MITIGATED NEGATIVE DECLARATION

Traffic Signal Installation Project at Shepherd and Minnewawa Avenues

December 2018

PREPARED FOR:

City of Clovis
1033 Fifth Street
Clovis, CA 93612

PREPARED BY:

Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291

Initial Study/ Mitigated Negative Declaration

Signal Installation Project at Shepherd and Minnewawa Avenues

Project Number: CIP13-02

Federal ID Number: CML5208 (128)

Prepared for:

City of Clovis
1033 Fifth Street
Clovis, CA 93612
(559) 324-2336
Contact: Ryan Burnett

Prepared by:

Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291
(559) 840-4414
Contact: Travis Crawford, AICP

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INTRODUCTION

INTRODUCTION

1.1 Project Summary

This document is the Initial Study / Mitigated Negative Declaration (IS/MND) on the potential environmental effects of the Shepherd and Minnewawa Signal Installation Project (Project). The Project consists of construction and operation of traffic signals and related improvements at the existing four-way stop at the intersection of Shepherd and Minnewawa Avenues in the City of Clovis, CA. The proposed Project is more fully described in Chapter Two – Project Description.

The City of Clovis will act as the Lead Agency for this project pursuant to the *California Environmental Quality Act (CEQA)* and the *CEQA Guidelines.*

1.2 Document Format

This IS/ND contains five chapters, and appendices. Chapter 1, Introduction, provides an overview of the project and the CEQA environmental documentation process. Chapter 2, Project Description, provides a detailed description of project objectives and components. Chapter 3, Initial Study Checklist, presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible mitigation measures. If the proposed project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. Chapter 4, Mitigation and Monitoring Program provides the list of applicable mitigation measures that must be complied with. Chapter 5, List of Preparers, provides a list of key personnel involved in the preparation of the IS/MND.

Environmental impacts are separated into the following categories:

Potentially Significant Impact. This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

Less Than Significant After Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measure(s), and briefly explain

how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less Than Significant Impact. This category is identified when the project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact. This category applies when a project would not create an impact in the specific environmental issue area. "No Impact" answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis.)

Regardless of the type of CEQA document that must be prepared, the basic purpose of the CEQA process as set forth in the CEQA Guidelines Section 15002(a) is to:

(1) Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.
(2) Identify ways that environmental damage can be avoided or significantly reduced.
(3) Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
(4) Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

According to Section 15070(b), a Mitigated Negative Declaration is appropriate if it is determined that:

(1) Revisions in the project plans or proposals made by or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
(2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

The Initial Study contained in Chapter Three of this document has determined that the environmental impacts are less than significant after mitigation and therefore a Mitigated Negative Declaration will be adopted.

Chapter 2

PROJECT DESCRIPTION

Project Description

2.1 Project Background

The City of Clovis plans to install signal lights to alleviate traffic congestion at the intersection of Shepherd Avenue and Minnewawa Avenue, with the support of the Federal and State Transportation Improvement Program, as administered through the California Department of Transportation (Caltrans). The Project is located in a developing area of the City and the existing intersection is regulated by a four-way stop. Caltrans has processed their required environmental documents for the Project, which are incorporated herein as supporting information. These include the following studies:

- Biological Compliance Memorandum
- Hazardous Waste Screening Memorandum
- Noise Analysis Determination
- State Historic Preservation Office (SHPO) Compliance

2.2 Project Location

The Proposed Project is located at the intersection of Shepherd Avenue at Minnewawa Avenue along the northern City limits of Clovis, CA. The Project is located at Latitude 36°51'59.77"N; 119°42'40.12"W. See Figure 1 – Regional Map and Figure 2 – Project Layout Map.

To the south of Shepherd Avenue, the area is developed with single family homes. North of Shepherd Avenue, the land remains rural residential and agricultural. The northwest corner of the site is the location of the former Garfield School site.

2.3 Setting and Existing Conditions

City of Clovis

Clovis is in the central portion of Fresno County, approximately 6.5 miles northeast of the City of Fresno downtown area. The City is in the San Joaquin Valley, and the foothills of the Sierra Nevada begin several miles northeast of the City. Clovis is in the northeast part of the Fresno Metropolitan Area and is one of two incorporated cities – the other being Fresno – in the metropolitan area. The

City is surrounded by portions of unincorporated Fresno County to the north, east and south, and by the City of Fresno to the west and southwest.

The majority of the City of Clovis is urbanized, with residential and nonresidential development, mobility, and public facilities all contributing to the existing built environment. The City's incorporated boundaries encompass approximately 14,859 acres (23 square miles) of which approximately half is occupied by residential land uses. Other land uses include commercial, educational, park / open space, industrial and public / right-of-way uses.

Project Area

The Project lies in an area mixed with residential and commercial uses. Lands to the south are fully developed while lands to the north are intermittently developed. Currently, Minnewawa Avenue northbound (south of Shepherd) has two lanes north and two lanes south bound with divided segmented median. There is a bike lane along the southbound side. Adjacent to both sides of the roadway is a curb, grass and landscape strip, sidewalk, and barrier wall. At the intersection with Shepherd, there are right and left turn lanes. North of Shepherd Avenue, Minnewawa Avenue tapers down into a two lane (one north lane and one south lane) rural road. East bound Shepherd Avenue, west of Minnewawa, is similar to Minnewawa south of Shepherd. There are both a right and left turn lane at the intersection and a small narrow median separating the west bound traffic. East of the intersection, Shepherd narrow to two-east bound lanes with a bike lane. Westbound Shepherd begins as a single lane with a bike lane, then widens to two lanes (one lane for turning left) at the intersection. The intersection is controlled by a four-way stop. There are a few relatively small non-native trees located along parts of the intersection and roadway approaches that will be removed to accommodate the Project.

Figure 1
Regional Map

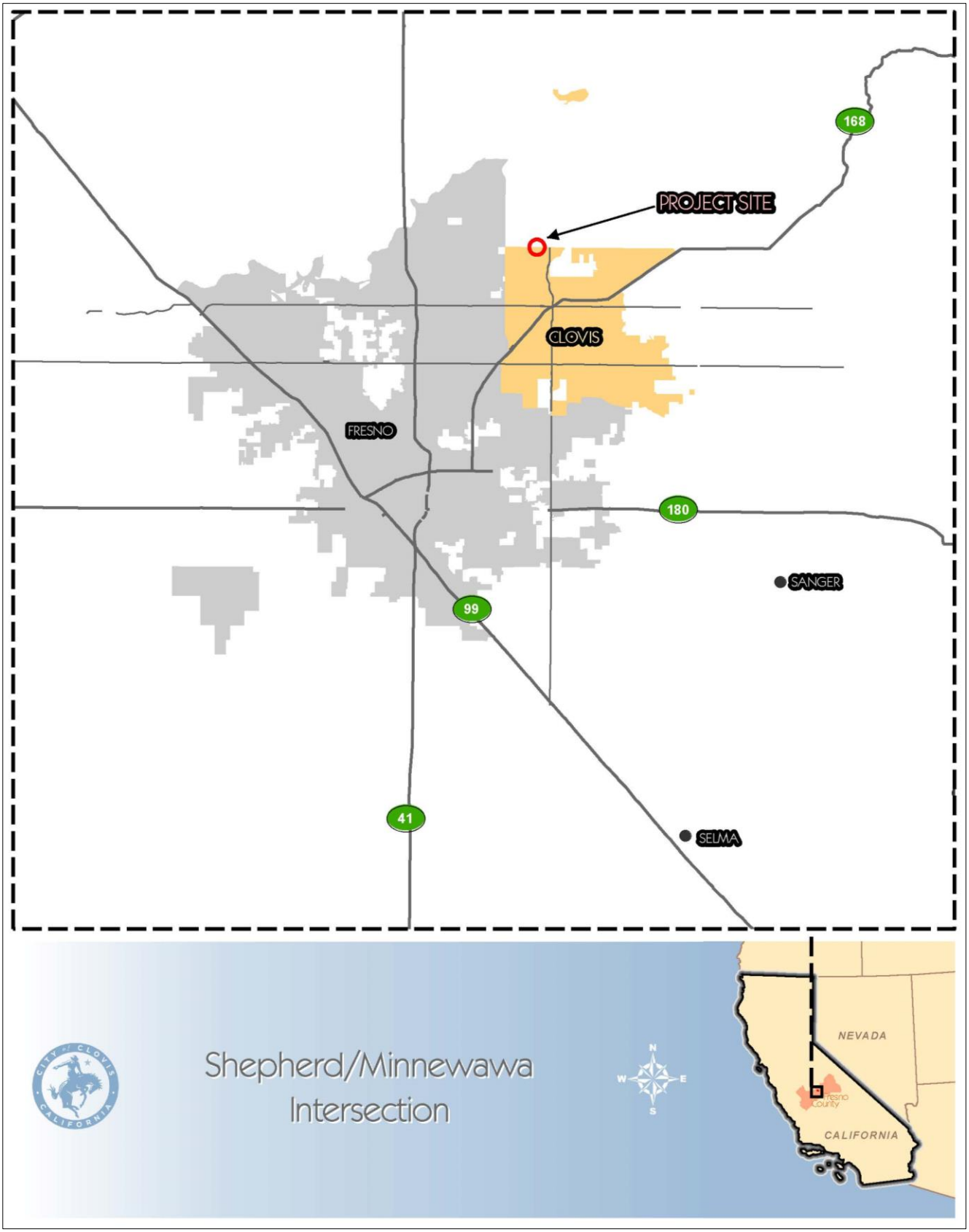
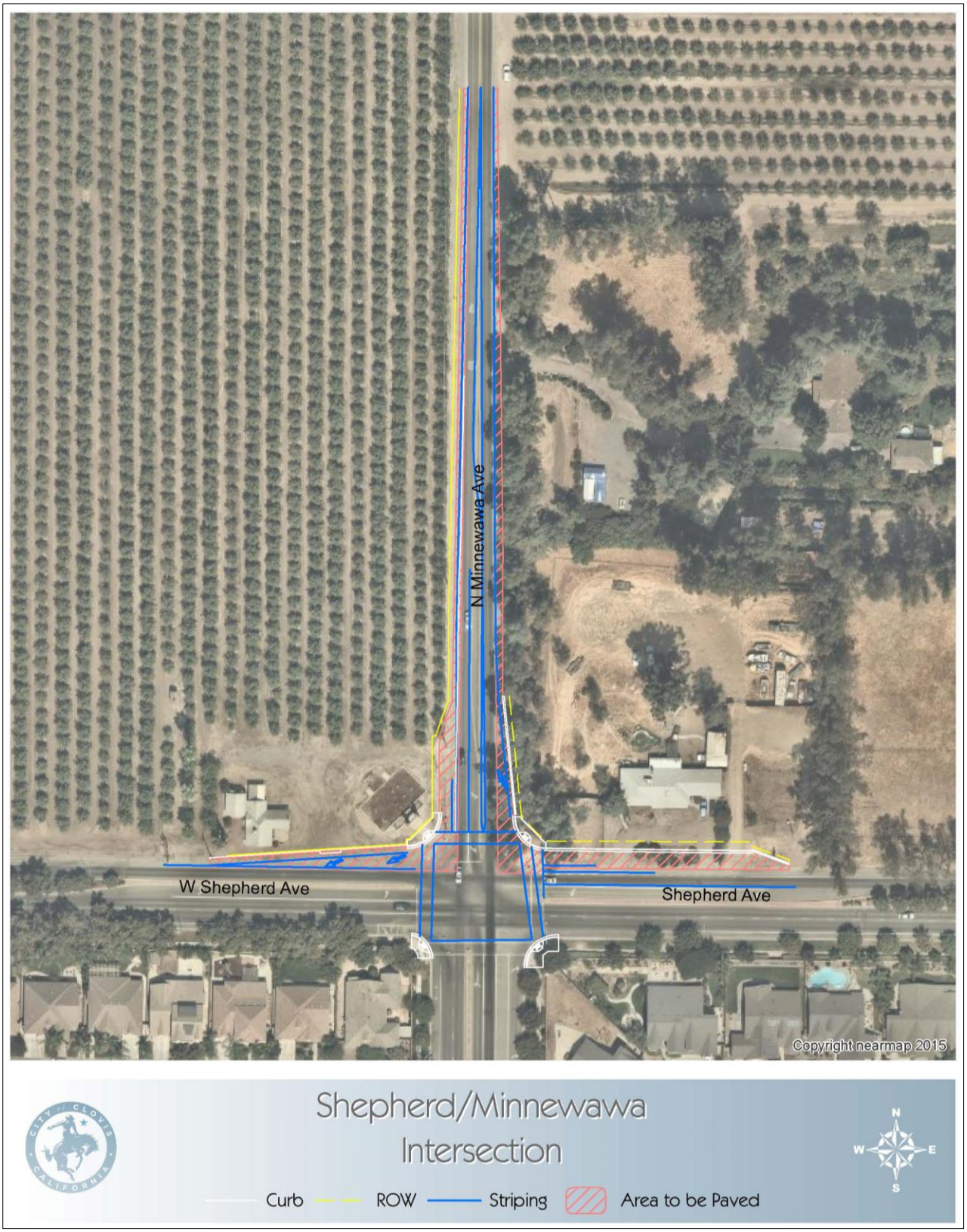


Figure 2
Project Layout



2.4 Project Description

The Project includes the following components:

- Installation of signal lights
- Acquisition of 0.34 acres of additional right-of-way (ROW) to accommodate new right turn lane transitions, curb returns, and four ADA compliant pedestrian ramps
- Installation of a new right turn lane westbound on Shepherd Avenue
- Installation of a new right turn lane southbound on Minnewawa Avenue
- Utility adjustments will include relocating a utility pole outside of the proposed pavement on the northwest corner of Shepherd and Minnewawa avenues.
- Utility adjustments will also include relocating communication pedestals outside of the proposed pavement on the northeast corner of Shepherd and Minnewawa Avenues.

The City will need to acquire a small amount of additional right-of-way (ROW) along the north side of Shepherd Avenue. The Study Area for this Proposed Project includes the intersection, the footprint for the planned improvements and adjacent land that may be disturbed during construction.

Construction is expected to begin in Summer 2019 and last up to four months.

2.5 Other Required Approvals

The proposed Project would include, but not be limited to, the following regulatory requirements:

- The adoption of this Mitigated Negative Declaration by the City of Clovis.
- Compliance with other federal, state and local requirements such as the San Joaquin Valley Air Pollution Control District for a dust control plan and the Regional Water Quality Control Board for a Stormwater Pollution Prevention Plan.
- Caltrans (NEPA compliance achieved through a separate process)
- Fresno County
- Fresno Metropolitan Flood Control District
- Fresno Irrigation District

Chapter 3

IMPACT ANALYSIS

Initial Study Checklist

3.1 Environmental Checklist Form

Project title: Shepherd / Minnewawa Signal Installation Project

Lead agency name and address:

City of Clovis
1033 Fifth Street
Clovis, CA 93612

Contact person and phone number:

Ryan Burnett, AICP
City of Clovis
(559) 324-2336

Project location:

The Project is located along the northern border of the City of Clovis, at the intersection of Shepherd Avenue and Minnewawa Avenue (See Figures 1 and 2).

Project sponsor's name/address:

City of Clovis
1033 Fifth Street
Clovis, CA 93612

General plan designation:

Existing Public Roadway. Surrounding parcels are designated L – Low Density Residential, M – Medium Density Residential, MU-V – Mixed Use Village and PK - Park

Zoning:

Existing Public Roadway. R-1 (Single Family Residential) and R-2 (Multi Family Residential)

Description of project:

The Project consists of various improvements to the intersection, including installing a traffic signal, new right turn lane transitions, curb returns and ADA-compliant pedestrian ramps (See Section 2.4 for a full description).

Surrounding land uses/setting:

The Project lies at an intersection consisting of a four-way stop in an area mixed with residential and commercial uses. Lands to the south are fully developed with residential housing while lands to the north are intermittently developed with rural residential and agricultural lands.

Other public agencies whose approval or consultation is required (e.g., permits, financing approval, participation agreements):

- San Joaquin Valley Air Pollution Control District
- Regional Water Quality Control Board
- Caltrans (NEPA compliance achieved through a separate process)
- Fresno County
- Fresno Metropolitan Flood Control District
- Fresno Irrigation District

3.2 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture Resources and Forest Resources	☐ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Geology /Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☐ Transportation/Traffic	☐ Utilities / Service Systems	☐ Mandatory Findings of Significance
☐ Tribal Cultural Resources		

3.3 Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an

ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Ryan Burnett, AICP — Date 1/4/18

City of Clovis

I. AESTHETICS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

AFFECTED ENVIRONMENT

The City of Clovis features a flat landscape and is largely developed with urban uses. It is surrounded by rural/agricultural land on three sides along the City's northeastern, eastern, southeastern and southern edges. The City of Fresno lies generally to the northwest, west and southwest. The Sierra Nevada Mountains and associated foothills begin just beyond the northeast boundary of the City and views of the mountains are visible on clear days. The City itself contains no substantial, undeveloped natural resources other than grasslands. However, Clovis features numerous parks and green space areas as well as irrigation canals that lend a scenic water quality to the rural character of the area. There are no scenic highways in the Project area, however, the City's General Plan discusses scenic "Landscape features" in its Open Space and Conservation Element.[1]

The existing views include urban development to the southwest and southeast and views of the Sierra Nevada and foothills to the north and east. The view shed to the north of the proposed Project is characterized by agricultural lands and the Big Dry Creek Reservoir earthen dam along the north side of

[1] Clovis General Plan EIR, pages 5.1- (3-4)

Shepherd Avenue east of the proposed Project area. Views to the south consist of residential developments with concrete block walls.

RESPONSES

a. Have a substantial adverse effect on a scenic vista?
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. A scenic vista is defined as a viewpoint that provides expansive views of highly valued landscape for the benefit of the general public. The Sierra Nevada Mountains are the only natural and visual resource in the Project area. Views of these distant mountains are afforded only during clear conditions due to poor air quality in the valley. Distant views of the Sierra Nevada Mountains would largely be unaffected by the development of the Project because of the nature of the Project, distance and limited visibility of these features. The City of Clovis does not identify views of these features as required to be "protected."

The nearest eligible scenic highway is a section of SR 168 which is located approximately 4 miles east of the site. However, the Project is not visible to or from this eligible scenic highway due to intervening land uses.

Therefore, the Project has ***no impact*** on scenic vistas or designated scenic resources or highways.

Mitigation Measures: None are required.

c. Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. Most of the Project components are at ground level or at an elevation similar to, or less than, the rooflines of the structures in the surrounding area. These components consist of poles, wires, signal lights, signage, curb/gutter and related features. The Project area consists primarily of single family residential units and agricultural lands.

Roadway and intersection improvements such as those proposed by the Project are typical of City streetscapes and are generally expected from residents of the City. These improvements would not degrade the visual character of the area and would not diminish the visual quality of the area, as they would be consistent with the existing visual setting. The Project itself is not visually imposing against the scale of the roadway and nature of the surrounding area.

Project construction activities could temporarily impact the visual character of the area, but is not considered significant because the impact is temporary and the contractor must comply with the City's Standard Specifications 4-13 and 5-21 pertaining to maintaining a clean work site both during and after construction.

Therefore, the Project would have ***less than significant impacts*** on the visual character of the area.

Mitigation Measures: None are required.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The Project does not include any new lighting other than the installation of the proposed traffic signals. Some existing lighting may be replaced to accommodate the Project. Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare and waste energy, and if designed incorrectly, could be considered unattractive. Light that falls beyond the intended area is referred to as "light trespass." Types of light trespass include spillover light and glare. Minimizing all these forms of obtrusive light is an important environmental consideration. A less obtrusive and well-designed energy efficient fixture would face downward, emit the correct intensity of light for the use, and incorporate energy timers. The signal lights, however must be installed according to regulations pertaining to vehicle and pedestrian viewability.

The City's Development Code (Article 3, Section 9.22.050) outlines standards related to light and glare to reduce impacts from new sources of light. The Project street lights will be designed to adhere to these standards. Therefore, these new sources of lighting will have a ***less than significant impact***.

Mitigation Measures: None are required.

II. AGRICULTURE AND FOREST RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

AFFECTED ENVIRONMENT

Clovis is located in Fresno County, which is a nationally-leading agricultural producer. There are currently 10,199 acres designated Agriculture within the City of Clovis General Plan Area. Of this, only 389 acres are located within the City's Sphere of Influence.[2] The Project site is located along the northern border of the City, at the edge of agricultural and urban development northwest of the City business district.

RESPONSES

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

d. Result in the loss of forest land or conversion of forest land to non-forest use?

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Less Than Significant Impact. The City is bordered by agricultural lands on three sides, however, no lands within the City limits are designated agriculture.[3] The Project will require right-of-way acquisition along Minnewawa Avenue and the north side of Shepherd Avenue. These areas are needed to accommodate the land widening at areas immediately adjacent to the roadways. The existing agriculture will not be significantly impacted, as only a limited amount of land is needed that may remove agricultural trees. While the Project is adjacent to land designated as Prime Farmland and Farmland of Statewide Importance within Fresno County, proposed improvements would only occur within areas mapped as Urban and Rural Residential. No *Prime Farmland, Unique*

[2] Clovis General Plan EIR, page 5.2-2

[3] Ibid.

Farmland, or Farmland of Statewide Importance or land under the Williamson Act contracts occurs in the City and the Project would not result in conversion of any agricultural or forest land.

Therefore, there is ***a less than significant impact.***

Mitigation Measures: None are required.

III. AIR QUALITY

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

AFFECTED ENVIRONMENT

The climate of the City of Clovis and the San Joaquin Valley is characterized by long, hot summers and stagnant, foggy winters. Precipitation is low and temperature inversions are common. These characteristics are conducive to the formation and retention of air pollutants and are in part influenced by the surrounding mountains which intercept precipitation and act as a barrier to the passage of cold air and air pollutants.

The proposed Project lies within the San Joaquin Valley Air Basin, which is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD or Air District). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O_3), sulfur dioxide (SO_2), nitrogen dioxide

(NO_2), particulate matter (PM_{10} and $PM_{2.5}$), and lead (Pb). The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

Air quality plans or attainment plans are used to bring the applicable air basin into attainment with all state and federal ambient air quality standards designed to protect the health and safety of residents within that air basin. Areas are classified under the Federal Clean Air Act as either "attainment", "non-attainment", or "extreme non-attainment" areas for each criteria pollutant based on whether the NAAQS have been achieved or not. Attainment relative to the State standards is determined by the California Air Resources Board (CARB). The San Joaquin Valley is designated as a State and Federal extreme non-attainment area for O3, a State and Federal non-attainment area for PM2.5, a State non-attainment area for PM10, and Federal and State attainment area for CO, SO2, NO2, and Pb.

Standards and attainment status for listed pollutants in the Air District can be found in Table 1. Note that both state and federal standards are presented.

Table 1
Standards and Attainment Status for Listed Pollutants in the Air District

	Federal Standard	California Standard
Ozone	0.075 ppm (8-hr avg)	0.07 ppm (8-hr avg) 0.09 ppm (1-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide	0.053 ppm (annual avg)	0.30 ppm (annual avg) 0.18 ppm (1-hr avg)
Sulfur Dioxide	0.03 ppm (annual avg) 0.14 ppm (24-hr avg) 0.5 ppm (3-hr avg)	0.04 ppm (24-hr avg) 0.25 ppm (1hr avg)
Lead	1.5 µg/m3 (calendar quarter) 0.15 µg/m3 (rolling 3-month avg)	1.5 µg/m3 (30-day avg)
Particulate Matter (PM10)	150 µg/m3 (24-hr avg)	20 µg/m3 (annual avg) 50 µg/m3 (24-hr avg)
Particulate Matter (PM2.5)	15 µg/m3 (annual avg)	35 µg/m3 (24-hr avg) 12 µg/m3 (annual avg)

µg/m3 = micrograms per cubic meter

Additional State regulations include:

CARB Portable Equipment Registration Program – This program was designed to allow owners and operators of portable engines and other common construction or farming equipment to register their equipment under a statewide program so they may operate it statewide without the need to obtain a permit from the local air district.

U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program – The California Clean Air Act (CCAA) requires CARB to achieve a maximum degree of emissions reductions from off-road mobile

sources to attain State Ambient Air Quality Standards (SAAQS); off- road mobile sources include most construction equipment. Tier 1 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996. These standards, along with ongoing rulemaking, address emissions of nitrogen oxides (NOX) and toxic particulate matter from diesel engines. CARB is currently developing a control measure to reduce diesel PM and NOX emissions from existing off-road diesel equipment throughout the state.

California Global Warming Solutions Act – Established in 2006, Assembly Bill 32 (AB 32) requires that California's GHG emissions be reduced to 1990 levels by the year 2020. This will be implemented through a statewide cap on GHG emissions, which will be phased in beginning in 2012. AB 32 requires CARB to develop regulations and a mandatory reporting system to monitor global warming emissions levels.

RESPONSES

a. Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The proposed project is located within the boundaries of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAPCD is responsible for bringing air quality in the City into compliance with federal and state air quality standards. The proposed Project does not include land use changes that would conflict with the long-range air quality projects of the SJVAPCD. The Project is being constructed to support and account for existing and projected demand identified in the City's General Plan. The Project will not increase roadway capacity, is not growth inducing, and does not have any component that would cause an increase in vehicle miles traveled unaccounted for in regional emissions inventories. Therefore, the project would not conflict with or obstruct implementation of any SJVAPCD plans or guidelines and impacts would be ***less than significant.***

Mitigation Measures: None are required.

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

d. Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Air pollutant emissions associated with the Project would only occur short-term due to construction activities such as grading and vehicle/equipment use. The Project is not growth inducing or capacity increasing and no long-term (operational) emissions would result from the Project. In addition, signalized intersections tend to have less vehicle idling overall compared to all-way stop controlled intersections, thus resulting in less emissions than existing conditions.

Short-Term (Construction) Emissions

Site preparation and Project construction would involve excavation, grading, hauling, and various activities needed to construct the Project. During construction, the Project could generate pollutants such as hydrocarbons, oxides of nitrogen, carbon monoxide, and suspended PM. A major source of PM would be windblown dust generated during construction activities. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Vehicles leaving the site could deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM10 emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM10 emissions would depend on soil moisture, the silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. These emissions would be temporary and limited to the immediate area surrounding the construction site.

The proposed Project construction schedule would begin in Summer 2019 and would last up to four months. (Note: to provide an overly conservative emission estimate, a construction schedule of 12 months was used for air calculations). Emissions were estimated using the *California Emissions Estimate Model*, Version 2016.3.2 and assumed construction of a conservative 0.5 acre project area. Construction related emissions are shown in Table 2. Refer to Appendix A for the full emissions output estimates for construction activities.

Table 2
Project Construction Emissions in Tons

	ROG (tons)	NO_x (tons)	PM10* (tons)	CO2 (tons)
Total Emissions:	0.07	0.60	0.04	70.55
Threshold of Significance	10	10	15	--
Exceed Threshold?	No	No	No	No

* Appendix A includes projected emissions from ozone, carbon monoxide, lead, particulate matter (less than 2.5 microns in diameter), but are not included in this table because there is no established threshold of significance for these emissions.

As shown in Table 2, construction emissions would be below the SJVAPCD's threshold for annual construction emissions. However, the SJVAPCD has implemented Regulation VIII measures for dust control related to construction projects, which are applicable to the Project and will be enforced by the City and the City's contractor.

Long-Term (Operational) Emissions

The Project would not generate additional vehicle trips on Shepherd or Minnewawa Avenues and, therefore, would not increase mobile source emissions. In addition, there are no stationary source emissions resulting from the Project.

Therefore, the Project would not violate any air quality standards or significantly increase any criteria pollutant and will not expose sensitive receptors to substantial pollutant concentrations and thus, impacts would be ***less than significant.***

Mitigation Measures: None are required.

e. Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. During construction, the various diesel powered vehicles and equipment in use on-site could create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the Project site. In addition, once the Project is operational, there would be no source of odors from the Project. Therefore, the impact is ***less than significant.***

Mitigation Measures: None are required.

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

AFFECTED ENVIRONMENT

The proposed Project site is located in a portion of the central San Joaquin Valley that has, for decades, experienced intensive agricultural and urban disturbances. Like most of California, Clovis and the Central San Joaquin Valley experiences a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures usually exceed 90 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely raise much above 70 degrees Fahrenheit, with daytime highs often below 60 degrees Fahrenheit. Annual precipitation within the proposed Project site is about 10 inches, almost 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain and storm-water readily infiltrates the soils of the surrounding the sites.

Native plant and animal species once abundant in the region have become locally extirpated or have experienced large reductions in their populations due to conversion of upland, riparian, and aquatic habitats to agricultural and urban uses. Remaining native habitats are particularly valuable to native wildlife species including special status species that still persist in the region.

Over the years, the Clovis area has been substantially disturbed by agricultural and residential activities, with lands within the City itself having primarily been converted to urban development. However,

remnant natural habitats remain in the City, such as relatively undisturbed grasslands and associated drainages and wetlands, including vernal pools.[4]

The Project area is level (nearly flat) and has two predominate habitat types: landscape and ruderal. The landscape areas occur along Minnewawa, south of Shepherd and along the south side of Shepherd. The northern half of the proposed Project area is characteristic of ruderal habitat found along existing roadway. Adjacent to the ruderal habitat is farmland and nonnative grassland. There is a line of mature eucalyptus trees along the east side of Minnewawa, north of Shepherd. At the northwest corner, there is a vacant parcel that was formerly a school site. There is little to no vegetation on the site and what is there is composed of non-native grassland species.

A biological site review was conducted in April 2016 and again in September 2016. The results did not find any evidence of raptor nests within the large eucalyptus trees, nor was there any evidence of ground nesting birds (such as burrowing owl). The only wildlife observed were black crows and several domestic cats. There are no drainages (other than a small very shallow ditch fronting a home at the northeast corner) and no natural drainages within the Proposed Project Area. Storm drainages is split with the south side of Shepherd Avenue draining into the City's underground storm system and drainage north of Shepherd draining north to the adjacent parcels.

In addition, Caltrans prepared a Biological Compliance Memorandum (See Appendix B) which concluded that no special-status plant or animal species will be impacted and no biological permits will be required for the Project.

RESPONSES

a. <u>Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?</u>

Less Than Significant Impact With Mitigation. The Project area and vicinity consist of developed land uses. The existing roadway system and development within the City of Clovis has altered the natural landscape by introducing non-native plant species and removing potentially suitable natural habitat for sensitive plant or animal species within the Project area. The vegetation found within and along the existing roadway consists of ornamental non-native species that provide little or no biological importance and value.

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[4] Clovis General Plan EIR, page 5.4-3

The California Natural Diversity Database (CNDDB) was examined to determine if any species identified as a candidate, sensitive, or special status species were located in or near the Proposed Project Area. The CNDDB did not identify any species within the Proposed Project area or site. There are no reported records of special status species (which included both listed species and species of concern or of statewide importance).

The nearest recorded location for species of concern lies west and east respectively, and the species include the tri-colored blackbird (listed as a Candidate species in California) and the California tiger salamander (listed as Threatened by the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife.) Both of these species require an aquatic-related habitat for breeding. The tri-colored blackbird nests alongside waterways in non-woody, dense vegetation. The California tiger salamander requires temporary ponds/wetlands that persist for several months in order to complete their breeding cycle and requires associated upland habitat to remain underground during the hot summer months. Suitable habitat for neither of these species, nor any other special status species is located within or adjacent to the Study Area.

However, both raptors and migratory birds are protected under the Migratory Bird Treaty Act 16 U.S.C. §§ 703–712. The proposed Project will likely require removal of some of the large eucalyptus trees located on the east side of Minnewawa Avenue. At the time of the biological review, no evidence of nesting raptors or other nesting birds was found; however, tree removal could remove an active nest at the time of project commencement or construction near an active nest could result in nest abandonment. This is potentially significant; however, implementation of Mitigation Measure Bio-1 would reduce this impact to a ***less-than-significant*** level.

Mitigation Measures:

BIO – 1 If tree removal is scheduled to occur during the nesting period for birds (February 1 – August 31), then a pre-construction nesting birds survey must be conducted within 30 days prior to removal. If nesting birds (including raptors) are found, then tree removal cannot occur until any young have fledged. If a nest in found in a tree within the project area, but the tree is not slated to be removed, then a biologist must be consulted to determine the size of an appropriate setback buffer to avoid disturbance to the nesting bird(s). If the biologist recommends monitoring during construction, then the City must implement monitoring to prevent, to the extent possible, any nest abandonment.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The Proposed Project site is located in an urban area that is surrounded by residential land uses. The site is not located within an established fish or wildlife migratory corridor. Therefore, ***no impacts*** to the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites would occur as a result of this project.

