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Page 1 of 2 ***Resource Name or #:** Building 5 (Willow Springs Village, 15-000129)

P1. Other Identifier:

***P2. Location:** ☐ Not for Publication ☒ Unrestricted

***a. County:** Kern **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Willow Springs **Date** 1965 **T** 9N **R** 13W ; **Sec** 07; 18 **S.B.B.M.**

c. Address 4040 Manly Road City Rosamond Zip 93560

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

e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) On the northern side of Manly Road and approximately .32-mile northeast of the intersection of Manly and Truman roads. It is immediately east of Building 4 and northwest of the 1950s plaque.

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

Building 5 is a rustic rectangular plan masonry building constructed of limestone walls and and a wood-framed roof within California Historical Landmark #130. It is similar to and easterly adjacadent to Building 4. Features include a front-gable corrugated metal roof, overhanding eaves with exposed wood raftertails, wood shingle beneath the front gable, and a set of vertical plank wood double swining doors centered on the south façade. A limestone fence extends north from the northeast corner of the building. A vertical wood plank fence gate attaches the west façade to the stone fence that extends eastward from the east façade of Building 4. Building 5 measures approximately 18 feet wide by 28 feet long. No information was observed or uncovered through research to definitively determine past or current use(s) of Building 4. Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

***P3b. Resource Attributes:** (List attributes and codes) HP1. Unknown

***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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Overview facing northeast showing the south (primary) façade. March 28, 2022

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1948-1975
Historical photograph, California Historical Society; Reported cited in *P11.

***P7. Owner and Address:**
Kathy and Robert Nelson
4040 Manly Road, Rosamond, California 93560

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** May 3, 2022

***P10. Survey Type:** (Describe) Intensive, pedestrian right-of-way

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

***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):

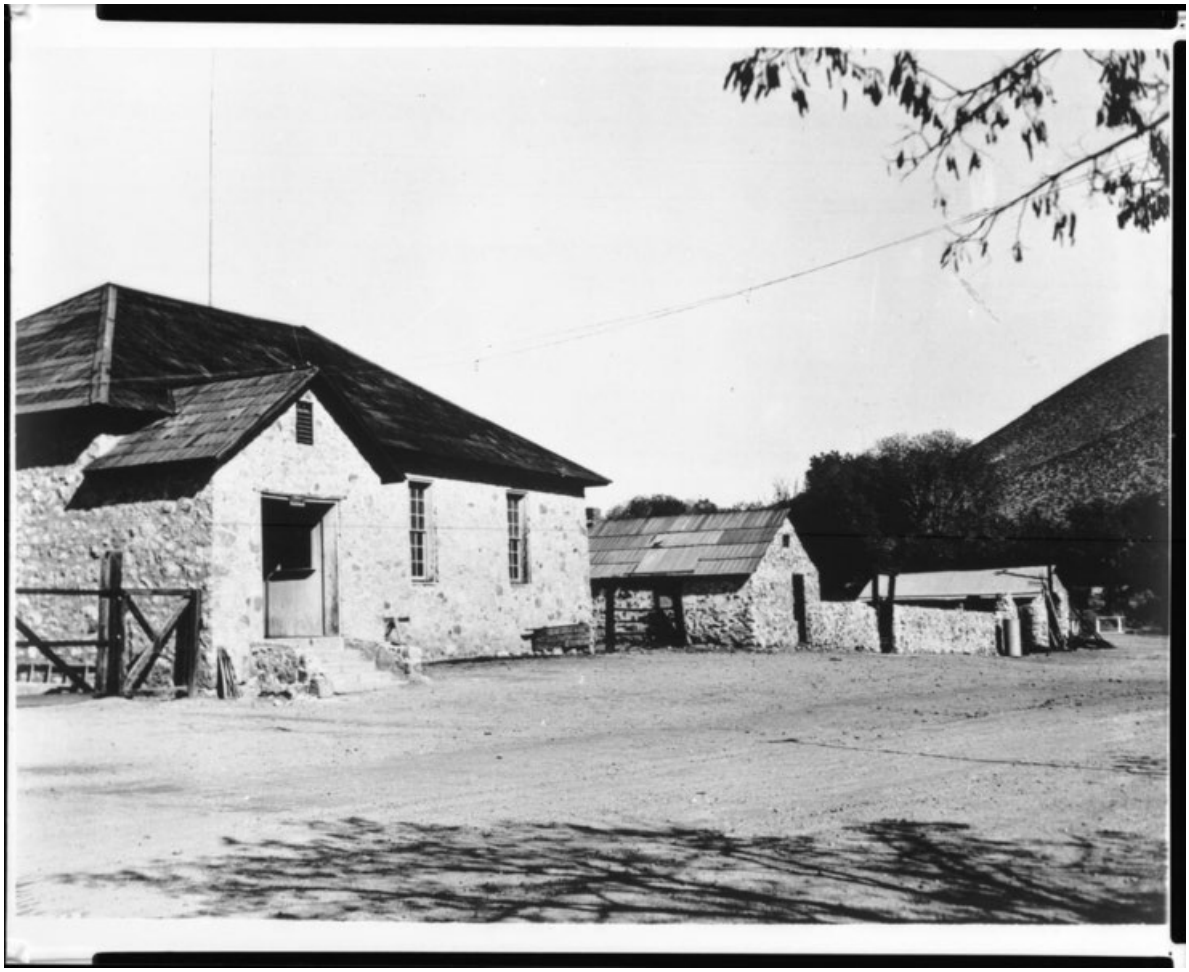

Photo 2. Old Meeting Hall (left), Building 4 (center), and Building 5 (right) ca. 1900 (California Historical Society CHS-7665).

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

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code | Reviewer | Date

Page 1 of 2 ***Resource Name or #:** Willow Springs School Ruin Site (Willow Springs Village, 15-000129)

P1. Other Identifier: Willow Springs School Ruin, Old Willow Springs School

***P2. Location:** ☒ **Not for Publication** ☐ **Unrestricted**

***a. County:** Kern **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Willow Springs **Date** 1965 **T** 9N **R** 13W ; **Sec** 07; 18 **S.B.B.M.**

c. Address 4040 Manly Road City Rosamond Zip 93560

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

e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) East of Tehachapi-Willow Springs Road and approximately 250 feet northeast of 3972 90th Street West.

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

The ruins of the Willow Springs School is consists of a partial collapsed fieldstone masonry building that served as the local school building during the early twentieth century. The ruin is situated east of Tehachapi-Willow Springs Road at the eastern end of APN 315-012-01. Small portions of the east, west, and south façades remain, and the roof and north wall are entirely collapsed. A doorway-sized opening with wood framing is present on the remaining portion of the south façade, which is believed to have been the primary façade. Two remaining stone and concrete steps lead up to the original entrance opening. The remains and photographs from 2018 indicate the school had a wood framed roof, windows, and doors (Photo 2). Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

***P3b. Resource Attributes:** (List attributes and codes) AH11. Walls/fences, AH2. Foundations/structure pads
HP15. Educational building (formerly)

***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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Overview facing northeast from Tehachapi-Willow Springs Road. March 28, 2022

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1900
Historic aerials, NETROnline (HistoricAerials.com); Report cited in *P11.

***P7. Owner and Address:**
Kathy and Robert Nelson
4040 Manly Road, Rosamond, California 93560

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** May 3, 2022

***P10. Survey Type:** (Describe) Pedestrian reconnaissance

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

***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):

Photo 2. Northeasterly overview of the school in 2018 (Jon Hammond, Tehachapi News).

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Trinomial
NRHP Status Code

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Page 1 of 2 ***Resource Name or #:** Pool (Willow Springs Village, 15-000129)

P1. Other Identifier: Willow Springs Resort Pool

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**

***a. County:** Kern **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Willow Springs **Date** 1965 **T** 9N **R** 13W ; **Sec** 07; 18 **S.B.B.M.**

c. Address 4040 Manly Road City Rosamond Zip 93560

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

e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) East of Manly Road, west of Tehachapi-Willow Springs Road, and north of 4050 Manly Road (APN 252-341-05).

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

The stone cement-lined pool is in an orchard between Manly Road and Tehachapi-Willow Springs Road. The extant structure is 50 feet in diameter and is believed to be original to the resort built by Ezra Hamilton ca. 1900-1915 based on historic photos of the feature. It is not possible to see if the bottom interior of the pool is cement lined because it is filled with dirt and vegetation. The pool is mostly below-grade, though a small portion of the exterior wall that faces south may have been partially excavated based on the 1903 photograph (Photo 3). The pool is no longer in use for recreation and leisure. Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

***P3b. Resource Attributes:** (List attributes and codes) HP39. Other: Recreational Pool

***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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Overview facing east from Manly Road (2011), captured via Google Earth.

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1900
Historic aerials, University of California Santa Barbara and NETROnline (HistoricAerials.com); Report cited in *P11.

***P7. Owner and Address:**
Kathy and Robert Nelson
4040 Manly Road, Rosamond, California 93560

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** May 3, 2022

***P10. Survey Type:** (Describe) Intensive, pedestrian right-of-way

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

***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):

Photo 2. Partially obstructed view of Pool structure from Manly Road facing east/northeast.

Photo 3. A 1903 photograph of the Pool (left) and a well (right). View appears to be southwest with central Willow Springs in the background (Lancaster Museum of Art and History)

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Primary #
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Trinomial
NRHP Status Code

Other Listings
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Page 1 of 10 ***Resource Name or #:** Residence (Willow Springs Village, 15-000129)
P1. Other Identifier: Residence B, Building 14
***P2. Location:** ☐ Not for Publication ☒ Unrestricted
***a. County:** Kern **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Willow Springs **Date** 1965 **T** 9N **R** 13W ; **Sec** 07; 18 **S.B.B.M.**
c. Address 4040 Manly Road City Rosamond Zip 93560
d. UTM: (give more than one for large and/or linear resources) Zone
e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) Approximately 830 feet west of Tehachapi-Willow Springs Road and .34-mile north of Truman Road.

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

Residence B (Building 14) is a one-story rustic style building of stone construction situated west of Manly Road. The building has a rectangular plan and a corrugated metal side gable roof that extends over an open porch supported by wood columns. The porch spans the east façade, which also contains the single personnel entry door and two double hung windows. Architectural features include fieldstone masonry and fieldstone chimney on the south façade. An extension has been added to the rear (west) façade of the building. It is constructed of tan brick and not original. The brick portion of the building does not detract or overshadow the original features of Building 14. Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

***P3b. Resource Attributes:** (List attributes and codes) HP2. Single-family residence
***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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Overview facing west-northwest.
March 28, 2022.

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1900
Historic aerials, NETROnline (HistoricAerials.com);
Report cited in *P11.

***P7. Owner and Address:**
Kathy and Robert Nelson
4040 Manly Road, Rosamond, California 93560

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** May 3, 2022

***P10. Survey Type:** (Describe) Intensive, pedestrian right-of-way

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

***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):

***P3a. Description:**
A historic-era cemetery on a low ridge east of Willow Springs is associated with the village. Though no headstones remain, records from previous surveys indicate several individuals were buried there, including at least one local resident, Ray Conary (Feb. 1, 1890 - Jan. 28, 1906), a 17-year-old sign painter who died of tuberculosis. The site remains unchanged since its previous recordation in 2017 by ASM Affiliates. A site sketch map identifying the site location is included in the updated DPR record of Willow Springs Village (2022).

Image 1. Area of disturbed ground. .

Image 2. View facing northeast toward central Willow Springs.

Image 3. View facing north.

Image 4. View facing west.

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

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Page 1 of 1 ***Resource Name or #:** Building 13 (Willow Springs Village, 15-000129)

P1. Other Identifier:

***P2. Location:** ☐ Not for Publication ☒ Unrestricted

***a. County:** Kern **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Willow Springs **Date** 1965 **T** 9N **R** 13W ; **Sec** 07; 18 **S.B.B.M.**

c. Address 4040 Manly Road City Rosamond Zip 93560

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

e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) Lies approximately 480 feet west of Tehachapi Willow Springs Road and .37-mile north of Truman Road along the east side of Manly Road

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

Building 13 is a dilapidated one-story building of stone construction situated between Manly Road and Tehachapi-Willow Springs Road within California Historical Landmark #130. The building has a rectangular plan and a hipped wood shingle roof that extends over an open porch supported by wood columns; though many shingles are missing, the wooden roof framing remains. The porch spans the south façade, which also likely housed the primary entrance. All windows and doors are missing, but fenestration openings and some wood framing remain. There are wood lintels above the window openings and the openings are not boarded over. Architectural features include fieldstone masonry and a wood single roof. The north façade features a large wood-framed opening for a door, but no door is present. The original use of the building could not be confirmed through research. Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

***P3b. Resource Attributes:** (List attributes and codes) HP1. Unknown

***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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Overview facing east.
March 28, 2022.

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1900
Historic aerials, NETROnline (HistoricAerials.com);
Report cited in *P11.

***P7. Owner and Address:**
Kathy and Robert Nelson
4040 Manly Road, Rosamond, California 93560

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** May 3, 2022

***P10. Survey Type:** (Describe) Intensive, pedestrian right-of-way

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

***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 — The Resources Agency
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Trinomial
NRHP Status Code

Other Listings
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Page 1 of 3 ***Resource Name or #:** Grocery Store/Restaurant (Willow Springs Village, 15-000129)

P1. Other Identifier: Building 6, Dining Room, Willow Springs Co & Reserve, Reserve Systems, Inc.

***P2. Location:** ☐ Not for Publication ☒ Unrestricted

***a. County:** Kern **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Willow Springs **Date** 1965 **T** 9N **R** 13W ; **Sec** 07; 18 **S.B.B.M.**

c. Address 4040 Manly Road City Rosamond Zip 93560

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

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

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

Building 6 within California Historical Landmark #130 is a one story, rectangular plan fieldstone masonry commercial building that currently operates as a commercial building for Willow Springs Co. & Reserve. Originally, the building served as a grocery store and dining room/restaurant based on historical photos (Photos 2-3). On the north façade, there is a flat-roof dormer that is not of original construction and was added at an unknown date prior to 1987 when it is first captured in a photograph (Don Graham). The building is set at a slightly lower elevation than Manly Road behind a concrete retaining wall and decorative plantings. A row of mailboxes for various residences in the area is easterly adjacent to concrete steps. The stairs are built into the grade and lead downward to the building's north (primary) façade from Manly Road. The stairs have pipe railings painted red. The building also features a corrugated metal skillion and lean-to roof and a rectangular rear (south) addition clad with stucco and stone veneer. Past photos show that the roofline of the original portion of the building had a side-gable roof with a gambrel-roof rear addition. These alterations are largely obscured from view from the public right-of-way.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP6. 1-3 story commercial building

***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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Overview facing southeast.
March 28, 2022.

