Arcade-Cripple Creek Trail **NTM**

(Sylvan Road to Stock Ranch) Extension Project



Noise Technical Memorandum

Arcade-Cripple Creek Trail (Sylvan to Stock Ranch) Extension Project

City of Citrus Heights, Sacramento County, California

District 3–SAC

CRP 5475 (053)

March 2026

STATE OF CALIFORNIA

Caltrans

CALIFORNIA DEPARTMENT OF TRANSPORTATION

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Statement of Compliance: Produced in compliance with National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) requirements, as appropriate, to meet the level of analysis and documentation that has been determined necessary for this project.

INTRODUCTION

This memorandum discusses temporary (including short-term and intermittent) construction-related noise impacts from implementation of the Arcade-Cripple Creek Trail (Sylvan to Stock Ranch) Extension Project in the City of Citrus Heights, Sacramento County, California.

PROJECT DESCRIPTION

The City of Citrus Heights (City) proposes to construct a 0.5-mile addition to the planned 16-mile Creek Corridor Trail Project (CCTP) as part of the Arcade-Cripple Creek Trail (Sylvan to Stock Ranch) Extension Project (Project) (**Appendix A. Figure 1. Project Vicinity; Figure 2. Project Location)**. The Project is funded through the federal Carbon Reduction Program and therefore requires compliance with both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). The lead agency for CEQA compliance is the City of Citrus Heights and the federal lead agency for NEPA compliance is the California Department of Transportation (Caltrans).

The Project is located in the City of Citrus Heights and will extend east from the existing Stock Ranch Trail behind the Costco/Walmart shopping center, also known as the Stock Ranch Retail Center, to Sylvan Road. The proposed alignment begins south of the Walmart property boundary and proceeds east through the Stock Ranch Nature Preserve, curving south around Walmart's water quality detention basin. The alignment continues north, crossing a tributary of Arcade Creek and passes south of the Huntington Square Apartments connecting to Sylvan Road. The alignment terminates east of Sylvan Road at the location of a planned future trail extension segment from Sylvan Road to Mariposa Avenue. The Project has independent utility and would function as a stand-alone improvement.

Proposed facilities include a paved trail, a new prefabricated bridge across the unnamed creek tributary, solar lighting, bank protection along a segment of Arcade Creek, and an at-grade signalized crossing at Sylvan Road (**Appendix A. Figure 3. Project Features**). Construction activities will involve grading to achieve ADA-compliant slopes, installing the creek crossing, paving the trail, erecting the solar lighting, constructing bank protection, and adding pedestrian signal infrastructure with minor utility adjustments as needed.

To accommodate construction, partial right-of-way (ROW) acquisitions will be required from several parcels. These include a permanent easement and permit to enter (PTE) from the Sunrise Recreation & Park District and a temporary construction easement (TCE) from Walmart. An existing rail easement exists across the Hunting Square Apartments property and there is potential for permanent easement to be modified to best incorporate the trail alignment with the physical site features.

Construction access will be provided primarily through Walmart parking lot under a TCE, as well as PTE for access from the Hunting Square Apartments parcel. These provisions will allow safe and efficient construction of the rail and its associated improvements.

Construction is anticipated to start in 2027 and last approximately 6 months.

PROJECT PURPOSE

The purpose of this Project is to construct one of the several planned segments of the CCTP by replacing dirt and narrow concrete paths with an ADA-compliant Class I multi-use trail.

PROJECT NEED

This trail extension is needed to enhance pedestrian and bicycle connectivity, provide a safe recreational facility, and improve access through the Arcade Creek greenbelt.

NO-BUILD ALTERNATIVE

The No-Build Alternative would result in no paved trail extension from Sylvan Road to Stock Ranch, leaving a remaining gap in the Arcade-Cripple Creek trail system, and users would continue to traverse through dirt and narrow concrete paths that are not ADA-compliant.

NOISE SETTING

In accordance with the Caltrans Environmental Handbook guidelines, noise is defined as unwanted sound. Sound levels usually are measured and expressed in decibels (dB), with 0 dB being the threshold of hearing. Decibel levels range from 0 to 140: 50 dB for light traffic is considered a low decibel level, whereas 120 dB for a jet takeoff at 200 feet (ft.) is considered a high decibel level.