Mitigation Measures: None are required.

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The United States Army Corps of Engineers (USACE) regulates the dredge and fill of "Waters of the U.S." through Section 404 of the Clean Water Act (CWA). This proposed Project site and area are urbanized and does not contain federally protected waters or wetlands. Therefore, no impacts would occur on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means as a result of this Proposed Project. As such, there would be ***no impacts*** associated with the proposed improvements.

Mitigation Measures: None are required.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. The Proposed Project site is located in an urban area that is surrounded by residential land uses. The site is not located within an established fish or wildlife migratory corridor. Therefore, ***no impacts*** to the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites would occur as a result of this project.

Mitigation Measures: None are required.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant. The Project is consistent with the relevant biological resource policies of the *Clovis General Plan* and Municipal Code 10.1.06 pertaining to tree removal and replacement, as eucalyptus trees are not considered a "protected tree" in accordance with Chapter 9.20.050. Therefore, there is a ***less than significant impact.***

Mitigation Measures: None are required.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project site is not subject to any adopted habitat conservation plan, natural community conservation plan or other conservation plan, as there are no adopted plans. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

V. CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

AFFECTED ENVIRONMENT

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric (before the introduction of writing in a particular area) or historic (after the introduction of writing). The majority of such places in this region are associated with either Native American or Euroamerican occupation of the area. The most frequently encountered prehistoric and early historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and sites of rock art. Historic archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

The City of Clovis lies at the intersection of where ethnographers generally recognize three cultural-geographical divisions of Yokuts: Foothills, Northern Valley, and Southern Valley. The Foothill Yokuts

included about 15 named tribes, representing the eastern third of the 40 to 50 recorded Yokuts tribes.[5] The immediate Project vicinity consists of a roadway, sidewalks, residential units and churches.

The City of Clovis undertook preparation of a cultural resource studies for the Proposed Project. The studies were conducted by Peak & Associates included evaluation of the Area of Potential Effect (APE) and conformed to the California Department of Transportation requirements. Since the proposed Project is federally funded it is subject to Caltrans' and FHWA procedures and, as such, the cultural studies have been and approved by Caltrans. The cultural resource study has complied with Section 106 the Advisory Council on Historic Preservation, Protection of Historic and Cultural properties, Section 106 regulations, Title 36 Code of Federal Regulations Part 800 (36 CFR 800).

The studies performed included an Archaeological Survey Report (ASR), Historic Resources Evaluation Report (HRER), and a Historic Properties Survey Report (HPSR, See Appendix C). Caltrans has approved the studies and has issued a Categorical Exemption.

An Area of Potential Effects (APE) was outlined to encompass all areas of potential ground disturbance during construction. A records search was conducted through the California Historical Resources Information System. The records search obtained on February 6, 2014 indicated that no previously recorded archaeological sites are located within a 0.25-mile radius of the project site. Research indicated a small section of the Garfield School, built in 1912, extended into the APE. The Garfield School was designated as Fresno County Historical Landmark 178 in 1990, seven months before it was completely destroyed by fire.

A sacred lands search and contact list of Native American individuals and organizations was requested from the Native American Heritage Commission on January 24, 2014. Consultation letters were sent to Native American individuals and organizations on January 28, 2014, followed by phone calls.

An archaeological field survey was conducted on January 27, 2014, for the purpose of identifying and recording archaeological resources. The archaeological survey encountered a walkway of the Garfield School in the APE. The resource remnant was recorded and evaluated under CEQA and federal criteria.

The Garfield School does not appear to be locally significant under National Register criteria, has no association with people important in the past, does not embody distinctive characteristics or represent the original building, and there is no potential for the burned building foundation to yield information important in history. The Garfield School remnant is not eligible for the National Register of Historic Places—the building remnant lacks integrity due to its destruction in 1990. In additional, it is not

[5] Clovis General Plan EIR, page 5.5-4

important under California Register of Historical Resources criteria, and it is not a historical resource for the purposes of CEQA.

No additional archaeological or historic resources were identified within or near the APE.

RESPONSES

a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

No Impact. The Project does not include the demolition or removal of any structures, other than the existing road pavement and concrete from some of the existing curb/gutter/sidewalks that are being improved. As discussed above, no historic resources were identified within or near the APE. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

d. Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact With Mitigation. The Project area is highly disturbed, consisting of streets, active agriculture, and residential housing. There are no known or visible cultural or archaeological resources, paleontological resources, or human remains that exist on the surface of the Project area. As discussed in the ASR (see Appendix C), it was determined that the Project has low potential to impact any sensitive resources and no further cultural resources work is required unless Project plans change to include work not currently identified in the Project description.

Although no cultural or archaeological resources, paleontological resources or human remains have been identified in the Project area, the possibility exists that such resources or remains may be discovered during Project site preparation, excavation and/or grading activities. Mitigation Measures CUL – 1 and CUL – 2 will be implemented to ensure that Project will result in ***less than significant impacts with mitigation***.

Mitigation Measures:

CUL – 1 Should any potentially significant cultural or fossil resources be discovered, no further ground disturbance shall occur in the area of the discovery until the Planning Director concurs in writing that adequate provisions are in place to protect these resources. Unanticipated discoveries shall be evaluated for significance by a certified professional archaeologist or paleontologist that meets the Secretary of the Interior's Professional Qualifications Standards. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; curate materials with recognized scientific or educational repository; and provide a comprehensive final report.

CUL – 2 If human remains are unearthed during excavation and/or construction activities, all activity shall cease immediately. No further disturbance shall occur until the County Coroner has made the necessary findings as to the origin and disposition pursuant to PRC Section 5097.98(b). If the human remains are determined to be of Native American decent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the City shall ensure that the immediate vicinity, according to generally accepted cultural or archeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the City has discussed and conferred with the most likely descendants regarding their recommendations.

VI. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the most recently	☐	☐	☐	☒

VI. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
adopted Uniform Building Code creating substantial risks to life or property?				
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

AFFECTED ENVIRONMENT

The City of Clovis is underlain by Quaternary alluvial fan sedimentary deposits and Pleistocene nonmarine sedimentary deposits (CGS 2012). The Quaternary Period extends from the present to 1.8 million years before the present (mybp), and the Pleistocene Epoch extends from 11,500 years before present to 1.8 mybp. The area is on a very slight southwest slope of about 0.2 percent grade; elevations in the incorporated portion of the City range from about 335 feet above mean sea level (amsl) at the southwest corner of the City to 435 feet amsl at the northeast corner. The Clovis Fault extends northwest-southeast from just north of the City, across the northeastern corner, to just east of the southeast boundary. The Fault is not mapped as active.[6] The Project area is a fully developed intersection with streets, sidewalks and residential housing and is geologically stable.

RESPONSES

a-i. <u>Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area</u>

[6] Clovis General Plan EIR, page 5.6-3

or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

a-ii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

a-iii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

a-iv. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

No Impact. The Project does not include any above-surface level structural development except for a new traffic signal. The site is not located within or near an Alquist-Priolo Earthquake Fault Zone, and no mapped evidence of active or potentially active faulting was found near the Project site. Due to the distance from known faults, hazards due to ground shaking would be minimal, as would risk of liquefaction (which could occur during ground shaking events). The site itself is flat and there are no slopes near the Project site that would present any risk of potential landslides. Therefore, the Project would not expose people or structures to potential adverse effects involving the rupture of a known earthquake fault, ground shaking, liquefaction, or landslides and ***no impacts*** would occur.

Mitigation Measures: None are required.

b. Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Construction activities associated with the Project involves some excavation of existing asphalt pavement and concrete as well as ground preparation work for new signal and minor lane modifications. These activities could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the Project site. During construction, nuisance flow caused by minor rain could flow off-site. The City and/or contractor would be required to employ appropriate sediment and erosion control BMPs as part of a Stormwater Pollution Prevention Plan (SWPPP) that would be required in the California National Pollution Discharge Elimination System (NPDES). In addition, soil erosion and loss of topsoil would be minimized through implementation of the SVJAPCD fugitive dust control measures (See Section III). Once construction is complete, the Project would not result in soil erosion or loss of topsoil. Therefore, there is a ***less than significant impact.***

Mitigation Measures: None are required.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. See Section VIa. above. The site is not at significant risk from earthquakes, ground shaking, liquefaction, or landslide and is otherwise considered geologically stable. Subsidence is typically related to over-extraction of groundwater from certain types of geologic formations where the water is partly responsible for supporting the ground surface. According to the City's General Plan EIR, subsidence in the City is considered less than significant.[7] Therefore, there is a ***less than significant impact.***

Mitigation Measures: None are required.

d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property?

No Impact. As identified in the City's General Plan EIR, there are soils with moderately high to high expansion potential along parts of the northern edge of the City of Clovis' non-SOI Plan Area and in the easternmost part of the non-SOI Plan Area.[8] However, the Project site is not located within or near these areas and therefore risk of subsidence is minimal. Therefore, there is ***no impact.***

Mitigation Measures: None are required.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Project does not include the construction, replacement, or disturbance of septic tanks or alternative wastewater disposal systems. Therefore, there is ***no impact.***

Mitigation Measures: None are required.

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[7] Clovis General Plan EIR, page 5.6-12.

[8] Ibid, page 5.6-13.

VII. GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

AFFECTED ENVIRONMENT

The City of Clovis prepared a 2012 Greenhouse Gas Emission Inventory as part of their General Plan Update process. The inventory was composed of the following sources:

- Transportation
- Areas Sources
- Energy
- Solid Waste Disposal
- Water/Wastewater
- Permitted Sources

Various gases in the earth's atmosphere play an important role in moderating the earth's surface temperature. Solar radiation enters earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs are transparent to solar radiation, but are effective in absorbing infrared radiation. Consequently, radiation that would otherwise escape back into space is retained, resulting in a warming of the earth's atmosphere. This phenomenon is known as the greenhouse effect. Scientific research to date indicates that some of the observed climate change is a result of increased GHG emissions associated with human activity. Among the GHGs contributing to the greenhouse effect are water vapor, carbon dioxide (CO_2), methane (CH_4), ozone, Nitrous Oxide (NO_x), and chlorofluorocarbons. Human-caused emissions of these GHGs in excess of natural ambient concentrations are considered responsible for enhancing the greenhouse effect. GHG emissions contributing to global climate change are attributable, in large part,

to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors.

In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation. Global climate change is, indeed, a global issue. GHGs are global pollutants, unlike criteria pollutants and TACs (which are pollutants of regional and/or local concern). Global climate change, if it occurs, could potentially affect water resources in California. Rising temperatures could be anticipated to result in sea-level rise (as polar ice caps melt) and possibly change the timing and amount of precipitation, which could alter water quality. According to some, climate change could result in more extreme weather patterns; both heavier precipitation that could lead to flooding, as well as more extended drought periods. There is uncertainty regarding the timing, magnitude, and nature of the potential changes to water resources as a result of climate change; however, several trends are evident.

Snowpack and snowmelt may also be affected by climate change. Much of California's precipitation falls as snow in the Sierra Nevada and southern Cascades, and snowpack represents approximately 35 percent of the state's useable annual water supply. The snowmelt typically occurs from April through July; it provides natural water flow to streams and reservoirs after the annual rainy season has ended. As air temperatures increase due to climate change, the water stored in California's snowpack could be affected by increasing temperatures resulting in: (1) decreased snowfall, and (2) earlier snowmelt.

RESPONSES

a. <u>Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</u>

b. <u>Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</u>

Less Than Significant Impact. Construction of the Project would generate short-term emissions of greenhouse gases. The Sacramento Metropolitan Air Quality Metropolitan District's Roadway Construction Emissions Model (the Sacramento model was used as it is more specific to linear projects and is acceptable to the SJVAPCD) was utilized to estimate that construction would generate approximately 70.55 metric tons of CO2 per year (See Table 2). If emissions are amortized over a 30-year period to account for their contribution to project lifetime greenhouse gas emissions, the result would be 2.35 tons, which is well below the Council of Environmental Quality (CEQ) presumptive threshold of 25,000 MTCO2e. Construction emissions would therefore have a less than cumulatively considerable contribution to global climate change impacts. As noted earlier, there are no operational emissions associated with the Project because it is not capacity increasing and therefore the Project would not produce greenhouse gas emissions. Because the Project will result

in less than significant increases in CO2 emissions, it is therefore not in conflict with any greenhouse gas reducing plans, policies, or regulations. Therefore, there is a ***less than significant impact.***

Mitigation Measures: None are required.

VIII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project result in	☐	☐	☐	☒

VIII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a safety hazard for people residing or working in the project area?				
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands	☐	☐	☐	☒

AFFECTED ENVIRONMENT

Hazardous materials refer generally to hazardous substances that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. There are no known hazardous material producing facilities in the vicinity of the Project. The Project is located in an existing residential neighborhood, adjacent to agriculture.

RESPONSES

a. <u>Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</u>

b. <u>Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?</u>

Less Than Significant Impact. Construction of the Project would require the use and transport of hazardous materials, including fuels, oils, and other chemicals (e.g., paints, lead, adhesives, etc.) typically

used during construction. It is likely that these hazardous materials and vehicles would be stored by the contractor(s) on-site during construction activities. Improper use and transportation of hazardous materials could result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. However, all materials used during construction would be contained, stored, and handled in compliance with applicable standards and regulations established by the Department of Toxic Substances Control (DTSC), the U.S. Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA). In addition, a Storm Water Pollution Prevention Plan (SWPPP) is required for the Project and shall include emergency procedures for incidental hazardous materials releases. The SWPPP also includes Best Management Practices which includes requirements for hazardous materials storage.

Caltrans prepared a Hazardous Waste Environmental Analysis Memorandum (See Appendix D), that addressed the appropriate methods of removing existing road paint striping (which may contain lead) as well as soil handling involving aerially deposited lead (which is unlikely given the highly disturbed nature of the site and the lack of extensive excavation involved with the Project).

The use of hazardous materials would be confined to the Project construction period. The Project itself, once constructed, will not contain, use or produce any hazardous materials. The Project therefore, would have a ***less than significant impact***.

Mitigation Measures: None are required.

c. <u>Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</u>

Less Than Significant Impact. The closest school is Woods Elementary School and the Buchanan Educational Center, both of which are located approximately one mile south of the proposed Project area. No schools are located within 0.25 mile of the project site. This condition precludes the possibility of activities associated with the Proposed Project exposing schools within a 0.25-mile radius of the project site to hazardous materials. No impact would occur.

Mitigation Measures: None are required.

d. <u>Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?</u>

No Impact. The proposed Project site is not listed on California's Department of Toxic Substances Control Hazardous Waste and Substances List (DTSC 2015) or the (EPA 2013), nor is it located near

any listed sites. Because the project is not listed as a hazardous materials site, the project would not create a significant hazard to the public or the environment, and thus, ***no impact*** would occur.

Mitigation Measures: None are required.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The Project is not located within two miles of any airports, public or private, and is not located within an airport land use plan. The nearest airport is the Fresno Yosemite Airport located over two miles south of the Project site. There is ***no impact.***

Mitigation Measures: None are required.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The Project would not interfere with or impair implementation of an emergency response plan or evacuation plan. The proposed Project would result in a minor amount of new impervious areas associated with installation of asphalt where it currently does not exist. This would be limited to the northern edge of Shepherd Ave. on the east and west side of Minnewawa Ave. In addition, during construction, access for emergency vehicles will be maintained. The City will consult with its police, fire and ambulance service providers who will be given specific construction schedules and pertinent Project information so that adequate access is maintained at all times. Therefore, the Project will have ***a less than significant impact.***

Mitigation Measures: None are required.

h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. Implementation of the Project would not change the degree of exposure to wildfires because no new housing or businesses will be constructed and there are no wildlands in the Project vicinity. Therefore, there is ***no impact.***

Mitigation Measures: None are required.

IX. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or	☐	☐	☒	☐

IX. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
provide substantial additional sources of polluted runoff?				
f. Otherwise substantially degrade water quality?	☐	☐	☒	☐
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j. Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

AFFECTED ENVIRONMENT

The City of Clovis is underlain by the Kings Groundwater Basin that spans 1,530 square miles of central Fresno County and small areas of northern Kings and Tulare counties. The City is located in three hydrologic areas, all of which are parts of the South Valley Floor hydrologic unit. Generally, the southwest half of the area is in the Fresno hydrologic area, most of the remainder of the area is in the Academy hydrologic area and parts of the northernmost area in in the Humphreys Station hydrologic

area.[9] The Clovis area is also within the drainages of three streams: Dry Creek, Dog Creek, and Redbank Slough. A network of storm-drains in the City and surrounding area discharges into 31 retention basins.

The City's Public Utilities Department delivers water to approximately 106,000 residents and in 2013, supplied 20,160 acre-feet of groundwater and 6,963 acre-feet of surface water. The City relies upon groundwater, surface water and recycled water for its water supply.[10] The Project site is at the northern boundary of a residential neighborhood and the southern boundary of active agriculture.

RESPONSES

a. Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. The Project has the potential to impact water quality standards and/or waste discharge requirements during construction (temporary impacts) and operation (polluted stormwater runoff due to an increase in impervious surfaces). Impacts are discussed below.

Construction

Although the proposed Project site is relatively small in scale, grading, excavation, removal of vegetation cover, and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

Three general sources of potential short-term construction-related stormwater pollution associated with the proposed project are: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities which, when not controlled, may generate soil erosion and transportation, via storm runoff or mechanical equipment. Generally, routine safety precautions for handling and storing construction materials may effectively mitigate the potential pollution of stormwater by these materials. These same types of common sense, "good housekeeping" procedures can be extended to non-hazardous stormwater pollutants such as sawdust and other solid wastes.

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are also common sources of stormwater pollution and soil contamination. In addition,

[9] Clovis General Plan EIR, page 5.9-10

[10] Ibid, page 5.17-3

grading activities can greatly increase erosion processes. Two general strategies are recommended to prevent construction silt from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed. Secondly, the area should be secured to control offsite migration of pollutants. These Best Management Practices (BMPs) would be required in the Stormwater Pollution Prevention Plan (SWPPP) to be prepared prior to commencement of Project construction. When properly designed and implemented, these "good-housekeeping" practices are expected to reduce short-term construction-related impacts to less than significant.

In accordance with the National Pollution Discharge Elimination System (NPDES) Stormwater Program, as discussed in Section 3.5 Geology and Soils the Project will be required to comply with existing regulatory requirements to prepare a SWPPP designed to control erosion and the loss of topsoil to the extent practicable using BMPs that the Regional Water Quality Control Board (RWQCB) has deemed effective in controlling erosion, sedimentation, runoff during construction activities. The specific controls are subject to the review and approval by the RWQCB and are an existing regulatory requirement.

Operation

The proposed Project would result in a minor amount of new impervious areas associated with installation of asphalt where it currently does not exist. This would be limited to the northern edge of Shepherd Ave. on the east and west side of Minnewawa Ave. and both the east and west edges of Minnewawa Ave. north of Shepherd Ave. However, the proposed Project is designed to direct stormwater run-off to the existing storm drain system and will incorporate appropriate pollution prevention and BMPs in accordance with City design standards and RWQCB requirements. The Project would not contribute significantly more runoff or polluted water than produced by the existing roadway and shoulders.

Therefore, the impact is ***less than significant.***

Mitigation Measures: None are required.

b. <u>Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?</u>

No Impact. The proposed Project, once operational, will not require on-going use of water and therefore would not affect an aquifer or local water table. Therefore, the Project will have ***no impact***.

Mitigation Measures: None are required.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

f. Otherwise substantially degrade water quality?

Less Than Significant Impact. The Project includes minor changes to the existing stormwater drainage pattern of the area through the installation of asphalt, curb, gutter and sidewalks. However, stormwater on the existing and proposed impervious surfaces would be collected via the existing drainage system as well as proposed improvements. As described in impact a. above, the Project would not contribute significantly more runoff or polluted water than produced by the existing roadway and drainage patterns would not be significantly altered. In addition, the Project would not otherwise degrade water quality. Therefore, the Project will have a ***less than significant impact.***

Mitigation Measures: None are required.

g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

j. Inundation by seiche, tsunami, or mudflow?

No Impact. The Project is not within a regulatory floodway or within a base floodplain (100 year) elevation. In addition, the Project does not include any housing or structures that would be subject to flooding either from a watercourse or from dam inundation. There are no bodies of water near the site

that would create a potential risk of hazards from seiche, tsunami or mudflow. Therefore, there are ***no impacts.***

Mitigation Measures: None are required.

X. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

AFFECTED ENVIRONMENT

The City's General Plan Area encompasses approximately 47,804 acres (75 square miles) and comprises a number of land uses including commercial, industrial, and single-family residential. Zoning designations within the City's incorporated boundaries include residential, commercial, industrial, office and public facilities. By far the largest zoning designation within the City boundaries is single-family residential, with commercial occupying the second largest. The majority of the commercial designations are generally concentrated along Herndon, Shaw and Clovis Avenues.[11] The Project site is a roadway on the northern border of the City, separating residential development and active agriculture.

RESPONSES

a. <u>Physically divide an established community?</u>

[11] Clovis General Plan EIR, page 5.10-5

b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The Project has no characteristics that would physically divide the City of Clovis. It is intended to improve traffic flow along the roadway. The Project is consistent with the City's General Plan and there are no plans that the Project conflicts with. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

XI. MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

AFFECTED ENVIRONMENT

The entire City of Clovis boundary is mapped as MRZ-3 by the California Geological Survey, which means the significance of mineral deposits cannot be determined from available data. The nearest potential significant mineral resource areas are the San Joaquin River and Kings River, each located several miles from the City.[12]

RESPONSES

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. There are no known mineral resources in the Project area and none are identified in the City's General Plan near the Project site. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

[12] Clovis General Plan EIR, page 5.11-2

XII. NOISE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

AFFECTED ENVIRONMENT

Noise is most often described as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. The City of Clovis is impacted by a multitude of noise sources. Mobile sources of noise, especially cars and trucks, are the most common and significant sources of noise in most communities, and they are predominant sources of noise in the City. The Fresno-Yosemite International Airport also generates noise from general aviation and commercial aircraft activity. In addition, commercial, industrial, and institutional land uses throughout the City (i.e., schools, fire stations, utilities) generate stationary-source noise.[13] The Project site is a roadway on the northern border of the City, separating residential development and active agriculture.

RESPONSES

a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

d. A substantial temporary or period increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact.

Short-term (Construction) Noise Impacts

Proposed Project construction related activities will involve temporary noise sources and are anticipated to begin in Summer 2019 and last up to four months. Typical construction related equipment include graders, trenchers, small tractors and excavators. During the proposed Project construction, noise from construction related activities will contribute to the noise environment in the immediate vicinity. Activities involved in construction will generate maximum noise levels, as indicated in Table 3, ranging

[13] Clovis General Plan EIR, page 5.12-10

from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise controls.

Table 3
Typical Construction Noise Levels

Type of Equipment	dBA at 50 ft	
	Without Feasible Noise Control	With Feasible Noise Control
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in both CEQA documents and local noise ordinances, which generally recognize the reality that short-term noise from construction is inevitable and cannot be mitigated beyond a certain level. Thus, local agencies frequently tolerate short-term noise at levels that they would not accept for permanent noise sources. A more severe approach would be impractical and might preclude the kind of construction activities that are to be expected from time to time in urban environments. Most residents of urban areas recognize this reality and expect to hear construction activities on occasion.

Section 5.27.604 of the Municipal Code addresses construction activities. The Project contractor will be required to adhere to hours of construction between 7:00 AM and 7:00 PM Monday through Friday and between 9:00 AM and 5:00 PM on Saturday and Sunday, except that from June 1 through September 15, construction activity may start after 6:00 AM Monday through Friday.

Long-term (Operational) Noise Impacts

According to the City's General Plan EIR, major noise sources in Clovis are related to roadways, vehicle traffic, and railroad noises.

The Project involves widening Minnewawa and Shepherd Avenues to accommodate installation of new right turn lane transitions, curb returns, and pedestrian ramps. Because of the widening, there are some areas where the roadway will be closer to some existing residential houses than from its current configuration. Noise from the Project will be similar to existing conditions and will generally include noise from vehicles, but the vehicles will be in closer proximity to sensitive receptors (single family houses) along Shepherd and Minnewawa Avenues. According to the City's General Plan EIR, traffic-

related noise increases of greater than 5 dBA over existing conditions, resulting in noise levels greater than 65 dBA CNEL, may have an impact on sensitive receptors.

The nearest noise monitoring location (according to the City General Plan Update) was located near Shepherd and Peach Avenues. This monitoring station was in a residential area south of Shepherd Avenue, approximately 20 feet from the curb by the homes' property boundaries. The primary noise sources were traffic on Shepherd Avenue and sporadic traffic on Villa Avenue. The maximum noise level measured between 4 and 5 pm was 55.9 dBA CNEL at that site.

Assuming the Project segment has a similar dBA of 56, the noise level increase due to the Project would need to rise at least 5 dBA to be potentially significant, but would still be below the acceptable 65 dBA for the Project area. Because the Project is not generating new traffic, but will move traffic closer to a sensitive receptor, only increased traffic noise due to proximity will result from the Project. Generally speaking, if traffic is moved half as close to existing homes (i.e. from 100 feet to 50 feet), the noise levels will increase by 3 decibels.[14] It is therefore assumed that even though the Project will result in a closer distance (less than 25 feet) to sensitive receptors than existing conditions, it is not likely to increase noise by more than 3 dBA, or result in exceedance of the City's threshold of 65 dBA CNEL for exterior noise. Therefore, the impact is considered ***less than significant.***

Mitigation Measures: None are required.

e. For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project is not located within an airport land use plan or within the vicinity of any airports or airstrips. The nearest airport is the Fresno Yosemite Airport located over four miles south of the Project site. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

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[14] www.dot.state.mn.us/environment/noise/pdf/noisebrochure5-24-11.pdf and https://www.cityofroseville.com/DocumentView.aspx?DID=2982

XIII. POPULATION AND HOUSING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

AFFECTED ENVIRONMENT

The population of Clovis steadily increased from 2000-2004, but after 2004 continued to increase but at a lower rate. Between the 2000 and 2010 Census, the City experienced a population increase of 39.7 percent. Since the 2010 Census, the Department of Finance estimates the City's population to be 100,091. Following the population growth, the City's housing rate also increased, as Clovis gained 11,324 dwelling units between 2000 and 2013. The total number of housing units (single and multi-family) was 36,589 by 2013.[15]

RESPONSES

a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

[15] Clovis General Plan EIR, pages 5.13-(4-5)

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. The Project would not induce population either directly or indirectly and it does not involve the construction of new housing. The Project is not growth inducing as it does not increase the capacity of the thru-lanes and is intended to increase the efficiency and vehicle flow at the intersection. The Project could generate temporary construction jobs, most of which could be filled by workers already residing in the area. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

XIV. PUBLIC SERVICES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

AFFECTED ENVIRONMENT

The City of Clovis provides full service police and fire protection services. There are numerous schools, parks, libraries and other public facilities located throughout the City.

RESPONSES

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

Police Protection?

Schools?

Parks?

Other public facilities?

No Impact. The Project has no design, construction or operational characteristics that would necessitate the need for new or expanded facilities related to fire protection, police protection, schools, parks, or other public facilities. There is no housing related or population inducing component of the Project. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

XV. RECREATION

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

AFFECTED ENVIRONMENT

The City of Clovis Public Utilities Department builds and maintains public parks. Currently, approximately 160 acres are developed as park space. The parks in the City range from 0.06 acres to 17.9 acres, and each provides varied amenities and facilities, such as playgrounds, shelters, picnic tables, sports fields, drinking fountains, restrooms, and parking.[16]

RESPONSES

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The Project has no design, construction or operational characteristics that would necessitate the need for new or expanded facilities related to recreational facilities. There is no housing related or population inducing component of the Project. However, the Project is likely to improve pedestrian

[16] Clovis General Plan EIR, page 5.15-2

access along the road segment, thereby resulting in improved recreational opportunities. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

XVI. TRANSPORTATION/ TRAFFIC

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e. Result in inadequate emergency access?	☐	☐	☒	☐

XVI. TRANSPORTATION/ TRAFFIC

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
Would the project:				
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

AFFECTED ENVIRONMENT

Roadways in the City of Clovis are categorized according to the type of service they provide. Functional classifications in Clovis include Freeways, State Routes, Expressways, Arterials, Collectors, and Local Streets. Two major functions of roadways are to provide mobility for through-traffic and provide direct access to adjacent properties. Roadways also provide bicycle and pedestrian access and allow for the circulation of non-vehicular traffic.

The Proposed Project intersection at Shepherd Avenue and Minnewawa Avenue is located at the northern boundary of the City of Clovis and north of Shepherd Avenue the lands lie within the City's Sphere of Influence. Minnewawa Avenue from Herndon Avenue north of Shepherd is classified as an arterial street (City of Clovis General Plan and Development Code Update, Environmental Analysis). Shepherd Avenue from Clovis Avenue west to Chestnut Avenue is also classified as an arterial roadway.

Minnewawa Avenue north of Shepherd Avenue is classified as an "arterial collector". Both Minnewawa and Shepherd have Class II bike lanes.

The City of Clovis General Plan updates identified the current level of service along Shepherd Avenue as follows:

- Shepherd Avenue from Willow to Minnewawa operates at Level C for both the AM and PM Peak Hour. Similarly, from Minnewawa to Clovis Avenue also operates at Level C for the AM and PM Peak. The Level of Service between Minnewawa Avenue Behymer Avenue to the North, operates at Level D in the AM Peak and Level C at the PM Peak. Minnewawa Avenue from Shepherd south to Teague Avenue operates at LOS C in the AM and PM Peaks.

The Level of Service for the City of Clovis is defined as the following:

- Level C: Traffic flow with speeds at or near free-flow speed. The freedom to maneuver within the traffic steam is noticeably restricted, and lane changes require more care and vigilance on the part of the driver.
- Level D: Speeds begin to decline slightly with increasing flows. Freedom to maneuver within the traffic stream is noticeably limited.

The Clovis General Plan evaluated traffic at full buildout at the 2035 scenario within the Northwest Urban Center. In addition, a traffic analysis conducted for the Heritage Grove Planning Area in 2016 indicated that all major roadways within the planning area would operate at LOS D by 2035 except for Minnewawa Avenue between Shepherd Avenue and the east-west roadway at a point approximately one quarter mile to the north; and 2) Peach Avenue between Shepherd Avenue and the east-west roadway at a point approximately one quarter mile to the north. To improve the LOS the following is recommended:

- Provide two through lanes in each direction, divided by a two way left turn lane and right turn lanes.

These improvements have been incorporated into the Proposed Project design.

RESPONSES

a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

e. Result in inadequate emergency access?

Less Than Significant Impact. The Project is a roadway improvement project that includes installing a signal light, installing new right turn lane transitions, curb returns, and pedestrian ramps. The Project is

intended to improve traffic flow through the area and to improve pedestrian access and is consistent with the City's General Plan.

The Project itself is not capacity increasing and would not generate new vehicle trips, therefore it would not result in any new traffic that could exceed the capacity of the street system. Although the Project would not generate new vehicle trips, construction of the Project could result in temporary increase in traffic volumes and disruption of traffic flow during construction activities. The road will not be closed during construction, but some temporary detouring may be necessary as the Project is built out in phases. Construction is expected to begin in Summer 2019 and last up to four months. The Project contractor will be required to adhere to hours of construction between 7:00 AM and 7:00 PM Monday through Friday and between 9:00 AM and 5:00 PM on Saturday and Sunday, except that from June 1 through September 15, construction activity may start after 6:00 AM Monday through Friday. The City will develop a construction management plan that will reduce impacts to motor vehicle, bicycle, pedestrian and transit circulation.

During construction, access for emergency vehicles will be maintained. The City will consult with its police, fire and ambulance service providers who will be given specific construction schedules and pertinent Project information so that adequate access is maintained at all times. The City will implement a traffic management plan that will require coordination with the County of Fresno, City of Fresno and emergency service providers. The plan will take into account the proposed project as well as other projects in the vicinity.

Therefore, there is a ***less than significant impact***.

Mitigation Measures: None are required.

c. <u>Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?</u>

No Impact. The Project is not located in the vicinity of any airfields or airports. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

f. <u>Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?</u>

No Impact. The Project includes the addition of pedestrian facilities (curbs and ADA facilities). Implementation of the Project will be beneficial to such facilities. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

XVII. TRIBAL CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

RESPONSES

a). Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact. In accordance with Assembly Bill (AB) 52, potentially affected Tribes were formally notified of this Project and were given the opportunity to request consultation on the Project. The City contacted the Native American Heritage Commission, requesting a contact list of applicable Native American Tribes, which was provided to the City. In December 2016, the City provided letters to the listed Tribes, notifying them of the Project and requesting consultation, if desired. The City did not receive any responses from the tribes contacted. Therefore, there is a ***less than significant impact***.

