KERN COUNTY
Planning & Natural Resources

Craig M. Murphy, Director
2700 "M" Street, Suite 100
Bakersfield, CA 93301-2323
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TTY Relay 1-800-735-2929
Email: planning@kerncounty.com
Web Address: https://kernplanning.com

DATE: April 10, 2026

TO: See Attached Mailing List

FROM: Kern County Planning and Natural Resources Department
April Wentworth, Planner II
2700 "M" Street, Suite 100
Bakersfield, CA 93301
(661) 862-5043; WentworthA@kerncounty.com

SUBJECT: Notice of Intent – Mitigated Negative Declaration (MND) for Lynn Trucking Inc. by KSI Engineering (PP25197).

The Kern County Planning and Natural Resources Department as Lead Agency (per CEQA Guidelines Section 15062) has determined that preparation of an MND (per CEQA Guidelines 15070) is necessary for the proposed project identified below. Agencies on the attached mailing list may need to use the MND prepared by the Department when considering their permit or other approvals for the proposed project.

PROJECT TITLE: Lynn Trucking Inc. by KSI Engineering; PLN23-00921; CUP No. 65, Map 100, ZV No. 40, Map 100.

DOCUMENT AVAILABILITY: The MND for the above referenced proposed project is available for public review at the Planning and Natural Resources Department, which is located at the address listed above or it can be accessed on the Kern County Planning and Natural Resources Department website at: https://kernplanning.com/planning/environmental-documents/

AGENCY/PUBLIC COMMENT: The Planning and Natural Resources Department solicits the comments of agencies, interested parties, and surrounding property owners on the environmental analysis contained in the Initial Study and proposed Mitigated Negative Declaration for the proposed project. Any comments should be submitted to the planner whose contact information is identified above prior to the close of the public review period. As mandated by State law, the MND public review period for the proposed project is 30 days.

April 10, 2026 – May 11, 2026

PUBLIC HEARING: A public hearing has been scheduled with the Kern County Planning Commission to consider approval on the proposed project and solicit comments on the adequacy and completeness of the proposed mitigation measures described in the MND. You may comment by providing testimony at the public hearing on:

DATE: **May 28, 2026**
TIME: **7:00 P.M. or soon thereafter**
LOCATION: **Chambers of the Board of Supervisors**
Kern County Administrative Center, First Floor
1115 Truxtun Avenue, Bakersfield, CA 93301

This matter would only be considered by the Kern County Board of Supervisors in the event an appeal to the decision of the Planning Commission is filed. If such an appeal is filed, after consideration by the Planning Commission, a public hearing will be scheduled for the Kern County Board of Supervisors for final consideration and action. Comments may

be provided at that hearing or prior to any action by the Board of Supervisors on any matter. The Board of Supervisors decision is final.

If you challenge the action taken on this request in court, you may be limited to raising only those issues you or someone else raised at this public hearing, or in written correspondence delivered to the Planning and Natural Resources Department at, or prior to, the public hearing.

PROJECT LOCATION: Northwest of the Interstate 5 and Stockdale Highway interchange, Section: 31, Township: 29 S, Range: 25 E. APNs: 104-270-11, -12, -13, -14, -15, -16, -17, -18, -19, -20

PROJECT DESCRIPTION: The project proposes a Conditional Use Permit for the development of a travel center and a Zone Variance for a pole sign that exceeds the allowed height and size. The proposed travel center will include a 60-room hotel, an 8,548-square-foot convenience store with a drive-through restaurant, two (2) multi-use buildings, each containing a 2,178-square-foot fast-food drive-through restaurant with an attached 5,220-square-foot retail space, a fueling station to accommodate seven (7) diesel fuel truck pumps, sixteen (16) standard vehicle fuel pumps, a truck repair facility, and a two (2) tunnel manual truck wash. The site will also include a 500-gallon propane tank, 32,000 gallons of underground gasoline storage, and 40,000 gallons of aboveground diesel storage.

Signature: April Wentworth Date: 4/10/2026

Printed Name: April Wentworth Title: Planner II

Lynn Trucking Inc. by KSI Engineering
(PP25197)
Notification List Labels

U.S. Bureau of Land Management
Caliente/Bakersfield
35126 McMurtrey Avenue
Bakersfield, CA 93308

U. S. Fish & Wildlife Service
Division of Ecological Services
2800 Cottage Way #W-2605
Sacramento, CA 95825-1846

North West Kern Resource Cons Dist.
5080 California Avenue, Suite 150
Bakersfield, CA 93309

U.S. Dept of Agriculture/NRCS
5080 California Avenue, Ste 150
Bakersfield, CA 93309-0711

So. San Joaquin Valley Arch Info Ctr
California State University of Bkfd
9001 Stockdale Highway
Bakersfield, CA 93311

Caltrans Dist. 6
Planning/Land Bank Bldg.
P.O. Box 12616
Fresno, CA 93778

State Dept of Conservation
Geologic Energy Management Division
11000 River Run Boulevard
Bakersfield, CA 93311

California Fish & Wildlife
1234 East Shaw Avenue
Fresno, CA 93710

California Regional Water Quality
Control Board/Central Valley Region
1685 E Street
Fresno, CA 93706-2020

Kern County Public Works Department
Building & Development
Floodplain

Kern County Public Works Department
Building & Development
Survey

Kern County
Env. Health Services Department

Kern County Fire Dept.
Aaron Duncan

Kern County Parks & Recreation

Kern County Sheriff's Dept
Administration

Kern County Public Works Department
Building & Development
Development Review

Kern County Public Works Department
Operations & Maintenance
Regulatory Monitoring & Reporting

Taft Union High School Dist.
701 - 7th Street
Taft, CA 93268

Kern County Superintendent of Schools
Attention School District Facility Services
1300 - 17th Street
Bakersfield, CA 93301

Local Agency Formation Comm/LAFCO
5300 Lennox Avenue, Suite 303
Bakersfield, CA 93309

Rosedale – Rio Bravo Water Dist.
849 Allen Road
Bakersfield, CA 93314

Kern County Water Agency
3200 Rio Mirada Drive
Bakersfield, CA 93308

West Side Rec & Parks Dist.
500 Cascade Place, Building C
Taft, CA 93268

San Joaquin Valley Air
Pollution Control District
1990 East Gettysburg Avenue
Fresno, CA 93726

Kern Mosquito Abatement Dist.
4705 Allen Road
Bakersfield, CA 93314

West Side Mosquito Abatement Dist.
P.O. Box 205
Taft, CA 93268

Kern High School Dist.
5801 Sundale Avenue
Bakersfield, CA 93309

Adams, Broadwell, Joseph & Cardozo
Attention: Rachel Levine
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

Center on Race, Poverty, & Environment
5901 Christie Avenue, Suit 208
Emeryville, CA 94608

Center on Race, Poverty, & Environment
CA Rural Legal Assistance Foundation
1012 Jefferson Street
Delano, CA 93215

Defenders of Wildlife
P.O. Box 401
Folsom, CA 95763

Native American Heritage
Council of Kern County
Attn: Gene Albitre
18169 Highway 155
Woody, CA 93287

Pacific Gas & Electric Co
Land Projects
650 "O" Street, First Floor
Fresno, CA 93760-0001

Sierra Club/Kern Kaweah Chapter
P.O. Box 3357
Bakersfield, CA 93385

Southern California Gas Co
35118 McMurtrey Avenue
Bakersfield, CA 93308-9477

Southern California Gas Co
Transportation Dept
P.O. Box 513249
Los Angeles, CA 90051

Verizon California, Inc.
Attn: Engineering Department
520 South China Lake Boulevard
Ridgecrest, CA 93555

David Laughing Horse Robinson
P.O. Box 20849
Bakersfield, CA 93390

Kern Valley Indian Council
Attn: Robert Robinson, Chairperson
P.O. Box 401
Weldon, CA 93283

Kern Valley Indian Council
Historic Preservation Office
P.O. Box 401
Weldon, CA 93283

Tejon Indian Tribe
Attn: Curtis Alcantar
4941 David Road
Bakersfield CA 93307

LIUNA
6800 District Boulevard
Bakersfield CA 93313

Lozeau Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94612

Elk Hills School Dist.
P.O. Box 129
Tupman, CA 93276

Rio Bravo-Greeley Union School Dist.
6521 Enos Lane
Bakersfield, CA 93314

Kern County Water Agency
3200 Rio Mirada Drive
Bakersfield, CA 93308

Vestas
Sarah Adams
1417 NW Everett
Portland, OR 97209

159 010 09 00 7
BUENA VISTA WATER STORAGE
DISTRICT
PO BOX 756
BUTTONWILLOW CA 93206

103 270 23 00 6
KOSAREFF EDWARD J &
KATHERINE
4714 DUNFORD RD
BUTTONWILLOW CA 93206-9769

159 010 08 00 4
LEE ROBERT & STEPHANIE 2006
FAMILY TRUST
876 WINSTON AV
SAN MARINO CA 91108-1429

104 270 11 00 8
LYNN TRUCKING INC
16394 BAY BROOK AV
RIVERSIDE CA 92504

104 270 19 00 2
LYNN TRUCKING INC
16934 BAY BROOK AV
RIVERSIDE CA 92504

104 270 10 00 5
ONE HERITAGE PROP LLC
8939 S SEPULVEDA BL STE 100
LOS ANGELES CA 90045

160 030 33 00 2
REDDY ASHOKA MALLADI
2 IVY BEND LN
SUGAR LAND TX 77479-4568

160 030 32 00 9
SINGH GURDIAL & KAUR BALBIR
7370 EDGEWATER ST
CHOWCHILLA CA 93610-8443

MITIGATED
NEGATIVE DECLARATION

TO WHOM IT MAY CONCERN:

Pursuant to the California Environmental Quality Act of 1970 (CEQA),* the State CEQA Guidelines,** and the Kern County Guidelines for Implementation of CEQA and State CEQA Guidelines,*** the Kern County Planning and Natural Resources Department has made an Initial Study of possible environmental impacts of the following-described project:

APPLICANT: Lynn Trucking, Inc., a Ca Corp., KSI Engineering Inc., PP25197

APPLICATION: (a) Conditional Use Permit No. 65, Map 100, (b) Zone Variance No. 40, Map 100

LOCATION: Northwest of the Stockdale Highway and Interstate 5 interchange, also being a portion of Section 31, Township 29 South, Range 25 East, County of Kern, State of California; Assessor's Parcel Numbers: 104-270-11, -12, -13, -14, -15, -16, -17, -18, -19, -20.

DESCRIPTION OF PROPOSED PROJECT: (a) A Conditional Use Permit to allow the development of a travel center in a CH PD (Commercial Highway – Precise Development Combining) District Pursuant to Section 19.12.030.A.2 of the Kern County Zoning Ordinances. The project site consists of an approximate 16.28-acres with a total of 10 parcels in the Bakersfield area. The site is zoned CH PD and is designated 6.3 by the Kern County General Plan. The project site is triangular in shape and is currently undeveloped. Surrounding properties are characterized primarily by agricultural uses.

The applicant is seeking land-use approval of a conditional use permit to allow a travel center in an CH PD District. According to the operational statement, the travel center will consist of a 60-room hotel, an 8,548-square-foot convenience store with a drive-through restaurant, two (2) multi-use buildings, each containing a 2,178-square-foot fast-food drive-through restaurant with an attached 5,220-square-foot retail space. The site will accommodate seven (7) diesel fuel truck pumps, sixteen (16) standard vehicle fuel pumps, a truck repair facility, and two (2) tunnel manual truck washes. A 500-gallon propane tank for RV use in the parking lot, 32,000 gallons of underground gasoline storage and 40,000-gallon aboveground diesel storage. The convenience store, fueling areas, coffee shop, and fast-food restaurant will be open 24 hours a day, seven (7) days a week. The truck wash will operate 12 hours per day. The truck service facility will operate between 12 to 14 hours per day, with availability on a 24-hour basis, seven (7) days per week, for emergency services only. The convenience store, truck wash, truck service facility, coffee shop, and fast-food restaurant are anticipated to employ approximately 55 individuals, including retail staff, mechanics, and service personnel. Employment estimates for the proposed hotel and retail multi-tenant buildings are unknown at this time. The applicant states that the project's domestic, fire, and irrigation water will be supplied by an on-site well with a treatment and distribution system. Sewage waste generated by the project will be managed through an on-site wastewater treatment system and leach field. Access to the site is provided by Stockdale Highway, which is identified as an arterial alignment (110-foot road right of way) by the Circulation Element of the Kern County General Plan.

MITIGATION MEASURES Included in the Proposed Project to Avoid Potentially Significant Effects (if required):

(1) All exterior/outdoor lighting fixtures shall comply with Chapter 19.81 (Outdoor Lighting "Dark Skies Ordinance") of the Kern County Zoning Ordinance. Lighting fixtures shall not exceed a height of 20 feet above grade, if freestanding, or the height of the building upon which they are attached. Light fixtures shall be maintained in sound operating conditions at all times.

(2) The development shall comply with all requirements of the San Joaquin Valley Air Pollution Control District during all onsite grading and construction activities. The applicant shall implement all required measures to control fugitive dust including but not limited to watering active construction areas, stabilizing disturbed soils, covering haul trucks, and limiting vehicle speeds on unpaved surfaces, in accordance with District rules and regulations.

(3) Prior to the issuance of grading permits, the project proponent shall submit to the Kern County Planning and Natural Resources Department for its review and approval a landscape design and planting plan, which shall include a landscaped buffer along Stockdale highway and Interstate 5, as shown on Plot Plan. The landscaping shall be consistent with the visual character experienced by travelers along Stockdale Highway and Interstate 5, including but not limited to, such as native and drought tolerant plants. The total landscaped area shall be a minimum of five (5) percent of the total developed area within the project site and the total landscaped area within the parking lot(s) shall be a minimum of five (5) percent of the total parking lot area(s). Site plan and building permit approvals shall require that buffer area landscaping between Stockdale Highway and Interstate 5 and the development area shall be installed no later than completion of landscaping improvements for development located adjacent to the buffer area.

(4) No more than 14 days prior to commencement of ground disturbing activities as authorized by this permit, a qualified biologist shall conduct a pre-construction survey of the Project site to ensure that no special-status wildlife, such as burrowing owls, Tipton kangaroo rat, giant kangaroo rat, San Joaquin kit fox, etc., and/or plant species have occupied the property. The project proponent shall submit a preconstruction survey report prepared by the qualified biologist to the Kern County Planning and Natural Resources Department describing any wildlife or special status plant species observed during the pre-construction survey.

(a) If any special-status species are identified during the pre-construction survey or during construction activities, the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service shall be contacted, where applicable, regarding the need to obtain any permits or approval from those agencies. Where acceptable to the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service, exclusion zones shall be established and maintained until all construction activities are completed unless said agencies prefer that any affected special-status species be removed and/or relocated in accordance with said agencies adopted guidelines or standard procedures.

(b) Biological resource monitoring during each initial phase of ground disturbance.

(c) Compliance reporting provided to the required oversight agencies for all biological resource field surveys, monitoring, and additional tasks as warranted.

(d) A Worker Environmental Awareness Program outlining special-status species that may access, use or otherwise transverse the project area will be implemented.

(e) If known or natal SJKF dens are identified at any time during construction, protocols enumerated in the USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance (2011) should be implemented, and the appropriate agencies contacted for guidance.

(f) Vertical sided trenching deeper than (2) two feet will include escape ramps at no more than 1:1 ration every 100 feet.

(g) Vertical sided holes that are not capable of being ramped should be covered or otherwise secured to the greatest extent practicable.

(h) Pipes, conduit and similar material (3) three inches or greater should be capped to prevent wildlife from becoming inadvertently trapped in the piping.

(i) If ground-disturbing activities are planned during the nesting season for migratory birds that may nest on or near the site (generally February1 through August 31), nesting bird surveys are recommended prior to the commencement of ground disturbance for project

activities. If nesting birds are present, no new construction or ground disturbance should occur with an appropriate avoidance area for that species until young have fledged, unless otherwise approved and monitored by a qualified onsite biologist. Appropriate avoidance should be determined by a qualified biologist. In general, minimum avoidance zones for active nests should be implemented as follows:

(1) Ground or low-shrub nesting non-raptors – 300 feet (91 meters)

(2) Burrowing owl – as appropriate based on nest location, existing surrounding activity, and evaluation of owl behavior. Coordination with CDFW may be warranted.

(3) Sensitive raptors (e.g., prairie falcon, golden eagle) – 0.5 miles (0.8 kilometers)

(4) Other raptors – 500 feet (152 meters)

(5) Prior to the issuance of grading permits, the project proponent shall provide evidence of the following: All construction-related areas shall be kept clean and tidy by storing construction materials and equipment within the proposed construction staging and laydown areas and/or generally away from public view. The project proponent shall remove construction debris promptly at intervals of two weeks or less.

(6) Prior to issuance of grading or building permits, the project proponent shall submit a Fugitive Dust Control Plan to San Joaquin Air Pollution Control District (SJAPCD) for review and approval. The Fugitive Dust Control Plan shall reduce emissions, during construction of particulate matter that is 10 microns or less and 2.5 microns or less in diameter (PM_{10} and $PM_{2.5}$). The Fugitive Dust Control Plan shall include:

(a) Name(s), address(es), and phone number(s) of person(s) responsible for the preparation, submission and implementation of the plan.

(b) Description and location of operation(s).

(c) Listing of all fugitive dust emissions sources included in the operation.

(d) The following dust control measures shall be implemented:

(1) All on-site unpaved roads shall be effectively stabilized using water or chemical soil stabilizers and that shall not increase any other environmental impacts, including loss of vegetation.

(2) All material excavated or graded will be sufficiently watered to prevent excessive dust. Watering will occur as needed with complete coverage of disturbed areas. The excavated soil piles will be watered as needed to limit dust emissions to less than 20 percent opacity or covered with temporary coverings.

(3) Construction activities that occur on unpaved surfaces will be discontinued during windy conditions when winds exceed 25 miles per hour and those activities cause visible dust plumes. Construction activities may continue if dust suppression measures are used to minimize visible dust plumes. The measures shall follow the San Joaquin Air Pollution Control District's Reasonably Available Control Measures Regulation VIII (Fugitive PM10 Prohibitions), including Rules 8011 and 8021, and implement Best Available Control Measures (BACMs) or more stringent measures to ensure that:

(a) the visible dust plumes are not transported off the project site or within 400 feet of any regularly occupied structure not owned by the project proponent;

(b) the visible dust plumes generated from linear construction are not transported 200 feet beyond the centerline of the linear facilities and do not cause a traffic obscuration hazard on public roads.

(4) Track-out debris onto public paved roads shall not extend 25 feet or more from an active operation and track-out shall be removed or isolated such as behind a locked gate at the conclusion of each workday.
(5) All hauling materials shall be moist while being loaded into dump trucks.
(6) All haul trucks hauling soil, sand and other loos materials on public roads shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).
(7) Soil loads should be kept below six inches or the freeboard of the truck.
(8) Drop heights shall be minimized when loaders dump soil into trucks.
(9) Gate seals shall be tight on dump trucks.
(10) Traffic speeds on unpaved roads shall be limited to a maximum of 15 miles per hour.
(11) All grading activities shall be suspended when visible dust emissions exceed 20 percent or wind speeds are greater than 30 miles per hour.
(12) Other fugitive dust control measures shall be implemented as necessary to comply with San Joaquin Air Pollution Control District Rules and Regulations.
(13) Disturbed areas should be minimized.

(7) The project proponent shall continuously comply with the following during construction of the proposed project facilities:

(a) All off-road construction diesel engines not registered under California Air Resources Board's Statewide Portable Equipment Program, which have a rating of 50 horsepower or more, shall meet, at a minimum, the Tier 4 California Emissions Standards for Off-Road Compressions-Ignition Engines as specified in California Code of Regulations, Title 13, Section 2423(b)(1) unless that such engine is not available for a particular item of equipment. In the event a Tier 4 engine is not available for any off-road engine larger than 100 horsepower, that engine shall be equipped with retrofit controls that will provide nitrogen oxides and particulate matter emissions that are equivalent to Tier 4 engines. An exemption from these requirements may be granted by Kern County in the event that the applicant documents that (1) equipment with the required tier is not reasonably available (e.g., reasonability factors to be considered include those available within Kern County within the scheduled construction period), and (2) corresponding reductions in criteria pollutant emissions are achieved from other construction equipment.

(b) All equipment shall be turned off when not in use. Engine idling of all equipment shall be minimized.

(8) Prior to occupancy, the project proponent shall post signs in clear view of drivers stating that idling for longer than five (5) minutes is prohibited by the California Air Resources Board Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor vehicle idling. The project proponent shall continuously comply with all San Joaquin Valley Air Pollution Control District Rules and regulations during operations of the project.

(9) Prior to occupancy, the project proponent shall install auxiliary power hookups in the truck parking area that are capable of providing power to a minimum of 11 truck-transportation refrigeration units or auxiliary cab power. The project proponent shall also install signage in the truck parking areas that restrict the use of diesel-powered auxiliary power units.

(10) Prior to occupancy, the project proponent shall provide designated parking spaces for the motoring public and employee vehicles, as follows: 18 EV chargers.

(11) Prior to issuance of building permits, the project proponent shall implement the following Valley Fever Provisions:

(a) Provide evidence to the Kern County Planning and Natural Resources Department that the project operator and/or construction manager has developed a "Valley Fever Training Handout", training, and schedule of sessions for education to be provided to all construction personnel. All evidence of the training session materials, handout(s) and schedule shall be submitted to the Kern County Planning and Natural Resources Department within 24 hours of the first training session. Multiple training sessions may be conducted if different work crews will come to the site for different stages of construction; however, all construction personnel shall be provided training prior to beginning work. The evidence submitted to the Kern County Planning and Natural Resources Department regarding the "Valley Fever Training Handout" and Session(s) shall include the following:

(b) A sign-in sheet (to include the printed employee names, signature, and date) for all employees who attended the training session.

(c) Distribution of a written flier or brochure that includes educational information regarding the health effects of exposure to criteria pollutant emissions and Valley Fever.

(d) Training on methods that may help prevent Valley Fever infection.

(e) A demonstration to employees on how to use personal protective equipment, such as respiratory equipment (masks), to reduce exposure to pollutants and facilitate recognition of symptoms and earlier treatment of Valley Fever. Where respirators are required, the equipment shall be readily available and shall be provided to employees for use during work. Proof that the demonstration is included in the training shall be submitted to the county. This proof can be via printed training materials/agenda, DVD, digital media files, or photographs.

(12) If the project includes restaurants using under-fired charbroilers, the applicant shall evaluate available PM2.5 control technologies and install an effective particulate matter emission control system, where technologically feasible, consistent with San Joaquin Valley Air Pollution Control District requirements.

(13) Prior to the issuance of grading permits, a one-time fee shall be paid to the Kern County Public Health Services Department in the amount of $3,000 for Valley Fever public awareness programs.

(14) Prior to issuance of a grading or building permit, the project proponent shall retain a Lead Biologist who meets the qualifications of an Authorized Biologist acceptable to the California Department of Fish and Wildlife (CDFW) to oversee compliance with protection measures for all listed and other special-status species. All appropriate contact information for the selected biologist shall be provided to the Kern County Planning and Natural Resources Department. The Lead Biologist, or their Designated Compliance Manager (other qualified biologists designated by the Lead Biologist to perform the Lead Biologist function), shall be on the project site during construction of any perimeter fencing or grading activities throughout construction phases. The Lead Biologist shall have the right to halt all activities that are in violation of the special-status species protection measures. Work shall proceed only after hazards to special-status species have been appropriately addressed through compliance with required mitigation measures and appropriate consultation with USFWS and California Department of Fish and Wildlife (CDFW) when appropriate (i.e., when required by law). The Lead Biologist shall have in his/her possession a copy of all the compliance measures while work is being conducted on the project site. In addition to the above

listed duties, the Lead Biologist or their Designated Compliance Manager shall be responsible for implementation of the following provisions:

(a) Construction Work Hours

The project Lead Biologist shall ensure that construction activities within 50 feet of the outside edge of the project footprint containing habitat for special-status wildlife will be minimized between sunset and sunrise, and all construction-related lighting will be turned off during that period, with the exception of lighting for maintenance, security patrols, and emergency (defined by an imminent threat to life or significant property) activities. Lighting for maintenance within 50 feet of the outside edge of the project footprint containing habitat for special-status wildlife will be directed away from natural areas.

(b) Flagging/Fencing/Demarcation

The project Lead Biologist shall designate the construction area and any buffer zones using highly visible materials in the field and review with the contractor in accordance with the final grading plan.

(c) Debris/Non-Native Vegetation/Pollution

The project Lead Biologist shall monitor construction to ensure:

(1) Fully covered trash receptacles that are animal-proof will be installed and used to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Trash contained within the receptacles will be removed at least once a week from the construction site.

(2) No litter, construction materials, or debris will be discharged into state-jurisdictional waters.

(3) All uses of weed and pest control compounds shall comply with the application restrictions mandated by the U.S. Environmental Protection Agency and the California Department of Pesticide Regulation.

(4) Construction work areas shall be kept clean of debris, such as cable, trash, and construction materials. All construction/contractor personnel shall collect all micro trash and litter (anything shiny, such as broken glass), vehicle fluid containers, and food waste from the project area on a daily basis.

(5) All disturbed invasive plants shall be removed from the work site and not used in mulching, composting, etc. If weed biomass must be removed from the site to a designated disposal area, propagules shall be secured in a tarp (without holes or rips) and then carried to a vehicle. Biomass shall be properly wrapped to prevent plant parts from blowing away in transit, and vehicles carrying weed biomass shall be inspected prior to leaving the site to ensure that no plant parts are resting on the bumpers, tailgates, or other exposed areas.

(d) Vehicle and Equipment Restrictions and Maintenance

The project Lead Biologist shall monitor construction to ensure:

(1) Maximum construction vehicle speed will be 15 miles per hour (mph) within the project footprint. Nighttime construction shall be minimized to the extent possible. However, if nighttime construction or construction-related activity (e.g., security patrols, equipment maintenance) is necessary, then the speed limit shall be 10 mph.

(2) Vehicles and equipment access will be limited to the project footprint and ingress and egress on existing roads.

(3) Staging and storage areas for spoils, equipment, materials, fuels, lubricants, and solvents will be located outside the state-jurisdictional channels and within the designated project footprint. Stationary equipment, such as motors, pumps, generators, compressors, and welders, located within or adjacent to state-jurisdictional waters shall be positioned over drip-pans or other containment. Prior to refueling and lubrication, vehicles and other equipment shall be moved

away from the state-jurisdictional channels.

(e) Erosion/Silt

The project Lead Biologist shall monitor construction to ensure:

(1) During construction activities, temporary erosion control devices, such as straw bales, silt fencing, and sand bags, shall be used to prevent siltation in state-jurisdictional areas. Coir rolls, erosion control mats or blankets, straw or fiber wattles, or similar erosion control products shall be composed of natural-fiber, biodegradable materials; photodegradable or other plastic erosion control materials shall be prohibited.

(f) Other Restrictions on Construction Activities and Personnel

The project Lead Biologist shall monitor construction to ensure:

(1) During construction, no pets, such as cats or dogs, should be permitted on the project's construction sites.

(2) No commercial hunting will be authorized or permitted on a portion of the project site under construction.

(3) Any contractor, employee, or agency personnel who are responsible for inadvertently killing, injuring, or trapping a listed species (e.g., San Joaquin Kit Fox, San Joaquin Antelope Squirrel) shall immediately report the incident to the project Lead Biologist. The project Lead Biologist shall contact the U.S. Fish and Wildlife Service (USFWS) (for federal Endangered Species Act (FESA) species) and California Department of Fish and Wildlife (CDFW) (for California Endangered Species Act (CESA) species) immediately in the case of a dead, injured, or entrapped listed species. The Sacramento USFWS Office and CDFW shall be notified in writing within 3 working days of the accidental death or injury to a listed species during project-related activities with a copy to the Kern County Planning and Natural Resources Department. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information.

(4) To prevent inadvertent entrapment of wildlife (including, but not limited to San Joaquin Kit Fox, San Joaquin Antelope Squirrel, Tipton Kangaroo Rat, and Blunt-nosed Leopard Lizard) during construction, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered with plywood or similar materials at the close of each working day, or be provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped wildlife species. If trapped wildlife are observed, escape ramps or structures shall be installed immediately to allow escape.

(5) All pipes, culverts, or similar structures with a diameter of 4 inches or more that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for wildlife before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If wildlife species are discovered inside a pipe, the project biologist shall flush the species from the pipe. If a federal- or State-listed species is discovered, that section of pipe shall not be moved until the USFWS and/or CDFW has been consulted, as appropriate. If necessary, under the direct supervision of the project biologist, the pipe may be moved once to remove it from the path of construction activity until the species has escaped.

(g) Biological Monitoring and Compliance Documentation

The project Lead Biologist shall be responsible for maintaining a database and/or tracking the following during construction:

(1) Document that required pre-construction surveys, avoidance, mitigation, and/or relocation efforts have been implemented.

(2) Document compliance with construction measures (b)-(f) above.
(3) Document compliance with worker training.

(15) Prior to issuance of grading or building permit and for the duration of construction activities, the project proponent shall demonstrate it has in place a Worker Environmental Awareness Program (WEAP) for all construction workers at the project site. The Lead Biologist shall ensure all construction personnel on-site complete WEAP training prior to conducting any construction related activities on-site. As part of the WEAP training, the project Lead Biologist shall perform the following training-related tasks:

(a) Provide the training materials for WEAP training. These materials shall include the measures and mitigation requirements for protected plant and wildlife species (e.g., avoidance and buffer requirements, nighttime construction limitations, etc.); and applicable fire protection measures. WEAP training will also include driver training to avoid and minimize collision risks with protected species, and reporting protocols in the event that any dead or injured wildlife are discovered.

(b) Send a copy of all WEAP training materials to the Kern County Planning and Natural Resources Department.

(c) Maintain a list on-site of all employees who have undergone WEAP training. A copy of this list shall be provided to the Kern County Planning and Natural Resources Department as necessary.

(16) Prior to the issuance of grading permits, the project proponent shall retain a qualified archaeologist who shall be designated the Lead Archaeologist for the site, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology, to carry out all mitigation measures related to archaeological and historical resources. Proof of hire shall be submitted to the Kern County Planning and Natural Resources Department.

(17) If any previously unknown archaeological or cultural resources are discovered, work in the area of discovery shall be stopped and a qualified archaeologist contacted to evaluate the find. A copy of the archaeologist's evaluation shall be submitted to the Kern County Planning and Natural Resources Department upon its issuance and any measures recommended by the archaeologist shall be implemented prior to resumption of work in the area of discovery.

(18) Prior to the issuance of grading or building permits, and for the duration of construction activities, the project proponent shall demonstrate it has in place a Worker Environmental Awareness Program (WEAP) for all construction workers at the project site which includes cultural and paleontological resources training. The training shall be prepared and conducted by a qualified Lead Archeologist, defined as an archaeologist that meets the Secretary of the Interior's professional qualification standards in archaeology. The training shall be prepared and conducted by the qualified archaeologist. The training may be in the form of a video. The training may be discontinued when ground disturbance is completed or suspended, but must resume when ground-disturbing activities resume. A sticker shall be placed on hard hats indicating that the worker has completed the cultural training program. Construction personnel shall not be permitted to operate equipment within the construction area unless they have attended the training and are wearing hard hats with the required sticker. A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the training and copies of the signed acknowledgement forms shall be submitted to the Kern County Planning and Natural Resources Department. The purpose of the WEAP Training Program shall be to inform construction personnel of the types of cultural resources that may be encountered during construction, and to bring awareness to personnel of actions to be taken in the event of a cultural resources discovery.

This may include: a discussion of applicable cultural resources statutes, regulations and related enforcement provisions; an overview of the prehistoric and historic environmental setting and context, as well as current cultural information regarding local tribal groups; samples or visuals of artifacts that might be found in the project area; and a discussion of what prehistoric and historic archaeological deposits look like at the surface and when exposed during construction. The cultural training program shall include instruction that in the event cultural resources are unearthed during ground-disturbing activities, the project operator shall cease any ground disturbing activities within 100 feet of the find until it can be evaluated by Lead Archaeologist..

(19) The project proponent shall continuously comply with the following: In the event that unanticipated cultural resources are encountered during the course of grading or construction, the project operator/contractor shall cease any ground disturbing activities within 50 feet of the find. Cultural resources may include prehistoric archaeological materials such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock, as well as historic materials such as glass, metal, wood, brick, or structural remnants. The Lead Archaeologist shall evaluate the resource to determine whether it qualifies as either an historical resource or a unique archaeological resource, and, if so, shall recommend appropriate treatment measures, as appropriate, to the Director of Planning and Natural Resources or designee. The project proponent shall implement such recommended measures if the Director of Planning and Natural Resources or her designee determines that they are feasible in light of project design, logistics, and cost considerations.

Per California Environmental Quality Act (CEQA) Guidelines Section 15126.4(b)(3), project redesign and preservation in place shall be the preferred means to avoid impacts to significant historical resources. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if resources cannot be avoided, additional treatment measures shall be developed in consultation with the Director of Planning and Natural Resources or her designee, and may include testing and evaluation or data recovery excavation. Kern County shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature. The qualified archaeologist shall prepare a report documenting evaluation and/or additional treatment of the resource. A copy of the report shall be provided to the Kern County Planning and Natural Resources Department and to the Southern San Joaquin Valley Information Center.

(20) The project proponent shall continuously comply with the following: If human remains are uncovered during project construction, the project proponent shall immediately halt work and contact the Kern County Coroner to evaluate the remains, the Kern County Planning and Natural Resources Department and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. The Lead Archeologist shall be notified and all construction activity shall immediately cease on the entire project. If the County coroner determines that the remains are Native American, the Native American Heritage Commission shall be notified, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641) for identification of the most likely Native American descendent. No construction activity may commence again until the Kern County Planning and Natural Resources Department has authorized such construction to begin after consultation with the Coroner and the most likely descendent - Native American Elder.

(21) The project proponent shall continuously comply with the following: In the event that unanticipated tribal cultural resources are encountered during the course of grading or construction, the project operator/contractor shall cease any ground disturbing activities within 50

feet of the find and contact the Lead Archaeologist for the project and the Kern County Planning and Natural Resources Department. Tribal cultural resources may include prehistoric archaeological materials such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock, as well as historic materials such as glass, metal, wood, brick, or structural remnants. A qualified archaeologist shall evaluate the resource and recommend appropriate treatment measures, as appropriate, to the Director of Planning and Natural Resources or designee. The project proponent shall implement such recommended measures if the Director of Planning and Natural Resources or her designee determines that they are feasible in light of project design, logistics, and cost considerations.

Per California Environmental Quality Act Guidelines Section 15126.4(b)(3), project redesign and preservation in place shall be the preferred means to avoid impacts to significant historical resources. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if resources cannot be avoided, additional treatment measures shall be developed in consultation with the Director of Planning and Natural Resources or designee, and may include testing and evaluation or data recovery excavation. Kern County shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature. The qualified archaeologist shall prepare a report documenting evaluation and/or additional treatment of the resource. A copy of the report shall be provided to the Kern County Planning and Natural Resources Department and to the Southern San Joaquin Valley Information Center.

(22) The project proponent shall comply with applicable seismic risk protection measures in the California Building Code, as confirmed with building permit plans submitted to the Kern County Public Works Department for review and approval.

(23) Prior to the issue of grading or building permits, the project proponent shall retain a qualified geotechnical engineer to provide any supplemental information required by the Kern County Public Works Department to the Geotechnical Report to address potential for localized liquefaction and soil conditions. The qualified geotechnical engineer shall observe earthwork and perform necessary tests and observations during subgrade preparation, proof-rolling, placement and compaction of controlled compacted fills, backfilling of excavations to the completed subgrade. The qualified geotechnical engineer shall confirm compliance with all site preparation requirements identified within the Geotechnical Report. Compliance documentation shall be provided to the Kern County Public Works Department.

(24) If any previously unknown oil, gas, or injection wells are discovered, work in the area of discovery shall be stopped and the Department of Conservation/Geologic Energy Management Division/Bakersfield office contacted by the project proponent to obtain information on the requirements of, and approval to perform, remedial operations implemented prior to resumption of work in the area of discovery.

(25) Prior to the issuance of grading or building permits, the project proponent shall prepare a Hazardous Materials Business Plan in accordance with the California Health and Safety Code and Kern County regulations and shall submit the plan to the Kern County Public Health Services Department for review and approval.

(26) The project proponent shall continuously comply with the following**:** All hazardous wastes shall be stored and properly managed in accordance with the approved Kern County Waste Management Department Hazardous Waste Exclusion Plan and hazardous materials business plan, until transported for proper disposal. A copy of the Hazardous Waste Exclusion Plan shall

be submitted to the Kern County Planning and Natural Resources Department.

(27) Prior to the issuance of grading or building permits for the project, if herbicides are to be utilized, the contractor or personnel applying herbicides must have the appropriate State and local herbicide applicator licenses and comply with all State and local regulations regarding herbicide use. Herbicides shall be mixed and applied in conformance with the product manufacturer's directions. The herbicide applicator shall be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and material safety data sheets for all hazardous materials to be used. To minimize harm to wildlife, vegetation, and waterbodies, herbicides shall not be applied directly to wildlife, and products identified as non-toxic to birds and small mammals shall be used if nests or dens are observed. Herbicides shall not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water, and shall not be applied when wind velocity exceeds 10 miles per hour. If spray is observed to be drifting to a non-target location, spraying shall be discontinued until conditions causing the drift have abated.

(28) Prior to issuance of grading or building permits, a project proponent shall obtain a review from the Kern County Fire Marshall and any approvals required for any deviations from the established standards for storage of flammable and combustible liquids. The Fire Marshall may impose any conditions that are deemed necessary to safeguard public health and safety and the determination shall be in writing provided to the Kern County Planning and Natural Resources Department.