Under the Caltrans Traffic Noise Analysis Protocol 2020, projects other than Type 1 require an evaluation of predicted construction noise. The Project is not a Type 1 project as defined in 23 CFR 772.5(h); “construction of a highway on new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes.” A Type II project is a noise barrier retrofit project that involves no changes to highway capacity or alignment. A Type III project is a project that does not meet the classifications of a Type I or Type II project. Type III projects do not require noise analysis. The proposed Project falls within the category of a Type III project as it would include constructing a segment of a paved trail, a creek crossing structure, and a signalized crossing, which would not be anticipated to change any roadway horizontal or vertical alignment, nor increase the number of traffic lanes. Therefore, new substantial noise would not be generated, and only construction-related noise impacts are discussed.

There are existing sensitive receivers within the vicinity of the proposed construction activity, including existing residences north, south, and east of the existing trail.

Noise sources that contribute to ambient noise levels in and adjacent to the Project site include operational and traffic noise associated with the Walmart and Costco to the west of the existing trail. Table 1 summarizes typical ambient noise levels based on population density.

Table 1. Population Density and Associated Ambient Noise Levels

Population Density	dBA, Ldn
Rural Suburban	40–50
Quiet suburban residential or small town	45–50
Normal suburban residential urban	50–55
Normal urban residential	60
Noisy urban residential	65
Very noisy urban residential	70
Downtown, major metropolis	75–80
Under flight path at major airport, 0.5 to 1 mile from runway	78–85
Adjoining freeway or near a major airport	80–90

Sources: Cowan 1984; Hoover and Keith 1996

The vicinity of the Project area is most similar to that of a "normal suburban residential urban" setting due the Project's surrounding uses of residential neighborhoods and local streets. Such areas have an expected typical noise level of 50–55 dBA.

LOCAL REQUIREMENTS

The City of Citrus Heights Noise Ordinance (Citrus Heights Municipal Code, Chapter 34, Article III) contains performance standards for the purpose of prohibiting unnecessary, excessive, annoying sounds that, at certain levels and frequencies, are detrimental to the health and welfare of the City's residents.

The exterior noise standards applicable to the proposed Project for Noise Area 1, which covers the SPA, RD-5, and RD-20 land use zones abutting the proposed Project (**Appendix A. Figure 4. Noise Area 1 Zones**), are for exterior noise limits of 55 dBA between 7:00 a.m. to 10 p.m. and 50 dBA between 10:00 p.m. to 7:00 a.m.

The Noise Ordinance provides exemptions from the above standards for outdoor school events; outdoor gatherings conducted pursuant to a City permit; activities in parks, playgrounds and school grounds; machinery used in connection with emergency activities; daytime construction noise; daytime agricultural noise; agricultural noise to salvage crops or perform pest control; daytime residential property maintenance; and airport operations and maintenance.

Specifically, the following exemption is provided for daytime construction noise.

"Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided the activities do not take place between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday, Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday, and on each Sunday after the hour of

8:00 p.m. However, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 8:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner."

Environmental Consequences

Generally, noise levels at construction sites can vary from 55 dBA to a maximum of nearly 90 dBA when heavy equipment is used. During construction-related activities of the Project, noise from construction-related activities may intermittently (that is, short-term and temporarily) dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans Standard Specifications for noise control which state that noise levels should not exceed 86 dBA Lmax at 50 feet from job site from 9:00 p.m. to 6:00 a.m.

Construction activities would include cranes, earth movers, dump trucks, concrete mixers, generators, pavers, and possibly jackhammers or pile driving. Noise levels would vary depending on the type, duration, and occurrence of construction-related activity. The loudest construction-related activities may include engine noise from pile driving, jack hammering, and construction vehicles. For this Project, the lowest construction equipment-related noise levels would be 55 dBA at a distance of 50 feet for sound from a pick-up truck. The highest construction-related noise levels would be for pile driving (up to 90 dBA at a distance of 50 feet) involved in installation of the bridge supports for the creek overcrossing structure and for jackhammering (90 dBA at a distance of 50 feet) involved in removing the existing concrete pathways on the apartment complex property.

The nearest distance between nearby residences to bridge supports where pile driving would occur is approximately 300 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance. At a distance of 300 feet, noise from pile driving would attenuate to approximately 74 dBA.

Construction-related noise would be short-term, temporary, and intermittent. Construction is expected to be completed within a 6-month time period, with pile-driving anticipated to occur over a two-day period within the 6 months. No additional construction-related noise control minimization measures are necessary.

Due to the temporarily increased noise levels during construction, minimal adverse noise impacts from construction-related activities are anticipated. Construction would be conducted in accordance with Caltrans Standard Specifications for noise control and in accordance with the Chapter 6.32.100(E) of the City of Citrus Heights Municipal Code:

NOI-1:To minimize the construction-generated noise, the contractor shall follow the Caltrans Standard Specifications for noise control and Chapter 34, Article III, Sec. 34-88(5) of the City of Citrus Heights Municipal Code, which requires the following:

Control and monitor noise resulting from work activities. Only operate construction equipment or run the equipment engines between the hours of 7:00 a.m. and 8:00 p.m.