Mitigation Measures: None are required.

XVIII. UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐

XVIII. UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

AFFECTED ENVIRONMENT

The City's Public Utilities Department delivers water to approximately 106,000 residents and in 2013, supplied 20,160 acre-feet of groundwater and 6,963 acre-feet of surface water. The City relies upon groundwater, surface water and recycled water for its water supply.[17]

The City constructed a wastewater treatment plant that began service in 2009. The facility produces a disinfected, tertiary-treated water supply, which is used for both landscaping and agricultural uses. In 2010, this facility produced 1,784 acre feet of treated water for use within the City service area. Production at this facility is expected to grow to 6,273 acre feet per year by 2025.[18]

RESPONSES

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. The Project will not generate wastewater and therefore does not have the potential to exceed wastewater treatment capacity or requirements of the RWQCB. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

[17] Clovis General Plan EIR, page 5.17-3
[18] Ibid, page 5.17-7

Less Than Significant Impact. The proposed Project would result in a minor amount of new impervious areas associated with installation of asphalt where it currently does not exist. This would be limited to the northern edge of Shepherd Ave. on the east and west side of Minnewawa Ave. and both the east and west edges of Minnewawa Ave. north of Shepherd Ave. However, the proposed Project is designed to direct stormwater run-off to the existing storm drain system and will incorporate appropriate pollution prevention and BMPs in accordance with City design standards and RWQCB requirements. The Project would not contribute significantly more runoff or polluted water than produced by the existing roadway and shoulders.

Therefore, the impact is ***less than significant.***

Mitigation Measures: None are required.

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The Project will not require on-going use of water and will not generate wastewater and therefore does not have the potential to exceed supplies or capacity of these facilities. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g. Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact. The Project will utilize the Clovis landfill to dispose of asphalt grindings that are unable to be recycled. According to the City's General Plan EIR, the Clovis Landfill has adequate capacity to receive solid waste through the year 2053.[19] Therefore, the impact is ***less than significant.***

Mitigation Measures: None are required.

[19] Clovis General Plan EIR, page 5.17-36.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

RESPONSES

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the proposed Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to ***less than significant***.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less than Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The proposed Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc.). The impact is ***less than significant***.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to ***less than significant.***

Chapter 4

MITIGATION MONITORING & REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Shepherd / Minnewawa Signal Installation Project. The MMRP lists mitigation measures recommended in the IS/MND for the proposed Project and identifies monitoring and reporting requirements as well as conditions recommended by responsible agencies who commented on the project.

The first column of the Table identifies the mitigation measure. The second column, entitled "Party Responsible for Implementing Mitigation," names the party responsible for carrying out the required action. The third column, "Implementation Timing," identifies the time the mitigation measure should be initiated. The fourth column, "Party Responsible for Monitoring," names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last column will be used by the City to ensure that individual mitigation measures have been monitored.

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
BIO – 1 **If tree removal is scheduled to occur during the nesting period for birds (February 1 – August 31), then a pre-construction nesting birds survey must be conducted within 30 days prior to removal. If nesting birds (including raptors) are found, then tree removal cannot occur until any young have fledged. If a nest in found in a tree within the project area, but the tree is not slated to be removed, then a biologist must be consulted to determine the size of an appropriate setback buffer to avoid disturbance to the nesting bird(s). If the biologist recommends monitoring during construction, then the City must implement monitoring to prevent, to the extent possible, any nest abandonment.**	City of Clovis	At least 30 days prior to tree removal	City of Clovis	
CUL – 1 Should any potentially significant cultural or fossil resources be discovered, no further ground disturbance shall occur in the area of the discovery until the Planning Director concurs in writing that adequate provisions are in place to protect these resources. Unanticipated discoveries shall be evaluated for significance by a certified professional archaeologist or paleontologist that meets the Secretary of the Interior's Professional Qualifications Standards. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; curate materials with	City of Clovis and Construction Contractor	During Construction	City of Clovis and Construction Contractor	

	Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
	recognized scientific or educational repository; and provide a comprehensive final report.				
CUL – 2	If human remains are unearthed during excavation and/or construction activities, all activity shall cease immediately. No further disturbance shall occur until the County Coroner has made the necessary findings as to the origin and disposition pursuant to PRC Section 5097.98(b). If the human remains are determined to be of Native American decent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the City shall ensure that the immediate vicinity, according to generally accepted cultural or archeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the City has discussed and conferred with the most likely descendants regarding their recommendations.	City of Clovis and Construction Contractor	During Construction	City of Clovis and Construction Contractor	

Chapter 5

PREPARERS

LIST OF PREPARERS AND CONSULTATIONS

List of Preparers

Crawford & Bowen Planning, Inc.

- Travis Crawford, AICP, Principal Environmental Planner
- Emily Bowen, LEED AP, Principal Environmental Planner

Persons and Agencies Consulted

City of Clovis

- Ryan Burnett, AICP

Appendices

Appendix A

Air Emissions Output Table

Shepherd Minnewawa Signal Installation Project

San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.50	Acre	0.50	21,780.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2019
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0655	0.5998	0.4717	7.9000e-004	6.8400e-003	0.0353	0.0422	2.0200e-003	0.0327	0.0347	0.0000	70.5454	70.5454	0.0189	0.0000	71.0167
Maximum	**0.0655**	**0.5998**	**0.4717**	**7.9000e-004**	**6.8400e-003**	**0.0353**	**0.0422**	**2.0200e-003**	**0.0327**	**0.0347**	**0.0000**	**70.5454**	**70.5454**	**0.0189**	**0.0000**	**71.0167**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0655	0.5998	0.4717	7.9000e-004	6.8400e-003	0.0353	0.0422	2.0200e-003	0.0327	0.0347	0.0000	70.5454	70.5454	0.0189	0.0000	71.0166
Maximum	**0.0655**	**0.5998**	**0.4717**	**7.9000e-004**	**6.8400e-003**	**0.0353**	**0.0422**	**2.0200e-003**	**0.0327**	**0.0347**	**0.0000**	**70.5454**	**70.5454**	**0.0189**	**0.0000**	**71.0166**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2019**	**3-31-2019**	0.3560	0.3560
2	**4-1-2019**	**6-30-2019**	0.3053	0.3053
		Highest	0.3560	0.3560

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8600e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.8600e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8600e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.8600e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/14/2019	5	10	
2	Site Preparation	Site Preparation	1/15/2019	1/15/2019	5	1	
3	Grading	Grading	1/16/2019	1/17/2019	5	2	
4	Building Construction	Building Construction	1/18/2019	6/6/2019	5	100	
5	Paving	Paving	6/7/2019	6/13/2019	5	5	
6	Architectural Coating	Architectural Coating	6/14/2019	6/20/2019	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,307 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7700e-003	0.0430	0.0385	6.0000e-005		2.6900e-003	2.6900e-003		2.5600e-003	2.5600e-003	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852
Total	**4.7700e-003**	**0.0430**	**0.0385**	**6.0000e-005**		**2.6900e-003**	**2.6900e-003**		**2.5600e-003**	**2.5600e-003**	**0.0000**	**5.2601**	**5.2601**	**1.0000e-003**	**0.0000**	**5.2852**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.6000e-004	1.6400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3704	0.3704	1.0000e-005	0.0000	0.3707
Total	**2.3000e-004**	**1.6000e-004**	**1.6400e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3704**	**0.3704**	**1.0000e-005**	**0.0000**	**0.3707**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7700e-003	0.0430	0.0385	6.0000e-005		2.6900e-003	2.6900e-003		2.5600e-003	2.5600e-003	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852
Total	**4.7700e-003**	**0.0430**	**0.0385**	**6.0000e-005**		**2.6900e-003**	**2.6900e-003**		**2.5600e-003**	**2.5600e-003**	**0.0000**	**5.2601**	**5.2601**	**1.0000e-003**	**0.0000**	**5.2852**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.6000e-004	1.6400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3704	0.3704	1.0000e-005	0.0000	0.3707
Total	**2.3000e-004**	**1.6000e-004**	**1.6400e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3704**	**0.3704**	**1.0000e-005**	**0.0000**	**0.3707**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	4.4600e-003	2.0700e-003	0.0000		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.4378	0.4378	1.4000e-004	0.0000	0.4413
Total	**3.6000e-004**	**4.4600e-003**	**2.0700e-003**	**0.0000**	**2.7000e-004**	**1.8000e-004**	**4.5000e-004**	**3.0000e-005**	**1.7000e-004**	**2.0000e-004**	**0.0000**	**0.4378**	**0.4378**	**1.4000e-004**	**0.0000**	**0.4413**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0185	0.0185	0.0000	0.0000	0.0185
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0185**	**0.0185**	**0.0000**	**0.0000**	**0.0185**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	4.4600e-003	2.0700e-003	0.0000		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.4378	0.4378	1.4000e-004	0.0000	0.4413
Total	**3.6000e-004**	**4.4600e-003**	**2.0700e-003**	**0.0000**	**2.7000e-004**	**1.8000e-004**	**4.5000e-004**	**3.0000e-005**	**1.7000e-004**	**2.0000e-004**	**0.0000**	**0.4378**	**0.4378**	**1.4000e-004**	**0.0000**	**0.4413**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0185	0.0185	0.0000	0.0000	0.0185
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0185**	**0.0185**	**0.0000**	**0.0000**	**0.0185**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-004	8.6000e-003	7.6900e-003	1.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
Total	**9.5000e-004**	**8.6000e-003**	**7.6900e-003**	**1.0000e-005**	**7.5000e-004**	**5.4000e-004**	**1.2900e-003**	**4.1000e-004**	**5.1000e-004**	**9.2000e-004**	**0.0000**	**1.0520**	**1.0520**	**2.0000e-004**	**0.0000**	**1.0570**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	3.3000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0741	0.0741	0.0000	0.0000	0.0742
Total	**5.0000e-005**	**3.0000e-005**	**3.3000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0741**	**0.0741**	**0.0000**	**0.0000**	**0.0742**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-004	8.6000e-003	7.6900e-003	1.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
Total	**9.5000e-004**	**8.6000e-003**	**7.6900e-003**	**1.0000e-005**	**7.5000e-004**	**5.4000e-004**	**1.2900e-003**	**4.1000e-004**	**5.1000e-004**	**9.2000e-004**	**0.0000**	**1.0520**	**1.0520**	**2.0000e-004**	**0.0000**	**1.0570**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	3.3000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0741	0.0741	0.0000	0.0000	0.0742
Total	**5.0000e-005**	**3.0000e-005**	**3.3000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0741**	**0.0741**	**0.0000**	**0.0000**	**0.0742**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0479	0.4910	0.3772	5.7000e-004		0.0303	0.0303		0.0279	0.0279	0.0000	51.1502	51.1502	0.0162	0.0000	51.5548
Total	**0.0479**	**0.4910**	**0.3772**	**5.7000e-004**		**0.0303**	**0.0303**		**0.0279**	**0.0279**	**0.0000**	**51.1502**	**51.1502**	**0.0162**	**0.0000**	**51.5548**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.8000e-004	0.0267	5.3600e-003	6.0000e-005	1.3300e-003	2.0000e-004	1.5300e-003	3.8000e-004	1.9000e-004	5.8000e-004	0.0000	5.4465	5.4465	4.5000e-004	0.0000	5.4579
Worker	2.0900e-003	1.4700e-003	0.0148	4.0000e-005	3.6000e-003	3.0000e-005	3.6200e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	3.3339	3.3339	1.1000e-004	0.0000	3.3365
Total	**3.0700e-003**	**0.0281**	**0.0201**	**1.0000e-004**	**4.9300e-003**	**2.3000e-004**	**5.1500e-003**	**1.3400e-003**	**2.1000e-004**	**1.5600e-003**	**0.0000**	**8.7804**	**8.7804**	**5.6000e-004**	**0.0000**	**8.7944**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0479	0.4910	0.3772	5.7000e-004		0.0303	0.0303		0.0279	0.0279	0.0000	51.1502	51.1502	0.0162	0.0000	51.5548
Total	**0.0479**	**0.4910**	**0.3772**	**5.7000e-004**		**0.0303**	**0.0303**		**0.0279**	**0.0279**	**0.0000**	**51.1502**	**51.1502**	**0.0162**	**0.0000**	**51.5548**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.8000e-004	0.0267	5.3600e-003	6.0000e-005	1.3300e-003	2.0000e-004	1.5300e-003	3.8000e-004	1.9000e-004	5.8000e-004	0.0000	5.4465	5.4465	4.5000e-004	0.0000	5.4579
Worker	2.0900e-003	1.4700e-003	0.0148	4.0000e-005	3.6000e-003	3.0000e-005	3.6200e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	3.3339	3.3339	1.1000e-004	0.0000	3.3365
Total	**3.0700e-003**	**0.0281**	**0.0201**	**1.0000e-004**	**4.9300e-003**	**2.3000e-004**	**5.1500e-003**	**1.3400e-003**	**2.1000e-004**	**1.5600e-003**	**0.0000**	**8.7804**	**8.7804**	**5.6000e-004**	**0.0000**	**8.7944**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0700e-003	0.0196	0.0179	3.0000e-005		1.1100e-003	1.1100e-003		1.0300e-003	1.0300e-003	0.0000	2.3931	2.3931	6.8000e-004	0.0000	2.4102
Paving	6.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7300e-003**	**0.0196**	**0.0179**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**2.3931**	**2.3931**	**6.8000e-004**	**0.0000**	**2.4102**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.4800e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3334	0.3334	1.0000e-005	0.0000	0.3337
Total	**2.1000e-004**	**1.5000e-004**	**1.4800e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3334**	**0.3334**	**1.0000e-005**	**0.0000**	**0.3337**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0700e-003	0.0196	0.0179	3.0000e-005		1.1100e-003	1.1100e-003		1.0300e-003	1.0300e-003	0.0000	2.3931	2.3931	6.8000e-004	0.0000	2.4102
Paving	6.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.7300e-003**	**0.0196**	**0.0179**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**2.3931**	**2.3931**	**6.8000e-004**	**0.0000**	**2.4102**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.4800e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3334	0.3334	1.0000e-005	0.0000	0.3337
Total	**2.1000e-004**	**1.5000e-004**	**1.4800e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3334**	**0.3334**	**1.0000e-005**	**0.0000**	**0.3337**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7000e-004	4.5900e-003	4.6000e-003	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6397
Total	**5.2100e-003**	**4.5900e-003**	**4.6000e-003**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6397**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0370	0.0370	0.0000	0.0000	0.0371
Total	**2.0000e-005**	**2.0000e-005**	**1.6000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0370**	**0.0370**	**0.0000**	**0.0000**	**0.0371**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7000e-004	4.5900e-003	4.6000e-003	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6397
Total	**5.2100e-003**	**4.5900e-003**	**4.6000e-003**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6397**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0370	0.0370	0.0000	0.0000	0.0371
Total	**2.0000e-005**	**2.0000e-005**	**1.6000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0370**	**0.0370**	**0.0000**	**0.0000**	**0.0371**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.492402	0.034496	0.167383	0.136948	0.023406	0.006040	0.021602	0.106741	0.001802	0.001770	0.005495	0.001006	0.000911

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.8600e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Unmitigated	1.8600e-003	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Total	**1.8600e-003**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Total	**1.8600e-003**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Biological Memorandum

Memorandum

Flex your power!
Be energy efficient!

To: **G. William "Trais" Norris III**
Branch Chief
Central Region Biology Branch

Date: March 24, 2015

File:CML 5208(128)
City of Clovis

Randall Bonds
Assoc. Environmental Planner
Southern San Joaquin Environmental Management Branch

From: Primavera Parker
Associate Environmental Planner (Biologist)
Southern San Joaquin Valley Environmental Management Branch

Subject: Biological Compliance

Project Description:
The City of Clovis is proposing a signalization project at the intersection of Shepherd Avenue and Minnewawa Avenue. The project would project construction would include the addition of turn channelization, curbs, ADA ramps, median construction and restriping the roadway. The project requires minor amounts of right-of-way. There will be tree/vegetation removal required for this project.

Purpose and Need: The purpose of this project is for signalization and channelization at the intersection.

Existing Environment: The project is located in the City of Clovis in Fresno County, on the intersection of Shepherd Avenue and Minnewawa Avenue. There is only disturbed and ruderal habitat found within the project limits as the project is located along the current road system. The area's former natural habitat has long been disturbed by the surrounding commercial area and by the existing city roads system.

Each of the habitat types, and their commonly associated wildlife species, found in the biological study area, are described below:

Disturbed/Developed Habitat. Disturbed areas are lands that have been altered by human actions such that the natural communities no longer exist. Disturbed areas generally consist of ruderal species, or are un-vegetated. Developed areas consist of all artificial structures within the project area including the paved travel-way.

Ruderal Habitat. In the biological study area, ruderal habitat is associated with unpaved highway right-of-way and weedy areas around and between structures, which are routinely maintained by mowing, weeding and herbicide application.

Landscape Habitat. In the biological study area, landscape habitat is associated with ornamental shrub and trees, which are routinely maintained by weeding and herbicide application. Landscape habitat occurs along the City's landscape.

Study Methods: The California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDB), the United States Fish and Wildlife Service's (USFWS), and the California Native Plant Society's (CNPS) websites were queried using the Clovis 7.5-minute United States Geological Survey (USGS) quadrangle map. Attached are species lists from these database searches.

Based on knowledge of the area, the quality of the surrounding habitats, and information obtained from current literature review, protocol level surveys for special-status plants or animals were deemed unnecessary due to the disturbed nature of the habitat within the study area and adjacent land use.

Findings and Discussion: The project area and vicinity consists of residential and disturbed communities. The existing roadway and surrounding residential homes have altered the natural landscape by introducing non-native plant species and removing potentially suitable natural habitat for sensitive plant or animal species. There are rows of large eucalyptus trees within the project area.

Landscape and disturbed habitat is found within the project limits. The vegetation found within the along the shoulders of the existing project area consists of landscape vegetation provide little or no biological importance and value.

Conclusion: Due to the nature of the project, the lack of natural habitat and the high level of disturbance within and adjacent to the project area, construction of the proposed project will not effect any special-status species or their habitat. No United States Army Corps of Engineers (ACOE) or CDFG jurisdictional waterways will be affected by the proposed project. No biological permits will be required.

- **Migratory Bird Provisions and pre-construction surveys are required for the trees that will be removed and those adjacent to the project area.**

If you have any questions, please contact Primavera Parker at (559) 445-5502 or email at primavera_parker@dot.ca.gov.

Attachment/Enclosure: CNDDB list

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **BIOS**

Graphics and Selections

Label Graphics Go Remove All Labels

BIOS Layers

+ Spotted Owl Observations [ds704] Go + ? X

+ Spotted Owl Observations Spider Diagram [ds705] Go X

+ Northern Spotted Owl - Final Critical Habitat, USFWS [ds156] Go X

− California Natural Diversity Database (gov ed) [ds45] Go + RF ? X

Symbology

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)

Reference Layers

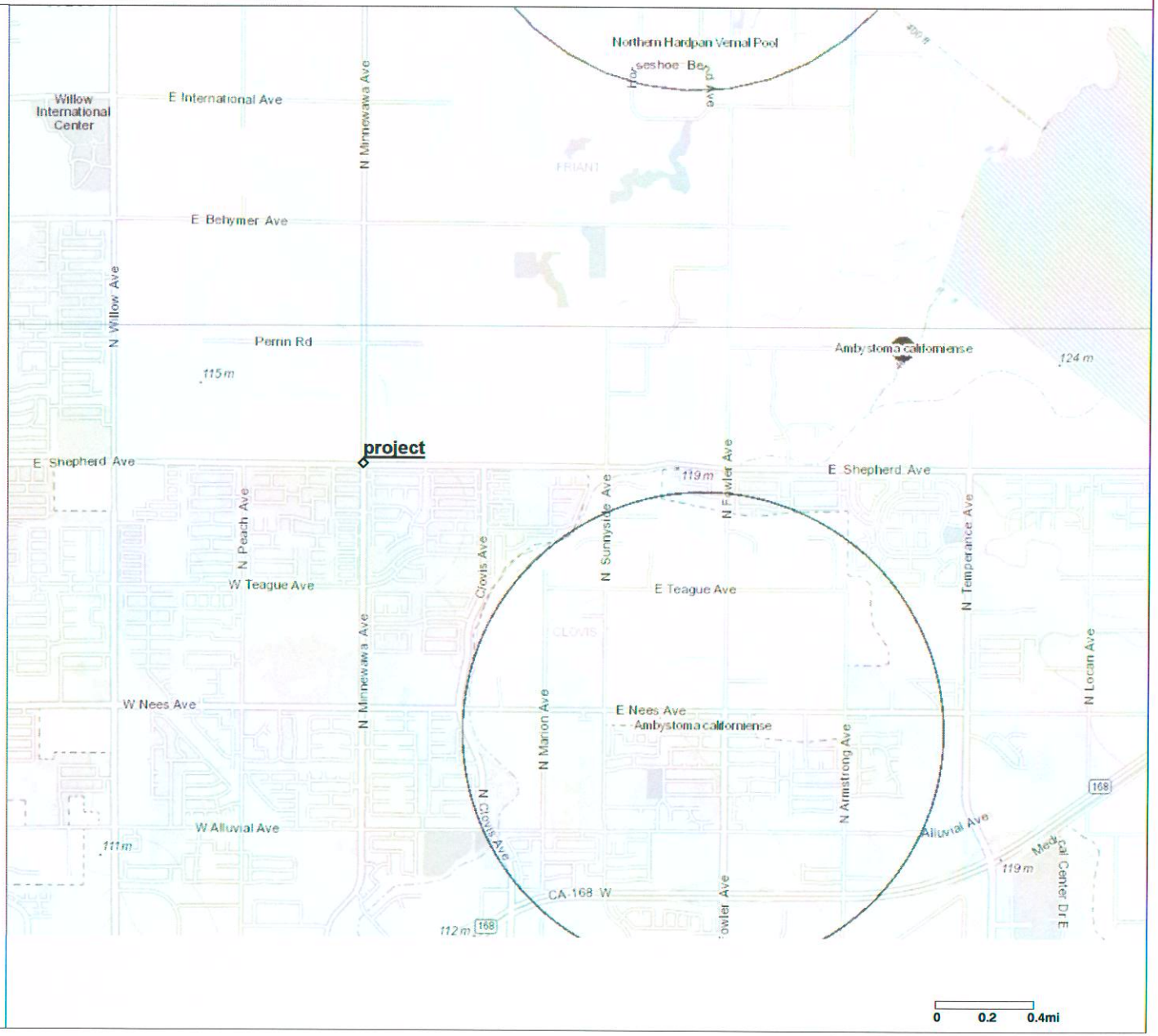
Remove All Highlights

▼Geolocation References

+ Cities Go

+ Counties Go

+ Ecoregion Sections Go



CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

Query Summary:
Quad IS (Clovis (3611976))

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Ambystoma californiense	California tiger salamander	Amphibians	AAAAA01180	1116	3	Threatened	Threatened	G2G3	S2S3	null	CDFW_SSC-Species of Special Concern | IUCN_VU-Vulnerable	Cismontane woodland | Meadow & seep | Riparian woodland | Valley & foothill grassland | Vernal pool | Wetland
Branchinecta lynchi	vernal pool fairy shrimp	Crustaceans	ICBRA03030	751	2	Threatened	None	G3	S2S3	null	IUCN_VU-Vulnerable	Valley & foothill grassland | Vernal pool | Wetland
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2394	1	None	Threatened	G5	S3	null	BLM_S-Sensitive | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation Concern	Great Basin grassland | Riparian forest | Riparian woodland | Valley & foothill grassland
Caulanthus californicus	California jewelflower	Dicots	PDBRA31010	63	1	Endangered	Endangered	G1	S1	1B.1	null	Chenopod scrub | Pinon & juniper woodlands | Valley & foothill grassland
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	ABNRB02022	119	1	Threatened	Endangered	G5T3Q	S1	null	BLM_S-Sensitive | NABCI_RWL-Red Watch List | USFS_S-Sensitive | USFWS_BCC-Birds of Conservation Concern	Riparian forest
Efferia antiochi	Antioch efferian robberfly	Insects	IIDIP07010	4	1	None	None	G1G2	S1S2	null	null	Interior dunes
Imperata brevifolia	California satintail	Monocots	PMPOA3D020	31	1	None	None	G3	S3	2B.1	SB_SBBG-Santa Barbara Botanic Garden | USFS_S-Sensitive	Chaparral | Coastal scrub | Meadow & seep | Mojavean desert scrub | Riparian scrub | Wetland
Leptosiphon serrulatus	Madera leptosiphon	Dicots	PDPLM09130	27	1	None	None	G1?	S1?	1B.2	USFS_S-Sensitive	Cismontane woodland | Lower montane coniferous forest
Linderiella occidentalis	California linderiella	Crustaceans	ICBRA06010	416	1	None	None	G2G3	S2S3	null	IUCN_NT-Near Threatened	Vernal pool
Lytta molesta	molestan blister beetle	Insects	IICOL4C030	17	1	None	None	G2	S2	null	null	Vernal pool | Wetland
Metapogon hurdi	Hurd's metapogon robberfly	Insects	IIDIP08010	3	1	None	None	G1G3	S1S3	null	null	Interior dunes
Sagittaria sanfordii	Sanford's arrowhead	Monocots	PMALI040Q0	93	2	None	None	G3	S3	1B.2	BLM_S-Sensitive	Marsh & swamp | Wetland
Taxidea taxus	American badger	Mammals	AMAJF04010	476	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Alkali marsh | Alkali playa | Alpine | Alpine dwarf scrub | Bog & fen | Brackish marsh | Broadleaved upland forest | Chaparral | Chenopod scrub | Cismontane woodland | Closed-cone coniferous forest | Coastal bluff scrub | Coastal dunes | Coastal prairie | Coastal scrub | Desert dunes | Desert wash | Freshwater marsh | Great Basin grassland | Great Basin scrub | Interior dunes | Ione formation | Joshua tree woodland | Limestone | Lower montane coniferous forest | Marsh & swamp | Meadow & seep | Mojavean desert scrub | Montane dwarf scrub | North coast coniferous forest | Oldgrowth | Pavement plain | Redwood | Riparian forest | Riparian scrub | Riparian woodland | Salt marsh | Sonoran desert scrub | Sonoran thorn woodland | Ultramafic | Upper montane coniferous forest | Upper Sonoran scrub | Valley & foothill grassland
Tropidocarpum capparideum	caper-fruited tropidocarpum	Dicots	PDBRA2R010	18	1	None	None	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden | USFS_S-Sensitive	Valley & foothill grassland
Tuctoria greenei	Greene's tuctoria	Monocots	PMPOA6N010	48	1	Endangered	Rare	G1	S1	1B.1	null	Vernal pool | Wetland
Vireo bellii pusillus	least Bell's vireo	Birds	ABPBW01114	467	2	Endangered	Endangered	G5T2	S2	null	IUCN_NT-Near Threatened | NABCI_YWL-Yellow Watch List	Riparian forest | Riparian scrub | Riparian woodland

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the CLOVIS (378C) U.S.G.S. 7 1/2 Minute Quad

Report Date: March 23, 2015

Listed Species

Invertebrates

Branchinecta conservatio
Conservancy fairy shrimp (E)

Branchinecta lynchi
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Fish

Hypomesus transpacificus
delta smelt (T)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)

Rana draytonii
California red-legged frog (T)

Reptiles

Gambelia (=Crotaphytus) sila
blunt-nosed leopard lizard (E)

Thamnophis gigas
giant garter snake (T)

Birds

Coccyzus americanus occidentalis

Western yellow-billed cuckoo (T)

Mammals

Dipodomys nitratoides exilis
Fresno kangaroo rat (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Castilleja campestris ssp. succulenta
Critical habitat, succulent (=fleshy) owl's-clover (X)

Caulanthus californicus
California jewelflower (E)

Tuctoria greenei
Greene's tuctoria (=Orcutt grass) (E)

Key:

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

Appendix C

Cultural Resources Memorandum

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov

February 16, 2016 Reply To: FHWA_2015_1130_001

Shane Gunn, Environmental Branch Chief
Environmental Planning Branch
Caltrans District 6
855 M Street, Suite 200
Fresno, CA 93721

Re: Determination of Eligibility for the Proposed Shepard and Minnewawa Intersection Project, Fresno County, CA

Dear Mr. Gunn:

Thank you for consulting with the State Historic Preservation Officer (SHPO) about the subject undertaking in accordance with the January 1, 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

The City of Clovis proposes a widening and signalization project at the intersection of Shepard and Ninnewawa Avenues. A full project description and depiction of the area of potential effect can be found on page one and Map 3 of the Historic Property Survey Report.

Caltrans has determined that the Garfield School Site is not eligible for the National Register of Historic Places (NRHP). Based on my review of the submitted documentation I concur.

If you have any questions, please contact Natalie Lindquist of my staff at (916) 445-7014 or Alicia Perez at (916) 445-7020.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

HISTORIC PROPERTY SURVEY REPORT

1. UNDERTAKING DESCRIPTION AND LOCATION

District	County	Route	Post Miles	Unit	E-FIS Project Number	Phase

District	County	Federal Project. Number. (Prefix, Agency Code, Project No.)	Location
06	FRE	FSTIP BRLS-5208 (122)	Intersection of Shepherd and Minnewawa Avenues, Clovis

Project Description:

The City of Clovis (City), with the support of the Federal State Transportation Improvement Program, plans to install a signal light at the intersection of Shepherd Avenue and Minnewawa Avenue (Maps 1 and 2). The purpose of the project is to alleviate traffic congestion at this intersection, which is currently regulated by a four-way stop (Map 3). Installation of signal lights will require the acquisition of additional right-of-way (ROW). This will accommodate new right turn lane transitions, the surfacing of the existing right turn lane on south-bound Minnewawa Avenue, and a new right turn lane westbound on Shepherd Avenue. Additionally ROW will be obtained from Assessors Parcels Nos. (APNs) 556-020-09, 556-020-11, 556-050-02, and 556-050-19. Construction will also include curb returns with ramps built to Americans with Disabilities (ADA) standards. Proposed utility adjustments include manholes, utility boxes, and relocation of a utility pole to a location within the Garfield School site.

Applied EarthWorks, Inc. (Æ) completed the initial work on the Historic Property Survey Report and performed the necessary cultural resource studies in support of the project. Peak & Associates is completing the studies and documentation.

2. AREA OF POTENTIAL EFFECTS

The Area of Potential Effects (APE) for the project was established in consultation with John Whitehouse PI - Prehistoric and Historical Archaeology/Principal Architectural Historian and Jim Perrault, Project Manager/Local Assistance Engineer, on June 22, 2015. The APE map is located in Attachment A as Map 3 in this Historic Property Survey Report.

The APE was established as encompassing the area of proposed improvements within the existing right-of-way and the additional right-of-way to be acquired, which is a total of 2.014 acres, as depicted on Map 3. To account for any project-related ground disturbance, the vertical dimension of the APE extends 5 feet below the surface.

3. CONSULTING PARTIES / PUBLIC PARTICIPATION

X Local Government

- Ryan Burnett, City of Clovis, January 2014—July 2015

X Native American Tribes, Groups and Individuals

On January 28, 2014, Æ mailed a letter to each of the following individuals identified by the Native American Heritage Commission (NAHC), briefly describing the project and requesting any information they may have about the project area:

- Elizabeth Hutchins Kipp of the Big Sandy Rancheria of Mono Indians.
- Robert Marquez of the Cold Springs Rancheria of Mono Indians.
- Robert Ledger Sr. of the Dumna Wo-Wah Tribal government.
- Lawrence Bill of the Sierra Nevada Native American Coalition.
- Bob Pennell of Table Mountain Rancheria.
- Stan Alec of the Kings River Choinumni Farm Tribe.
- Mandy Marine of the Dunlap Band of Mono Historical Preservation Society.
- Rosemary Smith of the Choinumni Yokuts.
- David Alvarez of the Traditional Choinumni Tribe.
- Lalo Franco of the Santa Rosa Tachi Rancheria.

On February 14, approximately 2 weeks after the initial correspondence was sent, Æ attempted to contact the representatives by telephone or e-mail.

- In a telephone conversation, Mr. Pennell wished to confirm that the Garfield School site was being accounted for in the study, and stated that he would look over the letter again and provide further comments, if he had any, by mail. In a letter dated March 26, 2014, Pennell confirmed that the Rancheria is very interested in the project because it lies within their area of cultural interest. He requested that the Rancheria be contacted for further discussion.
- Shana Brum stated that she would need to review the initial letter again and would reply if Tachi Rancheria had any concerns.
- Mr. Alec stated that he had no objections to the project.
- In an e-mail sent on February 16, 2014, Rosemary Smith stated that the project area is known to have been in the vicinity of Yokuts campsites, and that in the event that any archaeological materials are identified, she wishes for work to be halted, and to be notified immediately.

