

Air Quality 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)

April 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 air quality impacts and minimization measures for the Arcade-Cripple Creek Trail (Sylvan to Stock Ranch) Extension Project in the City of Citrus Heights, Sacramento County, California. This memorandum identifies the proposed Project as exempt from conformity requirements pursuant to 40 CFR 93.126, Table 2 “Bicycle and pedestrian facilities”. The Project will construct a 0.5-mile segment extension of an existing bicycle/pedestrian trail and will not result in any changes to the local roadway. As such, the proposed Project is not anticipated to have a long-term impact on air quality.

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 Location; Figure 2. Project Vicinity**). 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 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 will 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 permanent easement and permit to enter (PTE) from the Sunrise Recreation & Park District and a temporary construction easement (TCE) from Walmart. An existing trail easement exists across the Huntington 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 the Walmart parking lot under a TCE, as well as a PTE for access from the Huntington Square Apartments parcel. These provisions will allow safe and efficient construction of the trail and its associated improvements.

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

AFFECTED ENVIRONMENT

The Project is located in Citrus Heights, which falls within the Sacramento Valley Air Basin (SVAB). Air quality regulation in SVAB is administered by the Sacramento Metropolitan Air Quality Management District (SMAQMD). Table 1 lists the state and federal attainment status for all regulated pollutants.

Table 1. Attainment at Project Location

Criteria Pollutant	Attainment Status	
	State	Federal
Ozone	Non-attainment	Non-attainment
PM_{10}	Non-attainment	Maintenance
$PM_{2.5}$	Attainment	Non-attainment
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified/Attainment
Lead	Attainment	Unclassified/Attainment
Visibility Reducing Particles	Unclassified	No Federal Standard
Sulfates	Attainment	No Federal Standard
Hydrogen Sulfide	Unclassified	No Federal Standard

Source: California Air Resources Board, October 2018

SMAQMD EMISSION THRESHOLDS OF SIGNIFICANCE

The SMAQMD has established mass emissions thresholds for ozone precursors and particulate matter because the Sacramento Region does not meet state and federal ozone ambient air quality standards. The thresholds are listed in Table 2 below. Emissions of ozone precursors or particulate matter from an individual project could contribute to the cumulative non-attainment problem. A “considerable” or “substantial” contribution means one that exceeds the mass emission threshold levels.

Table 2. SMAQMD Thresholds of Significance

Pollutant	**Construction Threshold Lbs/day**	**Operational Threshold Lbs/day**
ROG	None	65
NO_x	85	65
PM_{10}	80[1]	80[1]
$PM_{2.5}$	82[1]	82[1]
Pollutant	**Construction Threshold Metric Tons/year**	
CO_2	1,100	
[1] assumes all feasible BACT/BMPs are applied		

TEMPORARY/CONSTRUCTION IMPACTS

During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment also are anticipated and will include carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOCs), directly emitted particulate matter (PM_{10} and $PM_{2.5}$), and toxic air contaminants such as diesel exhaust particulate matter. Ozone is a regional pollutant that is derived from NOx and VOCs in the presence of sunlight and heat.

Heavy trucks and construction equipment powered by gasoline and diesel engines will generate CO, SO_2, NOx, VOCs and some soot particulate (PM_{10} and $PM_{2.5}$) in exhaust emissions. If construction activities were to increase traffic

congestion in the Project vicinity, CO and other emissions from traffic will increase slightly while those vehicles are delayed. These emissions will be temporary and limited to the immediate area surrounding the Project area.

Dust generated will result in a temporary, local impact, limited to areas of construction. Dust control practices will be incorporated into the Project to mitigate this potential impact. The dust control practices will comply with the current Caltrans' Standard Specifications.

Construction emissions were estimated using the Caltrans 2021 Construction Emissions Tool (CAL-CET v1.0.2). Construction-related emissions for the proposed Project are presented in Table 3. The emissions presented are based on the best information available at the time of calculations. The emissions represent the peak daily construction emissions that will be generated by construction of the proposed Project.