(29) The project proponent shall continuously comply with the following: If during grading or soil removal, evidence of petroleum products is discovered and appears to continue below the ground surface, construction activities in that area shall stop immediately and a qualified hazardous materials professional shall be contacted and brought to the project sites to make a proper assessment of the suspect materials. If applicable, remediation shall include removal of soil and proper disposal at an approved facility. Copies of all reports and correspondence shall be submitted to the Kern County Environmental Health Services Division/Hazardous Materials Section and the Kern County Planning and Natural Resources Department.

(30) The project proponent shall continuously comply with the following: If suspect materials or wastes of unknown origin are discovered during construction on the project site, which is thought to include hazardous waste materials, the following shall occur

(a) All work shall immediately stop in the vicinity of the suspected contaminant;
(b) Project Construction Manager shall be notified;
(c) Area(s) shall be secured as directed by the Project Construction Manager;
(d) Notification shall be made to the Kern County Environmental Health Services Division/Hazardous Materials Section for consultation, assessment and appropriate actions;
(e) Copies of all notifications and correspondence shall be submitted to the Kern County Planning and Natural Resources Department.

(31) Prior to grading or excavating, the Underground Service Alert on-call center shall be contacted at (800) 227-2600. The proposed excavation area shall be delineated with white marking paint or with other suitable markers such as flags or stakes at least two days prior to commencing any excavation work. A "Dig Alert" ticket number would be issued at the time Underground Service Alert is contacted. Excavating is not permitted without this ticket number and is valid for twenty-eight days. Underground Service Alert would notify its member utilities having underground facilities in the area. Underground Service Alert does not notify non-member utilities or energy

companies, or Caltrans.

(32) Prior to the issuance of grading or building permits, the project proponent shall appoint an Emergency Response Liaison to coordinate the reduction of construction-related traffic for the duration of any emergency at or nearby the project site. The Kern County Fire Department, Kern County Sherriff's Department, and the California Highway Patrol shall be provided with the construction schedule and the on-site contact information for the Liaison prior to construction. The Liaison shall be immediately reachable at all times during project construction. The Liaison shall have radio contact with project construction vehicles at all times to coordinate traffic reduction measures. In addition, the Liaison shall coordinate with the Kern County Fire Department, the Kern County Sherriff's Department, and the California Highway Patrol to establish emergency procedures for access to the project site in the event of emergency during construction activities.

(33) All permanent power utilities extended to the project site shall be installed underground, where feasible as determined by the Kern County Planning and Natural Resources Director.

(34) The project proponent shall continuously comply with the following during construction implementation of the project: In order to eliminate the risk of generating disease vectors at the site, during project construction, the project proponent shall ensure that trash is stored in closed containers and removed from the site at regular intervals. Open containers shall be inverted and construction ditches shall not be allowed to accumulate water. Construction activities shall not generate standing water. The environmental monitor shall ensure that standing water and large quantities of trash do not accumulate onsite. Project compliance shall be verified by the Kern County Public Works Department during the course of that agency's performance of any on-site inspections.

(35) The use shall not generate noise that exceeds an average 65 dB Ldn (24-hour median) between the hours of 7:00 a.m. and 10:00 p.m., and shall not generate noise that exceeds 65 dB, or which would result in an increase of five (5) dB or more from ambient sound levels, whichever is greater, between the hours of 10:00 p.m. and 7:00 a.m. Noise level measurements shall be taken at the exterior of the closest residential dwelling within the boundary of the affected residential district(s) with sound level meter using an A-weighted network (scale) and, where practical, the microphone shall be positioned five (5) feet above the ground and away from reflective surfaces. Public complaints alleging violation of this standard may be required to submit documentation of actual noise level measurements. The Director of the Kern County Planning and Natural Resources Department, in consultation with the Kern County Public Health Services Department/Environmental Health Division, may authorize deviations or exceptions to the standards contained in this subsection and may require noise attenuation measures in conjunction with such authorization.

(36) Prior to the initiation of construction activity that qualifies for coverage under the California General Construction Permit, the project proponent shall comply with applicable permit coverage and notice requirements and construction-period management requirements, including the preparation and implementation of a stormwater pollution prevention plan (SWPPP) and the identification of erosion and sediment control options that meet applicable best available technology economically achievable and best conventional pollutant control technology

(BAT/BCT) standards. During ground disturbance construction activities, the project proponent shall:

(a) Implement erosion control measures to prevent erosion from the construction site, including:
  (1) physical soil stabilization using hydraulic mulch, soil binders, straw mulch, bonded fiber matrices, and erosion control blankets as appropriate;
  (2) limiting the area and duration of exposure of disturbed soils to the extent feasible;
  (3) soil roughening of graded areas through track walking, scarifying, sheepsfoot rolling, or imprinting;
  (4) vegetation stabilization through temporary seeding; and
  (5) applying water or other dust controls.

(b) Implement sediment control measures to prevent sedimentation impacts off the construction site, including:
  (1) perimeter protection using silt fences, fiber rolls, gravel bag berms, sand bag barriers, or straw bale barriers, including the protection of environmentally sensitive areas;
  (2) storm drain inlet protection;
  (3) sediment capture using sediment traps, storm drain inlet protection, or sediment basins;
  (4) velocity reduction using check dams, sediment basins, outlet protection, or velocity dissipation devices; and off-site sediment tracking controls using stabilized construction entrances and exits, construction road stabilization, or entrance and exit tire wash facilities.

(c) Implement waste and materials management measures to avoid unauthorized releases to and from the construction site, including measures to:
  (1) avoid releases and control solid, sanitary, concrete, hazardous, and equipment-related wastes; and
  (2) protect soil stockpiles using covers, water or soil binders, or perimeter control measures.

(d) Implement non-stormwater management measures to reduce or limit potential stormwater exposure to construction-related pollutants, including:
  (1) water conservation practices;
  (2) vehicle and equipment cleaning; and
  (3) vehicle fueling practices that avoid and control pollutant discharges.

(e) Implement training and education measures, including:
  (1) training individuals who are responsible for storm water pollution protection program preparation, implementation, and compliance, including construction contractors and subcontractors;
  (2) providing signage that identifies storm water pollution protection program management requirements, such as site cleanup policies and designated washout locations; and
  (3) disseminating construction-period water quality management measures and requirements to custom lot contractors prior to construction.

(f) Conduct maintenance, monitoring, and inspections as required to ensure compliance with construction-period water quality control measures, including:
  (1) regular site inspections and inspections before, during (for storm events greater than 24 hours in duration), and after storm events;
  (2) maintenance and repair of mitigation measures as required; and
  (3) preparation and implementation of a sampling and analysis plan for non-visible pollutants of concern.

(g) Implement a dry- and wet-weather control measures that include the following provisions:

(1) dry-weather controls, including dust control, soil roughening of graded areas, sediment control measures at the down-gradient site perimeter and all operational storm drain inlets internal to the site, soil tracking mitigation, waste management and materials pollution control measures, non-stormwater measures to prevent or reduce stormwater contact with construction materials, and an action plan to deploy additional erosion and sediment controls as may be required within 48 hours of a predicted storm event; and wet-weather controls, including limiting the area and duration of exposure of disturbed soil areas, erosion and sediment control measures for disturbed areas, and maintaining sufficient on-site materials to implement additional erosion and sediment controls within 48 hours of a predicted storm event.

(37) The following shall be implemented by the project proponent during project construction:

(a) Project construction hours shall comply with Kern County Noise Ordinance as specified in Section 8.36.020. This includes, the construction contractor shall not receive deliveries or conduct engine warm-ups between 9 PM and 6 AM Monday through Friday and Between 9 PM and 8 AM Saturday and Sunday.

(b) The construction contractor shall locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all construction.

(c) The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors. The nearest sensitive receptor is a hotel located approximately 0.35 miles southeast of the project site, and a single-family residence is located approximately 0.87 miles east.

(d) The construction contractor shall locate any pile drivers, or other machinery capable of causing strong vibrations or load noises, such that the rear of the vibratory pile driver or machinery faces toward the noise sensitive receptor when the machine is being utilized.

(e) The construction contractor shall ensure that "quiet" models of air compressors and other stationary construction equipment are utilized where such technology exists.

(f) The construction contractor shall ensure proper maintenance and working order of equipment and vehicles, and that all construction equipment is equipped with manufacturer's approved mufflers and baffles.

(g) The construction contractor shall prohibit unnecessary idling of internal combustion engines (i.e., in excess of five [5] minutes). The construction contractor shall ensure that the sound-control devices in all construction and impact equipment are at least as effective as the sound control devices installed in the original equipment at the time of purchase.

(38) Prior to receipt of an occupancy permit for the commercial structure, the project proponent or building permittee shall stencil a statement or graphical icon above publicly accessible storm drain system inlets that prohibits dumping improper wastes into the storm drain system and shall install inserts to collect trash from storm drain inlets in high-use areas of the site that include a standard curb and gutter system.

(39) The project proponent and the Rosedale-Rio Bravo Water Storage District shall comply with applicable requirements of the Sustainable Groundwater Management Act in managing any groundwater water resources made available to this project.

(40) Prior to issuance of any building permits or other development approvals, the project proponent

shall provide written verification of compliance with applicable water efficiency design standards required by the California Uniform Building Code.

(41) The building permit applications shall include compliance with applicable water conservation state laws and regulations, and local ordinances, including but not limited to those applicable to interior fixtures, tankless water heaters, and low-flow plumbing, compliance with which shall be used to meet the required Maximum Applied Water Allowance for each land use.

(42) Prior to the issuance of a building permit, the project proponent shall comply with the following: The project proponent shall encourage all contractors of the project to hire, to the extent feasible, at least 50 percent of their workers from the local Kern County communities. The project proponent shall provide the contractors a list of training programs that provide skilled workers and shall require the contractor to advertise locally for available jobs, notify the training programs of job availability, all in conjunction with normal hiring practices of the contractor. The project proponent shall submit a letter detailing the hiring efforts prior to commencement of construction.

(43) Prior to the issuance of building permits, the project proponent shall prepare and submit a Construction Traffic Control Plan to Kern County Public Works for approval. The Construction Traffic Control Plan must be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and shall include, but not be limited to, the following issues:

(a) Timing of deliveries of heavy equipment and building materials;

(b) Directing construction traffic with a flag person;

(c) Placing temporary signing, lighting, and traffic control devices as required; including, but not limited to: appropriate signage along access routes (Interstate 5 and Stockdale Highway) to indicate the presence of heavy vehicles and construction traffic;

(d) Determining the need for construction work hours and arrival/departure times outside peak traffic periods;

(e) Ensuring access for emergency vehicles to the project site;

(f) Temporary closure of travel lanes or disruptions to street segments and intersections during materials delivery, transmission line stringing activities, or any other utility connections;

(g) Maintaining access to adjacent property;

(h) Specification of both construction-related vehicle travel and oversize load haul routes, the minimization of construction traffic during the AM and PM peak hour, distributing construction traffic flow across alternative routes to access the project site, and avoiding residential neighborhoods to the maximum extent feasible; and

(h) Identification of vehicle safety procedures for entering and exiting site access roads.

(i) A traffic control coordinator shall be established. The traffic control coordinator shall be responsible for responding to any local complaints about project construction and operational traffic concerns. The traffic control coordinator shall determine the cause of the traffic complaint and shall be required to implement reasonable measures to resolve the complaint. Signs shall be posted along the project's construction and operations access routes and shall list the telephone number for the traffic control coordinator. The Construction Traffic Management Plan shall be subject to the review and approval of the Kern County Public Works Department. A copy of the plan shall be submitted to local emergency response agencies and transit providers as directed by Kern County, and to

Caltrans. These agencies shall be notified at least 30 days before the commencement of construction that would partially or fully obstruct public roadways.

(44) Prior to the issuance of a building permit, the project proponent shall submit a Construction/Demolition Recycling Plan to the Kern County Public Works Department for review and approval. An onsite recycling coordinator shall be designated by the project applicant to facilitate recycling of all construction waste through coordination with the onsite contractor, local waste haulers, and/or other facilities that recycle construction/demolition wastes. The onsite recycling coordinator will also be responsible for ensuring that wastes requiring special disposal are handled according to state and County regulations that are in effect at the time of disposal. The name and phone number of the coordinator and the site plan for the disposal area shall be provided to the Kern County Public Works Department prior to the issuance of a grading permit. Additional measures to be included in the Plan include:

(a) Reducing the quantity of waste generated by construction activities (e.g., by using onsite spoils and bulk site-clearing materials for existing project needs, such as backfill, mulch, erosion and sedimentation control), donating reusable materials to charitable organizations, or exporting materials for use in other construction projects;

(b) Maintaining a centralized information repository on site to identify which construction materials can be recycled and provide direction as to which sources will accept recyclable building and construction materials; and

(c) Requiring building or construction materials that are not recyclable to be taken to the nearest waste disposal facility. These materials shall be transported in bulk to reduce multiple truck trips, thereby reducing emissions generated from waste transportation.

(45) Prior to the issuance of any grading or building permit for the project, the project proponent shall provide a fenced storage area for recyclable materials that is clearly identified for recycling during construction activities. This area shall be maintained on the site during construction. A site plan showing the recycling storage area shall be submitted to the Kern County Planning and Natural Resources Department and Kern County Waste Management Department.

(46) Prior to the certificate of occupancy, the project proponent shall construct, subject to the review and approval of the Kern County Public Works Department, adequate, segregated, onsite screened storage for collection of commercial solid waste and source separated recyclable materials.

INCLUSION OF MITIGATION MEASURES AS PART OF PROJECT:

I, as applicant/authorized agent, have reviewed the mitigation measures noted above and agree to include said measures as part of this project.

Signed: Kafari Dated: 04/02/26

FINDINGS:

It has been found that this project, as described and proposed to be mitigated herein, will not have a significant effect on the environment and that an Environmental Impact Report (EIR) is, therefore, not required. A brief statement of reasons supporting such findings is as follows:

The proposed project would have a less than significant impact on cultural resources or human environmental resources. However, the proposed project has the potential to result in a significant impact on biological resources due to possible disturbance of habitat or species during construction. However, with implementation of the included mitigation measures potential impacts would be minimized.

These measures will ensure that the project does not substantially degrade the quality of the environment, reduce habitat, or threaten any special-status species or plant communities. The project's impacts would not be cumulatively considerable when combined with other projects in the area, and it would not cause substantial adverse effects on human beings, either directly or indirectly. Therefore, with incorporation of mitigation, all potential impacts would be reduced to less than significant levels.

The project's incremental contribution to cumulative environmental impacts would not be cumulatively considerable. Projects within Kern County, including the proposed project, are evaluated for potential impacts and required to implement project-specific mitigation measures to reduce impacts to less than significant levels. All development must also comply with applicable County policies and ordinances.

The project will adhere to all permitting requirements and regulations of the Kern County Zoning Ordinance, the San Joaquin Valley Air Pollution Control District, the California Building Code, and the California Code of Regulations Fire Code. Compliance with these requirements ensures that the project does not contribute to cumulative impacts beyond those already anticipated in regional and local planning efforts.

Mitigation measures identified for air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, tribal cultural resources will further reduce project-level impacts to less than significant. When viewed in connection with past, present, and reasonably foreseeable future development, the project does not result in cumulatively considerable effects. Therefore, cumulative impacts would be less than significant**.**

The project does not have the potential to cause substantial adverse effects on human beings, either directly or indirectly. The project site is in an area planned for industrial use, and all identified environmental impacts—such as air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, tribal cultural resources,—have been reduced to less than significant levels through compliance with existing regulations and standard conditions of approval. No substantial adverse effects on human beings are anticipated.

PUBLIC INQUIRY: Any person may object to dispensing with such EIR or respond to the findings herein. Information relating to the proposed project is on file in the office of the Planning and Natural Resources Department at the address shown below. Any person wishing to examine or obtain a copy of that information or this document, or seeking information as to the time and manner to so object or respond, may do so by inquiring at said office during regular business hours.

A copy of the Initial Study is attached hereto.

PROPOSED NEGATIVE DECLARATION DATE: April 10, 2026
NEGATIVE DECLARATION REVIEW PERIOD ENDS: May 11, 2026

CRAIG M. MURPHY, Director
Planning and Natural Resources Department

By Cindi Hoover
Assistant Director

Kern County Planning and
Natural Resources Department
2700 "M" Street, Suite 100
Bakersfield, CA 93301
(661) 862-8600

AGENCY CONSULTATION REQUIRED: X Yes ___ No

AGENCIES CONSULTED: Kern County Planning and Natural Resources Department/Current Planning; County Clerk; See notification list.

STATE CLEARINGHOUSE NUMBER (if required):

INITIAL STUDY PREPARED BY: April Wentworth, Planner II (661-862-5043), Kern County Planning and Natural Resources Department

DATE POSTED: April 10, 2026

DATE OF NOTICE TO PUBLIC: April 10, 2026

* Public Resources Code, Section 21000, et seq.
** Title 14, Division 6, California Administrative Code, as amended
*** Resolution No. 88-068, adopted January 19, 1988

CLH:AW (4/7/2026 – 5586.ND)

Attachment

INITIAL STUDY REVIEW

PROJECT DESCRIPTION AND SETTING

PROPOSED PROJECT: (a) Conditional Use Permit No. 65, Map 100, (b) Zone Variance No. 40, Map 100, Lynn Trucking Inc. by KSI Engineering Inc. (PP25197)

LOCATION: Northwest of the Stockdale Highway and Interstate 5 interchange, also being a portion of Section 31, Township 29 South, Range 25 East, County of Kern, State of California; Assessor's Parcel Numbers: 104-270-11, -12, -13, -14, -15, -16, -17, -18, -19, -20.

PROJECT DESCRIPTION: A Conditional Use Permit (CUP) to allow the development of a travel center in a CH PD (Commercial Highway – Precise Development Combining) District Pursuant to Section 19.34.030.C.2 of the Kern County Zoning Ordinances. A Zone Variance to allow a 75-foot-tall pole sign with a 560-square-foot sign face area where a 35-foot-tall and 240-square-foot sign face area is permitted pursuant to Section 19.34.110.A. The project site consists of an approximate 16.28-acres with a total of 10 parcels (Figure 1, Assessor's Parcelization Map). The project site is triangular in shape and is currently undeveloped. The site is zoned CH PD and is designated 6.3 (Highway Commercial) by the Kern County General Plan (Figure 2, Existing Zone Classifications and Figure 3, Existing General Plan Map). Access to the site is provided by Stockdale Highway (Figure 4, Aerial Map and Figure 5, Vicinity Map).

The applicant is seeking land-use approval of a conditional use permit to allow a travel center in a CH PD District. The travel center would consist of the following:

- a 60-room hotel,
- an 8,548-square-foot convenience store with a drive-through restaurant,
- two (2) multi-tenant fast food/retail buildings, each containing a 2,178-square-foot fast-food drive-through restaurant with an attached 5,220-square-foot retail space.
- 18 electric vehicle (EV) charging stations;
- A fueling station with
    - seven (7) diesel fuel truck pumps;
    - sixteen (16) standard vehicle fuel pumps;
    - a truck repair facility;
    - two (2) tunnel manual truck wash;
    - A 500-gallon propane tank located in the parking lot for RV use;
    - 32,000 gallons of underground gasoline storage and 40,000-gallon aboveground diesel storage.

The convenience store, fueling areas, coffee shop, and fast-food restaurant would be open 24 hours a day, seven (7) days a week. The truck wash would operate 12 hours per day. The truck service facility would operate between 12 to 14 hours per day, with availability on a 24-hour basis, seven (7) days per week, for emergency services only. The convenience store, truck wash, truck service facility, coffee shop, and fast-food restaurant are anticipated to employ approximately 55 individuals, including retail staff, mechanics, and service personnel. Employment estimates for the proposed hotel and retail multi-tenant buildings are unknown at this time. The hotel component of the project is planned for a future phase of development (Figure 6, Site Plan).

The proposed project's domestic, fire, and irrigation water would be supplied by an on-site well with a treatment and distribution system. Sewage waste generated by the project would be managed through an on-site wastewater treatment system and leach field.

ENVIRONMENTAL SETTING: The project site consists of approximately 16.28 acres, comprising 10 undeveloped parcels, and is located at the northwest corner of Interstate 5 and Stockdale Highway. Surrounding properties are characterized primarily by agricultural uses. Interstate 5 directly abuts the site to the northwest, with vacant agricultural land located further north and east. Stockdale Highway abuts the site to the south, with vacant commercially zoned land located beyond. A similar hotel, fueling station and truck stop is located west of Interstate 5. The project site is located within the Kern County General Plan area. The City of Bakersfield jurisdictional limits are located 8 miles to the east of the project site along Stockdale Highway.

Site and surrounding land uses and development patterns are described in the following table:

Proposed Project Site and Surrounding Land Use			
Direction	**Existing Map Code Designation**	**Existing Zoning**	**Existing Land Use**
Project Site	6.3 (Highway Commercial)	CH PD (Highway Commercial, Precise Development Combining)	Undeveloped land
North	6.3	A-1 (Limited Agriculture)	Interstate 5, Agricultural land
East	6.3	A-1	Interstate 5, Agricultural land
South	6.3	CH PD	Stockdale Highway, Commercial land
West	6.3	CH PD	Commercial land

The project site is located in the southwestern portion of the southern San Joaquin Valley, north of the Kern River at an approximate elevation of 300 feet above sea level. The project site does not contain any trees, rock outcroppings, or historic buildings and is not located near a scenic highway or designated scenic vista.

The project site is not identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the California Department of Conservation Farmland Mapping Program. However, the project site is located within the boundaries of the Kern County Agricultural Preserve No. 9, yet there is no land encumbered by a Williamson Act Land Use Contract located within the project site. The site is not on or near any forested land.

The Biological Resource Evaluation (2024) identifies the site as containing soils classified within Map Units 156 and 175, which consist primarily of Garces silt loam and Kimberlina fine sandy loam, with slopes ranging from 0 to 2 percent. The Garces silt loam is typically found on valley floors and non-buried fan remnants, formed from alluvium derived from granitoid materials. The Kimberlina fine sandy loam is a well-drained soil type that occurs on fan remnants formed from igneous and sedimentary rock. These soil characteristics indicate relatively stable, low-slope conditions that are generally conducive to development and do not present substantial constraints for the proposed project.

The project is located within the geographic range of several federal and state listed threatened and/or endangered plant and animal taxa. Several non-listed, special-status species also have the potential to occur in the vicinity of the project. The federal and state database queries yielded 17 special-status plant species and 32 special-status animal species as potentially occurring with the vicinity of the project site. Of these, three (3) plant species, and 15 animal species have federal-, and/or state-listing and are afforded protection under federal or state law.

The project site is located within the jurisdiction of the San Joaquin Valley Air Pollution Control District. The project site is located within the Rosedale-Rio Bravo Water Storage District Groundwater Sustainability Agency.

The project site does not contain any riparian habitat or other sensitive natural community or wetlands as defined by Section 404 of the Clean Water Act No known wildlife migration corridors are present, and the site is not a native wildlife nursery site. The project is not located within an area of large bodies of open water, on or adjacent to the proposed project site. The site is not located within the administrative boundaries of an oilfield or an oilfield production area. There are no known oil, gas, or injection wells of record on the project site. There are no known: (1) human remains or cemeteries; (2) unique paleontological resources or sites or unique geologic features; (3) historical resources; or (4) archaeological resources existing on the project site.

The project site is not located within an Earthquake Fault Zone. However, the nearest local fault to the project site is an unnamed fault located, approximately four (4) miles south of the project site north of Highway 119, north of the city of Taft and west of the city of Bakersfield and is classified as a thrust fault which runs from the northeast to southwest direction.

The Project will include the use and storage of fuels and limited hazardous materials. Specifically, the project would include gasoline stored underground, diesel stored aboveground, a propane tank for RV use, and common materials used in truck maintenance, such as lubricants, solvents, and other shop fluids.

Figure 7 of the Circulation Element of the Kern County General Plan (Kern County, 2009) categorizes Stockdale Highway as an arterial (major highway) alignment. Figure 10 of the Circulation Element of the Kern County General Plan identifies the nearest railroad to the project site as the Southern Pacific Railroad. Buttonwillow Branch is located approximately four miles northwest of the project site. The site is not located within any Specific Airport Sphere of Influence identified by the Kern County Airport Land Use Compatibility Plan. The nearest public airport is Buttonwillow Airport located, approximately eight (8) miles west of the project site and outside the administrative boundaries of the Kern County Airport Land Use Compatibility Plan.

The project is not in a Flood Zone and not located within any designated floodplain hazard. The project will not be placed within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or FIRM or other flood hazard delineation map or place structures within a 100-year flood hazard area that would impede or redirect flood flows. The nearest water canal is the P-10 Canal owned by Kern Water Bank Authority used for groundwater recharge and is located approximately 1 mile southeast of the project site.

The franchise hauler for all nonhazardous, municipal solid waste is collected by American Refuse for disposal at the Shafter-Wasco Sanitary Landfill. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

Fire protection is provided by the Kern County Fire Department, Buttonwillow Station 25 (100 Mirasol Avenue), located approximately 8 miles northwest of the project site. The project site and surrounding area are classified as a (-3) Moderate Fire Hazard Severity Zone (FHSZ) within a Local Responsibility Area (LRA) and are considered a non-wildland area. Police protection is provided by the Kern County Sheriff's Office, Battalion 02 (Substation north) located, approximately eight (8) miles northwest of the project site.

The project site is located within the Rio Bravo-Greeley Union School District and Kern High School Districts. The closest schools are Rio Bravo-Greeley Elementary School located approximately six (6) miles to the northeast, the closest middle school is Rio Bravo-Greeley School located six (6) miles to the

northwest, and Liberty High School is located approximately 12 miles east of the project site. The project site is located within the Kern County Parks and Recreation District's notification area for all discretionary projects.

(02/17/15 – 5573.302)

KERN COUNTY
ENVIRONMENTAL CHECKLIST FORM

Environmental Factors Potentially Affected:

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

☒ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☒ Geology / Soils	☐ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	☒ Mandatory Findings of Significance

DETERMINATION. (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

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

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (a) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (b) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An

ENVIRONMENT IMPACT REPORT (EIR) 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.

April Wentworth	4/10/26
Signature	Date
April Wentworth, Planner II	Kern County Planning and Natural Resources Department
Print	Agency

Evaluation of Environmental Impacts:

(1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

(2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

(3) Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.

(4) Negative Declaration: "Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The Lead Agency must describe the mitigation measure and briefly explain how they reduce the effect to a less than significant level.

(5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration, Section 15063(c) (3) (D). In this case, a brief discussion should identify the following:

(a) Earlier Analysis Used. Identify and state where they are available for review.

(b) Impacts Adequately Addressed. Identify which effects from the above checklist where within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the

earlier analysis.

(c) Mitigation Measures. For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

(6) Lead Agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

(7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

(8) This is only a suggested form, and lead agencies are free to use different formats; however, Lead Agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

(9) The explanation of each issue should identify:

(a) The significance criteria or threshold, if any, used to evaluate each question.

(b) The mitigation measure identified, if any, to reduce the impact to less than significance.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
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) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	☐	☒	☐	☐

RESPONSES:

Response to (a) through (c): The project is located within an area that has historically been used for agricultural purposes, specifically, pistachio trees, corn and wheat crops. There are no scenic trees, rock outcroppings or historic buildings on the project site. There are currently no designated scenic highways or sensitive view corridors in the vicinity of the Proposed project. Additionally, the Project would comply with sections 19.34.080 limiting height of buildings, 19.34.110 limiting height, size and location of signs, and 19.86 for minimum landscaping requirements and other development standards as provided in Zoning Ordinance (Title 19, Kern County Municipal Code). Therefore, the Project would have no impact on scenic vistas, state scenic highways or existing visual character or quality of the Project site or its surroundings.

Response to (d): As proposed, the travel center will be used for the traveling public along the Interstate 5 travel corridor and will operate 24 hours a day 7 days a week. The project would comply with the Dark Skies Ordinance section 19.81 where freestanding lighting shall not exceed 30 feet in height and attached lighting shall not exceed the height of the structure. Additionally, proposed mitigation measures require the project will conform with commercial development standards section 19.80.030.J., where all exterior

lighting shall be directed away from adjacent properties and roads. When lighting is visible from an adjacent public road, the lighting fixtures shall be equipped with glare shields or baffles and shall not exceed forty (40) feet in height above grade. The development standards and proposed mitigation measures will ensure impacts from any new source of light or glare will be reduced to a less than significant level.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timber land, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒

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

RESPONSES:

Response to (a) through (e): The project site is located in an area designated for commercial use, not agriculture or forestry. It is not classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and is not under a Williamson Act contract or zoned for agricultural or timberland use. The site and surrounding area lack forest resources, and no conversion of Farmland or forest land would occur on the Project site or in the vicinity of the Project. The area is designated for commercial development; therefore, the project would have no impact on agricultural or forestry resources.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) 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?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☒	☐	☐

RESPONSES:

Response (a) through (d): The project is located near a major Interstate (I-5) and would be anticipated to serve travelers already travelling along the Interstate and would not be a new destination that would generate unplanned traffic. However, the Project site is located within the San Joaquin Valley Air Basin which is in non-attainment status for the federal 8-hour ozone standards and classified as serious nonattainment for fine particulate matter less than 2.5 microns in size (PM2.5). Under the California Ambient Air Quality Standards (CAAQS), the San Joaquin Valley Air Pollution Control District is designated nonattainment for ozone, PM10, and PM2.5. The nearest sensitive receptor consisting of a single-family residence, is located approximately 0.87 miles east of the project site. Due to the project's location away from sensitive receptors and inclusion of proposed mitigation measures, operation of the Project would not expose individuals to substantial pollutant concentrations. The Project would not prevent implementation of any air quality plan, a net increase of any criteria pollutant under an applicable federal or state ambient air quality standard with implementation of proposed mitigation measures.

However, construction of the Project may generate fugitive dust (i.e. airborne dust particles that escape the project site) if not properly managed. Proposed mitigation measures would require the review and approval of a fugitive dust management plan prior to ground disturbing activities, ensuring that impacts related to particulate matter are reduced to a less than significant level.

Valley Fever, or coccidioidomycosis, is caused by the microscopic fungus *Coccidioides immitis* (*C.*

immitis), which grows in arid soil in parts of Kern County and other parts of America. Infection occurs when the spores of the fungus become airborne and are inhaled. Construction activities that disturb soils within the Project site could potentially release Valley Fever spores resulting in adverse health effects for construction workers or others exposed to the spores. Proposed mitigation measures would require implementation of Valley Fever training for all Project construction workers ensuring they are properly educated on the risks and safety protocols to reduce health risks related to Valley Fever exposure.

Although the Project could generate odors related to diesel engines, hydrocarbons or other emissions, no substantial population would occur on or near the site that would be adversely affected. Therefore, the project would have a less than significant impact related to air quality with the incorporation of mitigation measures.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
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 Wildlife, U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

RESPONSES:

PruettBio conducted a literature review (Appendix A) to identify known observations and potential for listed, or otherwise special-status, species to occur in the vicinity of the project site. A standard, 10-mile (16-kilometer) radius query was performed. Database records reviewed included:

- United States fish & Wildlife Service (USFWS iPac)
- USFWS National Wetlands Inventory
- United Stated Department of Agriculture (USDA) WebSoil Survey
- California Natural Diversity Database (CNDDB-RareFind 5)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants

Additionally, a reconnaissance-level biological field survey was conducted on August 7, 2024. The project site was evaluated through a combination of perimeter surveys and random transects designed to evaluate all representative habitat features of the site. These methods provided complete visual coverage of the project area. Field documentation included observations of all plant and wildlife species observed during the survey. Both direct observations and indirect evidence (e.g., tracks, scat, or other sign) were recorded to evaluate the potential for species occurrence. Land cover classifications and general habitat conditions were documented and photographed. Any special-status species, sensitive vegetation communities, or notable habitat features (e.g., ephemeral drainage channels) observed during the survey were also recorded and photographically documented.

Coordinates for sensitive biological resources and any direct observations of special-status species were recorded using a handheld Global Positioning System (GPS) unit. If observed, San Joaquin kit fox dens were classified in accordance with the U.S. Fish and Wildlife Service *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (2011). All plant taxa encountered during the survey were identified to the extent practicable based on available diagnostic characteristics at the time of observation. Taxonomic identifications were conducted using keys from The Jepson Manual: Vascular Plants of California, along with current online updates reflecting revisions to accepted taxonomic treatments (Baldwin et al. 2012: Jepson Flora Project 2015).

The project site is located adjacent to an active orchard, intensive row crop agriculture, and Interstate 5. The site was historically used for row crop farming, as evidenced by aerial imagery dating back to 2004. Prior to agricultural conversion, the site likely supported non-native grassland and valley saltbush scrub communities. Agricultural maintenance appears to have ceased around 2014, after which aerial imagery indicates natural vegetation recovery. The site is currently characterized by a mix of native and non-native vegetative cover.

Literature review and database queries identified 17 special-status plant species and 32 special-status wildlife species with potential to occur in the project vicinity. No special-status plant or wildlife species, or evidence thereof, were observed during the field survey. No protocol-level surveys were conducted. The field survey occurred outside the blooming period for several special-status plant species. An evaluation of special-status plant species with potential to occur in the region is provided in Appendix XX.

Special-Status Plant Species

Database queries (CNDDB, CNPS, and USGS nine-quadrangle search) identified 17 special-status plant species with potential to occur in the project vicinity, including three species listed as threatened or endangered under federal or state law. Special-status species were defined consistent with California Environmental Quality Act Section 15380 and California Department of Fish and Wildlife (2018) protocols,

including federally and state-listed species, CNPS-listed taxa, and locally significant species. CNDDB, California Native Plant Society (CNPS), and U.S. Geological Survey data were cross-referenced for consistency. Although CEQA requires consideration of locally significant species, mitigation is not required for impacts to non-listed species. Above-average precipitation during the survey period provided favorable conditions for plant detection. No special-status plant species were observed during field surveys, and none have been previously recorded within the project site.

Database queries identified 32 special-status wildlife species with potential to occur in the project vicinity, including 15 species listed under federal and/or state law. Special-status species considered include federally and state-listed species, candidates, species of special concern, and migratory birds protected under the Migratory Bird Treaty Act.

Special-Status Animal Species

No special-status wildlife species were observed during field surveys. Several potential dens consistent with San Joaquin kit fox (SJKF) were identified; however, no individuals were observed. Due to the site's recovering habitat and proximity to undeveloped lands, the site may provide foraging habitat for SJKF, though occupancy is unconfirmed. Other listed species within the regional range—including San Joaquin antelope squirrel, Tipton kangaroo rat, and blunt-nosed leopard lizard—are unlikely to occur due to historical disturbance and surrounding land uses. No designated critical habitat occurs on the project site based on U.S. Fish and Wildlife Service mapping. No jurisdictional waters or wetlands are present, consistent with National Wetlands Inventory review and field observations. No special-status natural communities were identified on-site. The project would not impact wildlife movement corridors or nursery sites. The project is not expected to conflict with any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other applicable regional or local biological resource policies.

Impact Analysis

Potential impacts to biological resources were evaluated using the thresholds set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Appendix B (Special-Status Plant and Animal Evaluations) supports the initial determination of impacts. The California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS) were not consulted during preparation of this analysis. If project activities result in potential take of federally or state-listed species, coordination with the appropriate agency and applicable permits (e.g., Incidental Take Permit pursuant to Cal. Code Regs., tit. 14, § 783.2) may be required. The following analysis evaluates potential impacts of the proposed project relative to these thresholds and identifies measures, where necessary, to reduce impacts to less-than-significant levels.

Response to (a): Direct and indirect impacts, in the form of "incidental take" of a threatened, endangered, or otherwise protected species, are not expected as a result of the development of the proposed project. Implementation of proposed mitigation measures for the protection of biological resources are recommended to avoid and minimize potential impact to general wildlife.

The project is within the historic range of Tipton kangaroo rats. The project was not included in the southwest focus area for the species in the previous habitat conservation plan. The most recent habitat suitability modeling (Cypher 2020) does not include the project in any of the four tiers enumerated for suitability and potential for occurrence of Tipton kangaroo rat is very low. Proposed mitigation measures requiring pre-construction surveys, worker environmental awareness program (WEAP) training, and management of construction materials and equipment would ensure special status wildlife species are not disturbed, entrapped or impeded during project construction. Proposed mitigation measures would reduce

impacts to special status species, including Tipton kangaroo rat, to less than significant.

Response to (b): No riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service exists on the project site. No impact will occur as a result of the development of the proposed project, and no mitigation measures are recommended.

Response to (c): No features, identified in wetland categories, appear on the USFWS National Wetlands Inventory mapping (USFWS 2021) on the proposed, modified project site. No federally protected wetland as defined by Section 404 of the Clean Water Act were identified during the field study conducted for the preparation of Biological Resources report. No impact will occur as a result of the development of the project. No mitigation measures are recommended.

Response to (d): No migratory wildlife corridors were identified during the literature search or field study. The project will not interfere substantially with the movement of any native fish of wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. However, construction of the project could impact nesting migratory birds and conflict with the Migratory Bird Treaty Act, if construction occurs during nesting season (generally February 1 through August 31). Proposed mitigation requires nesting bird surveys if ground disturbing activities would occur during the nesting season. Proposed mitigation would reduce impacts to nesting birds to less than significant.

Response to (e): There are no biological resources on the site which are protected by local policies. Impacts from conflicts with local policies will not occur. No additional mitigation measures are recommended.