No other responses have been received to date. Details are provided in the ASR (Attachment C).

X Native American Heritage Commission

- Æ contacted the NAHC on January 24, 2014. The e-mail requested a search of the Sacred Lands File and a list of local Native American representatives. The NAHC responded to Æ in a faxed letter dated January 28, 2014. The NAHC stated that it did not identify any sacred sites within or adjacent to the study area. The NAHC also provided the names and contact information of ten Native American representatives who may have an interest in the project and knowledge of the project area (Attachment C).

X Local Historical Society / Historic Preservation Group

- Peg Bos, Clovis-Big Dry Creek Historical Society, contacted by Æ.

4. SUMMARY OF IDENTIFICATION EFFORTS

X National Register of Historic Places
X California Register of Historical Resources
X California Inventory of Historic Resources
X California Historical Landmarks
X California Points of Historical Interest
X California Historical Resources Information System (CHRIS) February 6, 2014 (Attachment B)
X Caltrans Historic Highway Bridge Inventory
X Caltrans Cultural Resources Database (CCRD) (3/8/13)

X Other Sources consulted

The investigation by Æ compiled information from several sources, including:

- The Henry Madden Library at California State University, Fresno; including visits to the library's Map Department and Special Collections Department;
- The San Joaquin Valley Heritage and Genealogy Center at the Main Branch of the Fresno County Library (formerly the California History and Genealogy Room);
- Fresno County Assessor's Office;
- Fresno County Recorder's Office; and
- Æ's in-house library, which includes local histories, and technical publications about the Clovis area.

Peak & Associates completed additional research at the California Room of the California State Library.

X **Results:**

- The records search identified no previously recorded cultural resources within the project area, nor within a 0.5 mile radius around the project area (ASR Appendix B). The only previous survey within the project area was that performed by Æ (Nettles and Baloian 2006; FR-02289), which covered approximately 50 percent of the study area, and 50 percent of the overall record search area. This was a reconnaissance/roadside survey intended to observe historic architecture and not an intensive archaeological survey. Although FR-02289 identified the Garfield School site, it was not formally recorded at that time.

- The archaeological survey encountered the foundation and a brick arch of the Garfield School site (Map Reference #1) located on APN 556-020-11 at the northwest corner of the intersection.

5. PROPERTIES IDENTIFIED

X John Whitehouse, who meets the Professionally Qualified Staff Standards in Section 106 Programmatic Agreement Attachment 1 as an Architectural Historian, has determined that the only/only other properties present within the APE meet the criteria for Section 106 Programmatic Agreement Attachment 4 (**Properties Exempt from Evaluation**).

X The following cultural resources within the APE are **not eligible** for inclusion in the National Register of Historic Places:

- Garfield School site (Map Reference #1)

X The following resources are **not significant resources under CEQA**:

- Garfield School site (Map Reference #1)

6. HPSR to District File

X Not applicable.

7. HPSR to SHPO

X Caltrans has determined there are properties within the APE that were evaluated as a result of the project and are **not eligible** for inclusion in the National Register of Historic Places; **see Section 5**. Under Section 106 Programmatic Agreement Stipulation VIII.C.6, Caltrans requests SHPO's concurrence in this determination.

X Caltrans is notifying SHPO that Caltrans, in accordance with Section 106 Programmatic Agreement Stipulation IX.A, has determined a **Finding of No Historic Properties Affected** is appropriate for this undertaking.

8. HPSR to CSO

X Not applicable.

9. Findings for State-Owned Properties

X Not applicable; project does not involve Caltrans right-of-way or there are no Caltrans-owned cultural resources within the APE.

10. CEQA Considerations

X Not applicable; Caltrans is not the lead agency under CEQA.

11. List of Attached Documentation

X Project Vicinity, Location, and APE Maps: Attachment A

X Historical Resources Evaluation Report (HRER): Attachment B

- Prepared by Melinda A. Peak (2015), peer reviewed by John Whitehouse.

X Archaeological Survey Report (ASR): Attachment C

- Prepared by Melinda A. Peak (2015), peer reviewed by John Whitehouse.

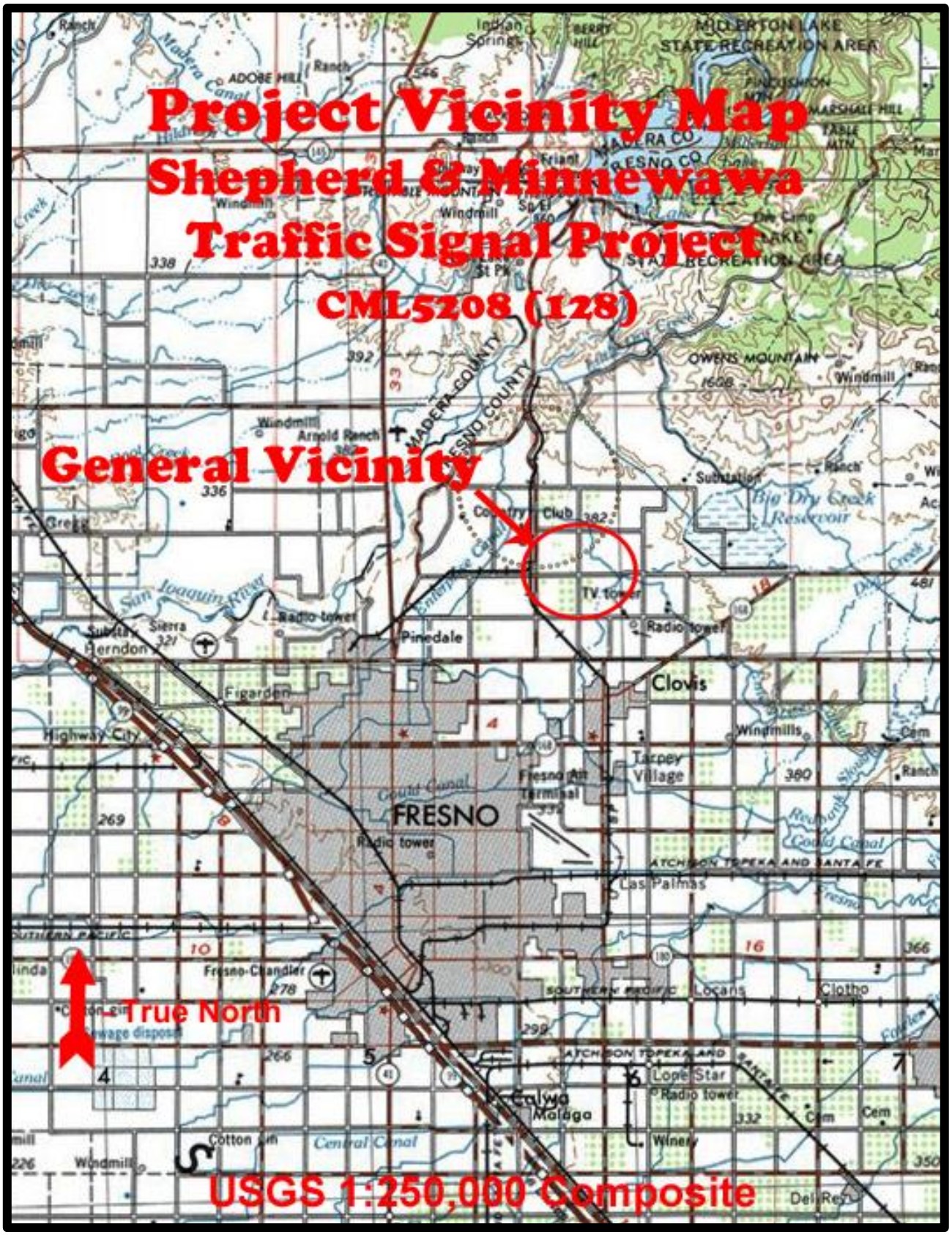
12. HPSR Preparation and Caltrans Approval

Prepared by: Melinda A. Peak — 11-6-15

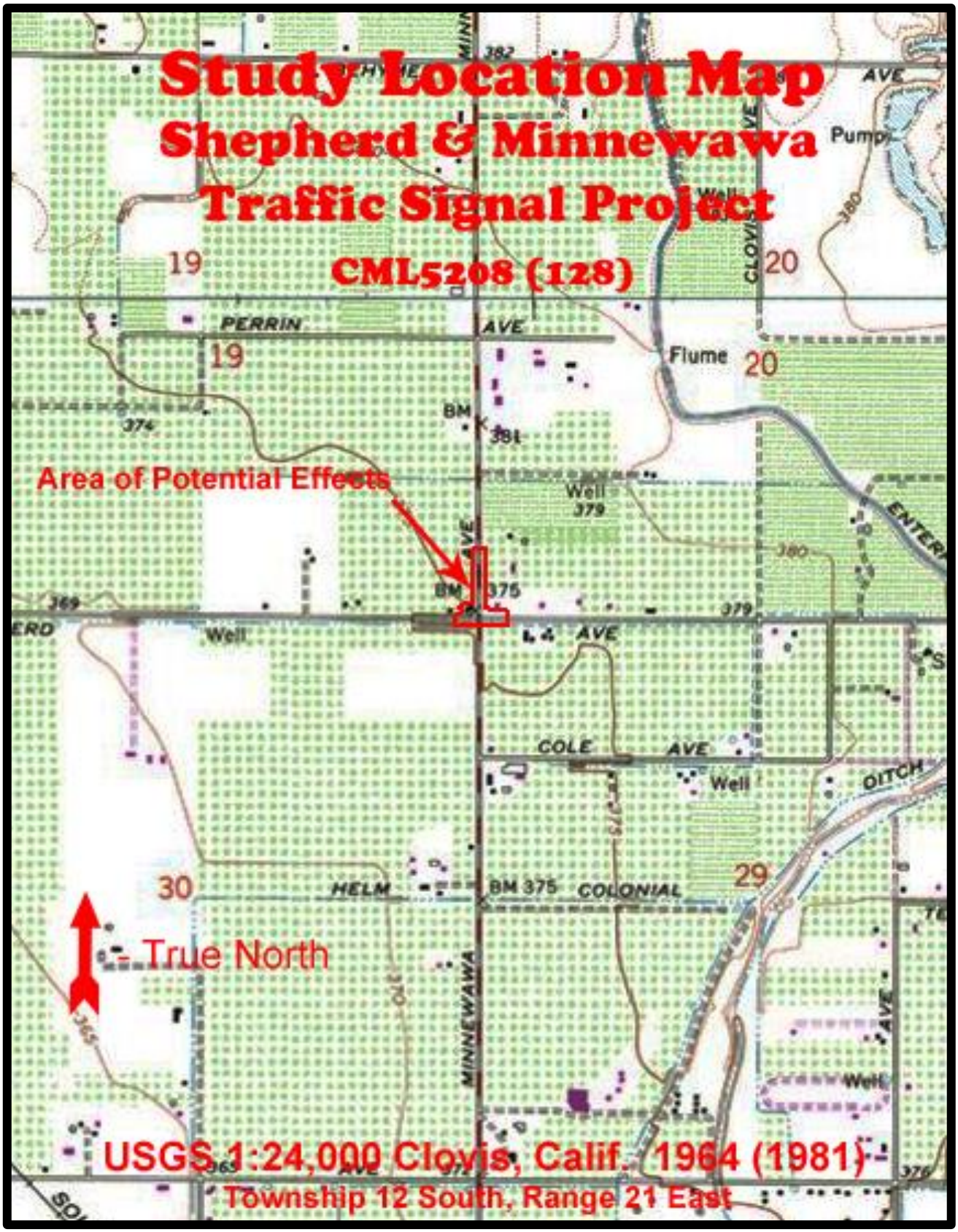
Consultant/discipline: Melinda A. Peak/History, Peak & Associates, Inc. — Date

Reviewed for approval by:

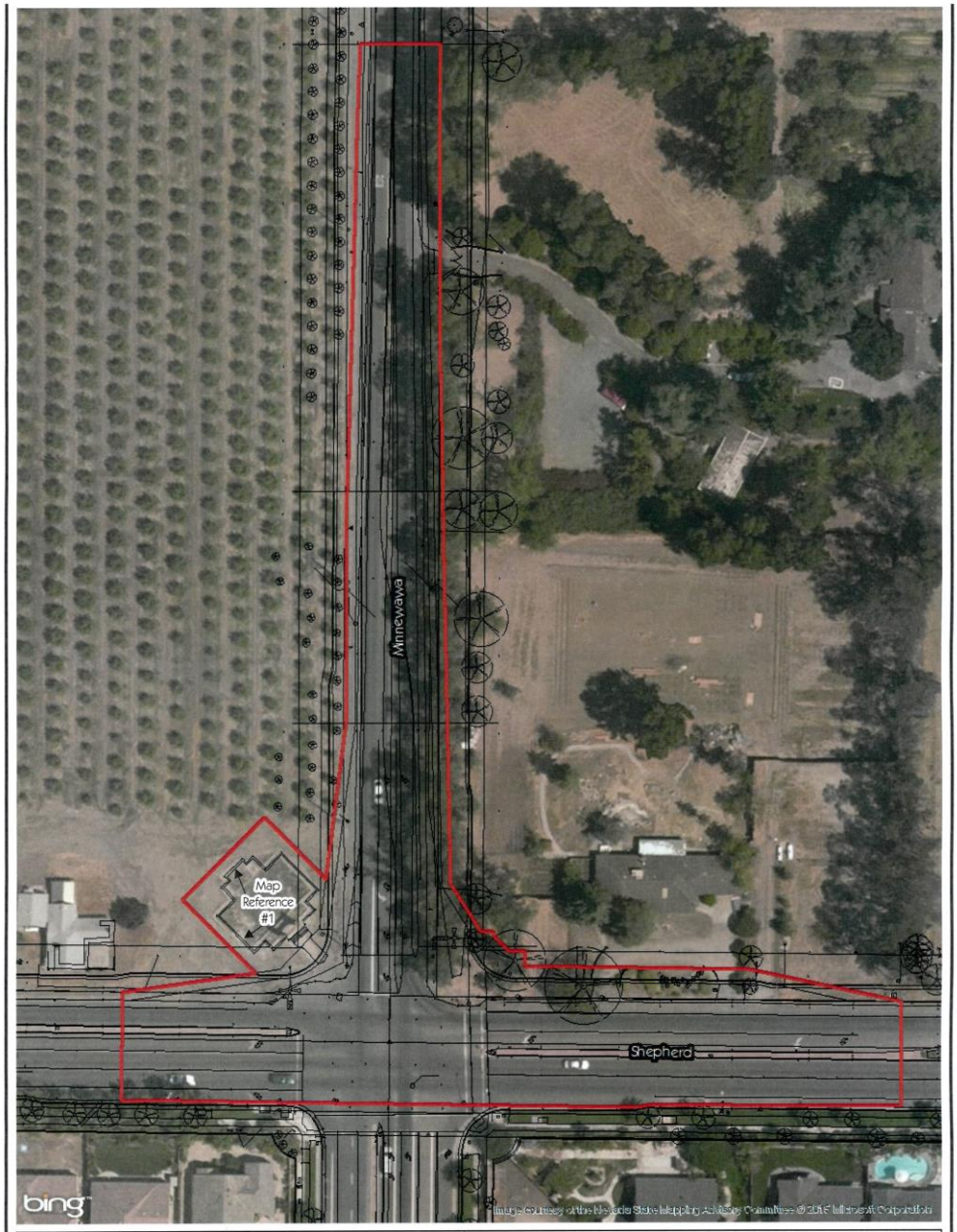
District 6 Caltrans PQS discipline/level:	John Whitehouse, PI - Prehistoric and Historical Archaeology/Principal Architectural Historian	11-16-2015 Date
Approved by: District 6 EBC:	Shane Gunn Southern San Joaquin Valley Management Branch	11/16/2015 Date


Project Vicinity Map
Shepherd & Minnewawa
Traffic Signal Project
CML5208 (128)
General Vicinity
True North
USGS 1:250,000 Composite
FRESNO
Clovis
Pinedale
Herndon
Figarden
Highway City
Tarpey Village
Fresno Air Terminal
Las Palmas
Fresno-Chandler
Locans
Clotho
Lone Star
Calwa
Malaga
Winery
Cotton Ain
Central Canal
Gould Canal
Big Dry Creek Reservoir
MILLERTON LAKE STATE RECREATION AREA
OWENS MOUNTAIN
MADERA CO.
FRESNO CO.
MADERA COUNTY
FRESNO COUNTY
San Joaquin River
Madera Canal
ADOBE HILL
MARSHALL HILL
TABLE MTN.
Indian Springs
Arnold Ranch
Windmill
Radio tower
TV tower
Country Club
Substation
Sierra
Tarpey Village
Windmills
Cem
Ranch
ATCHISON TOPEKA AND SANTA FE
SOUTHERN PACIFIC
Del Rey

Map 1


Study Location Map
Shepherd & Minnewawa
Traffic Signal Project
CML5208 (128)
Area of Potential Effects
True North
USGS 1:24,000 Clovis, Calif. 1964 (1981)
Township 12 South, Range 21 East
PERRIN AVE
COLE AVE
HELM
COLONIAL
MINNEWAWA
CLOVIS AVE
Flume
Pump
Well
BM 375
19
20
29
30

Map 2



CalTrans District 6 Local Assistance Engineer — Date: 6/22/15

CalTrans District 6 Professionally Qualified Staff — Date: 6-22-2015

Area of Potential Effects
Shepherd & Minnewawa Traffic Signal Project
City of Clovis, Fresno County, California
CML5208 (128)

6/19/2015

N W E S

1" = 60'

Map 3

HISTORICAL RESOURCES EVALUATION REPORT

Shepherd and Minnewawa Signal Light Project, City of Clovis, Fresno County, California

06-FRE-00 BRLS-5208(122)

Prepared By: Melinda A. Peak Date: 11-6-15
Melinda A. Peak
Peak & Associates, Inc.
3941 Park Drive Suite 20-329
El Dorado Hills, CA 95762

Prepared For: **City of Clovis Planning Division**
1033 Fifth Street, Clovis, CA 93612

Reviewed By: John Whitehouse Date: 11.16.2015
John Whitehouse, Principal Investigator – Prehistoric and Historical Archaeology Southern San Joaquin Valley Management Branch
California Department of Transportation, District 6
855 M Street, Suite 200, Fresno, CA 93721

Approved By: Shane Gunn Date: 11/16/2015
Shane Gunn, Branch Chief
Southern San Joaquin Valley Management Branch
California Department of Transportation, District 6
855 M Street, Suite 200, Fresno, CA 93721

November 2015

SUMMARY OF FINDINGS

The City of Clovis plans to install signal lights to alleviate traffic congestion at the intersection of Shepherd Avenue and Minnewawa Avenue, with the support of the Federal State Transportation Improvement Program as administered through the California Department of Transportation. The project will require the acquisition of additional right-of-way to accommodate new and improved right turn lanes, curb returns, and ramps. Utility adjustments will include relocating a utility pole closer to a proposed traffic pole on the northwest corner of Shepherd and Minnewawa avenues.

Archaeological and built-environment surveys for the project identified a cultural resource within the Area of Potential Effects. The resource is located at the northwest corner of the intersection, within Assessor's Parcel No. 556-020-11. The resource consist of the remains of the Garfield School building. The project will require the acquisition of portions of this parcel to serve as additional right-of-way.

The Garfield School site lacks sufficient integrity to be considered eligible at the local level of significance under National Register criteria. It is also not a historical resource for the purposes of CEQA.

CONTENTS

APPENDICES

1 PROJECT DESCRIPTION

The City of Clovis (City), with the support of the Federal State Transportation Improvement Program (FSTIP), plans to install signal lights at the intersection of Shepherd Avenue and Minnewawa Avenue. The project is in the northwestern part of the city of Clovis in Fresno County, California (Maps 1, 2, and 3, Appendix A). FSTIP funds for the project will be administered through California Department of Transportation (Caltrans) District 6 (BRLS-5208(122)]). Because the project involves federal funding, it is subject to the cultural resources provisions of the National Environmental Policy Act and Section 106 of the National Historic Preservation Act (NHPA), as implemented through the 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance With Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA). Section 106 mandates that government agencies consider the effects of their actions on historic properties—i.e., archaeological or built-environment resources that are eligible for inclusion in the National Register of Historic Places (National Register) per 36 CFR 800.16(l).

Peak & Associates, Inc. has been retained by the City of Clovis to evaluate the National Register eligibility of the cultural resource in the APE. This Historical Resources Evaluation Report (HRER) follows the suggested content and format outlined in Exhibit 6.2 of Caltrans' Standard Environmental Reference (SER) (Volume 2) (available on-line at http://www.dot.ca.gov/ser/vol2/ex_6_2_hrer.pdf [2014 update]). Initial research and evaluation efforts were completed by Applied Earthworks, Inc. (2014).

The purpose of the project is to alleviate traffic congestion at this intersection, which is currently regulated by a four-way stop. Installation of signal lights will require the acquisition of 0.4 acre of additional right-of-way to accommodate new right turn lane transitions, the surfacing of the existing right turn lane on southbound Minnewawa Avenue, and a new right-turn lane westbound on Shepherd Avenue. Additional right-of-way will be obtained from Assessor's Parcel Nos. (APNs) 556-020-09, 556-020-11, 556-050-02, and 556-050-18. Construction also will include curb returns with ramps built to Americans with Disabilities Act (ADA) standards. Proposed utility adjustments include manholes, utility boxes, and relocation of a utility pole within the boundaries of the Garfield School site closer to the proposed traffic pole in front of the brick archway from the 1912 Garfield School. All work will occur within the existing and newly acquired right-of-way (Map 3).

The project is at the corners of Sections 19, 20, 29, and 30 in Township 12 South, Range 21 East, as depicted on the U.S. Geological Survey (USGS) Clovis, California, 7.5-minute topographic quadrangle (1964, photo revised 1981; Map 2).

Federal regulations define the Area of Potential Effects (APE) as the area within where the project has the potential to directly or indirectly cause alterations to historic properties per 36 CFR 800.16(d). The APE for the current project covers approximately 2.014 acres and

encompasses the area of proposed improvements within the existing right-of-way and additional right-of-way to be acquired (Map 3).

Archaeological and built-environment surveys identified a cultural resource that meets the National Register age criterion for historic properties (50 years of age or older) that lie within the APE: the foundation and arch of the Garfield School (Map Reference #1). The site lies just north of the Clovis city limits but is within the City's sphere of influence.

The project has the potential to cause an effect (per 36 CFR 800.16[i]) on the resource, given that: (1) the project involves acquisition of additional right-of-way from APN 556-020-11 within the Garfield School site; (2) the project will remove a portion of the school foundation's still-intact walkway and thus have a direct physical effect on this resource; and (3) the installation of a signal and other improvements could result in an indirect/visual effect to the school.

(The following section has been prepared by Applied EarthWorks.)

2 RESEARCH AND EVALUATION METHODS

On February 3, 2014, the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System housed at California State University, Bakersfield performed a records search that included a review of the SSJVIC's own maps and reports on file as well as the National Register of Historic Places, the Historic Property Data File (3/18/13), California Register of Historical Resources, California Inventory of Historic Resources, and listings of California Historical Landmarks and California Points of Historical Interest. The purpose of the records search was to determine whether the Garfield School had been previously evaluated and to identify any other cultural resources that may exist within the study vicinity.

A necessary part of any historical evaluation is the preparation of a historic context. The historic context establishes the framework with which decisions about significance are based (National Park Service 2002:9). The evaluation process essentially weighs the relative importance of the subject resources against the larger backdrop of history; the context provides the comparative standards and/or examples as well as the theme(s) necessary for this assessment. According to the National Park Service (2002:9), a theme is a pattern or trend that has influenced the history of an area for a certain period. A theme is typically couched in geographic (i.e., local, state, or national) and temporal terms to focus and facilitate the evaluation process.

The Garfield School, during the time it was an intact building has been designated Fresno County Historical Landmark 178 in February 1990. Applied Earthworks conducted research at the San Joaquin Valley Heritage and Genealogy Center at the Main Branch of the Fresno County Library and the Clovis-Big Dry Creek Historical Society. The Heritage and Genealogy Center contains the forms and supporting documentation for the school's landmark status as well as the archives of county newspapers, which is the primary source of much information about the school. On April 15, 2014, a staff member of Applied Earthworks visited the Clovis-Big Dry Creek Historical Society and spoke with its director Peg Bos. The historical society's archives contain a file about the Garfield School, including numerous photographs, interviews with former students, and other materials.

In addition, a series of aerial photographs of the project area dating back to the 1930s (1937, 1950, 1957, 1961, 1965, 1967, and 1977) were examined in the Map Department of the Henry Madden Library at California State University, Fresno.

Melinda Peak conducted additional research on the school site at the California Room of the California State Library, and various on line sources.

3 FIELD METHODS

A field survey of the APE were conducted by Applied EarthWorks, who reported the presence of the foundation and arch of the Garfield School. This resource was not field accessible; a site record has been prepared for the foundation within the APE from photographs and map information. The California Department of Parks and Recreation (DPR) forms for the evaluated resource are provided in Appendix B.

4 HISTORIC CONTEXT

The Garfield School first opened in 1883, and is west of the current site. Within the APE, a new school was completed in 1912, operating until 1954. In 1990, a fire consumed virtually all of the edifice, leaving only the brick entry arch and concrete walkways and foundation.

4.1 EARLY REGIONAL SETTLEMENT

Early California settlers recognized the agricultural potential of the Big Dry Creek area, and settlement began in the 1850s. The area initially was cultivated for wheat and barley. A community of Big Dry Creek developed as a service center for the region to the southeast of the APE with a post office established in the community in 1870.

The early General Land Office plat from 1854 for the township shows no buildings or features in the APE. A road indicated as “Old Road” crosses the section 19/30 section line west of the APE. The first ownership of the portion of the APE in section 20 is by Jefferson M. Corrick. In 1870, Corrick and his family lived in Kings River, working as a carpenter (Federal census 1870). By 1871, he appears to have lived near the APE, and in 1872, acquired the 160 acre southeast quarter of section 20. In 1880, he acquired the southwest quarter of section 20 through a homestead entry, suggesting his residence was located within this 160 acre tract with occupancy a requirement. Corrick primarily grew wheat and barley on 100 acres of his holdings (Agricultural Census schedule 1880).

Corrick reportedly donated an acre of land for the first Garfield School in 1883, and reportedly sold aanother acre to the school district in 1887 (*Clovis Independent* 1954 cited in Baloian and Morlet 2014). The Corrick family had several school age children (Federal Census 1880), and other families in the area also had younger children. Corrick reportedly built the first school building (*Clovis Independent* 1941 cited in Baloian and Morlet 2014).

The Corrick family and their association with the school appears to have been short-lived. In 1887, Corrick shot his son-in-law, Henry Sullivan, in a dispute over the Billy Martin Mine at Temperance Flat, but was acquitted of charges. His son Cyrus shot and killed his cousin in a

related dispute in 1889, and received a manslaughter sentence of ten years, serving time at Folsom Prison. In 1890, Corrick returned to the Billy Martin Mine, and was shot and killed by the son-in-law while working the arrastra (*Sacramento Daily Union*, various dates).

By 1891, the Corrick holdings had been split into smaller parcels, with G. M. Lester the owner of the 80 acres containing the older school building. Lester was not an owner-occupant of the land, with no residence indicated on the parcel. The 1891 map did not indicate a segregated parcel for the school (Thompson 1881). With the completion of the Enterprise Canal through the northeast corner of the former Corrick holding in section 20, the land could be converted from dry land grain production to the cultivation of orchards and vineyards on smaller tracts of land. By this date, the roads had been moved to the section lines, the current routes of Shepherd and Minnewawa avenues. Three miles to the east is the Mississippi School.

(The following section was prepared by Applied EarthWorks.)

4.2 THE NEW GARFIELD SCHOOL

The year 1912 was an important one for the Garfield School District as well as the Clovis area in general. On February 15 of that year, the town voted to incorporate by a margin of 169 to 83, with a large number of women casting their ballots alongside men (*Fresno Morning Republican* 1912a).

The time was thus ripe for the construction of a modern school that reflected the hopes of the new century, and in July 1912 the trustees of the Garfield's School District petitioned the Fresno County Board of Supervisors for the construction of a two-room, brick veneer schoolhouse costing $4,000 (*Fresno Morning Republican* 1912h). For the residents of the Garfield School District, brick appears to have been a natural choice for the exterior of their new building. Masonry conveys a sense of permanency, security against the elements (including fire), and perhaps even affluence, in contrast to the understated elegance and practicality of wood. Plans for the building were submitted by J. C. Thayer. At the time, Thayer was a local architect working out of his office in the Forsyth Building in downtown Fresno; he also designed Corcoran High School (Donovan 1915:124; Polk-Husted Directory Co. 1912:645).

A very short entry in the October 6 issue of the *Fresno Morning Republican* (1912i) states that work on the new Garfield School had begun by this time. However, because neither the current investigation nor previous research about the school has been able to locate a contemporary newspaper account announcing its completion, the exact date when the brick school first opened its doors is presently unknown.

In the December 24, 1915 issue of the *Clovis Tribune* (1915), the Garfield School was photographed along with other area schools in a full-page feature article entitled "Clovis District School System and its Rapid Growth." The image depicts 25–30 students of elementary and secondary school age standing on the steps below the entry arch alongside five faculty members. Along with the photograph, the article contains a short blurb describing the school as "well-built" and surrounded by "many handsome ranch homes."

Transportation was a favorite topic among the reminiscences of the former students, presumably because getting to school for some children meant traveling 3 miles or more. In the 1930s, the Biglione brothers would hitch the family burro to a two-wheeled cart to make their 3.5 mile trek to school, and Donald Horseman would throw a bridle on his "Indian Pony" (Horseman n.d; Setencich 1993). School families provided horse feed to the stable (Wamsley 1993). As a traditional prank, someone's horse-drawn buggy would invariably end up on the roof at Halloween (Kastner 1993). Accounts of other modes of transport included: teacher Lena Clark (n.d.), who drove her Model T Roadster to class in the 1930s; John Pokorny (n.d.) and Mas Yamamoto (n.d.), who rode their bikes during the same decade; and Anita Beier-Norman (n.d.), who took the bus from 1944 to 1952. Of course, pupils also got to school simply by walking. Harvey Robeson (n.d.) remembered wearing overalls to school and going barefoot in the summer, although he wore shoes in the winter. Ed Brown remarked that when flooding occurred, a common event in the Dry Creek drainage before the advent of modern flood control in the late 1940s, "kids would go home and make stilts and come back and walk in the water" (Setencich 1993).

The enrollment of the Garfield School was never very large. For instance, Normand Biglione's graduating class (of eighth graders) in 1938 numbered only six students, and the previous year graduated only three (Setencich 1993). During the last years of its operation, school attendance averaged 86 students (AAUW and FCSS 2000:62). With the intent of consolidating their student bodies and building new schools, the Garfield, Nees, and Dry Creek districts merged in 1952 to form the Dry Creek Union School District (*Clovis Tribune and Independent* 1953; Dow 1967:372).

The brick building and school grounds did experience some updates during their 40-plus years of service. A pressure system (presumably for the well and pump) was installed in 1938, and a butane furnace replaced the coal-burning stove in the following year (*Clovis Independent* 1938, 1939). The 1937 aerial photograph of the site indicates that the horse stable and outhouses mapped in Figure 4 were still present. At some point, possibly in the 1930s or 1940s, the traditional privies were replaced with outdoor plumbed restrooms (Fresno County Records [1954] Book 3550:666–667). The stable was removed by the time of the 1950 aerial, and as a sign of the times, a "school bus shed" was erected on the parcel, probably in the middle or late 1940s (Fresno County Records [1954] Book 3550:666–667). Despite these minor renovations, the school had reached the end of its useful life by the early 1950s. According to school officials, the Garfield School was counted among the old and "educationally inadequate buildings" of the new district; an engineer's report even deemed it "particularly hazardous," stating that it "should be eliminated as soon as possible" (*Clovis Tribune and Clovis Independent* 1953). The school permanently closed at the end of the 1953–1954 school year (*Clovis Independent* 1954).

4.3 CLOSURE OF THE GARFIELD SCHOOL (1954–PRESENT)

There has been no shortage of ideas about what to do with the Garfield School after its closure in 1954 and even after fire took down the brick building in 1990. Few, if any, of these plans come to fruition, in some cases thankfully so. At one point, the Dry Creek Union School District considered dismantling the building to make use of its 20,000 bricks and well-preserved timbers in the construction of a new school; in 1954 the district set a minimum price of $4,000 for the sale of the entire property (*Clovis Independent* 1954).

