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1.0 INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This document is an initial study with supporting environmental studies, which provide justification for a Mitigated Negative Declaration pursuant to the California Environmental Quality Act (CEQA). This Mitigated Negative Declaration has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et seq.*, and the State CEQA Guidelines 14 California Code Regulations Section 15000 *et seq.*

An initial study is conducted by a lead agency to determine if a project may have a significant effect on the environment. In accordance with the CEQA Guidelines Section 15063, an EIR must be prepared if an initial study indicates that the proposed project under review may have a potentially significant impact on the environment. A Negative Declaration may be prepared instead, if the lead agency prepares a written statement describing the reasons why the proposed project would not have a significant effect on the environment, and therefore, why it does not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a Negative Declaration shall be prepared for a project subject to CEQA when either:

- a) *The initial study shows there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or*
- b) *The initial study identifies potentially significant effects, but:*
 - (1) *Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed negative declaration is 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 proposed project as revised may have a significant effect on the environment.*

If revisions are adopted in the proposed project in accordance with the CEQA Guidelines Section 15070(b), a mitigated negative declaration is prepared.

1.2 LEAD AGENCY

The lead agency is the public agency with primary responsibility over a proposed project. Where two or more public agencies will be involved with a project, CEQA Guidelines Section 15051 provides criteria for identifying the lead agency. In accordance with CEQA Guidelines Section 15051(b)(1), "the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than

1.0 INTRODUCTION

an agency with a single or limited purpose.” Based on the criteria above, the Butte County Department of Public Works serves as the lead agency for the proposed Speedway Avenue Extension Project.

1.3 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this initial study is to evaluate the potential environmental impacts of the proposed Speedway Avenue Extension Project. Mitigation measures have been provided to reduce or eliminate any identified significant and/or potentially significant impacts.

This document is divided into the following sections:

1.0 Introduction—This section provides an introduction and describes the purpose and organization of this document.

2.0 Project Information—This section provides general information regarding the project including the project title, lead agency and address, contact person, brief description of the project location, general plan land use designations, zoning designation, identification of surrounding land uses, and identification of other public agencies whose review, approval, and/or permits may be required. Also listed in this section is a checklist of the environmental factors that are potentially affected by the project.

3.0 Project Description—This section provides a detailed description of the proposed project.

4.0 Evaluation of Environmental Impacts—This section describes the environmental setting/overview for each of the environmental subject areas, evaluates a range of impacts classified as “no impact,” “less than significant,” “potentially significant unless mitigation is incorporated,” and “potentially significant” in response to the environmental checklist. Each environmental checklist question is discussed and analyzed, and mitigation measures are identified, where appropriate, to mitigate potentially significant impacts to a less than significant level. Section 7.0 is a list of references and documents consulted during the preparation of this initial study.

5.0 Determination—This section provides the environmental determination for the project, identifying whether a negative declaration, mitigated negative declaration, or environmental impact report will be prepared for the project.

6.0 Summary of Mitigation Measures—This section summarizes all mitigation measures associated with project impact, and provides implementation and monitoring information.

7.0 References—This section provides the names of all documents, reports, individuals, and agencies providing information used in the report.

8.0 Agencies Consulted—This section provides the names of all agencies consulted in the preparation of this report.

9.0 Project Sponsor(s) Incorporation of Mitigation Into the Proposed Project—This section contains the signatures of representatives of the lead agency agreeing to incorporated mitigation measures as presented here into the project.

1.4 EVALUATION OF ENVIRONMENTAL IMPACTS

Section 4.0, Evaluation of Environmental Impacts is the analysis portion of this initial study. This chapter provides an evaluation of the potential environmental impacts of the project. There are 17 Environmental Issues evaluated in Section 4.0, including CEQA Mandatory Findings of Significance. The Environmental Issues are numbered 1 through 17 and consist of the following:

- | | |
|----------------------------------|--|
| 1. Aesthetic/Visual Resources | 9. Land Use |
| 2. Agriculture Resources | 10. Mineral Resources |
| 3. Air Quality | 11. Noise |
| 4. Biological Resources | 12. Housing |
| 5. Cultural Resources | 13. Public Services |
| 6. Geologic Processes | 14. Recreation |
| 7. Hazards & Hazardous Materials | 15. Transportation/Traffic |
| 8. Hydrology & Water Quality | 16. Utilities & Service Systems |
| | 17. Mandatory Findings of Significance |

Each Environmental Issue Section is organized in the following manner:

The **Environmental Setting** summarizes the existing conditions at the regional, sub-regional and local level, as appropriate, and identifies applicable plans and technical information for the particular issue area.

The **Checklist Discussion/Analysis** provides a detailed discussion of each of the environmental issue checklist questions. The level of significance for each topic is determined by considering the predicted magnitude of the impact. Four levels of impact significance are described in this initial study:

No Impact: No project-related impact to the environment would occur with project development.

Less than Significant Impact: The impact would not result in a substantial and adverse change in the environment. This impact level does not require mitigation measures.

Potentially Significant unless Mitigation Incorporated: An impact that is “potentially significant” as described below; the incorporation of mitigation measure(s) would reduce the project related impact to a less than significant level.

Potentially Significant Impact: An impact that may have a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (CEQA Guidelines Section 15382); however, the occurrence of the impact cannot be immediately determined with certainty.

2.0 PROJECT INFORMATION

- A. **Applicant/Owner:** Butte County Department of Public Works (the County),
California
- B. **Representative:** Mike Crump (530) 538-7681
- C. **Staff Contact:** Rich Galvin (916) 361-8384
- D. **Project Name:** Speedway Avenue Extension Project
- E. **Project Location:** Speedway Avenue to the East of Midway (U.S. Highway 99E),
West of SR-99, North of Entler and Southgate, South of Hegan Lane
- F. **Type of Application(s):** Initial Study for a road extension
- G. **Assessor's Parcel Number(s):** 40-030-055, 40-640-010 and abandon Union Pacific
Railroad right-of-way
- H. **Project Site Size:** 60' right-of-way with a length of approximately 4,000'
- I. **Current Zoning:** SR-1 (Suburban Residential, 1-acre minimum parcel size) and
Limited Industrial
- J. **General Plan Designation:** Industrial, Agriculture/Residential and Orchard/Field
- K. **Surrounding Land Uses:** The zoning for the parcels adjacent to the proposed
roadway extension corridor include SR-1 (Suburban Residential, 1-acre minimum parcel
size), A-40 (Agricultural, 40 acre minimum parcel size), A-R (Agricultural/Residential), P-Q
(Public/Quasi Public), M-1 (Light Industrial, no minimum lot size), and L-1 (Limited
Industrial). The project vicinity has a mixture of land uses dominated by commercial
development along the eastern portion of Entler Avenue, pockets of residential
subdivisions including a subdivision currently under construction (Twin Palms Subdivision),
agricultural uses including wheat growing and an orchard, one industrial complex
(Smuckers Quality Beverages plant), and undeveloped open space (refer to
Figure 4.9-1). The area around Southgate Avenue is mostly open space. At this time,
there are no approved developments, but the landowners have been coordinating
with the County to develop the area with medium density housing and industrial land
uses. An abandoned spur of the Union Pacific Railroad transects the proposed project
and State Route (SR) 99 is directly to the east of the project.
- L. **Environmental Setting:** The proposed road extension is located south of Chico in
Butte County (see **Figure 3-1**). The entire area was originally part of the Butte Creek
riparian corridor, which is less than half a mile away, and has had significant
disturbance both historically and currently. There is valley grassland habitat within and
beyond the project, with valley Oak woodland as a transition, and a small population
of Elderberry bushes scattered in the Area of Potential Impact (API). The ground

2.0 PROJECT INFORMATION

throughout the project is relatively flat. Speedway Avenue adjoins residential, agricultural, and industrial land uses. The proposed Speedway Avenue extension follows the alignment of the abandoned Union Pacific Railroad right-of-way, and turns to the northeast through open space just north of the recently approved subdivision, Twin Palms. The road extension will ultimately connect with Entler Avenue at a "T" Intersection a little north of the existing 45-degree curve, once Entler Avenue is extended northwest. The proposed roadway alignment has been determined in coordination with a proposed industrial subdivision (Yount Parcel) located northeast of the abandon Union Pacific Railroad parcel.

M. **Public Agency Approvals:** Butte County Board of Supervisors

N. **List of Permitting Agencies:** U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), and Regional Water Quality Control Board (RWQCB)

3.0 PROJECT DESCRIPTION

3.1 PROJECT BACKGROUND

The County is undertaking this proposed project based on the findings of the October 1999 *State Route 99/Southgate Avenue Interchange and Circulation Study* prepared for the Butte County Association of Governments (BCAG.) Circulation between Speedway Avenue and State Route (SR) 99 at Southgate Avenue has been determined essential now, since the Southgate Avenue extension and interchange improvements may not be constructed for at least another 10 years or more. The extension of Speedway Avenue will provide a second connection between SR 99 and Midway to reduce the amount of cut through traffic that would otherwise impact the Entler Avenue residential neighborhood. The extension would also provide improved access for existing and planned developments along the corridor.

This Initial Study has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) for a proposed extension of Speedway Avenue in Butte County (County) (see **Figure 3-1** for project location). The County proposes the project based on Butte County Association of Governments' (BCAG) October 1999 *State Route 99/Southgate Avenue Interchange and Circulation Study* (prepared by Fehr & Peers Associates). The study identifies existing roadway deficiencies in the area and deficiencies that will occur by 2018 without any improvements to the current roadway system. Entler Avenue is one of three roadway segments and intersections found to be deficient at the time of the study. The BCAG circulation study evaluated alternatives that were developed based on input from a Study Advisory Committee (SAC) and certain roadway deficiencies. The 1999 study was performed under the guidance of a committee consisting of local residents, business owners, and government officials. Three open houses were held with the public during the study to obtain public input and to review the study findings and recommendations. For interim improvements, the study notes that although no option is flawless, the best recommendation is to extend Speedway Avenue to the proposed Entler Avenue extension to reduce the existing cut-through traffic problem on Entler Avenue.¹ The new Speedway Avenue extension would also serve as the main collector for planned commercial and residential development in the area.² The construction of the project is being considered now because recent development activity in the immediate area provides an opportunity to design the road and acquire the necessary right-of-way. The proposed project would also reduce cut through traffic on Entler Avenue.

The study analyzed traffic conditions in the area under year 2022 conditions. According to the BCAG land use forecasts, the study area is expected to experience substantial development over the next 20 years. Most of this new development is assumed to be light industrial land uses focused near the SR 99/Southgate Avenue intersection and at the industrial park on Hegan Lane.

¹ The proposed Entler Avenue Extension is not part of this project

² Fehr & Peers, 1999. Pg. iv

3.0 PROJECT DESCRIPTION

It is important to note that the proposed project is just one of several potential roadway improvements in the area. **Figure 3-2** shows three additional improvements that may eventually be needed in the area depending on the amount of development and traffic growth. The improvement that would likely be needed first is the realignment of the frontage road to 500 feet west of the SR 99/Southgate Avenue intersection. This realignment would provide reasonable spacing for traffic operations on Southgate between SR 99 and the frontage road. The improvements that may be needed later are the construction of a new interchange at SR 99 and Southgate Avenue, and the extension of Southgate Avenue to Midway. These two improvements may be needed to provide more capacity and to reduce traffic volumes on Speedway Avenue and Entler Avenue. Once again, the timing of these improvements is uncertain and will depend on the amount of new development and traffic growth in the area as well as availability of funding.

On December 10, 2002, Butte County held a scoping meeting to receive public input and discuss alternatives for the proposed roadway alignment. Following this meeting, Fehr & Peers Associates prepared a study to update traffic volumes and Levels of Service (LOS) at key roads and intersections in the study area, comparing the LOS for project and no project conditions.³

3.2 PROJECT FEATURES

The proposed Speedway Avenue project is anticipated to extend from the existing intersection at Midway to Entler Avenue where it currently curves to parallel SR 99. The County proposes to improve the existing Speedway Avenue from Midway Avenue to the abandoned Union Pacific Railroad right-of-way and extend Speedway Avenue east to connect with the proposed Entler Avenue extension. **Figures 3-3a** and **3-3b** illustrate the proposed roadway alignment for the proposed project. The Area of Potential Impact (API) is shown in **Figure 3-4** and illustrates the area studied for this Initial Study. The proposed project includes: (1) the extension of Speedway Avenue using a typical street section design consisting of a County standard 32-foot pavement width (one 12-foot lane and 4-foot shoulder in each direction) centered along the proposed 60-foot (variable to accommodate existing improvements) right-of-way; (refer to **Figure 3-5** for a typical cross section of the roadway) (2) re-construction of the existing portion of Speedway Avenue, and (3) drainage improvements including accommodating roadside drainage through swales along the unimproved roadway frontages that drain to proposed leach trenches, subterranean and/or overland drainage systems to be designed to convey storm water from the roadway. The proposed pavement structural

³ Fehr & Peers, January 10, 2003. Pg. 1

Figure 3-1 Project location

3.0 PROJECT DESCRIPTION

Figure 3-2 Other Potential Roadway Improvements

Figure 3-3a Western Portion of Speedway Ave at Midway

Figure 3-3b Eastern Portion of Speedway/Entler Intersection

Figure 3-4 API

Figure 3-5 Typical Cross Section of the Proposed Roadway

3.0 PROJECT DESCRIPTION

section is designed to the standards of an industrial collector street (T.I. = 7.5), to accommodate anticipated truck traffic. The proposed project would begin at the existing Speedway Avenue and Midway intersection. The reconstruction of the existing Speedway Avenue would be accomplished within the County's right-of-way until it reaches the Smuckers Quality Beverage facility. At this point the design of the roadway includes a small curve to the south to ensure that truck traffic from the Smuckers Quality Beverages facility can continue to use the loading dock that faces Speedway Avenue (see **Figure 3-3a**). The roadway would curve to the south to allow room for the semi trucks to safely enter and exit the loading dock facility. Semi trucks would be able to exit the loading dock facility using a single turning movement in either direction, but might need to use two turning movements to enter the loading dock. All turning movements needed to access the loading dock would occur outside of the roadway. The roadway would curve back into the existing Speedway Avenue 600 feet past the loading dock (see **Figure 3-3a**).