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1900
Historical photos, University of Southern California
Libraries and Lancaster Museum of Art & History

***P7. Owner and Address:**
Kathy and Robert Nelson
4040 Manly Road, Rosamond, California 93560

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** May 3, 2022

***P10. Survey Type:** (Describe) Intensive, pedestrian right-of-way

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

***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):

***P3a. Description:** (continued)

Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

Photo 2. Willow Springs founder Ezra Hamilton and unknown man sitting in a stagecoach and car, respectively, in front of the Grocery/Dining Building ca. 1913 (Lancaster Museum of Art & History).

Photo 3. Overview of central Willow Springs ca. 1900 showing the Grocery/Dining Building (left) along the dirt road that would become Manly Road (Lancaster Museum of Art & History).

Photo 4. North (primary) and east façades, facing southwest.

Photo 5. South (rear) façade, view facing north, with two buildings in the foregr ound ca. 1900 (University of Southern California Libraries, Special Collections).

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HRI #
Trinomial
NRHP Status Code

Other Listings
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Page 1 of 2 *Resource Name or #: Building 7 (Willow Springs Village, 15-000129)
P1. Other Identifier:
*P2. Location: ☐ Not for Publication ☒ Unrestricted
*a. County: Kern and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad Willow Springs Date 1965 T 9N R 13W ; Sec 07; 18 S.B.B.M.
c. Address 4040 Manly Road City Rosamond Zip 93560
d. UTM: (give more than one for large and/or linear resources) Zone
e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) Lies .27-mile north of Truman Road and approximately 570 feet NE of the first Willow Springs Monument (1937).

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

Building 7 is a rectangular plan fieldstone masonry construction building immediately north of Building 8 within California Historical Landmark #130. The building features a cross-gable roof of corrugated metal. The central segment of the building shows a shed roof extension along the eastern edge of the gable and wood eaves. The roof extension is supported by simple wood columns that create a narrow porch spanning the east façade. The porch has a poured concrete foundation that is not original to the date of construction. There are two personnel doors and a brick fireplace and chimney on the east façade as well as two windows on the north façade, though the upper window set beneath the north end of the gabled roof was boarded shut at the time of survey. Recent aerial photographs from 2020 indicate there is a front gable extension from the southern end of the west façade. The west extension is also partially visible in 2011 Google Earth imagery with fieldstone walls. Aerial photographs indicade the western segment of the building has been extant since at least 1935 (University of California Santa Barbara Library), making it an early addition or original feature. Building 7 is very similar in appearance to historical images of Willow Springs residences and was likely originally used as a dwelling.

(continued on page 2)

*P3b. Resource Attributes: (List attributes and codes) H1. Unknown
*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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Overview facing south from Manly Road.
March 28, 2022.

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1900
Historic aerials, NETROnline (HistoricAerials.com);
Report cited in *P11.

***P7. Owner and Address:**
Kathy and Robert Nelson
4040 Manly Road

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** May 3, 2022

*P10. Survey Type: (Describe) Intensive, pedestrian right-of-way

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

*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):

***P3a. Description:** (continued from page 1)

While the history of the village and resort of Willow Springs would indicate Building 7 was originally a residence or rental dwelling, an outdoor vending machine suggests the building is occupied by Willow Springs Co & Reserve which primarily operates out of Willow Springs Building 6 to its immediate northeast. Historical photos indicate there were likely two primary dwelling forms at Willow Springs built in the early twentieth century: simple 1-2 room one-story stone cabins and larger one-story stone cabins with taller pitched roofs and vents or small windows beneath the ends of each roof gable. Both types appear to have simple wood post porches along one façade, stone or brick chimneys, wood doors and windows, and wood shingle roofs based on historical photographs.

Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

Photo 2. A typical stone dwelling at Willow Springs ca. 1900 (Lancaster Museum of Art & History).

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PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code | Reviewer | Date

*Resource Name or #: Building 8 (Willow Springs Village, 15-000129)

P1. Other Identifier:

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County: Kern and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Willow Springs Date 1965 T 9N R 13W ; Sec 07; 18 S.B.B.M.

c. Address 4040 Manly Road City Rosamond Zip 93560

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

e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) Lies .26-mile north of Truman Road, approximately 526 feet NE of the first Willow Springs Monument (1937), and immediately south of Building 7.

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

Building 8 is a rectangular plan fieldstone masonry construction building immediately south of Building 7. The building was not visible from the public right-of-way during field survey but it is visible on recent aerial photographs and in historical photographs at its present location immediately southwest of the original Willow Springs Dining Room and Grocery Store. Without visualization during field survey, PaleoWest worked conservatively with the assumption that the building is extant and a contributor to the proposed Willow Springs Village Historic District as necessitated by a current project. One historical photograph of the building is known but it only includes partial views of the south and east façades. In the photograph, the building appears to have been a residence. Based on how the buildings in the area are organized, Building 8 is now likely ancillary to either the adjacent primary residence or commercial buildings.

(continued on page 2)

*P3b. Resource Attributes: (List attributes and codes) HP2. Single-family residence

*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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Overview of central Willow Springs facing southwest (Historical Marker Database 2011) with rooflines of Buildings 7 and 8 indicated.

*P6. Date Constructed/Age and Source:
☒ Historic ☐ Prehistoric ☐ Both
ca. 1900
Historical photograph, University of Southern California Libraries

*P7. Owner and Address:
Kathy and Robert Nelson
4040 Manly Road

*P8. Recorded by: (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

*P9. Date Recorded: May 3, 2022

*P10. Survey Type: (Describe) Pedestrian right-of-way; desktop

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

*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):

***P3a. Description:** (continued from page 1)

Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

Photo 2. Willow Springs Building 8 (left) ca. 1900 (University of Southern California Libraries, Special Collections).

Photo 3. Aerial view of central Willow Springs along Manly Road (2020 Google Earth) with Building 8 indicated.

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Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code | Reviewer | Date

Page 1 of 1 ***Resource Name or #:** Building 9 (Willow Springs Village, 15-000129)

P1. Other Identifier:

***P2. Location:** ☐ Not for Publication ☒ Unrestricted

***a. County:** Kern **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Willow Springs **Date** 1965 **T** 9N **R** 13W ; **Sec** 07; 18 **S.B.B.M.**

c. Address 4040 Manly Road City Rosamond Zip 93560

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

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

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

Building 9 is a one-story side-gable building of stone construction situated south and east of Manly Road. The building has a rectangular plan, stone exterior walls clad with tan lime stucco, a corrugated metal roof, wood eaves, wood double hung windows, and wood door and window framing. The building is in fair physical condition except for damage to the wood eaves. There are wood vents beneath the ends of the gable roof on the north and south façades. A replacement single entry door is visible on the west façade. A tan brick fence, likely built after the original date of contruction for Building 9, extends from the northwest corner of the building. Based on historical photographs of similar buildings in the Willow Springs community from the early twentieth century, the roof was most likely originally wood shingle. Despite its lack of extant chimney, Building 9 is remarkedly similar to historical images of the small rentable Willow Springs cabins constructed by founder Ezra Hamilton, though it may have been a smaller permanent residence. Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

***P3b. Resource Attributes:** (List attributes and codes) HP2. Single-family residence

***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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Overview facing northeast.
March 28, 2022.

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1900
Historic aerials, NETROnline (HistoricAerials.com);
Report cited in *P11.

***P7. Owner and Address:**
Kathy and Robert Nelson
4040 Manly Road

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** May 3, 2022

***P10. Survey Type:** (Describe) Intensive, pedestrian right-of-way

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

***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 — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code | Reviewer | Date

Page 1 of 2 ***Resource Name or #:** Building 11 (Willow Springs Village, 15-000129)

P1. Other Identifier:

***P2. Location:** ☐ Not for Publication ☒ Unrestricted

***a. County:** Kern **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Willow Springs **Date** 1965 **T** 9N **R** 13W ; **Sec** 07; 18 **S.B.B.M.**

c. Address 4040 Manly Road City Rosamond Zip 93560

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

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

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

Building 11 is an abanonded rectangular plan building of concrete block construction south and east of Manly Road. The building features a brick chimney attached to its south façade, a side-gable corrugated metal roof, wood window and door frames, and lime stucco cladding in disrepair. One original door on the west façade remains. It is a wood door with a single inset lite. Based on the predominantly lime stucco cladding, Building 11 was most likely constructed early in the twentieth century. This is supported by a 1932 aerial photograph that shows a building with the same footprint in the same location. Building 11 is the only remaining concrete block structure in Willow Springs, though it is unknown if others had been constructed and demolished prior to the earliest documentation of the village. The large opening on the east façade may indicate the building was originally used to house large machinery associated with local agriculture, but this is unconfirmed based on available research.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP1. Unknown

***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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. Overview facing northeast.
March 28, 2022.

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1915
Report cited in *P11; materials assessment; and
Historic aerials 1932, 1952 (HistoricAerials.com)

***P7. Owner and Address:**
Kathy and Robert Nelson
4040 Manly Road

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** May 3, 2022

***P10. Survey Type:** (Describe) Intensive, pedestrian right-of-way

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

***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):

***P3a. Description:** (continued from page 1)

Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

Photo 2. Building 11 (left), view facing northwest (Historical Marker Database 2011).

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

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code | Reviewer | Date

Page 1 of 2 ***Resource Name or #:** Ruin 2 (Willow Springs Village, 15-000129)

P1. Other Identifier: Willow Springs Ruin 2, unidentified masonry ruin

***P2. Location:** ☒ **Not for Publication** ☐ **Unrestricted**

***a. County:** Kern **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Willow Springs **Date** 1965 **T** 9N **R** 13W ; **Sec** 07; 18 **S.B.B.M.**

c. Address 4040 Manly Road City Rosamond Zip 93560

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

e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) Approximately 500 feet East of Manly Road and .27-mile north of the intersection of Truman and Manly roads.

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

An unidentified masonry ruin (Willow Springs Ruin 2) is west of Manly Road. The ruin is difficult to see from the right-of-way but appears to be of fieldstone construction with at least half of two walls, the north and east façades, remaining. The original use of the structure is unknown based on available data. PaleoWest worked conservatively with the assumption that the building is extant and a contributor to the proposed Willow Springs Village Historic District as necessitated by a current project. However, more research to determine the original use of the resource is recommended and may change the contributing status of the ruin in the future. Historic context and a site sketch map identifying the subject building are included in the updated DPR record of Willow Springs Village.

***P3b. Resource Attributes:** (List attributes and codes) AH2. Foundations/structure pads, HP1. Unknown

***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.)

P5b. Description of Photo: (view, date, accession #)
Photo 1. View toward ruin (left) and Willow Springs village facing northeast from approximately 850 feet southwest near burial site (15-003560). April 2022.

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
Report cited in *P11; Historic aerials, NETROnline (HistoricAerials.com)

***P7. Owner and Address:**
Kathy and Robert Nelson
4040 Manly Road, Rosamond, California 93560

***P8. Recorded by:** (Name, affiliation, and address)
Lisa C. Demarais, M.A.
Evan Mills, M.A., RPA
PaleoWest, LLC.
571 S. Ivy Avenue, Monrovia, CA 91016

***P9. Date Recorded:** May 3, 2022

***P10. Survey Type:** (Describe) Pedestrian reconnaissance; desktop

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

2022 PaleoWest, LLC. *Historic Resources Evaluation Report, Addendum to: Cultural Resources Technical Report for the Hydrostor A-CAES Project, Kern County, California* (2021). Prepared for Golder Associates.

***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):

Photo 2. Overview facing northwest from Manly Road (Google Earth 2011).

ATTACHMENT DR139-1

HARP Files for Construction
{Submitted using CEC Kiteworks}

ATTACHMENT DR139-2

HARP Files for Operation
{Submitted using CEC Kiteworks}

ATTACHMENT DR141-1

Resubmitted Att DA5.1-2 - Appendix 5.9F_Modeling Files_UPDATED {Submitted using CEC Kiteworks}

ATTACHMENT DR144-1

Additional Information to Support VMT Information

Appendix N

Traffic Investigation for Proposed BigBeau Solar Project

ESA

RUETTGERS & SCHULER CIVIL ENGINEERS

1800 30th Street, Suite 260
Bakersfield, California 93301
Phone (661) 327-1969
Fax (661) 327-1993

July 1, 2019

372-10

Electronic Mail & U.S. Mail

Mr. Chad Beckstrom
Project Manager, ICF
49 Discovery, Suite 250
Irvine, CA 92618

REF: Traffic Investigation for Proposed BigBeau Solar Project in Southern Kern County, CA

Dear Mr. Beckstrom:

The purpose of this letter is to evaluate potential traffic impacts resulting from the construction and operation of a solar energy and battery storage project (the Project) proposed by BigBeau Solar, EDF Renewables (EDFR), in unincorporated Kern County, near Rosamond California. This evaluation includes an evaluation of the proposed project trip generation for both construction and operation phases, a description of the proposed trip distribution for the anticipated construction traffic, an analysis of roadway and intersection capacities near the Project, as well as an investigation of the average tip length, or average vehicle miles traveled (VMT) for construction traffic accessing the Project.

The Project is a solar energy generation facility and battery storage that employs photovoltaic (PV) panels that absorb sunlight and directly produce electricity without use of heat transfer fluid or cooling water. The facility will operate year-round, producing and storing electric power during daylight hours. Construction of the facility could begin in Q4 2020.

The BigBeau Solar Project, sited on private land and one State land parcel is located in southern Kern County, California, approximately 12 miles south of State Route 58 and approximately 29 miles east of Interstate 5 (see Figures 1 and 2 for Vicinity and Location maps). The Antelope Valley Freeway (SR 14) is approximately nine miles to the east and State Route 138 (West Avenue D) is approximately 8 miles to the south of the site. The proposed project site is generally bound by Avenue of the Stars to the south, the intersection of 125th Street and Champagne Avenue to the north, 135th Street West to the west, and 105th Street West to the east.