Although the school was never dismantled, the property was sold for the minimum price to Charles Preuss, Earl Smittcamp, Ernie Beier, and Alfred P. Biglione on August 17, 1954 (Fresno County Records [1954] Book 3550:666–667). Notably, Preuss and Smittcamp were former Garfield School District trustees, and children from the Biglione and Beier families had attended the school (Beier-Norman n.d; Clouse 1964:32; Setencich 1993). The partners did not hold the parcel very long before they sold it to Major and Doris Beasley on September 17, 1956 (Fresno County Records [1956] Book 3828:611). It was sometime between 1954 and 1957, during the tenure of the partners (Preuss et al.) or the Beasleys, that the primary residence at 3958 W. Shepherd Avenue was built at the former location of the former pump/lunch area structure, between the brick and wood schoolhouses.

The wood schoolhouse remained on the property until at least 1961. Aerial photographs from the 1960s lack the resolution necessary to determine whether the building survived into this decade, but it had been removed by the time of the 1973 image.

As mentioned above, there are some indications that the subsequent owners of the property attempted to repurpose the former brick school for other uses. On December 14, 1965, the Beasley's sold it to the Sierra Indian Center Inc., which used the brick school as a meeting place (Clovis Grange 1989; Fresno County Records [1965] Book 5260:708). By 1971, William and Myrtle Graham had acquired the parcel with the intention of converting the school into an antique shop (Fresno County Records [1971] Book 5913:385). An antique shop apparently never occupied the school, since a later city permit approved the school's conversion to a church—a plan that similarly did not materialize. In the decade of the 1970s alone, the property changed hands four times. With no long-term occupant or function, the school continued to deteriorate.

By 1989 the Clovis chapter of the Grange (The National Grange of the Order of Patrons of Husbandry) had acquired the property with the idea of refurbishing the old school into a meeting center. It planned to restore the exterior and interior, replace the roof, install a handicap ramp, install bathrooms in the cloakrooms, install a kitchen, and hang a new bell in the belfry (Clovis Grange 1989). It seems that as part of the renovation effort, the local Grange prepared the forms and necessary supporting materials to nominate the school to the Fresno County List of Historic Places. In his memo to fellow county supervisors, Chairman Randy McFarland (1990) wrote that the "application for the Garfield School would add to the recognition of the history of education in our County." On February 6 of the following year, the Garfield School was designated as Fresno County Historical Landmark 178. For whatever reason, the Grange was unable to follow through with its plan, and once again the property was sold, this time to current owner Pat Ricchiuti of PR Farms.

About seven months after receiving landmark status, the building was virtually demolished by an arson-related fire on the morning of September 7 (*Fresno Bee* 1990). All that remained (and still remains) after the clean-up effort were the entry arch, concrete steps and walkway, foundation, and some scattered footings within the foundation.

5 DESCRIPTION OF CULTURAL RESOURCES

Although the inability to access the property prevented an exhaustive examination of surface archaeological features, street-side observation and modern aerial photographs did allow sufficient documentation of this resource for the purposes of this study.

The current investigation recorded the ruins of the 1912 brick school located at the southeast corner of the parcel.

The ruins of the school consist of a brick arch that once was part of the school's entrance, a concrete walkway that leads from the southeast corner of the property to the archway, the foundation and footings, and two sets of concrete stairs at the rear of the school.

6 RESOURCE SIGNIFICANCE

The Garfield School site does not appear to be locally significant under National Register Criterion A, nor is it a historical resource for the purposes of CEQA. A chapter in the history of education in the rural area near Clovis may have been exemplified by the site, but the 1990 fire destroyed the building. All that remains are the brick arch, some concrete pathways, and a foundation. It is not possible to discern from the remnant foundation and arch the previous use or identity of the building. The building remnants lack integrity of design, setting, materials, feeling, association, and workmanship. All that remains is integrity of location, with the foundation still in the same place it was constructed in 1912.

There is no association with people important in the past. The school was a rural school, with no important alumni or teachers associated. The Garfield School site is not significant under Criterion B.

Under Criterion C, a property must "embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction." The building burned completely in 1990; little remains of the original building. It does not embody any distinctive characteristics, or is even representative of the original building. The Garfield School site is not eligible for the National Register under Criterion C.

Under Criterion D, a site must have yielded, or may be likely to yield, information important in history. The burned building foundations have no potential to yield information important in history.

7 FINDINGS AND CONCLUSIONS

7.1 FINDINGS

Æ identified one historic-era cultural resource, the Garfield School at the northwest corner of the Shepherd Avenue and Minnewawa Avenue intersection, within the proposed project APE. They fall into the following categories:

- **Historic properties listed in the National Register:** There are no properties within the APE listed in the National Register.

- **Historic properties previously determined eligible for the National Register:** There are no National Register listed properties in the project APE.

- **Resources previously determined *not* eligible for the National Register:** There are no resources in this category.

- **Resources determined *not* eligible for the National Register as a result of the current study:** There is one resource in this category (see Appendix B):

Name	Address/Location	Community	OHP Status Code	Map Ref. #
Garfield School Site	Northwest corner of Shepherd and Minnewawa intersection	Clovis, CA	6Z	1

- **Resources for which further study is needed because evaluation was not possible:** There are no resources in this category.

- **Historical resources for the purposes of California Environmental Quality Act (CEQA):** There is one resource in this category (see Appendix B):

Name	Address/Location	Community	OHP Status Code	Map Ref. #
Garfield School Site	Northwest corner of Shepherd and Minnewawa intersection	Clovis, CA	6Z	1

- **Resources that are *not* historical resources for the purposes of CEQA, per CEQA Guidelines Section 15064.5, because they do not meet the California Register criteria as outlined in PRC 5024.1:** There is one resource in this category (see Appendix B):

Name	Address/Location	Community	OHP Status Code	Map Ref. #
Garfield School Site	Northwest corner of Shepherd and Minnewawa intersection	Clovis, CA	6Z	1

John Whitehouse, who is certified as Professionally Qualified Staff under Caltrans Section 106 PA Attachment 1 as an Architectural Historian, has determined that the only other properties present within the APE meet the criteria for Section 106 PA Attachment 4 (Properties Exempt from Evaluation).

7.2 CONCLUSIONS

One cultural resources was identified in this study and evaluated per the terms of Programmatic Agreement Stipulation VIII.C.2 and in accordance with CEQA Guidelines Section 15064.5 (a)(2)–(3), using criteria outlined in California Public Resources Code Section 5024.1.

The Garfield School (Map Reference #1) is not eligible for inclusion in the National Register of Historic Places. Only remnants of the 1912 school building remain.

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1912d Fire in Clovis Does Damage of $25,000. 21 May: 16. Fresno, California.

1912e Clovis Block Swept by Second Fire. 16 June: 1. Fresno, California.

1912f Engine is Secured for Clovis Fires. 30 September: 6. Fresno, California.

1912g No More Smallpox, All Pupils Attend. 19 March: 7. Fresno, California.

1912h No New Buildings though Permits Soar High. 14 July: 3. Fresno, California.

1912i Clovis News Notes. 12 October: 15. Fresno,

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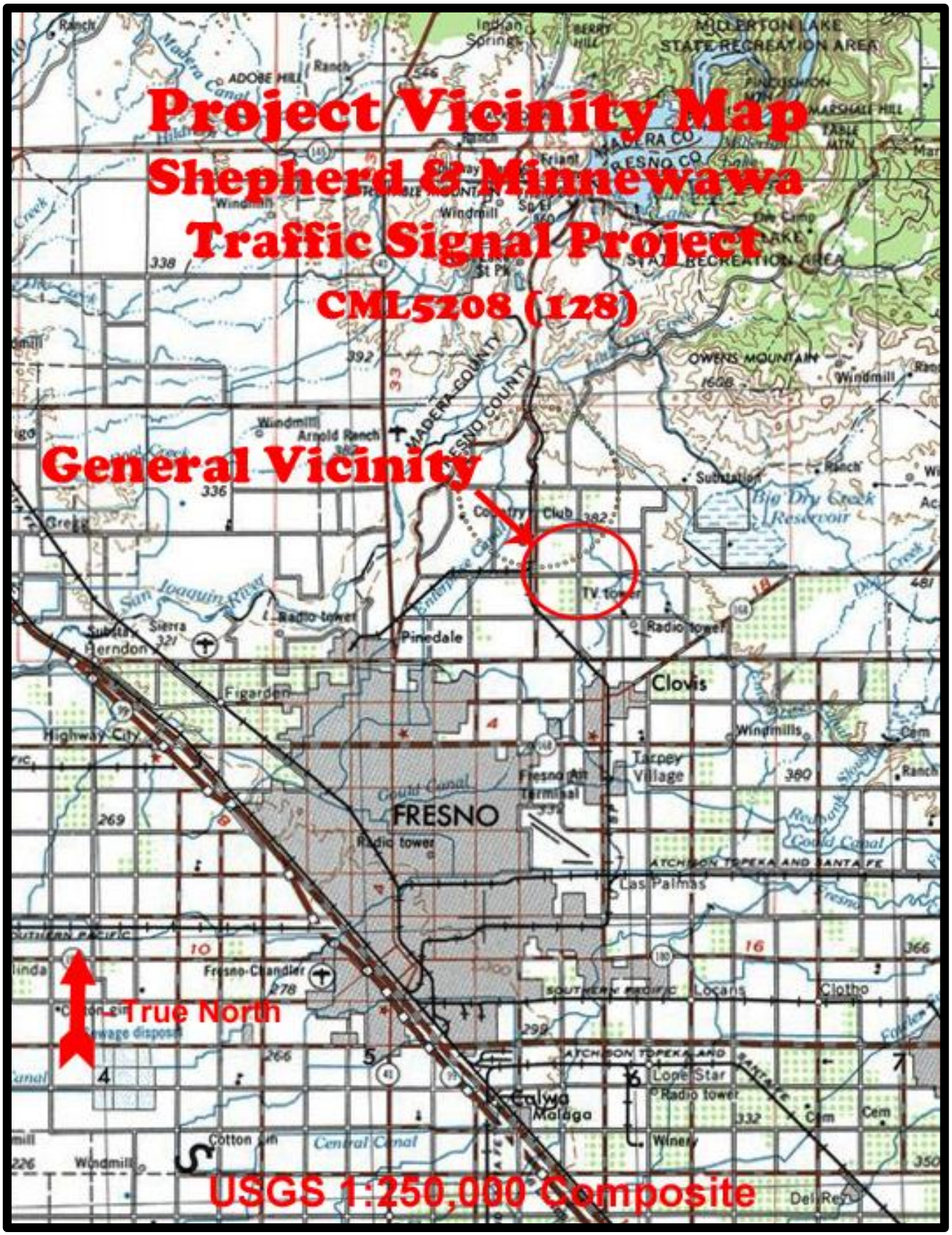
10 PREPARER'S QUALIFICATIONS

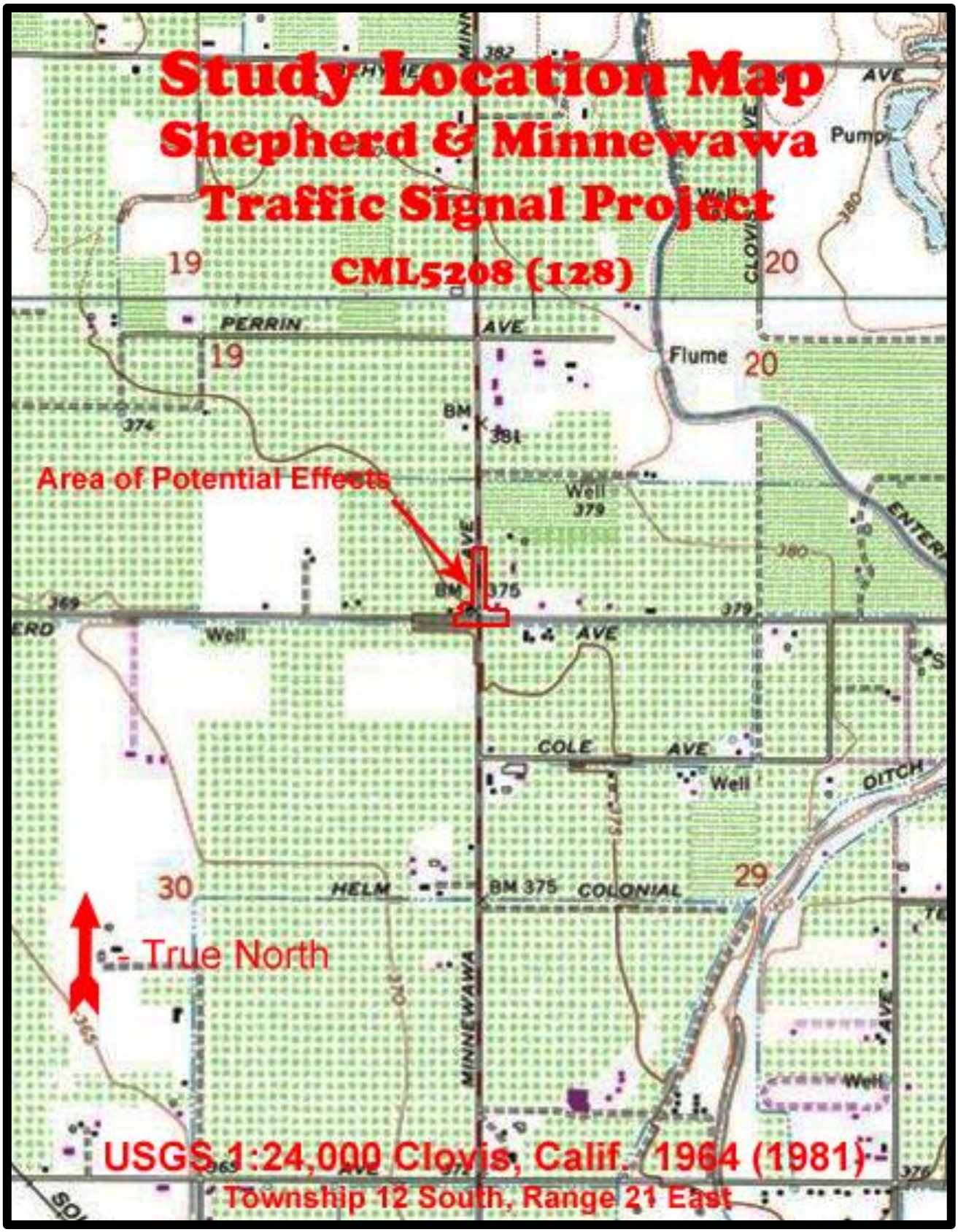
Melinda A. Peak (B.A., Anthropology, University of California, Berkeley; M.A., History, California State University, Sacramento) has conducted historical research, evaluated the eligibility of built-environment resources and historical archaeological sites for state and federal registers, and authored compliance documents related to such investigations since the 1980s. She has undertaken leadership on a number of prehistoric site evaluations and data recovery projects. She meets the Professional Qualifications Standards as determined by the Secretary of the Interior for Prehistoric Archaeology, Historic Archaeology, History, and Architectural History.

APPENDIX A

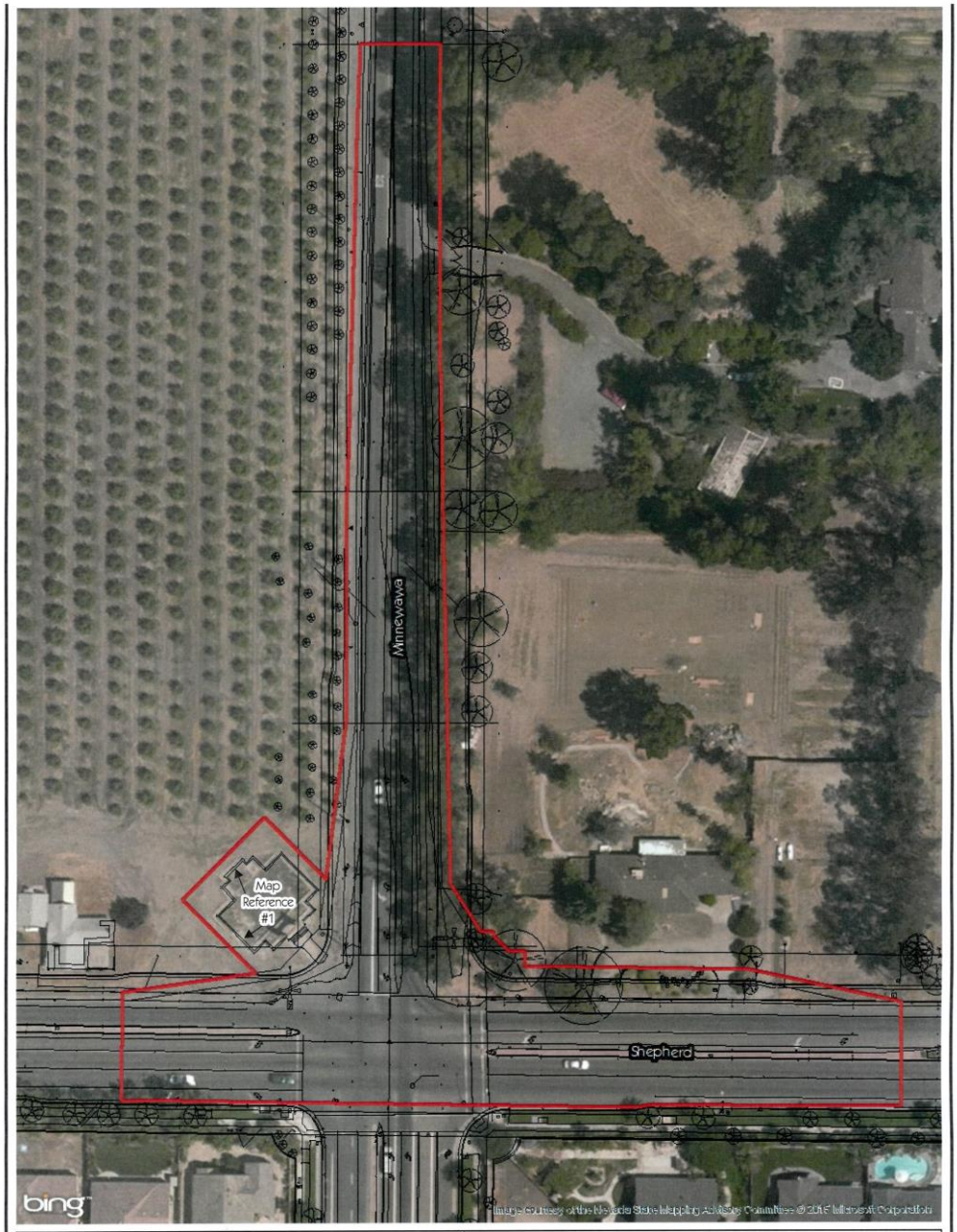
MAPS


Project Vicinity Map
Shepherd & Minnewawa
Traffic Signal Project
CML5208 (128)
General Vicinity
True North
USGS 1:250,000 Composite
FRESNO
Clovis
Pinedale
Herndon
Figarden
Highway City
Tarpey Village
Fresno Air Terminal
Las Palmas
Fresno-Chandler
Locans
Clotho
Lone Star
Calwa
Malaga
Winery
Cotton Ain
Central Canal
Gould Canal
Big Dry Creek Reservoir
MILLERTON LAKE STATE RECREATION AREA
OWENS MOUNTAIN
MADERA CO.
FRESNO CO.
MADERA COUNTY
FRESNO COUNTY
San Joaquin River
Madera Canal
ADOBE HILL
MARSHALL HILL
TABLE MTN.
Indian Springs
Arnold Ranch
Windmill
Radio tower
TV tower
Country Club
Substation
Sierra
Tarpey Village
Windmills
Cem
Ranch
ATCHISON TOPEKA AND SANTA FE
SOUTHERN PACIFIC
Del Rey

Map 1


Study Location Map
Shepherd & Minnewawa
Traffic Signal Project
CML5208 (128)
Area of Potential Effects
True North
USGS 1:24,000 Clovis, Calif. 1964 (1981)
Township 12 South, Range 21 East
PERRIN AVE
COLE AVE
HELM
COLONIAL
MINNEWAWA
CLOVIS AVE
Flume
Pump
Well
BM 375
19
20
29
30

Map 2



CalTrans District 6 Local Assistance Engineer — Date: 6/22/15

CalTrans District 6 Professionally Qualified Staff — Date: 6-22-2015

Area of Potential Effects
Shepherd & Minnewawa Traffic Signal Project
City of Clovis, Fresno County, California
CML5208 (128)

6/19/2015

N W E S

1" = 60'

Map 3

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

 ***Resource Name or #:** **Garfield School site**

P1. Other Identifier:

***P2. Location:** ☐ **Not for Publication** **X Unrestricted** ***a. County:** Fresno

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Clovis **Date: 1964 (1981) T12S**; **R21E**; SE ¼ **of** SE¼ **of Sec 19** **;** M.H. **B.M.**

c. Address: City: Zip:

d. UTM: Zone: 11 ; 110258393 mE/ 4083315 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: The resource is located at the northwest corner of the intersection of Shepherd Avenue and Minnewawa Avenue in the City of Clovis, Fresno County, California.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The resource consists of the foundation, peir block supports, steps, walkway, and partial standing wall of the former Garfield School.

***P3b. Resource Attributes:** (List attributes and codes) AH2 – Foundation; AH15 Standing Structure (partial)

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

P5b. Description of Photo: (View, date, accession #) View looking north, northeast. 7-14-15. Acc. #fsr15crop

***P6. Date Constructed/Age and Sources: X** Historic ☐Prehistoric ☐Both 1912 date inscribed on original building.

***P7. Owner and Address:** Unknown

***P8. Recorded by:** (Name, affiliation, and address) Baloain and Morlet, Applied EarthWorks, Inc. (in Armstrong 2014).

***P9. Date Recorded:** June 14, 2014 with photographic update by Ryan Burnett, June 14, 2015.

***P10. Survey Type:** (Describe) Pedestrian inspection by Matthew Armstrong, Applied EarthWorks, Inc. 2014

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") *Historic Resources Evaluation Report Shepherd and Minnewawa Signal Light Project, City of Clovis, Fresno County, California.* Peak & Associates, Inc. 2015

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

***A1. Dimensions: a. Length:** 85 Feet **(NW/SE) × b. Width:** 60 Feet **(NE/SW)**
Method of Measurement: ☐ Paced ☐ Taped X Visual estimate X Other: Aerial photograph
Method of Determination (Check any that apply.): ☐ Artifacts X Features ☐ Soil ☐ Vegetation ☐ Topography
☐ Cut bank ☐ Animal burrow ☐ Excavation ☐ Property boundary ☐ Other (Explain):
Reliability of Determination: ☐ High X Medium ☐ Low Explain:
Limitations (Check any that apply): X Restricted access ☐ Paved/built over ☐ Site limits incompletely defined
☐ Disturbances ☐ Vegetation ☐ Other (Explain): Resource is located on private property.
A2. Depth: ☐ None X Unknown Method of Determination:
***A3. Human Remains:** ☐ Present X Absent ☐ Possible ☐ Unknown (Explain):
***A4. Features** (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.):
According to Baloain and Morlet 2014: "The archaeological ruins of the brick school consist of the building's entry features (arch, front steps, etc.); foundation and footings; and two sets of concrete stairs in the rear of the school.

The most obvious feature of the school ruins is the brick arch (Feature 1). Measuring about 15 feet wide, 2.5 feet thick, and 18 feet high, the arch appears completely intact; its well-preserved masonry has only minor blemishes and fractures. Behind or immediately northwest of the arch is the concrete floor of the foyer (Feature 2). This feature measures about 6 by 12 feet and is raised about 2.5 feet above ground level, supported by underlying fill soil; it appears to be entirely intact. Leading up to the arch from the street intersection is an approximately 20-foot-long by 8-foot-wide concrete walkway and a five-step concrete staircase (Feature 3). The walkway was laid with approximately 2.5 foot square slabs and 2.5 by 0.5 foot runner slabs along the sides. The street-side (or southeast) end of the walkway appears to be covered with soil and is not readily visible. As with foyer floor, this concrete feature is still intact with only minor cracking and chipping.

The surviving 1-foot-thick concrete foundation clearly defines the footprint of the former building as well as much of its internal configuration (Feature 4; see schematic sketch). The two classrooms covered approximately 1,650 square feet combined or 825 square feet per room. The cloak rooms at the front measured about 6 by 11 feet each. There is also a 15 square foot room in the rear of the building that likely served as the library, referred to by George Kastner (1993) in his description of the school.

On either side of the library are two flights of five steps leading to a concrete platform raised about 2.0 to 2.5 feet above ground level with underlying fill soil (Features 5A and 5B). Although the staircases seemingly would have led to two rear doorways, Kastner's (1993) description states that the building was only accessed from the front entrance; the function of these staircases and platforms are thus presently unknown.

About a dozen concrete footings are scattered within the main foundation; some appear to be in place, but others have been dislodged from their original locations (Features 6). There is no evidence that the building contained internal plumbing. Based on the heights of the foyer and rear platforms, the floor of the school rooms lay 2.0–2.5 feet above ground level."

***A5. Cultural Constituents (**Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.):
***A6. Were Specimens Collected?** ☐ No ☐ Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)
***A7. Site Condition:** ☐ Good ☐ Fair X Poor (Describe disturbances.): Building destroyed by fire in 1990 then partially demolished afterwards.
***A8. Nearest Water** (Type, distance, and direction.)**:** US Department of Soils 1912 soils map indicates an unnamed branch of Dry Creek, ½ mile east of the school.
***A9. Elevation:** 375 Feet
A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.)**:** The school sat in a formally treeless plain in the San Joaquin Valley in deep, Madera sandy loam alluvial soils. Rural schools were a necessity at a time when transportation options were limited and Garfield School was one of five such schools shown on a 1912 map within the nearly level, agriculturally diverse, twenty-five square mile area surrounding Clovis.
A11. Historical Information: In July 1912 the trustees of the Garfield's School District petitioned the Fresno County Board of Supervisors for the construction of a two-room, brick veneer schoolhouse costing $4,000 (*Fresno Morning Republican* 1912h). For the residents of the Garfield School District, brick appears to have been a natural choice for the exterior of their new building. Masonry conveys a sense of permanency, security against the elements (including fire), and perhaps even affluence, in contrast to the understated elegance and practicality of wood. Plans for the building were submitted by J. C. Thayer. At the time, Thayer was a local architect working out of his office in the Forsyth Building in downtown Fresno; he also designed Corcoran High School (Donovan 1915:124; Polk-Husted Directory Co. 1912:645).

The enrollment of the Garfield School was never very large. For instance, Normand Biglione's graduating class (of eighth graders) in 1938 numbered only six students, and the previous year graduated only three (Setencich 1993). During the last years of its operation, school attendance averaged 86 students (AAUW and FCSS 2000:62). With the intent of consolidating their student bodies and building new schools, the Garfield, Nees, and Dry Creek districts merged in 1952 to form the Dry Creek Union School District (*Clovis Tribune and Independent* 1953; Dow 1967:372).

The brick building and school grounds did experience some updates during their 40-plus years of service. A pressure system (presumably for the well and pump) was installed in 1938, and a butane furnace replaced the coal-burning stove in the following year (*Clovis Independent* 1938, 1939). The 1937 aerial photograph of the site indicates that the horse stable and outhouses were

still present. At some point, possibly in the 1930s or 1940s, the traditional privies were replaced with outdoor plumbed restrooms (Fresno County Records [1954] Book 3550:666–667). The stable was removed by the time of the 1950 aerial, and as a sign of the times, a "school bus shed" was erected on the parcel, probably in the middle or late 1940s (Fresno County Records [1954] Book 3550:666–667). Despite these minor renovations, the school had reached the end of its useful life by the early 1950s. According to school officials, the Garfield School was counted among the old and "educationally inadequate buildings" of the new district; an engineer's report even deemed it "particularly hazardous," stating that it "should be eliminated as soon as possible" (*Clovis Tribune and Clovis Independent* 1953). The school permanently closed at the end of the 1953–1954 school year (*Clovis Independent* 1954).

By 1989 the Clovis chapter of the Grange (The National Grange of the Order of Patrons of Husbandry) had acquired the property with the idea of refurbishing the old school into a meeting center. It planned to restore the exterior and interior, replace the roof, install a handicap ramp, install bathrooms in the cloakrooms, install a kitchen, and hang a new bell in the belfry (Clovis Grange 1989). It seems that as part of the renovation effort, the local Grange prepared the forms and necessary supporting materials to nominate the school to the Fresno County List of Historic Places. In his memo to fellow county supervisors, Chairman Randy McFarland (1990) wrote that the "application for the Garfield School would add to the recognition of the history of education in our County." On February 6 of the following year, the Garfield School was designated as Fresno County Historical Landmark 178. For whatever reason, the Grange was unable to follow through with its plan, and once again the property was sold, this time to current owner Pat Ricchiuti of PR Farms.

About seven months after receiving landmark status, the building was virtually demolished by an arson-related fire on the morning of September 7 (*Fresno Bee* 1990). All that remained (and still remains) after the clean-up effort were the entry arch, concrete steps and walkway, foundation, and some scattered footings within the foundation.

***A12. Age:** ☐ Prehistoric ☐ Protohistoric ☐ 1542-1769 ☐ 1769-1848 ☐ 1848-1880 ☐ 1880-1914 X 1914-1945 ☐ Post 1945 ☐ Undetermined **Describe position in regional prehistoric chronology or factual historic dates if known:** 1912-1990

A13. Interpretations (Discuss data potential, function[s], ethnic affiliation, and other interpretations): The Garfield School site does not appear to be locally significant under National Register Criterion A, nor is it a historical resource for the purposes of CEQA. A chapter in the history of education in the rural area near Clovis may have been exemplified by the site, but the 1990 fire destroyed the building. All that remains are the brick arch, some concrete pathways, and a foundation. It is not possible to discern from the remnant foundation and arch the previous use or identity of the building. The building remnants lack integrity of design, setting, materials, feeling, association, and workmanship. All that remains is integrity of location, with the foundation still in the same place it was constructed in 1912.

There is no association with people important in the past. The school was a rural school, with no important alumni or teachers associated. The Garfield School site is not significant under Criterion B.

Under Criterion C, a property must "embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction." The building burned completely in 1990; little remains of the original building. It does not embody any distinctive characteristics, or is even representative of the original building. The Garfield School site is not eligible for the National Register under Criterion C. Under Criterion D, a site must have yielded, or may be likely to yield, information important in history. The burned building foundations have no potential to yield information important in history

A14. Remarks: The Garfield School is not eligible for inclusion in the National Register of Historic Places. Only remnants of the 1912 school building remain.

A15. References (Documents, informants, maps, and other references): Baloain and Morlet 2014 Historical Resources Evaluation Report Shepherd and Minnewawa Signal Light Project, City of Clovis, Fresno County, California. *Clovis Tribune and Clovis Independent* 1953 Plan to Replace Old Schools with New Plant. 1 October:1. Clovis, California; *Clovis Independent* 1938 Clovis Schools to Open Monday, Register this Wk. 15 September:1. Clovis, California; 1939 Elementary Schools are Opening. 7 September:1. Clovis, California; 1954 Garfield School to be Sold. 16 July:1. Clovis, California; Donovan, John J. 1915 *The Architect and Engineer of California.* San Francisco, California.; Dow, John Allan 1967 *History of Public School Organization and Administration in Fresno County, California.* Ph.D. dissertation, School of Education, University of Southern California. On file, California History Room at the Main Branch of the Fresno County Library, Fresno, California**;** *Fresno Morning Republican* 1912 Clovis Decides to Incorporate. 16 February:16. Fresno, California; and, Polk-Husted Directory Co. 1912 *Fresno and Coalinga City and Fresno County Directory 1912.* Sacramento, California

A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record.): Original Media/Negatives Kept at:

***A17. Form Compiled by:** Neal Neuenschwander based on data collected by Baloain and Morlet, Applied EarthWorks, Inc. June 14, 2014 with photographic updates provided by Ryan Burnett, City of Clovis, June 14, 2015. Historical Information (A11) and Interpretations (A13) prepared by Melinda Peak, Peak & Associates, Inc. August 2015. Affiliation and Address: Peak & Associates, Inc. 3161 Godman Avenue, Chico, CA 95973/ 3941 Park Drive, Suite 20-329, El Dorado Hills, CA 95762. Date: August 2015

A) View of the Garfield School, December 24, 1915 (Photo from ***Clovis Tribune***, courtesy of Baloain and Morlet 2014:13).

B) View of the Garfield School looking northeast, date unknown (Photo from Clovis-Big Dry Creek Historical Society, courtesy of Baloain and Morlet 2014:16).