Table 3. Construction Emissions

	ROG (lbs/day)	**PM_{10}** (lbs/day)	**$PM_{2.5}$** (lbs/day)	**CO** (lbs/day)	**NO_x** (lbs/day)	**CO_2** (Metric Tons/Year)
Land Clearing/Grubbing	1.013	5.865	6.194	5.865	6.194	5
Roadway Excavation & Removal	1.950	13.001	13.226	13.001	13.226	34
Structural Excavation & Removal	0.456	1.388	2.421	1.388	2.421	1
Base/Subbase/ Imported Borrow	2.779	20.441	19.128	20.441	19.128	24
Structure Concrete	0.683	2.146	3.364	2.146	3.364	8
Paving	2.039	6.400	15.345	6.400	15.345	16
Drainage/Environment /Landscaping	2.823	8.359	17.997	8.359	17.997	62
Traffic Signalization/Signage/ Striping/Painting	1.348	6.568	10.204	6.568	10.204	49
Maximum daily (lbs/day)	2.823	20.441	19.128	20.441	19.128	-
Project Total (tons/construction project)	0.122	0.548	0.809	0.548	0.809	200

	ROG (lbs/day)	**PM_{10}** (lbs/day)	**$PM_{2.5}$** (lbs/day)	**CO** (lbs/day)	**NO_x** (lbs/day)	**CO_2** (Metric Tons/Year)
SMAQMD Construction Thresholds of Significance	-	Zero (0). If all feasible BACT/BMPs are applied, then 80 pounds/day and 14.6 tons/year	Zero (0). If all feasible BACT/BMPs are applied, then 82 pounds/day and 15 tons/year	-	85 lbs/day	1,100 metric tons/year

PERMANENT OPERATIONAL IMPACTS

The proposed Project is exempt from all Project-level conformity requirements because it falls under Table 2—Exempt Projects "Bicycle and pedestrian facilities" listed in 40 CFR 93.126. There will be no long-term operational air quality emissions associated with the proposed Project.

MINIMIZATION MEASURES

Construction activities will be short-term and intermittent in duration; therefore, no long-term impacts to air quality will occur. Implementation of the avoidance and minimization measures **AQ-1** and **CC-1** will reduce air quality impacts resulting from construction activities. Please note that although these measures are anticipated to reduce construction-related emissions, these reductions cannot be quantified at this time.

AQ-1: Implement Sacrameto Metropolitan Air Quality Management District (SMAQMD) Basic and Enhanced Construction Emission Control Practices to Reduce Fugitive Dust.

The implementing agency will require, as a standard or specification of their contract, the construction contractor(s) to implement basic and enhanced control measures to reduce construction-related fugitive dust. Although the following measures are outlined in the SMAQMD's California Environmental Quality Act (CEQA) guidelines, they are required for the entirety of the construction area. The implementing agency will ensure through contract provisions and specifications that the contractor adheres to the mitigation measures before and during construction and documents compliance with the adopted mitigation measures.

- Water exposed surfaces two times daily. Exposed surfaces include (but are not limited to) soil piles, graded areas, unpaved parking areas, staging areas, and access roads.

- Cover or maintain at least 2 feet of freeboard space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that will be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour.
- All trail, and curb/sidewalk paving should be completed as soon as possible.

  The following practices describe exhaust emission control from diesel powered fleets working at a construction site. California regulations limit idling from both on-road and off-road diesel-powered equipment. The California Air Resources Board (CARB) enforces idling limitations and compliance with diesel fleet regulations.

- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 3 minutes. Provide clear signate that posts this requirement for workers at the entrances to the site.
- Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, Sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html.

CC-1: The implementing agency will require through construction contract terms and specifications that the contractor adheres to the mitigation measures and implements all applicable Sacrameto Metropolitan Air Quality Management District (SMAQMD) best management practices for reducing construction-related Greenhouse Gas (GHG) emissions. Documentation will be provided to the implementing agency on a weekly basis. The contract provisions and specifications will authorize the implementing agency to sanction contractors for non-compliance. The implementing agency will consult SMAQMD prior to construction about the most current recommended construction best management practices and will adopt those practices. Practices include the following:

- Improve fuel efficiency from construction equipment:
    - Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minutes. Provide clear signage that posts this requirement for workers at the entrances to the site.

  - Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.
  - Train equipment operators in proper use of equipment, including limiting idling time, minimizing warm-up time, performing routine maintenance, and optimizing equipment use.
  - Avoid using equipment that is larger than the job requires.
  - Use equipment with new technologies (e.g., repowered engines, electric drivetrains).
- Perform on-site material hauling with trucks equipped with on-road engines (if the air districts or CARB determine them to emit less than the off-road engines).
- Use alternative fuels for generators at construction sites, rather than gasoline or diesel (e.g., propane or solar), or use electrical power.
- Use a California Air Resources Board-approved low-carbon fuel for construction equipment. (NOx emissions from the use of low-carbon fuel must be reviewed and increases mitigated.)
- Encourage and provide carpools, shuttle vans, and transit passes for construction worker commutes.
- Reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and using the most efficient heating and cooling units available.
- Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75% by weight) to avoid landfill disposal.
- Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials, and based on volume for trail, sidewalk and curb materials). Wood products utilized should be certified through a sustainable forestry program.
- Minimize the amount of concrete for paved surfaces or utilize a low carbon concrete option.
- Produce concrete on-site if determined to be less emissive than transporting ready mix.
- Use Smartway certified trucks for deliveries and equipment transport.
- Develop a plan to efficiently use water for adequate dust control.