The continued use of the loading dock was an issue that was brought up during the scoping process, and was a design concern of the County. Two meetings were held, on May 8, 2002 and October 5, 2002, with representatives of Smuckers Quality Beverages and Butte County Department of Public Works to evaluate different design alternatives. One alternative considered but rejected was the installation of traffic lights and signs designed to temporarily stop traffic during truck movement. Of the alternatives that were considered viable, avoiding the loading dock and providing additional area for truck maneuvering was considered to be the best alternative (see **Figure 3-8** for operation of the loading docks). **Figures 3-6** and **3-7** (photo essay) illustrate key points throughout the project alignment. Each photo is numbered and is represented on **Figures 3-3a** and **3-3b**.

The existing Speedway Avenue intersects the abandoned Union Pacific Railroad right-of-way and dead ends. The existing Speedway is approximately 2,000 feet. Speedway Avenue would be extended east along the abandoned Union Pacific Railroad right-of-way until the roadway turns northeast through the Becky Yount parcel (see **Figure 3-3b**). The Speedway Avenue extension on the abandoned Union Pacific Railroad right-of-way would be approximately 1,400 feet in length and the remaining portion of the roadway through the Yount Parcel would be approximately 600 feet long. The Speedway Roadway extension would intersect ("T" intersection) with the extension of the proposed frontage road that runs from the Entler Avenue curve parallel to SR 99 as part of this project. The extension of the frontage road from the curve on Entler Avenue to the intersection with Speedway Avenue is part of this project. (The frontage Road extension from the proposed intersection with Speedway Avenue to Fair Street is not part of the Speedway Extension Project.) The proposed project would also replace the curve on Entler Avenue with another "T" intersection at the Entler curve and the proposed frontage road (See **Figure 3-3b**).

Figure 3-6 Photo Essay Page 1

FIGURE 3-7 PHOTO ESSAY PAGE 2

FIGURE 3-8 LOADING DOCK TRUCK MOVEMENTS

4.0 ENVIRONMENTAL IMPACTS

4.1 Aesthetic/Visual Resources

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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?				*	

Environmental Setting

The proposed project area has a rural setting. Along the existing Speedway Avenue there are two farmhouses, orchards, residential subdivisions, and Smuckers Quality Beverage plant. The existing Speedway Avenue is lined with large trees and some landscaping in the front yards of the rural houses. Along the proposed Speedway Avenue extension there is a farmhouse and farmland to the north, Twin Palms Subdivision (under construction) to the south, and to the east is fallow farmland that is being processed through the County for an industrial development. The Speedway Avenue extension would follow the alignment of the abandoned Union Pacific Railroad alignment. The abandoned Union Pacific Railroad alignment is now bordered by oak woodland.

Impact Discussion/Analysis

- a. The proposed Speedway Avenue extension is aligned to follow a portion of the abandoned Union Pacific Railroad right-of-way, and then connect to Entler over undeveloped land proposed for an industrial subdivision (see **Figures 3-3a** and **3-3b**). The existing western portion of Speedway Avenue currently terminates at Midway Road. New road construction and reconstruction of the existing portion of Speedway Avenue would not block a view shed or scenic vista as the topography is almost level, and when completed, the visual character of the area will only be slightly changed by the horizontal construction. Therefore there is **no impact**.
- b. There is no state scenic highway in the vicinity of this project. Both the right-of-way for reconstruction of the existing portion of Speedway Avenue and the right-of-way

4.0 ENVIRONMENTAL IMPACTS

for the extension of Speedway Avenue to the east where it will terminate at a new intersection with Entler Avenue containing large trees. None of the trees potentially in conflict with the proposed construction are special status species and most of them could be retained. Therefore there is **no impact**.

Architectural investigations for the proposed project identified one building that was over 45 years old within the project's Area of Potential Impact. This building is the Chambers house located along Speedway Avenue. The building, however, does not meet any of the eligibility criteria for inclusion in the California Register of Historic Resources (CRHR). Therefore, it is not anticipated that implementation of the proposed Speedway Avenue Expansion Project would likely affect any historical resources.⁴ Therefore there is **no impact**.

- c. The portion of the road extension located on top of a railroad berm is adjacent to two properties, planned for industrial and residential construction; therefore the addition of this collector will not degrade the visual character of the site and its surroundings. Instead, it will complement the planned developments. Additionally, the road alignment would be located on the north side of the berm, therefore minimizing impacts to the oak woodland that are located on the south side of the Union Pacific Railroad right-of-way. New road and safety measures will improve the visual quality and overall safety of the site. Therefore there is **no impact**.

No streetlights are proposed for this project. Therefore there is **no impact**.

Mitigation Measures

None required.

Conclusions Relating to Aesthetics: The project will have **no impact** on Aesthetics and therefore no mitigation measures are recommended.

⁴ Pacific Legacy, Incorporated, Pg. I

4.2 AGRICULTURE RESOURCES

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				*	

Environmental Setting

Agricultural lands exist adjacent to the existing Speedway Avenue and to the proposed extension. Parcel 40-040-014, located on the south side of the existing Speedway Avenue is zoned suburban residential (SR-1), but appears to be still in agricultural use. (Refer to **Figure 4.9-1** for all parcel locations.) An orchard is located directly across from the Smuckers Quality Beverage plant that is also zoned SR-1. Parcel 40-030-055 is located north of the proposed extension. Historically used for farming, the parcel has been subdivided and is zoned Limited Industrial (L-1) and Suburban Residential (SR-1), but has not received a new parcel number. The only parcel that is zoned Agricultural Residential (A-R) is parcel 40-340-020, located where the existing Speedway Avenue and abandoned Union Pacific Railroad right-of-way meet.

Impact Discussion/Analysis

a.-c. There is **no impact** on agricultural land as the extension of Speedway Avenue crosses an abandoned railroad right-of-way, and land zoned L-1 (Limited Industrial) proposed for subdivision development (parcel 40-030-055). The proposed extension would curve to the left, cutting through the L-1 portion of parcel 40-030-055. There are no properties under a Williamson Act Contract in the project Area of Potential Impact. The existing portion of Speedway Avenue does adjoin agricultural land uses and the Area of Potential Impact (API) extends on either side of the current paved area into the agricultural land. The actual pavement and shoulder portion of the reconstructed roadway will, however, only result in a total thirty-two (32) foot width, with little or no impact on the

4.0 ENVIRONMENTAL IMPACTS

existing right-of-way width. The existing alignment of Speedway Avenue would be realigned to allow for truck movements in and out of the Smuckers loading dock (refer to **Figure 3-8**). This would require some right-of-way take from residential/orchard uses (parcel 40-640-10) across the street from the loading dock. The affected frontage is very minimal and the property owner would be compensated for the lost agricultural land. The land has been designated for residential use (SR-1). Therefore, there is ***no impact***.

Mitigation Measures

None required.

Conclusions Relating to Agriculture: The project will have **no impact** on Agricultural Resources and therefore no mitigation measures are recommended.

4.3 AIR QUALITY

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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?			*		

Environmental Setting

Both the California Air Resources Board (CARB) and the Environmental Protection Agency (EPA) have established air pollution standards in an effort to protect human health and welfare. Geographic areas are designated in "attainment" if these standards are met and in "nonattainment" if they are not met. In addition, each agency has several levels of classifications based on severity of the problem. According to the Butte County Air Quality Management District (BCAQMD), Butte County and all northern Sacramento Valley Air Districts have been designated as "moderate" nonattainment areas for the state standards for ozone (O₃) and fine particulate matter (PM₁₀). PM₁₀ stands for particulate matter less than 10 microns in diameter. PM₁₀ emissions are generated by a variety of sources. The primary sources of PM₁₀ in the Northern Sacramento Valley Air Basin (NSVAB) are entrained road dust, farming operations, and open burning of agricultural and residential waste.⁵ Currently, Butte County is in attainment for all the federal (less stringent) air quality standards.

⁵ Butte County Air Quality Management District. 1997. Pg. E-5

Impact Discussion/Analysis

Fugitive dust emissions may occur during road and drainage system construction activities on the site, such as earth movement for excavation and grading, which may create a temporary nuisance to persons residing or working near the project site. Construction machinery may temporarily create a minimal amount of pollutants. This impact would be a **potentially significant impact** unless mitigation is incorporated.

As mentioned above, according to the Butte County Air Quality Management District (BCAQMD), Butte County and all northern Sacramento Valley Air Districts have been designated as “moderate” nonattainment areas for the state standards for ozone (O₃) and fine particulate matter (PM₁₀). Construction activities and machinery cause a temporary increase in PM₁₀. Due to the temporary nature of the project construction, there will be a **less than significant** impact on air quality.

With Speedway Avenue making a connection to the Entler extension (frontage road), truck traffic and residential traffic may decrease in front of existing residential development along Entler Avenue. The connection of Midway Road to the Entler extension is expected to gradually increase traffic on Speedway Avenue as development increases in the vicinity of the project, but would not generate more trips. The proposed project is a roadway connection and would redirect traffic. Once construction is complete, the cut-through traffic would decrease on Entler Avenue. Overall, the project would contribute to a decrease in traffic congestion in the area thereby positively impacting air quality. There would be a **less than significant** impact.

- d. During re-construction of the existing portion of Speedway Avenue, construction activities could create dust and limited air pollution adjacent to two residential subdivisions. Both the homes and the Smuckers Quality Beverages facility could be impacted by increases in dust during construction. The impact of road construction may entail some temporary increases in air pollutants in the localized area during construction, specifically PM₁₀. Therefore this would be a **potentially significant** impact unless mitigation is incorporated.

Construction machinery may temporarily create a minimal amount of pollutants with offensive odors. This impact is **less than significant**.

Mitigation Measures:

AQ-1 Depending on weather conditions, the Butte County Department of Public Works shall incorporate some or all of the following dust control measures as needed during construction to control fugitive dust:

- 1) All active unpaved construction areas shall be watered at least twice daily as needed to control fugitive dusts.
- 2) Soil stabilizers shall be applied to inactive construction areas, as needed.

- 3) All unpaved access roads and staging areas at construction sites shall have soil stabilizers applied or have water applied at least twice daily.
- 4) Traffic speeds on unpaved roads shall be limited to 15 mph.
- 5) Exposed stockpiles of soil and other backfill material shall be enclosed or covered, be watered twice daily or have soil binders added.
- 6) All trucks hauling soil and other loose material shall be covered or have at least two feet of freeboard.
- 7) If visible soil material is carried onto adjacent public streets, such streets shall be swept with water sweepers.
- 8) Dust-producing activities shall be suspended when high winds create construction-induced visible dust plumes moving beyond the project site, in spite of dust control measures.

Timing: Prior to and during construction

Monitoring: Butte County Department of Public Works

The above mitigation measures would reduce the impacts **a.** and **d.** *to less than significant.*

Conclusions Relating to Air Quality: With implementation of the mitigation measures listed above, the project will have a **less than significant** impact on Air Quality.

4.0 ENVIRONMENTAL IMPACTS

4.4 BIOLOGICAL RESOURCES

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
<p>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?</p>		*			
<p>b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?</p>				*	
<p>c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 or the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means)?</p>				*	
<p>d. Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?</p>		*			
<p>e. Conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy ordinance?</p>				*	

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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?				*	
g. A reduction in the numbers, a restriction in the range, or an impact to the critical habitat of any unique, rare, threatened, or endangered species of animals?		*			
h. A reduction in the diversity or number of animals onsite (including mammals, birds, reptiles, amphibians, fish or invertebrates)?			*		
i. A deterioration of existing fish or wildlife habitat (for foraging, breeding, roosting, nesting, etc.)?			*		
j. Introduction of barriers to movement of any resident or migratory fish or wildlife species?			*		
k. Introduction of any factors (light, fencing, noise, human presence and/or domestic animals) which could hinder the normal activities of wildlife?			*		

Environmental Setting

Biological and botanical surveys were conducted for the proposed Speedway Avenue Extension project as requested by the Butte County Department of Public Works. Gallaway Consulting Inc. conducted a *Biological Resource Assessment for the Proposed Speedway Avenue Extension Project* in May 2002 (this study is included in **Appendix A**). For the purposes of this survey, "special status species" are those that fall into one of the following categories:

- Designated as rare, threatened, or endangered by the state or federal governments (ESA, 50 CFR 17.12 for listed plants and various notices in the Federal Register, California ESA, 14 CCR 670.5);
- Proposed for rare, threatened, or endangered status;

4.0 ENVIRONMENTAL IMPACTS

- Listed as Species of Concern by state or federal governments;
- Included on the California Native Plant Society List 1A, 1B, and 2;⁶
- Plants and wildlife that meet the definitions of rare or endangered species under the California Environment Quality Act (CEQA).⁷

The proposed road extension is located south of Chico in Butte County (see **Figure 3-1**). The entire area was originally part of the Butte Creek riparian corridor, which is less than half a mile away, and has had significant disturbance both historically and currently. There is valley grassland habitat within and beyond the project, with valley oak woodland as a transition, and a small population of Elderberry bushes scattered in the Area of Potential Impact (API) (see **Figure 3-4**). The ground throughout the project is almost flat. The project includes improvements to the existing portion of Speedway Avenue, which adjoins residential, agricultural, and industrial land uses. The proposed Speedway Avenue extension follows the alignment of the abandoned Union Pacific Railroad right-of-way, and turns to the northeast through open space just north of the recently approved subdivision, Twin Palms. The road extension will ultimately connect with Entler Avenue at a "T" Intersection a little north of the existing 45-degree curve, once Entler Avenue is extended northwest.

Under CEQA, a project that substantially adversely affects 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 (CDFG) or US Fish and Wildlife Service (USFWS) will have a significant impact on the environment. For this assessment, the term "sensitive natural community" includes those communities that, if eliminated or substantially degraded, would sustain a significant adverse impact as defined under CEQA. CDFG-identified sensitive natural communities in the Sacramento Valley include, but are not limited to, Great Valley Valley Oak Riparian Forest, Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, Great Valley Willow Scrub and California oak woodland. These community-types are important as further degradation and destruction threatens populations of dependent plant and wildlife species and significantly reduces their regional distribution and viability. Loss of sensitive natural communities can also eliminate or reduce important ecosystem functions, such as water filtration by wetlands and bank stabilization by riparian woodlands.