C) View of the Garfield School area looking west, southwest. 7-14-15. Acc # FSR1

D) View of the Garfield School area looking northeast. 7-14-15. Acc # FSR6

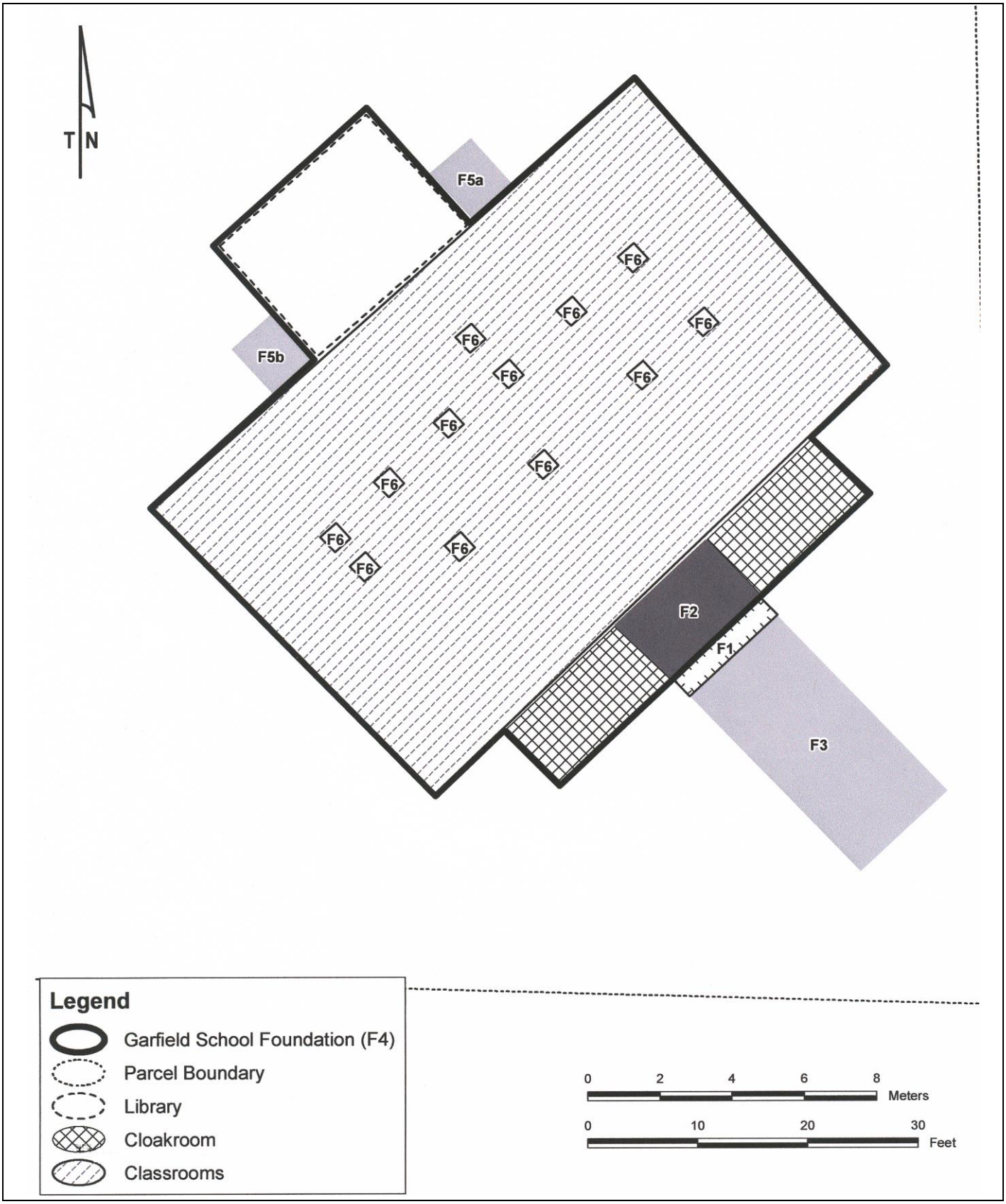
E) View of the Garfield School area looking northwest. 7-14-15. Acc # FSR11


Minnewawa Avenue
Feature 5a
Feature 6
Feature 4
Feature 5b
Feature 1
Feature 2
Feature 3
Shepherd Avenue
True North

*Resource Name or # (Assigned by recorder) **Garfield School site**

*Drawn By: E. Rapp, Applied EarthWorks, Inc.

*Date 7-1-2014



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

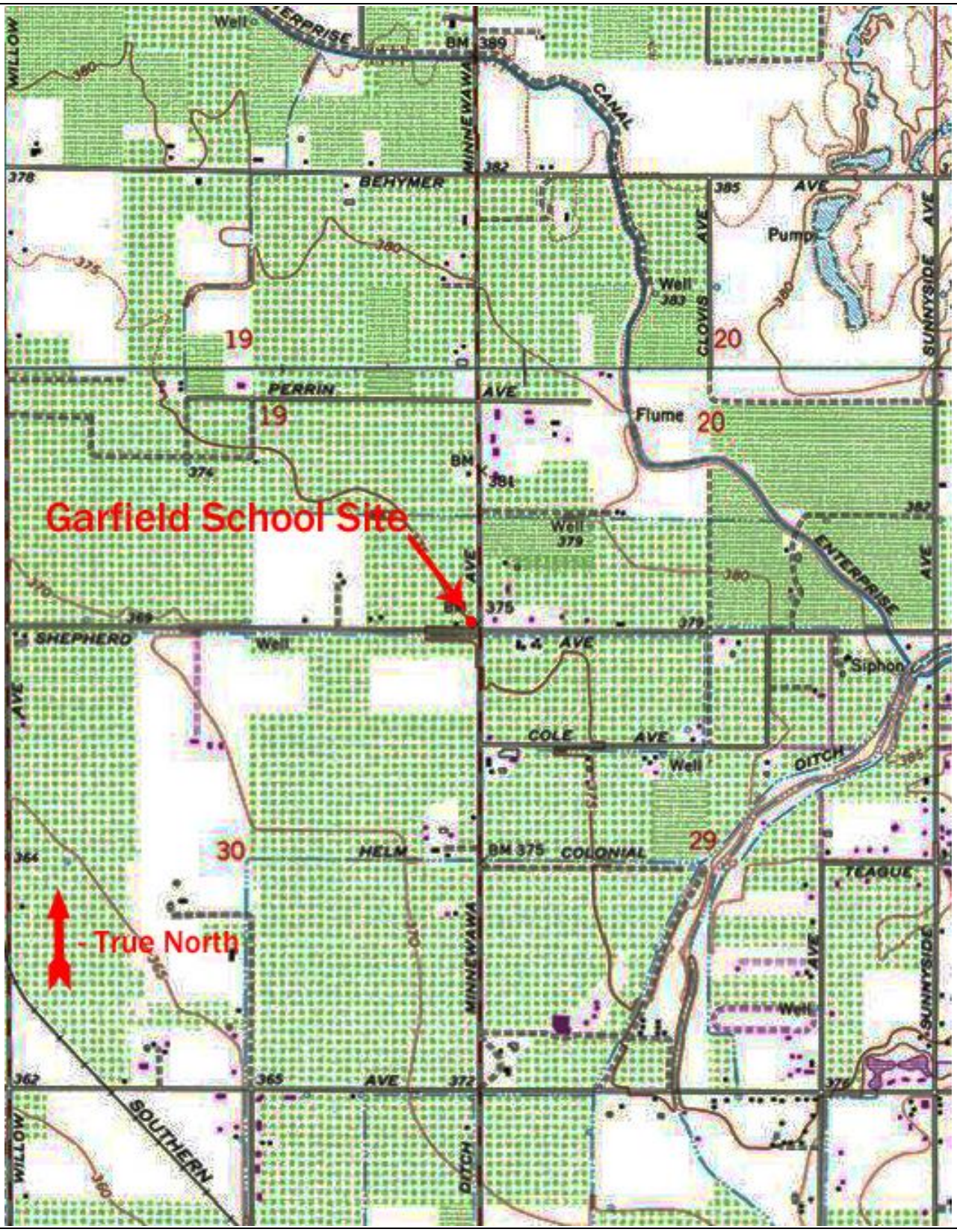
LOCATION MAP

Primary #
HRI#
Trinomial

*Resource Name or #: **Garfield School site**

*Map Name: Clovis, Calif.

*Scale: 1:24,000 *Date of Map: 1964 (1981)



*Required information

ARCHAEOLOGICAL SURVEY REPORT

Shepherd and Minnewawa Signal Light Project, City of Clovis, Fresno County, California

06-FRE-00 BRLS-5208(122)

Prepared By: Melinda A. Peak Date: 11-6-15
Melinda A. Peak
Peak & Associates, Inc.
3941 Park Drive Suite 20-329
El Dorado Hills, CA 95762

Prepared For: **City of Clovis Planning Division**
1033 Fifth Street, Clovis, CA 93612

Reviewed By: John W Whitehouse Date: 11.16.2015
John Whitehouse, Principal Investigator – Prehistoric and Historical Archaeology Southern San Joaquin Valley Management Branch
California Department of Transportation, District 6
855 M Street, Suite 200, Fresno, CA 93721

Approved By: Shane Gunn Date: 11/16/2015
Shane Gunn, Branch Chief
Southern San Joaquin Valley Management Branch
California Department of Transportation, District 6
855 M Street, Suite 200, Fresno, CA 93721

November 2015

SUMMARY OF FINDINGS

The City of Clovis, under the Federal State Transportation Improvement Program as administered through the California Department of Transportation (Caltrans), plans to install a signal light at the intersection of Shepherd Avenue and Minnewawa Avenue and to acquire new right-of-way to construct right turn lane transitions. In support of this project, Applied EarthWorks, Inc. has conducted an archaeological inventory. The current investigation included: (1) a records search at the Southern San Joaquin Valley Information Center of the California Historical Resources Information System; (2) a cursory review of materials from historical archives; (3) Native American consultation; and (4) a pedestrian survey for archaeological resources within the existing right-of-way and areas proposed for right-of-way acquisition. No archaeological resources were identified as a result of the records search or Native American consultation. One resource, the Garfield School foundation, was identified during the survey on the northwest corner of Shepherd and Minnewawa avenues within Assessor's Parcel No. 556-020-11.

It is Caltrans' policy to avoid cultural resources whenever possible. Further investigations may be needed if the site[s] cannot be avoided by the project. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the project changes to include areas not previously surveyed.

CONTENTS

1 INTRODUCTION

The City of Clovis (City), with the support of the Federal State Transportation Improvement Program (FSTIP), plans to install a signal light at the intersection of Shepherd Avenue and Minnewawa Avenue and to acquire new right-of-way to construct right turn lane transitions. The proposed project is in the northern part of town in Fresno County, California (see Maps 1, 2, and 3 in Appendix A). FSTIP funds for the project will be administered through California Department of Transportation (Caltrans) District 6 (BRLS-5208[122]). Because the project involves federal funding, it is subject to the cultural resources provisions of the National Environmental Policy Act and Section 106 of the National Historic Preservation Act (NHPA), as implemented through the 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance With Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA).

Section 106 mandates that government agencies consider the effects of their actions on historic properties—i.e., archaeological or built-environment resources that are eligible for inclusion in the National Register of Historic Places (National Register) per 36 CFR 800.16(l).

Applied EarthWorks, Inc. (*Æ*): (1) ordered a records search from the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System and reviewed the results; (2) performed an archaeological survey of the project corridor and adjacent areas; and (3) initiated Native American consultation. The survey was completed on November 6, 2013 by Associate Archaeologist Matthew Armstrong, who holds a master's degree in anthropology (2006) and has 12 years of experience performing and documenting archaeological investigations throughout California. Melinda Peak of Peak & Associates completed the final version of the Archaeological Survey Report, utilizing the draft prepared by Armstrong in 2014.

2 PROJECT DESCRIPTION AND LOCATION

The purpose of the project is to alleviate traffic congestion at this intersection, which is currently regulated by a four-way stop. Installation of signal lights will require the acquisition of additional right-of-way to accommodate new right turn lane transitions, the surfacing of the existing right turn lane on southbound Minnewawa Avenue, and a new right turn lane westbound on Shepherd Avenue. Additional right-of-way will be obtained from Assessor's Parcel Nos. (APNs) 556-020-09, 556-020-11, 556-050-02, and 556-050-19. Construction also will include curb returns with ramps built to Americans with Disabilities Act (ADA) standards. Utility adjustments will be limited to manholes, utility boxes, and a new utility pole.

The project is at the corners of Sections 19, 20, 29, and 30 in Township 12 South, Range 21 East, as depicted on the U.S. Geological Survey (USGS) Clovis, California, 7.5 minute topographic quadrangle (1964, photorevised 1981; Map 2). Rural residences and

orchards occupy the study vicinity to the north, and a large housing development occupies the study vicinity to the south.

The Area of Potential Effects (APE) defines the area within which the project has the potential to directly or indirectly cause alterations to historic properties per 36 CFR 800.16(d).

Archaeological survey coverage for the present undertaking (Map 3) was intended to encompass all areas that may be affected during project construction.

3 SOURCES CONSULTED

3.1 RECORDS SEARCH

On February 6, 2014, the staff of the SSJVIC at California State University, Bakersfield performed a records search for an area encompassing the intersection of Minnewawa and Shepherd avenues and a 0.5-mile buffer surrounding the intersection (RS# 4-042; see Appendix B). Based on the topography and geographic location of the project, a records search within a 0.5-mile radius of the project area is considered sufficient to identify any previously recorded cultural resources that might provide information regarding prehistoric and historic land use in the project APE. SSJVIC staff searched for previously recorded cultural resources and previous studies performed within 0.5 mile of the project area. SSJVIC staff also reviewed the National Register of Historic Places, Historic Property Data File (3/18/13), California Register of Historical Resources, California Inventory of Historic Resources, and the listings of California Historical Landmarks and California Points of Historical Interest.

The records search identified no previously recorded cultural resources within the project area, nor within 0.5 mile of the project area. The only previous survey within the project area was performed by Æ (Nettles and Baloian 2006; FR-02289); it covered approximately 50 percent of the project area and 50 percent of the overall records search area (Table 1). This was a reconnaissance/roadside survey intended to observe historic architecture and not an intensive archaeological survey. Although FR-02289 resulted in the identification of the Garfield School site, it was not formally recorded at that time. Three additional studies (FR-00074, FR-02062, and FR-02203) have been performed within 0.5 mile of the project area. FR-00074 is a linear survey that skirts the western edge of the records search area, FR-02062 covers a single parcel west of the project area, and FR-2203 covers several parcels totaling approximately 100 acres within the records search area.

Table 1: Previous Cultural Resources Studies Identified during the Records Search

SSJVIC Report No.	Year	Author	Title
Previous Study in the Project Area			
FR-02289	2006	Nettles, Wendy, and Randy Baloian	Cultural Resources Reconnaissance Survey of the City of Clovis Northwest Urban Center Specific Plan Area, Fresno County, California.
Previous Studies within 0.5 Mile of the Project Area			
FR-00074	1978	Baker, Suzanne	Archaeological Reconnaissance of the Shepherd 230 kV Substation Transmission Line
FR-02062	2004	Thal, Sean	Shepherd/CA-1202A
FR-02203	2006	Varner, Dudley M.	A Cultural Resource Study of the Battlin Brooks

3.2 ARCHIVAL RESEARCH

The purpose of archival research for archaeological studies is to provide information regarding the potential for historical deposits to exist within the study area. The investigation compiled information from several sources, including:

- The San Joaquin Valley Heritage and Genealogy Center at the Main Branch of the Fresno County Library;
- The Henry Madden Library at California State University, Fresno, including visits to the library's Map Department and Special Collections Department;
- Clovis-Big Dry Creek Historical Society;
- Fresno County Assessor's Office;
- Fresno County Recorder's Office; and
- Æ's in-house library, which includes local histories and technical publications pertaining to the Fresno-Clovis area (Armstrong 2014).

Peak & Associates completed additional research at the California Room of the California State Library. For a detailed historical account of the study vicinity, see the accompanying Historical Resources Evaluation Report (Peak 2015).

3.3 NATIVE AMERICAN CONSULTATION

The following section was prepared by Armstrong 2014.

On January 24, 2014, Æ sent an e-mail to the Native American Heritage Commission (NAHC) requesting a Sacred Lands Inventory search and the contact information for local Native American representatives. The NAHC responded in a faxed letter dated January 28, 2014, stating that it did not identify any sacred sites within or adjacent to the study area (Appendix C). The commission cautioned that its Sacred Lands Inventory is not exhaustive and the absence of recorded sites does not preclude the discovery of

cultural resources during project ground- moving activities. The NAHC also provided the names and contact information for 10 Native Americans who may have an interest in the project:

- Elizabeth Hutchins Kipp of the Big Sandy Rancheria of Mono Indians.
- Robert Marquez of the Cold Springs Rancheria of Mono Indians.
- Robert Ledger Sr. of the Dumna Wo-Wah Tribal government.
- Lawrence Bill of the Sierra Nevada Native American Coalition.
- Bob Pennell of Table Mountain Rancheria.
- Stan Alec of the Kings River Choinumni Farm Tribe.
- Mandy Marine of the Dunlap Band of Mono Historical Preservation Society.
- Rosemary Smith of the Choinumni Yokuts.
- David Alvarez of the Traditional Choinumni Tribe.
- Lalo Franco of the Santa Rosa Tachi Rancheria.

On January 28, 2014, Æ mailed a letter to each of these representatives, briefly describing the project and requesting any information they may have about the study area. On February 14, approximately 2 weeks after the initial correspondence was sent, Æ attempted to contact the representatives by telephone or e-mail. Æ received verbal and/or written comments from five individuals (Table 2). Consultation efforts are fully detailed in Appendix C, which includes a contact log and copies of written correspondence.

Table 2: Summary of Results of Native Americans Consultation

Name/Affiliation	Response
Elizabeth Hutchins Kipp, Chairperson, Big Sandy Rancheria of Mono Indians	In an e-mail sent on February 14, 2014, Ms. Kipp stated that Big Sandy Rancheria has no concerns or information regarding the project area.
Bob Pennell, Cultural Resources Director, Table Mountain Rancheria	When Æ contacted Pennell by telephone on February 14, 2014, he wished to confirm that the Garfield School site was being accounted for in the study, and stated that he would look over the letter again and provide further comments, if he had any, by mail. In a letter dated March 26, 2014, Pennell confirmed that the Rancheria is very interested in the project because it lies within their area of cultural interest. He requested that the Rancheria be contacted for further discussion.
Stan Alec, Kings River Choinumni Farm Tribe	Æ contacted Alec by telephone on February 14, 2014. He stated that he had no objections to the project.
Rosemary Smith, Chairperson, The Choinumni Tribe of Yokuts	In an e-mail sent on February 16, 2014, Smith stated that the project area is known to have been in the vicinity of Yokuts campsites, and that in the event that any archaeological materials are identified, she wishes for work to be halted, and to be notified immediately.

Lalo Franco, Cultural Coordinator, Santa Rosa Tachi Rancheria	Æ contacted the Tachi Rancheria by telephone on February 14, 2014. Shana Brum stated that she would need to review the initial letter again and would reply if Tachi Rancheria had any concerns.

4 BACKGROUND

The following sections were prepared by Armstrong 2014.

4.1 ENVIRONMENT

Greater Clovis lies on the eastern margin of the San Joaquin Valley, near the base of the Sierra Nevada foothills. The valley's fertile soils are primarily made up of alluvium deposited during the Holocene and Pleistocene. Prior to Euro-American colonization, the valley floor was occupied by diverse resident and migratory mammals, birds, and fish that provided a rich resource base for aboriginal subsistence. Historical and modern land use has greatly reduced the size and number of native habitats, eliminating numerous indigenous species. Recent house construction and historical construction and agricultural activities have disturbed the ground within the project area. The study area lies at 386 feet above mean sea level. The closest natural watercourse to the study area, Big Dry Creek, is approximately 1 mile east and was important both as a waterway and as a resource habitat during the prehistory and history of the study vicinity. The area is sensitive for historic-era archaeological sites due to the history of agricultural development and the construction of a school at the northwest corner of the intersection of Shepherd and Minnewawa avenues.

4.2 ETHNOGRAPHY

At the time of first contact with the Spanish missionaries, the Yokuts people collectively inhabited the San Joaquin Valley as well as the western foothills of the Sierra Nevada from the Calaveras River southward to the Kern River. The Yokuts were organized into relatively small autonomous tribes or tribelets, which maintained a fluid territory containing multiple semipermanent settlements. Specifically, the study area lies within the territory of the Gashowu, a tribelet that occupied the drainages of Big Dry Creek and Little Dry Creek. Two major settlements are attributed to the Gashowu: *Pohonui*, below Letcher on Big Dry Creek, and *Yokau*, on Little Dry Creek in Auberry Valley (Kroeber 1976:481, plate 47). These villages appear to have been central year-round settlements occupied more densely in the winter. Food- gathering forays in the spring or summer expanded the Gashowu range to the lowlands of present-day Clovis and Fresno.

Acorns were a Gashowu staple; additional nutrition was culled from other nuts and seeds, berries, fruit, and game. These dietary items as well as toolstone and a variety of other resources were gathered at the summer camps. Procurement loci survive today as scatters of lithic artifacts and bedrock milling stations where plants and seeds were processed. In addition to these features, artifacts used to process procured resources (such as mortars, pestles, and manos) and the remains of resources gathered (such as bone and acorn shell) are also common within archaeological sites.

The villages of the Southern Valley Yokuts, including the Gashowu, profited from the east-west trade of goods that flowed between the Pacific Coast and the High Sierra and Great Basin (Davis 1961). The Yokuts bartered their local staples (e.g., freshwater fish, acorns, steatite goods, and tule reeds) to obtain such goods as obsidian, pine nuts, shell beads and ornaments, and other exotic commodities.

As with other Indian groups in California, the lifeways of the Yokuts were dramatically altered as a result of contact with Spanish explorers and missionaries, miners, ranchers, and other immigrants who entered the San Joaquin Valley after 1700. The introduction of European culture and new diseases proved devastating to the native population. Having been pushed off their land by white settlers, many Yokuts ended up as impoverished agricultural workers or otherwise occupied the lower echelons of the new Californian society (Wallace 1978).

4.3 PREHISTORY

In contrast to the numerous archaeological excavations in the south-central Sierra Nevada and adjacent foothills, there has been little archaeological work done in the central San Joaquin Valley generally, or in the project vicinity specifically. Recent excavations close to the project area include work along the San Joaquin River at CA-MAD-826 and CA-MAD-295/827 (Baloian et al. 2006), and near Ledger Island and along Highway 168 at CA-FRE-1671 (Moratto 1988). This work has produced data that is generally consistent with prehistoric sequences developed from excavations in the foothill and mountain areas that provide a fairly clear understanding of cultural change during the last 2,000-3,000 years (summarized in Moratto 1984:316–324; Table 3).

This chronology is relatively short compared to the southern San Joaquin Valley, where archaeological investigations in the Tulare Lake and Buena Vista Lake localities suggest that people occupied the region as early as 11,000–12,000 years ago (Fredrickson and Grossman 1977; Riddell and Olson 1969). Despite the consistent data generated at Fresno and Madera County sites, because there has been very little archaeological excavation in the immediate project vicinity, it is unclear whether the cultural phases identified in the adjacent foothills extend to this area. Moreover, the late phase of this chronology is generally associated with ancestral Miwok peoples rather than Yokuts.

Table 3

Culture Phases in the Sierra Nevada Foothills (adapted from Moratto 1984)

Phase	Dates	Common Artifacts and Features
Chowchilla Phase	800 B.C.–A.D. 550	Large projectile points, cobble mortars and cylindrical pestles, milling stones, bone fish spear tips, abundant beads and ornaments of *Olivella* and *Haliotis* shell, bone tools common, extended and semi-extended burials, grave goods common and abundant, ochre in graves

Raymond Phase	A.D. 550–1500	Milling stones, small-to-medium projectile points (likely introduction of bow and arrow), bedrock mortars and unshaped pestles, burials usually in flexed position, few-to-no grave goods, cairns over burials, *Olivella* and *Haliotis* beads nearly vanish from archaeological record..
Madera Phase	A.D. 1500–Historic Period	Lightweight arrowheads, steatite disk beads, bedrock mortars and cobble pestles, *Olivella* beads, steatite artifacts, small amounts of Brown Ware pottery, flexed burials (cremations for high status individuals), grave goods common, and small amounts of European artifacts.

At least 13 prehistoric sites have been investigated in Gashowu territory (Price 1992). These sites are primarily either extensive midden deposits found along both small ephemeral drainages and larger permanent watercourses or multiple bedrock milling features, sometimes with extensive numbers of individual stations.

Investigations at CA-FRE-1671, which may have formed the core of the *Pohoniu* village community, yielded radiocarbon dates showing that Yokuts settlement of the area extended from A.D. 1300 well into the historic period. An earlier occupation phase at the site was dated between circa 700 B.C. and A.D. 300 but could not be linked directly to the Gashowu or any other Yokuts group (Moratto 1988).

At CA-FRE-64, investigations showed that the Yokuts may have occupied the area as early as A.D. 1100–1200, with continuing occupation to around A.D. 1600. An even earlier component lacked the data to attribute it to the Gashowu, but suggested that the steatite industry in the area may have begun as early as A.D. 800 (Wallace et al. 1989).

Both CA-FRE-1154 and CA-FRE-1155 lie less than 6 miles east of the current project area. CA-FRE-1154, the Sharer Site, lies “along an abandoned oxbow bend associated with a channelized stream” (Langenwalter et al. 1989:68). This site, interpreted as a seasonal procurement campsite, appears to have been used during a long temporal span ranging from 850 B.C. to A.D. 1850. This site consists of a midden extending 60 to 160 centimeters deep and a large bedrock boulder containing 76 mortars, cups, cupules, and slicks. Artifacts included ground and flaked stone tools, steatite bowl fragments, ornaments, crystals, daub, and ochre. Additionally, the remains of a juvenile burial were encountered.

CA-FRE-1155, the Harlan Site, contains a small but well-developed midden between 80 and 190 centimeters thick as well as five bedrock features. This site is artifactually similar to CA-FRE-1154 and also was interpreted as a seasonal procurement site. This site appears to have been sporadically occupied between 850 B.C. and A.D. 300, with intensive occupation from A.D. 300 to 1500 (Langenwalter et al. 1989).

Surveys of areas east of the current project area have shown that many small processing stations and temporary camps occur along seasonal channels near the lower foothills (Meighan and Dillon 1987), suggesting a pattern of widespread but relatively ephemeral use of the area during the late Holocene (McGuire 1992). Until more archaeological work can be done, interpretations regarding prehistoric land use in the project vicinity are speculative.

In the first half of the nineteenth century, the Gashowu population was decimated by disease, missionization, and military action. This led to a radical change in settlement. The surviving peoples abandoned residential sites they had occupied prehistorically and congregated at a small number of locations. Glass trade beads and other historic artifacts recovered from CA-FRE-687 and CA-FRE-1671 may be evidence of these post-contact settlements (Price 1992:32–33).

4.4 HISTORY

Much of the history of the Fresno-Clovis area has been shaped by the introduction and subsequent development of extensive water conveyance systems. In addition, the arrival of the Southern Pacific Railroad to Fresno in 1872 coupled with the passage of the "no fence" laws in 1874 provided the underpinnings of an agricultural revolution in the Central Valley that has lasted into the twenty-first century. By bringing irrigation water from the Kings River, developers not only increased the productivity of land but enhanced the resale value of their agricultural subdivisions. The Enterprise Canal in the project vicinity is among the earliest canals constructed during this formative time in the history of the area. It brought (and continues to bring) irrigation water from the Kings River to the agricultural lands north of Fresno and around the nascent settlement of Clovis, which was established as a stop along the old San Joaquin Valley Railroad (Clough and Secrest 1984; Mead 1901; Thompson 1891).

Agriculture has greatly influenced the development of Clovis, yet the town's initial growth was spurred by the founding of the Fresno Flume and Lumber Company's mill in 1894 (Johnston 1997). That same year the company completed a 45-mile-long flume from Shaver Lake to its Clovis lumber mill.

Agricultural development in the project area began in the 1870s with grain farming on parcels of 640 acres or more. By the late nineteenth century, these larger tracts were being broken-up into smaller lots that (with irrigation) supported premium crops, such as vineyards and orchards (Guard 1909; Harvey 1907; Progressive Map Service 1913; Vandor 1919)

Water control and management continued to be an important issue for the valley and particularly for residents along Dry Creek. Winding southwest from the foothills, Dry Creek disappears into a natural sink near the Old Fig Garden area in north-central Fresno. The natural flow from the creek raises the underground water table, which has been an important source of well irrigation water. Yet, since the earliest days of settlement, the annual flooding of the waterway caused traffic hazards, material damage, and even loss of life (Wilson 1932). Since beginning operation in 1948, the Dry Creek Project has expanded its scope to prevent flooding while managing the groundwater level (Clovis Unified School District 1984:137; *Fresno Bee* 1948; Fresno Metropolitan Flood Control District 2014).

In the past 30 years, suburban development of Clovis has replaced much of the former agricultural lands surrounding the town. However, the study area is still bordered on the north by orchards and agricultural fields.

5 FIELD METHODS

On January 27, 2014, archaeologist Matthew Armstrong surveyed the project study area (Map 3) by walking a transect on either side of both Shepherd and Minnewawa avenues to look for evidence of archaeological deposits. Barbed wire fences prevented access to land past the road shoulder on Minnewawa north of Shepherd and along Shepherd west of Minnewawa. The area within the fenced parcel on the northwest corner of Shepherd and Minnewawa avenues was observed from the shoulder during survey (Map 4).

Approximately 50 percent of the ground was visible in the northwest portion of the project area, the rest was obscured by asphalt paving. Ground visibility on the northeast corner of Shepherd and Minnewawa avenues was approximately 40 percent, due to a combination of grasses, fallen eucalyptus leaves, and a paved driveway. Concrete sidewalks and landscaped vegetation cover the shoulders of both Shepherd and Minnewawa on the south side of the intersection. Ground visibility is approximately 30 percent, but the visible soil appears to be fill.

The survey area was photographed with a digital camera to document ground visibility and other conditions at the time of survey. Cultural resources also were photographed and their accessible boundaries were determined and recorded using a Trimble GeoXT Global Positioning System (GPS) unit (Armstrong 2014).

Land access limitations prevented inspection of portions of the resources. The Garfield School has been recorded on California Department of Parks and Recreation (DPR) record forms (523 series) by Peak & Associates. This form is included in Appendix D.

6 STUDY FINDINGS AND CONCLUSIONS

The survey encountered one site, the foundation of the Garfield School, originally built in 1912 (Baloian and Morlet 2014). The only visible remains of the school are the brick arch that once was part of the school's entrance, rectangular concrete foundations, numerous small concrete footings arranged in a grid pattern within the rectangular foundations, two sets of concrete stairs on what would have been the back wall of the school, and a concrete walkway that leads from the southeast property line to the archway. The site is located immediately northwest of the intersection of Shepherd and Minnewawa avenues.

No previous studies have formally evaluated the eligibility of the Garfield School for listing on the National Register or California Register. However, the building, prior to its destruction by a fire in 1990, was listed as Fresno County Historical Landmark 178.

If previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be halted in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological survey will be needed if project limits are extended beyond the present survey limits.

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1997 The Whistles Blow No More: Railroad Logging in the Sierra Nevada, 1874–1942. Stauffer Publishing, Fish Camp, California.

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Langenwalter, Paul E., II, Adella Schroth, Philip de Barros, and Franklin Fenenga
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Mead, Elwood
1901 Irrigation Investigations in California. U.S. Department of Agriculture, Office of Experiment Stations Bulletin No. 100. Government Printing Office, Washington, D.C.

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Moratto, Michael J.
1984 California Archaeology. Academic Press, Orlando, Florida.

1988 Archaeological Excavations at Site CA-FRE-1671, Fresno, California: Final Report. 2 vols. INFOTEC Research, Inc., Sonora, California. Submitted to California Department of Transportation, Sacramento.

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2006 Cultural Resources Reconnaissance Survey of the City of Clovis Northwest Urban Center Specific Plan Area, Fresno County, California. Applied EarthWorks, Inc., Fresno, California. Prepared for the City of Clovis, California.

Price, Barry A.
1992 Archaeological Survey Report of Route 168 Study Areas, Fresno County, California. INFOTEC Research, Inc., Fresno, California. Submitted to CH2M Hill, Emeryville, California.