- When an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in progress be continued until a specific phase is completed, the contractor shall be allowed to continue work after 8:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor.

SUMMARY

From the above discussion, it is concluded that construction-related noise impacts caused by the Project would not be substantial because: 1) the Project is not a Type 1 project; 2) the proposed construction duration is short-term, temporary, and intermittent; and 3) construction of the Project would be conducted in accordance with Caltrans' Standard Specifications for noise control and City of Citrus Heights requirements.

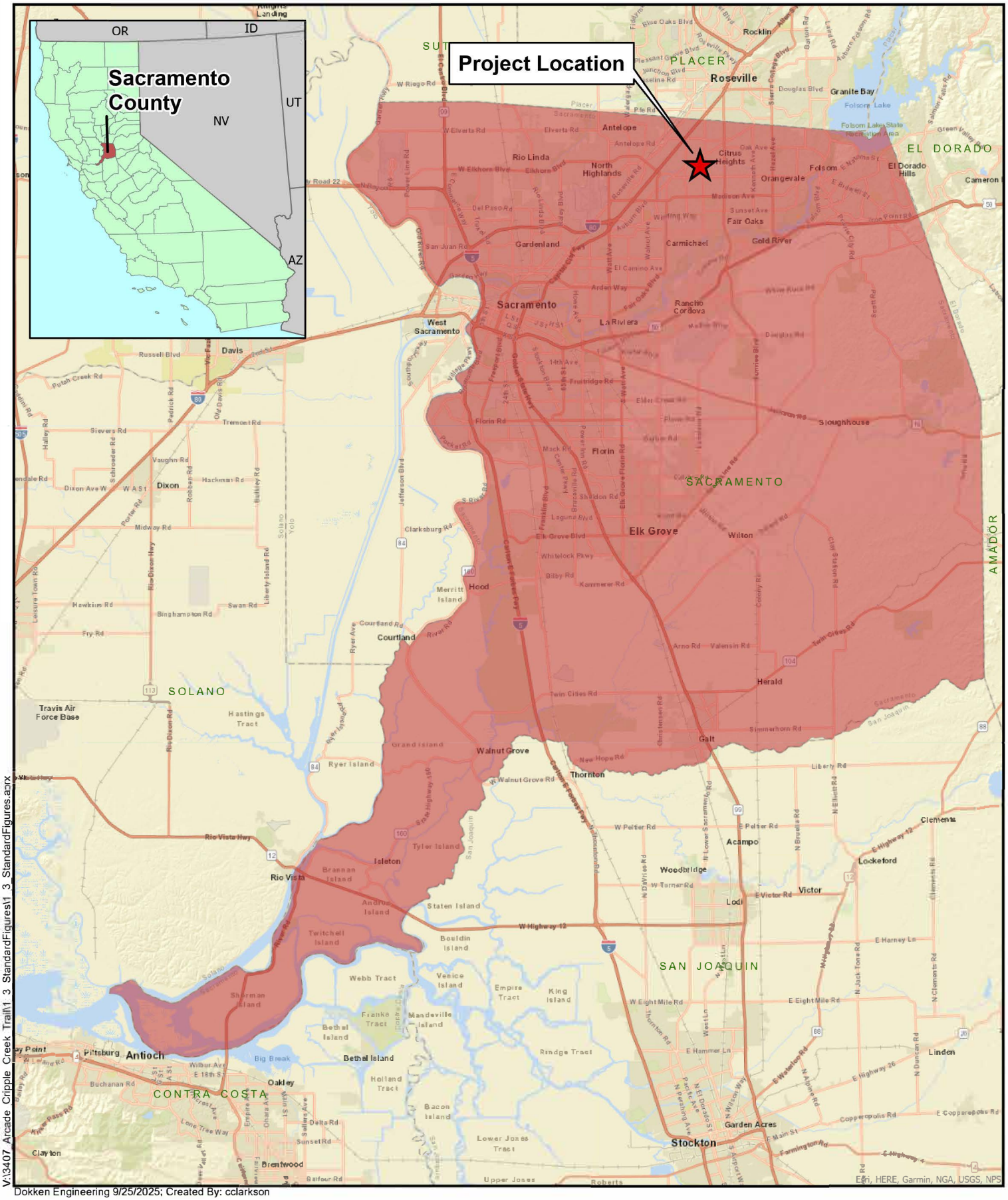
REFERENCES

California Department of Transportation: Division of Environmental Analysis. April 2020. Traffic Noise Analysis Protocol: For New Highway Construction, Reconstruction, and Retrofit Barrier Projects.