SUMMARY

No substantially adverse air quality impacts from construction are anticipated because construction will be short-term and intermittent and conducted in accordance with Caltrans' standard specifications and County requirements.

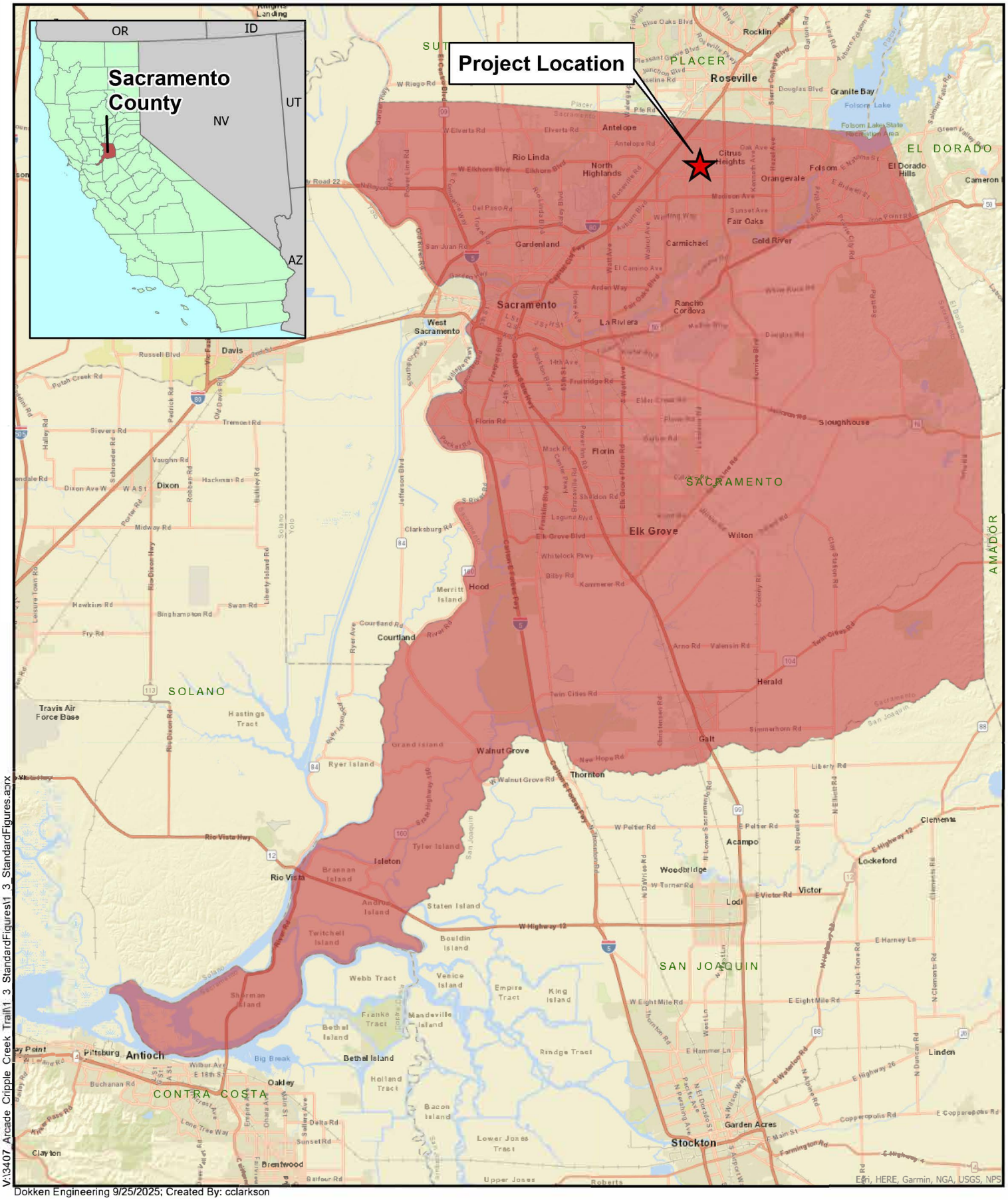
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California Air Resources Board. November 2023. Area Designations Maps/state and National, https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations. Accessed January 2026.