Natural heritage specimens include individual specimens from sensitive natural communities that are >24" diameter at breast height (dbh). As the larger, more mature members of their communities they provide important structural habitat characteristics for dependant wildlife and account for the greatest proportion of their community's propagation; both important to ecological sustainability.

⁶ Skinner and Pavlik, 2001

⁷ State CEQA Guidelines, Section 15380

IMPACT DISCUSSION/ANALYSIS

- a. No state or federally listed plant species were located during the survey⁸. Temporary and permanent modifications to the Area of Potential Impact for this project may affect the habitats of several special status wildlife species. The roadway extension alignment is located on the north side of the berm. The majority of the trees are located on the south side of the berm next to the Twin Palms subdivision. The proposed alignment would avoid many of the trees along this right-of-way (see **Figure 4.4-1** for existing habitat). Four special-status bat species have the potential to occur in the surrounding area: pallid bat (California Species of Concern: CSC), long-eared myotis (Federal Species of Concern: FSC), Pale Townsend's big-eared bat (FSC and CSC), and Yuma myotis (FSC and CSC). Although each of these bat species has its own unique set of habitat requirements and sensitivities, there is considerable overlap. In the surrounding area of the project, these species would exploit similar resources. These bat species forage along edges, over grasslands, and in riparian areas. Roost sites consist of a wide variety of structures such as buildings, bridges, mines, caves, snags, and rock crevices. The proposed project does not involve the removal of bridges and structures that could be used for roosting and brooding. There may be a **potentially significant** impact unless mitigation is incorporated for these four special-status bat species.

The loggerhead shrike is a federal Species of Concern and a state Species of Special Concern. Loggerhead shrike preys upon large insects, lizards, mice, and small birds and may forage within the proposed project area.⁹ The loggerhead shrike nests in shrubs and trees adjacent to open grassland habitat used for foraging. Although the project area contains suitable loggerhead shrike habitat none were observed. Construction from the proposed project would temporarily affect the habitat by noise from construction activity. These impacts would be short-term; therefore, impacts to the loggerhead shrike would be **less than significant**.

Elderberry bushes were identified throughout the project area. The Elderberry is the sole habitat for the rare and federally listed (endangered) Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*) or VELB, and the Elderberry bush is fully protected under the Endangered Species Act.¹⁰ Although the beetle itself was not observed during the site visit, it is assumed that the bushes could provide habitat for this endangered species. Refer to impact **g**. for further discussion. The loss of VELB habitat is considered a **potentially significant** impact unless mitigation is incorporated.

- b. Based on the Biological Resource Assessment, the project site does contain a Great Valley Valley Oak Riparian Forest. The Great Valley Valley Oak Riparian

⁸ Galloway, Pg. 15

⁹ Udvardy 1988

¹⁰ Galloway, Pg. 1

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Forest is identified as Resource A on Figure 4.4-2. There are a relatively high number of valley oaks that may be potentially impacted by the proposed action. The greatest concentration of these trees constitutes a small remnant population of Great Valley Valley Oak Riparian Forest located adjacent to the proposed Speedway extension portion of the project where approximately 85 valley oak trees with a 6 inch or greater dbh were observed. On the south side of the existing railroad bed, ten (10) valley oaks with a dbh of ≥ 12 " were located within 30 ft. of the centerline of the RR right-of way, while none were detected on the north side. Of the ten (10) ≥ 12 " dbh valley oaks detected, four (4) qualify as natural heritage specimens with dbh's ≥ 24 ". In addition, a total of eight (8) ≥ 12 " dbh valley oaks were found on either side (4 per side, north and south) of Speedway Avenue. The proposed project would disturb the Great Valley Valley Oak Riparian Forest and could have a **potentially significant** impact on a riparian habitat.

- c. The project site does not contain any wetlands, so the proposed project would have **no impact** on federally protected wetlands as defined by Section 404 of the Clean Water Act.
- d. No federally or state endangered or threatened wildlife species were observed nor are any expected within the project area.¹¹ The road will not obstruct any migration patterns of native residents or migratory wildlife species. The Butte County region does receive migratory birds. Most raptors are protected by the Migratory Bird Treaty Act (16 USC 703-712), which prohibits the take, killing, possessing, and harassment of migratory birds. The project area contains many large oak trees that provide suitable nesting sites. Nearby fallow fields beyond the project area provide foraging habitat.¹² In 1998, a pair of nesting Swainson's hawks (a state-listed threatened species) was observed nesting within approximately .8 miles of the proposed project. This species (*Buteo swainsoni*) is sensitive to human disturbance during the nesting season. To ensure there is no possible impact, a pre-construction survey will be conducted in the spring to evaluate the presence of active raptor nests.¹³ Direct take of active nests, eggs, or birds must be avoided and measures taken to minimize disturbances. The proposed project will not affect suitable Swainson's hawk foraging habitat.¹⁴ The proposed project may disturb nesting birds and is considered a **potentially significant** impact unless mitigation is incorporated.
- e.-f. The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy, as Butte County does not currently have a tree preservation ordinance, nor would it conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. Since there are no plans in existence, there are *no impacts*.

¹¹ Galloway, Pg. 15

¹² Galloway Pg. 17

¹³ Galloway, Pg. 12

¹⁴ Galloway, Pgs. 15-16

4.4-1

4.4-2

- g. Elderberry bushes were identified throughout the project area. The Elderberry is the sole habitat for the rare and federally listed (endangered) Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*) or VELB, and the Elderberry bush is fully protected under the Endangered Species Act.¹⁵ Any Elderberry bushes impacted as a result of this project will require mitigation consistent with the USFWS 1999 Conservation Guidelines. There are several protocols used to avoid or relocate Elderberry bushes. Although the beetle itself was not observed during the site visit, it is assumed that the bushes could provide habitat for this endangered species.

There are two complexes (Resource B and C) of Elderberry bushes and their locations are illustrated on **Figure 4.4-2** relative to the proposed project.

Resource B is located at the east end of the project area, approximately 75ft. NW of Entler Avenue; an elderberry shrub complex exists comprised of six (6) elderberry bushes. Although not on any list of sensitive plant species, elderberry is the sole habitat for the rare and federally endangered valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), thus it is fully protected under the ESA. These bushes are located in an upland area and should not be impacted by the proposed project. Table 1 in **Appendix A** contains the results of our elderberry bush survey. The survey was conducted in accordance with 1999 USFWS Conservation Guidelines for Valley Elderberry Longhorn Beetle.

During the survey in May 2002, a dense cluster of elderberry shrubs was detected approximately 200 feet east of the Midway/Speedway intersection, extending along the north side of Speedway Avenue approximately twenty to twenty-five feet. During the initial survey, this elderberry complex was not in our prescribed survey area and a thorough elderberry survey was not conducted to protocol. On January 29, 2003, we returned to the site and found that the complex had been significantly altered from pruning. What remains include two (2) tree-like growths grouped together and several ≥ 1 inch stems cut low to the ground (see Figure 3 in **Appendix A**). One of the remaining tree-like shrubs has top foliage and a base diameter (1 meter from ground) of 10 inches, while the other does not have foliage and has a base diameter of 14 inches. In addition, numerous green shoots are emerging from the ground within a 10-foot radius of the remaining shrubs and stems, and more importantly, 14 feet north of the current centerline of Speedway Avenue. Due to pruning, a formal stem count and survey consistent with the 1999 USFWS guidelines could not be performed. This elderberry complex, in addition to being significantly pruned, will likely be impacted by proposed road improvements to Speedway Avenue and the resultant program for avoidance or relocation agreed to by the U.S. Fish and Wildlife Service before construction can occur. The project most likely would not have a direct affect to the Elderberry bushes. The Elderberry bushes would be within the 100-foot buffer. Further analysis will be done to determine the proper mitigation. The disturbance of VELB habitat (Elderberry

¹⁵ Galloway, Pg. 1

4.0 ENVIRONMENTAL IMPACTS

bushes) would be considered a **potentially significant** impact unless mitigation is incorporated.

- h.-k.** Analysis of the cumulative impacts in the area reveals that there is a great deal of urbanization planned in the immediate vicinity. There is a recently approved subdivision, (Twin Palm Subdivision), which is under construction and another proposed subdivision currently under review. Both are located adjacent to the proposed road improvement and extension. When the cumulative impact of all the proposed new development is considered, the 60-foot wide corridor represents a minor percentage of the total regional biological impacts. This impact is considered **less than significant**.

Mitigation Measures:

- BR-2** Prior to construction, should a bat species be listed by either CESA or ESA, the County will consult with the appropriate agency to determine: 1) the need for presence/absence surveys and 2) mitigation requirements.¹⁶

Timing: Prior to construction

Monitoring: Butte County Department of Public Works

The above mitigation measure would reduce impact **a.** (bats) to **less than significant**.

- BR-3** Disturbance of the existing riparian forest and scrub will be avoided to the greatest extent possible.

Where complete avoidance is not feasible, disturbance of riparian forest will be minimized. Before construction begins, temporary orange barrier fencing will be installed by a qualified biologist around the stands of riparian forest to be retained. All construction activities will be restricted to outside the fenced-off areas. The fences will remain in place throughout the construction period and will periodically be inspected to ensure that they remain in place.

In those areas of riparian forest that cannot be avoided during construction activities, new plantings will be installed once construction is finished. The new plantings will be of the same native species removed during construction and will be planted at a ratio of three planted to each one lost for valley oaks ≥ 12 " dbh and associate, understory species (see Valley-foothill riparian habitat description) and five to one for *natural heritage specimens* (valley oak ≥ 24 " dbh) to ensure no net loss of habitat value and functions. Plantings will be monitored for several years to ensure survival and meet performance criteria (outlined below). If performance criteria are not met, remedial actions will be taken. The re-vegetation plan for riparian forest will be considered successful when the following minimum success criteria are met:

¹⁶ Galloway, Pg. 11

- The riparian forest habitat established is composed of a mix of species resembling the same removed during construction.
- At least 75% of existing absolute cover of native riparian forest vegetation is developed at each site within 5 years
- When compared to individuals of the same species in adjacent undisturbed areas, vegetative health is deemed satisfactory based on qualitative factors such as leaf turgor, stem caliber, leaf color, and foliage density in the planted sites
- Less than 5% absolute cover on each site will be composed of weedy annual or perennial species
- Plantings at each site are self-supporting without human support (e.g. weed control, rodent control or irrigation) within 3 years.

Timing: Prior to and during and post construction

Monitoring: Butte County Department of Public Works

The above mitigation measure would reduce impact **b.** Great Valley Valley Oak Riparian Forest to ***less than significant***.

BR-4 A pre-construction biological survey shall be conducted prior to construction in April-May 2004 to determine the presence of any nesting raptors in the project area. Should nesting raptors be observed the California Department of Fish and Game shall be consulted.

Timing: Prior to construction

Monitoring: Butte County Department of Public Works

The above mitigation measure would reduce impact **d.** (nesting raptors) to ***less than significant***.

BR-5 A survey of the location of Elderberry bushes that may be disturbed by construction shall be conducted prior to any action within the right-of-way corridor. Prior to approval of construction plans, the project applicant shall consult with the U.S. Fish and Wildlife Service to determine the appropriate action for protection of the potentially affected Elderberry bushes. Appropriate actions are listed below but are not limited to:

Avoidance: Establishment and Maintenance of a Buffer Zone

Valley elderberry longhorn beetle larvae require canes of at least one-inch in diameter. Bushes impacted as a result of this project will require mitigation consistent with the USFWS Conservation Guidelines for the Valley Elderberry Longhorn Beetle (1999). According to these guidelines, complete avoidance (i.e. no adverse effects) may be assumed when a 100-foot buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch

or greater in diameter at ground level. As a protective measure, all bushes within the project area should be fenced during the course of the construction and clean-up to prevent disturbance. The USFWS Service must be contacted if encroachment within the 100 foot buffer is expected and/or if elderberry bushes are expected to be disturbed.

Protective Measures

1. Fence and flag all areas to be avoided during construction activities. In areas where encroachment on the 100-foot buffer has been approved by the USFWS, provide a minimum setback of at least 20 feet from the dripline of each elderberry plant.
2. Brief contractors on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements
3. Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected under the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines and imprisonment." The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of the construction.
4. Instruct work crews about the status of the beetle and the need to protect its elderberry host plant.

Restoration and Maintenance

1. Restore any damage done to the buffer area (area within 100 feet of elderberry plants) during construction. Provide erosion control and re-vegetate with appropriate native plants.
2. Buffer areas must continue to be protected after the construction from adverse effects of the project. Measures such as fencing, signs, weeding, and trash removal are usually appropriate.
3. No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant should be used in the buffer areas, or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level.
4. The applicant must provide a written description of how the buffer areas are to be restored, protected, and maintained after construction is completed.
5. Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing should occur within five (5) feet of elderberry plant stems. Mowing must be done in a manner that avoids

damaging plants (e.g. stripping away bark through careless use of mowing/trimming equipment).

Timing: Prior to and during construction

Monitoring: Butte County Department of Public Works

The above mitigation measure would reduce impact **a.** and **g.** (VELB habitat) to ***less than significant.***

Conclusions Relating to Biological Resources: With the proposed mitigation measures listed above, the project will have a **less than significant** impact on Biological Resources.

4.0 ENVIRONMENTAL IMPACTS

4.5 CULTURAL RESOURCES:

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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 pale ontological resource or site or unique geologic feature?		*			
d. Disturb any human remains, including those interred outside of formal cemeteries?		*			

Environmental Setting

At the most general level, compliance with CEQA requires completing projects in conformity with Section 15065.5 and other sections of the CEQA Guidelines, as amended. Peter Jenson, Ph. D. conducted an Archaeological Inventory Survey for the proposed project. Refer to **Appendix B** for the full report. Prior to conducting the pedestrian field survey, the official Butte County archaeological records maintained by the Northeast Information Center at CSU-Chico were examined for any existing recorded prehistoric or historic sites (records search dated October 31, 2002, I. C. file #02-98). The records document the following existing conditions for the project area:

- None of the project area has been subjected to a formal archaeological survey. While several surveys have been undertaken on nearby lands, this previous work does not appear to extend into the boundaries of the present API.
- No sites have been formally recorded or otherwise identified within, adjacent, or close to the project area. The abandoned alignment of the historic Chico-Sterling City Line of the Butte County Railroad would be used for the extension of the Speedway Avenue, but none of the built environment remains. Elsewhere in the immediate vicinity, the City of Chico has already concurred with findings that this cleared alignment (the old railroad) retains no intrinsic value.