Cowan, J. P. 1984. Handbook of Environmental Acoustics. New York, NY: John Wiley & Sons.

City of Citrus Heights, California—Citrus Heights Municipal Code, Chapter 34, Article III.–NOISE CONTROL.

Appendix A. Figures



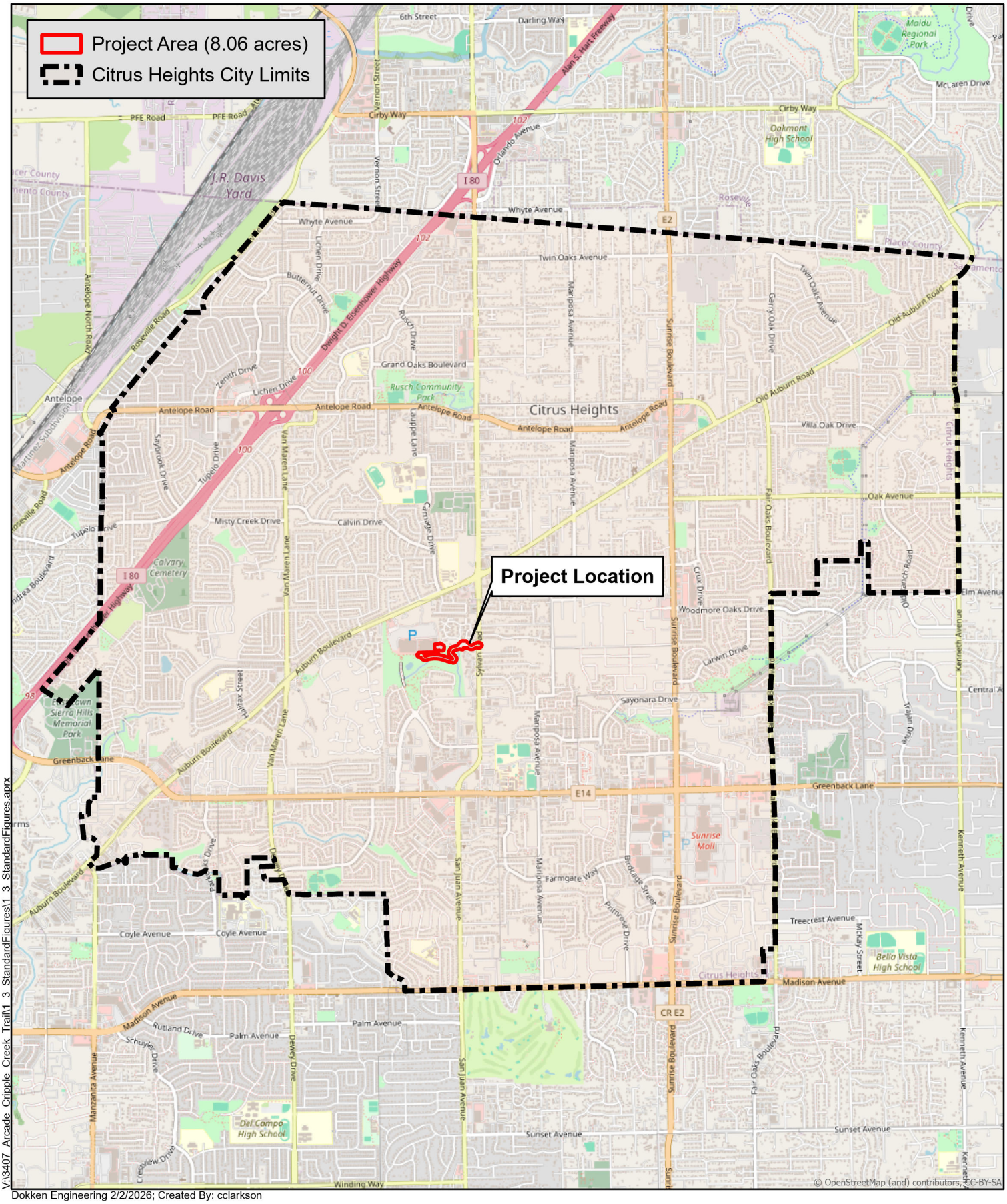
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Dokken Engineering 9/25/2025; Created By: cclarkson

0 3.5 7 Miles

Figure 1
Project Vicinity

Arcade-Cripple Creek Trail (Sylvan to Stock Ranch) Extension Project
Citrus Heights, Sacramento County, California



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Dokken Engineering 2/2/2026; Created By: cclarkson