Response to (f): The project is not located within and does not conflict with any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impacts would occur and no additional mitigation measures are recommended.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

RESPONSES:

Response to (a) through (c): A Phase I Cultural Resource Survey was completed by Hudlow Cultural Resource Associates (January 2025) which is attached as Appendix B The Cultural Resources Survey consisted of a pedestrian survey of the site and a cultural resources records search through the Southern San Joaquin Archeological Information Center. No historical or archaeological resources, or human remains, were identified within the site during the pedestrian survey. The cultural resources records search study area included the proposed Project site and a 0.5-mile buffer around the perimeter of the Project site. Five previous cultural resources surveys were conducted within the study area, with one survey including a portion of the Project site, Six cultural or historical resources have been recorded within the study area, including four prehistoric resources (three lithic scatters and one isolated flake) and two linear historical features (I-5 and a pipeline running parallel to I-5). None of the recorded resources were located within the Project site boundary.

Pursuant to Assembly Bill 52 (AB 52), the following tribes were notified: Tejon Indian Tribe, Twenty-Nine Palms Band of Mission Indians, Yuhaaviatam of San Manuel Nation, Torres Martinez Desert Cahuilla Indians, and Morongo Band of Mission Indians. The Twenty-Nine Palms Band of Mission Indians and Yuhaaviatam of San Manuel Nation responded with no comments. The remaining tribes did not respond. No tribes requested consultation or recommended mitigation measures for the project.

Although no archeological or historical resources (as per CEQA definitions) have been documented on the proposed Project site, there is a potential that unrecorded cultural resources could be unearthed or otherwise discovered at the proposed Project site during ground-disturbing and construction activities. The prehistoric artifacts documented in the study area may indicate that buried archaeological deposits are present within the proposed Project area and either represent a surface manifestation of the upper levels of the deposit(s),

or rather, were exposed (i.e., unburied) during historic and modern ground-disturbing activities. Due to the potential presence of buried prehistoric archaeological resources in the proposed Project area, the proposed Project could impact previously unknown, buried archaeological resources. Therefore, impacts are considered potentially significant. Proposed mitigation measures require a lead Archeologist to be retained prior to ground disturbing activities. The lead Archeologist would be responsible for preparing and implementing an Archeological Monitoring and Treatment Plan and conducting Cultural Resources Sensitivity Training for all construction personnel. Should cultural resources be encountered during grading or construction, all ground-disturbing activities within 50 feet of the find shall cease and Project proponent shall comply proposed mitigation measures. Additionally, should human remains be discovered during construction, construction activities shall cease within 100 feet of the discovery and the Project proponent shall comply with proposed mitigation measures pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines and in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Incorporation and implementation of proposed mitigation measures would reduce potentially significant impacts related to the inadvertent discovery of historical or archeological resources, or human remains to less than significant.

	Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

RESPONSES:

Response to (a) and (b): The project will not result in significant environmental impacts related to energy consumption or conflict with state or local plans for renewable energy or energy efficiency; therefore, the project would have less than significant impact related to energy. There are no unusual project characteristics that would cause construction equipment to operate less efficiently than on comparable sites within the County. As a result, construction-related fuel use would not be inefficient, wasteful, or unnecessary.

Energy consumption will occur during construction and operation; however, the proposed development is required to comply with current building code standards, including applicable state and local energy efficiency requirements and renewable energy goals. Therefore, the project would result in less than significant impact related to energy.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	☐	☒	☐	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☒	☐	☐

RESPONSES:

Response to (a. (i–iv)): The project site is located within the Tupman Quadrangle, a seismically active area of Kern County influenced by regional fault systems, including the San Andreas Fault. The nearest mapped fault is located approximately 13.5 miles from the project site within the Taft Quadrangle. The site has a moderate to high potential for strong seismic ground shaking, consistent with the southern San Joaquin Valley. Ground shaking intensity would vary based on the magnitude, distance, and depth of seismic events; however, the site is not located within a high fault rupture hazard zone, liquefaction hazard zone or landslide hazard zone. Compliance with applicable seismic design standards in the California Building Code (Title 24) would reduce the risk of structural damage, injury, or loss of life to less-than-significant levels.

Response to (b): Construction activities associated with the proposed project have the potential to result in soil erosion and loss of topsoil due to ground disturbance, grading, and vegetation removal. Without proper controls, these activities could expose soils to wind and water erosion. To reduce this impact, the project will be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP will incorporate Best Management Practices (BMPs) to minimize erosion and sediment transport. Implementation of proposed mitigation measures requiring preparation of a SWPPP and associated BMPs would reduce potential impacts related to soil erosion and topsoil loss to less-than-significant levels.

Response to (c) and (d): The project site is located within the Tupman Quadrangle on relatively flat terrain. Based California Geological Survey and U.S. Geological Survey maps, the site is not located within a landslide hazard zone. The site is underlain by alluvial soils that may exhibit low to moderate liquefaction susceptibility under strong seismic shaking; however, the site is not within a designated Seismic Hazard Zone for liquefaction, and the site has negligible landslide potential due to its flat topography. Soils in the project area may exhibit moderate to high shrink-swell potential, indicating the presence of expansive soils. Compliance with site-specific geotechnical recommendations and the California Building Code (Title 24) would reduce potential impacts related to soil instability, liquefaction, and expansive soils to less-than-significant levels.

Response to (e): The proposed project would utilize an on-site septic system for wastewater disposal. Soils in the project area may have characteristics (e.g., clay content and shrink-swell potential) that could affect percolation and long-term septic system performance if not properly evaluated and designed. Septic systems are regulated by the Kern County Public Health Department, which requires site-specific soil evaluation, percolation testing, and system design in accordance with applicable local and state standards prior to permit approval. With implementation of proposed mitigation measure, impacts related to soils and septic systems would be reduced to less-than-significant levels.

Response to (f): The project area may contain previously undiscovered paleontological resources within subsurface soils. To minimize the risk of inadvertent impacts, the project would implement a Worker Environmental Awareness Program (WEAP) for all construction personnel. This program, prepared and conducted by a qualified archaeologist or paleontologist, would provide training on recognizing potential paleontological resources and proper procedures if resources are encountered during construction. Training would cover the types of fossils that could be present, applicable cultural and paleontological statutes, and required response measures, including immediate cessation of work within 50 feet of a discovery and notification of the qualified professional for evaluation. Only trained personnel wearing verification (e.g., hard hat stickers) would be permitted to operate equipment in the construction area. Documentation of training completion would be maintained and submitted to Kern County Planning and Natural Resources. With implementation of this program, the potential for the project to directly or indirectly destroy a unique paleontological resource or site would be reduced to less-than-significant levels.

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

RESPONSES:

Response to (a): The project would result in a limited increase in greenhouse gas (GHG) emissions during construction and routine operations. Construction-related emissions would be temporary and short-term, consisting primarily of exhaust from heavy-duty equipment, worker vehicle trips, and fugitive dust from ground disturbance. All construction activities would be required to comply with applicable federal, State, and local regulations governing construction practices and with proposed mitigation measures, including restrictions on equipment idling, proper maintenance of diesel equipment, and implementation of best management practices.

To minimize emissions associated with vehicle and equipment exhaust, the project shall limit construction equipment and on-road vehicle idling to no more than five minutes, consistent with California Air Resources Board (CARB) regulations. Additional measures include maintaining equipment in proper working condition, watering exposed surfaces, covering haul trucks, minimizing track-out, and phasing grading activities to reduce disturbed areas. These measures are consistent with applicable San Joaquin Valley Air Pollution Control District (SJVAPCD) requirements and standard practices to reduce emissions. Operational emissions would be minimal and consistent with those generated by similar land uses, consisting primarily of vehicle trips and minor area sources. The project would also be required to comply with the California Building Standards Code Title 24, as adopted by the Kern County Building Code, including mandatory provisions of the California Green Building Standards Code, Part 11 and the Building Energy Efficiency Standards, Part 6. Mandatory CALGreen measures include construction waste diversion, water efficiency, indoor air quality standards, and resource-efficient materials. In addition, Title 24 energy efficiency standards require energy-efficient building systems, which reduce electricity and fuel consumption and thereby reduce indirect GHG emissions from energy generation.

Given the project's limited scale, temporary nature of construction emissions, and required compliance with regulatory standards designed to reduce GHG emissions, the project would not generate GHG emissions that would have a significant impact on the environment. Therefore, impacts would be less than significant.

Response to (b): The project does not include any components that would conflict with or impede implementation of applicable federal, State, regional, or local plans, policies, or regulations adopted to reduce greenhouse gas emissions. The project will be required to comply with all applicable regulatory requirements, including State mandates enforced by the California Air Resources Board (CARB), such as anti-idling regulations and equipment standards designed to reduce emissions during construction and operation.

In addition, the project's compliance with the California Building Standards Code CCR Title 24, including mandatory CALGreen Part 11 and Building Energy Efficiency Standards Part 6, ensures consistency with statewide GHG reduction goals. These standards promote reduced energy consumption, improved building efficiency, and lower associated emissions, which align with the objectives of State climate policies, including those aimed at reducing overall greenhouse gas emissions.

Compliance with applicable San Joaquin Valley Air Pollution Control District (SJVAPCD) rules further ensures that construction-related emissions are minimized and consistent with regional air quality and GHG reduction strategies.

Because the project is required to comply with these existing regulatory frameworks and does not propose any features that would conflict with adopted GHG reduction plans or policies, the project would not conflict with an applicable plan, policy, or regulation adopted to reduce GHG emissions. Therefore, impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
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 material, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites complied 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 or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

RESPONSES:

Response to (a): The proposed project includes typical commercial uses associated with a truck stop, including the storage and use of fuels and limited hazardous materials. Specifically, the project would include approximately 32,000 gallons of underground gasoline storage, 40,000 gallons of aboveground diesel storage, a 500-gallon propane tank for RV use, and common materials associated with a truck repair shop (e.g., lubricants, solvents, and maintenance fluids). All hazardous materials would be stored, handled, and transported in accordance with applicable federal, State, and local regulations, including requirements enforced by the Kern County Environmental Health Division and fire code standards. These regulations govern proper containment, spill prevention, and emergency response procedures, thereby minimizing the potential for adverse impacts. Further, proposed mitigation measures require a Hazardous Materials Business Plan (HMBP) be submitted to ensure hazardous materials stored onsite are done in a safe manner. Given implementation of proposed mitigation measures, regulatory compliance and standard industry practices, routine transport, use, and disposal of hazardous materials would not create a significant hazard to the public or environment. Therefore, impacts would be less than significant with implementation of mitigation.

Response to (b): Potential upset conditions could include accidental fuel spills or leaks from storage tanks or during fuel transfer operations. However, the project would be required to incorporate spill prevention and control measures, including secondary containment systems, leak detection for underground storage tanks, and compliance with applicable hazardous materials management plans. Additionally, the project site is not located near densely populated or highly sensitive receptors. The nearest sensitive receptor is a hotel located approximately 0.35 miles southeast of the project site, and a single-family residence is located approximately 0.87 miles east. These distances reduce the potential for exposure in the unlikely event of an accidental release. Further, proposed mitigation measures require preparation and submittal of a HMBP which would ensure procedures are in place in the event of an upset. With adherence to regulatory requirements and standard safety practices, the likelihood and severity of accidental releases would be low and would not result in significant hazards. Therefore, impacts would be less than significant.

Response to (c): The project site is not located within one-quarter mile of an existing or proposed school. The closest schools are Rio Bravo-Greeley Elementary School located approximately six (6) miles to the northeast, the closest middle school is Rio Bravo-Greeley School located six (6) miles to the northwest, and Liberty High School is located approximately 12 miles east of the project site. Therefore, the project would not expose students or school personnel to hazardous emissions or the handling of hazardous materials. Therefore, there would be no impact.

Response to (d): The project site is not identified on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Cortese List). As such, development of the site would not create a hazard to the public or environment related to known contamination. Therefore, there would be no impact.

Response to (e): The project site is not located within an airport land use plan or within a designated airport influence area. The nearest public airport is Buttonwillow Airport, located approximately eight (8) miles west of the project site and outside the administrative boundaries of the Kern County Airport Land Use Compatibility Plan. Due to this distance, the project would not be subject to airport-related safety hazards or excessive aircraft noise affecting people working at the site. Therefore, there would be no impact.

Response to (f): Kern County has an adopted Emergency Operations Plan that establishes countywide coordinated emergency response procedures, roles, communications, and operational protocols under California's Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS). The proposed project would not impair or physically interfere with the implementation of any adopted emergency response or evacuation plan. The project is located adjacent to Interstate 5 and near

Stockdale Highway, both of which are major transportation corridors that would continue to function as regional emergency access and evacuation routes. The project design would be required to comply with applicable access and circulation standards to ensure adequate emergency vehicle access. Therefore, impacts would be less than significant.

Response to (g): The project site is located within a Local Responsibility Area and is not within a State Responsibility Area for wildland fire. The site is designated as a Moderate (-3) Fire Hazard Severity Zone and is considered a non-wildland area. Surrounding land uses are largely agricultural and commercial, with limited wildland. Additionally, the distance to sensitive receptors (approximately 0.35 miles to a hotel and 0.87 miles to a residence) and the developed nature of the site reduce the potential for wildfire-related risks. The project would also be required to comply with applicable fire codes and defensible space requirements. Therefore, impacts related to wildland fire risk would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☒	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐

iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

RESPONSES:

Response to (a): The proposed project would not violate water quality standards, degrade surface or groundwater quality, or conflict with waste discharge requirements. The project will be required to comply with applicable stormwater regulations, including incorporation of surface drainage design features that direct runoff to approved collection and treatment facilities. Proposed mitigation measures require preparation of a Stormwater Pollution Prevention Plan (SWPPP). With these standard measures and proposed mitigation, impacts would be less than significant.

Response to (b): The project would not substantially decrease groundwater supplies or interfere with groundwater recharge. Any increase in impervious surfaces would be managed through required drainage improvements that maintain appropriate on-site runoff controls. The project site is located within the Rosedale-Rio Bravo Water Storage District Groundwater Sustainability Agency (GSA), which does not allocate groundwater to individual landowners; therefore, the project is consistent with the district's policies. The applicant will be required to install a flow meter and provide Rosedale and the Rosedale GSA reasonable access to the meter to monitor the amount groundwater extracted from the well and /or used on the Property. Proposed mitigation measures require the project proponent to obtain a water well permit from the Kern County Public Works Department, Environmental Health Division, prior to the installation and operation of the on-site well. Accordingly, impacts to groundwater resources would be less than significant with implementation of mitigation.

Response to (c): The project would not substantially alter existing drainage patterns in a manner that would cause erosion, siltation, flooding, exceed the capacity of stormwater systems, generate polluted runoff, or impede or redirect flood flows. Required surface drainage design, including sloped grading away from structures, controlled discharge locations, and compliance with County drainage standards, will ensure runoff is properly managed. As a result, all drainage-related impacts would be less than significant.

Response to (d): The project site is not within a tsunami or seiche zone and is not expected to be subject to flood-related pollutant release. Compliance with applicable drainage and stormwater requirements would further ensure that pollutant release risks remain less than significant.

Response to (e): See *Response to (b)*. The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan; therefore, the project impacts would remain less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

RESPONSES:

Response to (a) and (b): The project will not physically divide an established community or create any conflict with a land use plan, policy, or regulation adopted to avoid or mitigate environmental effects. Additionally, the project does not conflict with any applicable land use plan, policy, or regulation of agencies with jurisdiction over the site. The project site is designated 6.3 (Highway Commercial) by the Kern County General Plan , and the proposed development complies with this designation and is consistent with surrounding community land uses. Therefore, the project would have a less than significant impact on land use and planning.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES. Would the project:				
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?	☐	☐	☐	☒

RESPONSES:

Response to (a) and (b): The project is not designated for resource recovery by the Kern County General Plan, or other land use plans, and will not result in the loss of availability of a known mineral resource that would be of value to the state or loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, it will have no impact relating to mineral resources.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standard of other agencies?	☐	☒	☐	☐
b) Generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or 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?	☐	☐	☒	☐

RESPONSES:

Response to (a):The project site is located adjacent to Interstate 5, which is a dominant and continuous source of ambient noise in the project vicinity. Surrounding land uses are primarily rural, agricultural, and undeveloped properties, with limited noise-sensitive receptors. The nearest sensitive receptor is a hotel located approximately 0.35 miles southeast of the project site, and a single-family residence is located approximately 0.87 miles east.

The proposed truck stop and associated uses would generate operational noise from truck and passenger vehicle circulation, idling, and related activities. While truck stops are inherently noise-generating, the project would be required to comply with applicable standards in the Kern County Zoning Ordinance, Section 19.80.030.S. Given the existing elevated ambient noise environment associated with Interstate 5 and the separation distances to the nearest sensitive receptors, project-generated operational noise is not expected to result in a substantial increase in ambient noise levels at off-site receptors or exceed applicable standards.

Short-term construction activities would result in a temporary increase in noise and traffic in the surrounding area. However, construction noise would be intermittent and limited in duration, and would occur within an area characterized by industrial and commercial uses where such noise is typical and generally compatible. Compliance with Kern County noise regulations and proposed mitigation measures would ensure that temporary impacts remain less than significant. Therefore, impacts related to the

generation of temporary and permanent noise would be less than significant with implementation of mitigation.

Response to (b): The proposed project would involve typical commercial construction activities and operation of a truck stop facility. These activities do not include the use of heavy vibration-inducing equipment (e.g., pile driving) on a sustained basis, nor would operations generate substantial ground-borne vibration. Operational activities such as truck movement and idling are not expected to produce vibration levels that would be perceptible at the nearest sensitive receptors due to the distance from the site. Compliance with Kern County regulations would further ensure any temporary construction-related vibration is minimized. As such, the project is not anticipated to generate excessive ground-borne vibration or ground-borne noise. Therefore, impacts would be less than significant.

Response to (c): The project site is not located within an airport land use plan area, nor is it within the vicinity of a private airstrip. The nearest public airport is Buttonwillow Airport, located approximately eight (8) miles west of the project site, which is outside the administrative boundaries of the Kern County Airport Land Use Compatibility Plan. Due to the substantial distance from the nearest airport and absence of overflight activity affecting the project site, the project would not expose people residing or working in the area to excessive noise levels. Therefore, impacts related to airport noise would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned 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 people or housing, necessitating the constriction of replacement housing elsewhere?	☐	☐	☐	☒

RESPONSES:

Response to (a) and (b): The project is along a travel corridor in a commercially zoned area and will not induce substantial unplanned population growth in the area, the project will not physically divide an established community, or displace substantial numbers of existing people or housing, to necessitate housing elsewhere. Therefore, it will have no impact relating to population and housing.

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

RESPONSES:

Response to (a): The project will not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities impacting response time for or performance objectives for fire protection, police protection, schools, parks, or other public facilities.

Fire protection services are provided by the Kern County Fire Department, with the nearest facility being Buttonwillow Station 25, located approximately 8 miles northwest of the project site. The project site and surrounding area are classified as a Moderate (-3) Fire Hazard Severity Zone (FHSZ) within a Local Responsibility Area (LRA) and are considered non-wildland. The proposed truck stop would not substantially increase population or introduce land uses that would materially alter existing demand for fire protection services beyond typical commercial development. The project would be required to comply with all applicable fire codes, including access, water supply, and fire flow requirements, which are designed to maintain acceptable service ratios and response performance. Given the scale and nature of the project, and its location within an already served area, implementation would not require the construction of new or expanded fire protection facilities.

Police protection is provided by the Kern County Sheriff's Office, with the nearest substation (Battalion 02 – Substation North) located approximately eight (8) miles northwest of the project site. The project would

not introduce a residential population and would not be expected to substantially increase demand for law enforcement services beyond routine levels associated with commercial uses. The operational characteristics of the project are consistent with uses already served by existing law enforcement infrastructure. As such, the project would not require new or physically altered police facilities to maintain acceptable response times or service ratios.

The proposed Project is a commercial truck stop and would not introduce a residential population. As such, the project would not generate additional student enrollment or increase demand for school facilities. Furthermore, any applicable development would be subject to statutory school impact fees, which are intended to address cumulative impacts on school facilities.

The project would not generate a permanent residential population or increase demand for neighborhood or regional parks. The proposed Project would not create a need for new or expanded park facilities. Additionally, any applicable development would be subject to Quimby Act requirements, which ensure that parkland or in-lieu fees are provided to maintain service standards.

The project would not result in a substantial increase in population or demand for other public services such as libraries or community centers. The scale and nature of the project are consistent with existing commercial and industrial uses in the area, and it would be adequately served by existing public facilities without requiring expansion or construction of new facilities.

The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities. Impacts to public services would be less than significant.

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

RESPONSES:

Response to (a) and (b): The project will not increase the use of existing neighborhood and regional parks or other recreational facilities and does not include recreational facilities or require the construction or expansion for recreational facilities which might have an adverse physical effect on the environment. Therefore, it will have no impact relating to recreation.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines Section § 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

RESPONSES:

Response to (a) through (d): The applicant provided a Traffic Impact Study completed by Ruettgers & Schuler Civil Engineers, dated March 2024 revised August 2024 (Appendix C). The Traffic Impact Study was reviewed by the Kern County Public Works Development Review Department and it was determined the project does not conflict with a program plan ordinance or policy addressing the circulation system, and does not conflict with CEQA guidelines Section § 15064.3, subdivision (b) or substantially increase hazards due to a geometric design feature or result in inadequate emergency access. Therefore, it will have a less than significant impact relating to transportation.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES.				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

RESPONSES:

Response to (a): The project site is not located in an area determined to be highly or moderately sensitive for tribal cultural resources. Pursuant to Assembly Bill (AB) 52, project information was routed to the Tejon Indian Tribe, Twenty-Nine Palms Band of Mission Indians, Yuhaaviatam of San Manuel Nation, Torres Martinez Desert Cahuilla Indians, and Morongo Band of Mission Indians, offering each an opportunity to consult under Public Resources Code (PRC) Section 21080.3(b) with a 30-day window to formally respond. No requests or consultation were received. If any previously unknown archaeological or cultural resources are discovered, proposed mitigation measures would require work in the area of discovery to cease and a qualified archaeologist contacted to evaluate the find. A copy of the archaeologist's evaluation shall be submitted to the Kern County Planning and Natural Resources Department upon its issuance, and any measures recommended by the archaeologist shall be implemented before work resumes in the area of discovery. Further, proposed mitigation measures require compliance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641) if human remains are discovered during ground disturbing activities. With implementation of proposed mitigation measures, any potential impact to tribal cultural resources would be reduced to less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) 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?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

RESPONSES:

Response to (a): As a new development, the Project would require standard utility connections for water, wastewater, stormwater drainage, electric power, natural gas, and telecommunications. These improvements would be limited to on-site infrastructure and typical service extensions. Utility providers have confirmed their ability to serve the Project, and no off-site expansions, major new facilities, or relocation of existing infrastructure would be required. Therefore, the Project would not result in the need for new or expanded utility systems and impacts would be less than significant.

Response to (b): The project site is located within the Rosedale Rio-Bravo Water Storage District and the Rosedale Rio-Bravo Water Storage District Groundwater Sustainability Agency (GSA). The GSA has

confirmed only that the proposed use of groundwater for the project is consistent with the current Groundwater Sustainability Plan (GSP) prepared under the Sustainable Groundwater Management Act (SGMA). The GSA retains full authority to regulate, limit, or suspend groundwater extraction, and neither the District nor the GSA guarantees the availability of groundwater, the ability to extract groundwater, or the maintenance of groundwater levels or quality.

The property owner will be required to install a flow meter on any well serving the project site and to provide the District and the Groundwater Sustainability Agency (GSA) access for monitoring to ensure compliance with SGMA requirements. The property owner also agrees to provide Rosedale with an easement for a future pipeline connection to existing infrastructure located in proximity to the property. Because the project's groundwater use falls within the parameters of the adopted Groundwater Sustainability Plan (GSP) and is subject to ongoing GSA oversight, the project would not substantially deplete groundwater resources or conflict with groundwater management efforts. Therefore, impacts related to water supply reliability would be less than significant.

Response to (c): The project would not result in a determination by a wastewater treatment provider regarding available capacity because the applicant proposes to utilize a private on-site wastewater treatment system and leach field. As no connection to a public wastewater treatment provider is required, the project would not affect the provider's existing commitments or capacity. Therefore, no impacts related to wastewater treatment capacity would occur.

Response to (d): The project would not generate solid waste in excess of State or local standards or beyond the capacity of local solid waste infrastructure. Solid waste produced during construction and operation would be typical of comparable development and would be accommodated by existing regional waste management services. Therefore, impacts related to solid waste generation, and solid waste reduction goals would be less than significant.

Response to (e): The project will comply with all applicable federal, State, and local solid waste regulations, including waste diversion requirements. As a result, solid waste–related impacts would be less than significant**.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

RESPONSES:

Response to (a) through (d): The project would not impair or interfere with any adopted emergency response or evacuation plans. The site is located in an area with minimal slope and is not within or adjacent to a State Responsibility Area or a Very High Fire Hazard Severity Zone. Project implementation would not exacerbate wildfire risks due to slope, prevailing winds, or other environmental conditions, nor would it expose occupants to pollutant concentrations generated during a wildfire. Additionally, the project does not include or require installation or maintenance of infrastructure that could increase fire risk or create ongoing environmental impacts. All County-required development standards, including road improvements or any other conditions of approval, will be implemented as part of the project, thereby ensuring adequate access and compliance with applicable safety requirements. The project site is not subject to conditions that would expose people or structures to flooding, landslides, or post-fire slope instability. Therefore, the project would result in a less than significant or no impact related to wildfire hazards or emergency response.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

RESPONSES:

Response to (a): The proposed project has the potential to result in a significant impact on biological and cultural resources due to possible disturbance of habitat or species or inadvertent discovery of archeological resources during construction. However, with implementation of the included mitigation measures potential impacts would be minimized.

These measures will ensure that the project does not substantially degrade the quality of the environment, reduce habitat, or threaten any special-status species or plant communities. Further, the proposed mitigation measures would ensure the protection of archeological resources if they are inadvertently uncovered during construction. Therefore, with incorporation of mitigation, all potential impacts would be reduced to less than significant levels.

Response to (b): The project's incremental contribution to cumulative environmental impacts would not be cumulatively considerable. Projects within Kern County, including the proposed project, are evaluated for potential impacts and required to implement project-specific mitigation measures to reduce impacts to less than significant levels. All development must also comply with applicable County policies and ordinances.

The project will adhere to all permitting requirements and regulations of the Kern County Zoning Ordinance, the San Joaquin Valley Air Pollution Control District, the California Building Code, and the California Code of Regulations Fire Code. Compliance with these requirements ensures that the project does not contribute to cumulative impacts beyond those already anticipated in regional and local planning efforts.

Mitigation measures identified for Air Quality, Geology and Soils, Noise and Transportation will further reduce project-level impacts to less than significant. When viewed in connection with past, present, and reasonably foreseeable future development, the project does not result in cumulatively considerable effects. Therefore, cumulative impacts would be less than significant.

Response to (c): The project does not have the potential to cause substantial adverse effects on human beings, either directly or indirectly. The project site is in an area planned for industrial use, and all identified environmental impacts—such as air quality, noise, traffic, and geologic hazards—have been reduced to less than significant levels through compliance with proposed mitigation measures, existing regulations and standard conditions of approval. No substantial adverse effects on human beings are anticipated with implementation of mitigation; therefore all potential impacts would be reduced to less than significant.

BIBLIOGRAPHY

(1) California Air Resources Board. 2023. *In Use Off-Road Diesel-Fueled Fleets Regulation and Airborne Toxic Control Measures; Commercial Motor Vehicle Idling Regulation.* Sacramento, CA. Available: https://ww2.arb.ca.gov

(2) California Building Standards Commission (CBSC). 2022. *California Building Standards Code, Title 24, California Code of Regulations, including Part 6 (Building Energy Efficiency Standards) and Part 11 (California Green Building Standards Code [CALGreen]).* Sacramento, CA. Available at: https://www.dgs.ca.gov/BSC

(3) California Department of Conservation, California Geological Survey (CGS). 2008 (updated periodically). *Guidelines for Evaluating and Mitigating Seismic Hazards in California.* Special Publication 117A. Sacramento, CA. https://maps.conservation.ca.gov/cgs/informationwarehouse/

(4) California Department of Conservation, California Geological Survey (CGS). 2018. *Special Publication 42: Earthquake Fault Zones—A Guide for Government Agencies, Property Owners/Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California (Revised 2018).* Sacramento, CA.

(5) California Department of Conservation, California Geological Survey (CGS). 2024. *Seismic Hazard Zone Maps and Alquist-Priolo Earthquake Fault Zones.* Sacramento, CA.

(6) Hudlow Cultural Resource Associates. 2025. *Phase 1 Cultural Resource Survey – G-Lynn Truck Stop, Kern County, California.*

(7) Kern County Planning and Natural Resources Department. 2004. *General Provisions of the Kern County General Plan.* Bakersfield, CA. Online Geographic Information System.

(8) Kern County Planning and Natural Resources Department. 2004. *Kern County General Plan.* Bakersfield, CA.

(9) Kern County Planning and Natural Resources Department. 2004. *Recirculated Program Environmental Impact Report for the Kern County General Plan.* Bakersfield, CA.

(10) Kern County Geographic Information System (GIS), 2022. *Airport Land Use Compatibility Plan.* Accessed October 2025.

(11) Kern County Geographic Information System (GIS), 2022. *Flood Plain Map 2250, Panel 06029C-2250* (2008). Accessed March 2026.

(12) Kern County Geographic Information System (GIS), 2022. *Agricultural Preserve No. 9 Boundary Map,* (2014). Accessed October 2025.

(13) Kern County Geographic Information System (GIS), 2022. *Zone Map No. 100. Ordinance G-4833, September 6, 1988, (Adopted Ordinance G-1189, September 1969).* Accessed October 2025.

(14) Kern County Planning and Natural Resources Department. 2025. *Zoning Ordinance.* Bakersfield, CA.

(15) Kern County Water Agency / Rosedale-Rio Bravo Water Storage District. 2025. *Water Supply Report, Consistency of Development Project with Groundwater Sustainability Plan.* Bakersfield, CA.

(16) Pruett Biological Resource Consulting. 2024. *Biological Resource Evaluation – Lynn Trucking Inc.*

(17) Ruettgers & Schuler Civil Engineers. 2024. *Traffic Study – Proposed Mixed-Use Development, Stockdale Highway & Interstate 5, Bakersfield, California.*

(18) San Joaquin Valley Air Pollution Control District (SJVAPCD). 1998. *Guide for Assessing and Mitigating Air Quality Impacts.* Fresno, CA.

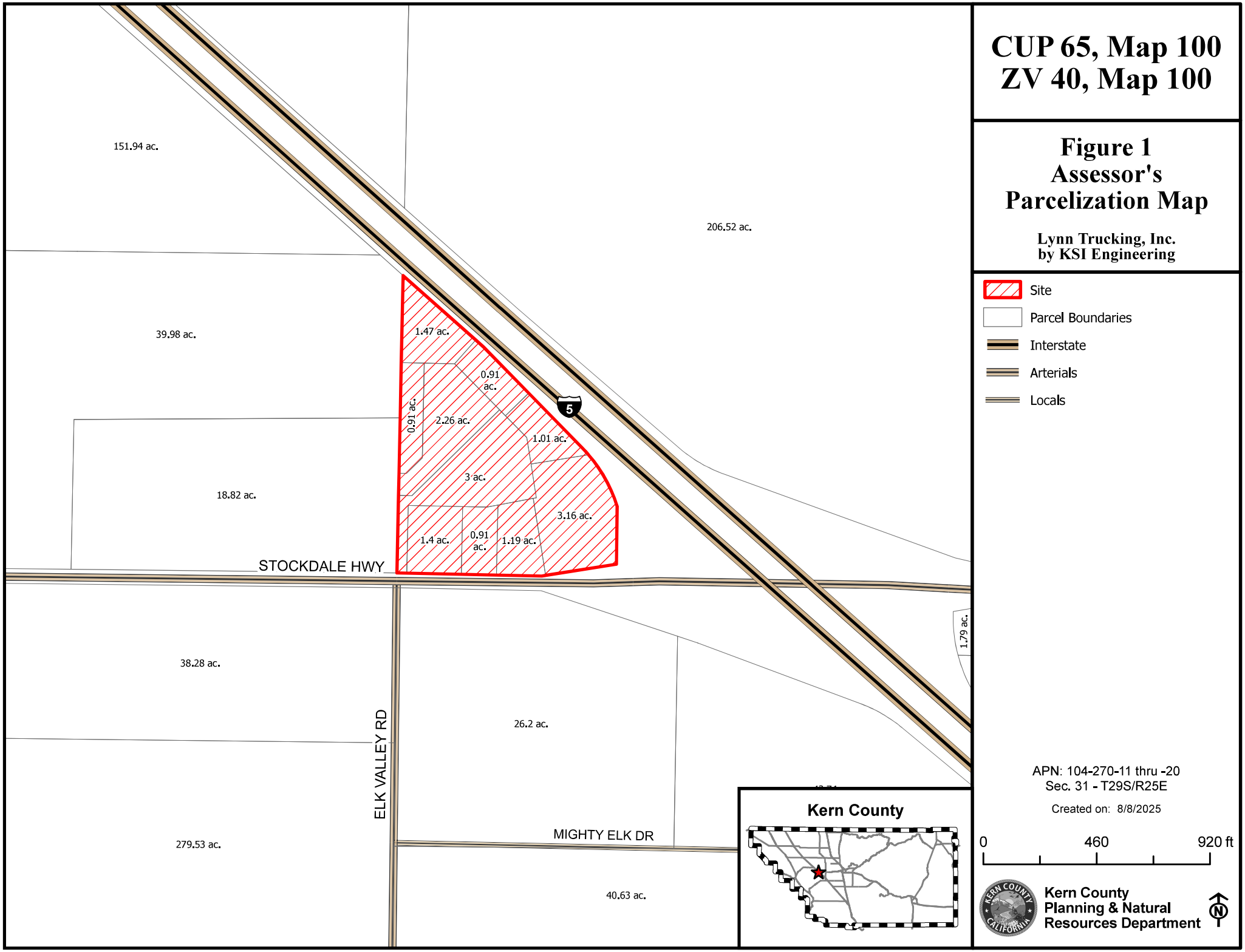
(19) San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. *Guide for Assessing and Mitigating Air Quality Impacts.* Fresno, CA.

(20) San Joaquin Valley Air Pollution Control District (SJVAPCD). 2023. *Regulation VIII (Fugitive PM10 Prohibitions), Rule 403 – Fugitive Dust; Guide for Assessing and Mitigating Air Quality Impacts.* Fresno, CA.