The proposed project would produce up to 128 megawatts (MW) (alternating current or "AC") of solar photovoltaic capacity derived from fixed-tilt or tracker technology, and up to 60 MW of

battery storage. The proposed project includes solar development with associated PV panels; inverters; converters; generators; foundations; transformers; preferred and alternative generation-tie (gen-tie) routes to the Valentine, Soleil, and Rose Meadow Substations; laydown yards; a meteorological tower; microwave/ communication tower; and onsite O&M facility; a substation; and a temporary concrete batch plant.

EXISTING, BUILD YEAR, & CUMULATIVE TRAFFIC

Existing AM and PM peak hour turning movement volumes were field measured at the study intersections in December 2018 (see Figure 3 attached):

1. Hamilton Road & Tehachapi Willow Springs Road
2. 170th St W & Rosamond Boulevard
3. 130th St W & Rosamond Boulevard
4. 140th St & Rosamond Blvd
5. 90th St W & Rosamond Boulevard
6. State Route 14 SB Ramps & Rosamond Boulevard
7. State Route 14 NB Ramps & Rosamond Boulevard

The existing volumes were projected out to the year 2021 using a 2% growth rate in order to analyze traffic for the build year scenario.

A list of cumulative (on going) projects in the vicinity of the BigBeau project site was provided by the Kern County Planning Department (see attachments). Based on the locations and types of projects provided in the cumulative list, resultant peak hour turning movement volumes were added to the 2021 volumes to account for these cumulative impacts. The 2021 cumulative traffic volumes are shown in Figure 8, attached.

PROJECT TRIP GENERATION AND DISTRIBUTION

Construction Phase

Traffic generated during the construction phase will include personnel vehicles and heavy trucks. These vehicles will access the project by way of 140th Street West, 130th Street West, Avenue of the Stars, 105th Street West and or Hamilton Road. Separate analyses were conducted, using 100% of the project traffic at each of these access points in order to capture the highest impact the project may have on the adjacent roadway system (see Figures 4-6, attached). An additional analysis was also conducted for the intersection of 90th Street W, in order to evaluate operations that include W Avenue A as a potential project traffic route to State Route 14 (see Figure 7, attached). For typical operations, it is anticipated that project traffic will use multiple access points. Trip generation estimates for construction traffic utilizing these roadways are presented in Table 1.

During the peak of construction operations, it is anticipated that an average of 220 and a maximum of 495 workers will be on site daily. For purposes of this investigation, the conservative

assumption was used that 495 workers would be on site per day and each worker will commute to and from the site in individual vehicles. This assumption results in 990 daily personal vehicle trips (combined inbound and outbound). Should there be any workers that carpool, the number would be reduced and therefore reduce impacts.

Following the Highway Capacity Manual guidelines, heavy truck volumes were converted to passenger-car equivalent volumes using a factor of 1.7 trips per day to account for the effective reduction in free-flow speed (mean traffic speed under low-flow conditions) caused by the presence of heavy vehicles in the traffic flow. Heavy truck trips were estimated to be 79 per day based on assumptions regarding daily deliveries of materials, equipment, and water anticipated for construction. It was assumed that the trucks would enter the facility throughout the day, and therefore only a portion of the trucks are shown in the peak AM and PM hours.

Traffic accessing the project is anticipated to come mainly from surrounding population centers such as Rosamond, Palmdale, Mojave, Lancaster, and Tehachapi. Traffic from Tehachapi and to the west, is anticipated to access the project using Tehachapi Willow Springs Road. Traffic coming from northeast and south of the project is anticipated to access the project using State Route 14. Project trip distributions utilizing each of the access points are shown in Figures 4-6 and build year plus project volumes are shown in Figures 9-12, attached.

Table 1
Project Trip Generation – Construction Phase

			AM Peak Hour Trips		PM Peak Hour Trips	
Traffic Type	Variable	ADT	In Trips	Out Trips	In Trips	Out Trips
Personnel	495 (peak per day)	990	100% 495	0% 0	0% 0	100% 495
Heavy Trucks	79 (peak per day)	269[1]	100% 22	0% 0	0% 0	100% 22
	Total Trips	1,259	517	0	0	517

[1]Represents passenger-car equivalent for heavy truck traffic using a factor of 1.7

Construction Access

Access to the project staging areas is proposed along three routes: Hamilton Road to 105th Street West, 130th Street West, and 140th Street West to Avenue of the Stars and Hamilton Road. From the staging areas, it will be possible for construction personnel to access the various areas of the property by way of internal maintenance roads that are proposed to be located throughout the site. The project will be required to have a fire service road within the perimeter fence that will be 20 feet wide with 10-foot shoulders. Other internal roads within the fenced area and between the panels will be 10 feet wide without shoulders.

Operation & Maintenance Phase

Upon completion of the construction and testing phases, the proposed Project would be operated by up to 12 full-time staff from the onsite O&M facility. O&M staff will visit various parts of the site for inspection, security, maintenance, and system monitoring purposes.

The Project will also conduct a bi-annual washing of all solar panels. This will typically be carried out over a period of 10 days, and include approximately 12 personnel and 33 heavy trucks to deliver the required water for the panel washing activities. Heavy truck trips will make deliveries throughout the work day, and therefore only a portion of them will enter and exit the Project during peak hours, however, it is assumed that all full-time staff and cleaning crew personal will enter and exit the Project during the peak hours. Trip generation estimates for traffic accessing the Project site are presented in Table 2. The panel washing scenario was used as the highest generator of traffic during the operation and maintenance phase and therefore provides a conservative trip generation estimate.

Table 2
Project Trip Generation – Operation & Maintenance Phase

			AM Peak Hour Trips		PM Peak Hour Trips	
Traffic Type	Variable	ADT	In Trips	Out Trips	In Trips	Out Trips
Personnel	12 (peak per day)	24	100% 12[1]	0% 0	0% 0	100% 12[1]
Heavy Trucks	33 (peak per day)	113[1]	100% 9	0% 0	0% 0	100% 9
	Total Trips	137	21	0	0	21

[1]Represents passenger-car equivalent for heavy truck traffic using a factor of 1.7.

IMPACT ANALYSIS - CONSTRUCTION PHASE

Intersection LOS

An analysis was done to determine the level of service of the intersections during the construction phase of the Project. The guidelines in the Caltrans publication *Guide for the Preparation of Traffic Impact Studies*, dated December 2002, states that a facility is required to be analyzed when a project will generate more than 100 peak hour trips at a facility operating above a LOS C. While the project does create more than 100 peak hour trips at some of the major intersections being studied, the scope also took into account the routes used to access the project, by personnel and heavy trucks, and the intersections where the project traffic had the highest volumes.

Also included in the level of service analysis is the cumulative traffic generated by other projects, as provided by Kern County, within a six-mile radius of the project. Based on a review of the

project's location, and the surrounding roadway network, it was determined that project traffic generated by other projects further then six miles from the BigBeau site would not have a significant impact on the study intersections and roadway segments.

Tables 3 and 4 show the results of the analysis for project related construction traffic as well as the cumulative analysis of other projects within the six-mile buffer. Attached is a list provided by the county of approved, but not yet constructed, solar and wind energy projects within the buffer zone. Each of the listed projects was evaluated for its potential to contribute incrementally to the traffic impacts associated with the proposed BigBeau Solar project in the event that construction might take place concurrently.

As shown in Table 2, the operation and maintenance phase of the Project will generate considerably less traffic than the construction phase. Therefore, using the same criteria as the construction phase to determine the need to study roadway facilities, no further analysis is required for the operational phase of the Project.

Table 3
Intersection Level of Service
AM Peak Hour

#	Intersection	Control Type	2018	2021[1]	2021+ Project 140th	2021+ Project 130th	2021+ Project Hamilton
1	90th St West/Tehachapi Willow Springs Rd & Hamilton Rd	EB	A	A	A	A	B
2	170th St & Rosamond Blvd	AWSC	A	A	A	A	A
3	140th St & Rosamond Blvd	SB	A	A	A	A	A
4	130th St & Rosamond Blvd	SB	A	A	B	B	A
5	90th St West & Rosamond Blvd	AWSC	A	A	B	B	B
5	90th St West & Rosamond Blvd (Using alternate route W Ave A via 90Th Ave)	AWSC	-	-	-	-	B
6	SR 14 SB Off Ramp & Rosamond Blvd	Signal	B	B	B	B	B
7	SR 14 NB Off Ramp & Rosamond Blvd	Signal	A	B	B	B	B

*All future scenarios include cumulative traffic.
[1]Projected from 2018 data using a 2% growth rate.

Table 4
Intersection Level of Service
PM Peak Hour

#	Intersection	Control Type	2018	2021[1]	2021+ Project 140th	2021+ Project 130th	2021+ Project Hamilton
1	90th St West/Tehachapi Willow Springs Rd & Hamilton Rd	EB	A	A	A	A	B
2	170th St & Rosamond Blvd	AWSC	A	A	A	A	A
3	140th St & Rosamond Blvd	SB	A	A	B	A	A
4	130th St & Rosamond Blvd	SB	A	A	A	B	A
5	90th St West & Rosamond Blvd	AWSC	A	A	C	C	C
5	90th St West & Rosamond Blvd (Using alternate route W Ave A via 90Th Ave)	AWSC	-	-	-	-	C
6	SR 14 SB Off Ramp & Rosamond Blvd	Signal	A	A	B	B	B
7	SR 14 NB Off Ramp & Rosamond Blvd	Signal	B	B	C	C	C

*All future scenarios include cumulative traffic.
[1]Projected from 2018 data using a 2% growth rate.

As can be seen in the above Level of Service tables, all intersections currently operate at acceptable levels of service, and will continue to do so with the addition of Project construction traffic and cumulative traffic through the build year.

Roadway Capacity

Tables 5 and 6 contain roadway Average Daily Traffic (ADT) and analysis results for roadway segments in the vicinity of the Project. A volume-to-capacity ratio (v/c) of greater than 0.80 corresponds to a LOS of less than C, as defined in the Highway Capacity Manual. The same guidelines used for intersection analysis from the Caltrans guidelines were used to determine the scope of roadways to analyze. The volumes and analysis shown in Tables 5 and 6 include construction traffic only.

Table 5
Roadway ADT Volumes

Street	2018[1]	140th St Project ADT	130th St Project ADT	Hamilton Rd Project ADT	Cum[2] ADT	2021 Cum[2] ADT	140th St 2021 Cum+ Project ADT	130th St 2021 Cum+ Project ADT	Hamilton Rd 2021 Cum+ Project ADT
Tehachapi Willow Springs Rd: Hamilton Rd to Rosamond Blvd	2363	253	253	1007	155	2554	2807	2807	3561
Rosamond Blvd: 170th St W to 130th St W	2086	1259	253	253	163	2748	4007	3001	3001
Rosamond Blvd: 130th St W to 90th St W	2011	1007	1007	253	387	2619	3626	3626	2872
Rosamond Blvd: 90th St W - SR 14	5272	767	767	767	592	6204	6971	6971	6971

[1]2018 Data not availible, traffic grown out from most recent year avaliable.

[2]Cum = Other Project traffic added to future background volumes.

Table 6
Roadway Capacity Analysis

Street	Existing Capacity	v/c 2018	v/c Cum[1] 2021	140th Street v/c Cum[1] 2021+Proj	130th Street v/c Cum[1] 2021+Proj	Hamilton Rd v/c Cum[1] 2021+Proj
Tehachapi Willow Springs Rd: Hamilton Rd to Rosamond Blvd	15000	0.16	0.17	0.19	0.19	0.24
Rosamond Blvd: 170th St W to 130th St W	15000	0.14	0.18	0.27	0.20	0.20
Rosamond Blvd: 130th St W to 90th St W	15000	0.13	0.17	0.24	0.24	0.19
Rosamond Blvd: 90th St W - SR 14	15000	0.35	0.41	0.46	0.46	0.46

[1]Cum = Other Project traffic added to future background volumes.

All roadway segments within the scope of the study operate with acceptable levels of service in the existing year, and will continue to do so with the addition of cumulative and Project construction traffic in the build year.

IMPACT ANALYSIS – OPERATIONAL & MAINTENANCE PHASE

In accordance with Caltrans guidelines, a traffic impact analysis of study intersections and roadway segments is not required during the operational and maintenance phase, as the project will generate fewer than 100 peak hour trips during this phase. Also, the roadway segments utilized by the project currently operate above LOS C, and are anticipated to continue to do so with the addition of construction traffic, which is much higher than the project traffic generated during the operational and maintenance phase.

VEHICLE MILES TRAVELED (VMT) EVALUATION

In accordance with the California Environmental Quality Act (CEQA), an evaluation of the average vehicle miles traveled (VMT) for the project's construction traffic was conducted.

VMT data was obtained from the Kern Council Of Governments (KernCOG) in order to establish a baseline for daily vehicle miles traveled in the Rosamond area (see attached). KernCOG's data is estimated based on Select Zone Analyses conducted for the region for establishing traffic models of existing and future land development projects. Based on household and employment populations in the Rosamond area, as well as travel patterns throughout the region, KernCOG data has established that the average VMT per trip is 43.2 miles.

In order to establish the anticipated VMT profile for the BigBeau Solar Project, an investigation into the truck and personnel trips involved in the construction process was conducted. The primary factor involved in this evaluation is the location of the project site in relation to the surrounding population centers and points of origin for equipment, supplies and personnel.

Based on the information gathered, 50% of the construction personnel will be from the local population, which is considered to be the cities of Lancaster, Rosamond and Mojave. It is anticipated that approximately 30% of the remaining construction personnel will temporarily relocate to one of these areas for the duration of the project. The remaining 20% of the construction personnel will be considered non-local and are anticipated to come from the Bakersfield, Tehachapi and other areas outside of the Antelope Valley.

The average trip length for construction personnel travelling to the site from the surrounding population centers mentioned above was determined to be approximately 25 miles. The average trip length for trucks delivering water, materials and equipment from local and non-local sources was determined to be approximately 57 miles. The combined average trip length for all personnel and trucks resulted in an average trip length of 35 miles.

Operations and maintenance personnel will primarily travel to the site from local population centers, which results in a trip length of approximately 25 miles.