Pacific Legacy, Inc. was contracted to conduct architectural investigations for the project to comply with the stipulations for the identification and protection of historic properties presented in CEQA (Public Resources Code [PRC] 21000 et seq.) 1970, as amended. The cultural resources identification effort was conducted on December 3 and 4, 2002 and included: a records search at the Northeast Center of the California

Historical Resources Information System, located at California State University, Chico; a review of records at the Butte County Assessor's Office; consultation with the Butte County Historical Society; and architectural evaluation of the buildings and structures within the Area of Potential Impacts (API) for the project.

Architectural investigations for the proposed project identified one building that was over 45 years old within the project API. This building is the Chambers house located along Speedway Avenue within APN 40-064-010. The building, however, does not meet any of the eligibility criteria for inclusion in the California Register of Historical Resources (CRHR). For full text of the Historical Resources Survey Report refer to **Appendix C**.

Impact Discussion/Analysis

- a. An Historical Resources Evaluation Report was completed by Pacific Legacy, Inc. to comply with the stipulations for the identification and protection of historic properties presented in CEQA (Public Resources Code [PRC] 21000 et seq.) 1970, as amended. Architectural investigations for the proposed project identified one building that was over 45 years old within the project Area of Potential Impact. This building is the Chambers house located along Speedway Avenue. The building, however, does not meet any of the eligibility criteria for inclusion in the California Register of Historic Resources (CRHR). Therefore, it is not anticipated that implementation of the proposed Speedway Avenue Extension Project would likely affect any historical resources.¹⁷ Since no historical properties are currently recorded or known to exist within or adjacent to the Area of Potential Impact, there would be **no impacts** to historical resources.
- b.-c. An Archaeological Inventory Survey was completed by Jensen and Associates, to comply with County rules and regulations, and per CEQA (Public Resources Code [PRC] 21000 et seq.) 1970, as amended, and the CEQA Guidelines, California Administrative Code, Section 15000 et seq (Guidelines, as amended October 1998). Neither a record examination nor a pedestrian field survey identified prehistoric or historic sites within, adjacent to, or close to the project area.¹⁸ The present evaluation and recommendations are based on the findings of an inventory-level surface survey only. There is always the possibility that potentially significant unidentified cultural materials may be encountered below the surface during the course of future development or construction activities. This is considered a **potentially significant** impact unless mitigation is incorporated.
- d. There is the possibility that human remains could be encountered below the surface during the course of future development or construction activities. This is considered a **potentially significant** impact unless mitigation is incorporated.

¹⁷ Pacific Legacy, Incorporated, Pg. I

¹⁸ Jensen & Associates, Pg. 9

Mitigation Measures:

CR-6 In the event that buried cultural resources are discovered during the course of the project grading or construction activities, operation shall immediately stop in the vicinity of the find and a qualified archaeologist who meets the Secretary of the Interior Standards shall be consulted immediately to evaluate the find and to determine the proper procedure for dealing with the resource. Cultural resources could consist of, but are not limited to, artifacts of stone, bone, wood, shell, or other materials including hearths, structural remains or dumps.

Timing: During grading and construction.

Monitoring: Butte County Department of Public Works

The above mitigation measure would reduce impact **b. and c.** to *less than significant*.

CR-7 In the event that human remains are discovered during excavation, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

1. The coroner of the County in which the remains are discovered is contacted to determine that no investigation of the cause of death is required,
2. The coroner contacts the Native American Heritage Commission (the Commission) within 24 hours if he determines the remains to be Native American,
3. The Native American Heritage Commission identifies the person or persons it believes to be the most likely descended from the deceased Native American.
 - a. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, and
4. The landowner or his authorized representative reburies the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance when the following conditions occur,
 - a. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the Commission.
 - b. The descendant identified fails to make a recommendation, or

- c. The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

Timing: During grading and construction work.

Monitoring: Butte County Department of Public Works

The above mitigation measures would reduce impact **d.** to *less than significant*.

Conclusions Relating to Cultural Resources: Implementation of the above mitigation measures would avoid any significant damage to an uncovered prehistoric or historic site until it can be assessed for its value. If the site has the potential to yield valuable information, compliance with the recommendations of the archaeologist would preserve the site for further study. Impacts after mitigation would be **less than significant**.

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4.6 GEOLOGIC PROCESSES

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
<p>a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <ol style="list-style-type: none"> 1. 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. 2. Strong seismic ground shaking? 3. Seismic-related ground failure, including liquefaction? 4. Landslides? 			*		
<p>b. Result in substantial soil erosion or the loss of topsoil?</p>		*			
<p>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?</p>			*		
<p>d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?</p>			*		
<p>e. Have Soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal system where sewers are not available for the disposal or wastewater?</p>			*		

Environmental Setting

According to the USGS Chico Quadrangle dated 1978 (**Figure 4.6-1**), the property grades range in elevation from 202 feet to 221 feet mean sea level (msl). The property consists of Speedway Avenue, street frontage, an abandoned railroad bed, and open space. According to the *Geologic Map of the Late Cenozoic Deposits of the Sacramento Quadrangle*, Department of the Interior U.S. Geological Survey, 1985 compiled by Edward J. Helley and David S. Harwood, the geologic formation mapped at the site is Upper Member of the Modesto Formation. The Upper Member of the Modesto Formation consists of unconsolidated, unweathered gravel, sand, silt, and clay. The depth to first groundwater is relatively shallow, and known to be as shallow as ground surface during the rainy season.

Impact Discussion/Analysis

- a.1. Butte County is in a region of known faults and recent seismic activity, however, no faults run precisely through the project area. The Alquist-Priolo Special Study Zones Act of 1972, frequently amended, and renamed to the Alquist-Priolo Earthquake Fault Zoning Act in 1975, along with the Seismic Hazards Mapping Act of 1990, both address the issues of earthquakes and human habitation. The California Department of Conservation's Geological Survey is a primary source of information for geology and geologic hazards. Earthquake faults are mapped by way of the Alquist-Priolo Earthquake Fault Zoning Map, Figure 4H of which shows the southeastern portion of the County possessing one fault site: Bangor, 77. The Department of Conservation also produces the California Index to Official Maps of Earthquake Fault Zones. Butte County is one of 36 California Counties listed as having earthquake faults. The Cleveland Hills fault line is the only fault line in Butte County that is recognized under the Alquist-Priolo Earthquake Fault Zoning Act to pose a threat from fault rupture. The Butte County Seismic Safety Element indicates that all of Butte County is in Moderate Earthquake Intensity Zone VIII. This impact is ***less than significant***.
- a.2. The project site area has potential dangers in the form of ground shaking and subsidence; however, no faults run precisely through the project area. The intensity of ground shaking at any specific site depends on the characteristics of the earthquake, the distance from the earthquake, and on the local geologic soils and conditions. At present there is insufficient data to predict accurately the expected ground motions at various locations in Butte County. However, strong seismic ground shaking is closely related to the proximity of active fault lines. Although there is insufficient data to predict these occurrences, the closest mapped Fault Rupture Zone is the Cleveland Hills fault line, which is located in the southeast part of the county, while this project is in the northwest quadrant of the county. Seismic risk is not limited to faults that have been currently identified, or exist within the close proximity. Human habitation and other vertical development are of primary concern for human safety, and this project would pose no structural threat to people using the road due to its distance from the Cleveland Hills fault. No seismic related requirements are necessary with regard to fault rupture. This impact is ***less than significant***.

4.6-1

- a.3. The Liquefaction Map of the Seismic Safety Element of the Butte County General Plan indicates that the project site has a generally moderate potential for liquefaction. The potential for road failure will be evaluated as part of the soils report prepared prior to construction. Since there are known engineering techniques for dealing with liquefaction this impact is considered **less than significant**.
- a.4. The Subsidence and Landslide Potential Map of the Safety Element of the Butte County General Plan indicates that there is little to no potential for landslides in the site area. **No impact** is anticipated because the site is almost level.
- b. The Erosion Potential Map of the Safety Element of the Butte County General Plan indicates that there is little potential for soil erosion at the site. However, construction of roads has the most serious impact on the soil mantle, causing an increase 10 to 50 percent the natural erosion rate to occur.¹⁹ Construction would generally involve grubbing/clearing, grading, and paving using both heavy-duty and light-duty construction equipment. Significant earth excavation and embankment are components of the proposed project. Grading activities would remove vegetative cover and would expose area soils to wind and surface water runoff. Higher erosion rates are typical of disturbed sites where earth is exposed, and may lead to the degradation and turbidity of surface waters within nearby creeks. The project site is mostly level, which is a positive factor in reducing soil runoff. Soils in this area are deep and have been previously disturbed so they have been identified as slightly susceptible to wind and water erosion due to construction activity-related disturbances and agricultural activities. The erosion from construction of the proposed project would be a **potentially significant** impact unless mitigation is incorporated.
- c. Due to sandy soils and high water table, the project site is in an area susceptible to subsidence. Road construction will be required to be engineered for this event and is required by the County's design standards. This impact is **less than significant**.
- d. The potential for damage to the roadway from expansion would be reduced due to the high sand content of the surrounding area and the drainage provided by the elevated berm associated with the railroad right-of-way. A soils analysis shall be conducted prior to construction to engineer the appropriate design for the roadway based on the existing soil type. This impact is considered **less than significant** because there are known engineering solutions to the potential for expansive soils and the probability of expansive soils in this location is low.
- e. The project will have **no impact** on wastewater systems.

Mitigation Measures:

- GP-8 As part of the grading plans for the project, the applicant shall prepare an erosion control plan that includes provisions for the following:

¹⁹ Butte County General Plan, Safety Element

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1. Immediate revegetation or protection of all disturbed areas from both wind and water erosion upon the completion of grading activities,
2. Use of water bars, temporary swales and culverts, mulch and jute netting, hydro seeding, silt fences, sediments and/or other measures where necessary to prevent surface water from eroding graded areas and to retain sediment,
3. Maintaining items in 2) above during storm events or on-site watering to ensure that the measures continue to be effective,
4. Water soils susceptible to wind erosion at least twice per day during construction or as directed by the project engineer,
5. Halting of all grading activity when wind speeds exceed 20 miles per hour or existing wind creates an obvious dust cloud, and
6. Landscape or revegetation to protect exposed slopes following completion of construction.

Timing: These measures shall be implemented during site preparation and construction with revegetation following the end of construction

Monitoring: Butte County Department of Public Works

The above mitigation measures would reduce impact **b.** to *less than significant*.

Conclusions Relating to Geologic Processes: The project will have a **less than significant** impact on geologic processes if the mitigation measures listed above are implemented.

4.7 HAZARDS AND HAZARDOUS MATERIALS

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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 schools?				*	
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 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?				*	

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WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
h. Expose people or structures to a significant risk or loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				*	

Environmental Setting

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22 of the California Code of Regulations (CCR) as follows:

A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed. (California Code of Regulations, Title 22, Section 66261.10)

Chemical and physical properties cause a substance to be considered hazardous. Such properties include toxicity, ignitability, corrosivity, and reactivity. CCR, Title 22, Sections 66261.20-66261.24 define the aforementioned properties. The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies.

Under Government Code Section 65962.5, the California Department of Toxic Substances Control (DTSC) maintains a list of hazardous substance sites. This list, referred to as the "Cortese list", includes CALSITE hazardous material sites, sites with leaking underground storage tanks, and landfills with evidence of groundwater contamination. In addition, the Butte County Health Department maintains records of toxic or hazardous material incidents, and the Central Valley Regional Water Quality Control Board (RWQCB) keeps files on hazardous material sites. The properties within the Speedway Avenue Extension Project Area of Potential Impact (API) are not on the Cortese List, and no record of toxic or hazardous material incidents are cited within the API.

Most hazardous materials regulation and enforcement in Butte County is managed by the County Health Department. As this project is in an unincorporated part of Butte County, fire protection is handled by the Butte County Fire Department, and the closest fire response location is in Oroville. Hazardous materials incidents, such as spillage, are covered by another entity, the Butte County Interagency Hazardous Materials Team,

which was established in 1989 with a Joint Powers Agreement between Butte County, incorporated cities within Butte County, and the California Department of Forestry. The closest hazardous materials response location to this site is in Chico. Large cases of hazardous materials contamination or violations are usually referred to the RWQCB and/or the DTSC for action. It is not at all uncommon for other agencies such as the Air Pollution Control District and both the federal and state Occupational Safety and Health Administrations (OSHA) to become involved when issues related to hazardous materials arise.

- A Phase One Environmental Site Assessment in general conformance with the scope and limitations of American Society for Testing and Materials (ASTM) E 1527-00 was prepared by ENGEO Incorporated (Project No. 5789.5.001.01) in January 2003. A Recognized Environmental Condition (REC) is defined in that report as, "the presence or likely presence of any hazardous substances or petroleum products on a Property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or in or into the ground, groundwater, or surface water of the Property."²⁰ For the full text of the Phase One Environmental Site Assessment refer to **Appendix D**.

The report findings are summarized as follows: "The records research did not find documentation of soil or groundwater impairments arising from the historic use of the Property. A review of regulatory databases maintained by county, state and federal agencies found no documentation of hazardous materials violations or discharge within the Property."²¹ The report concludes: "The site reconnaissance and records research did not find documentation or physical evidence of RECs in soil or groundwater associated with the use of the Property. A review of regulatory databases maintained by county, state and federal agencies found no documentation of hazardous materials violations or discharge on the Property. We conclude there are no Recognized Environmental Conditions (REC) in conjunction with the Property."²²

Impact Discussion/Analysis

- a. The material most typically used in the construction of a roadway is hot mix asphalt that is composed of aggregate and asphalt cement, a viscous petroleum product. Hot mix asphalt cools rapidly and hardens once applied, and the low potential fire hazard associated with this material is eliminated once it hardens. The only other potentially hazardous materials that would be used during project construction would be motor vehicle fuels and oils that would present a minor hazard, and only if spillage occurs (See **b.** below). Hazardous material impacts are ***less than significant***.