(21) U.S. Department of Agriculture, Soil Conservation Service. 1988. *Soil Survey of Kern County / Northwestern Part – Sheet 6 / Emigrant Hill Quadrangle.*

(22) U.S. Geological Survey (USGS). 2023. *Earthquake Hazards Program: National Seismic Hazard Maps and Data*

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CUP 65, Map 100
ZV 40, Map 100

Figure 1
Assessor's Parcelization Map

Lynn Trucking, Inc.
by KSI Engineering

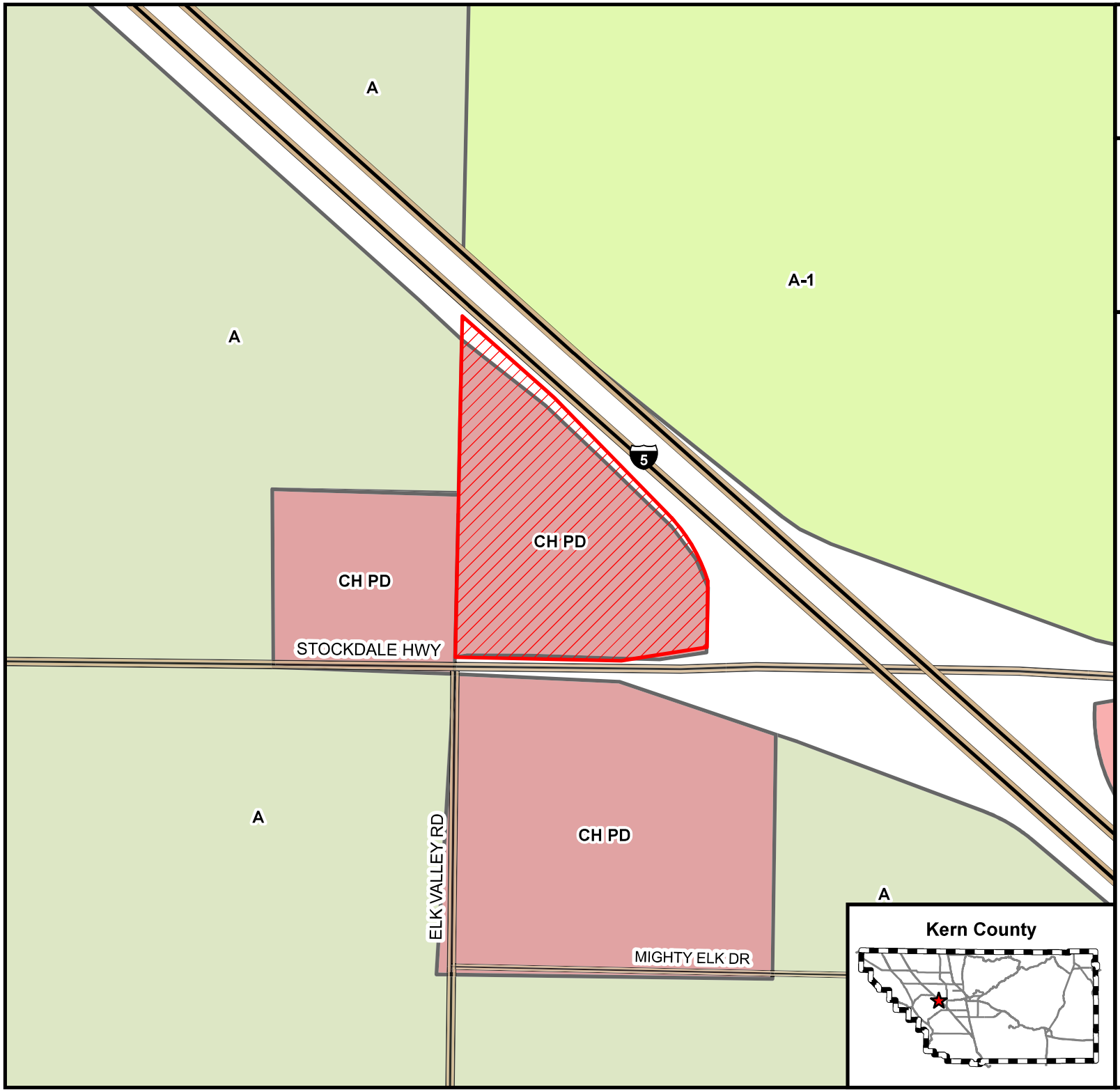
- Site
- Parcel Boundaries
- Interstate
- Arterials
- Locals

APN: 104-270-11 thru -20
Sec. 31 - T29S/R25E

Created on: 8/8/2025

0 460 920 ft

Kern County Planning & Natural Resources Department



CUP 65, Map 100
ZV 40, Map 100

Figure 2
Existing Zone Classifications

Lynn Trucking, Inc.
by KSI Engineering

- Site
- Interstate
- Arterials
- Locals

KERN COUNTY ZONING DESIGNATIONS

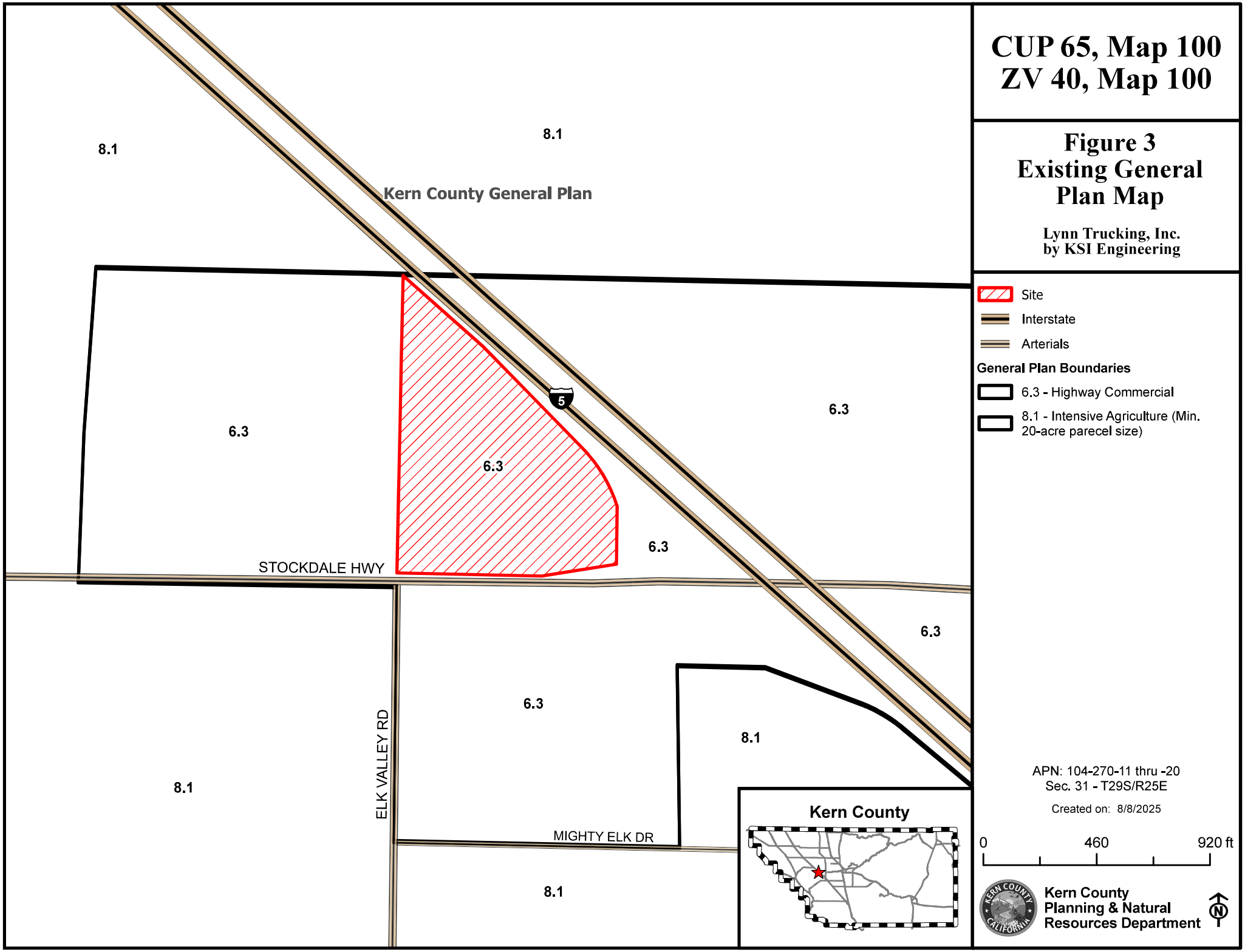
- A - Exclusive Agriculture
- A-1 - Limited Agriculture
- C-2 - General Commercial
- CH - Highway Commercial
- PD - Precise Development Combining

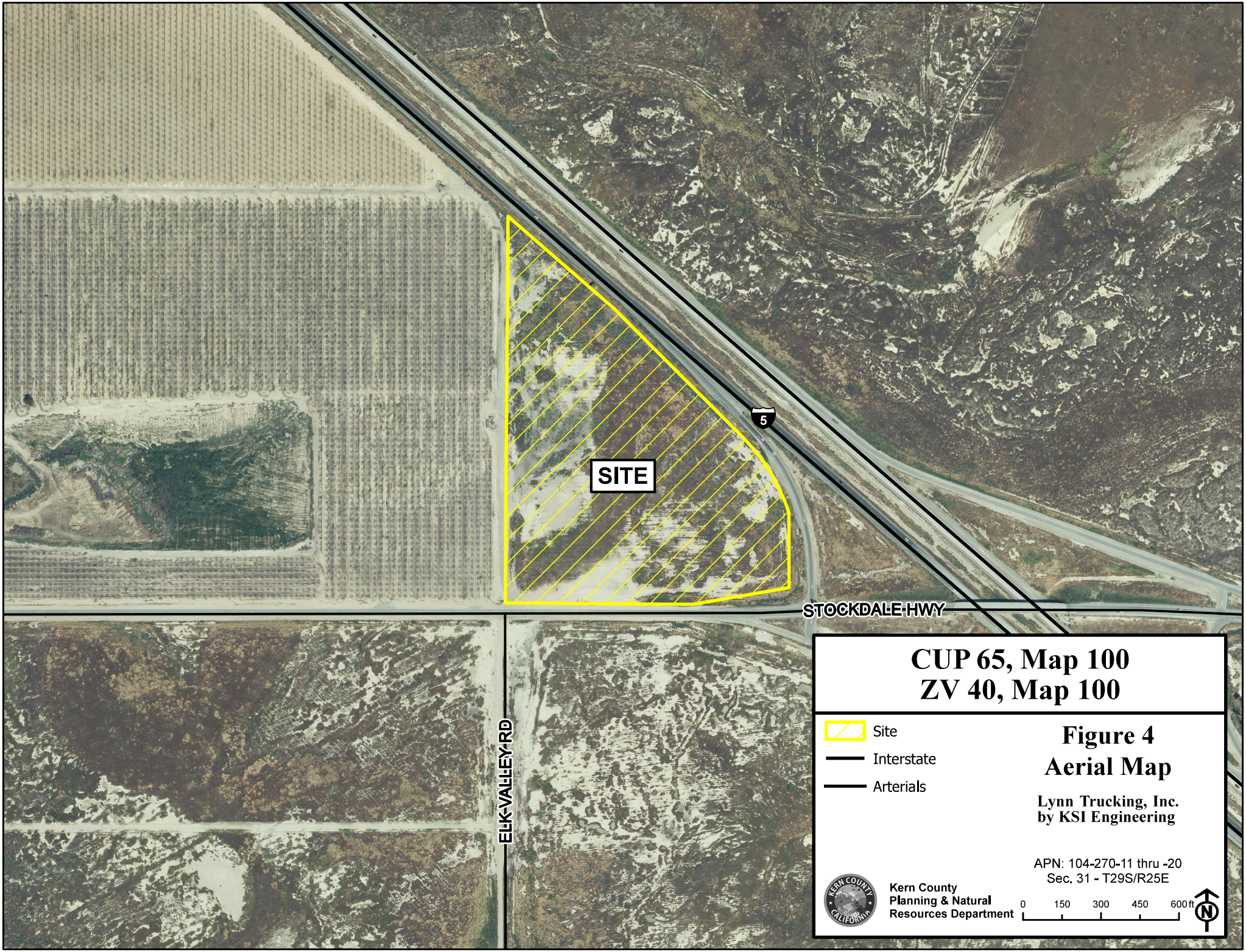
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Sec. 31 - T29S/R25E

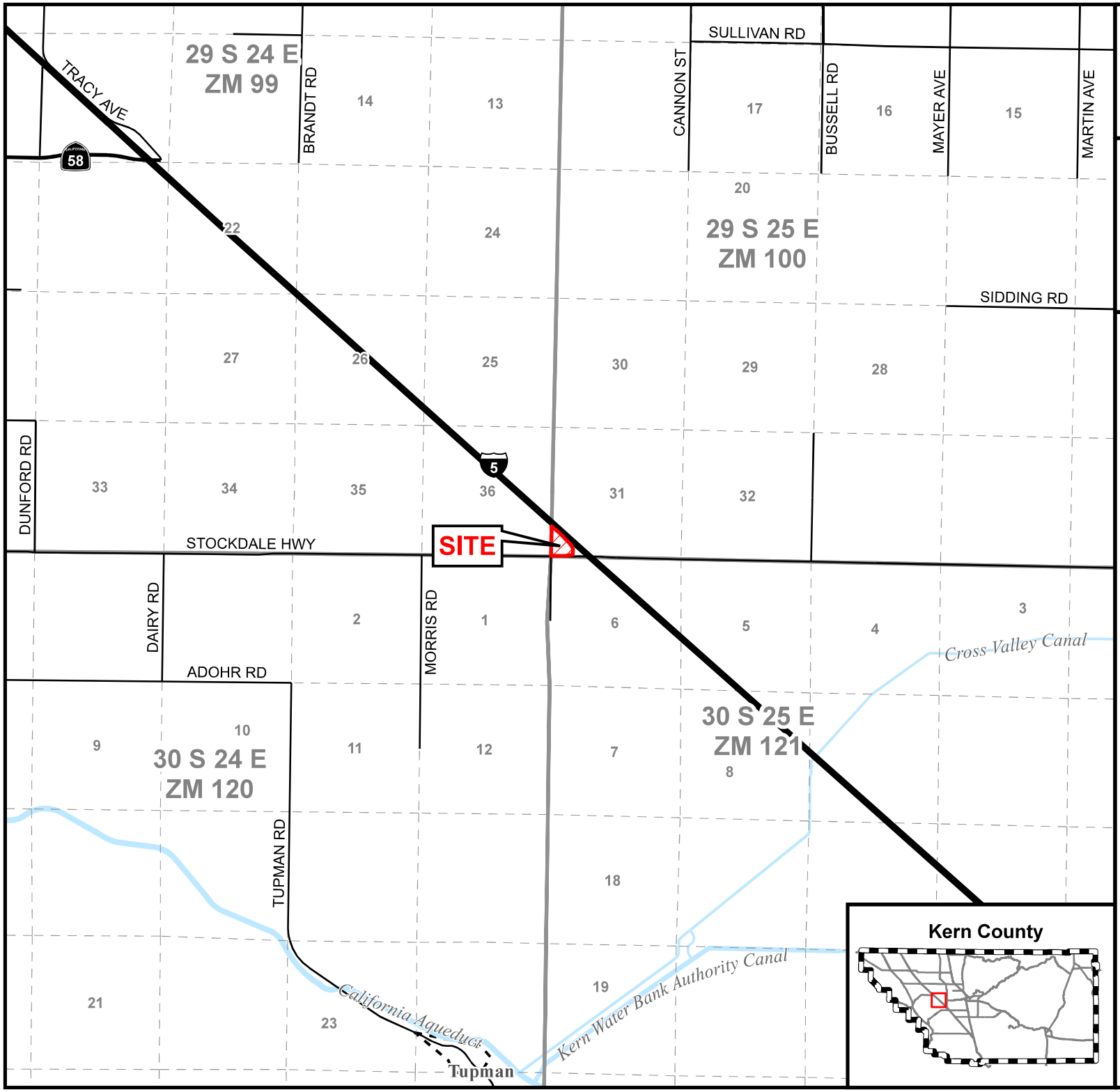
Created on: 8/8/2025

0 460 920 ft

Kern County Planning & Natural Resources Department


CUP 65, Map 100
ZV 40, Map 100
Figure 3
Existing General Plan Map
Lynn Trucking, Inc.
by KSI Engineering
Kern County General Plan
8.1
6.3
Site
Interstate
Arterials
General Plan Boundaries
6.3 - Highway Commercial
8.1 - Intensive Agriculture (Min. 20-acre parecel size)
STOCKDALE HWY
ELK VALLEY RD
MIGHTY ELK DR
5
APN: 104-270-11 thru -20
Sec. 31 - T29S/R25E
Created on: 8/8/2025
0
460
920 ft
Kern County
Kern County Planning & Natural Resources Department


SITE
5
STOCKDALE HWY
ELK VALLEY RD
CUP 65, Map 100
ZV 40, Map 100
Site
Interstate
Arterials
Figure 4
Aerial Map
Lynn Trucking, Inc.
by KSI Engineering
APN: 104-270-11 thru -20
Sec. 31 - T29S/R25E
Kern County
Planning & Natural
Resources Department
0 150 300 450 600 ft
N



CUP 65, Map 100
ZV 40, Map 100

Figure 5
Vicinity Map

Lynn Trucking, Inc.
by KSI Engineering

- Site
- Interstate
- State Hwy
- Arterials
- Township/Range
- Sections
- City Limits
- Unincorporated Cities

APN: 104-270-11 thru -20
Sec. 31 - T29S/R25E

Created on: 8/8/2025

0 5,100 10,200 ft

Kern County
Planning & Natural
Resources Department

LEGAL DESCRIPTION

BEING A MERGER AND RE-SUBDIVISION OF PARCELS 1 THROUGH 10, INCLUSIVE, OF PARCEL MAP NO. 9086, IN THE UNINCORPORATED AREA, COUNTY OF KERN, STATE OF CALIFORNIA, AS PER MAP RECORDED JANUARY 21, 1992 IN BOOK 43, PAGES 94 AND 95 OF PARCEL MAPS;
A PORTION OF THE SOUTHWEST QUARTER OF SECTION 31, TOWNSHIP 29 SOUTH, RANGE 25 EAST, MOUNT DIABLO BASE & MERIDIAN, IN THE UNINCORPORATED AREA OF THE COUNTY OF KERN, STATE OF CALIFORNIA.

GENERAL NOTES

1. ASSESSOR'S PARCEL NUMBER: 104-270-11 THROUGH 104-270-20, INCLUSIVE
2. ADDRESS: NW CORNER OF STOCKDALE HWY AND INTERSTATE-5, BAKERSFIELD, CA
3. GENERAL PLAN-EXISTING: 6.3-HIGHWAY COMMERCIAL
4. GENERAL PLAN-PROPOSED: NO CHANGE
5. LAND USE-EXISTING: VACANT, UNDEVELOPED
6. LAND USE-PROPOSED: CONVENIENCE STORE WITH RESTAURANTS, HOTEL, TRUCK WASH, TRUCK FUEL AREA, TRUCK SERVICE BUILDING, TRUCK PARKING AND OTHER ACCEPTABLE USES UNDER HIGHWAY COMMERCIAL PER ZONING ORDINANCE.
7. ZONING-EXISTING: CH PD
8. ZONING-PROPOSED: NO CHANGE
9. PARCEL AREA: 16.61 GROSS ACRES/ 14.78 NET ACRES
10. NUMBER OF PARCELS: 6
11. NUMBER OF BUILDABLE PARCELS: 6
12. WATER: PRIVATE ON-SITE SYSTEM
13. SEWER: PRIVATE ON-SITE SEPTIC SYSTEM
14. DRAINAGE: ON-SITE RETENTION IN CONFORMANCE WITH COUNTY OF KERN STANDARDS.
15. GAS: PG&E
16. ELECTRIC: PG&E
17. FIRE PROTECTION: IN CONFORMANCE WITH COUNTY OF KERN FIRE DEPARTMENT STANDARDS
18. ALL DISTANCES AND DIMENSIONS SHOWN HEREON ARE IN FEET AND DECIMALS THEREOF.
19. THE DISTINCTIVE BORDER INDICATES THE BOUNDARY OF LAND SUBDIVIDED BY THIS MAP.
20. THIS MAP WILL NOT BE PHASED.
21. PUBLIC IMPROVEMENTS: TYPE A
22. DEVELOPMENT VARIATION REQUESTED TO PROVIDE PRIVATE ACCESS 40' IN WIDTH, AS SHOWN HEREON, IMPROVED TO TYPE "C" STANDARDS AS PARCELS 1-5 LEGAL ACCESS TO A PUBLIC RIGHT-OF-WAY AND FOR A POLE SIGN WITH HEIGHT OF 75' AND 560 S.F. PER SIDE.

STATISTICS

1. SITE AREA: 16.61 AC. GROSS/ 14.78 AC. NET
2. BUILDING DATA: 38,199 S.F. (5.9% OF NET)
3. LANDSCAPING REQUIRED: = 5% OF NET = 32,188 S.F.
4. LANDSCAPING PROVIDED: 143,153 S.F. (22.2% OF NET)
5. PARKING REQUIRED: 189
6. PARKING PROVIDED: 223
7. BUILDING HEIGHT: PER ZONING ORDINANCE

OWNER/DEVELOPER

LYNN TRUCKING, INC., A CALIFORNIA CORPORATION
16394 BAY BROOK AVENUE
RIVERSIDE, CALIFORNIA 92504
951-941-5108

LEGEND

- EXISTING EDGE OF PAVEMENT
- ADA PATH OF TRAVEL
- E.P. EDGE OF PAVEMENT
- SW SIDEWALK (CONCRETE)
- LS LANDSCAPE
- (#) NUMBER OF PARKING SPACES PROVIDED
- ASPHALT CONCRETE PAVEMENT (MIN. 3" AC/6" CL II AB)
- SIDEWALK
- HEAVY DUTY CONCRETE
- LANDSCAPING
- TRASH ENCLOSURE (TYPICAL)

BASIS OF BEARINGS

THE SOUTH LINE OF SECTION 31, T29S, R29E, M.D.M, BEARING N88°47'25"W AS SHOWN ON PARCEL MAP 9086, WAS USED AS THE BASIS OF BEARINGS AS SHOWN HEREON.

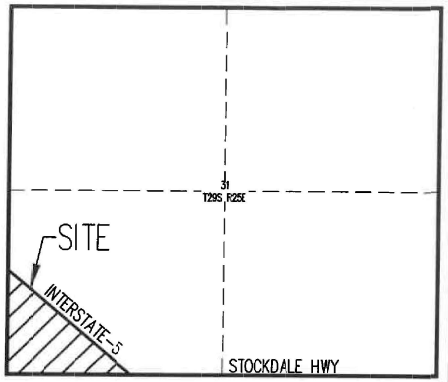
BASIS OF ELEVATIONS

THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) WAS USED AS THE BASIS OF ELEVATION AS SHOWN HEREON.

NGS BENCHMARK DESIGNATION	ELKSHOT
PID	FU1449
STATE/COUNTY	CA/KERN
COUNTRY	US
USGS QUAD	TUPMAN (2018)
N	2318195.24'
E	6161688.59'
EL	301.50'

FLOOPLAIN DESIGNATION

ZONE X - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
FEMA MAP NUMBER: 06029C3525E - PANEL 3525 OF 4125
EFFECTIVE DATE: SEPTEMBER 26, 2008
KERN COUNTY 060075



VICINTY MAP
NTS

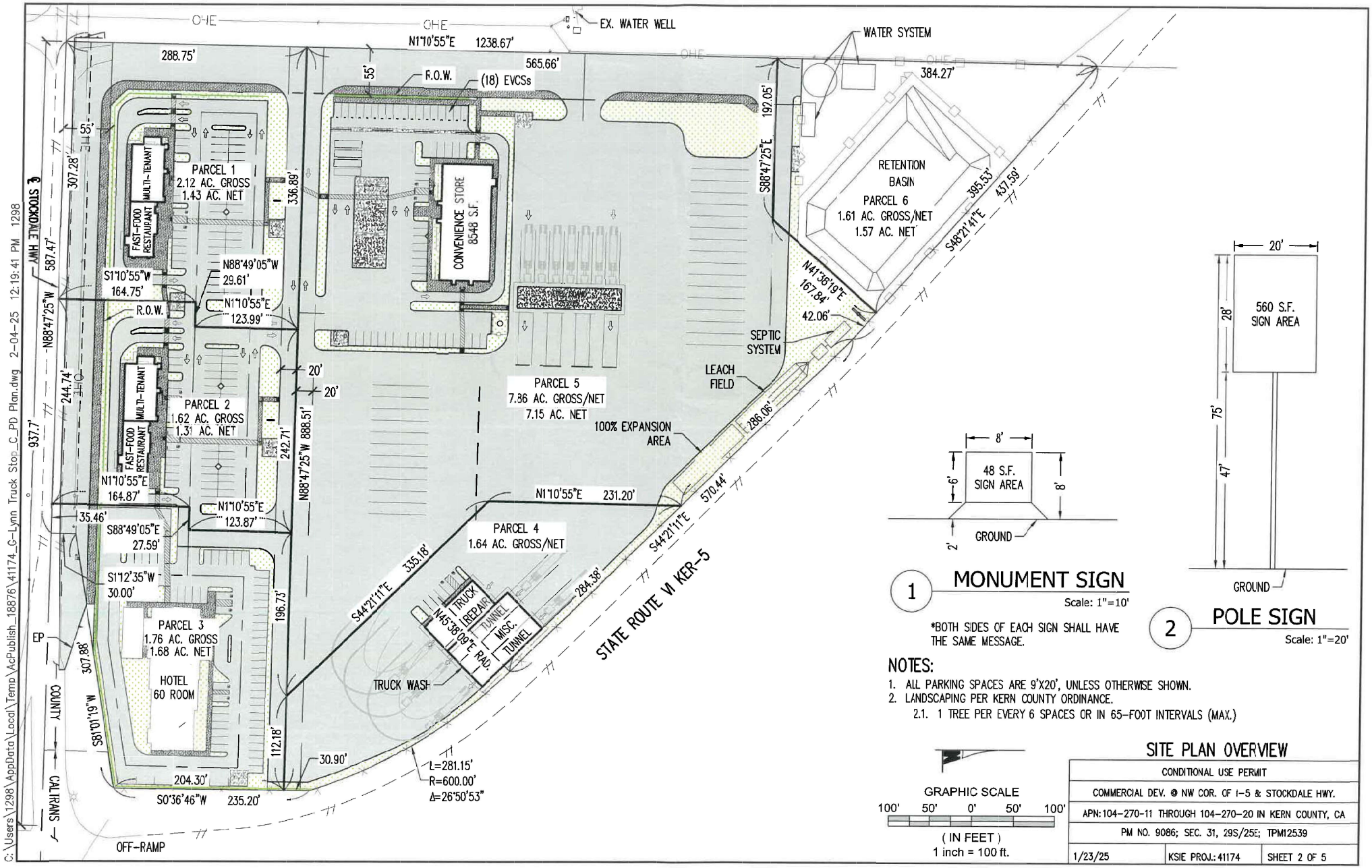
EASEMENTS AFFECTING PROPERTY

(A) AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES TO THE COUNTY OF KERN PER MINUTES BK 30, PG 416 OF OFFICIAL RECORDS.

AN EASEMENT TO PG&E PER DOCUMENT RECORDED AS BK 6343, PG 1542, O.R. OF OFFICIAL RECORDS. THE EXACT LOCATION OF WHICH CANNOT BE LOCATED OF RECORD.

CONDITIONAL USE PERMIT		
COMMERCIAL DEV. @ NW COR. OF I-5 & STOCKDALE HWY.		
APN: 104-270-11 THROUGH 104-270-20 IN KERN COUNTY, CA		
PM NO. 9086; SEC. 31, 29S/25E; TPM12539		
1/23/25	KSIE PROJ.: 41174	SHEET 1 OF 5

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1 MONUMENT SIGN
Scale: 1"=10'

*BOTH SIDES OF EACH SIGN SHALL HAVE THE SAME MESSAGE.

2 POLE SIGN
Scale: 1"=20'

NOTES:

1. ALL PARKING SPACES ARE 9'X20', UNLESS OTHERWISE SHOWN.
2. LANDSCAPING PER KERN COUNTY ORDINANCE.
   2.1. 1 TREE PER EVERY 6 SPACES OR IN 65-FOOT INTERVALS (MAX.)

GRAPHIC SCALE
100' 50' 0' 50' 100'
(IN FEET)
1 inch = 100 ft.

SITE PLAN OVERVIEW

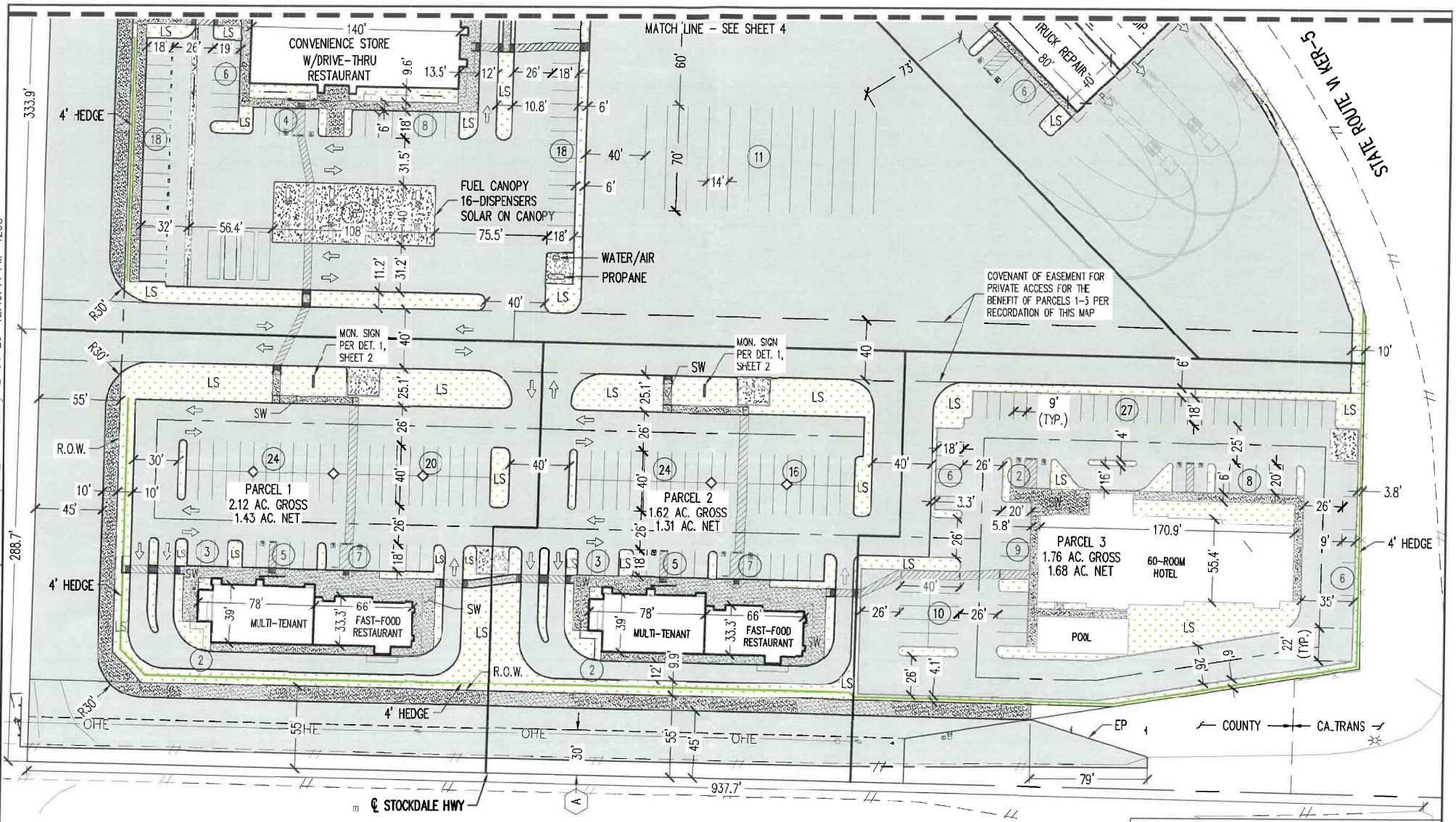
CONDITIONAL USE PERMIT

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APN: 104-270-11 THROUGH 104-270-20 IN KERN COUNTY, CA

PM NO. 9086; SEC. 31, 29S/25E; TPM12539

1/23/25	KSIE PROJ.: 41174	SHEET 2 OF 5



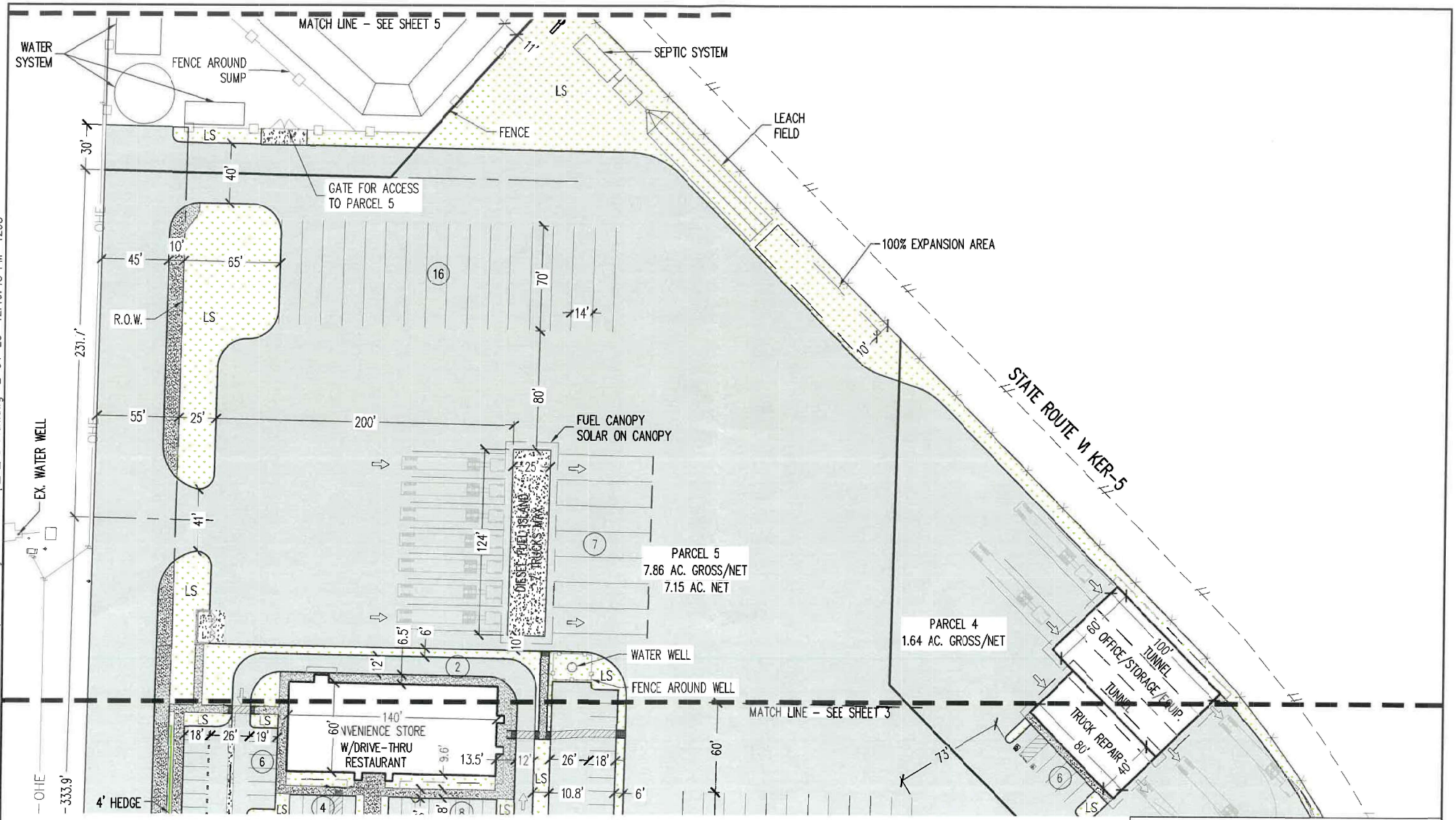
NOTES:

1. ALL PARKING SPACES ARE 9'X20', UNLESS OTHERWISE SHOWN.
2. LANDSCAPING PER KERN COUNTY ORDINANCE.
   2.1. 1 TREE PER EVERY 6 SPACES OR IN 65-FOOT INTERVALS (MAX.)

GRAPHIC SCALE
60' 30' 0' 30' 60'
(IN FEET)
1 inch = 60 ft.