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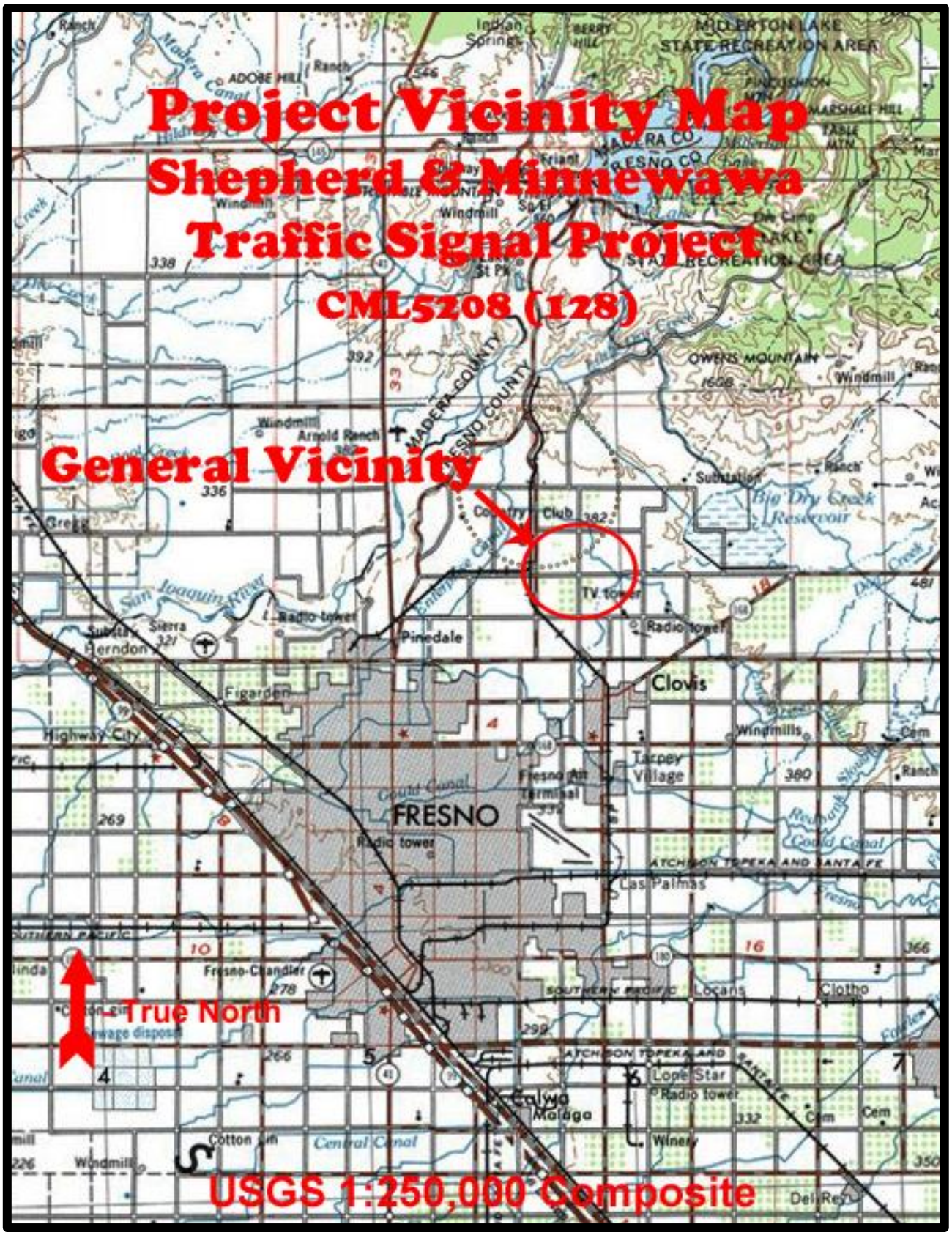
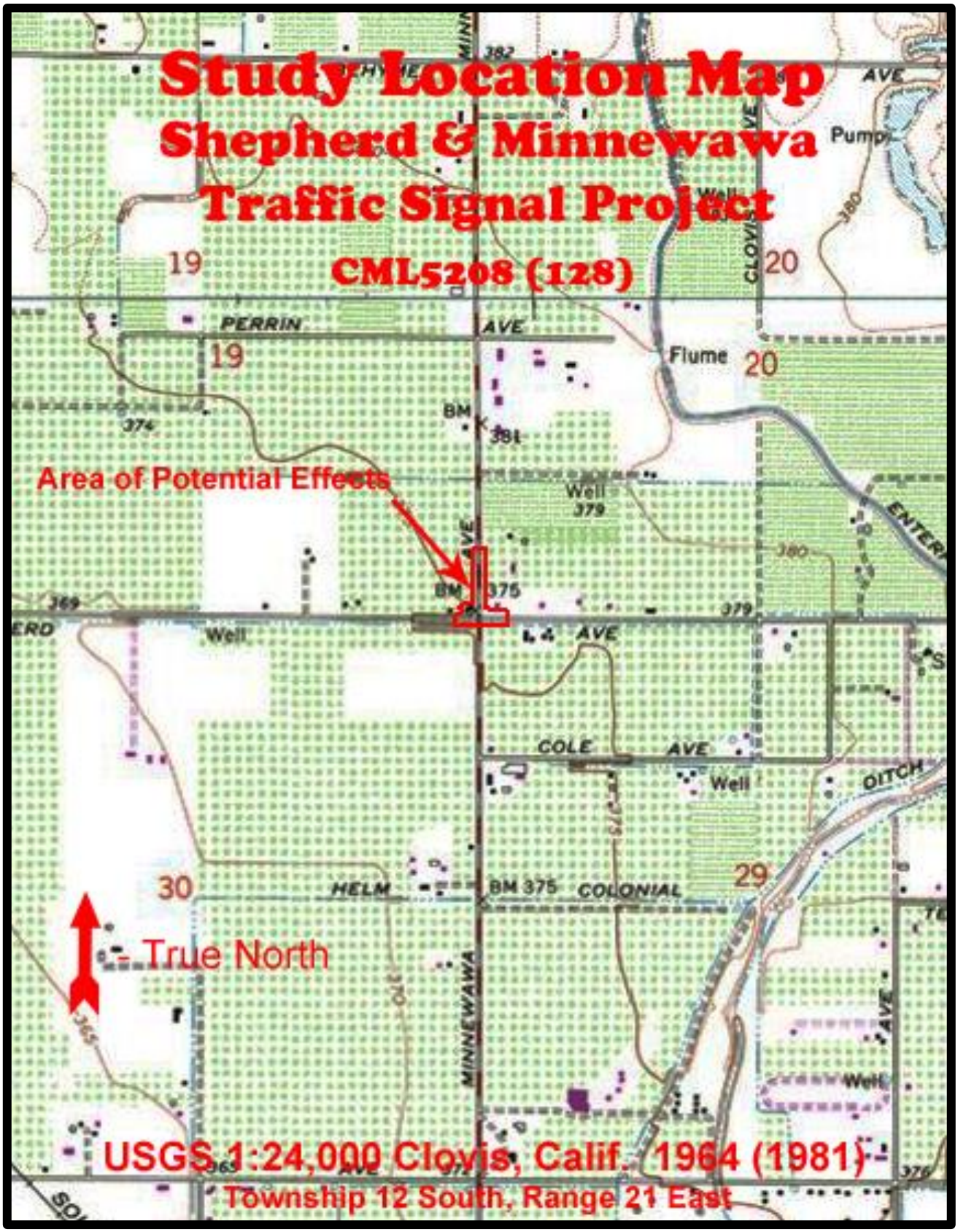
APPENDIX A

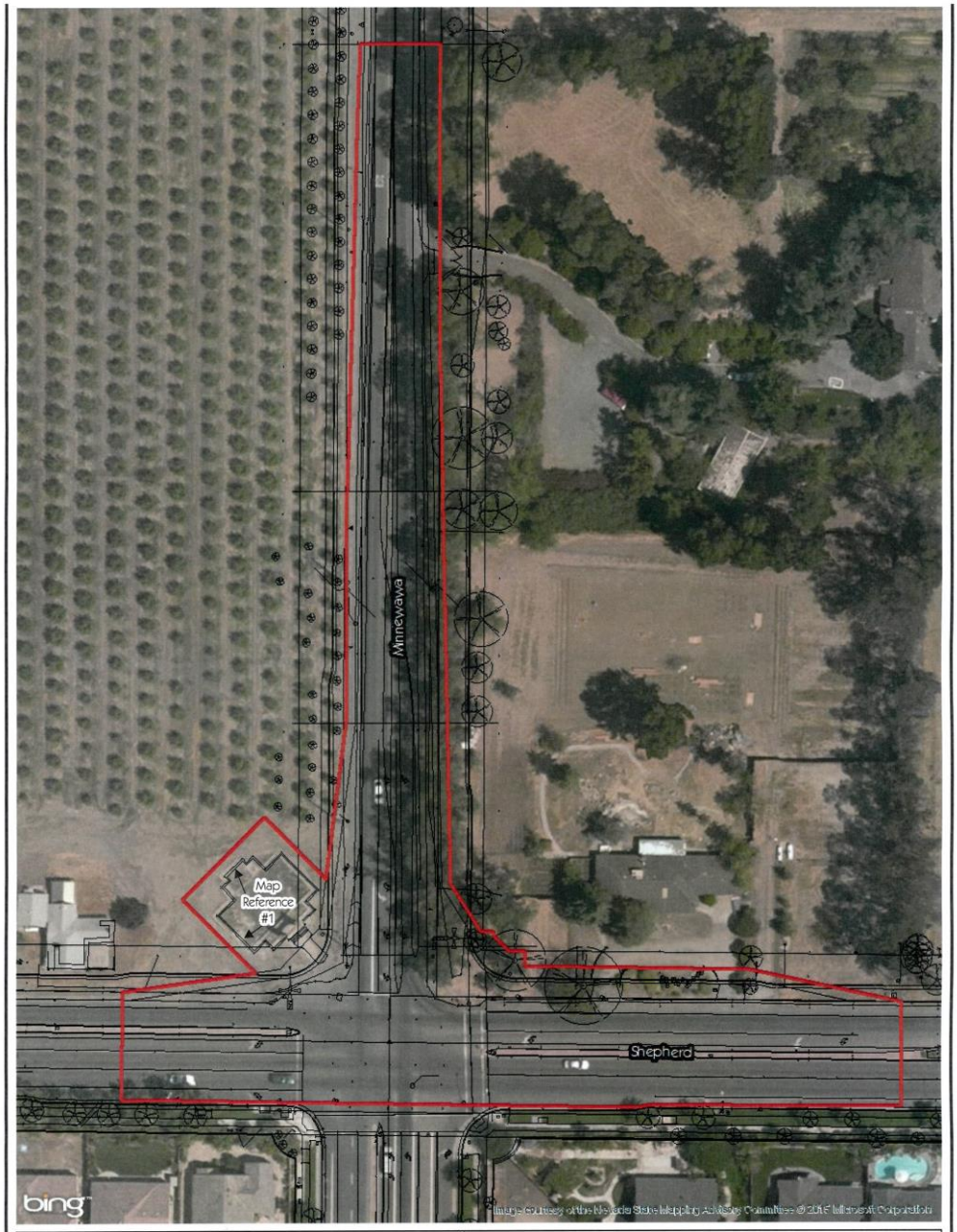
MAPS


Project Vicinity Map
Shepherd & Minnewawa
Traffic Signal Project
CML5208 (128)
General Vicinity
True North
USGS 1:250,000 Composite
FRESNO
Clovis
Pinedale
Herndon
Figarden
Highway City
Tarpey Village
Fresno Air Terminal
Las Palmas
Fresno-Chandler
Locans
Clotho
Lone Star
Calwa
Malaga
Winery
Cotton Ain
Central Canal
Gould Canal
Big Dry Creek Reservoir
MILLERTON LAKE STATE RECREATION AREA
OWENS MOUNTAIN
MADERA CO.
FRESNO CO.
MADERA COUNTY
FRESNO COUNTY
San Joaquin River
Madera Canal
ADOBE HILL
MARSHALL HILL
TABLE MTN.
Indian Springs
Arnold Ranch
Windmill
Radio tower
TV tower
Country Club
Substation
Sierra
Tarpey Village
Windmills
Cem
Ranch
ATCHISON TOPEKA AND SANTA FE
SOUTHERN PACIFIC
Del Rey

Map 1


Study Location Map
Shepherd & Minnewawa
Traffic Signal Project
CML5208 (128)
Area of Potential Effects
True North
USGS 1:24,000 Clovis, Calif. 1964 (1981)
Township 12 South, Range 21 East
PERRIN AVE
COLE AVE
HELM
COLONIAL
MINNEWAWA
CLOVIS AVE
Flume
Pump
Well
BM 375
19
20
29
30

Map 2



CalTrans District 6 Local Assistance Engineer — Date: 6/22/15

CalTrans District 6 Professionally Qualified Staff — Date: 6-22-2015

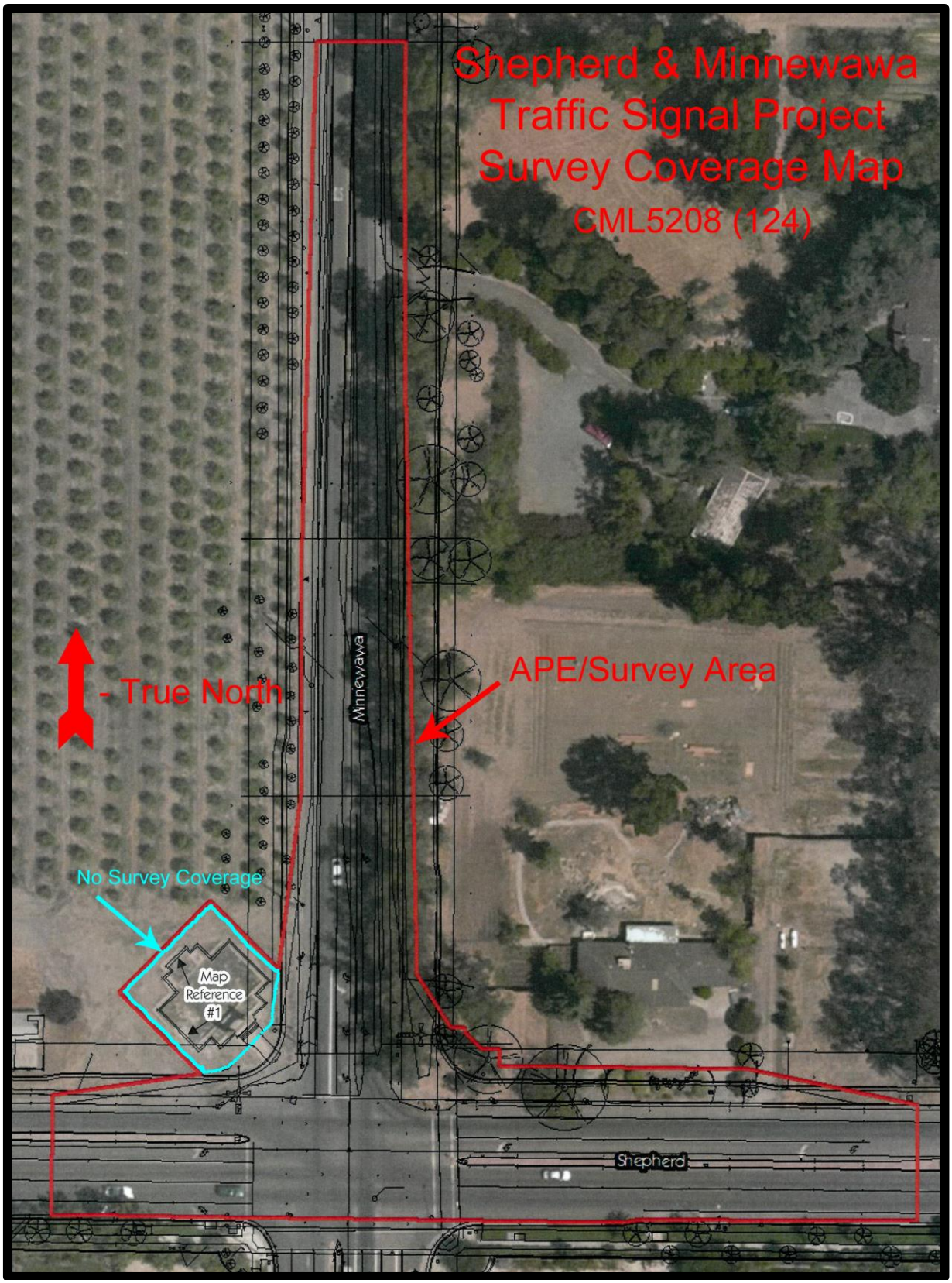
Area of Potential Effects
Shepherd & Minnewawa Traffic Signal Project
City of Clovis, Fresno County, California
CML5208 (128)

6/19/2015

N W E S

1" = 60'

Map 3


Shepherd & Minnewawa
Traffic Signal Project
Survey Coverage Map
CML5208 (124)
- True North
APE/Survey Area
No Survey Coverage
Map
Reference
#1
Minnewawa
Shepherd

Map 4

APPENDIX B

RECORDS SEARCH RESULTS

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

FRESNO KERN KINGS MADERA TULARE

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 46 MEC
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289 FAX (661) 654-2415
E-mail: ssjvic@csub.edu

TO: Matthew Armstrong
Applied EarthWorks, Inc.
1391 West Shaw Ave., Suite C
Fresno, CA 93711

(RS# 14-042)

DATE: February 6, 2014

RE: 2744 - Shepherd and Minniewawa Signal Light Project

County: Fresno

MAP(s): Clovis 7.5'

CULTURAL RESOURCES RECORDS SEARCH

The following are the results of a search of the cultural resources files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, Historic Property Data File (3/18/13), California State Historical Landmarks, California Register, California Inventory of Historic Resources, and California Points of Historical Interest.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

According to the information in our files, there has been one previous cultural resource study conducted within the project area, FR-02289. There have been three additional studies conducted within the one-half mile radius, FR-00074, 02062, and 02203. Study locations and their associated report numbers are shown on the project map.

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

There are no recorded cultural resources within project area or within the one-half mile radius.

(RS# 14-042)

There are no cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

COMMENTS

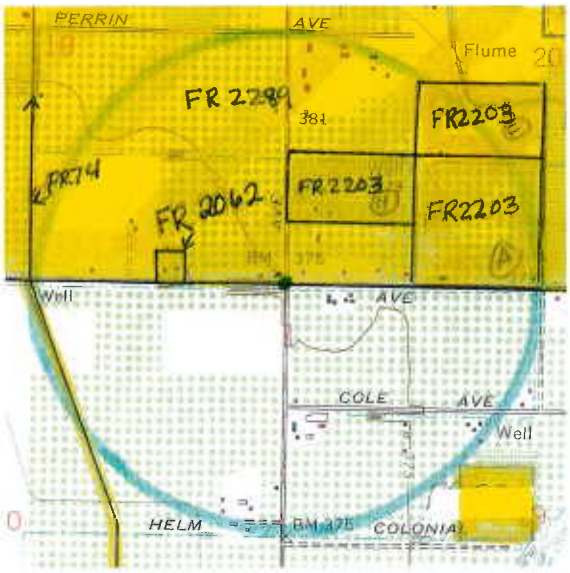
Requested documents are enclosed. If you have any questions or need any additional information, please contact our office at (661) 654-2289.

By:

Celeste M. Thomson, Coordinator Date: February 6, 2014

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Record Search 14-042
Clovis 7.5'
Fresno County, CA



SSJVIC Bibliography

FR-00074

Author(s): Suzanne Baker
Year: 1978
Title: Archaeological Reconnaissance of the Shepherd 230kV Substation and Transmission Line
Affliliation: Archaeological Consultants
Resources:
Quads: Clovis
Pages: 17
Notes: one historic resource identified

FR-02062

Author(s): Sean Thal
Year: 2004
Title: Shepherd/CA-1202A
Affliliation: EarthTouch, Inc.
Resources:
Quads: Clovis
Pages: 21
Notes: No field study compeleted.

FR-02203

Author(s): Dudley M. Varner
Year: 2006
Title: A Cultural Resource Study of the Battlin Brooks Property, Fresno County, California
Affliliation: Varner Associates
Resources:
Quads: Clovis, Friant
Pages: 19
Notes: One historic house on the Spensley property on Shepherd Ave. noted but not recorded.

FR-02289

Author(s): Wendy M. Nettles and Randy Baloian
Year: 2006
Title: Cultural Resources Reconnaissance Survey of the City of Clovis Northwest Urban Center Specific Plan Area, Fresno County, California
Affliliation: Applied EarthWorks, Inc.
Resources:
Quads: Clovis, Friant
Pages: 55
Notes: 14 historic structures discussed - no archaeological resources identified.

APPENDIX C

NATIVE AMERICAN CONSULTATION

Native American Consultation

Shepherd and Minnewawa Signal Light Project

Organization	Name	Position	Letter	E-mail	Phone	Summary of Contact
Native American Heritage Commission	Dave Singleton	Program Analyst		1/24/14		In a letter faxed on January 28, Mr. Singleton stated that there are no known resources within the project area. He also attached a list of 10 Native American contacts who may have knowledge of unreported resources within the project area.
Big Sandy Rancheria of Mono Indians	Elizabeth Hutchins Kipp	Chairperson	1/28/14	2/14/14		In an e-mail sent on 2/14/2014, Ms. Kipp stated that Big Sandy Rancheria had no concerns or information regarding the project area.
Table Mountain Rancheria	Bob Pennell	Cultural Resources Director	1/28/14		2/14/14	Matthew Armstrong of Æ spoke with Mr. Pennell by phone on 2/14/14 and described the results of Æ's studies to date. Pennell wanted to know if the project would impact the Garfield School remains, and Armstrong explained that Æ was in the process of determining that, but that the foundations themselves appeared to be outside of the proposed area for modifications. He said that he would look for the initial letter and would send a formal response after he had reviewed it again. In a letter dated 3/26/14, Mr. Pennell requested that he be contacted and that a meeting time and date be set to discuss the project.
Cold Springs Rancheria of Mono Indians	Robert Marquez	Chairperson	1/28/14		2/14/14	Matt Armstrong left a voicemail message for Mr. Marquez describing the record search and pedestrian survey results, and requesting that Mr. Marquez call us if he has any information, concerns or questions regarding the project area.
Dunlap Band of Mono Historical Preservation Society	Mandy Marine	Board Chairperson	1/28/14	2/14/14		No response to date.
Dumna Wo-Wah Tribal Government	Robert Ledger Sr.	Tribal Chairperson	1/28/14	2/14/14		No response to date.
Kings River Choinumni Farm Tribe	Stan Alec		1/28/14		2/14/14	Spoke with Mr. Alec on the phone on 2/14, he stated that he has no problems with the project.

Native American Consultation

Shepherd and Minnewawa Signal Light Project

Organization	Name	Position	Letter	E-mail	Phone	Summary of Contact
Sierra Nevada Native American Coalition	Lawrence Bill	Interim Chairperson	1/28/14		2/14/14	Someone answered the phone, refused to give their name, but said that they would tell Mr. Bill about the call.
The Choinumni Tribe of Yokuts	Rosemary Smith	Chairperson	1/28/14	2/14/14		In an email sent on 2/16/2014, Ms. Smith stated that the project area is known to have been in the vicinity of Yokuts campsites, and that in the event that any archaeological materials are identified, she wishes for work to be halted, and to be notified immediately.
Traditional Choinumni Tribe	David Alvarez	Chairperson	1/28/14	2/14/14		No response to date.
Santa Rosa Tachi Rancheria	Lalo Franco	Cultural Coordinator	1/28/14		2/14/14	Spoke on the phone with Shana Brum. She said that she would review the letter again and get back to Æ if there were any problems or concerns.Q4

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
(916) 373-3715
Fax (916) 373-5471
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net

January 28, 2014

Mr. Matt Armstrong
Appleid EarthWorks, Inc.
1391 West Shaw Avenue, Suite C
Fresno, CA 93711

Sent by FAX to: 559-229-2019
No. of Pages: 4

RE: Sacred Lands File Search and Native American Contacts list for the "**Shepherd Avenue and Minnewawa Avenue Signal Light Project;**" located in the City of Clovis; Fresno County, California.

Dear Mr. Armstrong:

A record search of the NAHC Sacred Lands File **failed indicate** the presence of Native American traditional cultural places in the project site(s) submitted as defined by the USGS coordinates configuring the 'Area(s) of Potential Effect' or APE(s). Note, the absence of archaeological and/or Native American cultural resources does not preclude their existence at the subsurface level.

In the 1985 Appellate Court decision (170 Cal App 3rd 604), the Court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources impacted by proposed projects, including archaeological places of religious significance to Native Americans, and to Native American burial sites.

Attached is a list of Native American tribes, Native American individuals or organizations that may have knowledge of cultural resources in or near the project area (APE). As part of the consultation process the NAHC recommends that local government and project developers contact the tribal governments and individuals in order to determine the proposed action on any cultural places/sacred sites. If a response from those listed is not received in two weeks of notification, the NAHC requests that a follow-up telephone call be made to ensure the project information has been received.

California Government Code Section 65040.12(e) defines "environmental justice" to provide "fair treatment of People...with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies" and Executive Order B-10-11 requires consultation with Native American tribes their elected officials and other representatives of tribal governments to provide meaningful input into

the development of legislation, regulations, rules, and policies on matters that may affect tribal communities.

If you have any questions or need additional information, please contact me at (916) 373-3715.

Sincerely,

Dave Singleton
Program Analyst

Attachments

Native American Contacts
Fresno County California
January 28, 2014

Big Sandy Rancheria of Mono Indians
Elizabeth Hutchins Kipp, Chairperson
P.O. Box 337 / 37302 Western Mono
Auberry , CA 93602
ck@bigsandyrancheria.com
(559) 855-4003
(559) 855-4129 Fax

Table Mountain Rancheria
Bob Pennell, Cultural Resources Director
P.O. Box 410 Yokuts
Friant , CA 93626-0177
(559) 325-0351
(559) 217-9718 - cell
(559) 325-0394 FAX

Cold Springs Rancheria of Mono Indians
Robert Marquez, Chairperson
P.O. Box 209 Mono
Tollhouse , CA 93667
(559) 855-5043
559-855-4445 - FAX

Dunlap Band of Mono Historical Preservation Soc
Mandy Marine, Board Chairperson
P.O Box 18 Mono
Dunlap , CA 93621
mandy_marine@hotmail.
com
559-274-1705

Dumna Wo-Wah Tribal Goverment
Robert Ledger SR., Tribal Chairperson
2216 East Hammond Street Dumna/Foothill
Fresno , CA 93702 Mono
ledgerrobert@ymail.com
559-519-1742 - office

Kings River Choinumni Farm Tribe
Stan Alec
642 West Barstow Ave. #E Foothill Yokuts
Clovis , CA 93612 Choinumni
559-647-3227 - cell

Sierra Nevada Native American Coalition
Lawrence Bill, Interim Chairperson
P.O. 125 Mono
Dunlap , CA 93621 Foothill Yokuts
(559) 338-2354 Choinumni

The Choinumni Tribe of Yokuts
Rosemary Smith, Chairperson
1099 Pistachio Avenue Choinumni
Clovis , CA 96311 Foothill YoKut
monoclovis@yahoo.com

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

his list s only applicable for contacting local Native Americans with regard to cultural resources for the proposed IShepherd Avenue and Minnewawa Avenue Signal Light Project; located in the City of Clovis; Fresno County, California for which a Sacred Lands File search and Native american Contacts list were requested.

Native American Contacts
Fresno County California
January 28, 2014

Traditional Choinumni Tribe
David Alvarez, Chairperson
2415 E. Houston Avenue — Choinumni
Fresno , CA 93720
davealvarez@sbcglobal.net
(559) 292-5057 - Fax
(559) 323-6231
(559) 292-5057 FAX

Santa Rosa Tachi Rancheria
Lalo Franco, Cultural Coordinator
P.O. Box 8 — Tachi
Lemoore , CA 93245 — Tache
(559) 924-1278 - Ext. 5 — Yokut
(559) 924-3583 - FAX

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

his list s only applicable for contacting local Native Americans with regard to cultural resources for the proposed IShepherd Avenue and Minnewawa Avenue Signal Light Project; located in the City of Clovis; Fresno County, California for which a Sacred Lands File search and Native american Contacts list were requested.

Applied EARTHWORKS Inc.

1391 W. Shaw Ave., Suite C
Fresno, CA 93711-3600
O: (559) 229-1856 | F: (559) 229-2019

EXAMPLE

January 28, 2014

Elizabeth Hutchins Kipp, Chairperson
Big Sandy Rancheria of Mono Indians
P.O. Box 337/37302
Auberry, CA 93602

RE: Shepherd and Minnewawa Avenues Signal Light Project, Clovis, Fresno County, California

Ms. Elizabeth Hutchins Kipp,

Applied EarthWorks, Inc. (Æ) is currently providing cultural resources services to the City of Clovis (the City) in support of the installation of traffic signal lights, right-turn lanes, and ADA-compliant curb returns at the intersection of Minnewawa Avenue and Shepherd Avenue in Clovis. On behalf of the City, we are conducting Native American consultation. The City is held accountable by the California Environmental Quality Act (CEQA). Funding for the project is provided by the Federal Highway Administration, and the project is, as such, subject to Section 106 of the National Historic Preservation Act (NHPA). Both CEQA and the NHPA mandate that government agencies consider the impacts of discretionary projects on the cultural environment.

The project is at the corners of Sections 19, 20, 29, and 30 in Township 12 South, Range 21 East, as depicted on the Clovis, California, 7.5 minute topographic quadrangle (see attached map). A search of the Native American Heritage Commission (NAHC) Sacred Lands File did not identify any Native American traditional cultural places in the vicinity of the project area. Æ has requested that the Southern San Joaquin Information Center of the California Historical Resources Information System conduct a records search of the project area. The results of this search are pending.

The NAHC provided your name and address as someone who might have information regarding any sacred or special sites in the project area unknown to the NAHC. If you have any information on the location and character of any Native American cultural resources in the area, please phone (559) 229-1856, email (marmstrong@appliedearthworks.com), or send a letter to my attention. I would appreciate any information you might provide. Be assured that any locations of archaeological sites, cemeteries, or sacred places will be treated confidentially, as required both by law and Æ's professional standards. Æ will not disclose this information in any document available to the general public. Thank you.

Sincerely,

Matthew Armstrong,
Associate Archaeologist

encl.: Project Map

Gmail by Google

Matthew Armstrong < marmstrong@appliedearthworks.com>

RE: Shepherd and Minnewawa Avenues Signal Light Project, Clovis, Fresno County, California

Liz Kipp < LKipp@bsrnation.com> Fri, Feb 14, 2014 at 4:36 PM
To: Matthew Armstrong <marmstrong@appliedearthworks.com>

Matthew, please accept this email as our official response to your request for information regarding the Shepherd and Minnewawa Avenues Signal Light Project located in Clovis CA. On behalf of Big Sandy Rancheria, we have no information regarding any sacred or special sites in the vicinity of the project area. If you need any additional information please contact me by email.

Matthew Armstrong < marmstrong@appliedearthworks.com>

RE: Shepherd and Minnewawa Avenues Signal Light Project, Clovis, Fresno County, California

Rosemary Smith < monoclovis@yahoo.com> Sun, Feb 16, 2014 at 11:31 AM
Reply-To: Rosemary Smith <monoclovis@yahoo.com>
To: Matthew Armstrong <marmstrong@appliedearthworks.com>

Dear Matthew,

Thank you for notification of this project and I'm sorry for my last response; however, this area most definitely does require my attention. The area is location known for camps sites of the Yokut people and if there should be any appearance of existence of any skeletal or artifacts all proceeds need to come to a halt and contact with me or NAHC immediately.

If any questions please call me at 559-756-5047.

Respectively
Rosemary Smith
[Quoted text hidden]

TABLE MOUNTAIN RANCHERIA
TRIBAL GOVERNMENT OFFICE

March 26, 2014

Mathew Armstrong, Associate Archaeologist
Applied Earth Works Inc.
1391 W. Shaw Ave., Suite C
Fresno, Ca. 93711

RE: Shepherd and Minnewawa Avenues Signal Light Project, Clovis, Fresno County, California.

Dear Mathew Armstrong:

This is in response to your letter dated January 28, 2014, regarding Shepherd and Minnewawa Avenues Signal Light Project, Clovis, Fresno County, California. Thank you for notifying Table Mountain Rancheria of the potential development and request for consultation. The Rancheria is very interested in this project as it lies within our cultural area of interest.

At this time, please contact our office at (559) 325-0351 to coordinate a discussion and meeting date, regarding your project and coordination.