²⁰ ENGEO, Pg. 2

²¹ ENGEO, Pg. 1

²² ENGEO, Pg. 19

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The proposed project would bring truck traffic through the new connection to Midway. Some trucks would use the new Speedway connection. This connection would expose residents to hazards that they were not previously exposed to currently with Speedway terminating at the abandon Union Pacific Railroad right-of-way. Any potential for the release of hazardous materials into the environment is regulated through existing federal and state laws. These regulations require emergency response from local agencies to contain hazardous materials. The federal laws require the states to develop standards for the routine transport, use or disposal of hazardous materials. Butte County has Butte County Interagency Hazardous Materials Team that would respond to any emergencies or accidents in the area. The increased truck traffic would not present substantial a hazard to the public therefore the impact is **less than significant**.

- b. Construction activities associated with the project typically include refueling and minor maintenance of construction equipment on location, which could lead to minor fuel and oil spills. The use and handling of hazardous materials during construction activities would occur in accordance with applicable federal, state, and local laws including California Occupational Health and Safety Administration (CalOSHA) requirements. If any fuel and oil spills occur, they would take place in areas that are largely undeveloped, and spills would be minor. Nevertheless, such spills are considered **potentially significant** unless mitigation is incorporated.
- c. The project would not emit any hazardous substances other than the hot mix asphalt described above. School facilities are not located within ¼ mile of the project area. Thus, the project would have **no impact** concerning hazardous emissions near schools.
- d. There are no properties or sites listed on the Cortese list within or near the project location. As such, the project would have **no impact** concerning Cortese list sites.
- e. The proposed project is not located near a public airport, public use airport, or included in an airport land-use plan. Thus, there would be no safety hazard for people residing or working in the project area that is associated with public airports. The project would have **no impact** concerning public airport hazards.
- f. The proposed project is located near two private airstrips. Hog Ranch Air Strip is operating and the Peterson Airstrip is closed. The proposed project is a roadway extension, thus, there would be no safety hazard for people residing or working in the project area that is associated with private airstrips (Craig Saunders, Butte County Planning Department). The project would have **no impact** concerning private airstrip hazards.
- g. The project would not interfere with an adopted emergency response plan or emergency evacuation plan. The proposed Speedway Avenue extension would relieve congestion in the vicinity including Entler Avenue, Midway south of Speedway Avenue, and SR 99 at the Southgate Avenue exit, as it will provide an additional route in and out of an area planned for increased urban growth. The project would provide additional routes for residences and emergency vehicles in

case of an emergency evacuation. Therefore, the project would have **no impact** on emergency response or emergency evacuation plans, and may have a beneficial impact.

The proposed Speedway Avenue extension and re-construction would involve vegetation clearing during the construction phase of the project. Vegetation removal would decrease the probability of fire hazards. Additionally, the proposed project would require a cleared right-of-way, which would serve as a firebreak and allow access for firefighting equipment in the event of a wildland fire in the area. The proposed project would have **no impact** regarding fire hazards and may have a beneficial impact.

Mitigation Measures:

HM-9 If refueling of equipment and oil changing is planned on site the contractor shall prepare a Spill Prevention, Control, and Containment Plan to establish spill prevention practices, and to prepare for spill mitigation in the event of a hazardous material spill. This plan shall be submitted to and approved by the Project Engineer prior to construction.

Timing: Prior to grading and construction work.

Monitoring: Butte County Department of Public Works

The above mitigation measures would reduce impact **b.** to **less than significant**.

Conclusions Relating to Hazards and Hazardous Materials: With the proposed mitigation measure listed above, the project will have a **less than significant** impact on Hazards and Hazardous Materials.

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4.8 HYDROLOGY AND WATER QUALITY

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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 preexisting 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 that 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 storm water drainage systems or provide substantial additional sources of polluted runoff?			*		
f. Otherwise substantially degrade water quality?				*	

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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 or 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?				*	

Environmental Setting

Gus Yates, Consulting Hydrologist, completed an Investigation of Groundwater Drainage Problems Between Speedway Avenue and Oroville-Chico Highway in December of 2001 (refer to **Appendix E** for the full report). The extension of any roadway involves an increase in impervious surface area. Speedway Avenue will be constructed to a 32' pavement width that will include 4' shoulders on both sides. The project area is located on the upper part of the Butte Creek alluvial fan.²³ Drainage problems in the southeast Chico area consist of shallow water tables, saturated soils, and localized shallow overland flow that persist for weeks to months following prolonged wet periods in exceptionally wet years.²⁴

The drainage problem is primarily the result of natural groundwater discharge from a shallow aquifer system in areas where there is a down slope transition from relatively permeable gravel deposits to less permeable sands, silts, and clays.²⁵ There is a potential for the shallow aquifer to become inundated during prolonged periods of wet weather causing rainfall recharge to back up. During two recent wet weather years (1995 and 1998), groundwater breached the surface and caused some ponding and flooding in this part of Butte County. It may be important to study the adequacy of drainage structures under the railroad berm and the Entler Avenue right-of-way to mitigate any drainage issues so that there is no increase to the groundwater recharge

²³ Yates, Pg. 1

²⁴ Yates, Pg. 1

²⁵ Yates, Pg. 32

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in this area. A probability analysis of annual maximum 30-day rainfall indicated that 1995 and 1998 corresponded to recurrence intervals of approximately 90-150 years.

Impact Discussion/Analysis

- a. This project would have a minimal impact on water quality since it will not discharge into a stream, nor will there be any waste discharge. The storm water runoff for the proposed project would be kept on site using drainage ditches adjacent to the roadway. Therefore there is **less than significant** impact.
- b. The proposed project is a roadway extension. Therefore, it will not contribute to the depletion of any groundwater supplies or interfere substantially with groundwater recharge. Therefore there is **no impact**.
- c.-d. This project will not substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion or siltation on- or off-site, or contribute to a substantial increase in the rate or amount of surface runoff. Drainage improvements include accommodating roadside drainage through swales along the unimproved roadway frontages that drain to proposed leach trenches, subterranean and/or overland drainage systems to be designed to convey storm water from the roadway. Drainage Mitigation Measure **GP-7** would reduce impacts from erosion and siltation and the County would be required to implement a Storm Water Pollution Prevention Program (SWPPP). The standard NPDES requirements for mitigating storm water pollution will be incorporated into the project. The proposed project is over 5 acres and would require a NPDES permit. There will be minimal erosion during the construction phase and over time, but this impact is **less than significant** since the site is relatively flat.
- e. The small amount of impervious surface added by this roadway is not a significant portion of the area as a whole and the drainage would be kept on site. The proposed roadway extension would be located on the elevated abandon Union Pacific Railroad berm. The stormwater runoff would sheet flow on either sides of the proposed roadway. The stormwater would be captured by the existing swales on either side of the existing berm. According to the studies conducted for this area, ponding will occur regardless of whether or not this project is constructed due to the shallow ground water table, not from the surrounding runoff. Because the project would result in a relatively small increase in impervious cover, this impact is **less than significant**.
- f. Refer to **a.** for potential to degrade water quality. The proposed project would have **no impact** on water quality.
- g-h. The proposed project is a roadway project and would not place any housing within a 100-year floodplain. There would be **no impact**.
- i. The proposed project includes the reconstruction and extension of the existing Speedway Avenue and would not expose people or structures to a significant risk

of loss of property, injury or death from flooding, including flooding as a result of the failure of levee or dam. There would be **no impact**.

- j. The proposed project is not located near the Pacific Ocean and is relatively flat. Therefore inundation by seiche, tsunami or mudflows is not likely. There would be **no impact**.

Mitigation Measures

None required

Conclusions Relating to Hydrology and Water Quality: The small area of the roadway constructed would contribute a minor amount of storm water runoff and would not cause flooding or exacerbate existing flooding in the area. As discussed above, the area experiences flooding from rises in groundwater and not from surrounding land uses. This project will have a **less than significant** impact to hydrology and water quality.

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4.9 LAND USE

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
a. Physically divide an established community?				*	
b. Conflict with an applicable land use plan, policy, or regulations 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?				*	

Environmental Setting

The zoning for the parcels adjacent to the proposed roadway extension corridor include SR-1 (Suburban Residential, 1-acre minimum parcel size), A-40 (Agricultural, 40 acre minimum parcel size), A-R (Agricultural/Residential), P-Q (Public/Quasi Public), M-1 (Light Industrial, no minimum lot size), and L-1 (Limited Industrial). The project vicinity has a mixture of land uses dominated by commercial development along the eastern portion of Entler Avenue, pockets of residential subdivisions including a subdivision currently under construction (Twin Palms Subdivision), agricultural uses including wheat growing, organic farm and an orchard, one industrial complex (Smuckers Quality Beverages plant), and undeveloped open land. **Figure 4.9-1** illustrates the surrounding land uses in the project area. The area around Southgate Avenue is mostly open space. At this time, there are no approved developments, but the landowners have been coordinating with the County to develop the area with medium density housing and industrial land uses. An abandoned spur of the Union Pacific Railroad transects the proposed project and SR 99 is directly to the east of the project. Northwest of the proposed project there is a housing development called Paseo Companeros. Paseo Companeros is approximately 450 feet away from the roadway extension. Directly north of the roadway extension is one house on parcel 040-030-055 and several houses on parcel 040-310-059. These houses are accessed by a private road.

Impact Discussion/Analysis

- a. This proposal will not physically divide an established community. The proposed project would provide better residential access and improve regional traffic

4.9-1

circulation. Since the project will not divide an existing community, there is **no impact**.

- b. The project site is located within the City of Chico's Sphere of Influence. As a roadway extension, the project does not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. The proposed project implements recommendations adopted as part of the 1999 *State Route 99/Southgate Avenue Interchange and Circulation Study*. As such, the project has **no impact** on established land use plans.
- c. The property is not within a habitat conservation plan or natural community conservation plan. **No impact** will be incurred.

Mitigation Measures

None required

Conclusions Relating to Land Use: The project will have **no impact** on established land use plans and therefore no mitigation measures are recommended.

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4.10 MINERAL RESOURCES:

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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?				*	

Environmental Setting

There are no mineral resource sites within the project Area of Potential Impact.

Impact Discussion/Analysis

a.-b. No mineral resources are known to exist on the project site. **No impact** is anticipated.

Mitigation Measures

None required

Conclusions Relating to Mineral Resources: The project will have **no impact** on Mineral Resources and therefore no mitigation measures are recommended.

4.11 NOISE

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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 ground borne vibration or ground borne 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?				*	

Environmental Setting

Bollard and Brennan, Inc. completed an Environmental Noise Analysis focused on the increase in traffic noise levels and the associated impacts upon the existing noise environment of noise sensitive uses located within the project vicinity. The Study evaluated the existing and future (Year 2022) noise environments based on the Fehr & Peers *The Speedway Avenue Extension in Butte County*. Both studies are included as appendices to this Initial Study. For full text of the Environmental Noise Analysis refer to **Appendix F**.

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Noise can be described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. As a result, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by the A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels.

The primary objective of the Butte County Noise Element is to prescribe policies that lead to the preservation and enhancement of the quality of life for the residents of Butte County by securing and maintaining an environment free from hazardous and annoying noise. For residential uses, Table NO-4 of the Butte County General Plan Noise Element identifies a maximum acceptable outdoor noise level of 65 dB(A) Ldn to provide a suitable noise environment for outdoor activities. CEQA notes that a project may have a significant impact on the environment if it creates a substantial temporary or permanent increase in ambient noise levels over those occurring without the project.

The ambient noise environment along the existing portion of Speedway Avenue is dominated primarily by traffic on Speedway Avenue and operations involved with the Smuckers Quality Beverages. The noise environment at the residences north of the proposed extension is dominated by traffic on SR 99. For this reason, traffic noise is the focus of the existing ambient noise environment. In order to quantify the existing noise environment at the nearest noise sensitive locations a short-term ambient noise survey was performed on December 2, 2002. **Figure 4.11-1** shows the noise measurement locations. **Table 4.11-1** shows the results of this survey.

4.11-1

*Site	Average (Leq)	Maximum (Lmax)	Median (L50)	Noise Sources
1	49	55	48	State Route 99
2	49	59	48	State Route 99, Birds
3	56	69	52	Smuckers Activities (loading dock, etc.)
4	62	70	61	State Route 99, Entler Ave.

Notes: Source - Bollard & Brennan, Inc.
*See **Figure 4.11-1**

In addition to these short-term measurements, continuous noise level monitoring took place at one location from Saturday November 23 to Sunday December 1, 2002. The purpose of these measurements were to assist in the quantifying of the existing noise environment along Speedway Avenue and to determine the day/night traffic distribution for use in traffic noise modeling purposes described further in this report. The results of this monitoring are shown in **Figure 4.11-2**

Using traffic data prepared by the transportation consultant, the FHWA Model was used to determine traffic noise levels at specific receiver locations for both project and no-project conditions. See **Figure 4.11-3** for the locations of these existing receivers. The FHWA Model input data is provided in **Appendix G. Tables 4.11-2** and **4.11-3** show the results of the traffic noise modeling for the existing and cumulative future conditions, respectively, at these individual receiver locations.

Receiver	Description	Existing No Project	Existing With Project	Difference
1	South of Speedway, West of Smuckers	50	53	3
2	South of Speedway, Across from Smuckers	51	53	2
3	North of Speedway, 1 st Residence from West.	NA	47	N/A
4	North of Speedway, 2 nd Residence from West.	NA	44	N/A
5	North of Speedway, 3 rd Residence from West.	NA	43	N/A
6	Residences along West portion of Entler	57	54	-3
7	Commercial along South portion of Entler	60	62	2

Notes:
a. Source: Bollard & Brennan, Inc. and FHWA RD-77-108
b. See **Figure 4.11-3** for Receiver Locations
c. Because Speedway Avenue does not currently extend past Receivers 3-5, the N/A designation is applied to those locations for existing no project conditions as well as the project related difference in noise levels. However, because ambient noise levels were measured to be approximately 50 dB at those locations due to other noise sources (including Highway 99), the project-related change in noise levels is predicted to be insignificant at these locations.