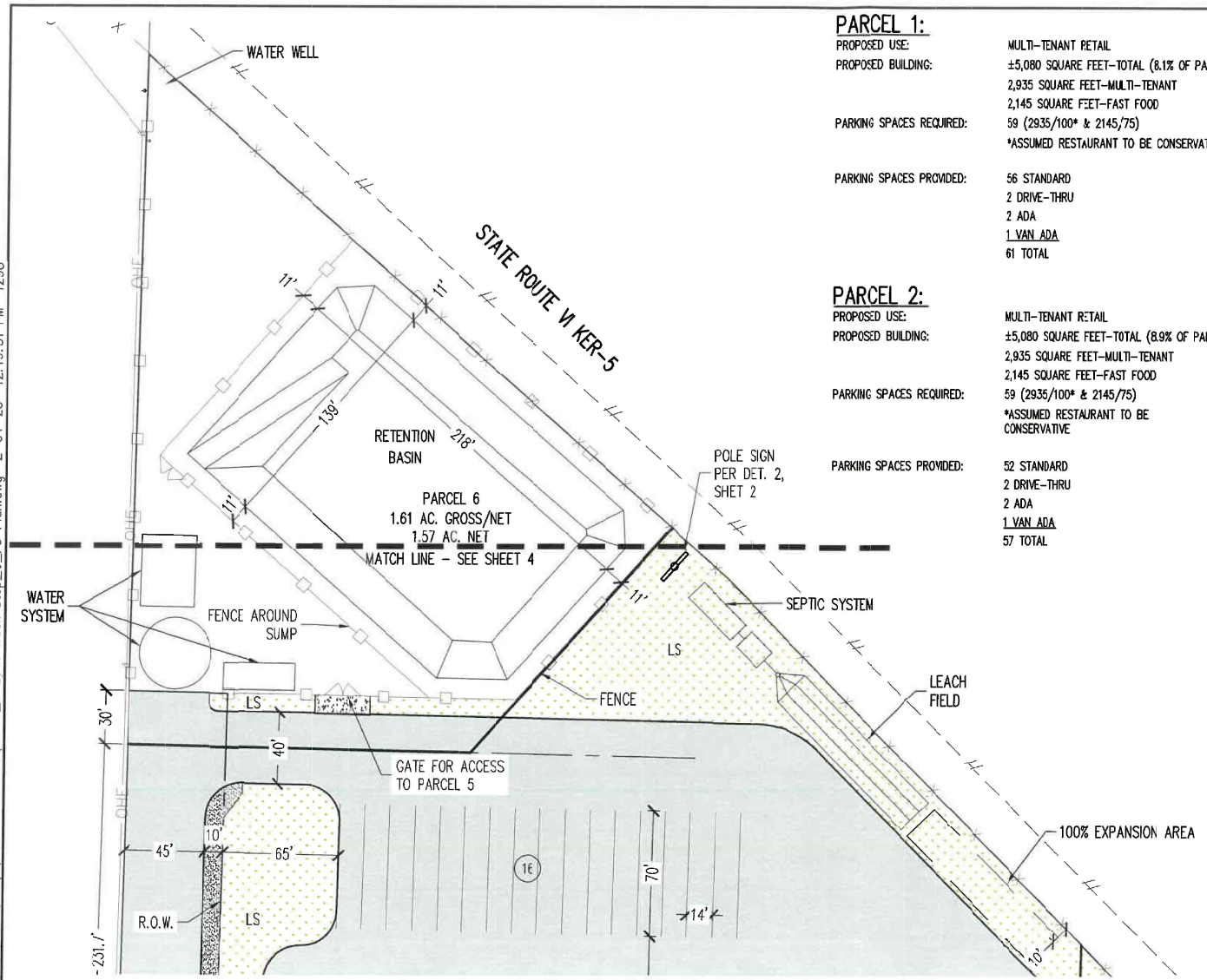
CONDITIONAL USE PERMIT		
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APN: 104-270-11 THROUGH 104-270-20 IN KERN COUNTY, CA		
PM NO. 9086; SEC. 31, 29S/25E; TPM12539		
1/23/25	KSIE PROJ.: 41174	SHEET 3 OF 5

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CONDITIONAL USE PERMIT		
COMMERCIAL DEV. @ NW COR. OF I-5 & STOCKDALE HWY.		
APN: 104-270-11 THROUGH 104-270-20 IN KERN COUNTY, CA		
PM NO. 9086; SEC. 31, 29S/25E; TPM12539		
1/23/25	KSIE PROJ.: 41174	SHEET 4 OF 5

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PARCEL 1:

PROPOSED USE:	MULTI-TENANT RETAIL
PROPOSED BUILDING:	±5,080 SQUARE FEET-TOTAL (8.1% OF PARCEL NET) 2,935 SQUARE FEET-MULTI-TENANT 2,145 SQUARE FEET-FAST FOOD
PARKING SPACES REQUIRED:	59 (2935/100* & 2145/75) *ASSUMED RESTAURANT TO BE CONSERVATIVE
PARKING SPACES PROVIDED:	56 STANDARD 2 DRIVE-THRU 2 ADA 1 VAN ADA 61 TOTAL

PARCEL 2:

PROPOSED USE:	MULTI-TENANT RETAIL
PROPOSED BUILDING:	±5,080 SQUARE FEET-TOTAL (8.9% OF PARCEL NET) 2,935 SQUARE FEET-MULTI-TENANT 2,145 SQUARE FEET-FAST FOOD
PARKING SPACES REQUIRED:	59 (2935/100* & 2145/75) *ASSUMED RESTAURANT TO BE CONSERVATIVE
PARKING SPACES PROVIDED:	52 STANDARD 2 DRIVE-THRU 2 ADA 1 VAN ADA 57 TOTAL

PARCEL 3:

PROPOSED USE:	HOTEL (60 ROOMS)
PROPOSED BUILDING:	10,291 SQUARE FEET-TOTAL (14.1% OF PARCEL NET)
PARKING SPACES REQUIRED:	62 (ESTIMATE)
PARKING SPACES PROVIDED:	64 STANDARD 3 ADA 1 VAN ADA 68 TOTAL

PARCEL 4:

PROPOSED USE:	TRUCK WASH (2-TUNNEL), TRUCK REPAIR SHOP
PROPOSED BUILDING:	9,000 SQUARE FEET-TOTAL (12.9% OF PARCEL NET) 6,000 SQUARE FEET-TRUCK WASH 3,200 SQUARE FEET-TRUCK REPAIR
PARKING SPACES REQUIRED:	11 (3200/300)
PARKING SPACES PROVIDED:	4 STANDARD 2 DRIVE-THRU 1 ADA 1 VAN ADA 8 TOTAL

PARCEL 5:

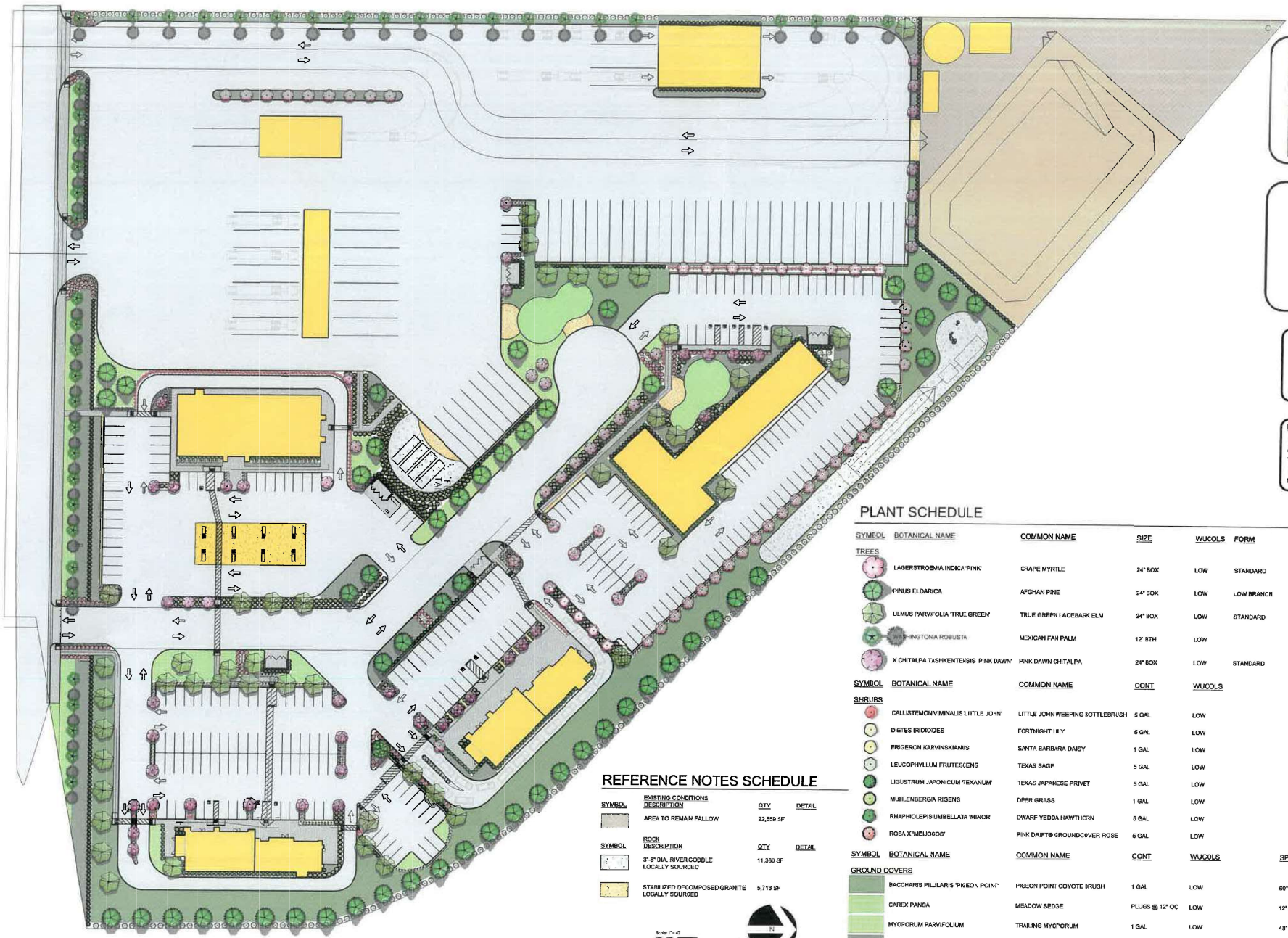
PROPOSED USE:	CONVENIENCE STORE W/ FUEL PUMPS (16), FUEL ISLAND (7 SPACES),
PROPOSED BUILDING:	8,548 SQUARE FEET-TOTAL (2.7% OF PARCEL NET)
PARKING SPACES REQUIRED:	57 (8548/150)
PARKING SPACES PROVIDED:	34 STANDARD 18 EVCS 11 TRUCK 23 FUEL DISPENSER 2 DRIVE-THRU 1 ADA 1 VAN ADA 90 TOTAL

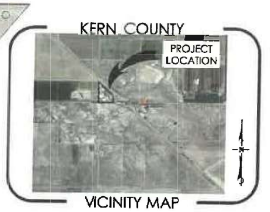
GRAPHIC SCALE
60' 30' 0' 30' 60'
(IN FEET)
1 inch = 60 ft.

CONDITIONAL USE PERMIT
COMMERCIAL DEV. @ NW COR. OF I-5 & STOCKDALE HWY.
APN: 104-270-11 THROUGH 104-270-20 IN KERN COUNTY, CA
PM NO. 9086; SEC. 31, 29S/25E; TPM12539

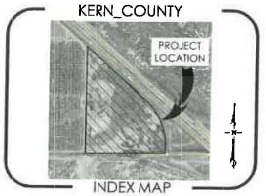
1/23/25	KSIE PROJ.: 41174	SHEET 5 OF 5

C:\Users\1298\AppData\Local\Temp\AcPublish_18876\41174_G-Lynn Truck Stop_C_PD Plan.dwg 2-04-25 12:19:51 PM 1298





VICINITY MAP



INDEX MAP

ARCHITECT / CLIENT
PAUL DHANENS ARCHITECT
5100 CALIFORNIA AVE
BAKERSFIELD CA 93301
(661) 326-8936
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LANDSCAPE ARCHITECT
DESIGN STUDIOS LANDSCAPE DEV.
88 N OAK STREET, SUITE 1A
VENTURA, CA 93001
(661) 295-1970
CONTACT: MICHAEL MCDONNELL

PLANT SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS	FORM	QTY	REMARKS
TREES							
	LAGERSTROEMIA INDICA 'PINK'	CRAPE MYRTLE	24" BOX	LOW	STANDARD	53	
	PINUS ELDARICA	AFGHAN PINE	24" BOX	LOW	LOW BRANCH	55	
	ULMUS PARVIFOLIA 'TRUE GREEN'	TRUE GREEN LACEBARK ELM	24" BOX	LOW	STANDARD	46	
	WASHINGTONIA ROBUSTA	MEXICAN FAN PALM	12' BTH	LOW		43	
	X CHITALPA TASHKENTENSIS 'PINK DAWN'	PINK DAWN CHITALPA	24" BOX	LOW	STANDARD	59	

SYMBOL	BOTANICAL NAME	COMMON NAME	CONT	WUCOLS	QTY	REMARKS
SHRUBS						
	CALLISTEMON VIMINALIS 'LITTLE JOHN'	LITTLE JOHN WEEPING BOTTLEBRUSH	5 GAL	LOW	206	
	DIETES IRIDIOIDES	FORTNIGHT LILY	5 GAL	LOW	370	
	ERIGERON KARVINSKIANNIS	SANTA BARBARA DAISY	1 GAL	LOW	866	
	LEUCOPHYLLUM FRUTESCENS	TEXAS SAGE	5 GAL	LOW	265	
	LIGUSTRUM JAPONICUM 'TEXANUM'	TEXAS JAPANESE PRIVET	5 GAL	LOW	598	
	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL	LOW	425	
	RHAPHIOLEPIS UMBELLATA 'MINOR'	DWARF YEDDA HAWTHORN	5 GAL	LOW	204	
	ROSA X 'MEIJOCOS'	PINK DRIFT® GROUNDCOVER ROSE	5 GAL	LOW	232	

SYMBOL	BOTANICAL NAME	COMMON NAME	CONT	WUCOLS	SPACING	QTY	REMARKS
GROUND COVERS							
	BACCHARIS PILULARIS 'PIGEON POINT'	PIGEON POINT COYOTE BRUSH	1 GAL	LOW	60" o.c.	1,811	
	CAREX PANSA	MEADOW SEDGE	PLUGS @ 12" OC	LOW	12" o.c.	5,281	
	MYOPORUM PARVIFOLIUM	TRAILING MYOPORUM	1 GAL	LOW	48" o.c.	1,448	
	ROSMARINUS OFFICINALIS 'PROSTRATUS'	DWARF ROSEMARY	1 GAL	LOW	48" o.c.	1,897	

REFERENCE NOTES SCHEDULE

SYMBOL	EXISTING CONDITIONS DESCRIPTION	QTY	DETAIL
	AREA TO REMAIN FALLOW	22,558 SF	

SYMBOL	ROCK DESCRIPTION	QTY	DETAIL
	3"-6" DIA. RIVER COBBLE LOCALLY SOURCED	11,380 SF	
	STABILIZED DECOMPOSED GRANITE LOCALLY SOURCED	5,713 SF	

Scale: 1" = 40'

15 & STOCKDALE

PLANT SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS	FORM	QTY	REMARKS
TREES							
	LAGERSTROEMIA INDICA 'PINK'	CRAPE MYRTLE	24" BOX	LOW	STANDARD	53	
	PINUS ELDARICA	AFGHAN PINE	24" BOX	LOW	LOW BRANCH	55	
	ULMUS PARVIFOLIA 'TRUE GREEN'	TRUE GREEN LACEBARK ELM	24" BOX	LOW	STANDARD	46	
	WASHINGTONIA ROBUSTA	MEXICAN FAN PALM	12' BTH	LOW		43	
	X CHITALPA TASHKENTENSIS 'PINK DAWN'	PINK DAWN CHITALPA	24" BOX	LOW	STANDARD	59	

SYMBOL	BOTANICAL NAME	COMMON NAME	CONT	WUCOLS	QTY	REMARKS
SHRUBS						
	CALLISTEMON VIMINALIS 'LITTLE JOHN'	LITTLE JOHN WEEPING BOTTLEBRUSH	5 GAL	LOW	206	
	DIETES IRIDIOIDES	FORTNIGHT LILY	5 GAL	LOW	370	
	ERIGERON KARVINSKIANUS	SANTA BARBARA DAISY	1 GAL	LOW	866	
	LEUCOPHYLLUM FRUTESCENS	TEXAS SAGE	5 GAL	LOW	265	
	LIGUSTRUM JAPONICUM 'TEXANUM'	TEXAS JAPANESE PRIVET	5 GAL	LOW	598	
	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL	LOW	425	
	RHAPHIOLEPIS UMBELLATA 'MINOR'	DWARF YEDDA HAWTHORN	5 GAL	LOW	204	
	ROSA X 'MEIJOCOS'	PINK DRIFT® GROUNDCOVER ROSE	5 GAL	LOW	232	

SYMBOL	BOTANICAL NAME	COMMON NAME	CONT	WUCOLS	SPACING	QTY	REMARKS
GROUND COVERS							
	BACCHARIS PILULARIS 'PIGEON POINT'	PIGEON POINT COYOTE BRUSH	1 GAL	LOW	60" o.c.	1,811	
	CAREX PANSA	MEADOW SEDGE	PLUGS @ 12" OC	LOW	12" o.c.	5,285	
	MYOPORUM PARVIFOLIUM	TRAILING MYOPORUM	1 GAL	LOW	48" o.c.	1,449	
	ROSMARINUS OFFICINALIS 'PROSTRATUS'	DWARF ROSEMARY	1 GAL	LOW	48" o.c.	1,697	

Maximum Applied Water Allowance & Estimated Total Water Use (MAWA & ETWU)

Project Name → 15 & STOCKDALE
City Location → Bakersfield
Site Type → Commercial
Annual Eto (inches/yr) → 62.4

Zone or Valve	Water Use Plant Factor		Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Hydrozone Area (sqft.)	ETAFx Area	Estimated Total Water Use (gal./yr.)	Percentage of Landscape Area
Regular Landscape Areas									
1	0.3	Low	Shrub Drip Emitter	0.81	0.4	158,012	58,523	1,901,294	96.76%
2	0.3	Low	Garden Micro Spray	0.75	0.4	5,285	2,114	68,680	3.24%
					SUBTOTAL →	163,297	60,637	1,961,974	
Special Landscape Areas									
					1		0	0	0.00%
					SUBTOTAL →	0	0	0	
					GRAND TOTAL →	163,297			100.00%
					Estimated Total Water Use (ETWU) →			1,961,974	
					Maximum Allowed Water Allowance (MAWA) →			2,387,337	

ETAF Calculations

Regular Landscape Areas
- Total ETAF x Area: 60,637
- Total Area: 163,297
- Average ETAF: 0.37

All Landscape Areas
- Total ETAF x Area: 60,637
- Total Area: 163,297
- Sitewide ETAF: 0.37

Notes:

ETWU meets MAWA requirement.

Average ETAF meets requirement for this site type.

Calculator developed July 27, 2015.
This calculator is for estimating purposes only.
Hunter assumes no liability for use of this calculator.


Lagerstroemia indica 'Pink'


Pinus eldarica


Ulmus parvifolia 'True Green'


Washingtonia robusta


x Chitalpa t. 'Pink Dawn'


Callistemon viminallis 'Little John'


Dietes iridicides


Erigeron karvinskianus


Leucophyllum frutescens


Ligustrum japonica 'Texanum'


Muhlenbergia rigens


Rhaphiolepis umbellata-minor


Rosa x 'Meijocas'


Baccharis p. 'Pigeon Point'


Carex pansa


Myoporum parvifolium


Rosmarinus o. 'Prostratus'

Mitigated Negative Declaration

Appendix A
Biological Resource Evaluation

LYNN TRUCKING INC.
by KSI Engineering
(PP25197)

CUP No. 65, Map 100
ZV No. 40, Map 100

Kern County
Planning and Natural Resources Department
Bakersfield, CA

April 2026

BIOLOGICAL RESOURCE EVALUATION

Assessor's Parcel Map Number
104-270-11, -12, -13, -14, -15, -16, -17, -18, -19, -20
County of Kern
Bakersfield, California

Prepared for:

Lynn Trucking, Inc.
Attn: Karan Gill
18388 Hidden Ranch Road
Riverside, California 92508

Prepared by:

Pruett Biological Resource Consulting
8819 Latera Court
Bakersfield, California 93314
661.421.0006

04 September 2024

EXECUTIVE SUMMARY

Pruett Biological Resource Consulting, Inc. (PruettBio) has prepared this biological resource evaluation for a proposed Site Plan Review of Assessor's Parcel Number (APN) 104-270-11, -12, -13, -14, -15, -16, -17, -18, -19, -20. The project consists of 17.00 gross acres (6.95 hectares) (project) Section 31, Township 29 South, Range 25 East, Mount Diablo Base and Meridian. The project is located northwest of the intersection of Stockdale Highway and Interstate-5, within the County of Kern, California.

The project is located within the geographic range of several federal-, and state-listed, threatened and/or endangered plant and animal taxa. Several non-listed, special-status species also have the potential to occur in the vicinity of the project.

The purpose of this report is to document biological resources identified during a reconnaissance-level field study of the project site and include potential biological resources identified during a literature review of the site and vicinity, identify potential impacts to biological resources resulting from the project. Evaluation of potential impacts to plant and animal species are completed to assist federal and state regulatory assessment during a Precise Development Plan. California Environmental Quality Act (CEQA) Appendix G thresholds have been used to evaluate potential impacts to the biological resources from the proposed project development. Avoidance and minimization measures for implementation prior to and during project activities are recommended as appropriate.

The California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) have not been contacted regarding the preparation of this report. Appendix B, Special-Status Plant and Animal Evaluations, satisfy the requirements for an initial determination of potential impacts under the CEQA Appendix G thresholds. If CEQA threshold determinations warrant, further consultation may be required with CDFW and USFWS. If additional consultation with the agencies results in the need for Application for a California Incidental Take Permit, Cal. Code Regs., tit. 14, § 783.2 outlines requirements for detailed species-specific take analysis, proposed measures to minimize and fully mitigate impacts, compliance monitoring, and funding. A detailed description satisfying Cal. Code Regs., tit. 14, § 783.2 is not required to meet the CEQA Appendix G thresholds.

A literature review was conducted of the site and vicinity, prior to the field study, of the biological resources known to occur based on recorded, direct observation, or potentially occurring in the project impact area based on current or historical habitat conditions. During the field study, existing habitat conditions, direct observations and/or species sign was recorded to assess the potential for occurrence of special-status species. This report includes an evaluation of the potential for those special-status biological resources not observed during the field study, with the potential to occur on the property based on the habitat conditions observed.

The project is approximately 9 miles west of Bakersfield in an area historically used for intensive agriculture and row crop farming. The project area is primarily made up of recovering valley saltbush scrub and non-native grassland after being heavily disturbed from historic agriculture use. The project is bordered to the west by pistachio orchard, to the south by intensive row crop farming and to the east and north by Interstate-5.

The federal and state database queries yielded 17 special-status plant species and 32 special-status animal species as potentially occurring within the vicinity of the project site. Of these, 3 plant species, and 15 animal species have federal-, and/or state-listing and are afforded protection under federal or state law.

A query of the California Native Plant Society (CNPS) database was made for the nine-quadrangles surrounding the project. The CNPS tracks plant species that do not meet the CEQA Section 15380 criteria for listing as threatened or endangered and are afforded no protection under federal or state law.

A USGS nine-quadrangle query additionally includes a search area beyond a standard 10-mile radius. Plant species meeting the criteria for Special Status Plants as defined in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018) and evaluated under CEQA Section 15380 have been included in this report.

Some CRPR 4 taxa may meet the Section 15380 definition of an endangered, rare, or threatened species, and in the definition of CRPR 4, CNPS and CDFW suggest additional reasons for including CRPR 4 taxa in a CEQA analysis. These reasons include Regionally Rare Taxa. Considered locally significant plants, that is, plants that are not rare from a statewide perspective but are rare or uncommon in a local context such as within a county or region (CEQA Guidelines, § 15125, subd. (c)), or as designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). "Locally rare" has not been generally defined, but in counties where a "locally rare" policy exists, it applies to taxa with only five to 10 known occurrences in that county.

The CNDDB, iPac, and CNPS lists were cross-referenced for consistency. A separate CNDDB query for the County of Kern was also generated to evaluate plant species for local significance.

The project will not conflict with existing or adopted Habitat Conservation Plans, Natural Community Conservation Plans, local or regional conservation plans, or local ordinances protecting biological resources.

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INTRODUCTION

Pruett Biological Resource Consulting, Inc. (PruettBio) has prepared this biological resource evaluation for the proposed development of APN 104-270-11, -12, -13, -14, -15, -16, -17, -18, -19, -20. The project consists of 17.00 gross acres (6.95 hectares) (project) Section 31, Township 29 South, Range 25 East, Mount Diablo Base and Meridian. The project is located northwest of the intersection of Stockdale Highway and Intestate-5 in County of Kern, California. This report documents biological resources identified during fieldwork conducted on the project site and those identified through a literature search as potentially occurring based on known observations or historic habitat conditions. This report uses the information collected during the field study and literature search to evaluate potential impacts to biological resources, resulting from the project, and is intended to assist in the analysis of the proposed project for a Precise Development Plan.

Listed plant and animal species are protected under the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA). Protection of other non-listed, special-status species is afforded under additional regulation including the Migratory Bird Treaty Act (MBTA). Pursuant to the California Environmental Quality Act (CEQA) impacts to non-listed, special-status species must be evaluated. Where necessary, the report recommends avoidance and minimization measures for implementation prior to and during project activities. The report is intended to provide technical information in support of a CEQA preliminary review. For the purposes of this report, potential impacts to the biological resources of the proposed project were evaluated in accordance with Appendix G of the *CEQA Guidelines* (2024).

PROJECT LEGAL DESCRIPTION

The project consists of 17.00 gross acres (6.95 hectares) of APN 104-270-11, -12, -13, -14, -15, -16, -17, -18, -19, -20. The project is located northwest of the intersection of Stockdale Highway and Intestate-5 in County of Kern, California, Section 31, Township 29 South, Range 25 East, Mount Diablo Base and Meridian.

PROJECT SETTING AND PHYSICAL DESCRIPTION

The project site is in the southern San Joaquin Valley; a broad, treeless plain in the rain shadow of the Inner Coast Ranges. The region's climate can be characterized as Mediterranean; with hot, dry summers and cool, moist winters. Summer high temperatures typically exceed 100 °Fahrenheit (°F); with an average of 110 days per year over 90 °F. Winter temperatures in the San Joaquin Valley are mild, with an average of only 16 days per year with frost (Twisselmann 1967).

Rainfall varies, increasing from west to east, with the west side of the valley receiving an average of around 4 inches (10 centimeters) per year and the east side averaging about 6 inches (15 centimeters) per year. Winter fog, called Tule fog, sometimes forms during the months of November, December, and January, supplementing the annual precipitation. Approximately 90% of the rainfall in the region occurs between November 1 and April 1. Drought cycles occur periodically, becoming severe enough that plant and animal populations can experience large fluctuations. The vegetation communities in the San Joaquin Valley are distinguishable from the Mojave Desert to the east due to Tule fog, higher humidity, and isolation from continental climatic influences by mountain ranges (Twisselmann 1967).

The general topography of the area slopes very subtly south with the project generally flat at about 765 feet (233 meters) above mean sea level. The project area is primarily made up of previously undisturbed non-native grassland at the base of rolling foothills. The project is bordered to the south and west by residential development, with properties designated for light livestock use to the east, and undeveloped rolling foothills to the north. The project and vicinity were historically grazed for decades. Aerial imagery shows that by 2006, residential development had begun immediately west and south of the project area.

METHODS

LITERATURE REVIEW

PruettBio conducted a literature review to identify known observations and potential for listed, or otherwise special-status, species to occur in the vicinity of the project site. A standard, 10-mile (16-kilometer) radius query was performed. Database records reviewed included:

- **United States Fish & Wildlife Service (USFWS) iPac:** The iPac report generates a list of federal-listed species and other resources under the jurisdiction of the USFWS, including designated critical habitat for listed species, National Wildlife Refuge lands, and Wetlands in the National Wetlands Inventory. The list includes resources that are outside of the project site, but that have the potential to be impacted by project activities.

- **USFWS National Wetlands Inventory:** The Wetlands Mapper is an online inventory integrating digital map data and other resources to provide current information regarding the status of national wetlands, riparian, and deepwater habitats.

- **United States Department of Agriculture (USDA) WebSoil Survey:** The report is an online database providing soil data produced by the National Cooperative Soil Survey, a joint effort of the USDA and other federal, state, and local agencies. The information drawn for the Soil Survey of Kern County, California, Northwestern Part was originally drawn from fieldwork completed in 1981 with soil names and descriptions approved in 1982.

- **California Natural Diversity Database (CNDDB-RareFind 5):** The CNDDB is a database of listed, or otherwise special-status, plant and animal species and sensitive communities maintained by the California Department of Fish and Wildlife (CDFW). The information queried for this report included a standard 10-mile radius of the project site.

- **California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants:** CNPS is a private, professional organization that maintains a database evaluating the current conservation status of California's rare, threatened, and endangered plant species. The information queried for this report included a standard 10-mile radius of the project site. The list includes resources that are outside of the project site, but that have the potential to be impacted by project activities based on known historic or current habitat features. The data base was compared to the CNDDB and iPac queries for consistency.

FIELD STUDY

A reconnaissance-level, biological field study was conducted by Jared Pratt on August 7, 2024. The project was surveyed by walking the perimeter and random transects to evaluate all representative habitat features of the site. The field study conducted, allowed for 100% visual coverage of the project site. Field notes included observations of all plant and wildlife species observed. Direct observations and/or species sign was recorded to assess the potential for occurrence. Land cover types and general habitat conditions were recorded and photographed. Special-status species and habitat features, such as vegetation communities or ephemeral channels, were also recorded and photographed if observed.

Coordinates for important biological resource elements and direct observations of special-status species were recorded using a handheld geographic positioning system unit. If observed, San Joaquin kit fox (SJKF) dens were classified as defined by the *USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (2011). All plant taxa encountered were identified to the extent possible given the diagnostic features present. Identifications were made using keys contained in *The Jepson Manual: Vascular Plants of California* and online updates containing revisions to taxonomic treatments (Baldwin et al. 2012; Jepson Flora Project 2015).

RESULTS

This section summarizes the results of the field study conducted on the project site and evaluates those results for the known or potential for occurrence of special-status species based on the literature review and database queries and pursuant to statutory regulation. Discussions are provided describing the existing habitat conditions including vegetation communities, land cover and current use; soils; special-status biological resources potentially occurring in the vicinity of the project site; the potential for jurisdictional resources including designated critical habitat and riparian/wetland/water resource features; the potential for wildlife migration corridors and nursery sites; and regional and local policy.

VEGETATION COMMUNITIES AND LAND COVER

The project site is located adjacent to an active orchard and intensive row crop farming activities as well as a well-traveled interstate. Prior to conversion to farmland, the original vegetive communities of the project site were likely Non-native Grassland and Valley Saltbush Scrub. Historical aerial imagery going back to 2004 appears to show the project site being regularly maintained as row crop farming. Maintenance of the project site appears to have ceased in 2014 when the site began to show aerial evidence of native plant recovery. Currently the site is largely recovered with both native and non-native vegetation cover throughout.

SOILS

Map Unit Symbol	Map Unit Name	Description
156	Garces silt loam	This component is on valleys, non-buried fan remnants formed from consisting of alluvium derived from granitoid
175	Kimberlina fine sandy loam, 0 to 2 percent slopes.	Well drained fan remnant formed from igneous and sedimentary rock

Source: NRCS 2024

BIOLOGICAL RESOURCES

The literature review and database queries yielded 17 special-status plant species as potentially occurring within the vicinity of the project site. Thirty-two special-status animal species were identified as potentially occurring in the region of the project site. No evidence of any listed animal species was observed during the field study. No evidence of any locally rare plant or animal species was observed. No evidence of otherwise special-status plant or animal species, or animal species sign was observed during the field study.

No focused, protocol-level surveys were conducted for the preparation of this report. The field study was conducted outside of the blooming period for many of the special-status plant species potentially occurring in the vicinity of the project. The evaluation of special-status species that were found during the literature review with a potential to occur in the region are included in Appendix B.

Special-Status Plant Species

The federal and state database queries yielded 17 special-status plant species as potentially occurring within the vicinity of the project site. A query of the California Native Plant Society (CNPS) database was made for the nine-quadrangles surrounding the project. A USGS nine-quadrangle query additionally includes a search area beyond a standard 10-mile radius. Plant species meeting the criteria for Special Status Plants as defined in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018) were evaluated under CEQA Section 15380.

Special-status plant species considered in this evaluation include all plant species that meet one or more of the following criteria:

- Listed or proposed for listing as threatened or endangered under ESA or candidates for possible future listing as threatened or endangered under the ESA (50 CFR §17.12).

- Listed or candidates for listing by the State of California as threatened or endangered under CESA (Fish and Game Code §2050 et seq.). A species, subspecies, or variety of plant is endangered when the prospects of its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, disease, or other factors (Fish and Game Code §2062). A plant is threatened when it is likely to become endangered in the foreseeable future in the absence of special protection and management measures (Fish and Game Code §2067).

- Listed as rare under the California Native Plant Protection Act (Fish and Game Code §1900 et seq.). A plant is rare when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens (Fish and Game Code §1901).

- Meet the definition of rare or endangered under CEQA §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:
    - Species considered by the California Native Plant Society (CNPS) to be "rare, threatened or endangered in California" (Lists 1A, 1B and 2);
    - Species that may warrant consideration on the basis of local significance or recent biological information.
    - Some species included on the California Natural Diversity Database's (CNDDB) Special Plants, Bryophytes, and Lichens List (California Department of Fish and Game 2008).

- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). Examples include a species at the outer limits of its known range or a species occurring on an uncommon soil type.

Some CRPR 4 taxa may meet the Section 15380 definition of an endangered, rare, or threatened species, and in the definition of CRPR 4, CNPS and CDFW suggest additional reasons for including CRPR 4 taxa in a CEQA analysis. These reasons include Regionally Rare Taxa. Considered locally significant plants, that is, plants that are not rare from a statewide perspective but are rare or uncommon in a local context such as within a county or region (CEQA Guidelines, § 15125, subd. (c)), or as designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). "Locally rare" has not been generally defined, but in counties where a "locally rare" policy exists, it applies to taxa with only five to 10 known occurrences in that county. The CNDDB, iPac, and CNPS lists were cross-referenced for consistency.

Precipitation has been above average to date, resulting in a good year for annual plant species observations. Of the 17 special-status plant species returned during database queries for the project vicinity, 3 species are either federally- or state-listed as threatened or endangered. Although CEQA requires consideration for impacts to locally significant plant species, no mitigation is legally required to compensate for impacts to non-listed plant species. No listed, or otherwise special-status plant species was observed during the fieldwork conducted for the preparation of this report. No listed, or otherwise special-status plant species, has been recorded as occurring within the project site.

Special-Status Animal Species

The federal and state database queries yielded 32 special-status animal species as potentially occurring within the vicinity of the project site. Of these, 15 animal species have federal-, and/or state-listing and are afforded protection under federal or state law. Special-status animal species considered in this evaluation include those that may occur in the project vicinity that have statutory protections. This includes federal- and state-listed (rare, threatened, or endangered; fully protected) species and candidates for listing under the respective endangered species acts. Species that are of special concern to the CDFW or the USFWS are included in this evaluation. Special-status bird species that are afforded protection under the MBTA which may nest on or within an approximate 10-mile (16-kilometer) radius of the project site are also evaluated. Several den entrances meeting the criteria of a potential den as defined in *U.S. Fish and Wildlife Service standardized recommendations for protection of the endangered San Joaquin kit fox prior to or during ground disturbance* (USFWS 2011) were observed during the survey. No SJKF individuals were observed during the survey effort. Given the recovering nature of the project site, and general proximity to native and lightly developed lands, SJKF are likely to utilize the site for foraging if not denning.

The project site is within the historic and/or current range of several state- and federally-listed species including San Joaquin antelope squirrel (*Ammospermophilus nelsoni*; SJAS), Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*; TKR), blunt-nosed leopard lizard (*Gambelia sila*; BNLL) and San Joaquin kit fox (*Vulpes macrotis mutica*; SJKF). However, due to the historic nature of land use, and current land use by surrounding areas it is unlikely that recolonization by anything other than SJKF is likely to occur. While there is no evidence of current site occupation by any of these species, due to the recovering nature of the project site it is impossible to reduce the likelihood of site occupation to zero without protocol level surveys and/or small mammal trapping efforts.

Designated Critical Habitat

The USFWS iPac report and USFWS Designated Critical Habitat Mapper lists no Designated Critical Habitat (USFWS 2023). Designated Critical Habitats closest to the project site include California condor (*Gymnogyps californianus*) approximately 34-miles southeast and Buena Vista Lake shrew (*Sorex ornatus relictus*) approximately 3-miles southwest of the project site. No suitable habitat for either species exists on the project site.

Jurisdictional Water Resource Features

Section 404 of the Federal Clean Water Act (CWA) regulates discharge of dredged and fill material into Waters of the United States. Wetlands are included under this jurisdiction. Proposed activities that may result in discharge of material into Waters of the U.S. require a permit review process by the U.S. Army Corps of Engineers as set forth under CWA section 404(b)(1). Fish and Game Code section 1602 requires any person, state or local governmental agency, or public utility to notify CDFW before beginning any activity that will substantially modify a river, stream, or lake.

A search of the USFWS National Wetlands Inventory resulted in no riparian, wetlands, or other jurisdictional water features mapped on the project site (USFWS 2024). These results are consistent with the observed conditions within the survey area.

Special-Status Natural Communities

No special-status vegetation communities on the project site were identified by the USFWS iPac query, the CNDDB, or the CNPS Inventory (USFWS 2024, CDFW 2024, CNPS 2024). These results are consistent with the observed conditions within the survey area.

Wildlife Migration Corridors and Nursery Sites

Wildlife corridors can be defined as connections between wildlife blocks that meet specific habitat needs for species movement generally during migratory periods but seasonally as well. Wildlife corridors generally contain habitat dissimilar to the surrounding vicinity and include examples such as riparian areas along rivers and streams, washes, canyons, or otherwise undisturbed areas within urbanization. Corridor width requirements can vary based on the needs of the species utilizing them. Development of the project would not impact wildlife migration corridors or nursery sites.

Regional and Local Policies

The proposed, modified project will not conflict with existing or adopted Habitat Conservation Plans, Natural Community Conservation Plans, local or regional conservation plans, or local ordinances protecting biological resources.

IMPACT ANALYSIS

CEQA Appendix G thresholds have been used to evaluate potential impacts to the biological resources from the proposed project. Appendix G provides an analysis of the impacts of the proposed project following the standards of CEQA and provides recommendations that, when implemented, would reduce impacts to less-than-significant levels. It is important to note that potential take of any federal- or state-listed species from project activities would require contacting the appropriate wildlife agency (the USFWS and/or the CDFW).

The California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) have not been contacted regarding the preparation of this report. Appendix B, Special-Status Plant and Animal Evaluations, satisfy the requirements for an initial determination of potential impacts under the CEQA Appendix G thresholds. If CEQA threshold determinations warrant, further consultation may be required with CDFW and USFWS. If additional consultation with the agencies results in the need for Application for a California Incidental Take Permit, Cal. Code Regs., tit. 14, § 783.2 outlines requirements for detailed species-specific take analysis, proposed measures to minimize and fully mitigate impacts, compliance monitoring, and funding. A detailed description satisfying Cal. Code Regs., tit. 14, § 783.2 is not required to meet the CEQA Appendix G thresholds.

The project would create a significant impact to biological resources, based on the specifications in Appendix G of the CEQA Guidelines, if the following were to occur:

1. 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;

2. 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;

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

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

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

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

The following analysis discusses potential impacts associated with the development of the project and provides recommendations where appropriate to further reduce potential impacts.

1. Would the project 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, by the CDFW, or the USFWS?

Direct and indirect impacts, in the form of "incidental take" of a threatened, endangered, or otherwise protected species, are not expected as a result of the development of the proposed project. Implementation of standard measures for the protection of biological resources are recommended to avoid and minimize potential impact to general wildlife.

The project is within the historic range of Tipton kangaroo rat. The project was not included in the southwest focus area for the species in the previous habitat conservation plan. The most recent habitat suitability modeling (Cypher 2020) does not include the project in any of the four tiers enumerated for suitability. Trapping would be required to confirm small mammal species occupying the project.

2. Would the project 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 CDFW or the USFWS?

No riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service exists on the project site. No adverse effect will occur as a result of the development of the proposed project and no mitigation measures are recommended.

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

No features, identified in wetland categories, appear on the USFWS National Wetlands Inventory mapping (USFWS 2021) on the proposed, modified project site. No federally protected wetlands as defined by Section 404 of the Clean Water Act were identified during the field study conducted for the preparation of this report. No substantial adverse effect will occur as a result of the development of the project. No mitigation measures are recommended.

4. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No migratory wildlife corridors were identified during the literature search or field study. The project will not interfere substantially with the movement of any native fish of wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

5. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

There are no biological resources on the site which are protected by local policies. Impacts from conflicts with local policies will not occur. No additional mitigation measures are recommended.

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

The project does not conflict with any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No additional mitigation measures are recommended.