Sacramento Metropolitan Air Quality Management District. CEQA Guide December 2009, last revised April 2020. SMAQMD Thresholds of Significance Table, https://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable4-2020.pdf

Appendix A. Figures



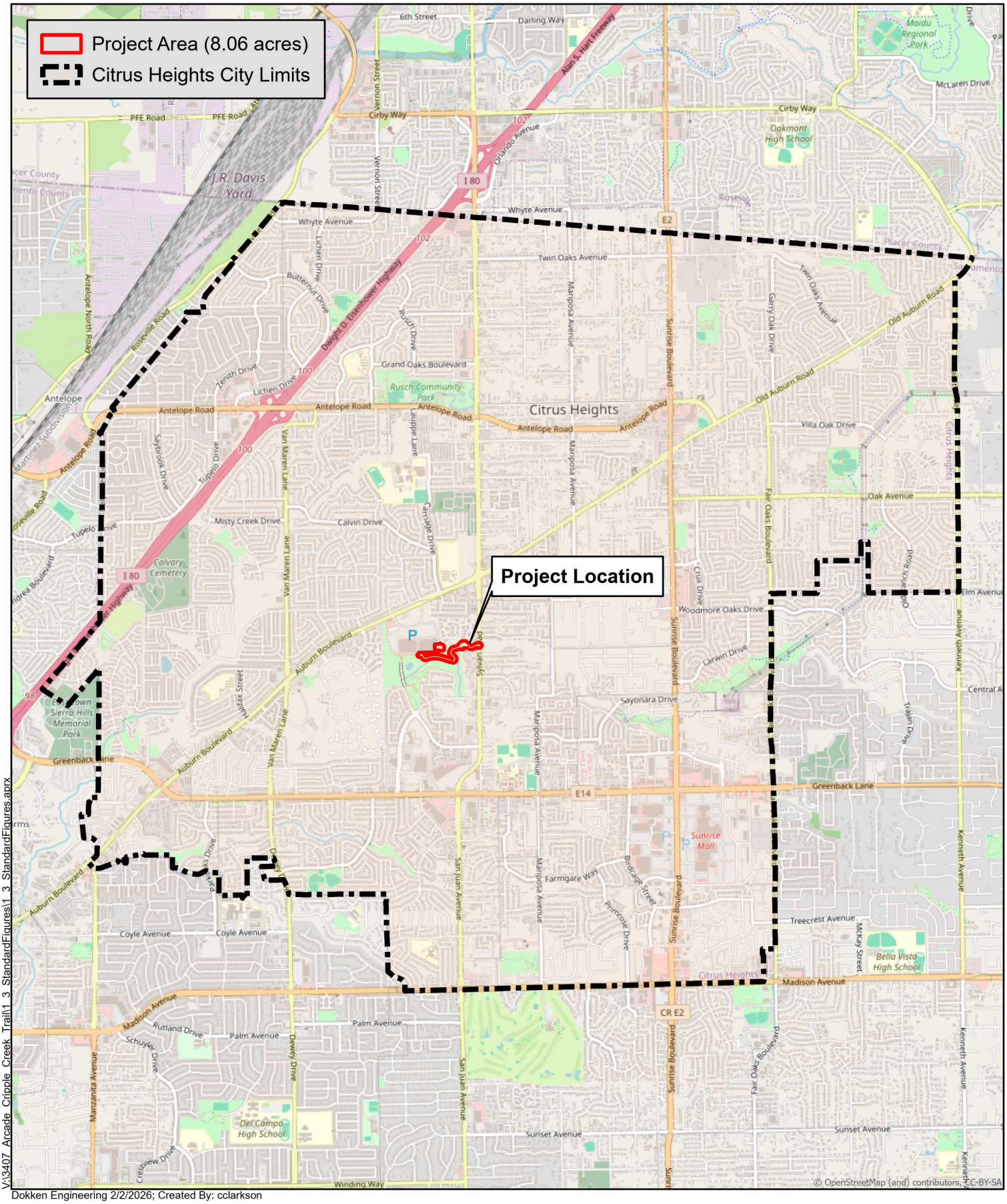
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Dokken Engineering 9/25/2025; Created By: cclarkson

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