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4.11-2 (b/w)

4.11-3

*Receiver	Description	Future No Project	Future With Project	Difference
1	South of Speedway, West of Smuckers	53	60	7
2	South of Speedway, Across from Smuckers	55	61	6
3	North of Speedway, 1 st Residence from West.	NA	55	N/A
4	North of Speedway, 2 nd Residence from West.	NA	52	N/A
5	North of Speedway, 3 rd Residence from West.	NA	51	N/A
6	Residences along West portion of Entler	65	60	-6
7	Commercial along South portion of Entler	68	70	2

Notes:

Source: Bollard & Brennan, Inc. and FHWA RD-77-108
See Figure 4.11-3 for receptor locations.

1. Because Speedway Avenue does not currently extend past Receivers 3-5, the N/A designation is applied to those locations for future no project conditions as well as the project related difference in noise levels. However, because ambient noise levels were measured to be approximately 50 dB at those locations due to other noise sources (including Highway 99), and because future levels would be proportionally higher, the project-related change in noise levels is predicted to be insignificant at these locations.

Impact Discussion/Analysis

- a. The proposed roadway modifications are predicted to result in changes in traffic noise levels relative to existing conditions as indicated in **Table 4.11-2**. Specifically, the project would result in a decrease of approximately 3 dB at the existing residences located along Entler, and an increase of approximately 2-3 dB along Speedway Avenue. Because a significant increase in noise is defined by the Study as being 5 dB when no-project traffic noise levels are less than 60 dB Ldn, this impact is considered ***less than significant***.
- b. As shown in **Table 4.11-2** the Existing Plus Project Traffic noise levels are not expected to exceed the County's 65 dB Ldn residential noise level standard at any of the existing noise-sensitive land uses in the immediate project vicinity. As a result, this impact is considered ***less than significant***.
- c. As shown in **Table 4.11-3** the Cumulative Plus Project Traffic noise levels are expected to exceed the 65 dB Ldn residential noise level standard at the existing

4.0 ENVIRONMENTAL IMPACTS

residences on the south side of Speedway Avenue, west of Smuckers. However, the existing noise barrier would reduce traffic noise and the Future Plus Project Traffic noise levels at those residences are predicted to be approximately 60 dB Ldn, which satisfies the applicable noise standards. The Twin Palms subdivision is under construction and will abut the Speedway Avenue Roadway extension. The applicant for the subdivision will construct a masonry wall between the subdivision and the proposed roadway extension. As a result, this impact is considered ***less than significant***.

- c. The proposed roadway modifications are predicted to result in changes in traffic noise levels relative to future (cumulative) conditions as indicated in **Table 4.11-3**. Specifically, the project would result in a decrease of approximately 6 dB at the existing residences located along Entler, and an increase of approximately 7 dB along Speedway Avenue. Because the study defines a significant increase in noise as being 5 dB when no-project traffic noise levels are less than 60 dB Ldn, this impact is considered ***potentially significant*** at the existing residences located along Speedway Avenue unless mitigation is implemented. Recent studies prepared by Bollard & Brennan, Inc. have indicated that the use of rubberized asphalt overlays have resulted in a traffic noise level decrease of 4 dB relative to conventional asphalt overlays. This degree of noise reduction would reduce the project-related increase from 7 dB to approximately 4 dB at the residences located along Speedway Avenue, thereby reducing the impact to ***less than significant***.
- d. During the construction phases of the project, temporary noise from construction activities would increase the noise environment in the immediate area. Activities involved in construction would generate noise levels ranging from 70 to 90 dB at a distance of 50 feet. Construction activities would be temporary in nature, typically occurring during normal working hours.

Construction noise impacts could be significant if nighttime operations or use of unusually noisy equipment was to occur, particularly if it results in annoyance or sleep disruption at residential areas. Due to the relatively short duration of construction activities, widespread annoyance with construction activities is not expected. Overall the construction noise is considered a ***potentially significant*** impact unless mitigation is incorporated.

- e. The proposed project is not located near a public airport, public use airport, or included in an airport land-use plan, thus, there would be no safety hazard for people residing or working in the project area that is associated with public airports. The project would have ***no impact*** concerning public airport hazards.
- f. The proposed project is not located near a private airstrip; thus, there would be no safety hazard for people residing or working in the project area that is associated with private airstrips. The project would have ***no impact*** concerning private airstrip hazards.

Mitigation Measures:

NO-10 Rubberized asphalt or equivalent noise dampening material shall be used for the roadway adjacent to the existing residential uses.

Timing: During construction

Monitoring: Butte County Department of Public Works

The above mitigation measure would reduce impact **c. to less than significant**

NO-11 Construction within the project area shall be limited to Monday through Friday between the hours of 7 a.m. to 6 p.m. except as approved by the Project Engineer.

Timing: During grading and construction work

Monitoring: Butte County Department of Public Works

The above mitigation measures would reduce impact **d. to less than significant.**

Conclusions Relating to Noise: The proposed roadway improvement project is expected to result in a significant increase in traffic noise levels at existing residential land uses located adjacent to Speedway Avenue relative to future No-Project noise levels. This would be considered a significant impact on the project unless mitigation is incorporated. The use of noise-reducing paving materials is predicted to reduce this impact to **less than significant**. In addition, Future Plus Project Traffic noise levels are predicted to be acceptable relative to local noise standards. The *State Route 99/Southgate Avenue Interchange and Circulation Study*, prepared by Fehr & Peers Associates for the Butte County Association of Governments, October 1999 recommended several highway and roadway improvements for project area (Southgate Avenue Interchange, Southgate Avenue extension and the realignment of Entler Avenue near Southgate Avenue and Speedway Avenue Extension). The Southgate Avenue extension is the most direct route to Midway Road. Implementation of these projects would reduce the through traffic on Entler and the proposed Speedway Avenue and in the process reduce the noise generated by the traffic. However, these projects are not funded at this time.

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4.12 HOUSING

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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?				*	

Environmental Setting

Two cul-de-sacs with residences are located on the south side near Smuckers and are surrounded by a masonry wall on the existing Speedway Avenue. On either side of the two cul-de-sac residences are single family homes (parcels 040-040-001 and 040-0640-010) with agricultural fields (refer to **Figure 4.9-1** for parcel locations). Several houses are located to the north of the proposed project along the private road that extends from the existing Speedway Avenue. Twin Palms Subdivision is currently under construction and is located on the south side of the abandoned Union Pacific Railroad berm that would be used for the proposed project. Paseo Companeros is another housing development that is located north of the proposed project.

Impact Discussion/Analysis

a.-c. The proposed Speedway Avenue Extension Project is within the City of Chico's Sphere of Influence. The immediate adjacent parcels of land to the proposed project are undergoing an urbanization process; one is an approved subdivision currently under construction (Twin Palms parcel 040-640-011) and the other is in the subdivision review and approval process (parcel 040-030-055) (refer to **Figure 4.91** for parcel location). The extension of Speedway Avenue is intended to improve circulation in the entire vicinity including, Southgate Avenue, SR 99, Entler Avenue, and Midway Avenue as part of the regional roadway system. The proposed project is intended to alleviate congestion on Entler Avenue and improve connectivity in the roadway network. This extension project is the result of a regional traffic study (Fehr and Peers, 1999) that indicated the necessity of this connection. The extension would not indirectly induce substantial population growth but rather alleviate the congestion associated with on-going urbanization

in the area. The proposed project alignment will traverse an area that is largely undeveloped and is coordinated with adjacent parcel development. No structures are located within the proposed Speedway Avenue extension alignment so the project would not displace any existing housing or people. Therefore, there would be **no impacts** to housing.

Mitigation Measures

None required

Conclusions Relating to Housing: The project will have **no impact** on housing and therefore no mitigation measures are recommended.

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4.13 PUBLIC SERVICES

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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?				*	
b. Fire protection?				*	
c. Police Protection?				*	
d. Schools?				*	
e. Parks?				*	
f. Other public services?				*	

Environmental Setting

The Butte County Fire Department (BCFD) provides fire protection and emergency services to all of Butte County with the exception of the cities of Chico and Oroville, the Town of Paradise, and the El Medio Fire Protection District south of Oroville, all of which have stand-alone fire departments. The proposed roadway would be within Butte County Fire Department jurisdiction.

The Butte County Sheriff and the California Highway Patrol provide law enforcement in Butte County. Each agency has jurisdiction over the entire county.

Impact Discussion/Analysis

a.-f. The proposed road extension has no projected impacts on governmental facilities or public services. By providing a new connection to Midway Avenue from SR 99, the road extension will assist in local service provision of fire and police protection. The proposed project may create minor disruptions to traffic at the intersection of Speedway Avenue and Midway Avenue during construction and where Entler Avenue turns parallel to SR 99. However, the construction would not impede services from fire or police protection. Schools, parks and other public services would not be affected. Therefore there would be **no impact**.

Mitigation Measures

None required

Conclusions Relating to Public Services: The project will have **no impact** on public services and therefore no mitigation measures are recommended.

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4.14 RECREATION

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
a. 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. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				*	

Environmental Setting

Butte County offers many recreational opportunities for both citizens and tourists. People are attracted to the county for its beauty, hunting and fishing, warm dry climate, open spaces, hiking, biking, and water recreation. Lake Oroville and Bidwell Park are popular destination for residents and tourists alike. The many park types include state and federal recreational facilities, county districts or regional parks, neighborhood and community parks, and bike trails. No parks are located near the project area, but the proposed project would include space for a bike lane.

Impact Discussion/Analysis

a.-b. The proposed Speedway Avenue Extension Project would not increase the use of existing parks or other recreational facilities nor would the project create the need for any new parks or recreational facilities. The proposed project would have **no impact**.

Mitigation Measures:

None required

Conclusions Relating to Recreation: The project will have **no impact** on recreation and therefore no mitigation measures are recommended.

4.15 TRANSPORTATION/TRAFFIC

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
a. Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			*		
b. Exceed, either individually or cumulatively, a level of service standard 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 results 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?				*	
f. Result in inadequate parking capacity?				*	
g. Conflict with accepted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				*	

Environmental Setting

The proposed Speedway Avenue extension consists of the following new roadway connections as displayed in **Figures 3-3a** and **3-3b**:

1. A new frontage road extension from the Entler Avenue curve adjacent to SR 99, north and parallel with SR 99, for approximately 1,000 feet to an intersection with eastern extension of Speedway Avenue described below;

4.0 ENVIRONMENTAL IMPACTS

2. The eastern extension of Speedway Avenue from its current terminus to the new frontage road extension described above;
3. The elimination of the Entler Avenue curve and the construction of a new T-intersection along the new frontage road extension;
4. Curve in the roadway to ensure continued access to the Smuckers Quality Beverages loading dock; and
5. Signage's to ensure motorists are aware of the truck traffic using Speedway Avenue for the Smuckers Quality Beverages facility.

These roadway improvements are considered the proposed project and were recommended in 1999 as part of the *State Route 99/Southgate Avenue Interchange and Circulation Study*, prepared by Fehr & Peers Associates for the Butte County Association of Governments, October 1999. For this project, Fehr & Peers prepared the *The Speedway Avenue Extension in Butte County* for Pacific Municipal Consultants, which is included in **Appendix G**. The project was recommended to reduce cut-through traffic on Entler Avenue and to serve the planned commercial and residential development in the area. The 1999 study was performed under the guidance of a committee consisting of local residents, business owners, and government officials. Three public meetings were held during the study to obtain public input and to review the study findings. The *Speedway Avenue Extension in Butte County* study was prepared to determine the traffic volumes and levels of service at key roads and intersections in the study area, both with and without the proposed project.

Impact Discussion/Analysis

- a. The proposed project purposed is to reduce cut-through traffic on Entler Avenue. The proposed project would redirect traffic and would create a new source of traffic on the street system in this region of Butte County and the City of Chico. The base year BCAG traffic model was used to estimate the redistribution of existing traffic volumes as a consequence of the proposed project. **Figure 4.15-1** and **2** shows the changes in traffic volumes that would occur with the project in 2002 conditions. Daily traffic volumes on Entler Avenue would reduce from 1,000 to 500. Daily volumes on Speedway Avenue would increase from 700 to 1,300. Therefore, under current conditions the project would effectively shift the 500 daily cut-through trips from Entler Avenue to Speedway Avenue. The project's effect on Midway and East Park Avenue would be minimal. There would be an acceptable Level of Service for all road segments and intersections in the study area for existing conditions and existing plus project conditions.

The BCAG traffic model was used to estimate Year 2022 traffic volumes on the key roads and intersections in the study area. The traffic model assumes increased development throughout the region and study area, which in turn will lead to increased traffic volumes.

4.15-1

4.15-2

With regard to the proposed project, there is assumed to be substantial new development in the study area. For example, the year 2022 traffic model assumes that the industrial uses west of the SR 99/Southgate intersection will develop from 300 employees currently to 2,700 employees by 2022. The traffic model also assumes that the industrial park on Hegan Lane will increase from 200 employees currently to 1,000 employees by 2022.

Figure 4.15-3 displays the Year 2022 traffic volumes in the study area without the proposed project. As shown, the daily traffic volumes on Entler Avenue will increase from 1,000 in 2002 to 6,500 in 2022. The major portion of this increased traffic is attributable to the future development of the Southgate Avenue and Hegan Lane industrial parks.

Table 4.15-1 displays the roadway levels of service under Year 2022 conditions. As shown, two roads are expected to deteriorate to LOS F conditions by 2022. These are East Park Avenue between SR 99 and Midway, and Midway between East Park Avenue and Hegan Lane.

Roadway	From	To	Lanes	Capacity	Daily Volume	Volume to Capacity	LOS
East Park Ave.	SR 99	Midway	4	32,400	32,300	1.00	E/F
Midway	Meyers St.	East Park Ave.	4	32,400	26,200	0.81	D
Midway	East Park Ave.	Hegan Lane	2	18,000	21,700	1.21	F
Midway	Hegan Lane	Speedway Ave.	2	18,000	15,100	0.84	D
Midway	Speedway Ave.	Entler Ave.	2	18,000	14,000	0.78	C
Midway	Entler Ave.	Oroville-Chico Hwy	2	18,000	9,500	0.53	A
Speedway Ave.	Midway	Terminus	2	12,000	1,600	0.13	A
Entler Ave.	Midway	Southgate Ave.	2	N/A	6,500	N/A	N/A
Southgate Ave.	SR 99	Frontage Road	2	18,000	15,900	0.88	D

N/A – Entler Avenue east of Midway is considered a residential street. The County does not have daily volume and level of service thresholds for residential streets.