RECOMMENDED MITIGATION MEASURES

The following Avoidance and Minimization Measures (AMM) represent the authors professional opinion regarding reducing the probability of take occurring during project activities. The following AMMs are generally regarded as best management practices during construction activities in the southern San Joaquin valley, however they are not a substitute for procuring the appropriate state and federal permits to allow for take of special-status species during project activities and do not provide coverage should take occur during project activities. Communication with state and federal agencies regarding proposed AMMS is recommended prior to initial ground disturbance to fully comply with FESA, CESA, and CEQA.

These measures include, but may not be limited to:

1. A biological resource pre-activity survey conducted by a qualified biologist no more that 30-days before the start of construction activities,
2. Biological resource monitoring during each initial phase of ground disturbance,
3. Compliance reporting provided to the required oversight agencies for all biological resource field surveys, monitoring, and additional tasks as warranted,
4. A Worker Environmental Awareness Program outlining special-status species that may access, use or otherwise transverse the project area will be implemented,
5. If known or natal SJKF dens are identified at any time during construction, protocols enumerated in the *USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (2011) should be implemented, and the appropriate agencies contacted for guidance.
6. Vertical sided trenching deeper than 2-feet will include escape ramps at no more than a 1:1 ratio every 100 feet,
7. Vertical sided holes that are not capable of being ramped should be covered or otherwise secured to the greatest extent practicable
8. Pipes, conduit and similar material 3 inches or greater should be capped to prevent wildlife from becoming inadvertently trapped in the piping

The following recommendations are provided for the general protection of bird species that may occur on the project site or vicinity in compliance with the MBTA:

If ground-disturbing activities are planned during the nesting season for migratory birds that may nest on or near the site (generally February 1 through August 31), nesting bird surveys are recommended prior to the commencement of ground disturbance for project activities. If nesting birds are present, no new construction or ground disturbance should occur within an appropriate avoidance area for that species until young have fledged, unless otherwise approved and monitored by a qualified onsite biologist. Appropriate avoidance should be determined by a qualified biologist. In general, minimum avoidance zones for active nests should be implemented as follows:

1) Ground or low-shrub nesting non-raptors – 300 feet (91 meters),
2) Burrowing owl – as appropriate based on nest location, existing surrounding activity, and evaluation of owl behavior. Coordination with CDFW may be warranted,
3) Sensitive raptors (e.g., prairie falcon, golden eagle) – 0.5 miles (0.8 kilometers),
4) Other raptors – 500 feet (152 meters).

REFERENCES

Baldwin, B. G., Goldman, D. H., Keil, D. J., Patterson, R., Rosatti, T. J., & Wilken, D. H. (Eds.). (2012). *The Jepson manual: Vascular plants of California* (2nd ed.). Berkeley, CA: University of California Press. 1568 pp.

CDFG. (2009). *Protocols for surveying and evaluating impacts to special status native plant populations and natural communities*. Sacramento, CA: Author. 7 pp.

CDFG. (2012). *Staff report on burrowing owl mitigation.* Sacramento, CA: Author.

CNDDB. (2024). *Occurrence for U.S. Geologic Survey 7.5 minute quadrangles*. Sacramento, CA: CDFW

California Endangered Species Act of 1970, C.F.G.C § 2050 et seq. (2024).

California Environmental Quality Act of 1970, 13 P.R.C. § 21000 et seq. (2024).

California Environmental Quality Act of 1970 Guidelines, 14 C.C.R. § 15000 et seq. (2024).

California Native Plant Society (CNPS). (2023). Inventory of rare and endangered plants (Online edition, v8-01a) 7.5 minute quadrangles and corresponding plant species accounts. Sacramento, CA: Author.

California Native Plant Protection Act of 1977, C.F.G.C § 1904 et seq. (2024).

Clean Water Act of 1972, 33 U.S.C. § 1251 et seq. (2014).

Dunn, J. L., & Alderfer, J., (Eds.). (2008). *Field guide to the birds of western North America.* Washington, DC: National Geographic Society. 447 pp.

Ehrlich, P. R., Dobkin, D. S., & Wheye, D. (1988). *The birder's handbook: A field guide to the natural history of North American birds.* New York, NY: Simon and Schuster, Inc. 785 pp.

Federal Endangered Species Act of 1973, 16 U.S.C. § 1531 et seq. (2024).

Harris, J. H., & Stearns, D. M. (1991). Population density, census methods, habitat relationships, and home range of the San Joaquin antelope squirrel, 1988–89. *California Department of Fish and Game, Nongame Bird and Mammal Section, Report 91-02.* Oakland, CA: CDFG. Retrieved from http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=2953

Jennings, M. R., Hayes, M. P., & Metro Washington Park Zoo. (1994). *Amphibian and reptile species of special concern in California* (Final report to the California Department of Fish and Game, Inland Fisheries Division, Contract No. 8023). Rancho Cordova, CA: CDFG. 255 pp.

Jepson Flora project (Eds.). (2015). Jepson eFlora. Retrieved from http://ucjeps.berkeley.edu/IJM.html

Luce, B. (2005). Eumops perotis: Western mastiff bat. In C. Chambers & M. Herder, (Eds.), *Species accounts*. Portland, OR: Western Bat Working Group. 5 pp. Retrieved from http://www.wbwg.org/speciesinfo/species_accounts/molossidae/eupe.pdf

Migratory Bird Treaty Act of 1918, 16 U.S.C. § 703 et seq. (2024).

Nafis, G. (2000–2021a). North American legless lizards - Anniella. *A Guide to the Amphibians and Reptiles of California*. Retrieved from http://www.californiaherps.com/lizards/pages/a.pulchra.html

Nafis, G. (2000–2021b). San Joaquin coachwhip – *Coluber flagellum ruddocki. A Guide to the Amphibians and Reptiles of California*. Retrieved from http://www.californiaherps.com/snakes/pages/c.f.ruddocki.html

Nafis, G. (2000–2021c). Blainville's horned lizard – *Phrynosoma blainvillii. A Guide to the Amphibians and Reptiles of California*. Retrieved from http://www.californiaherps.com/lizards/pages/p.blainvillii.html

Native Fish and Wildlife Endangered Species, 32 Fed. Reg. 4001 (Mar. 11, 1967). Retrieved from http://ecos.fws.gov/docs/federal_register/fr18.pdf

Papenfuss, T. J., Parham, J. F. (2013). Four new species of California legless lizards (*Anniella*). *Breviora 536*, 1–17. Retrieved from http://mczbase.mcz.harvard.edu/specimen_images/publications/Breviora_536.pdf

Porter-Cologne Water Quality Control Act, C.W.A. § Section 13000 et seq. (2024).

Reid, F. A. (2006). *Mammals of North America (*Peterson field guide*)*. Boston, MA: Houghton Mifflin Company. 579 pp.

Sherwin, R. (2005). Antrozous pallidus: Pallid bat. In D. A. Rambaldini, (Eds.). *Species accounts.* Portland, OR: Western Bat Working Group. 5 pp. Retrieved from http://www.wbwg.org/speciesinfo/species_accounts/vespertilonidae/anpa.pdf

Shuford, W. D., Gardali, T., (with Comrack, L.A.). (Eds.). (2008). *California bird species of special concern: a ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California*. Sacramento, CA: CDFG.

Stebbins, R. C. (1985). *A field guide to western reptiles and amphibians (*Peterson field guide*)*, (2nd ed.). Boston, MA: Houghton Mifflin Company. 336 pp.

Stebbins, R. C. (2003). *A field guide to western reptiles and amphibians (*Peterson field guide*)*, (3rd ed.). Boston, MA: Houghton Mifflin Company. 533 pp.

Twisselmann, E. C. (1967). A flora of Kern County, California. The Wasmann Journal of Biology, *25*, 1–395.

Uptain, C. E. (1989). *Survey for Tipton kangaroo rats (Dipodomys nitratoides nitratoides) on the proposed Delano prison site, Kern County, California* (Prepared for the California Department of Corrections). Sacramento, CA: 11 pp.

U.S. Fish and Wildlife Service (USFWS). (1996). *California condor recovery plan, third revision*. Portland, OR: Author. 62 pp.

USFWS. (1998). *Recovery plan for upland species of the San Joaquin Valley, California*. Portland, OR: Author. Retrieved from http://ecos.fws.gov/docs/recovery_plan/980930a.pdf

USFWS. (2011). *U.S. Fish and Wildlife Service standardized recommendations for protection of the endangered San Joaquin kit fox prior to or during ground disturbance*. Sacramento, CA: Author. 9 pp. Retrieved from http://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/kitfox_standard_rec_2011.pdf

USFWS. (2013). *California condor recovery program population size and distribution, December 31, 2013 overview page*. Retrieved from http://www.fws.gov/uploadedFiles/Region_8/NWRS/Zone_1/Hopper_Mountain_Complex/Hopper_Mountain/Sections/News/News_Items/PDFs/2013-12-31.pdf

USFWS. (2024a). *Federal endangered and threatened species that may occur in or may be affected by project in the counties and/or USGS 7 ½ minute quads you requested: quadrangle* [August]. Author. Retrieved from http://www.fws.gov/sacramento/es_species/Lists/es_species_lists-form.cfm

USFWS. (2024b). *National Wetlands Inventory Website* [August]. Washington, D.C.: Author. Retrieved from http://www.fws.gov/wetlands/

Williams, D. F. (1980). *Distribution and population status of the San Joaquin antelope squirrel and giant kangaroo rat*. (Nongame Wildlife Investigation Final Report E-W-4). Sacramento, CA: CDFG. 48 pp.

Williams, D. F. (1986). *Mammalian species of special concern in California* (Prepared for the State of California, The Resources Agency Department of Fish and Game). Turlock, CA: CSUS. 112 pp. Retrieved from http://esrp.csustan.edu/resources/publications/pdf/mammalian_scc_ca_esrp5.pdf

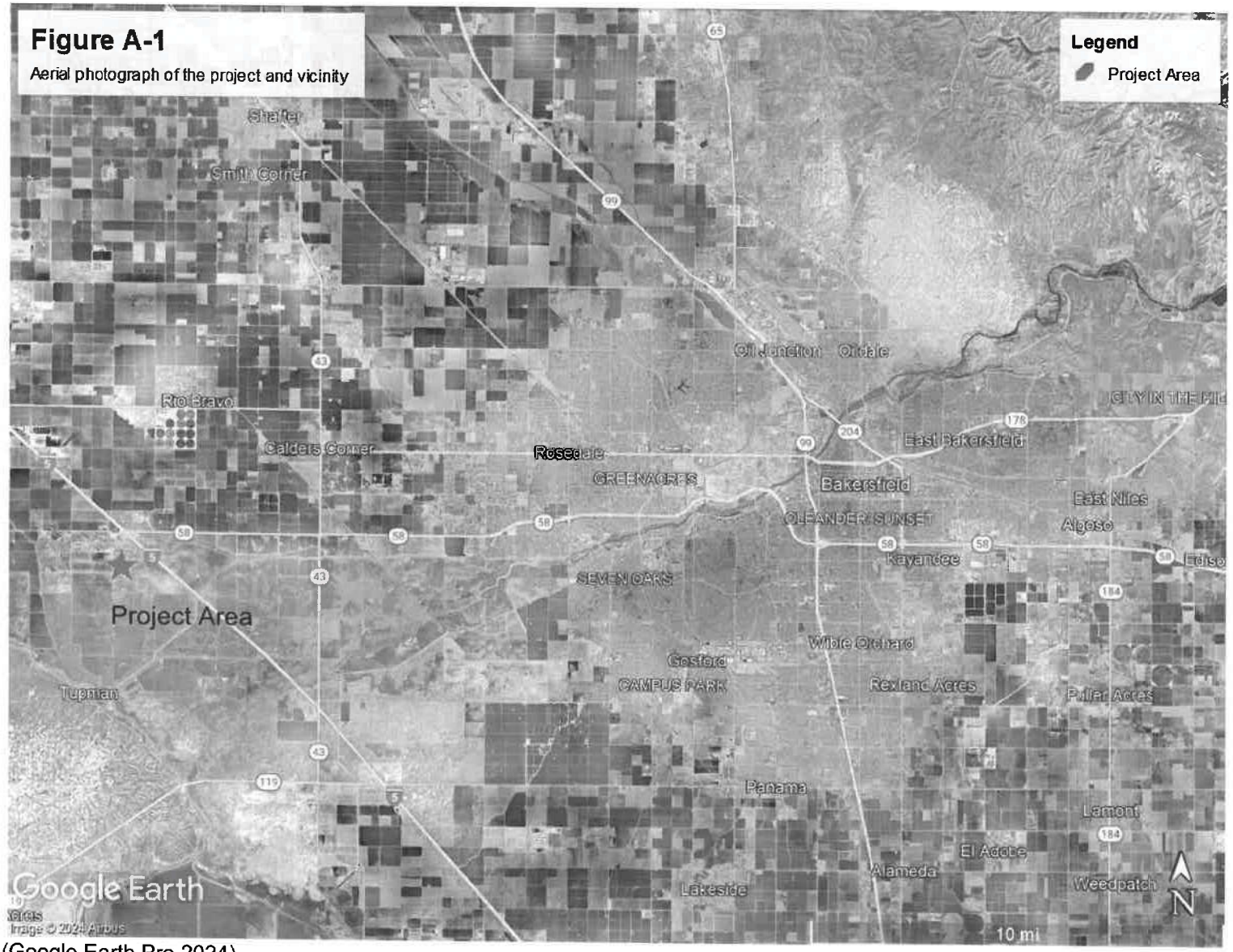
Zeiner, D. C., Laudenslayer, W. F., Jr., Mayer, K. E., & White, M., (Eds.). (1990a). *California's wildlife volume II birds* (California Statewide Wildlife Habitat Relationships System). Sacramento, CA: CDFG.

Zeiner, D. C., Laudenslayer, W. F., Jr., Mayer, K. E., & White, M., (Eds.). (1990b). *California's wildlife volume III mammals* (California Statewide Wildlife Habitat Relationships System). Sacramento, CA: CDFG.

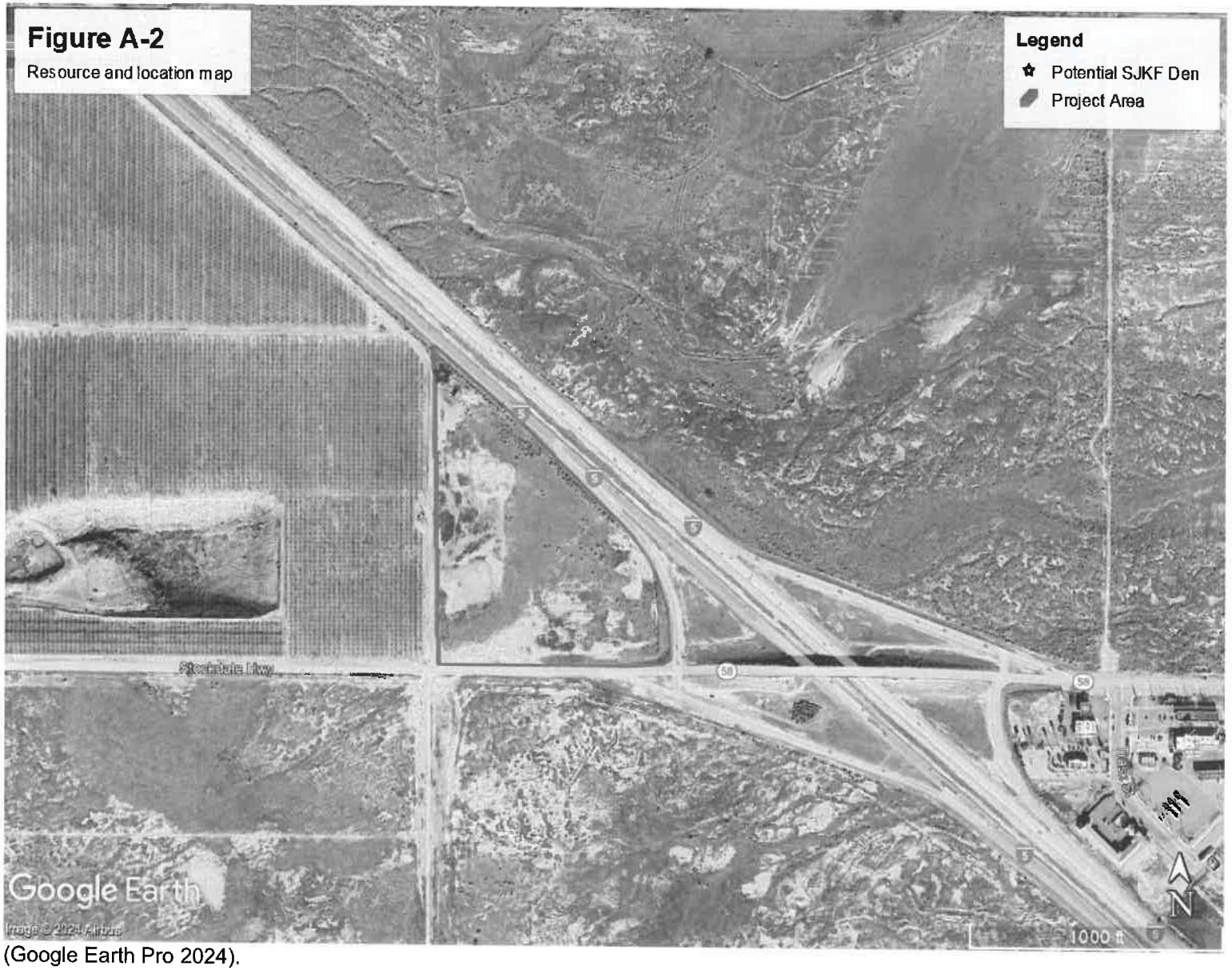
APPENDIX A

PROJECT VICINTY AND SITE

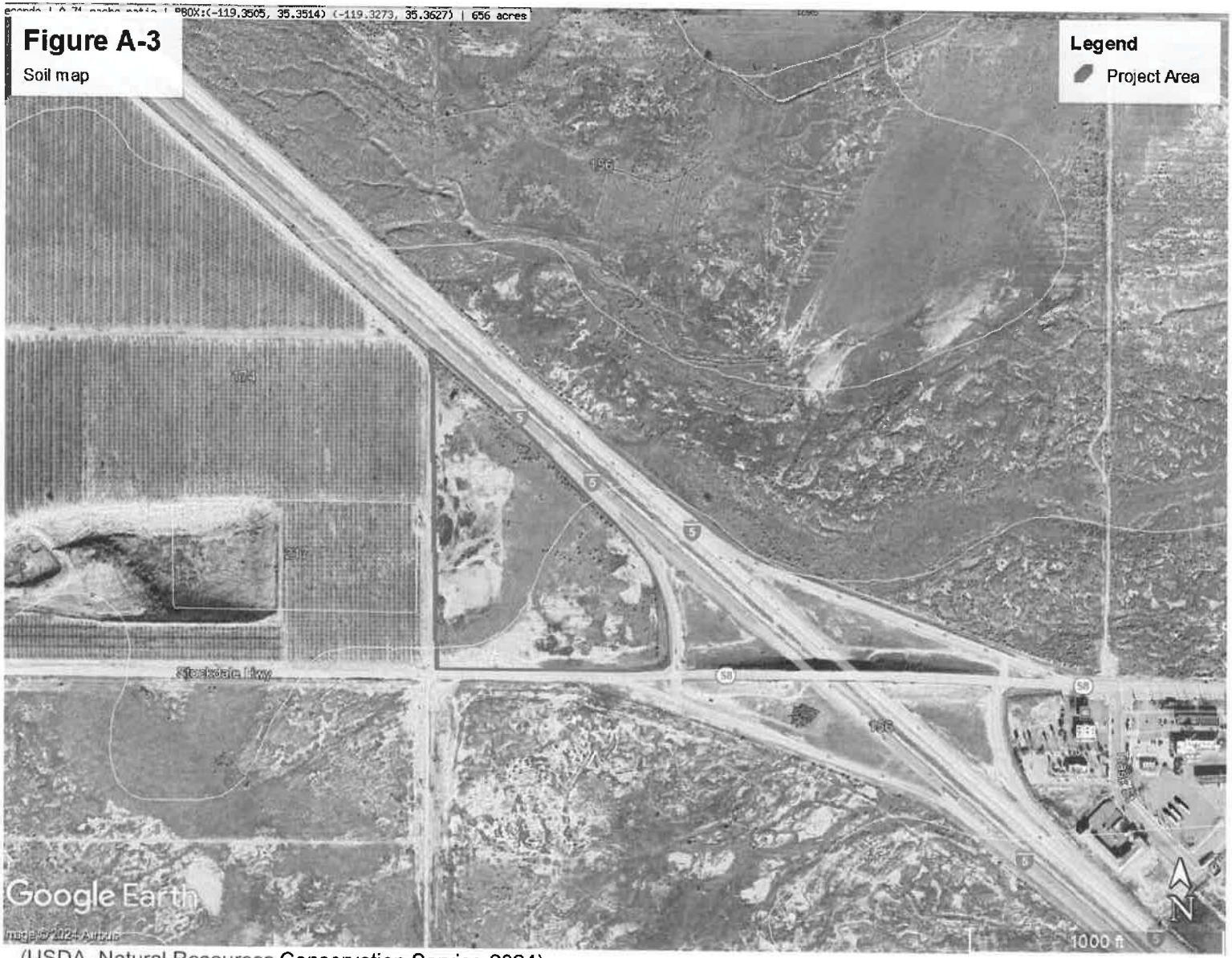
Figure A-1
Aerial photograph of the project and vicinity



(Google Earth Pro 2024).



(Google Earth Pro 2024).



(USDA, Natural Resources Conservation Service 2024).



Figure A-4. Photograph of the project site taken from the SE corner facing N (07August).



Figure A-5. Photograph of the project site taken from near the NE corner facing S (07August).



Figure A-6. Photograph of the project site from near the center of the project facing S (07August).



Figure A-7. Photograph of the project site taken from the EW corner facing W (07August).

APPENDIX B

SPECIAL-STATUS PLANT AND ANIMAL EVALUATION

Table B-1: Special-status Plants That May Occur in the Vicinity of the Project.

Scientific Name **Common Name**	**Status Fed/State/CNPS**	**Description**	**Blooming Period**	**Field Study Results/Potential for Occurrence**
Astragalus hornii var. hornii Horn's milk-vetch	-/-/1B.1	Found in meadows, seeps and playas on lake margins in alkaline soils between 195 and 2,790 feet (60 – 850 meters) in elevation.	April to May	**Not Observed/Not Expected**. Soils not appropriate for the species.
Atriplex cordulata var. *cordulata* Heartscale	-/-/1B.2	Found in chenopod scrub, meadows and seeps, and valley and foothill grasslands in sandy, saline or alkaline soils below 1,835 feet (560 meters) in elevation.	April to October	**Not Observed/Not Expected**. No *Atriplex cordulata* sp. observed.
Atriplex cordulata var. *erecticauiis* Earlimart orache	-/-/1B.2	Found in valley and foothill grasslands, between 130 and 330 feet (40 – 100 meters) in elevation.	August to November	**Not Observed/Not Expected**. No *Atriplex cordulata* sp. observed.
Atriplex coronata var. *vallicola* Lost Hills crownscale	-/-/1B.2	Found in chenopod scrub, valley and foothill grasslands, and vernal pools in alkaline soils between 160 and 2,085 feet (50 – 635 meters) in elevation.	April to September	**Not Observed/Not Expected**. No *Atriplex coronata* sp. observed.
Atriplex minuscula Lesser saltscale	-/-/1B.1	Found in chenopod scrub, playas, and valley and foothill grasslands in alkaline or sandy soils between 45 and 655 feet (15 – 200 meters) in elevation.	May to October	**Not Observed/Not Expected**. No *Atriplex minuscula* observed.
Atriplex subtilis Subtle orache	-/-/1B.2	Found in valley and foothill grasslands in alkaline soils between 130 and 330 feet (40 – 100 meters) in elevation.	June to October	**Not Observed/Not Expected**. No *Atriplex subtilis* observed.
Calochortus striatus Alkali mariposa lily	-/-/1B.2	Found in chaparral, chenopod scrub, mojavean desert scrub, meadows and seeps in alkaline or mesic soils, between 225 and 5,235 feet (70 – 1,595 meters) in elevation.	April to June	**Not Observed/Not Expected**. Soils not appropriate.
Caulanthus californicus California jewelflower	E/E/1B.1	Annual herb in the Brassicaceae family found on serpentinite soils in closed-cone coniferous forest, chaparral, and cismontane woodland between 1,542 and 4,003 feet (470–1,220 meters) in elevation.	May to July	**Not Observed/Not Expected**. Habitat not appropriate. Published data from the agencies states species extirpated from Kern County.
Cirsium crassicaule Slough thistle	-/-/1B.1	Found in chenopod scrub, marshes and swamps, and riparian scrub between 5 and 330 feet (3 – 100 meters) in elevation.	May to August	**Not Observed/Not Expected**. Habitat not appropriate.
Delphinium recurvatum Recurved larkspur	-/-/1B.2	Found in chenopod scrub, cismontane woodland, and valley and foothill grasslands in alkaline soils between 5 and 2,590 feet (3 – 750 meters) in elevation.	March to June	**Not Observed/Not Expected**. Habitat not appropriate.

Scientific Name **Common Name**	**Status Fed/State/CNPS**	**Description**	**Blooming Period**	**Field Study Results/Potential for Occurrence**
Eremalche parryi ssp. *kernensis* Kern mallow	E/-/1B.1	Perennial, stoloniferous herb in the Onagraceae family found in meadows ad seeps, and subalpine coniferous forest in mesic soils between 6,562 and 10,236 feet (2,000–3,120 meters) in elevation. Known to occur in Alpine, El Dorado, Fresno, Madera, Mono, Nevada, Sierra, and Tuolumne Counties.	July to August	**Not Observed/Not Expected**. No *Eremalche parryi* ssp. *kernensis* observed.
Eschscholzia lemmonii ssp. kernensis Tejon poppy	-/-/1B.1	Found in chenopod scrub, and valley and foothill grasslands between 520 and 3,280 feet (160 – 1000 meters) in elevation.	March to May	**Not Observed/Not Expected**. No *Eschscholzia* sp. observed.
Lasthenia chrysantha Alkali-sink goldfields	-/-/1B.1	Found in vernal pools in alkaline soils between 0 and 655 feet (0 – 200 meters) in elevation.	February to April	**Not Observed**. No *Lasthenia* sp. observed.
Lasthenia glabrata ssp. coulteri Coulter's goldfields	-/-/1B.1	Found in coastal salt marshes and swamps, playas, and vernal pools below 4,005 feet (1,220 meters) in elevation.	February to June	**Not Observed/Not Expected**. Habitat not appropriate.
Monolopia congdonii San Joaquin woolly-threads	E/-/1B.2	Annual herb in the Asteraceae found between 197 and 2,625 feet (60–800 meters) in elevation in chenopod scrub, and valley and foothill grasslands, on sandy soils. Known to occur in the San Joaquin Valley from Kern County north to San Benito County, and the Carrizo Plain in San Luis Obispo and Santa Barbara Counties.	February to May	**Not Observed/Not Expected**. Limited distribution. Beyond the published range of the species.
Stylocline citroleum Oil neststraw	-/-/1B.1	Found in chenopod scrub, coastal scrub, and valley and foothill grasslands in clay soils between 160 and 1,310 feet (50 – 400 meters) in elevation.	March to April	**Not Observed/Not Expected**. Soils not appropriate.
Stylocline masonii *Mason's neststraw*	-/-/1B.1	Found in chenopod scrub and pinyon and juniper woodlands in sandy soils between 325 and 3,935 feet (100 – 1,200 meters) in elevation.	March to May	**Not Observed/Not Expected**. Habitat not appropriate.

STATUS:

Federal and State Listing Code

- S Sensitive
- D Delisted
- E Federally or State-listed Endangered
- T Federally or State-listed Threatened

CNPS

- 1A Plants presumed extirpated in California, and either rare or extinct elsewhere
- 1B.1 Plants considered rare, threatened, or endangered in California and elsewhere; seriously threatened in California
- 1B.2 Plants considered rare, threatened, or endangered in California and elsewhere; fairly threatened in California
- 2B.1 Plants considered rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
- 4.2 Plants of limited distribution in California; fairly threatened in California

Table B-2: Special-status Animals That May Occur in the Vicinity of the Project.

Scientific Name **Common Name**	**Status Federal/State**	**General Habitat**	**Survey Results/Regional or Nearest Occurrence***
Invertebrates			
Branchinect lynchi Vernal pool fairy shrimp	T/-	Found in vernal pools throughout California. Exist as cysts during the dry season and reproduce when pools are filled with water again.	**Not Present**. No suitable habitat present.
Danaus plexippus Monarch butterfly	C	Occur for migration between San Diego and British Colombia. Asclepias spp. are used for egg laying throughout the range.	**Not Present.** No suitable habitat for the species. No host plants present on the project or vicinity.
Reptiles			
Anniella grinnelli Bakersfield legless lizard	-/CSC	Occurs in arid scrub, gravely washes, and grasslands, with soil loose enough for easy burrowing.	**Not Observed/Low Probability of Occurrence.** Habitat suitable for *Anniella* sp. occupation. No individuals observed during field work conducted for this project. Historic heavy disturbance and isolation from occupied areas would further reduce the likelihood of current site occupation.
Actinemys maramorata Northwestern pond turtle	PT, S/CSC	Completely aquatic requiring calm waters such as pools or streams with vegetation banks or logs for basking. Will utilize upland habitat up to about 0.5 km from water.	**Not Present.** No suitable habitat present.
Arizona elegans occidentalis California glossy snake	-/CSC	Found in low elevation scrub, grasslands and chaparral habitats.	**Not Observed/Low Probability of Occurrence.** Habitat suitable for *Anniella* sp. occupation. No individuals observed during field work conducted for this project. Historic heavy disturbance and isolation from occupied areas would further reduce the likelihood of current site occupation.
Gambelia sila Blunt-nosed leopard lizard	E/E,SFP	Found only in the San Joaquin Valley, adjacent Carrizo Plain, Elkhorn Plain, Cuyama Valley, and Panoche Valley; inhabits sparsely vegetated plains, lower canyon slopes, on valley floors, and washes; open grassland, saltbush scrub, and alkali sink are more common habitat types.	**Not Observed/Low Probability of Occurrence.** Habitat suitable for BNLL occupation. No BNLL observed during field work conducted for this project. Historic heavy disturbance and isolation from occupied areas would further reduce the likelihood of current site occupation.

Scientific Name **Common Name**	**Status Federal/State**	**General Habitat**	**Survey Results/Regional or Nearest Occurrence***
			Protocol level surveys would be required to determine current site occupancy.
Masticophis flagellum Ruddocki San Joaquin coachwhip	-/CSC	Occurs in grasslands with an understory of saltbush scrub and alkali sink scrub in areas with an abundance of small mammal burrows.	**Not Observed/Low Probability of Occurrence.** Habitat suitable for San Joaquin coachwhip occupation. No individuals observed during field work conducted for this project. Historic heavy disturbance and isolation from occupied areas would further reduce the likelihood of current site occupation.
Phrynosoma blainvillii Coast horned lizard	-/CSC	Occurs in open areas of sandy soil and low vegetation in valleys, foothills, and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads.	**Not Observed/Not Expected.** No known records in the vicinity of the project. Marginal habitat present on the project.
Spea hammondii Western spadefoot	PT, S/CSC	Occurs in Central valley grasslands and adjacent foothills, although some populations can be found in pine-oak woodlands of the valley foothills. Require shallow, temporary pools or steams during the breeding season Reside in burrows most of the year.	**Not Observed/Not Expected.** No known records in the vicinity of the project. Marginal habitat present on the project.
Thamnophis gigas Giant garter snake	T/T	Occurs in permanent or semi-permanent bodies of water. Typically found in freshwater bodies of water, will be located in water features associated with farming and irrigation (i.e. canals, drainage ditches flooded fields).	**Not Present.** No suitable habitat present
Birds			
Agelaius tricolor Tricolored blackbird	S/T	Forages in grasslands, wetlands, rice fields, croplands, and weedy uplands dominated by mustards and thistles, etc.; breeds in marshes containing heavy growth of bulrushes, cattails, and blackberries; found throughout the Central Valley.	**Not Present/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting habitat on the site. Potential for marginal foraging habitat in farmlands in the vicinity of the project.
Athene cunicularia Burrowing owl	S/CSC	Inhabits dry, open grasslands, rolling hills, desert floors, prairies, savannas, agricultural land, and other areas of open, bare ground. These owls will also inhabit open areas near human habitation, such as airports, golf courses, shoulders of roads, railroad embankments, and the banks of irrigation ditches and reservoirs.	**Not Observed/Moderate Probability of Occurrence in the Project Vicinity**. Suitable habitat for nesting and foraging in the vicinity of the project. No burrowing owls or owl burrows observed.
Buteo swainsoni Swainson's hawk	S/T	Riparian and sometimes large isolated trees used for nesting; grasslands and agricultural lands used for foraging; in California, breeds primarily in the	**Not Observed/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting sites on the project. Low

Scientific Name **Common Name**	**Status Federal/State**	**General Habitat**	**Survey Results/Regional or Nearest Occurrence***
		Sacramento Valley, with occasional nesting to the south through Kern County; migrate through the Central and San Joaquin Valleys to their wintering grounds in South America.	suitable foraging habitat exists across the row-crop farmland in the general vicinity of the project site.
Charadrius montanus Mountain plover	S/CSC	Occurs in grasslands and cultivated fields.	**Not Present/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting habitat on the site.
Charadrius nivosus nivosus Western snowy plover	T/CSC	Occurs in sandy or gravelly beaches typically near an alkali water source. Builds it nests on barren or lightly vegetated sandy beaches.	**Not Present/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting habitat on the site.
Coccyzus americanus occidentalis Western yellow-billed cuckoo	T, S/E	Occurs in willow riparian forests, will also build nests in walnut and almond orchards.	**Not Present/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting habitat on the site, however the site borders an active pistachio orchard.
Dendrocygna bicolor Fulvous whistling-duck	-/CSC	Occurs primarily in tropical areas in Central and South America	**Not Present/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting habitat on the site.
Elanus leucurus White tailed kite	-/FP	Occurs in grasslands, agriculture, wetlands, oak woodland and riparian areas with associated open space. Is also know to utilize fallow fields in urban areas.	**Not Observed/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting sites on the project. Low suitable foraging habitat exists across the row-crop farmland in the general vicinity of the project site.
Gymnogyps californianus California condor	E/E, SFP	Forages over large expanses of land including but not limited to, grasslands, foothills, coastal mountain ranges. Nests on cliff faces, large trees or manmade structures.	**Not Present/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting habitat on the site.
Toxostoma lecontei macmillanorum Le Conte's thrasher	S/CSC	Occurs in dry, sparsely vegetated deserts, grasslands, and foothills. Populations in California are known to occur in Fresno, Kern and Kings counties.	**Not Observed/Moderate Probability of Occurrence in the Project Vicinity**. Suitable habitat for nesting and foraging in the vicinity of the project. No individuals observed.
Vireo bellii pusillus least Bell's vireo	E/E	Occurs in dense shrubby or scrubby habitat, including brushy fields, early successional growth, riverine scrub, coastal chaparral, scrub oak, mottes (isolated patches) of shrubs and trees in prairies, saltcedar stands, and mesquite bosques. In arid regions, Bell's vireos are found along streams or in dry arroyos and gulches.	**Not Present/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting habitat on the site.
Xanthoccphalus xanthocephalus Yellow-headed blackbird	-/CSC	Occurs in freshwater marshes during the summer. Usually will over winter, in fields, and various cultivated lands.	**Not Present/Low Probability of Occurrence in the Project Vicinity**. No suitable nesting habitat on the site.