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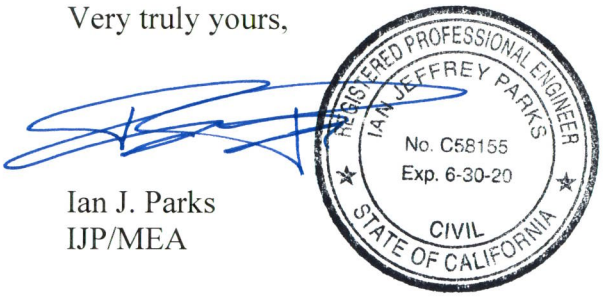
Based on CEQA Guideline Section 15064.3 subdivision (b), the project would create a less then significant transportation impact, because the project's VMT is less than the regional average. As previously mentioned, the regional average VMT established by KernCOG is 43.2 miles, and the average VMT of the BigBeau Solar Project is anticipated to be 36 miles for construction traffic and 28 miles for operations and maintenance. The project's average VMT is anticipated to bring down the regional average, and will not cause a significant transportation impact, during the construction or operations and maintenance phases.

CONCLUSION

Upon review of the Project and corresponding analysis it is concluded that the Project will not create any significant impacts to any of the intersections or roadways anticipated to be used for the Project during the operational, construction and maintenance phases. Therefore, the proposed Project will result in less-than-significant traffic impacts.

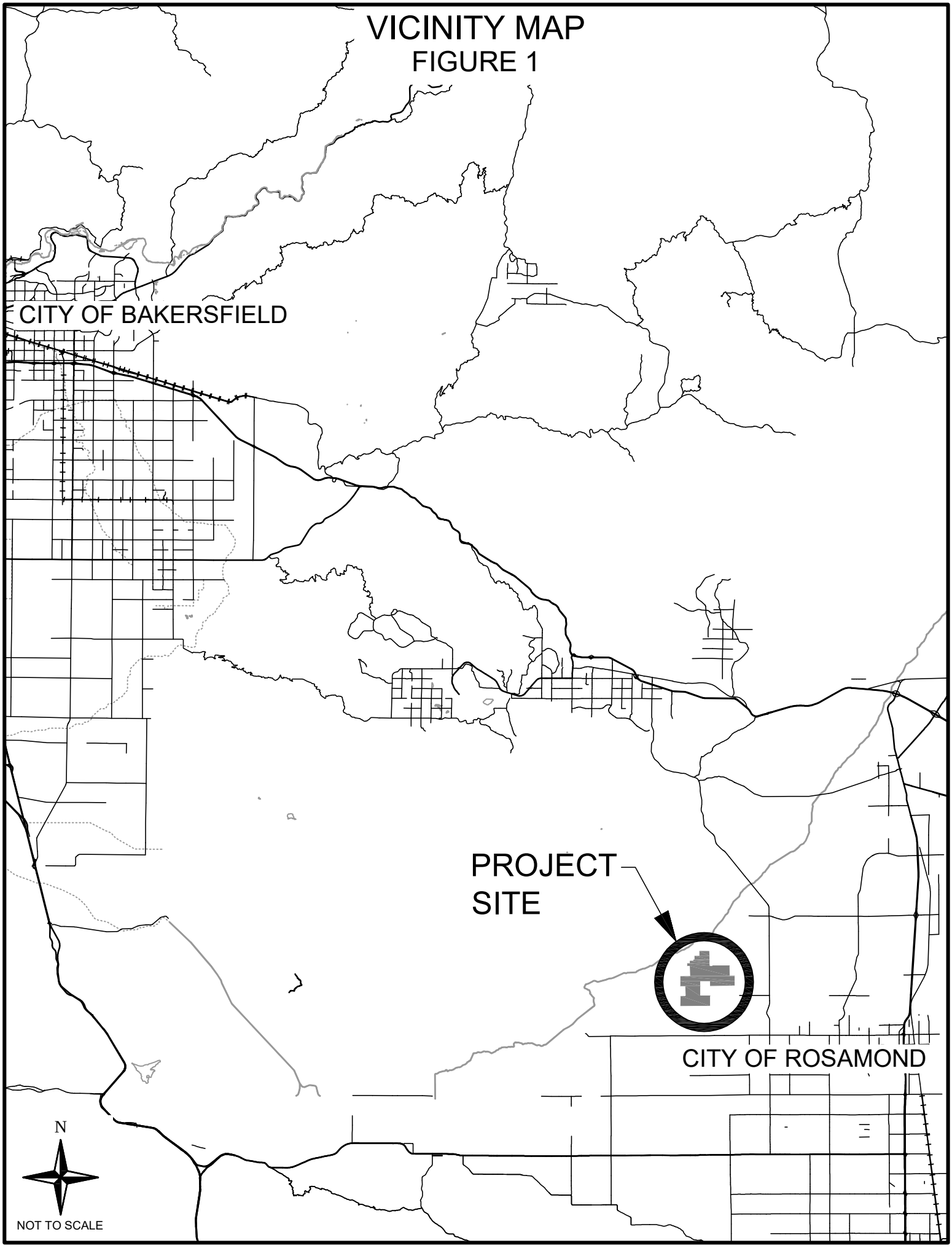
Please contact me should you have any questions.