Sincerely,

Bob Pennell
Cultural Resources Director

23736
Sky Harbour Road
Post Office
Box 410
Friant
California
93626
(559) 822-2587
Fax
(559) 822-2693

APPENDIX D

GARFIELD SCHOOL SITE RECORD

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

 ***Resource Name or #:** **Garfield School site**

P1. Other Identifier:

***P2. Location:** ☐ **Not for Publication** **X Unrestricted** ***a. County:** Fresno

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Clovis **Date: 1964 (1981) T12S**; **R21E**; SE ¼ **of** SE¼ **of Sec 19** **;** M.H. **B.M.**

c. Address: City: Zip:

d. UTM: Zone: 11 ; 110258393 mE/ 4083315 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: The resource is located at the northwest corner of the intersection of Shepherd Avenue and Minnewawa Avenue in the City of Clovis, Fresno County, California.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The resource consists of the foundation, peir block supports, steps, walkway, and partial standing wall of the former Garfield School.

***P3b. Resource Attributes:** (List attributes and codes) AH2 – Foundation; AH15 Standing Structure (partial)

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

P5b. Description of Photo: (View, date, accession #) View looking north, northeast. 7-14-15. Acc. #fsr15crop

***P6. Date Constructed/Age and Sources: X** Historic ☐Prehistoric ☐Both 1912 date inscribed on original building.

***P7. Owner and Address:** Unknown

***P8. Recorded by:** (Name, affiliation, and address) Baloain and Morlet, Applied EarthWorks, Inc. (in Armstrong 2014).

***P9. Date Recorded:** June 14, 2014 with photographic update by Ryan Burnett, June 14, 2015.

***P10. Survey Type:** (Describe) Pedestrian inspection by Matthew Armstrong, Applied EarthWorks, Inc. 2014

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") *Historic Resources Evaluation Report Shepherd and Minnewawa Signal Light Project, City of Clovis, Fresno County, California.* Peak & Associates, Inc. 2015

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

***A1. Dimensions: a. Length:** 85 Feet **(NW/SE) × b. Width:** 60 Feet **(NE/SW)**
Method of Measurement: ☐ Paced ☐ Taped X Visual estimate X Other: Aerial photograph
Method of Determination (Check any that apply.): ☐ Artifacts X Features ☐ Soil ☐ Vegetation ☐ Topography
☐ Cut bank ☐ Animal burrow ☐ Excavation ☐ Property boundary ☐ Other (Explain):
Reliability of Determination: ☐ High X Medium ☐ Low Explain:
Limitations (Check any that apply): X Restricted access ☐ Paved/built over ☐ Site limits incompletely defined
☐ Disturbances ☐ Vegetation ☐ Other (Explain): Resource is located on private property.
A2. Depth: ☐ None X Unknown Method of Determination:
***A3. Human Remains:** ☐ Present X Absent ☐ Possible ☐ Unknown (Explain):
***A4. Features** (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.):
According to Baloain and Morlet 2014: "The archaeological ruins of the brick school consist of the building's entry features (arch, front steps, etc.); foundation and footings; and two sets of concrete stairs in the rear of the school.

The most obvious feature of the school ruins is the brick arch (Feature 1). Measuring about 15 feet wide, 2.5 feet thick, and 18 feet high, the arch appears completely intact; its well-preserved masonry has only minor blemishes and fractures. Behind or immediately northwest of the arch is the concrete floor of the foyer (Feature 2). This feature measures about 6 by 12 feet and is raised about 2.5 feet above ground level, supported by underlying fill soil; it appears to be entirely intact. Leading up to the arch from the street intersection is an approximately 20-foot-long by 8-foot-wide concrete walkway and a five-step concrete staircase (Feature 3). The walkway was laid with approximately 2.5 foot square slabs and 2.5 by 0.5 foot runner slabs along the sides. The street-side (or southeast) end of the walkway appears to be covered with soil and is not readily visible. As with foyer floor, this concrete feature is still intact with only minor cracking and chipping.

The surviving 1-foot-thick concrete foundation clearly defines the footprint of the former building as well as much of its internal configuration (Feature 4; see schematic sketch). The two classrooms covered approximately 1,650 square feet combined or 825 square feet per room. The cloak rooms at the front measured about 6 by 11 feet each. There is also a 15 square foot room in the rear of the building that likely served as the library, referred to by George Kastner (1993) in his description of the school.

On either side of the library are two flights of five steps leading to a concrete platform raised about 2.0 to 2.5 feet above ground level with underlying fill soil (Features 5A and 5B). Although the staircases seemingly would have led to two rear doorways, Kastner's (1993) description states that the building was only accessed from the front entrance; the function of these staircases and platforms are thus presently unknown.

About a dozen concrete footings are scattered within the main foundation; some appear to be in place, but others have been dislodged from their original locations (Features 6). There is no evidence that the building contained internal plumbing. Based on the heights of the foyer and rear platforms, the floor of the school rooms lay 2.0–2.5 feet above ground level."

***A5. Cultural Constituents (**Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.):
***A6. Were Specimens Collected?** ☐ No ☐ Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)
***A7. Site Condition:** ☐ Good ☐ Fair X Poor (Describe disturbances.): Building destroyed by fire in 1990 then partially demolished afterwards.
***A8. Nearest Water** (Type, distance, and direction.)**:** US Department of Soils 1912 soils map indicates an unnamed branch of Dry Creek, ½ mile east of the school.
***A9. Elevation:** 375 Feet
A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.)**:** The school sat in a formally treeless plain in the San Joaquin Valley in deep, Madera sandy loam alluvial soils. Rural schools were a necessity at a time when transportation options were limited and Garfield School was one of five such schools shown on a 1912 map within the nearly level, agriculturally diverse, twenty-five square mile area surrounding Clovis.
A11. Historical Information: In July 1912 the trustees of the Garfield's School District petitioned the Fresno County Board of Supervisors for the construction of a two-room, brick veneer schoolhouse costing $4,000 (*Fresno Morning Republican* 1912h). For the residents of the Garfield School District, brick appears to have been a natural choice for the exterior of their new building. Masonry conveys a sense of permanency, security against the elements (including fire), and perhaps even affluence, in contrast to the understated elegance and practicality of wood. Plans for the building were submitted by J. C. Thayer. At the time, Thayer was a local architect working out of his office in the Forsyth Building in downtown Fresno; he also designed Corcoran High School (Donovan 1915:124; Polk-Husted Directory Co. 1912:645).

The enrollment of the Garfield School was never very large. For instance, Normand Biglione's graduating class (of eighth graders) in 1938 numbered only six students, and the previous year graduated only three (Setencich 1993). During the last years of its operation, school attendance averaged 86 students (AAUW and FCSS 2000:62). With the intent of consolidating their student bodies and building new schools, the Garfield, Nees, and Dry Creek districts merged in 1952 to form the Dry Creek Union School District (*Clovis Tribune and Independent* 1953; Dow 1967:372).

The brick building and school grounds did experience some updates during their 40-plus years of service. A pressure system (presumably for the well and pump) was installed in 1938, and a butane furnace replaced the coal-burning stove in the following year (*Clovis Independent* 1938, 1939). The 1937 aerial photograph of the site indicates that the horse stable and outhouses were

still present. At some point, possibly in the 1930s or 1940s, the traditional privies were replaced with outdoor plumbed restrooms (Fresno County Records [1954] Book 3550:666–667). The stable was removed by the time of the 1950 aerial, and as a sign of the times, a "school bus shed" was erected on the parcel, probably in the middle or late 1940s (Fresno County Records [1954] Book 3550:666–667). Despite these minor renovations, the school had reached the end of its useful life by the early 1950s. According to school officials, the Garfield School was counted among the old and "educationally inadequate buildings" of the new district; an engineer's report even deemed it "particularly hazardous," stating that it "should be eliminated as soon as possible" (*Clovis Tribune and Clovis Independent* 1953). The school permanently closed at the end of the 1953–1954 school year (*Clovis Independent* 1954).

By 1989 the Clovis chapter of the Grange (The National Grange of the Order of Patrons of Husbandry) had acquired the property with the idea of refurbishing the old school into a meeting center. It planned to restore the exterior and interior, replace the roof, install a handicap ramp, install bathrooms in the cloakrooms, install a kitchen, and hang a new bell in the belfry (Clovis Grange 1989). It seems that as part of the renovation effort, the local Grange prepared the forms and necessary supporting materials to nominate the school to the Fresno County List of Historic Places. In his memo to fellow county supervisors, Chairman Randy McFarland (1990) wrote that the "application for the Garfield School would add to the recognition of the history of education in our County." On February 6 of the following year, the Garfield School was designated as Fresno County Historical Landmark 178. For whatever reason, the Grange was unable to follow through with its plan, and once again the property was sold, this time to current owner Pat Ricchiuti of PR Farms.

About seven months after receiving landmark status, the building was virtually demolished by an arson-related fire on the morning of September 7 (*Fresno Bee* 1990). All that remained (and still remains) after the clean-up effort were the entry arch, concrete steps and walkway, foundation, and some scattered footings within the foundation.

***A12. Age:** ☐ Prehistoric ☐ Protohistoric ☐ 1542-1769 ☐ 1769-1848 ☐ 1848-1880 ☐ 1880-1914 X 1914-1945 ☐ Post 1945 ☐ Undetermined **Describe position in regional prehistoric chronology or factual historic dates if known:** 1912-1990

A13. Interpretations (Discuss data potential, function[s], ethnic affiliation, and other interpretations): The Garfield School site does not appear to be locally significant under National Register Criterion A, nor is it a historical resource for the purposes of CEQA. A chapter in the history of education in the rural area near Clovis may have been exemplified by the site, but the 1990 fire destroyed the building. All that remains are the brick arch, some concrete pathways, and a foundation. It is not possible to discern from the remnant foundation and arch the previous use or identity of the building. The building remnants lack integrity of design, setting, materials, feeling, association, and workmanship. All that remains is integrity of location, with the foundation still in the same place it was constructed in 1912.

There is no association with people important in the past. The school was a rural school, with no important alumni or teachers associated. The Garfield School site is not significant under Criterion B.

Under Criterion C, a property must "embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction." The building burned completely in 1990; little remains of the original building. It does not embody any distinctive characteristics, or is even representative of the original building. The Garfield School site is not eligible for the National Register under Criterion C. Under Criterion D, a site must have yielded, or may be likely to yield, information important in history. The burned building foundations have no potential to yield information important in history

A14. Remarks: The Garfield School is not eligible for inclusion in the National Register of Historic Places. Only remnants of the 1912 school building remain.

A15. References (Documents, informants, maps, and other references): Baloain and Morlet 2014 Historical Resources Evaluation Report Shepherd and Minnewawa Signal Light Project, City of Clovis, Fresno County, California. *Clovis Tribune and Clovis Independent* 1953 Plan to Replace Old Schools with New Plant. 1 October:1. Clovis, California; *Clovis Independent* 1938 Clovis Schools to Open Monday, Register this Wk. 15 September:1. Clovis, California; 1939 Elementary Schools are Opening. 7 September:1. Clovis, California; 1954 Garfield School to be Sold. 16 July:1. Clovis, California; Donovan, John J. 1915 *The Architect and Engineer of California.* San Francisco, California.; Dow, John Allan 1967 *History of Public School Organization and Administration in Fresno County, California.* Ph.D. dissertation, School of Education, University of Southern California. On file, California History Room at the Main Branch of the Fresno County Library, Fresno, California**;** *Fresno Morning Republican* 1912 Clovis Decides to Incorporate. 16 February:16. Fresno, California; and, Polk-Husted Directory Co. 1912 *Fresno and Coalinga City and Fresno County Directory 1912.* Sacramento, California

A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record.): Original Media/Negatives Kept at:

***A17. Form Compiled by:** Neal Neuenschwander based on data collected by Baloain and Morlet, Applied EarthWorks, Inc. June 14, 2014 with photographic updates provided by Ryan Burnett, City of Clovis, June 14, 2015. Historical Information (A11) and Interpretations (A13) prepared by Melinda Peak, Peak & Associates, Inc. August 2015. Affiliation and Address: Peak & Associates, Inc. 3161 Godman Avenue, Chico, CA 95973/ 3941 Park Drive, Suite 20-329, El Dorado Hills, CA 95762. Date: August 2015

A) View of the Garfield School, December 24, 1915 (Photo from ***Clovis Tribune***, courtesy of Baloain and Morlet 2014:13).

B) View of the Garfield School looking northeast, date unknown (Photo from Clovis-Big Dry Creek Historical Society, courtesy of Baloain and Morlet 2014:16).

C) View of the Garfield School area looking west, southwest. 7-14-15. Acc # FSR1

D) View of the Garfield School area looking northeast. 7-14-15. Acc # FSR6

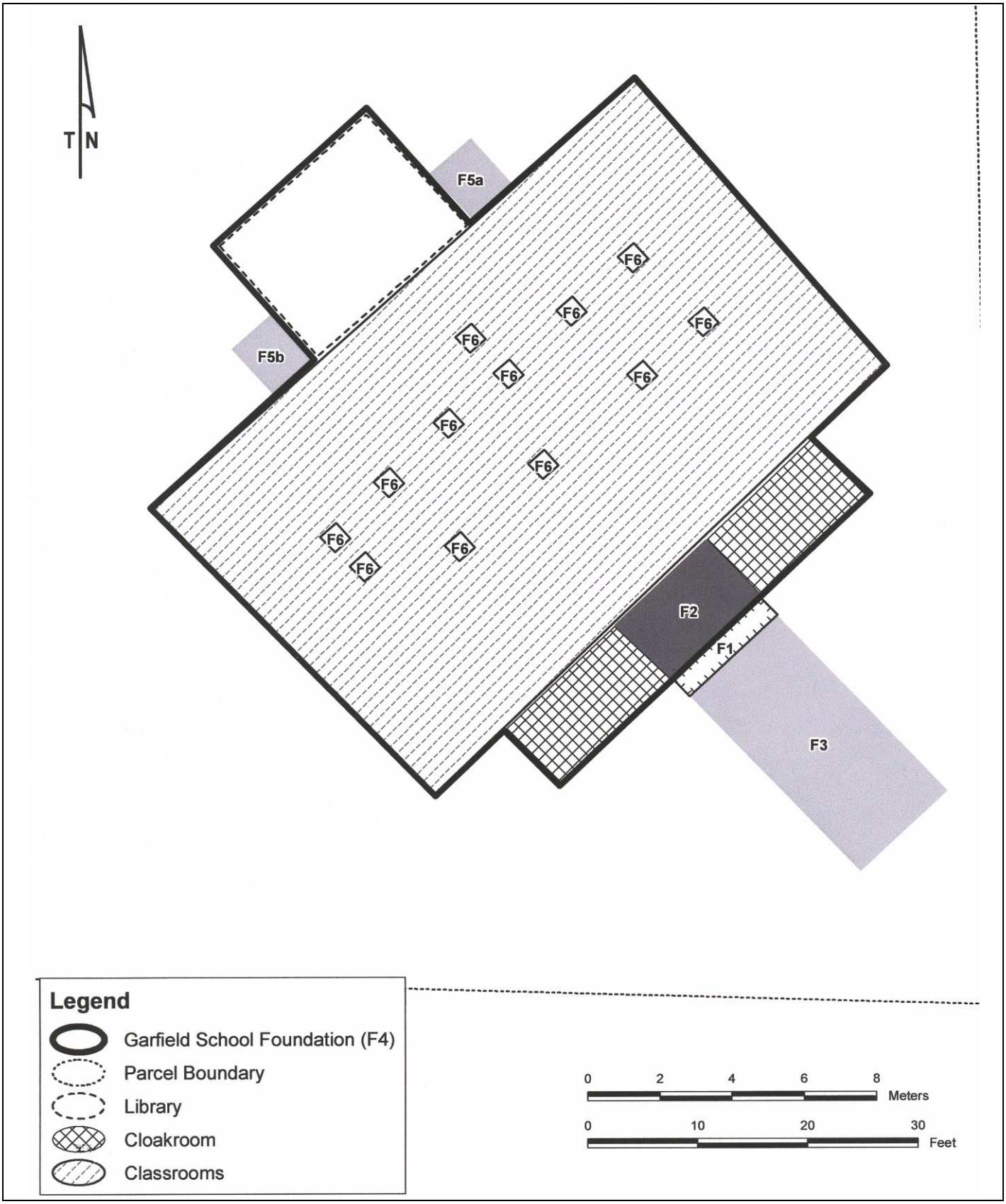
E) View of the Garfield School area looking northwest. 7-14-15. Acc # FSR11


Minnewawa Avenue
Feature 5a
Feature 6
Feature 4
Feature 5b
Feature 1
Feature 2
Feature 3
Shepherd Avenue
True North

*Resource Name or # (Assigned by recorder) **Garfield School site**

*Drawn By: E. Rapp, Applied EarthWorks, Inc.

*Date 7-1-2014



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

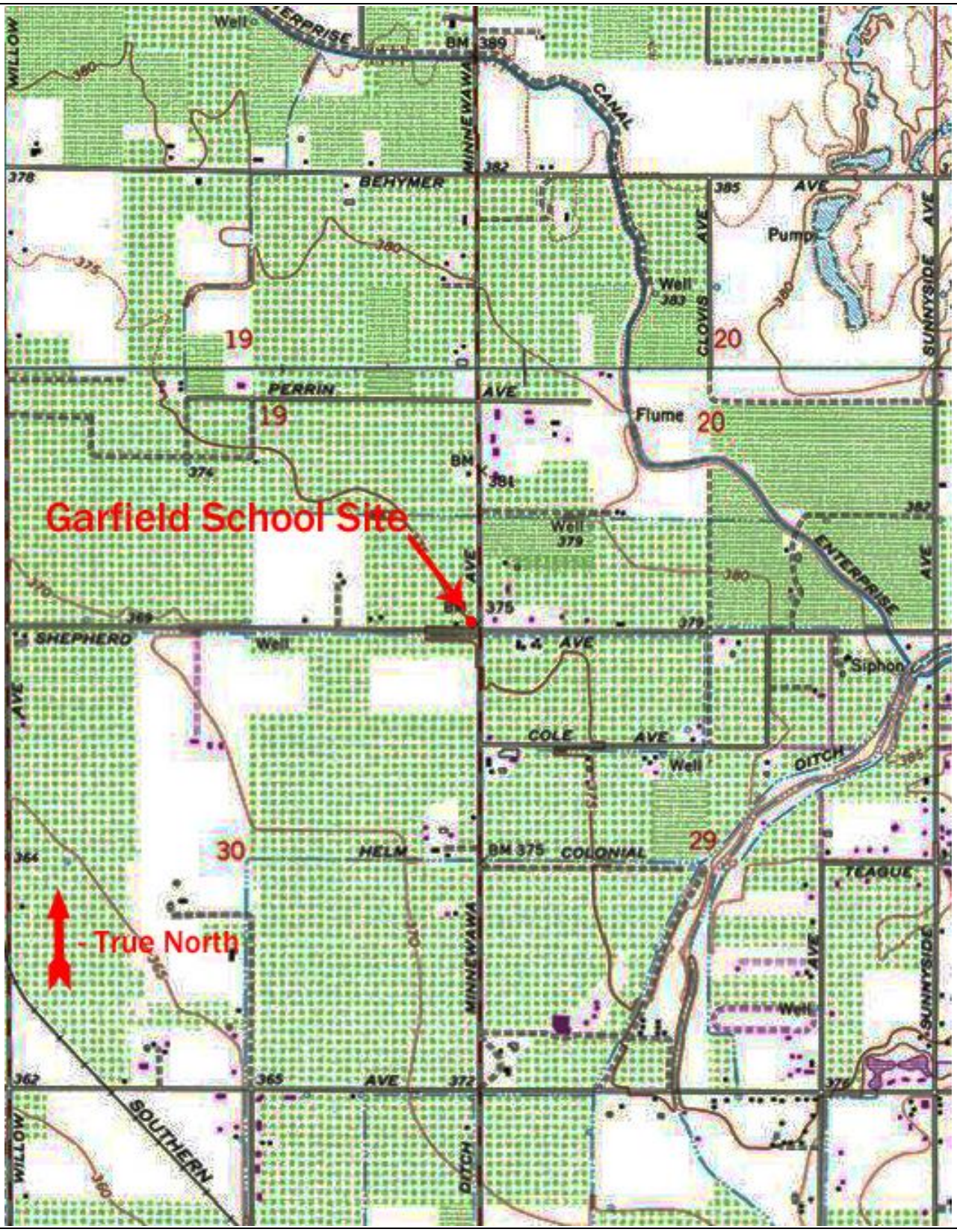
LOCATION MAP

Primary #
HRI#
Trinomial

*Resource Name or #: **Garfield School site**

*Map Name: Clovis, Calif.

*Scale: 1:24,000 *Date of Map: 1964 (1981)



*Required information

Appendix D

Caltrans Hazards Materials Memorandum

Memorandum

Serious drought!
Help save water!

To: RANDALL BONDS
Associate Environmental Planner
Southern San Joaquin Valley Management Branch

Date: March 17, 2015

File: CML 5208 (128)
Shepherd/Minnewawa
Intersection Signalization

From: JUERGEN VESPERMANN
Senior Environmental Planner
Central Region Hazardous Waste and Paleontology Branch

Subject: REQUEST for HAZARDOUS WASTE RESOURCE SCREENING

The City of Clovis is proposing to install a traffic signal at the intersection of Shepherd Avenue and Minnewawa Avenue. The project will also include the addition of turn-lanes, curb and gutter, ADA-compliant curb ramps, median construction and restriping the roadway. Additional right-of-way is required.

A hazardous waste evaluation was conducted. Aerial mapping depicts the project area is residential. The following five Cal/EPA Data Resources, commonly referred to as the 'Cortese List', were searched for this review:

- EnviroStor database, List of Hazardous Waste and Substances sites, Department of Toxic Substances Control (DTSC)
- Geotracker database, List of Leaking Underground Storage Tank sites, State Water Resources Control Board
- Sites Identified With Waste Constituents Above Hazardous Waste Levels Outside The Waste Management Unit, State Water Resources Control Board
- CDO/CAO List, List of active Cease and Desist Orders and Cleanup and Abatement Orders, State Water Resources Control Board
- List of hazardous waste facilities subject to corrective action, DTSC

In addition:
SWIS database, Solid Waste Information System, Department of Resources Recycling and Recovery (CalRecycle) was reviewed.

No facilities were listed on the databases within project boundaries.

Work will occur off the paved roadway. Aerially-deposited lead should not be an issue. However, if excess soil is generated such that any off-site disposal and/or relinquishment to the contractor is necessary, the landfill operator or the contractor may require that the generator /responsible party (City of Clovis) conduct lead testing for proper hazardous waste characterization prior to accepting the soil. The attached special provision is guidance in addressing earth material containing lead.

Yellow and white pavement striping/paint/markings have been known to contain high levels of lead. The attached special provisions are for guidance for the removal of yellow or white pavement striping/paint/markings alone and yellow striping/paint/markings with asphalt grindings. The applicable special provision(s) should be included in the construction package for proper handling and disposal of all pavement striping/paint/markings.

At a minimum, a Lead Compliance Plan should be developed and implemented for the health and safety of the public and workers to the potential lead hazards.

There are no other hazardous waste issues associated with this project. If additional information is needed or the project description changes, please contact Lea Spann at 445-6466.

Attachments:
1. Earth Material Containing Lead
2. Remove Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue (for older yellow by itself)
3. Residue Containing Lead from Paint and Thermoplastic (older yellow with grindings)
4. Remove Traffic Stripes and Pavement Markings Containing Lead (new yellow or white)

Earth Material Containing Lead

This Section includes specifications for handling, removing, and disposing of earth material containing lead.

Submit a lead compliance plan.

Lead is present in earth material on the job site. The average lead concentrations are below 1,000 mg/kg total lead and below 5 mg/L soluble lead. Earth material on the job site:

1. Is not a hazardous waste
2. Does not require disposal at a permitted landfill or solid waste disposal facility

Lead is typically found within the top 2 feet of material in unpaved areas of the highway. Reuse all excavated earth material on the right-of-way. Haul and place surplus excavated material on the right-of-way at _____.

Lead has been detected in earth material to a depth of ___ in unpaved areas of the highway. Levels of lead found on the job site range from _____ to ___ mg/kg total lead with an average concentration of ___ mg/kg total lead as analyzed by EPA test method 6010 or EPA test method 7000 series and based upon a 95 percent upper confidence limit. Levels of lead found within the project limits have a predicted average soluble concentration of ____ mg/L as analyzed by the California Waste Extraction Test and based upon a 95 percent upper confidence limit.

Handle earth material containing lead under all applicable laws, rules, and regulations, including those of the following agencies:

1. Cal/OSHA
2. CA RWQCB, Region ___ — _____
3. CA Department of Toxic Substances Control
4. _____

Manage earth material as shown in the following table.

Earth Material Management

Location	Depth	Management requirements

If earth material is disposed of:

1. Disclose the lead concentration of the earth material to the receiving property owner when obtaining authorization for disposal on the property
2. Obtain the receiving property owner's acknowledgment of lead concentration disclosure in the written authorization for disposal
3. You are responsible for any additional sampling and analysis required by the receiving property owner

If you choose to dispose of earth material at a commercial landfill:

1. Transport it to a Class III or Class II landfill appropriately permitted to receive the material
2. You are responsible for identifying the appropriately permitted landfill to receive the earth material and for all associated trucking and disposal costs, including any additional sampling and analysis required by the receiving landfill

REMOVE YELLOW TRAFFIC STRIPE AND PAVEMENT MARKING WITH HAZARDOUS WASTE RESIDUE

General

Summary

This Section includes specifications for removing existing yellow thermoplastic and yellow painted traffic stripe and pavement marking. The residue from the removal of this material is a Department-generated hazardous waste.

Residue from removal of yellow thermoplastic and yellow painted traffic stripe and pavement marking contains lead chromate. The average lead concentration is at least 1,000 mg/kg total lead or 5 mg/l soluble lead. When applied to the roadway, the yellow thermoplastic and yellow painted traffic stripe and pavement marking contained as much as 2.6 percent lead. Residue produced from the removal of this yellow thermoplastic and yellow painted traffic stripe and pavement marking contains heavy metals in concentrations that exceed thresholds established by the Health & Safety Code and 22 CA Code of Regs. For bidding purposes, assume the residue is not regulated under the Federal Resource Conservation and Recovery Act (RCRA), 42 USC § 6901 et seq.

Work associated with disposal of hazardous waste residue regulated under RCRA as determined by test results is change order work.

Yellow thermoplastic and yellow paint may produce toxic fumes when heated.

Submittals

General

Reserved

Lead Compliance Plan

Submit a lead compliance plan under section ( ).

Work Plan

Submit a work plan for the removal, containment, storage, and disposal of yellow thermoplastic and yellow painted traffic stripe and pavement marking. The work plan must include:

1. Objective of the operation
2. Removal equipment
3. Procedures for removal and collection of yellow thermoplastic and yellow painted traffic stripe and pavement marking residue, including dust
4. Type of hazardous waste storage containers
5. Container storage location and how it will be secured
6. Hazardous waste sampling protocol and QA/QC requirements and procedures
7. Qualifications of sampling personnel
8. Analytical lab that will perform the analyses
9. DTSC registration certificate and CA Highway Patrol (CHP) Biennial Inspection of Terminals (BIT) Program compliance documentation of the hazardous waste hauler that will transport the hazardous waste
10. Disposal site that will accept the hazardous waste residue

The Engineer will review the work plan within 5 business days of receipt.

Do not perform work that generates hazardous waste residue until the work plan has been authorized.

Correct any rejected work plan and resubmit a corrected work plan within 5 business days of notification by the Engineer. A new review period of 5 business days will begin from date of resubmittal.

Analytical Test Results

Submit analytical test results of the residue from removal of yellow thermoplastic and yellow painted traffic stripe and pavement marking, including chain of custody documentation, for review and acceptance before:

1. Requesting the Engineer's signature on the waste profile requested by the disposal facility
2. Requesting the Engineer obtain an US EPA Generator Identification Number for disposal
3. Removing the residue from the site

U.S. Environmental Protection Agency Identification Number Request

Submit a request for the US EPA Generator Identification Number when the Engineer accepts analytical test results documenting that residue from removal of yellow thermoplastic and yellow painted traffic stripe and pavement marking is a hazardous waste.

Disposal Documentation

Submit documentation of proper disposal from the receiving landfill within 5 business days of residue transport from the project.

Materials

Not Used

Construction

Where grinding or other authorized methods are used to remove yellow thermoplastic and yellow painted traffic stripe and pavement marking that will produce a hazardous waste residue, immediately contain and collect the removed residue, including dust. Use a HEPA filter-equipped vacuum attachment operated concurrently with the removal operations or other equally effective approved methods for collection of the residue.

Make necessary arrangements to test the yellow thermoplastic and yellow paint hazardous waste residue as required by the disposal facility and these special provisions. Testing must include:

1. Total lead by US EPA Method 6010B
2. Total chromium by US EPA Method 6010B
3. Soluble lead by California Waste Extraction Test (CA WET)
4. Soluble chromium by CA WET
5. Soluble lead by Toxicity Characteristic Leaching Procedure (TCLP)
6. Soluble chromium by TCLP

From the first 220 gal of hazardous waste or portion thereof if less than 220 gal of hazardous waste are produced, a minimum of 4 randomly selected samples must be taken and analyzed individually. Samples must not be composited. From each additional 880 gal of hazardous waste or portion thereof if less than 880 gal are produced, a minimum of 1 additional random sample must be taken and analyzed. Use chain of custody procedures consistent with chapter 9 of US EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) while transporting samples from the project to the laboratory. Each sample must be homogenized before analysis by the laboratory performing the analyses. A sample aliquot sufficient to cover the amount necessary for the total and the soluble analyses must then be taken. This aliquot must be homogenized a 2nd time and the total and soluble analyses run on this aliquot. The homogenization process must not include grinding of the samples. Submit the name and location of the disposal facility that will be accepting the hazardous waste and the analytical laboratory along with the testing requirements not less than 5 business days before the start of removal of yellow thermoplastic and yellow painted traffic stripe and pavement marking. The analytical laboratory must be certified by the California Department of Public Health (CDPH) Environmental Laboratory Accreditation Program (ELAP) for all analyses to be performed.

After the Engineer accepts the analytical test results, dispose of yellow thermoplastic and yellow paint hazardous waste residue at a Class 1 disposal facility located in California under the requirements of the disposal facility operator within __ days after accumulating 220 pounds of residue and dust.

If less than 220 pounds of hazardous waste residue and dust is generated in total, dispose of it within __ days after the start of accumulation of the residue and dust.

The Engineer will sign all manifests as the generator within 2 business days of receiving and accepting the analytical test results and receiving your request for the US EPA Generator Identification Number. Use a transporter with a current DTSC registration certificate and that is in compliance with the CHP BIT Program when transporting hazardous waste.

Payment

Payment for a lead compliance plan is not included in the payment for environmental stewardship work.

If analytical test results demonstrate that the residue is a non-hazardous waste and the Engineer agrees, dispose of the residue at an appropriately permitted CA Class II or CA Class III facility. The Department does not adjust payment for this disposal.

Residue Containing Lead from Paint and Thermoplastic

Residue from grinding or cold planing contains lead from paint and thermoplastic. The average lead concentrations are less than 1,000 mg/kg total lead and 5 mg/L soluble lead. This residue:

1. Is a nonhazardous waste
2. Does not contain heavy metals in concentrations that exceed thresholds established by the Health and Safety Code and 22 CA Code of Regs
3. Is not regulated under the Federal Resource Conservation and Recovery Act (RCRA), 42 USC § 6901 et seq.
4. Is generated by grinding at:
   4.1. _____
   4.2. _____
5. Is generated by cold planing at:
   5.1. _____
   5.2. _____

Submit a lead compliance plan under section ( ).

Payment for a lead compliance plan is not included in the payment for existing facilities work.

Payment for handling, removal, and disposal of grinding or cold planing residue that is a nonhazardous waste is included in the payment for the type of removal work involved.

Remove Traffic Stripes and Pavement Markings Containing Lead

Residue from removing traffic stripes and pavement markings contains lead from the paint or thermoplastic. The average lead concentrations are less than 1,000 mg/kg total lead and 5 mg/L soluble lead. This residue:

1. Is a nonhazardous waste
2. Does not contain heavy metals in concentrations that exceed thresholds established by the Health and Safety Code and 22 CA Code of Regs
3. Is not regulated under the Federal Resource Conservation and Recovery Act (RCRA), 42 USC § 6901 et seq.

Submit a lead compliance plan under section ( ).

Payment for a lead compliance plan is not included in the payment for existing facilities work.

Payment for handling, removal, and disposal of pavement residue that is a nonhazardous waste is included in the payment for the type of removal work involved.