Scientific Name **Common Name**	**Status Federal/State**	**General Habitat**	**Survey Results/Regional or Nearest Occurrence***
Mammals			
Ammospermophilus nelsoni San Joaquin antelope squirrel	S/T	Found in grasslands or open shrublands; formerly more extensive, current range includes southwestern portion of the San Joaquin Valley and in adjacent valleys to the west.	**Not Observed/Low Probability of Occurrence.** Habitat suitable for SJAS occupation. No SJAS observed during field work conducted for this project. Historic heavy disturbance and isolation from occupied areas would further reduce the likelihood of current site occupation.
Dipodomys ingens Giant kangaroo rat	E/E	Found in arid communities on the valley floor portions of Kern, Tulare, and Kings counties in scrub and grassland communities in level to near-level terrain with alluvial fan-floodplain soil (fine sands and sandy loams) with sparse grasses and woody vegetation such as iodine bush, saltbush, seep weed, and mesquite.	**Low Probability of Occurrence.** Habitat suitable for *Dipodomys* sp. Burrows typical of kangaroo rat were observed scattered across the project. Small mammal trapping would be required to determine species occupation.
Dipodomys nitratoides brevinasus Short-nosed kangaroo rat	S/CSC	Found in arid communities on the valley floor portions of Kern, Tulare, and Kings counties in scrub and grassland communities in level to near-level terrain with alluvial fan-floodplain soil (fine sands and sandy loams) with sparse grasses and woody vegetation such as iodine bush, saltbush, seep weed, and mesquite.	**Low Probability of Occurrence.** Habitat suitable for *Dipodomys* sp. Burrows typical of kangaroo rat were observed scattered across the project. Small mammal trapping would be required to determine species occupation.
Dipodomys nitratoides nitratoides Tipton kangaroo rat	E/E	Found in arid communities on the valley floor portions of Kern, Tulare, and Kings counties in scrub and grassland communities in level to near-level terrain with alluvial fan-floodplain soil (fine sands and sandy loams) with sparse grasses and woody vegetation such as iodine bush, saltbush, seep weed, and mesquite.	**Low Probability of Occurrence.** Habitat suitable for *Dipodomys* sp. Burrows typical of kangaroo rat were observed scattered across the project. Small mammal trapping would be required to determine species occupation.
Eumops perotis californicus Greater western mastiff bat	S/CSC	Open, semi-arid to arid habitats, including conifer and deciduous woodlands, annual and perennial grasslands, chaparral, desert scrub, and urban areas; roosts in cliff faces, as well as high buildings, trees, and tunnels; uncommon resident in southwestern San Joaquin Valley.	**No Roosting Sites Present.** No known occurrences in the vicinity of the project. Information on some bat species indicates foraging may occur over 10's of miles from roosting sites. Impacts not expected.
Onychomys torridus tularensis Tulare grasshopper mouse	S/CSC	Found in valley grasslands habitats, blue oak savanna, desert associations dominated by annual grasses and California ephedra, alkali sink scrub, saltbush scrub, and upper Sonoran shrub associations, dominated by ephedra.	**Low Probability of Occurrence.** Habitat suitable for *Onychomys* sp. Burrows typical of kangaroo rat were observed scattered across the project. Small mammal trapping would be required to determine species occupation.
Perognathus inornatus inornatus San Joaquin pocket mouse	S/-	Found in west-central California in the Upper Sacramento Valley, Tehama County, southward through the San Joaquin and Salinas valleys and contiguous areas to the Mojave Desert in Los Angeles,	**Low Probability of Occurrence.** Habitat suitable for *Perognathus* sp. Burrows typical of kangaroo rat were observed scattered across the project. Small

Scientific Name **Common Name**	**Status Federal/State**	**General Habitat**	**Survey Results/Regional or Nearest Occurrence***
		Kern and extreme western San Bernardino counties. Inhabits dry, open, grassy or weedy areas and annual grasslands, savannas, and desert-scrub associations with sandy washes or finely textured soils.	mammal trapping would be required to determine species occupation.
Sorex ornatus relictus Buena Vista Lake ornate shrew	E/CSC	Occurs historically in marshlands of the San Joaquin Valley and the Tulare Basin. Current range is unknown but likely reduced due to habitat loss from agriculture and urbanization.	**Not Present** No suitable habitat.
Taxidea taxus American badger	-/CSC	Uncommon resident found through California; in less disturbed grassland and shrubland habitats in San Joaquin Valley.	**Not Observed/Low Probability of Occurrence.** Habitat suitable for occupation. No individuals observed during field work conducted for this project. Historic heavy disturbance and isolation from occupied areas would further reduce the likelihood of current site occupation.
Vulpes macrotis mutica San Joaquin kit fox (SJKF)	E/T	Found in valley saltbush scrub, valley sink scrub, Interior Coast Range saltbush scrub, upper Sonoran sub-shrub scrub, non-native grassland, and valley sacaton grassland in the Central Valley and adjacent foothills and valleys, infrequently to the outer Coast Ranges; generally not found in densely wooded areas, wetland areas, or areas subject to frequent periodic flooding.	**Moderate to High Probability of Occurrence.** Several potential dens were observed. SJKF potential for occurrence moderate to high in the vicinity of the project.

STATUS:

Federal

S Listed as a BLM Sensitive Species
D Delisted
E Listed as Endangered
PT Proposed as Threatened
T Listed as Threatened
C Candidate for Endangered Status

State

CSC California Department of Fish and Wildlife Designated Species of Special Concern
D Delisted
E Listed as Endangered
SFP California Department of Fish and Wildlife Designated Fully Protected
T Listed as Threatened

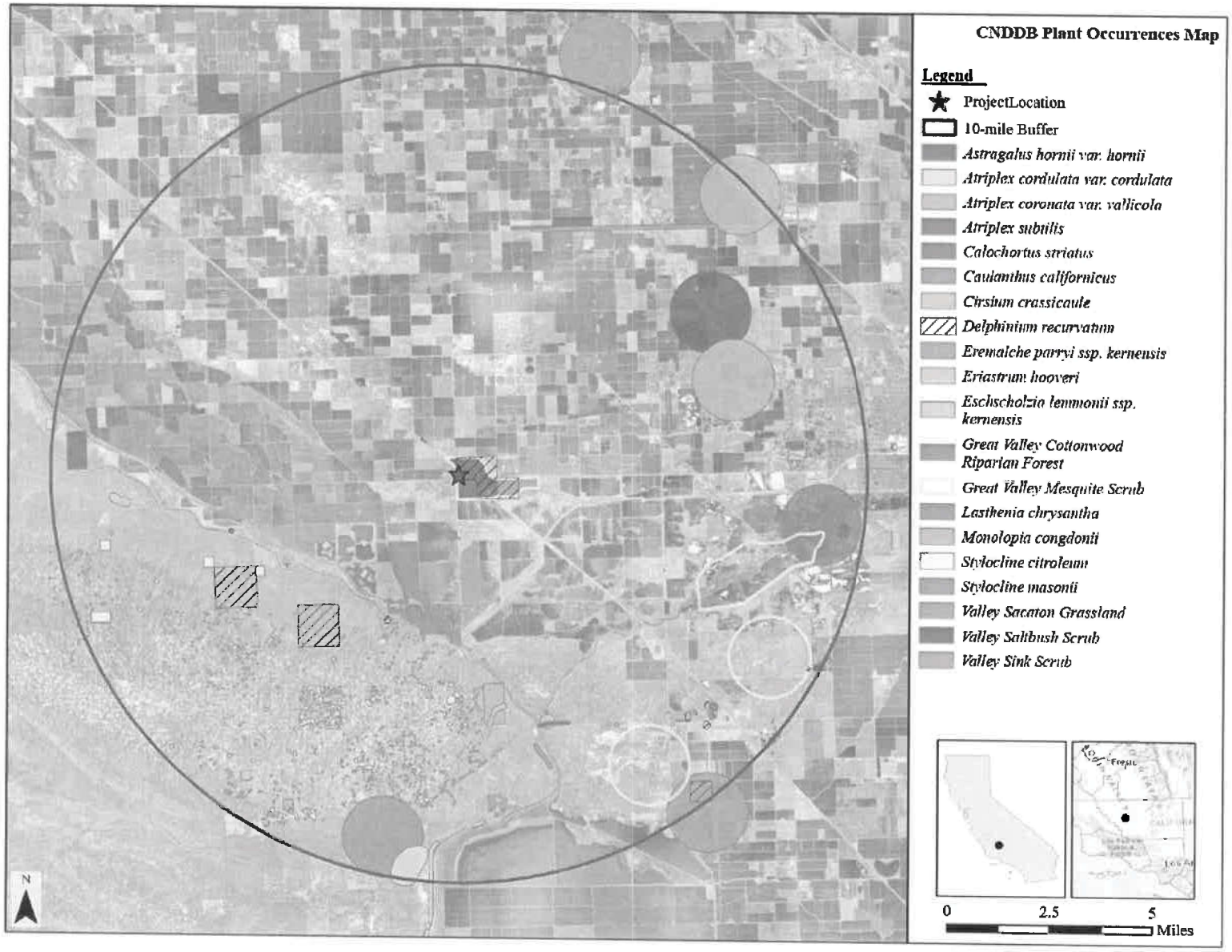


Figure B-1. CNDDB special-status plant species occurrences within a 10-mile radius of the project (CDFW 2024).

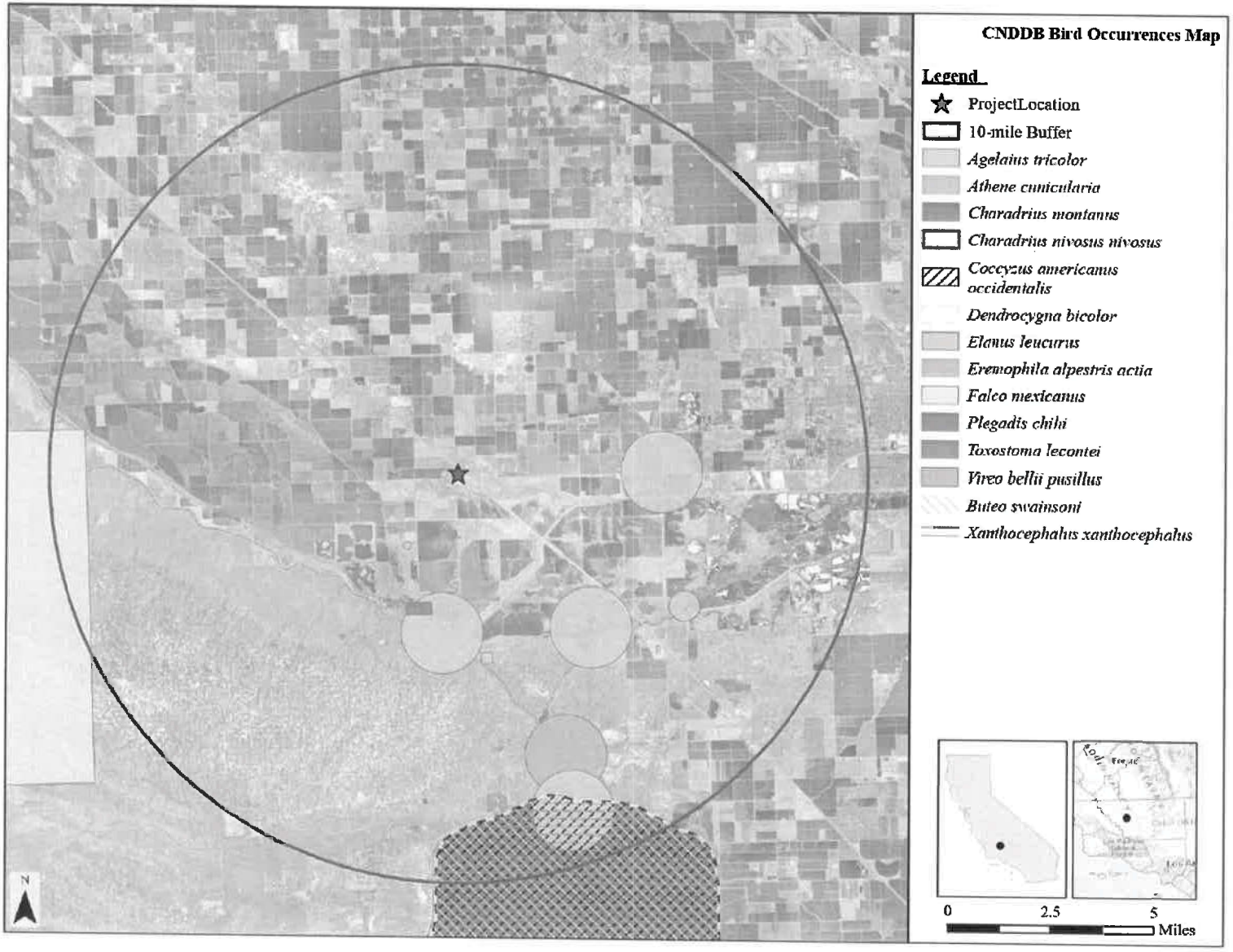


Figure B-2. CNDDB special-status bird species occurrences within a 10-mile radius of the project (CDFW 2024).

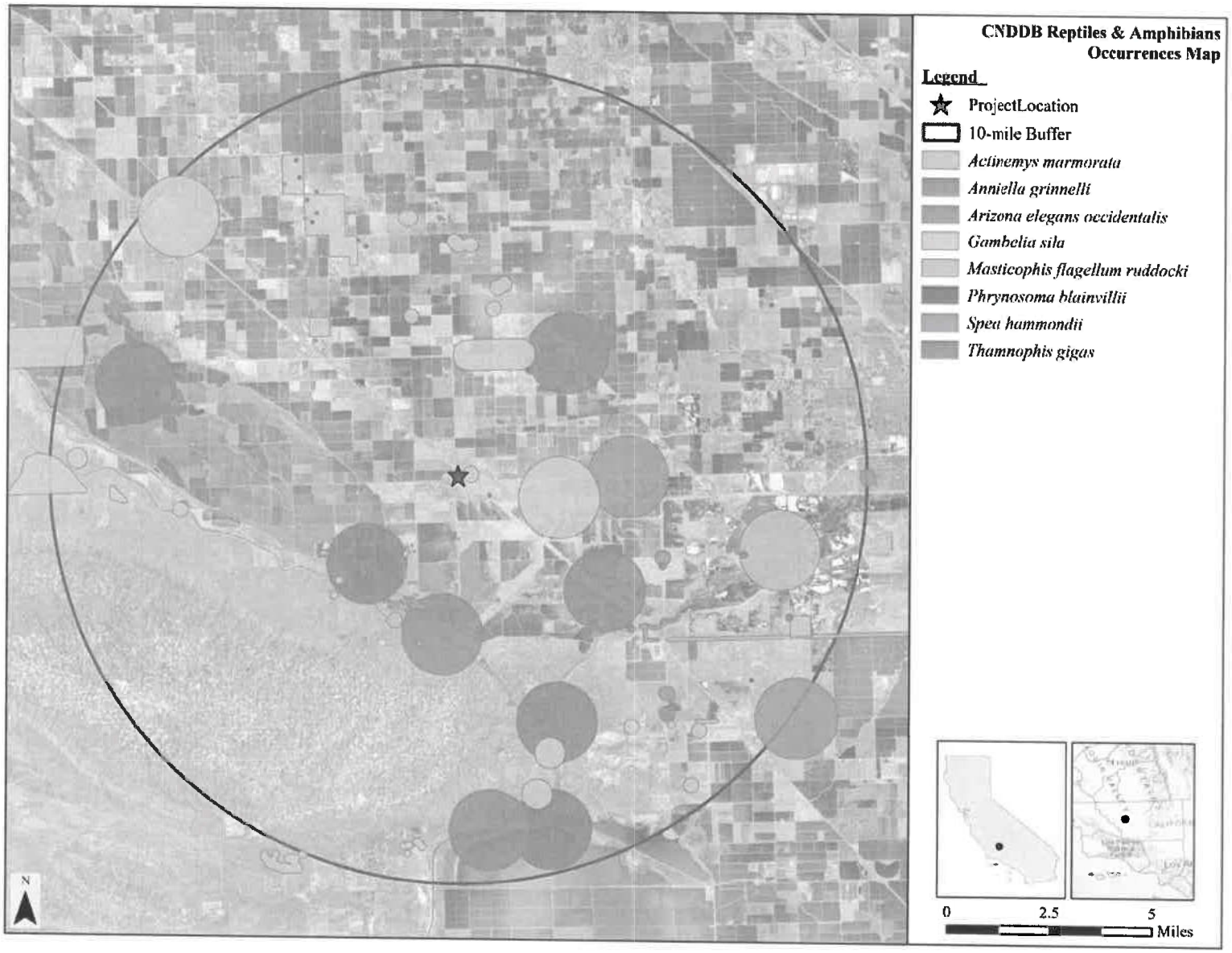


Figure B-3. CNDDB special-status amphibian and reptile species occurrences within a 10-mile radius of the project (CDFW 2024).

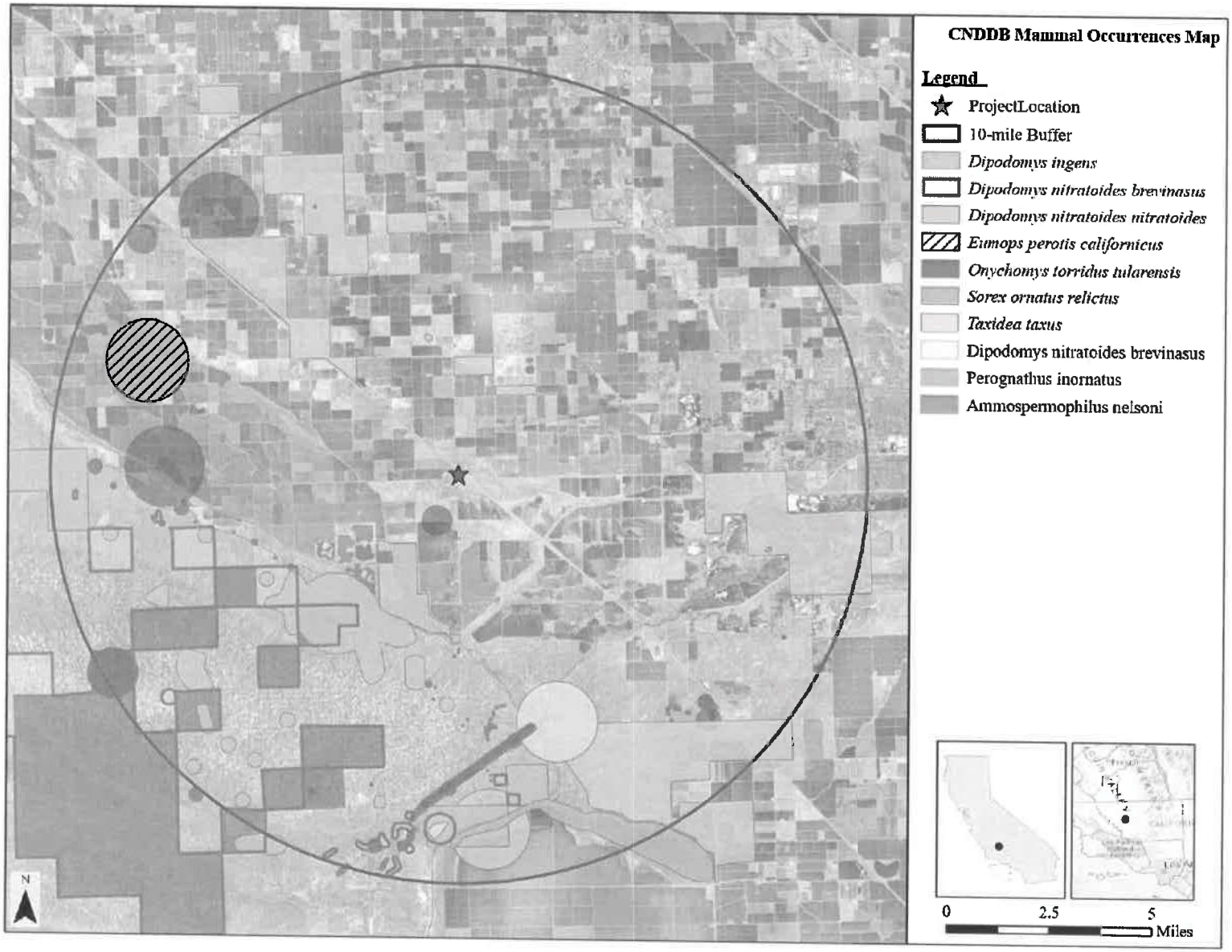


Figure B-4. CNDDB special-status mammal species occurrences within a 10-mile radius of the project (CDFW 2024).

APPENDIX C

PLANTS AND ANIMALS OBSERVED ON THE PROJECT

FIELD STUDY CONDUCTED
August 7, 2024

Table C-1. Vascular plant species observed during the field study conducted on the project site.

Scientific Name	**Common Name**
Asteraceae	
Ambrosia acanthicarpa	Annual bur-sage
Centaurea melitensis	Tocalote
Isocoma acradenia var. *bracteosa*	Alkali goldenbush
Lactuca serriola	Prickly lettuce
Boraginaceae	
Amsinkia menziesii	Fiddleneck
Chenopodiaceae	
Atriplex polycarpa	Common saltbush
Salsola tragus	Russian thistle
Suaeda nigra	Bush seepweed
Geraniaceae	
Erodium cicutarium	Redstem filaree
Poaceae	
Bromus madritensis ssp. *rubens*	Red brome
Bromus diandrus	Ripgut grass
Polypogon monspeliensis	Rabbit's foot grass
Schismus sp.	Mediterranean grass

Table C-2. Vertebrate animal species observed during the field study conducted on the project site.

Scientific Name	**Common Name**
Birds	
Zenaida macroura	Mourning dove

Mitigated Negative Declaration

Appendix B
Cultural Resource Survey

LYNN TRUCKING INC.
by KSI Engineering
(PP25197)

CUP No. 65, Map 100
ZV No. 40, Map 100

Kern County
Planning and Natural Resources Department
Bakersfield, CA

April 2026

A
PHASE I CULTURAL RESOURCE SURVEY, G-LYNN TRUCK STOP, KERN COUNTY, CALIFORNIA

Submitted to:
KSI Engineering, Inc.
6205 District Boulevard
Bakersfield, California 93313

Keywords:
Tupman 7.5' Quadrangle, Kern County,
California Environmental Quality Act

Submitted by:
Hudlow Cultural Resource Associates
1405 Sutter Lane
Bakersfield, California 93309

Author:
Scott M. Hudlow

January 2025

Management Summary

At the request of KSI Engineering, Inc., a Phase I Cultural Resource Survey was conducted on a 16.61-acre parcel. The project is a highway commercial project that includes APNs 104-270-011 through -020. The project area is located at the northwest corner of Stockdale Highway and Interstate 5 in Kern County, California, in accordance with the California Environmental Quality Act. The Phase I Cultural Resource Survey consisted of a pedestrian survey of the site and a cultural resource record search.

No cultural resources were identified. No further work is required. If cultural resources are encountered during the course of construction, a qualified archaeologist should be consulted for further evaluation.

If human remains or potential human remains are observed during construction, work in the vicinity of the remains will cease, and the remains will be treated in accordance with the provisions of State Health and Safety Code Section 7050.5. The protection of human remains follows California Public Resources Codes, Sections 5097.94, 5097.98, and 5097.99.

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1.0 Introduction

At the request of KSI Engineering, INC., *Hudlow Cultural Resource Associates* conducted a Phase I Cultural Resource Survey for a highway commercial project, the G-Lynn truck stop. The 16.61-acre property is located at the northwest corner of Stockdale Highway and Interstate 5 in Kern County, California in accordance with the California Environmental Quality Act (CEQA). Kern County acts as the Lead Agency to implement CEQA. The Phase I Cultural Resource Survey consisted of a pedestrian survey of the site and a cultural resource record search.

CEQA is a California statute passed in 1970. Governor Ronald Reagan signed it into law, after the federal government passed the National Environmental Policy Act (NEPA). CEQA institutes a statewide policy of environmental protection. CEQA does not directly regulate land uses, but instead requires state and local agencies within California to follow a protocol of analysis and public disclosure of environmental impacts of proposed projects and, in a departure from NEPA, adopt all feasible measures to mitigate those impacts. CEQA makes environmental protection a mandatory part of every California state and local agency's decision making process.

CEQA was signed into law in 1970, in a time of increasing public concern for the environment. The statute required that for any public project, the government must conduct an environmental study to examine what impacts the project might have on things like air/water quality, noise, transportation, biological resources, or cultural resources, and generate an Environmental Impact Report (EIR) documenting the impacts as well as any potential and planned mitigations. In 1972, state courts interpreted a public project as a development project that needed government approval.

In 1969, NEPA passed into law. It is similar to CEQA in that both statutes set forth a policy of environmental protection, and a protocol by which all agencies in their respective jurisdictions make environmental protection part of their decision making process. NEPA is narrower in scope than CEQA. NEPA applies only to projects receiving federal funding or approval by federal agencies, while CEQA applies to projects receiving any form of state or local approval, permit, or oversight. Thus, development projects in California funded only by private sources and not requiring approval by a federal agency would be exempt from NEPA; but would likely be subject to CEQA.

The CEQA statute, California Public Resources Code § 21000 et seq., codifies a statewide policy of environmental protection. According to CEQA, state and local agencies must give consideration to environmental protection in regulating public and private activities and should not approve projects for which feasible and environmentally superior mitigation measures or alternatives exist.

CEQA mandates actions that all state and local agencies must do to advance this policy. Specifically, for any project under CEQA's jurisdiction with potentially significant environmental impacts, agencies must identify mitigation measures and alternatives by preparing an Environmental Impact Report and must approve projects with feasible mitigation measures and the environmentally superior alternative. The California Natural Resources Agency promulgates the CEQA Guidelines, California Code of Regulations Title 14 § 15000 et seq., which detail the protocol by which state and local agencies must comply with CEQA requirements. CEQA originally applied to only public projects, but California Supreme Court interpretation of the statute, as well as later revisions, expanded CEQA's jurisdiction to nearly all projects within California, including those proposed by private businesses and individuals. § 21002.1 states "Each public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so." For private projects, CEQA applies when a discretionary government permit or other entitlement for use is necessary.

The lead agency, Kern County is responsible for conducting the CEQA review and has final approval of the project. Kern County is also responsible for coordinating with the project applicant, public, and associated agencies during the CEQA process.

2.0 Survey Location

The project area is in Kern County. It comprises a portion of the SW ¼ of the SW ¼ of Section 31, T.29S., R.25E., Mount Diablo Baseline and Meridian, as displayed on the United States Geological Survey (USGS) Tupman 7.5-minute quadrangle map (Figure 1). The 16.61-acre property is located at the northwest corner of Stockdale Highway and Interstate 5 in Kern County, California.

3.0 Record Search

A record search of the project area and the environs within one half-mile was conducted at the Southern San Joaquin Archaeological Information Center. Scott M. Hudlow conducted the record search on January 28, 2025, AIC# 25-041. The record search revealed that five surveys have been conducted within one half-mile of the project area. One of those five surveys has partially surveyed a portion of the project area (Parr and Osborne 1992). Six cultural resources have been recorded within one-half mile of the project area. Four of these cultural resources are prehistoric resources, including three lithic scatters and one isolated flake. The two historic resources are linear resources running side-by-side. The first is a pipeline and the second is Interstate 5, itself. None of these six previously recorded cultural resources are located within the confines of the current project area.

4.0 Environmental Background

The project area is located at an elevation of 300 feet above mean sea level in the Great Central Valley, which is composed of two valleys-- the Sacramento Valley and the San Joaquin Valley. The project area is located in the southwestern portion of the southern San Joaquin Valley, north of the Kern River. The project area is a vacant lot that is covered in gravel with construction debris in the northwest corner. Scattered dry and desiccated weeds, including saltbush, is present. Lush, wet domestic grasses and a series of approximately forty beehives are also present. No native vegetation survives (Figures 2 and 3).

5.0 Prehistoric Archaeological Context

Limited archaeological research has been conducted in the southern San Joaquin Valley. Thus, consensus on a generally agreed upon regional cultural chronology has yet to be developed. Most cultural sequences can be summarized into several distinct time periods: Early, Middle, and Late sequences differ in their inclusion of various "horizons," "technologies," or "stages." A prehistoric archaeological summary of the southern San Joaquin Valley is available in Moratto (Moratto 1984).

Despite the preoccupation with chronological issues in most of the previous research, most suggested chronological sequences are borrowed from other regions with minor modifications based on sparse local data.

The following chronology is based on Parr and Osborne's Paleo-Indian, Proto-Archaic, Archaic, Post-Archaic periods (Parr and Osborne 1992:44-47). Most existing chronologies focus on stylistic changes of time-sensitive artifacts such as projectile points and beads rather than addressing the socioeconomic factors, which produced the myriad variations. In doing so, these attempts have encountered similar difficulties. These cultural changes are implied as environmentally determined, rather than economically driven.

Paleo-Indians, who roamed the region approximately 12,000 years ago, were highly mobile individuals. Their subsistence is assumed to have been primarily big game, which was more plentiful 12,000 years ago than in the late twentieth century. However, in the Great Basin and California, Paleo people were also foragers who exploited a wide range of resources. Berries, seeds, and small game were also consumed. Their technology was portable, including manos (Parr and Osborne 1992:44). The paleo period is characterized by fluted Clovis and Folsom points, which have been identified throughout North America. The Tulare Lake region in Kings County has yielded several Paleo-Indian sites, which have included fluted points, scrapers, chipped crescents, and Lake Mojave-type points (Morratto 1984:81-2).

The Proto-Archaic period, which dates from approximately 11,000 to 8,000 years ago, was characterized by a reduction in mobility and conversely an increase in sedentism. This period is classified as the Western Pluvial Lake

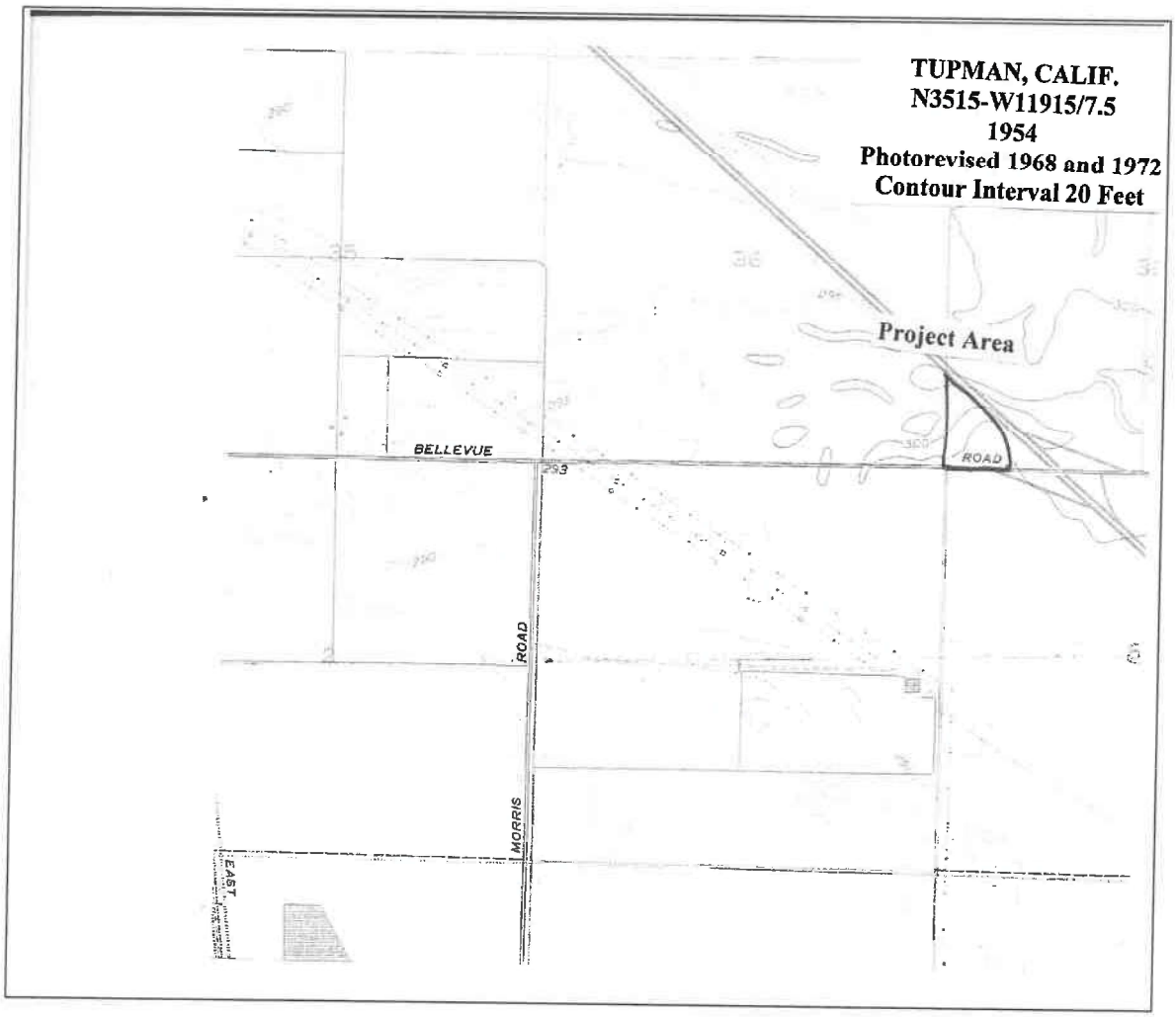


Figure 1
Project Area Location Map

Tradition or the Proto-Archaic, of which the San Dieguito complex is a major aspect (Moratto 1984: 90-99; Warren 1967). An archaeological site along Buena Vista Lake in southwestern Kern County displays a similar assemblage to the San Dieguito type site. Claude Warren proposes that a majority of Proto-Archaic southern California could be culturally classified as the San Dieguito Complex (Warren 1967). The Buena Vista Lake site yielded manos, millingstones, large stemmed and foliate points, a mortar, and red ochre. During this period, subsistence patterns began to change. Hunting focused on smaller game and plant collecting became more integral. Large stemmed, lancelote (foliate) projectile points represent lithic technology during this period. Millingstones become more prevalent. The increased sedentism possibly began to create regional stylistic and cultural differences not evident in the paleo period.

The Archaic period persisted in California for the next 4000 years. In 1959, Warren and McKusiak proposed a three-phase chronological sequence based on a small sample of burial data for the Archaic period (Moratto 1984:189; Parr



Figure 2
Project Area, View to the Northeast



Figure 3
Project Area, View to the Northwest

and Osborne 1992:47). It is distinguished by increased sedentism and extensive seed and plant exploitation. Millingstones, shaped through use, were abundant. Bedrock manos and metates were the most prevalent types of millingstones (Parr and Osborne 1992:45). The central valley began to develop distinct cultural variations, which can be distinguished by different regions throughout the valley, including Kern County.

In the Post-Archaic period enormous cultural variations began manifesting themselves throughout the entire San Joaquin Valley. This period extends into the contact period in the seventeenth, eighteenth and nineteenth centuries. Sedentary village life was emblematic of the Post-Archaic period, although hunting and gathering continued as the primary subsistence strategy. Agriculture was absent in California, partially due to the dense, predictable, and easily exploitable natural resources. The ancestral Yokuts have possibly been in the valley for the last three thousand years, and by the eighteenth century were the largest pre-contact population, approximately 40,000 individuals, in California (Moratto 1984).

6.0 Ethnographic Background

The Yokuts are a Penutian-speaking, non-political cultural group. Penutian speakers inhabit the San Joaquin Valley, the Bay Area, and the Central Sierra Nevada Mountains. The Yokuts are split into three major groups, the Northern Valley Yokuts, the Southern Valley Yokuts, and the Foothill Yokuts.

The southern San Joaquin Valley in the Bakersfield and associated Kern County area was home to the Yokuts tribelet, Yawelmani. The tribelets averaged 350 people in size, had a special name for themselves, and spoke a unique dialect of Yokuts. Land was owned collectively and every group member enjoyed the right to utilize food resources. The Yawelmani inhabited a strip of the southeastern San Joaquin Valley, north of the Kern River to the Tehachapi Mountains on the south, and from the mountains on the east, to approximately the old south fork of the Kern River on the west (Wallace 1978:449; Parr and Osborne 1992:19). The Yawelmani were the widest ranging of the Yokuts tribelets. A half dozen villages were located along the Kern River, including *Woilo* ("planting place" or "sowing place"), which was located in downtown Bakersfield, where the Amtrak station is located. A second village was located across the Kern River from *Woilo*, on the west bank.

The Southern Valley Yokuts established a mixed domestic economy emphasizing fishing, hunting, fowling, and collecting shellfish, roots, and seeds. Fish were the most prevalent natural resource; fishing was a productive activity throughout the entire year. Fish were caught in many different manners, including nets, conical basket traps, catching with bare hands, shooting with bows and arrows, and stunning fish with mild floral toxins. Geese, ducks, mud hens and other waterfowl were caught in snares, long-handled nets, stuffed decoys, and brushing brush to trick the birds to fly low into waiting hunters. Mussels were gathered and steamed on beds of tule. Turtles were also consumed as were dogs, which might have been raised for consumption (Wallace 1978:449-450).

Wild seeds and roots provided a large portion of the Yokuts' diet. Tule seeds, grass seeds, fiddleneck, alfilaria were also consumed. Acorns, the staple crop for many California native cultures, were not common in the San Joaquin Valley. Acorns were traded into the area, particularly from the foothills. Land mammals, such as rabbits, ground squirrels, antelope and tule elk, were not hunted often (Wallace 1978:450).

The Yokuts occupied permanent structures in permanent villages for most of the year. During the late and early summer, families left for several months to gather seeds and plant foods, shifting camp locations when changing crops. Several different types of fiber-covered structures were common in Yokuts settlements. The largest was a communal tule mat-covered, wedge-shaped structure, which could house upward of ten individuals. These structures were established in a row, with the village chief's house in the middle and his

messenger's houses were located at the ends of the house row. Dance houses and assembly buildings were located outside the village living area (Nabokov and Easton 1989:301).

The Yokuts also built smaller, oval, single-family tule dwellings. These houses were covered with tall mohya stalks or with sewn tule mats. Bent-pole ribs that met a ridgepole held by two crotched poles framed these small houses. The Yokuts also built a cone-shaped dwelling, which was framed with poles tied together with a hoop and then covered with tule or grass. These cone-shaped dwellings were large enough to contain multiple fireplaces (Nabokov and Easton 1989:301). Other structures included mat-covered granaries for storing food supplies, and a dirt-covered communally owned sweathouse.

Clothing was minimal, men wore a breechclout or were naked. Women wore a narrow-fringed apron. Rabbitskin or mud hen blankets were worn during the cold season. Moccasins were worn in certain places; however, most people went barefoot. Men wore no head coverings, but women wore basketry caps when they carried burden baskets on their heads. Hair was worn long. Women wore tattoos from the corners of the mouth to the chin; both men and women had ear and nose piercings. Bone, wood or shell ornaments were inserted into the ears and noses (Wallace 1978:450-451).

Tule dominated the Yokut's material culture. It was used for many purposes, including sleeping mats, wall coverings, cradles, and basketry. Ceramics are uncommon to Yokuts culture as is true throughout most California native cultures. Basketry was common to Yokuts culture. Yokuts made cooking containers, conical burden baskets, flat winnowing trays, seed beaters, and necked water bottles. Yokuts also manufactured wooden digging sticks, fire drills, mush stirrers, and sinew-backed bows. Knives, projectile points, and scraping tools were chipped from imported lithic materials including obsidian, chert, and chalcedony. Stone mortars and pestles were secured in trade. Cordage was manufactured from milkweed fibers, animal skins were tanned, and awls were made from bone. Marine shells, particularly olivella shells, were used in the manufacture of money and articles of personal adornment. Shells were acquired from the Chumash along the coast (Wallace 1978:451-453).