Very truly yours,

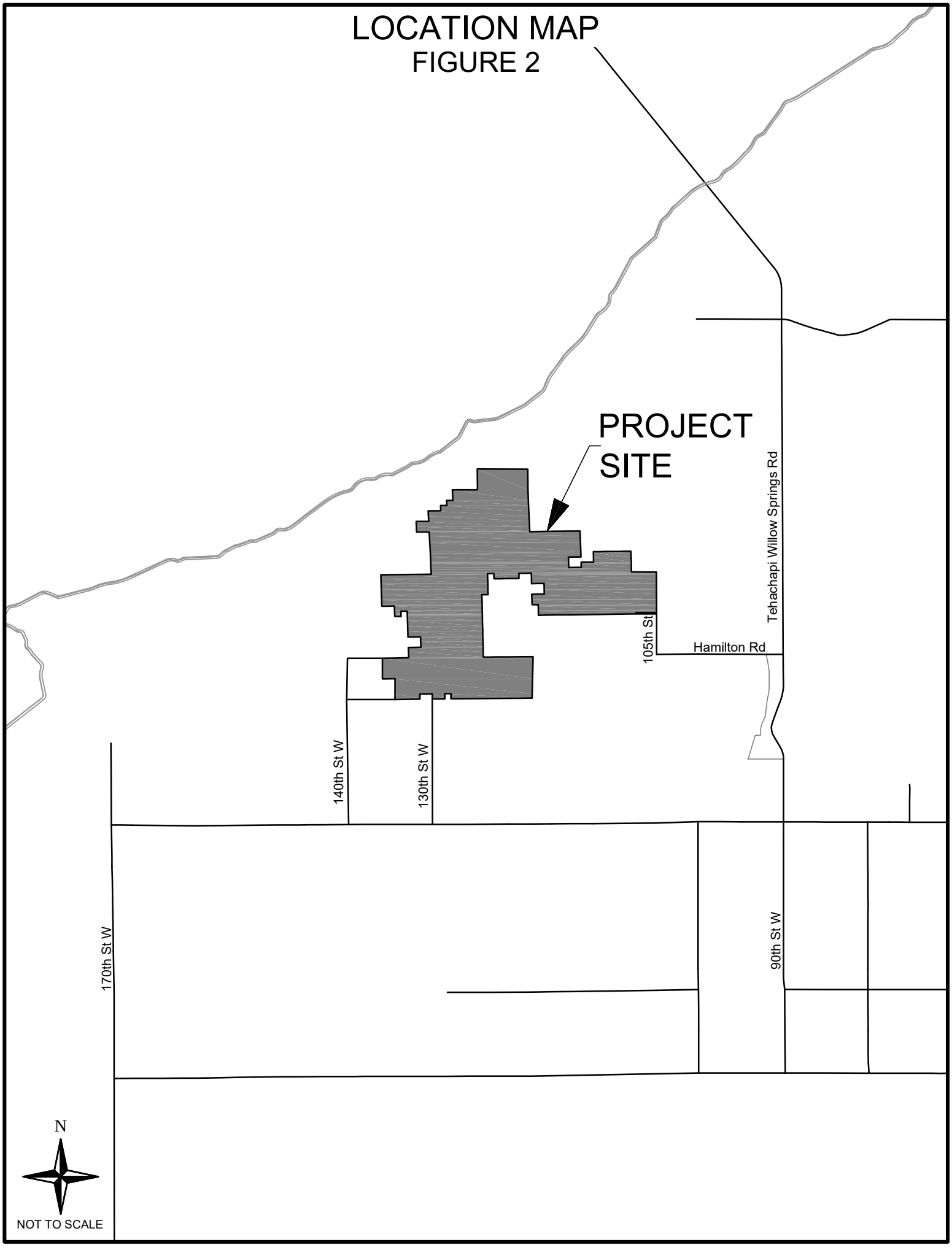


Ian J. Parks
IJP/MEA

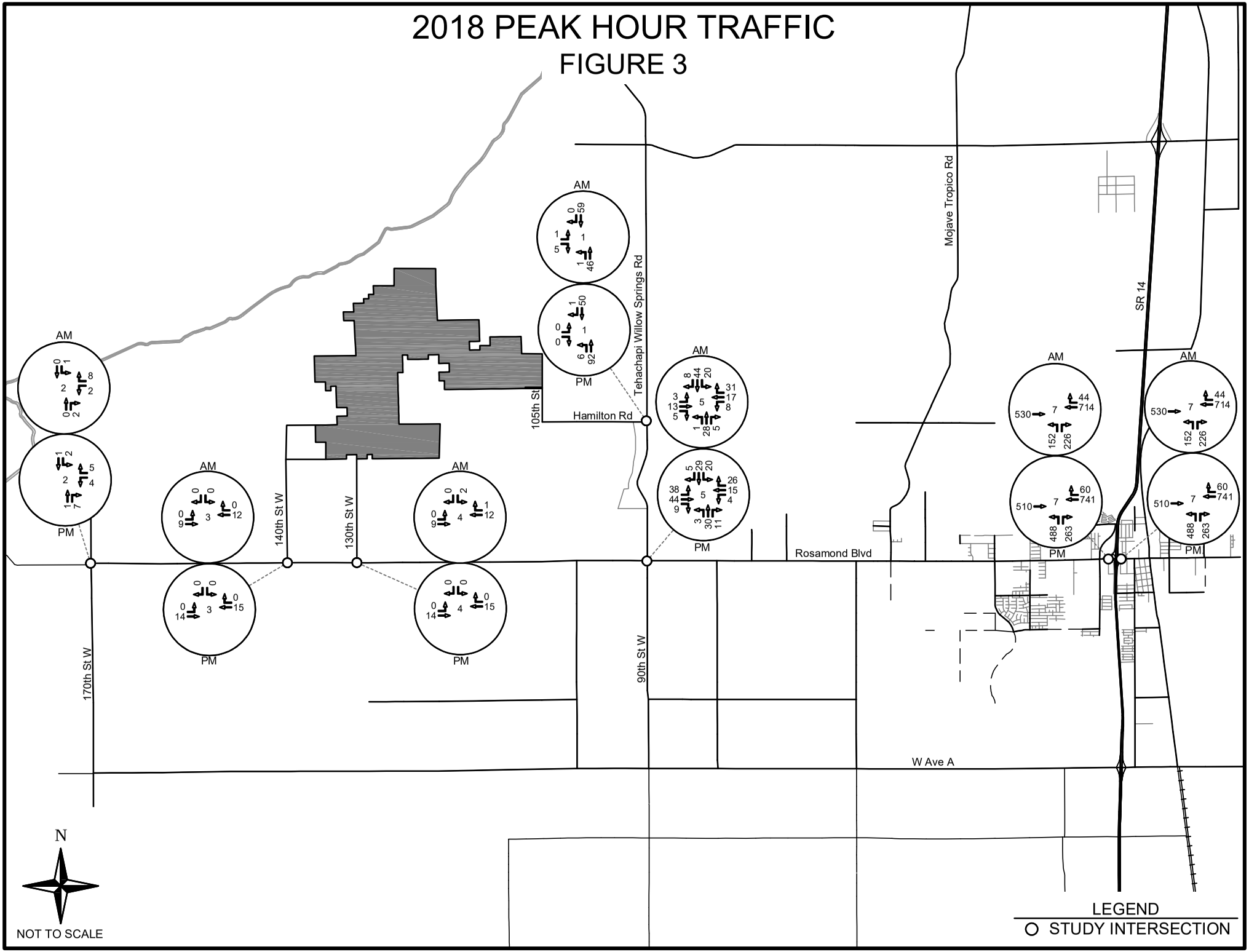
VICINITY MAP
FIGURE 1



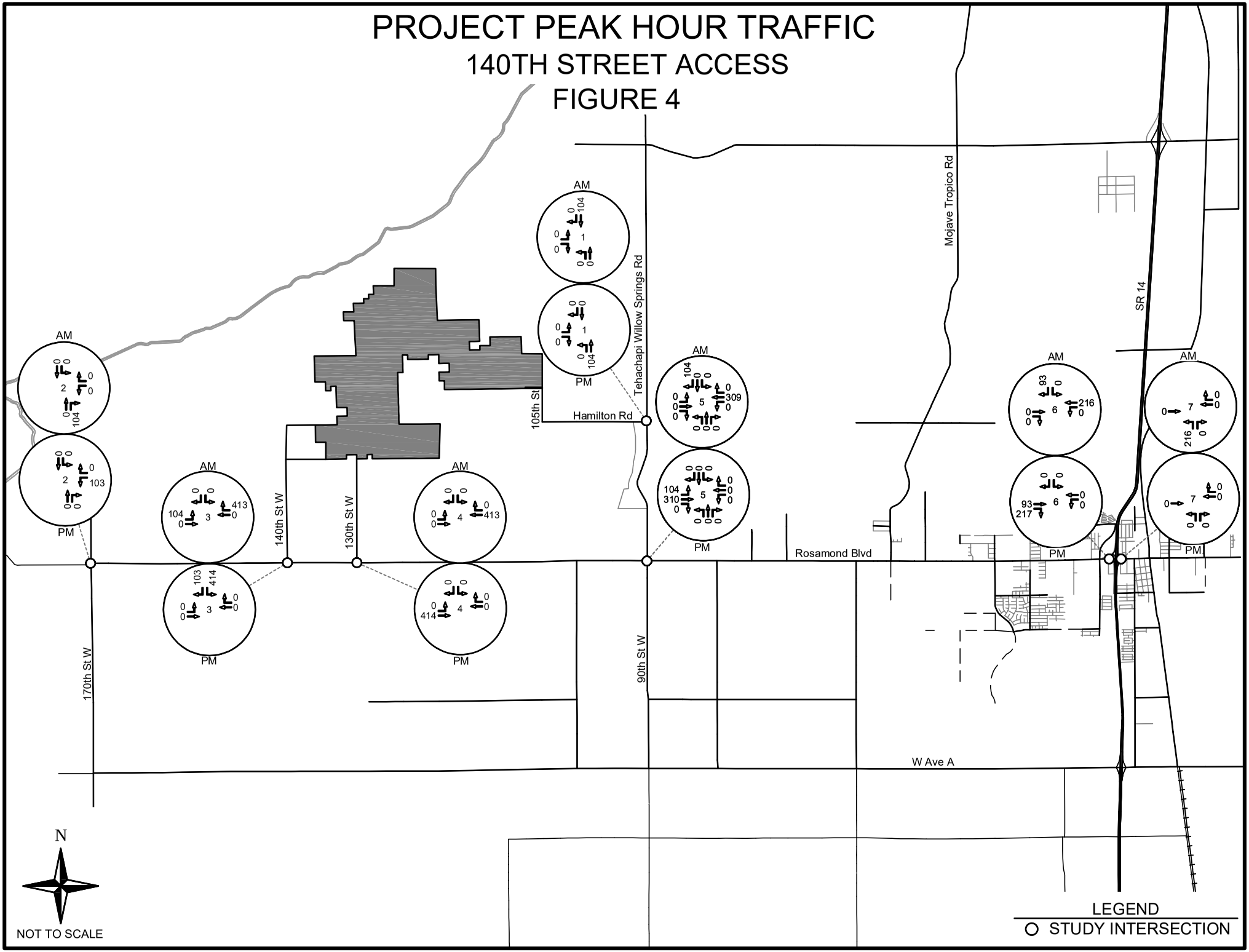
LOCATION MAP
FIGURE 2



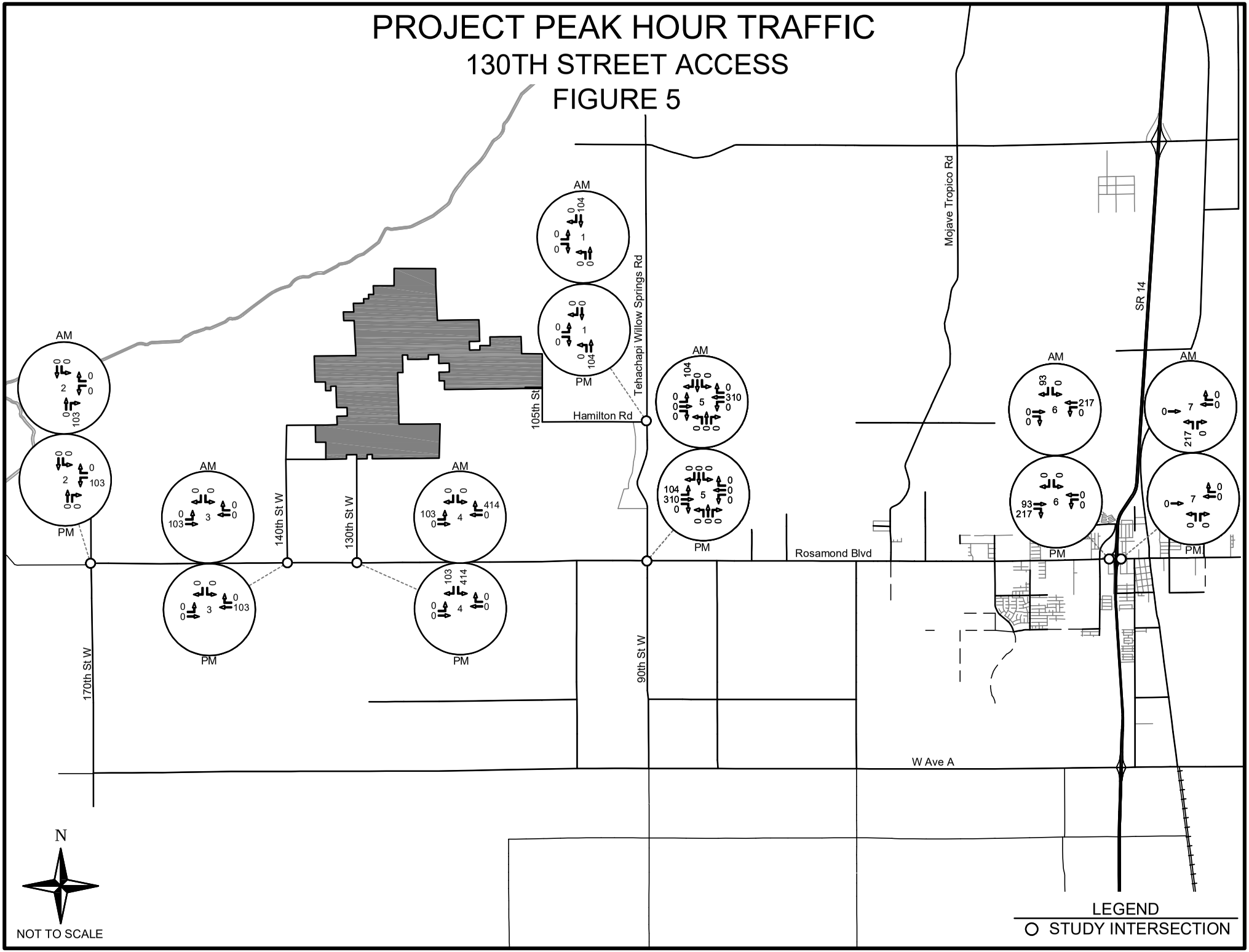
2018 PEAK HOUR TRAFFIC
FIGURE 3



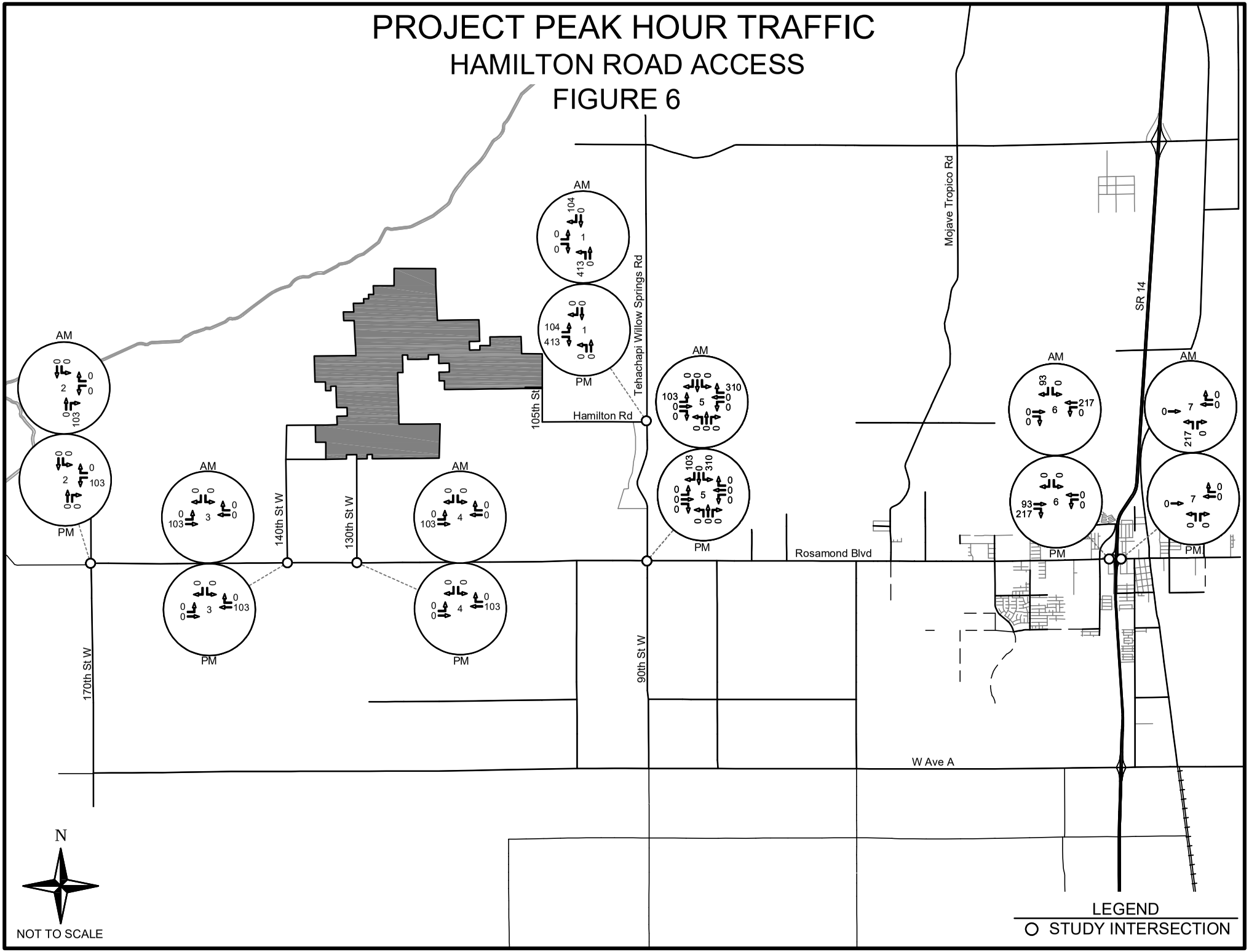
PROJECT PEAK HOUR TRAFFIC
140TH STREET ACCESS
FIGURE 4



PROJECT PEAK HOUR TRAFFIC
130TH STREET ACCESS
FIGURE 5



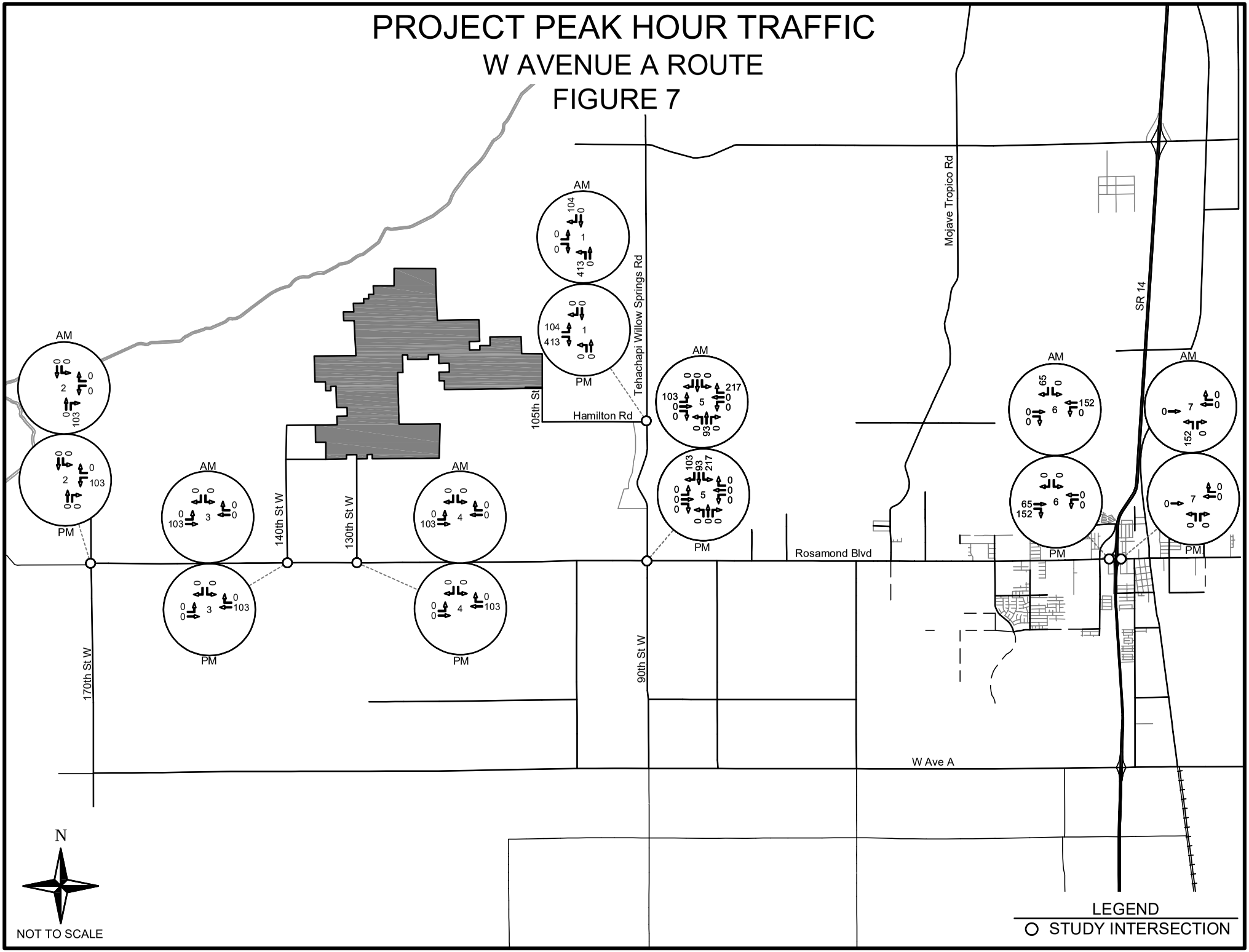
PROJECT PEAK HOUR TRAFFIC
HAMILTON ROAD ACCESS
FIGURE 6



PROJECT PEAK HOUR TRAFFIC

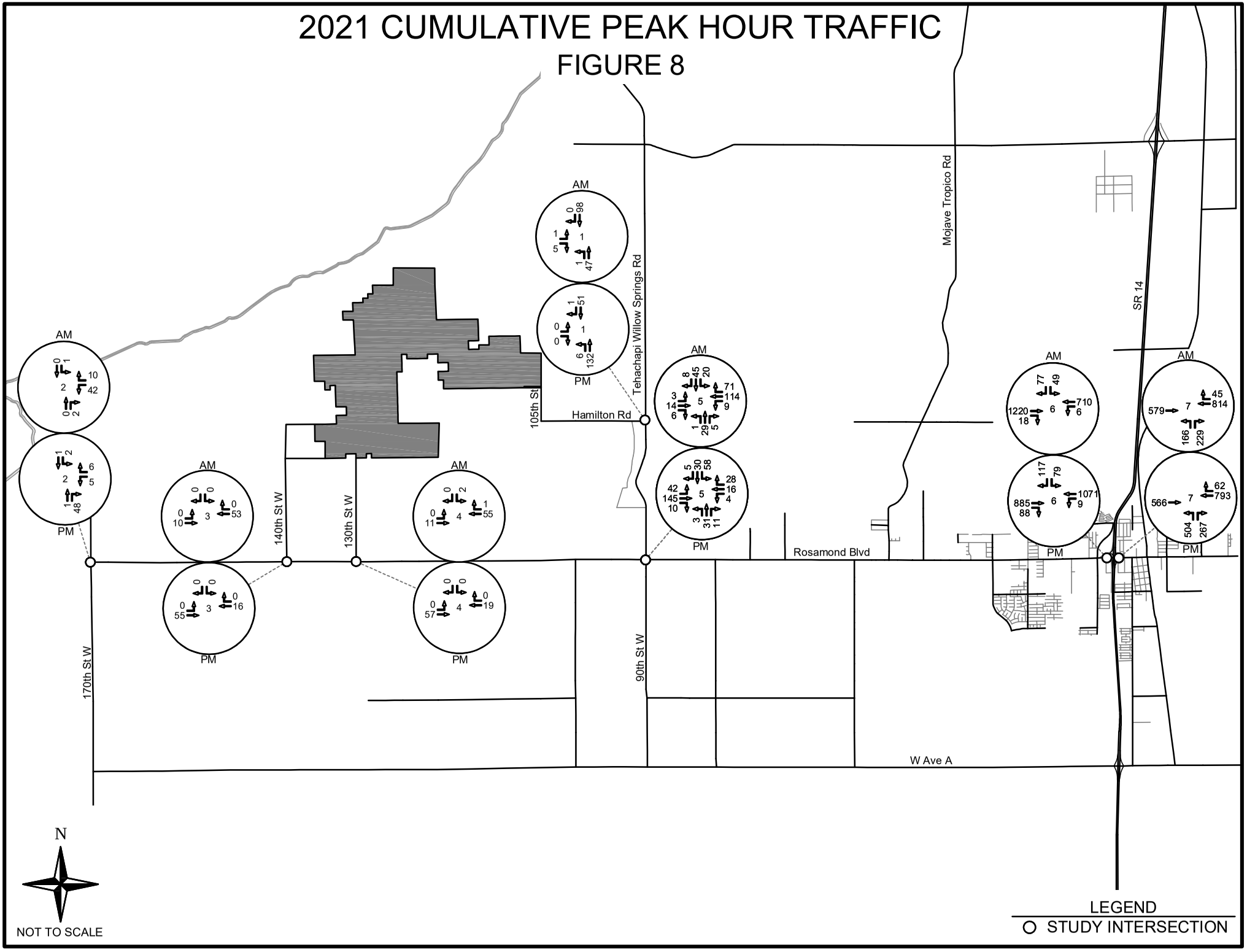
W AVENUE A ROUTE

FIGURE 7



2021 CUMULATIVE PEAK HOUR TRAFFIC

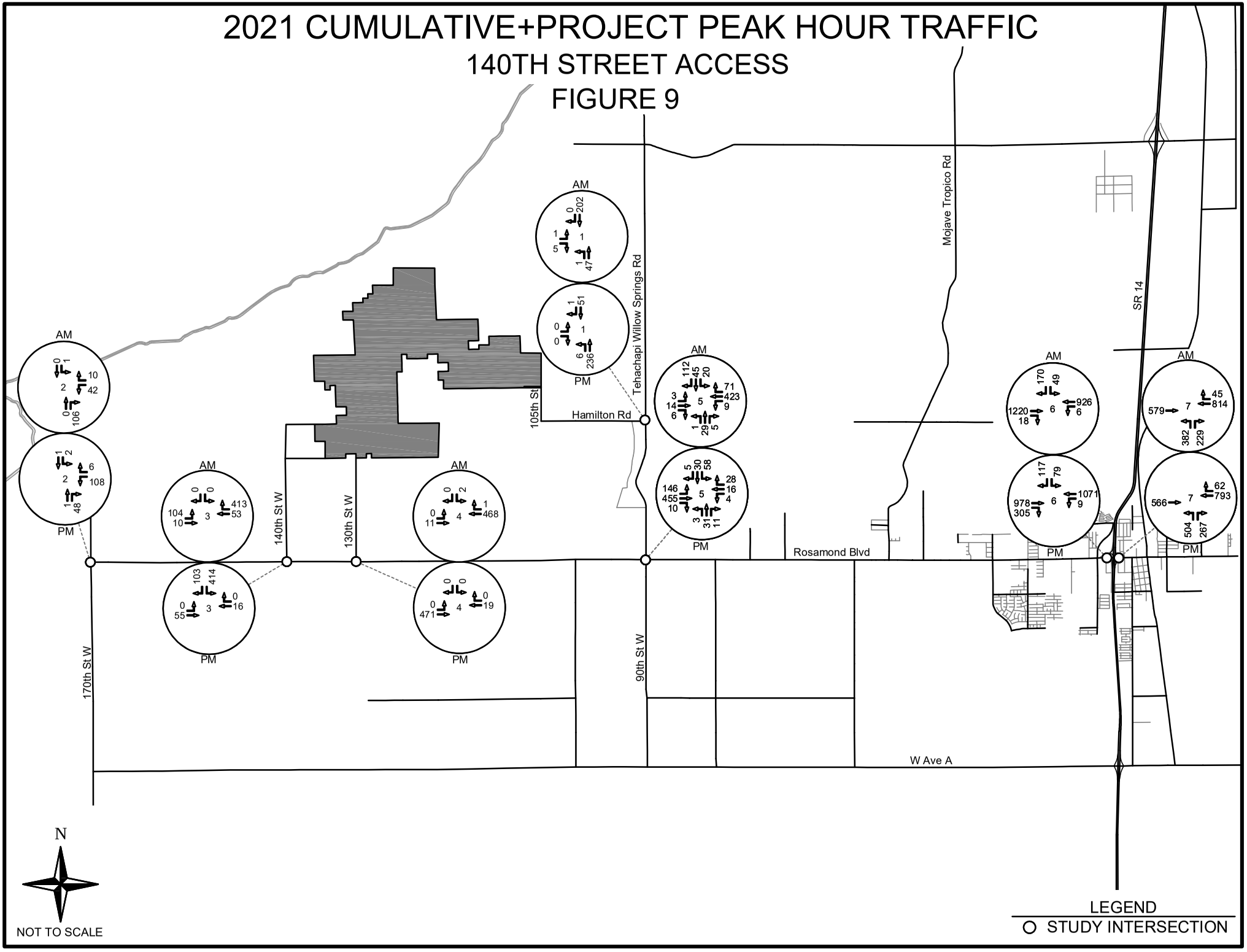
FIGURE 8



2021 CUMULATIVE+PROJECT PEAK HOUR TRAFFIC

140TH STREET ACCESS

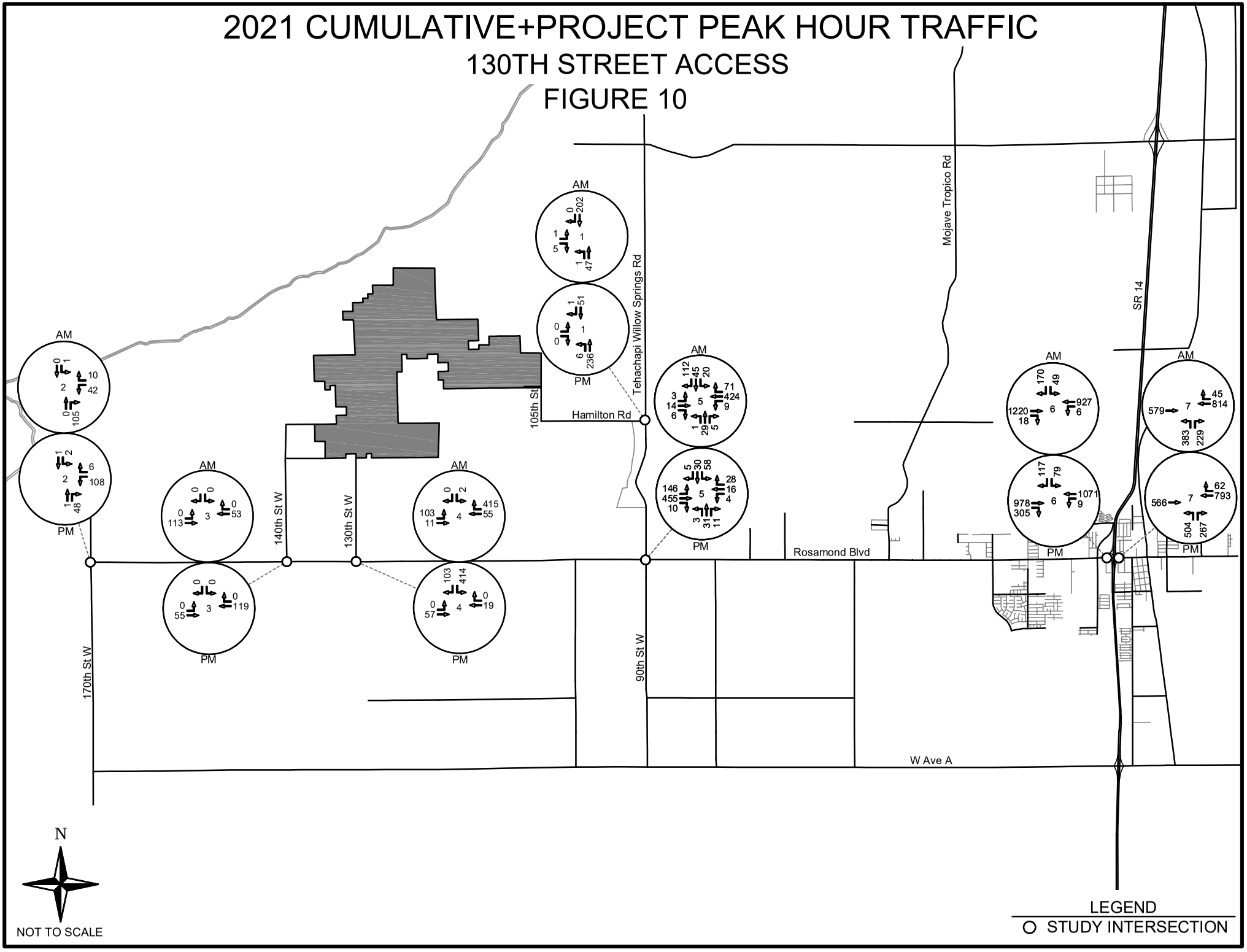
FIGURE 9



2021 CUMULATIVE+PROJECT PEAK HOUR TRAFFIC

130TH STREET ACCESS

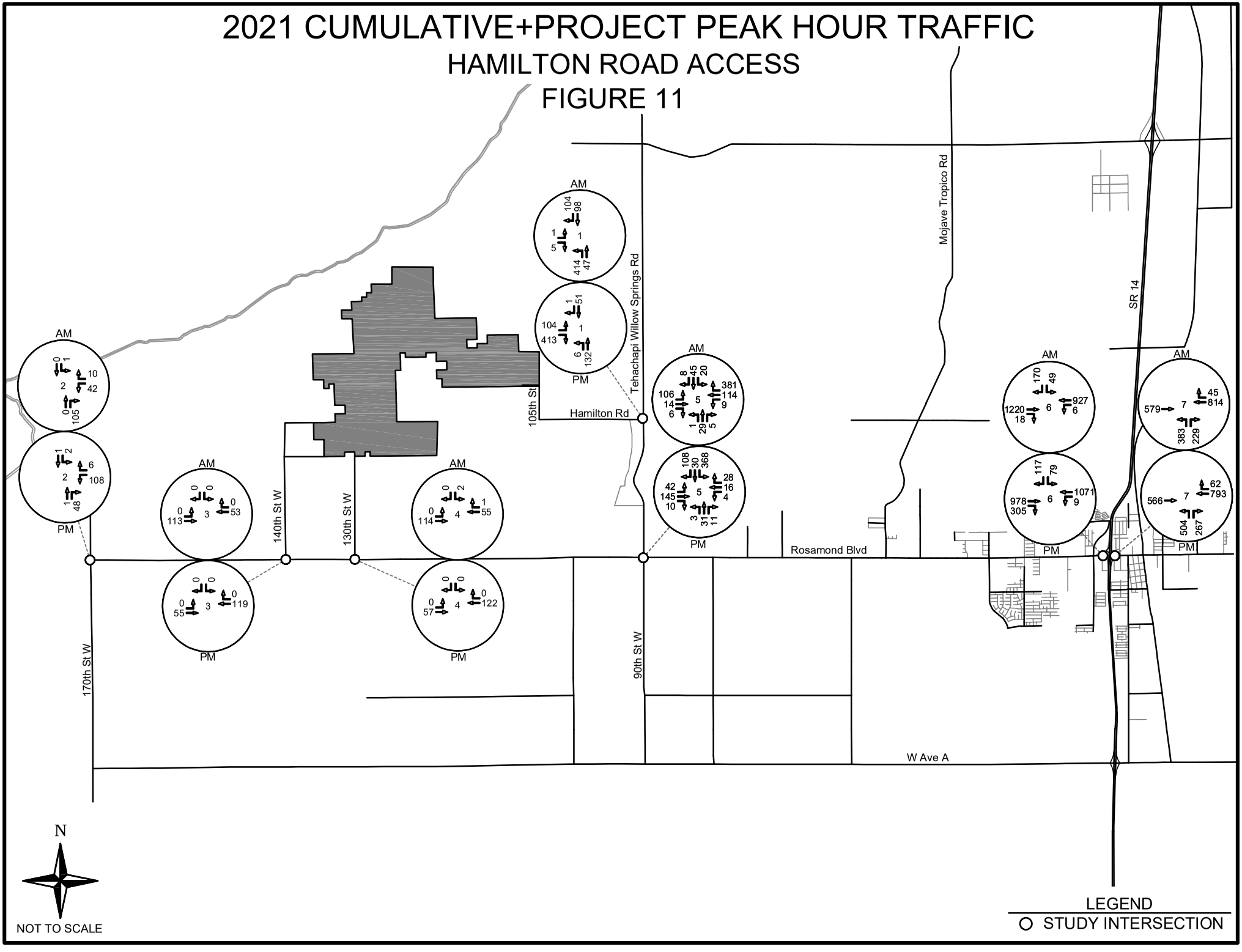
FIGURE 10



2021 CUMULATIVE+PROJECT PEAK HOUR TRAFFIC

HAMILTON ROAD ACCESS

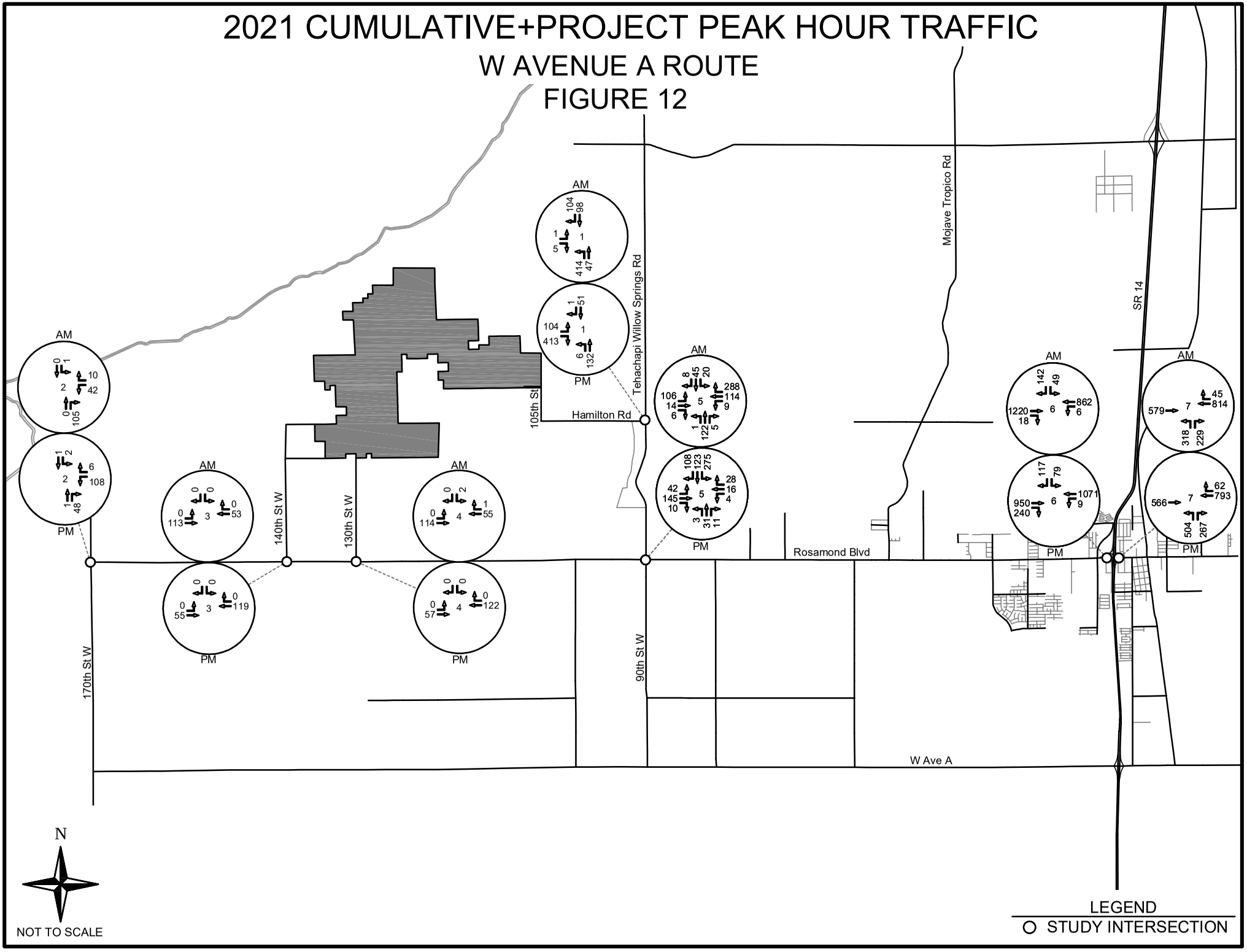
FIGURE 11



2021 CUMULATIVE+PROJECT PEAK HOUR TRAFFIC

W AVENUE A ROUTE

FIGURE 12



Big Beau Solar: 6-Mile Project List

CaseID	Name	ProjectLocation	Request	CaseType Code	MAP	SECTION	Township Range Section	APN	Status	Acreage
11942	ALLYN, GREG BY DON WARD	NWC of Kingbird Ave & 100th St W	ZC from A to E (2 1/2)	ZCC 30	232	36	91/43-6	359-032-37	Approved	, 20.00
15014 15274	Apollo Solar Project by Lendlease Energy Dev.	SEC of Backus Rd & 100th St. W. NEC or Backus Road & 100th St. W.	CUP for Solar Project (Syracuse Site) CUP for solar project (Sunbow Site). APN 346-131-12, 13, 14, 15, 16, 17, 18 & 19)	CUP 39 CUP 37	214	19	10/13-19	346-022-03	In Process	,165.87
15097	AT&T (Andrew Hollihan) by Vance Pomeroy	NW crn Gaskell Rd & 80th St West	70-foot monopine, Wireless Communication Facility	CUP	231			374-364-06	Approved, Permit Issued	, 0.00
15174	AT&T by Vance Pomeroy	Gibbs Ave at Joshua Ln., Rosamond	Allow an 68'-6" tall monopine wireless communication facility with associated equipment shelter	CUP 42	214	22		345-142-21	Approved, Permit Issued	, 0.00
15189	AT&T by Vance Pomeroy	Sweetser Rd at Tobacco Rd, Rosamond	Allow a 70-foot tall monopine wireless communication facility with associated equipment shelter	CUP	231			252-231-03	Approved, Permit not issued	, 0.00
15312	AT&T Mobility c/o Eukon Group	12764 Holiday Avenue, Rosamond CA	CUP for a new wireless telecom facility.	CUP	232		91/42-7	359-402-01	Approved, Permit Issued	, 0.00
14242	Aurora Lopez	76th St and Willow Ave	CUP for MH exceeding age as an additional single family dwelling	CUP 4	231	28	09/13-28	374-220-19	Approved, Permit Issued	, 4.96
12792	BELL, JOHN	8902 FELSITE AVE	TO A FPS	ZCC 2	231	17	09/13-17	252-331-20	Approved	, 5.00
11111	BLUE EAGLE LODE MINING COMPANY	7 miles north of Willow Springs	RECLAMATION PLAN FOR UNDERGROUND MINE	CUP 32	214	17	10/13-17	346-021-04	Approved, Opperations have not commenced	, 1.75