0 1,750 3,500

Feet

Figure 2
Project Location

Arcade-Cripple Creek Trail (Sylvan to Stock Ranch) Extension Project
Citrus Heights, Sacramento County, California

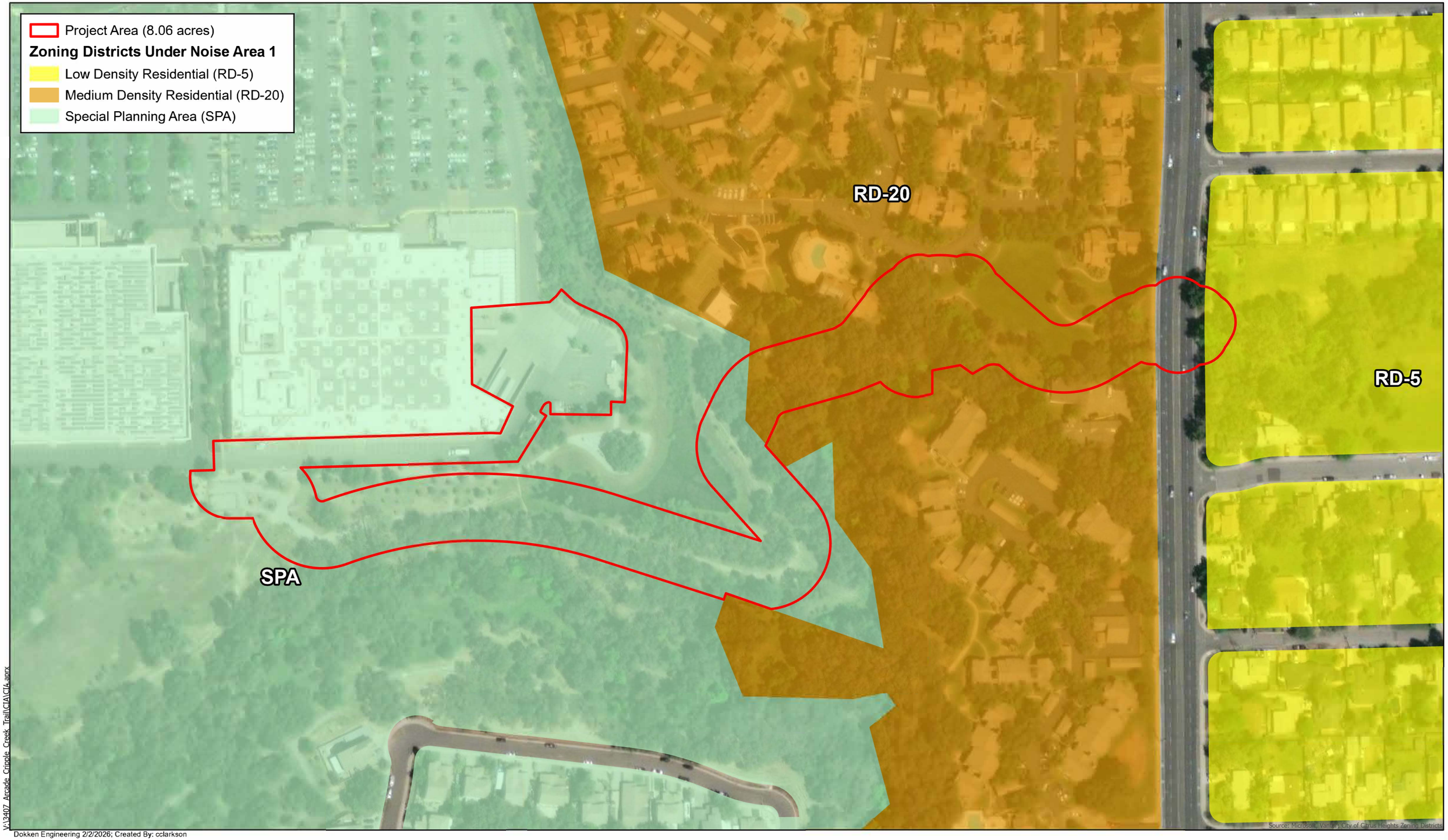


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Source: Dokken Engineering 2/4/2026; Created By: kjacobson

0 75 150 Feet

Figure 3
Project Features
Arcade-Cripple Creek Trail (Sylvan to Stock Ranch) Extension Project
Citrus Heights, Sacramento County, California



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0 75 150 Feet

Figure 4
Zoning Districts under Noise Area 1
Arcade-Cripple Creek Trail (Sylvan to Stock Ranch) Extension Project
Citrus Heights, Sacramento County, California