Table 4.15-2 presents the intersection levels of service in 2022. As shown, LOS F conditions are anticipated at the intersections along East Park Avenue, at the Midway/Hegan intersection, at the Entler/Southgate intersection, and at the SR 99/Southgate intersection. Chapter VI discusses potential mitigation measures to alleviate congestion at these locations.

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**TABLE 4.15-2
INTERSECTION LEVELS OF SERVICE
YEAR 2022 CONDITIONS (WITHOUT THE PROJECT)**

Intersection	Control Type	Level of Service	
		AM Peak Hour	PM Peak Hour
East Park Ave./SR 99 NB off-ramp	Traffic Signal	F	F
East Park Ave./SR 99 SB on-ramp	Side-Street Stop	F	F
East Park Ave./Midway	Traffic Signal	F	F
Midway/Hegan Lane	Traffic Signal	C	E
Midway/Speedway Ave.	Side-Street Stop	D	C
Midway/Entler Ave.	Side-Street Stop	C	C
Entler Ave./Southgate Ave.	Side-Street Stop	F	F
SR 99/Southgate Ave.	Traffic Signal	F	F

The BCAG traffic model was used to develop Year 2022 traffic volumes within the proposed project. As shown in **Figure 4.15-4**, the project will reduce traffic volumes on Entler Avenue from 6,500 to 1,800 vehicles per day and will increase traffic on Speedway Avenue from 1,600 to 7,000 vehicles per day.

Table 4.15-3 displays the change in Year 2022 roadway levels of service as a result of the project. The project essentially results in a shift in traffic from Entler Avenue to Speedway Avenue; however, it also results in a slight reduction of traffic on East Park Avenue and a slight increase in traffic at the SR 99/Southgate intersection. The mitigation measure at the end of this section describes potential measures to alleviate congestion at the locations identified in **Tables 4.15-3** and **4.15-4**.

**TABLE 4.15-3
ROADWAY LEVELS OF SERVICE
YEAR 2022 PLUS PROJECT CONDITIONS**

Roadway	From	To	Lanes	Capacity	Daily Volume	Volume to Capacity	LOS
East Park Ave.	SR 99	Midway	4	32,400	30,100	0.93	E
Midway	Meyers St.	East Park Ave.	4	32,400	25,100	0.77	C
Midway	East Park Ave.	Hegan Lane	2	18,000	21,900	1.22	F
Midway	Hegan Lane	Speedway Ave.	2	18,000	15,300	0.85	D
Midway	Speedway Ave.	Entler Ave.	2	18,000	8,200	0.46	A
Midway	Entler Ave.	Oroville-Chico Hwy	2	18,000	9,100	0.51	A
Speedway Ave.	Midway	Frontage Road	2	12,000	7,100	0.59	A
Entler Ave.	Midway	Frontage Road	2	N/A	1,800	N/A	N/A
Southgate Ave.	SR 99	Frontage Road	2	18,000	16,800	0.93	E
Frontage Road	Southgate Ave.	Entler Ave.	2	18,000	9,300	0.52	A

N/A – Entler Avenue east of Midway is considered a residential street. The County does not have daily volume and level of service thresholds for residential streets.

4.15-3

4.15-4

Table 4.15-4 shows that several intersections will operate at LOS E or LOS F in 2022 with the project. The locations which are anticipated to operate at unacceptable conditions in 2022 are the same with or without the project with one exception: the intersections at Midway/Speedway Avenue is expected to operate at LOS F. Project mitigation to improve this condition is discussed in the following section.

Intersection	Control Type	Level of Service	
		AM Peak Hour	PM Peak Hour
East Park Ave/SR 99 NB off-ramp	Traffic Signal	F	F
East Park Ave/SR 99 SB on-ramp	Side-Street Stop	F	F
East Park Ave./Midway	Traffic Signal	F	F
Midway/Hegan Lane	Traffic Signal	C	E
Midway/Speedway Ave.	Side-Street Stop	F	F
Midway/Entler Ave.	Side-Street Stop	B	B
Entler Ave./Southgate Ave.	Side-Street Stop	F	F
SR 99/Southgate Ave.	Traffic Signal	F	F
Entler Ave./Frontage Road	Side-Street Stop	C	C

As the previous section discussed, several roads and intersections in the study area will operate at LOS E or F conditions in year 2022 should substantial new development near Southgate Avenue and Hegan Lane occur. The new development coupled with increased congestion along East Park Avenue will make Speedway Avenue a desirable route for many motorists.

Fortunately, there are other potential roadway improvements that could reduce traffic volumes on Speedway Avenue and alleviate some of the anticipated congestion in the study area. Four specific improvements, which can be constructed, are:

- The extension of the frontage road northward to Fair Street
- The shift of the frontage road to 500 feet west of SR 99 to provide acceptable intersection spacing along Southgate Avenue
- The extension of Southgate Avenue westward to Midway
- The construction of a new interchange at SR 99/Southgate Avenue. A new interchange may be difficult to fund; therefore, it is conceivable that interim improvements could be made at SR 99/Southgate Avenue to widen the intersection and provide more capacity.

Figure 4.15-5 shows the year 2022 daily traffic volumes that would occur if the improvements described above were constructed. The frontage road extension would serve 2,900 vehicles per day, while the Southgate Avenue extension would serve 7,900 vehicles per day. Daily traffic volumes on Speedway Avenue would reduce from 7,100 to 3,100 due to construction of the other improvements.

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The improvements described above will result in acceptable levels of service at all locations in the study area except East Park Avenue from Midway to SR 99 and Midway from East Park Avenue to Hegan Lane. Although widening East Park Avenue is possible, it is not considered feasible given the impact on adjacent businesses and its high cost. Regarding Midway Avenue from East Park Avenue to Midway Avenue, a potential mitigation measure is a new roadway north of Hegan Lane, which provides more direct access from the industrial park to East Park Avenue. The construction of this new road would effectively result in acceptable traffic conditions on Midway. The proposed project impact to the intersection of Midway/Speedway Avenue would be considered **potentially significant** unless mitigation is incorporated.

- b. Studied as part of a larger geographic area, the Speedway Avenue Extension is intended to provide better connectivity to accommodate growth within the area. The 2022-projected traffic (**Figures 4.15-3 and 4**) illustrate that the project will not reduce the level of service on any roadway, but may have limited benefit to intersections and areas of the network that will perform at below LOS D.

The *State Route 99/Southgate Avenue Interchange and Circulation Study* and the *Speedway Avenue Traffic Report* identifies projects that would mitigate the existing traffic congestion in the area and provide acceptable Levels of Service through 2022. Through these traffic studies, Study Advisory Committee and public participation, Butte County and Butte County Association of Governments (BCAG) recommended the following independent projects: Speedway Avenue Extension Project, a new interchange at Southgate Avenue/SR 99 prior to 2022 and the Entler Avenue Resurfacing and Traffic Calming Project. The existing Southgate Avenue would also need to be extended to Midway Avenue when traffic volumes on the frontage road reach 10,000 vehicles per day. This impact is considered **less than significant**.

- c. The project is near two private airports, one is operating (Hog Ranch Air Strip) and the other is closed (Peterson Private Air Strip). The proposed project would not cause any change in air traffic pattern or elevate risk to the public and will therefore have **no impact** on airport activity.

As discussed in the project description, the proposed roadway has the potential to impact existing operations at the Smuckers facility. The current operations of the facility allow for large trucks to back across the roadway and access the loading dock. This is common for agribusiness uses in rural areas. The proposed roadway will be moved approximately 50 feet south to accommodate truck movement. Trucks would be able to enter and exit the loading docks without encroaching onto Speedway (Refer to **Figure 3-8**). The curve in the road could create a safety hazard, especially in foggy and stormy conditions. An approach to avoiding this conflict would be to include safety striping and signage for the upcoming curve. The roadway would be designed to County standards with the proper signage. As shown in **Figure 3-3a** and **3-3b**, the proposed project will result in a new connection between Midway Avenue and Entler Avenue. This connection will allow for better connectivity and will be designed to County standards for sight-

4.15-5

distance, and vertical and horizontal curves. Since this is a new road, with relatively flat topography, there would be a **less than significant** impact to safety due to design.

- d. By eliminating a cul-de-sac and providing for additional access, this project will improve emergency access and evacuation. The project has **no impact** on emergency access and may have a beneficial impact.
- e. No parking is provided along the roadway because it is developed to rural standards. The project will not generate a demand for parking except temporarily during construction. There is **no impact** on parking as a result of this project.
- f. There is an existing Class I bike path included in both the Butte County Bike Plan and the City of Chico Bike Plan which runs parallel and adjacent to Midway Road which crosses over Speedway Avenue at the intersection of Speedway Avenue and Midway. There are existing traffic control devices (stop signs) on the bike path to stop bicycle traffic before crossing Speedway Avenue. Although the traffic is expected to increase at this intersection, it is not expected to interfere with use of the bike path on the east side of Midway Avenue. Therefore, this impact is **less than significant**.

Mitigation Measures:

TR-12 Installation of a traffic signal at the Midway/Speedway Avenue intersection in 2022 would achieve acceptable levels (LOS A).

Timing: After construction when the LOS falls below D.

Monitoring: Butte County Department of Public Works

The above mitigation measure would reduce impact **a. to less than significant**.

Conclusions Relating to Transportation/Traffic: The proposed project was studied and recommended in the *SR 99/Southgate Avenue Interchange and Circulation Study*. The project is part of a long-term series of traffic improvements including the Southgate Avenue/SR 99 Interchange project, and Southgate Extension project. Although these improvements were recommended in the *SR 99/Southgate Avenue Interchange and Circulation Study*, the traffic analysis was prepared assuming only the proposed project. As such, the results of the traffic analysis indicate that the proposed project would increase traffic on Speedway Avenue, decrease traffic on Entler Avenue, and that both roadways and intersections would remain within acceptable levels of service. As a result, the proposed project has a **less than significant** impact on transportation and traffic.

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4.16 UTILITIES AND SERVICE SYSTEMS

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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?				*	
g. Comply with federal, state, and local statutes, and regulations related to solid waste?				*	

Environmental Setting

The public utilities in the existing right of way are currently overhead with the exception of underground natural gas mains and any underground utilities (power, telephone, and cable) feeding the existing residential subdivisions along the south side of Speedway Avenue. Underground cable, fiber optic, and/or fuel oil transmission lines may also exist along the abandoned Union Pacific Railroad right of way such that they should be researched and located as part of the project development.

Impact Discussion/Analysis

The existing overhead utilities along the proposed Speedway Avenue alignment may require relocation to the inside edge of the right-of-way. This would be determined during preparation of construction drawings for the proposed project. To accommodate project construction, existing underground utilities will need to be located and existing mains, service laterals, and boxes may need to be relocated or adjusted as determined, including natural gas. Overhead power drop-lines and communication service feeds to existing structures may also need to be redirected. The County would coordinate with the appropriate utility companies prior to construction.

- a. The proposed project will not require wastewater treatment and will therefore have **no impact** on requirements by the Regional Water Quality Control Board.
- b. The proposed project will not require water or wastewater facilities and therefore there will be **no impact**.
- c. The proposed project will contribute to cumulative storm water runoff due to the addition of impervious surface. The 32-foot roadway pavement width represents a small portion of the overall area. Flooding in the region is typically from overcharged groundwater (see **Appendix E**, Investigation of Groundwater Drainage Problems) and not from area runoff. Because the road will be elevated, the runoff is expected to sheet flow into the adjacent right-of-way swales that the county would acquire from as part of the abandon Union Pacific Railroad right-of-way. The existing right-of-way would capture the runoff from the new roadway extension and would remain on site. The proposed project would use the adjacent right-of-way and the impacts would be considered **less than significant**.
- d. Except for dust control during construction, the proposed project will not require water and will therefore have **no impact** on water supplies.
- e. See a. above.
- f. The proposed project will not generate solid waste as a result of operation. It is possible that some material excavated from the project will be hauled off site, however the spoils would be considered clean fill and would have **no impact** on the landfill.
- g. See f. above.

Mitigation Measures

None required

Conclusions Relating to Utilities and Service Systems: The proposed project would have **no impact** on utilities.

4.17 MANDATORY FINDINGS OF SIGNIFICANCE (SECTION 15065)

WOULD THE PROPOSAL:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
<p>a. Have the potential to substantially 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?</p>		*			
<p>b. 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)?</p>			*		
<p>c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>			*		

Discussion of Mandatory Findings of Significance

- a. The project Area of Potential Impact (API) includes a number of Elderberry bushes, which is protected habitat of the Valley Elderberry Longhorn Beetle. Mitigation Measures included in Section 4.4, Biological Resources require that the bushes be mapped once a precise alignment for the roadway is determined. The proposed project would not have direct impacts to the Elderberry bushes. The U.S. Fish and Wildlife Service have established methods for the avoidance or relocation of this critical habitat. Most likely, relocation would not be required. It is anticipated that the construction of the proposed project would encroach upon the 100-foot buffer and this would require consultation with U.S. Fish and Wildlife Service through Section 10 of the Federal Endangered Species Act. As protective measures all bushes with the 100 foot buffer would be fenced during the course of construction

4.0 ENVIRONMENTAL IMPACTS

and clean up to prevent disturbance. This would be a **potentially significant** impact unless mitigation is incorporated.