11118 11115	BLUE EAGLE LODE MINING COMPANY	TROPICO	ORE CRUSHING & PROCESSING ZC TO NR	CUP ZCC	231	14	09/13-14	252-100-17 252-100-18	Approved, Opperations have not commenced	, 99.20 ,179.90

11113	BLUE EAGLE LODE MINING COMPANY	TROPICO	ZC TO NR	ZCC	231	10	09/13-10	252-070-17	Approved, Opperations have not commenced	, 35.68
11116	BLUE EAGLE LODE MINING COMPANY	TROPICO	ZC TO NR	ZCC	231	15	09/13-15	252-100-01	Approved, Opperations have not commenced	, 1.72
11117	BLUE EAGLE LODE MINING COMPANY	TROPICO	ZC TO NR	ZCC	231	11	09/13-11	252-070-10	Approved, Opperations have not commenced	, 56.39
15020	Camino Solar Project by Aurora Solar, LLC	N. 175th St West. (Manzana Wind)	CUP for proposed 44 MW Solar Facility on public & private land	CUP	216			476-052-09	In Process	,339.00
11061	COPE, THOMAS	14837 AVENUE "A"	MOBILEHOME W/O STANDARDS	CUP 22	232		09/14-32	359-161-07	Approved, Permit Issued	, 7.50
14578	EDF Renewable Energy/ Catalina Solar 2		CUP for new 15 meter microwave tower	CUP 11	215		10/14-27	474-154-21	Approved, Permit Issued	, 20.45
14834	EDF Renewable Energy/BAR 13 Solar	125th Street W. Champagne Ave	Installation of microwave/communication tower with associated uses within a fenced yard	CUP	215		10/14-	474-131-03	Approved	, 38.58
12423	EWING, JAMES	82ND STREET WEST	ZC TO A SF Dwelling	ZCC 1	231	20	09/13-20	374-031-21	Approved, Permit Issued	, 2.50
12206	GOLDEN QUEEN MINING CO., INC.	SOLEDAD MOUNTAIN	MODIFICATION OF SURFACE MINING & RECLAMATION PLAN; APPEAL 3, MAP 196	CUP 22	214		10/13-01	342-052-25	Fully Operational	, 0.00
12596	HOLLIDAY ROCK COMPANY, INC	NWC TROTTER RD & 70TH ST WEST	MODIFICATION OF CUP	CUP 20	214		10/13-10	345-100-02	Operational	,420.00
11384	HOLLIS, JERALD	80TH STREET WEST	ZC TO M-1; REVISED 1/7/07 TO A Mobile home and residential structures	ZCC 1	231	17	09/13-17	252-332-11	Approved	, 2.50

13268 13445	INNOVATIVE INC/STEPHEN TIMM	80TH ST. WEST/NORTH OF ROSAMOND BL	TO M-1 PD 5,000 sf office with 20,000 sf contractors storage yard for concrete contractor	ZCC 9	231	16	09/13-16	252-141-15	Approved	, 5.00
15253	IP Solar Company	SEC of MoConnell & 105th	CUP for Solar Facility	CUP	215	36	10/14-36	474-120-04	Application Phase	, 40.00
12312	JONES, JIMMY	SO OF ROSAMOND BVLD @ 57TH ST WEST	MH NOT MEETING AGE & ARCHI	CUP 4	231	23	09/13-23	375-341-41	Approved, Permit Issued	, 2.03
15386	Tim Jones	4766 - 45th Street West, Rosamond	To allow a manufactured home exceeding 10 years	CUP	231			252-480-05	Approved, Permit Issued	, 0.00
13767 13768 13769	KINGBIRD SOLAR LLC	AVENUE A AND 170TH ST WEST	SOLAR PV - 40 MW REPRESENTATIVE: KENZIE RIESSELMAN	SPA ZCC CUP	233	35	09/15-35	261-196-07	Approved, Operational	,324.00
12531	KURANI, NALINKANT	9808 55TH ST. WEST, MOJAVE	MH NOT MEETING AGE	CUP 29	214		10/13-14	345-111-09	Approved, Permit Issued	, 5.00
14081	Landmark Surveying	2927 125th Street West	80' Communications Tower	CUP 29	232			359-081-09	Approved, Permit Issued	, 0.00
15277 15275 15276	Lendlease Energy Development	SEC of Backus Rd. & 100th St. W.	concrete batch plant (for use in conjunction with construction of Apollo solar project)	GPA 5 CUP 40 CUP 41	214	19	10/13-19	346-022-03	In Process	
10863 12994	LOEFFLER, GREGORY	2890 62ND ST WEST	ZC TO M-1 PD Truck Storage yard or equipment rental yard	ZCC 2 CUP 7	231	22		375-220-33	Approved	, 0.00
13470	LOPEZ, AURORA	WILLOW AVE, ROSAMOND	INSTALLATION OF 1991 MOBILEHOME	CUP	231	28	09/13-28	374-220-19	Approved, Permit Issued	, 0.00
12677	MELCHERS, GENE	SWC 60TH AND ROSAMOND BLVD.	3 CARGO CONTAINERS FOR STORAGE	CUP 6	231	22	09/13-22	375-220-07	Approved	, 0.00
11093	MONROY, EDGAR	S/S WILLOW AVE, E/69TH STREET WEST	MOBILEHOME W/OUT STANDARDS	CUP 2	231	27	09/13-27	375-180-04	Approved, Permit Issued	, 2.50
12125	OPTISOLAR, EUGENE GABRYCH	140TH @ DAWN, ROSAMOND	TEMP. USE OF SOLAR RESEARCH AND DESIGN	CUP 23	232		09/14-5	358-021-07	Approved	,161.00

12462	PAZOOGOIN/PRIME SELF STORAGE	NEC ROSAMOND BLVD. 76TH ST. WEST	ZC TO M-1 PD Mini warehouse and RV/Boat Storage Facility	ZCC 8	231	16	09/13-16	252-142-22	Approved	, 2.30
12878	PENLAND, MICHAEL	6770 BACKUS RD.	KENNEL	CUP 30	214		10/13-22	345-141-04	Approved	, 4.78
11135 11157 10393	POTH, SUZANNE	8440 WOODLAND LANE	MODIFY CUP TO ALLOW CARGO CONTAINERS MODIFICATION OF CUP TO ALLOW 2 CARGO CONTAINERS ADDITIONAL DWELLING - MH W/O AGE STANDARD	CUP 27	214		10/13-22	345-151-05	Unknown	, 5.00
13378	RE ROSAMOND TWO, LLC BY RECURRENT ENERGY	FAVARITO AVE. & 65TH STREET WEST	CONSTRUCTION OF A 20 MW SOLAR PV FACILITY	CUP 4	231	03	09/13-03	252-013-01	Operational	,160.00
14689	Renita Rife	8543 W. Rosamond Blvd.,	Cargo Containers (2)	ZCC 5	231	17	17/09-13	252-331-19	Approved	, 2.27
14987	Robert and Michele Slade	same as above	CUP for a cargo container	CUP 7	231	22	09/13-22	375-103-32	Approved	, 0.00
11381	ROCHA, JOAQUIN & NORMA	9159 W. AVE. A, ROSAMOND	SECONDARY R/U EXCEEDING SIZE Mobilehome	CUP 100	231		09/13-31	374-450-08	Approved	, 6.96
13148	ROSAMOND 1 LLC BY RECURRENT ENERGY	FAVARITO AVE. & 65TH ST. W.	CUP FOR SOLAR GENERATION	CUP	231	03		252-013-01	Operational	,320.00
13117	SMITH, ROBERT BY B & D BUILDERS	3716 90TH STRET WEST, ROSAMOND	SECONDARY R.U. THAT EXCEEDS SIZE	CUP 3	231	17	09/13-17	252-131-01	Approved	, 4.55
10973 12567	TRONCALE, CRAIG & LESLIE	7980 BIRCH AVE	DOG KENNEL & BREEDING	CUP 99 CUP 102	231		9/13-33	374-122-17	Approved	, 2.26 , 2.20
12430	WILLIAMS, JOHN	6530 CYPRESS RD, ROSAMOND	CARGO CONTAINERS	CUP 103	231		91/33-4	374-142-08	Approved	, 0.00
12830	WORKMAN, HARRY	14192 LODESTAR, ROSAMOND	KENNEL	CUP 24	232		09/14-8	358-132-05	Approved	, 5.00
	AVEP Solar First Solar, et al	S of Dawn Road, west of 95th Street West, north Avenuw A, and east of 130th Street West	EIR: Solr/Wind; GPA to change map code, zone change, CUP for solar energy and communication tower	CUP	231	18	09/13/018	252-341-482	In Process	