- b. Cumulative impacts from the project will help distribute traffic throughout the region and will reduce localized traffic impacts. The proposed project will not increase the cumulative traffic in the area overall but will increase the traffic on Speedway Avenue. Based on the traffic study, the current daily traffic on Speedway Avenue would increase from 700 to 1,300 trips per day in 2002 (Refer to **Figures 4.15-1** and **4.15-2**). The proposed extension project would increase traffic volumes on Speedway from 1,600 trips per day to 7,100 cars per day by the year 2022 (Refer to **Figures 4.15-3** and **4.15-4**). The extension will lower traffic on Entler Avenue from 1,000 to 500 currently (2002) and by 6,500 to 1,800 trips per day by the year 2022. The increase in area traffic is based on buildout of the area by 2022 and remains at LOS A on Speedway Avenue, but the intersection of Speedway/Midway Avenue would be reduce to LOS F. Mitigation in the Traffic Section would result in restoring the intersection to LOS A. The County has established LOS D as the minimum acceptable threshold for development. The intersections analyzed in the Traffic Report (**Appendix G, Tables 6** and **8**) would operate at an acceptable LOS with and without the proposed project using the 2002 traffic volumes. The LOS in 2022 would be considered unacceptable at most of the intersections analyzed in the Traffic Report, but available in the Traffic Section (**Tables 4.15-2** and **4**). The proposed project does reduce the LOS F in the intersection at Speedway/Midway and mitigation identified in the Traffic Section would reduce the impact to **less than significant**. Constructing the new Southgate Interchange and the Southgate Extension could also alleviate the poor intersection LOS. The purpose of the proposed project is to alleviate cut-through traffic on Entler Avenue and accommodate planned commercial and residential development in the area. The proposed project would not increase trips or congestion. Instead the proposed project would reduce traffic on Entler by providing another way to access Midway Road. This impact is considered **less than significant with mitigation**.
- c. The initial study does not identify any environmental effects that could cause a hazard to human beings. Mitigation included in the initial study is intended to reduce the potential for impacts during construction. This impact is considered **less than significant**.

Mitigation Measures

The mitigation measures, as detailed in each section, would reduce all impacts to less than significant and are outlined again in Section 6.0 of the Initial Study. Mitigation measure **BR-4** in Section 4.4 would reduce the impacts to VELB to **less than significant**.

Conclusions Relating To Mandatory Findings of Significance: Elderberry bushes were identified within the projects Area of Potential Impact. Mitigation including possible consultation with USFWS would be required if the Elderberry bushes cannot be avoided per the USFWS protocol guidelines for the VELB.

The proposed project was recommended as part of the SR-99/Southgate Avenue Interchange and Circulation Study completed in 1999 and is part of regional improvements to accommodate planned growth in the area. The proposed project would not result in significant impacts with implementation of all the mitigation measures.

5.0 DETERMINATION

- 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 have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project COULD 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.

Prepared by: Rich Galvin, PMC Project Manager

Date

Reviewed by: Chris Stabenfeldt, AICP,
PMC Senior Associate

Date

6.0 SUMMARY OF MITIGATION MEASURES

Air Quality (Section 4.3)

AQ-1 Depending on weather conditions, the Butte County Department of Public Works shall incorporate some or all of the following dust control measures as needed to control fugitive dust:

- 1) All active unpaved construction areas shall be watered at least twice daily as needed to control fugitive dusts,
- 2) Soil stabilizers shall be applied to inactive construction areas, as needed,
- 3) All unpaved access roads and staging areas at construction sites shall have soil stabilizers applied or have water applied at least twice daily,
- 4) Traffic speeds on unpaved roads shall be limited to 15 mph,
- 5) Exposed stockpiles of soil and other backfill material shall be enclosed or covered, be watered twice daily, or have soil binders added,
- 6) All trucks hauling soil and other loose material shall be covered or have at least two feet of freeboard,
- 7) If visible soil material is carried onto adjacent public streets, the streets shall be swept with water sweepers, and
- 8) Dust-producing activities shall be suspended when high winds create construction-induced visible dust plumes moving beyond the project site in spite of dust control measures.

Biological Resources (Section 4.4)

BR-2 Prior to construction, should a bat species be listed by either CESA or ESA, the County will consult with the appropriate agency to determine: 1) the need for presence/absence surveys and 2) mitigation requirements.²⁶

BR-3 Disturbance of the existing riparian forest and scrub will be avoided to the greatest extent possible

Where complete avoidance is not feasible, disturbance of riparian forest will be minimized. Before construction begins, temporary orange barrier fencing will be installed by a qualified biologist around the stands of riparian forest to be retained. All construction activities will be restricted to outside the fenced-off areas. The fences will remain in place throughout the construction period and

²⁶ Galloway, Pg. 11

will periodically be inspected to ensure that they remain in place.

In those areas of riparian forest that cannot be avoided during construction activities, new plantings will be installed once construction is finished. The new plantings will be of the same native species removed during construction and will be planted at a ratio of three planted to each one lost for valley oaks ≥ 12 " dbh and associate, understory species (see Valley-foothill riparian habitat description) and five to one for *natural heritage specimens* (valley oak ≥ 24 " dbh) to ensure no net loss of habitat value and functions. Plantings will be monitored for several years to ensure survival and meet performance criteria (outlined below). If performance criteria are not met, remedial actions will be taken.

The re-vegetation plan for riparian forest will be considered successful when the following minimum success criteria are met:

- The riparian forest habitat established is composed of a mix of species resembling the same removed during construction.
- At least 75% of existing absolute cover of native riparian forest vegetation is developed at each site within 5 years
- When compared to individuals of the same species in adjacent undisturbed areas, vegetative health is deemed satisfactory based on qualitative factors such as leaf turgor, stem caliber, leaf color, and foliage density in the planted sites
- Less than 5% absolute cover on each site will be composed of weedy annual or perennial species
- Plantings at each site are self-supporting without human support (e.g. weed control, rodent control or irrigation) within 3 years.

BR-4 A pre-construction biological survey shall be conducted prior to construction in April-May 2004 to determine the presence of any nesting raptors in the project area. Should nesting raptors be observed the California Department of Fish and Game shall be consulted.

BR-5 A survey of the location of Elderberry bushes that may be disturbed by construction shall be conducted prior to any action within the right-of-way corridor. Prior to approval of construction plans, the project applicant shall consult with the U.S. Fish and Wildlife Service to determine the appropriate action for protection of the potentially affected Elderberry bushes. Appropriate actions are listed below but are not limited to:

Avoidance: Establishment and Maintenance of a Buffer Zone

Valley elderberry longhorn beetle larvae require canes of at least one-inch in diameter. Bushes impacted as a result of this project will require mitigation

consistent with the USFWS Conservation Guidelines for the Valley Elderberry Longhorn Beetle (1999). According to these guidelines, complete avoidance (i.e. no adverse effects) may be assumed when a 100-foot buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. As a protective measure, all bushes within the project area should be fenced during the course of the construction and clean-up to prevent disturbance. The USFWS Service must be contacted if encroachment within the 100 feet buffer is expected and/or if elderberry bushes are expected to be disturbed.

Protective Measures

1. Fence and flag all areas to be avoided during construction activities. In areas where encroachment on the 100-foot buffer has been approved by the USFWS, provide a minimum setback of at least 20 feet from the dripline of each elderberry plant.
2. Brief contractors on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements
3. Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected under the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines and imprisonment." The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of the construction.
4. Instruct work crews about the status of the beetle and the need to protect its elderberry host plant.

RESTORATION AND MAINTENANCE

1. Restore any damage done to the buffer area (area within 100 feet of elderberry plants) during construction. Provide erosion control and re-vegetate with appropriate native plants.
2. Buffer areas must continue to be protected after the construction from adverse effects of the project. Measures such as fencing, signs, weeding, and trash removal are usually appropriate.
3. No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant should be used in the buffer areas, or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level.

6.0 SUMMARY OF MITIGATION MEASURES

- d. The applicant must provide a written description of how the buffer areas are to be restored, protected, and maintained after construction is completed.
5. Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing should occur within five (5) feet of elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g. stripping away bark through careless use of mowing/trimming equipment).

Cultural Resources (Section 4.5)

CR-6 In the event that buried cultural resources area discovered during the course of the project grading or construction activities, operation shall immediately stop in the vicinity of the find and a qualified archaeologist who fulfills the Secretary of the Interior Standards shall be notified immediately to evaluate the find and to determine the proper procedure for dealing with the resource. Cultural resources could consist of, but are not limited to, artifacts of stone, bone, wood, shell, or other materials including hearths, structural remains or dumps.

CR-7 In the event that human remains are discovered during excavation, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

1. The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and
2. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission within 24 hours.
3. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
 - a. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or
4. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
 - a. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make

a recommendation within 24 hours after being notified by the commission.

b. The descendant identified fails to make a recommendation; or

c. The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

Geologic Processes (Section 4.6)

GP-8 As part of the grading plans for the project, the applicant shall prepare an erosion control plan that includes provisions for the following:

1. Immediate revegetation or protection of all disturbed areas from both wind and water erosion upon the completion of grading activities.
2. Use of water bars, temporary swales and culverts, mulch and jute netting, hydro seeding, silt fences, sediments and/or other measures where necessary to prevent surface water from eroding graded areas and to retain sediment.
3. Provisions for maintaining items in 2) above during storm events or on-site watering to ensure that the measures continue to be effective.
4. Water soils susceptible to wind erosion at least twice per day during construction or as directed by the Project Engineer.
5. Halting of all grading activity when wind speeds exceed 20 miles per hour or existing wind creates an obvious dust cloud.
6. Landscape or revegetation plan that will protect exposed slopes following completion of construction.

Hazards and Hazardous Materials (Section 4.7)

HM-9 If refueling of equipment and oil changing is planned on site, the contractor shall prepare a Spill Prevention, Control, and Containment Plan to establish spill prevention practices, and to prepare for spill mitigation in the event of a hazardous material spill. This plan shall be submitted to, and approved by, the Project Engineer prior to construction.

Noise (Section 4.9)

NO-10 Rubberized asphalt or equivalent noise dampening material shall be used for the roadway adjacent to the existing residential uses.

6.0 SUMMARY OF MITIGATION MEASURES

NO-11 Construction within the project area shall be limited to Monday through Friday between the hours of 7 a.m. to 6 p.m. except as approved by the Project Engineer.

Traffic (Section 4.15)

TR-12 Installation of a traffic signal at the Midway/Speedway Avenue intersection in 2022 would achieve acceptable levels (LOS A).

7.0 REFERENCES

The following studies were prepared specifically for the Speedway Avenue Extension Construction Project:

Bollard and Brennan, Inc. 2003. *Environmental Noise Analysis-Speedway Avenue Extension Project*. Prepared for Pacific Municipal Consultants. January 2003.

ENGEO Incorporated. 2003. *Phase One Environmental Site Assessment of the Speedway Avenue Extension Property*. Prepared for Pacific Municipal Consultants. January 8, 2003.

Fehr & Peers Associates. 2003. *Draft Report-Speedway Avenue Extension in Butte County*. Prepared for Pacific Municipal Consultants. January 10, 2003.

Gallaway Consulting, Inc. 2002. *Biological Resource Assessment For The Proposed Speedway Avenue Extension Project*. Prepared for Butte County Department of Public Works. May 2002.

Pacific Legacy, Inc. 2002. *Historical Resources Evaluation Report for Speedway Avenue Extension Project, Butte County, California*. Prepared for Pacific Municipal Consultants. December 2002.

Jensen & Associates. 2002. *Archaeological Inventory Survey-Speedway Avenue Extension Project, Butte County, California*. Prepared for Pacific Municipal Consultants. December 26, 2002.

Yates, Gus. 2001. *Investigation of Groundwater Drainage Problems Between Speedway Avenue and Oroville-Chico Highway Southeast of Chico, Butte County, California*. Prepared for Butte County Department of Public Works. December 2001.

Other Resources used for the Initial Study:

Benke, Jerold J., PhD. 2001. The Pond Design is a Permanent Drainage Solution for the Twin Palms Subdivision. February 13, 2001.

Butte County Assessor's Maps, Book 40, Page 04, Revised 12-28-1999, and Book 40, Page 31, Revised 2-12-2001.

Butte County General Plan. Prepared by the Butte County Planning Division, with subsequent General Plan Amendments approved by the County.

- a. Land Use Element
- b. Circulation Element
- c. Seismic Safety Element. *Liquefaction Potential Map*.
- d. Safety Element. *Expansive Soils Map. Subsidence and Landslide Potential Map. Erosion Potential Map*.
- e. Conservation Element. *Soils Map*.
- f. Noise Element
- g. Scenic Highways Element

7.0 REFERENCES

California Department of Conservation, Division of Mines and Geology. 1999. Special Publication 42, Revised 1997, Supplements 1 and 2 added 1999. Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps(digital version).

Fehr & Peers Associates. 1999. Final Report - SR-99/Southgate Avenue Interchange and Circulation Study. Prepared for Butte County Association of Governments. October 1999.

Butte County Air Quality Management District and Northern Sacramento Valley Air Basin, Indirect Source Review Guidelines. Adopted March 20, 1997, revised October 1997.

Persons consulted in preparation of Initial Study:

Jody Gallaway, Gallaway Consulting, Inc.

Jim Peplow, Butte County Association of Governments

Gail Williams, Butte County Air Quality Management District

Craig Saunders, Butte County Planning Department

8.0 AGENCIES CONSULTED:

- | | | |
|---|--|--|
| <input type="checkbox"/> Environmental Health | <input checked="" type="checkbox"/> Public Works | <input type="checkbox"/> Building Manager |
| <input checked="" type="checkbox"/> BCAG | <input type="checkbox"/> ALUC | <input type="checkbox"/> LAFCo |
| <input checked="" type="checkbox"/> Air Quality Management | <input checked="" type="checkbox"/> City of Chico | <input type="checkbox"/> City of Biggs |
| <input type="checkbox"/> City of Gridley | <input type="checkbox"/> City of Oroville | <input type="checkbox"/> Town of Paradise |
| <input type="checkbox"/> CA Department of Forestry | <input checked="" type="checkbox"/> Caltrans (Traffic) | <input checked="" type="checkbox"/> Central Reg. Water Quality |
| <input checked="" type="checkbox"/> Department of Conservation | <input checked="" type="checkbox"/> Dept. of Fish and Game | <input type="checkbox"/> Highway Patrol |
| <input type="checkbox"/> Army Corps of Engineers | <input type="checkbox"/> National Marine Fisheries Service | <input checked="" type="checkbox"/> US Fish & Wildlife Service |
| <input checked="" type="checkbox"/> State Water Resources Control Board | | |

8.0 AGENCIES CONSULTED

9.0 PROJECT APPLICANT AGREEMENT TO INCORPORATE MITIGATION MEASURES INTO PROJECT

I/We have reviewed the Initial Study for the (Speedway Avenue Extension Construction project, APNs #40-030-055, 40-640-010) application and particularly the mitigation measures identified herein. I/We hereby modify the application on file with the Butte County Planning Department to include and incorporate all mitigations set forth in this Initial Study.

Yvonne Christopher, Planning Director

Date

Mike Crump, P. E., Public Works Director

Date