Change in Daily Auto Miles Traveled Compared to the Old Plan

	Auto Vehicle Miles Traveled within Kern (no pass thru travel)			Persons = Household Population + Employment (by place of work)			Auto Miles Traveled/Person			% Change from Base 2017		Progress Compared to Old Plan
	Base	Old Plan	Plan	Base	Old Plan	Plan	Base	Old Plan	Plan	2017 & Old Plan	2017 & Plan	
	2017	2042		2017	2042		2017	2042		2042		
	(miles)			(persons)			(miles/person)			(percent)		
Greater Rosamond	1,424,287	2,857,622	1,926,427	32,986	80,062	48,509	43.18	39.71	35.69	-8.0%	-17.3%	**-9.3%**
Greater Delano	2,896,802	3,314,385	3,570,784	63,899	77,019	78,076	45.33	45.73	43.03	0.9%	-5.1%	**-6.0%**
Greater Taft	1,322,416	2,024,318	2,115,757	30,996	43,508	44,182	42.66	47.89	46.53	12.2%	9.1%	**-3.2%**
Metro Bakersfield	14,823,804	22,794,427	23,382,511	773,107	1,184,550	1,204,425	19.17	19.41	19.24	1.2%	0.4%	**-0.9%**
Greater Cal City/Mojave	1,390,083	3,053,367	2,966,993	26,837	59,127	57,995	51.80	51.16	51.64	-1.2%	-0.3%	**0.9%**
Greater Lake Isabella	727,496	1,357,489	1,167,005	20,366	33,158	28,940	35.72	40.32	40.94	12.9%	14.6%	**1.7%**
Greater Wasco	1,729,971	2,504,823	2,467,648	40,350	63,343	66,109	42.87	37.33	39.54	-12.9%	-7.8%	**5.2%**
Greater McFarland	1,027,697	1,306,578	1,405,134	21,585	27,256	31,270	47.61	44.94	47.94	-5.6%	0.7%	**6.3%**
Greater Shafter	2,044,258	4,362,884	4,148,898	45,996	102,333	107,422	44.44	38.62	42.63	-13.1%	-4.1%	**9.0%**
Greater Frazier Park	669,126	1,638,896	1,386,417	12,784	30,084	28,084	52.34	49.37	54.48	-5.7%	4.1%	**9.8%**
Greater Maricopa	54,688	73,434	62,391	1,523	1,685	1,621	35.90	38.50	43.59	7.3%	21.4%	**14.2%**
Greater Ridgecrest	1,066,753	2,137,742	1,734,660	48,158	71,568	66,669	22.15	26.02	29.87	17.5%	34.8%	**17.4%**
Greater Tehachapi	1,703,499	5,361,752	4,765,416	43,286	100,215	102,761	39.35	46.37	53.50	17.8%	36.0%	**18.1%**
Greater Arvin	870,717	1,400,931	1,455,938	29,633	34,694	42,537	29.38	34.23	40.38	16.5%	37.4%	**20.9%**
Total / Average:	**31,751,596**	**54,188,649**	**52,555,979**	**1,191,506**	**1,908,604**	**1,908,600**	**26.65**	**28.39**	**27.54**	**6.5%**	**3.3%**	**-3.2%**

Turning Movement Count Report AM

Location ID: 1
North/South: 170th St W
East/West: Rosamond Boulevard

Date: 12/05/18
City: Rosamond, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	0	0	1	0	1	1	0	0	0	0	0	3
7:15	0	0	0	2	0	0	1	0	0	0	0	0	3
7:30	0	0	1	4	0	1	0	0	0	0	0	0	6
7:45	0	0	0	1	0	0	0	0	0	0	0	0	1
8:00													
8:15													
8:30													
8:45													

Total Volume:	0	0	1	8	0	2	2	0	0	0	0	0	13
Approach %	0%	0%	100%	80%	0%	20%	100%	0%	0%	0%	0%	0%	

Peak Hr Begin:	7:00												
PHV	0	0	1	8	0	2	2	0	0	0	0	0	13
PHF	0.250			0.500			0.500			0.000			0.542

Turning Movement Count Report PM

Location ID: 1
North/South: 170th St W
East/West: Rosamond Boulevard

Date: 12/05/18
City: Rosamond, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
16:00													
16:15													
16:30	0	0	1	0	0	2	1	0	0	0	0	0	4
16:45	0	0	0	2	0	0	3	1	0	0	0	0	6
17:00	0	1	1	1	0	2	1	0	0	0	0	0	6
17:15	0	0	0	2	0	0	2	0	0	0	0	0	4
17:30													
17:45													

Total Volume:	0	1	2	5	0	4	7	1	0	0	0	0	20
Approach %	0%	33%	67%	56%	0%	44%	88%	13%	0%	0%	0%	0%	

Peak Hr Begin:	16:30												
PHV	0	1	2	5	0	4	7	1	0	0	0	0	20
PHF	0.375			0.750			0.500			0.000			0.833

Turning Movement Count Report AM

Location ID: 2
North/South: 130th St W
East/West: Rosamond Boulevard

Date: 12/05/18
City: Rosamond, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	0	0	1	1	0	0	0	0	0	4	0	6
7:15	0	0	0	0	5	0	0	0	0	0	0	0	5
7:30	0	0	0	0	6	0	0	0	0	0	4	0	10
7:45	0	0	2	0	0	0	0	0	0	0	1	0	3
8:00													
8:15													
8:30													
8:45													

Total Volume:	0	0	2	1	12	0	0	0	0	0	9	0	24
Approach %	0%	0%	100%	8%	92%	0%	0%	0%	0%	0%	100%	0%	

Peak Hr Begin:	7:00												
PHV	0	0	2	1	12	0	0	0	0	0	9	0	24
PHF	0.250			0.542			0.000			0.563			0.600

Turning Movement Count Report PM

Location ID: 2
North/South: 130th St W
East/West: Rosamond Boulevard

Date: 12/05/18
City: Rosamond, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
16:00													
16:15													
16:30	0	0	0	0	3	0	0	0	0	0	3	0	6
16:45	0	0	0	0	7	0	0	0	0	0	3	0	10
17:00	0	0	0	0	3	1	0	0	0	0	5	0	9
17:15	0	0	0	0	2	0	0	0	0	0	3	0	5
17:30													
17:45													
Total Volume:	0	0	0	0	15	1	0	0	0	0	14	0	30
Approach %	0%	0%	0%	0%	94%	6%	0%	0%	0%	0%	100%	0%	
Peak Hr Begin:	16:30												
PHV	0	0	0	0	15	1	0	0	0	0	14	0	30
PHF	0.000			0.571			0.000			0.700			0.750

Turning Movement Count Report AM

Location ID: 3
North/South: 90th St W
East/West: Rosamond Boulevard

Date: 12/05/18
City: Rosamond, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	1	14	4	7	3	2	2	6	0	1	3	0	43
7:15	4	8	6	12	5	5	0	9	0	0	5	1	55
7:30	3	14	5	6	7	1	1	7	0	3	2	1	50
7:45	0	8	5	6	2	0	2	6	1	1	3	1	35
8:00													
8:15													
8:30													
8:45													

Total Volume:	8	44	20	31	17	8	5	28	1	5	13	3	183
Approach %	11%	61%	28%	55%	30%	14%	15%	82%	3%	24%	62%	14%	

Peak Hr Begin:	7:00												
PHV	8	44	20	31	17	8	5	28	1	5	13	3	183
PHF	0.818			0.636			0.944			0.875			0.832

Turning Movement Count Report PM

Location ID: 3
North/South: 90th St W
East/West: Rosamond Boulevard

Date: 12/05/18
City: Rosamond, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
16:00													
16:15													
16:30	1	8	2	5	2	1	3	10	1	3	11	16	63
16:45	1	5	4	7	4	0	1	7	1	4	4	7	45
17:00	2	11	8	9	5	2	3	8	1	1	14	4	68
17:15	1	5	6	5	4	1	4	5	0	1	15	11	58
17:30													
17:45													

Total Volume:	5	29	20	26	15	4	11	30	3	9	44	38	234
Approach %	9%	54%	37%	58%	33%	9%	25%	68%	7%	10%	48%	42%	

Peak Hr Begin:	16:30												
PHV	5	29	20	26	15	4	11	30	3	9	44	38	234
PHF	0.643			0.703			0.786			0.758			0.860

Turning Movement Count Report AM

Location ID: 4
North/South: Tehachapi Willow Springs Road
East/West: Hamilton Road

Date: 12/05/18
City: Rosamond, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	17	0	0	0	0	0	8	0	1	0	0	26
7:15	0	14	0	0	0	0	0	19	0	0	0	0	33
7:30	0	16	0	0	0	0	0	10	1	4	0	0	31
7:45	0	12	0	0	0	0	0	9	0	0	0	1	22
8:00													
8:15													
8:30													
8:45													
Total Volume:	0	59	0	0	0	0	0	46	1	5	0	1	112
Approach %	0%	100%	0%	0%	0%	0%	0%	98%	2%	83%	0%	17%	

Peak Hr Begin:	7:00												
PHV	0	59	0	0	0	0	0	46	1	5	0	1	112
PHF	0.868			0.000			0.618			0.375			0.848

Turning Movement Count Report PM

Location ID: 4
North/South: Tehachapi Willow Springs Road
East/West: Hamilton Road
Date: 12/05/18
City: Rosamond, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
16:00													
16:15													
16:30	0	9	0	0	0	0	0	35	1	0	0	0	45
16:45	0	15	0	0	0	0	0	16	3	0	0	0	34
17:00	0	15	0	0	0	0	0	25	0	0	0	0	40
17:15	1	11	0	0	0	0	0	16	2	0	0	0	30
17:30													
17:45													
Total Volume:	1	50	0	0	0	0	0	92	6	0	0	0	149
Approach %	2%	98%	0%	0%	0%	0%	0%	94%	6%	0%	0%	0%	
Peak Hr Begin:	16:30												
PHV	1	50	0	0	0	0	0	92	6	0	0	0	149
PHF	0.850			0.000			0.681			0.000			0.828

Turning Movement Count Report AM

Location ID: 5a
North/South: State Route 14 SB Off Ramp / Acacia St
East/West: Rosamond Boulevard
Date: 12/05/18
City: Rosamond, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	18	0	6	0	125	1	0	0	2	1	232	0	385
7:15	12	0	19	0	174	2	0	0	4	4	312	0	527
7:30	9	0	8	0	124	2	2	0	1	2	287	0	435
7:45	5	0	12	0	168	1	2	0	0	1	211	0	400
8:00													
8:15													
8:30													
8:45													
Total Volume:	44	0	45	0	591	6	4	0	7	8	1042	0	1747
Approach %	49%	0%	51%	0%	99%	1%	36%	0%	64%	1%	99%	0%	

Peak Hr Begin:	7:00												
PHV	44	0	45	0	591	6	4	0	7	8	1042	0	1747
PHF	0.718			0.848			0.688			0.831			0.829

Turning Movement Count Report PM

Location ID: 0
North/South: State Route 14 SB Off Ramp / Acacia St
East/West: Rosamond Boulevard
Date: 12/05/18
City: Rosamond, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
16:00													
16:15													
16:30	28	0	10	0	266	2	3	0	1	2	212	0	524
16:45	28	2	25	0	215	2	1	0	1	1	199	0	474
17:00	22	0	22	0	223	2	1	0	2	3	195	0	470
17:15	19	0	16	0	272	2	1	0	1	1	165	0	477
17:30													
17:45													
Total Volume:	97	2	73	0	976	8	6	0	5	7	771	0	1945
Approach %	56%	1%	42%	0%	99%	1%	55%	0%	45%	1%	99%	0%	

Peak Hr Begin:	16:30												
PHV	97	2	73	0	976	8	6	0	5	7	771	0	1945
PHF	0.782			0.898			0.688			0.909			0.928

Turning Movement Count Report AM

Location ID: 6
North/South: State Route 14 NB Ramps
East/West: Rosamond Boulevard

Date: 12/05/18
City: Rosamond, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	0	0	9	153	0	68	0	28	0	104	9	371
7:15	0	0	0	6	210	0	56	0	37	0	173	15	497
7:30	0	0	0	17	171	0	44	0	37	0	144	19	432
7:45	0	0	0	12	180	0	58	0	50	0	109	10	419
8:00													
8:15													
8:30													
8:45													
Total Volume:	0	0	0	44	714	0	226	0	152	0	530	53	1719
Approach %	0%	0%	0%	6%	94%	0%	60%	0%	40%	0%	91%	9%	
Peak Hr Begin:	7:00												
PHV	0	0	0	44	714	0	226	0	152	0	530	53	1719
PHF	0.000			0.877			0.875			0.775			0.865

Turning Movement Count Report PM

Location ID: 6
North/South: State Route 14 NB Ramps
East/West: Rosamond Boulevard

Date: 12/05/18
City: Rosamond, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
16:00													
16:15													
16:30	0	0	0	15	204	0	80	0	137	0	135	16	587
16:45	0	0	0	20	190	0	64	0	92	0	137	23	526
17:00	0	0	0	14	162	0	59	0	127	0	138	18	518
17:15	0	0	0	11	185	0	60	0	132	0	100	15	503
17:30													
17:45													
Total Volume:	0	0	0	60	741	0	263	0	488	0	510	72	2134
Approach %	0%	0%	0%	7%	93%	0%	35%	0%	65%	0%	88%	12%	
Peak Hr Begin:	16:30												
PHV	0	0	0	60	741	0	263	0	488	0	510	72	2134
PHF	0.000			0.914			0.865			0.909			0.909