The basic social and economic unit was the nuclear family. Lineages were organized along patrilineal lines. Fathers transmitted totems, particular to each paternal lineage, to each of his children. The totem was a bird or animal that no lineage member would kill or eat; the totems were dreamed of and prayers were given to the totems. The mother's totem was not passed to her offspring but was treated with respect. Families sharing the same totem formed an exogamous lineage. The lineage had no formal leader nor did it own land. The lineage was a mechanism for transmitting offices and performing ceremonial functions. The lineages formed two moieties, East and West, which consisted of several different lineages. Moieties were customarily exogamous. Children followed the paternal moiety. Certain official positions within the villages were associated with certain totems. The most important was the Eagle lineage from

which the village chief was appointed. A member of the Dove lineage acted as the chief's assistant. He supervised food distribution and gave commands during ceremonies. Another hereditary position was common to the Magpie lineage, was that of spokesman or crier.

7.0 Historical Overview

Kern County was settled in the 1850 and 1860s, soon after California joined the United States after the passage of the Compromise of 1850. The Compromise of 1850 allowed California to join the Union as a free state even though a major portion of the state lied beneath the Missouri Compromise line and was potentially subject to southern settlement and slavery. Americans had long been visiting and working in California prior to the admission of California into the Union.

European exploration of the region begins in the 1770s with the Spanish. In 1772, Pedro Fages arrived in the San Joaquin Valley searching for army deserters. Father Francisco Garces, a Jesuit priest, soon visited the vicinity in 1776. The Spanish empire collapsed in 1820, and California became Mexican territory. American exploration of the San Joaquin Valley begins in the 1820s with Jedediah Smith, Kit Carson, and Joseph Walker looking for commercial opportunities. The United States government began exploring California in the 1830s. Soon, the Americans will be searching for intercontinental railroad routes to link the eastern and western halves of the continent.

The defeat of the Mexicans during the Mexican-American War and the subsequent discovery of gold will drastically alter the complicated political realities of the west. The Mexican-American War was ostensible fought to settle a boundary dispute wit h the Mexicans over the western boundary of the newly-annexed state of Texas, which had fought a successful rebellion against the Mexican Army in the mid 1830s. The Republic of Texas was an independent country for nine years until Texas was annexed by the United States in 1845. The outcome of the Mexican-American War was that Mexico rescinded its claims to much of the American southwest, in 1848, bringing these territories into the United States, including California.

In January 1848, the discovery of gold in Coloma, California changed the settlement of California, forever. In the summer of 1849, when the gold strike was publicly announced, the overnight settlement of California began. The Mexican population of California was small and limited to the coasts and a few of southern California's interior valleys. A sizable native population settled the remainder of California; Bakersfield and Kern County was Yokuts territory. The Gold Rush tipped the balance of native communities throughout California, as many of California's natives were decimated.

Many areas experienced smaller gold rushes, including the Kern River Valley, when gold was discovered in Keyesville in 1853. The gold was soon played and the true future of the region was soon identified, farming, as the gold

prospectors came down from the mountains. Kern Island, a median point along the Kern Delta, between the mouth of the Kern River and Kern Lake, was settled in 1860. Soon, Col. Thomas Baker bought the property from the original owner, Christian Bohna and the settlement of Bakersfield began in earnest.

Col. Baker was lured to California by the prospects of gold, but he was tamed by the farming opportunities. He was a practicing lawyer and surveyor and was slowly moving west from Ohio. He was involved in Iowa's territorial government and served in both the California senate and assembly in the 1840s and 1850s before arriving in the area. Col. Baker realized he had to drain the Kern Delta to manufacture usable farmland, and he also improved his land, creating one of the only transit locations between Los Angeles and Visalia in the 1860s.

Baker laid out the town and began the process of draining, diverting, and controlling the Kern River. In 1873, Bakersfield was incorporated and was the first city in the newly-created Kern County, which was previously a portion of Tulare County. In 1874, Bakersfield got a rail link with the establishment of the Southern Pacific line over the Tehachapi Pass. The train station was located in Sumner, a spite town that was established by the Southern Pacific about a mile east of downtown Bakersfield, now located in east Bakersfield. Bakersfield could now flourish as an agricultural community, producing fruits and grains.

The city of Bakersfield expanded to the north in the early twentieth-century toward the Kern River, after its 1898 reincorporation. The city centered along Chester Avenue, which was the main north/south thoroughfare. The community of Sumner lied to the east, and the surrounding area in all directions was farmland. The city of Bakersfield was a small community at the turn of the century, slightly less than 5,000 people lived in Bakersfield; an additional 17,000 people lived in Kern County (Maynard 1997:43). Bakersfield was a quiet city in the center of a farming region.

However, the discovery of the Kern River oil field in May 1899 quickly changed the face of the region. Bakersfield quickly became the center of a California oil boom, which made over the community. The population more than doubled in less than ten years, bringing prosperity to the area (Maynard 1997:43). Many people recognized that prosperity could not only be achieved through working in oil, but also through providing necessary services, such as milk products and lodging. The city of Bakersfield grew tremendously.

Between 1900 and 1950, Bakersfield and the greater Kern County region grew tremendously under the influence of two economic forces, agriculture and oil. By 1950, Bakersfield was a mid-sized city of approximately 50,000. It sported minor league baseball, had a regional airport, and was a major link along Route 99, which connected northern and southern California. In the late 1960s, Bakersfield was beginning to change again, as the Kern County Land Company was sold to Tenneco West, and Bakersfield began to suburbanize.

8.0 Field Procedures and Methods

On January 28, 2025, Scott M. Hudlow (for qualifications see Appendix I) conducted a pedestrian survey of the entire proposed project area. Hudlow surveyed in north/south transects at 10-meter (33 feet) intervals across the entire parcel.

9.0 Report of Findings

No cultural resources were identified.

10.0 Management Recommendations

At the request of KSI Engineering, Inc., a Phase I Cultural Resource Survey was conducted on a 16.61-acre parcel. The project is a highway commercial project that includes APNs 104-270-011 through -020. The project area is located at the northwest corner of Stockdale Highway and Interstate 5 in Kern County, California, in accordance with the California Environmental Quality Act. The Phase I Cultural Resource Survey consisted of a pedestrian survey of the site and a cultural resource record search.

No cultural resources were identified. No further work is required. If cultural resources are encountered during the course of construction, a qualified archaeologist should be consulted for further evaluation.

If human remains or potential human remains are observed during construction, work in the vicinity of the remains will cease, and the remains will be treated in accordance with the provisions of State Health and Safety Code Section 7050.5. The protection of human remains follows California Public Resources Codes, Sections 5097.94, 5097.98, and 5097.99.

11.0 References

Maynard, John A.
1997 *Bakersfield: A Centennial Portrait.* Cherbo Publishing, Encino, California.

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

Nabokov, Peter and Robert Easton
1989 *Native American Architecture.* Oxford University Press, New York, New York.

Parr, Robert E. and Richard Osborne
1992 *Route Adoption Study for Highway 58, Kern County, California.* Report on file, Southern San Joaquin Archaeological Information

Center, California State University, Bakersfield, Bakersfield, California.

Wallace, William J.
1978 "Southern Valley Yokuts" in *Handbook of North American Indians*. Vol. 8, California, Robert F. Heizer, ed. Washington, D.C.: Smithsonian Institution, pp. 437-445.

Warren, Claude N. and M. B. McKusiak
1959 A Burial Complex from the southern San Joaquin Valley. Los Angeles: *University of California, Los Angeles, Archaeological Survey Annual Report, 1959*: 17-26.

Warren, Claude N.
1967 "The San Dieguito Complex: A Review and Hypothesis" *American Antiquity* 32(2): 168-185.

Appendix I

Scott M. Hudlow
1405 Sutter Lane
Bakersfield, California 93309
(661) 834-9183 (w)

Education

The George Washington University
M.A. American Studies, 1993
Specialization in Architectural History,
American Material Culture, and Folklife

University of California, Berkeley
B.A. History, 1987
B.A. Anthropology, 1987
Specialization in Colonial History
and Historical Archaeology

Public Service

3/94- *Historic Preservation Commission.* City of Bakersfield, Bakersfield, California 93305.

7/97- *Newsletter Editor. California History Action,* newsletter for the California Council for the Promotion of History.

Relevant Work Experience

8/96- *Adjutant Faculty.* Bakersfield College, 1801 Panorama Drive, Bakersfield, California, 93305. Teach History 17A, Introduction to American History and Anthropology 5, Introduction to North American Indians.

11/95- *Owner, Sole Proprietorship.* Hudlow Cultural Resource Associates. 1405 Sutter Lane, Bakersfield California 93309. Operate small cultural resource management business. Manage contracts, respond to RFP's, bill clients, manage temporary employees. Conduct Phase I architectural and archaeological surveys for private and public clients; including the survey, documentary photography, measured drawings, mapping of structures, filing of survey forms, historic research, assessing impact and writing reports. Evaluated properties in lieu of their eligibility for the National Register of Historic Places in association with Section 106 and 110 requirements of the National Historic Preservation Act of 1966 and CEQA (California Environmental Quality Act).

Full resume is available upon request.

Mitigated Negative Declaration

Appendix C
Traffic Study

LYNN TRUCKING INC.
by KSI Engineering
(PP25197)

CUP No. 65, Map 100
ZV No. 40, Map 100

Kern County
Planning and Natural Resources Department
Bakersfield, CA

April 2026

Project No: 448-05

TRAFFIC STUDY

PROPOSED MIXED-USE DEVELOPMENT
STOCKDALE HIGHWAY & INTERSTATE 5
BAKERSFIELD, CALIFORNIA

Prepared for:

KSI ENGINEERING, INC.

March 2024

REVISED August 2024

Prepared by:

RUETTGERS & SCHULER CIVIL ENGINEERS

1800 30TH STREET, SUITE 260
BAKERSFIELD, CA 93301



Ian J. Parks, RCE 51825

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INTRODUCTION

The purpose of this study is to evaluate the potential traffic impacts of a proposed mixed-use development located on the northwest quadrant of the Interstate 5 and Stockdale Highway interchange in Kern County, CA. A vicinity map and location map are presented in Figures 1 and 2, respectively.

The proposed project consists of a 60-room hotel, two high-turnover restaurants which total 5,880 square feet, a 2,145 square foot drive-through restaurant, a 2,145 square foot coffee shop with drive-through, a convenience store/gas station consisting of 16 fueling positions and 1,100 square foot quick serve restaurant, and a truck stop consisting of seven fueling positions, a truck wash, and a truck repair facility. Access to the site is proposed along Stockdale Highway. The site plan for the project is shown in Figure 3.

A. Land Use, Site and Study Area Boundaries

The existing zoning is CH PD (Highway Commercial – Precise Development Combining) and the existing land use designation is Highway Commercial.

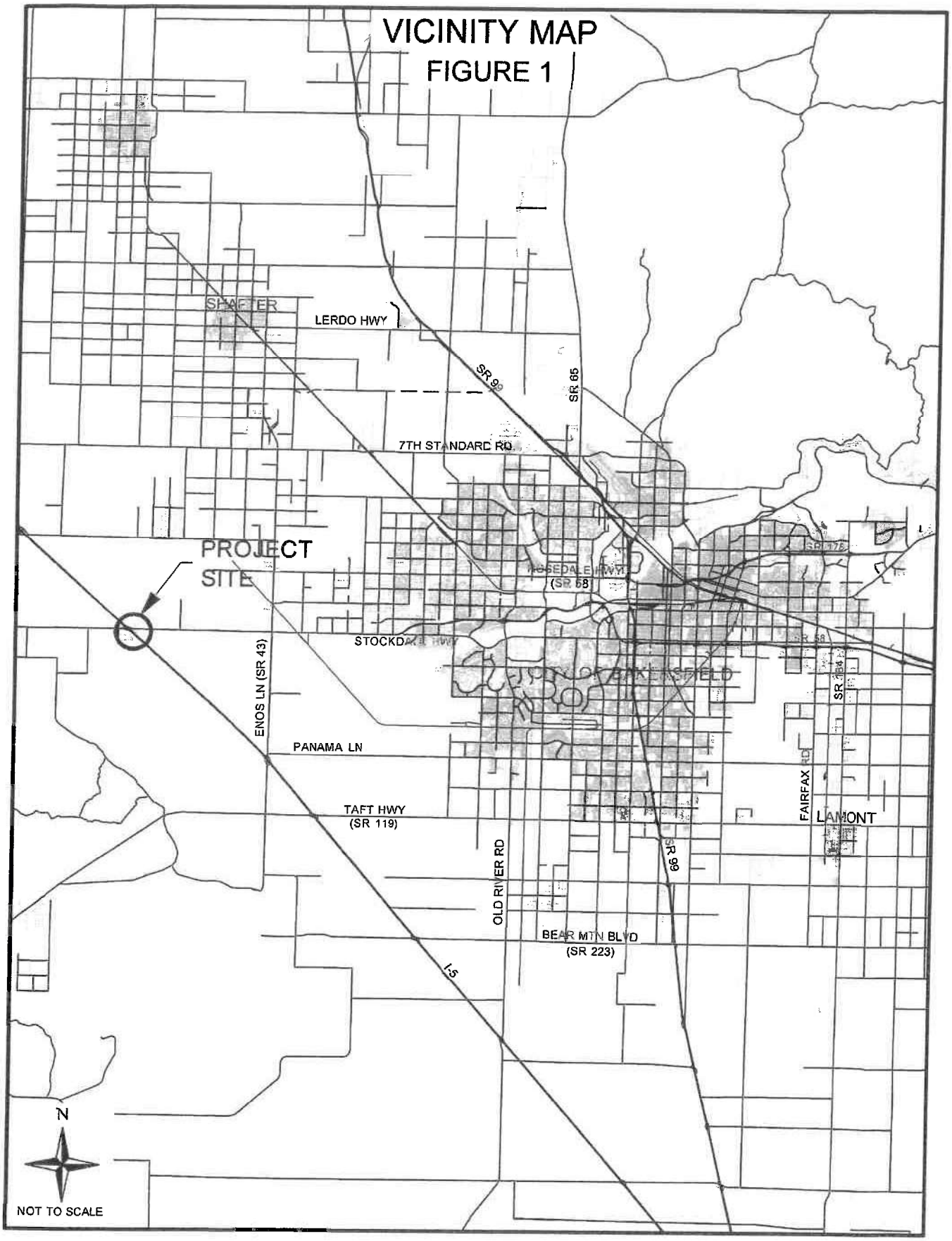
The study area includes a total of two stop-controlled intersections along Stockdale Highway. The scope of the study was developed in association with Caltrans.

B. Existing Site Uses and Site Access

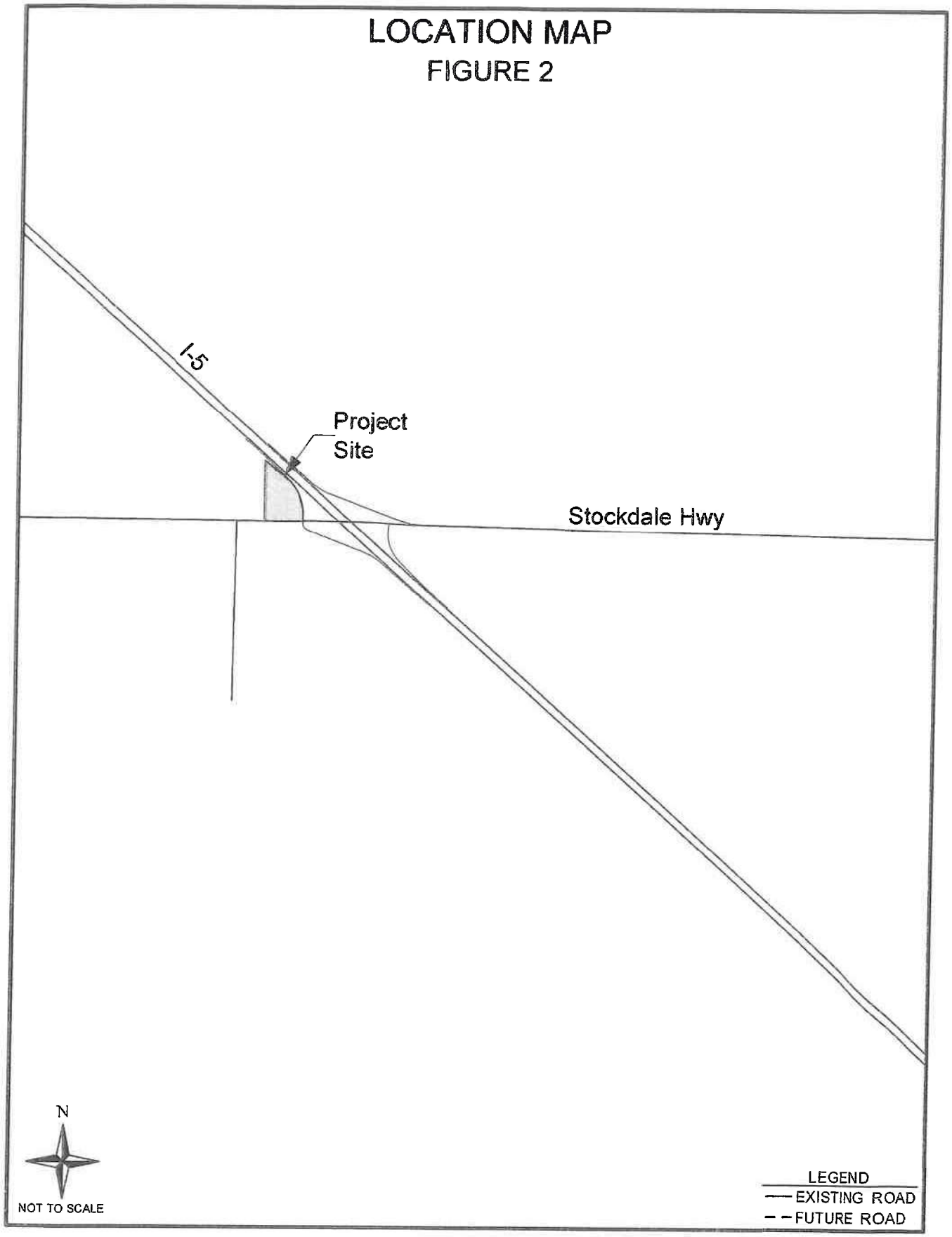
The site is currently vacant land. As currently planned, access to the proposed development would be provided along Stockdale Highway via a new access road on the west side of the site.

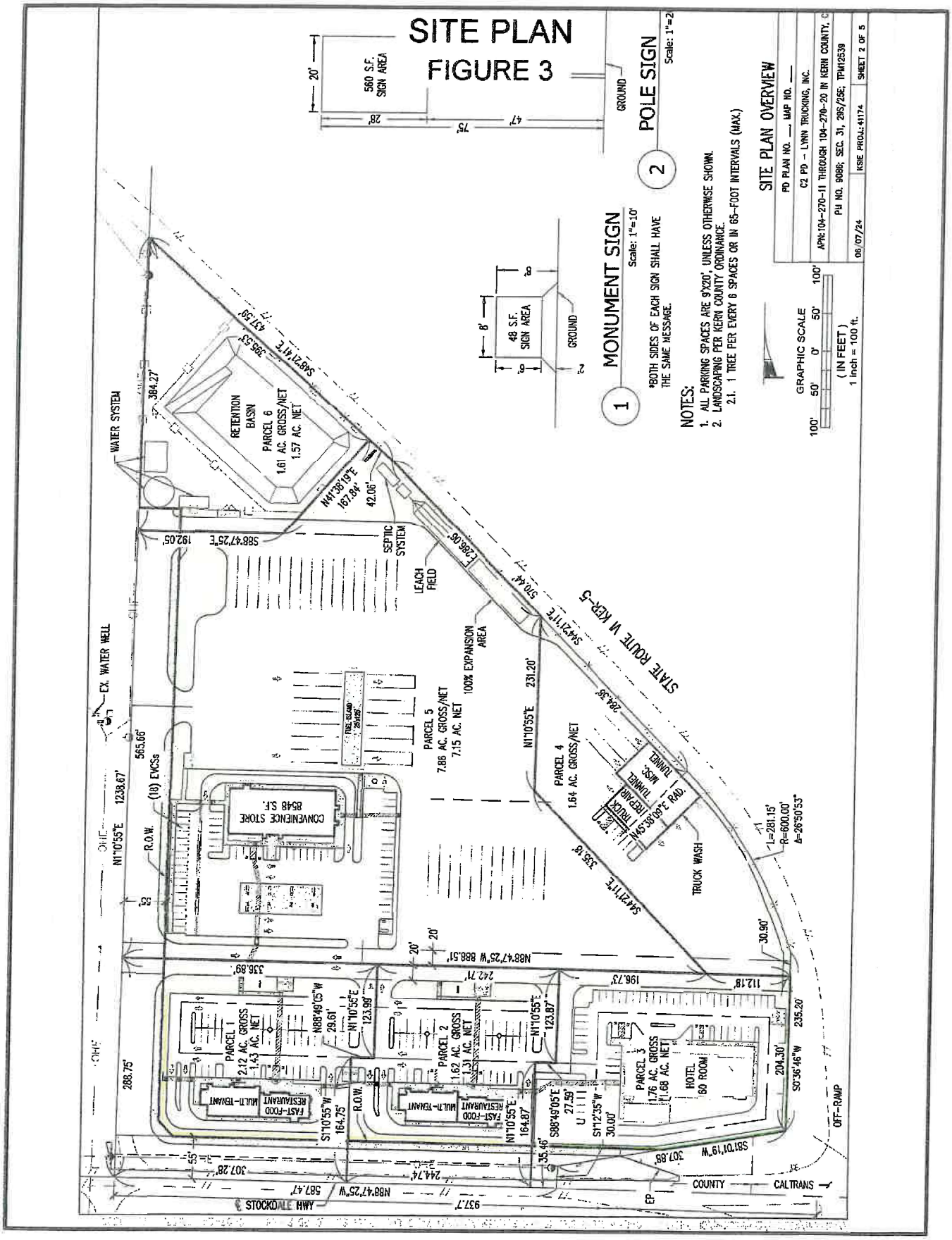
C. Existing Uses in Vicinity of the Site

The site is bounded by Interstate 5 to the east and Stockdale Highway to the south. There is an existing highway commercial development to the east, with various uses, including fast food, convenience market, hotel, and restaurant.


VICINITY MAP
FIGURE 1
SHAFTER
LERDO HWY
SR 99
SR 65
7TH STANDARD RD
PROJECT SITE
ROSEDALE HWY (SR 58)
STOCKDALE HWY
BAKERSFIELD
SR 178
SR 58
SR 204
ENOS LN (SR 43)
PANAMA LN
TAFT HWY (SR 119)
FAIRFAX RD
LAMONT
SR 99
OLD RIVER RD
BEAR MTN BLVD (SR 223)
I-5
N
NOT TO SCALE

LOCATION MAP
FIGURE 2




SITE PLAN
FIGURE 3
560 S.F. SIGN AREA
20'
28'
47'
75'
GROUND
POLE SIGN
Scale: 1"=2
2
48 S.F. SIGN AREA
8'
6'
2'
GROUND
MONUMENT SIGN
Scale: 1"=10'
1
*BOTH SIDES OF EACH SIGN SHALL HAVE THE SAME MESSAGE.
NOTES:
1. ALL PARKING SPACES ARE 9'X20', UNLESS OTHERWISE SHOWN.
2. LANDSCAPING PER KERN COUNTY ORDINANCE.
2.1. 1 TREE PER EVERY 6 SPACES OR IN 65-FOOT INTERVALS (MAX.)
SITE PLAN OVERVIEW
PD PLAN NO. — MAP NO. —
C2 PD - LYNN TRUCKING, INC.
APN: 104-270-11 THROUGH 104-270-20 IN KERN COUNTY, C
PM NO. 9086; SEC. 31, 29S/28E; TPM12539
06/07/24
KSIE PROJ.: 41174
SHEET 2 OF 5
GRAPHIC SCALE
100' 50' 0' 50' 100'
(IN FEET)
1 inch = 100 ft.
STATE ROUTE 99 (SR-99)
STATE ROUTE 58 (SR-58)
STATE ROUTE 5 (SR-5)
WATER SYSTEM
RETENTION BASIN
PARCEL 6
1.61 AC. GROSS/NET
1.57 AC. NET
S48°27'41"E 395.53'
431.59'
364.27'
N41°39'19"E 187.84'
42.06'
S88°47'25"E 192.05'
SEPTIC SYSTEM
LEACH FIELD
EX. WATER WELL
565.66'
N1°10'55"E 1238.67'
(18) EVCSs
R.O.W.
CONVENIENCE STORE
8548 S.F.
PARCEL 5
7.86 AC. GROSS/NET
7.15 AC. NET
100% EXPANSION AREA
231.20'
N1°10'55"E
PARCEL 4
1.64 AC. GROSS/NET
TUNNEL
MASS TUNNEL
FIRE-PAR TRUCK
R=2,460.38'
S45°38'54"W
TRUCK WASH
L=281.15'
R=600.00'
Δ=26°50'53"
S44°27'11"E 535.16'
30.90'
20'
N88°47'25"W 888.51'
242.71'
196.73'
112.18'
PARCEL 1
2.12 AC. GROSS
1.43 AC. NET
N88°49'05"W 29.61'
N1°10'55"E 123.99'
PARCEL 2
1.62 AC. GROSS
1.31 AC. NET
N1°10'55"E 123.87'
PARCEL 3
1.76 AC. GROSS
1.68 AC. NET
HOTEL
60 ROOM
235.20'
S0°36'46"W 204.30'
288.75'
FAST-FOOD
RESTAURANT
MULTI-TENANT
S1°10'55"W 164.75'
R.O.W.
N1°10'55"E 164.87'
S88°49'05"E 27.59'
S1°12'35"W 30.00'
S81°01'19"W 307.88'
35.46'
55'
307.28'
244.74'
587.47'
N88°47'25"W
STOCKDALE HWY
937.7'
EP
COUNTY
CALTRANS
OFF-RAMP

D. Roadway Descriptions

Interstate 5 is a four-lane freeway with paved shoulders and a graded median. It is a major route for interstate travel and trucking, as it is the only interstate that touches US borders with both Mexico and Canada.

Stockdale Highway (State Route 58) is designated as an arterial. It is a major east-west route extending from Interstate 5 to State Route 99. Stockdale Highway exists as a two-lane interchange at Interstate 5 and is newly adopted as State Route 58 east of Interstate 5.

PROJECT TRIP GENERATION

The trip generation volumes for the residential development were calculated using the Institute of Transportation Engineers (ITE) Trip Generation, 11th Edition. Trip generation and design hour volumes for all land uses are shown in Table 1.

The ADT, AM and PM peak hour rate equations, and peak hour directional splits for ITE Land Use Codes 310 (Hotel), 932 (High-Turnover Sit-Down Restaurant), 933 (Fast-Food Restaurant without Drive-Through), 34 (Fast-Food Restaurant with Drive-Through), 937 (Coffee/Donut Shop with Drive-Through), 945 (Convenience Store/Gas Station), and 950 (Truck Stop) were used to estimate the project traffic. The project also includes 15 electric vehicle charging stations.

Table 1
Project Trip Generation

General Information			Daily Trips		AM Peak Hour Trips			PM Peak Hour Trips		
ITE Code	Development Type	Variable	ADT RATE	ADT	Rate	In % Split/ Trips	Out % Split/ Trips	Rate	In % Split/ Trips	Out % Split/ Trips
310	Hotel	60 Rooms	eq	227	eq	56% 13	44% 10	eq	51% 8	49% 9
932	High-Turnover (Sit Down) Restaurant	2.94 1000 sq ft GFA	107.2	315	9.57	55% 15	45% 13	9.05	61% 16	39% 11
932	High-Turnover (Sit Down) Restaurant	2.94 1000 sq ft GFA	107.2	315	9.57	55% 15	45% 13	9.05	61% 16	39% 11
933	Fast-Food Restaurant without Drive-Through	1.1 1000 sq ft GFA	450.49	496	43.18	58% 28	42% 19	33.21	50% 18	50% 19
934	Fast-Food Restaurant with Drive-Through	2.15 1000 sq ft GFA	467.48	1005	44.61	51% 49	49% 47	33.03	52% 37	48% 34
937	Coffee/Donut Shop with Drive-Through	2.15 1000 sq ft GFA	533.57	1147	85.88	51% 94	49% 91	38.99	50% 42	50% 42
945	Convenience Store/Gas Station	16 Vehicle Fueling Positions	345.75	5532	31.6	50% 253	50% 253	26.9	50% 215	50% 215
950	Truck Stop	7 Vehicle Fueling Positions	224	1568	13.97	49% 48	51% 50	15.42	53% 57	47% 51
sub-total				10,605		515	496		409	392
Adjustments										
Capture		5%		530		26	25		20	20
Pass-by		15%		1,591		77	74		61	59
Total				8,484		412	397		328	313

TRIP DISTRIBUTION AND ASSIGNMENT

The project trip distribution in Table 2 represents the most likely travel routes for traffic accessing the project. Project traffic distribution was estimated based on a review of the potential draw from population centers within the region and the types of land uses involved. These assumptions were used to distribute project traffic as shown in Figure 4.

Table 2
Project Trip Distribution

Direction	Percent
North	40
East	10
South	40
West	10

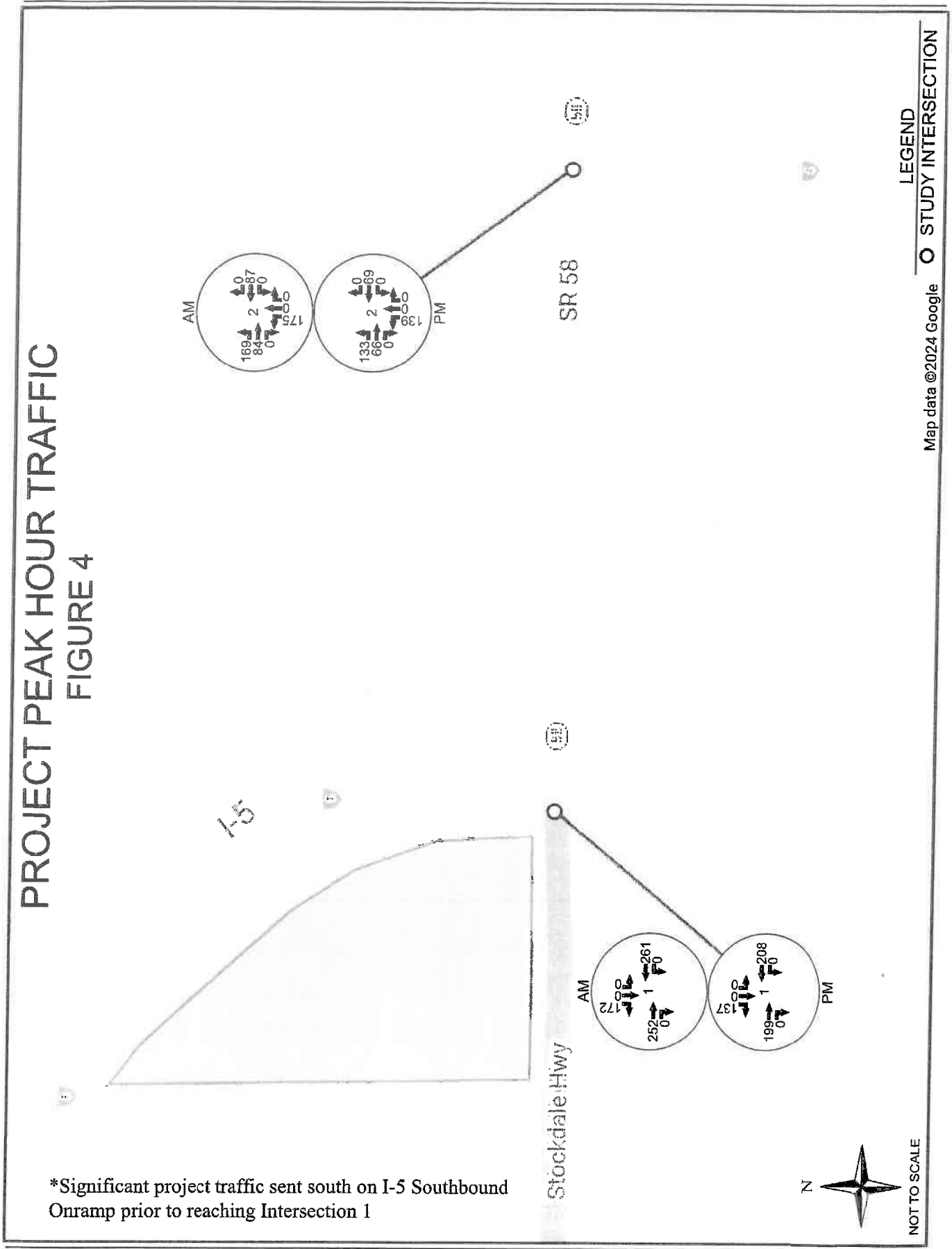
EXISTING AND FUTURE TRAFFIC

Weekday peak hour turning movements were counted at the following intersections in January 2024 (see Appendix for count data).

- Stockdale Highway & I-5 Northbound Ramps
- Stockdale Highway & I-5 Southbound Ramps

Traffic counts were conducted between the hours 6:00 to 8:00 AM and 4:00 to 6:00 PM. AM and PM Peak Hours was determined to be 6:00 to 7:00 AM and 4:00 to 5:00 PM, respectively, as shown in Figure 5. The scope of intersections was approved by Kern County Public Works and Caltrans. Existing + Project peak hour volumes are shown in Figure 6.

Annual growth rates ranging between 0.10% and 2.28% were applied to existing traffic volumes to estimate future traffic volumes for the year 2044. These growth rates were estimated based on KernCOG traffic model data. Future peak hour volumes are shown in Figures 7 and 8. A proposed mixed-use development to the south is included in future traffic scenarios and cumulative project information is included in the appendix.



*Significant project traffic sent south on I-5 Southbound Onramp prior to reaching Intersection 1

2024 PEAK HOUR TRAFFIC
FIGURE 5

2024+PROJECT PEAK HOUR TRAFFIC
FIGURE 6

RUETTGERS & SCHULER CIVIL ENGINEERS

2044 PEAK HOUR TRAFFIC
FIGURE 7

RUETTGERS & SCHULER CIVIL ENGINEERS

2044+PROJECT PEAK HOUR TRAFFIC
FIGURE 8

INTERSECTION ANALYSIS

A capacity analysis of the study intersections was conducted using Synchro software from Trafficware.

- Existing (2024)
- Existing (2024) + Project
- Future Cumulative (2044)
- Future Cumulative (2044) + Project

Criteria for intersection level of service (LOS) are shown in the tables below.

LEVEL OF SERVICE CRITERIA
UNSIGNALIZED INTERSECTION

Average Control Delay (sec/veh)	Level of Service	Expected Delay to Minor Street Traffic
≤ 10	A	Little or no delay
> 10 and ≤ 15	B	Short traffic delays
> 15 and ≤ 25	C	Average traffic delays
> 25 and ≤ 35	D	Long traffic delays
> 35 and ≤ 50	E	Very long traffic delays
> 50	F	Extreme delays

LEVEL OF SERVICE CRITERIA
SIGNALIZED INTERSECTIONS

Volume/Capacity	Control Delay (sec/veh)	Level of Service
< 0.60	≤ 10	A
0.61 - 0.70	> 10 and ≤ 20	B
0.71 - 0.80	> 20 and ≤ 35	C
0.81 - 0.90	> 35 and ≤ 55	D
0.91 - 1.00	> 55 and ≤ 80	E
> 1.0	> 80	F

Level of service for the study intersections is presented in Tables 3a and 3b. The level of service goal for Interstate 5 within the study limits is LOS "C" and Stockdale Highway is LOS "C" based on the route concept report provided by Caltrans.

Table 3a
PM Intersection Level of Service

#	Intersection	Control Type	2024	2024+ Project	2024+ Project w/ Mitigation[1]	2044	2044+ Project	2044+ Project w/ Mitigation[1]
1	I-5 SB Ramps & Stockdale Hwy	SB	B	F (69.8)	-	C	F (186.2)	-
		AWSC	-	-	C	-	-	-
		Signal	-	-	-	-	-	B
2	I-5 NB Ramps & Stockdale Hwy	NB	B	E (41.9)	-	C	F (>300)	-
		Signal	-	-	B	-	-	B

[1]Mitigation shown in Table 7

Table 3b
AM Intersection Level of Service

#	Intersection	Control Type	2024	2024+ Project	2024+ Project w/ Mitigation[1]	2044	2044+ Project	2044+ Project w/ Mitigation[1]
1	I-5 SB Ramps & Stockdale Hwy	SB	A	C	-	B	E (41.7)	-
		ASWC	-	-	B[2]	-	-	-
		Signal	-	-	-	-	-	B
2	I-5 NB Ramps & Stockdale Hwy	NB	A	D (32.8)	-	B	F (282.8)	-
		Signal	-	-	B	-	-	B

[1]Mitigation shown in Table 7
[2]Mitigation necessary due to PM Peak Hour

TRAFFIC SIGNAL WARRANT ANALYSIS

Peak hour signal warrants were evaluated for the unsignalized intersection within the study based on the California Manual on Uniform Traffic Control Devices (MUTCD). Peak hour signal warrants assess delay to traffic on the minor street approaches when entering or crossing a major street. Signal warrant analysis results for PM & AM peak hour are shown in Tables 4a and 4b, respectively.

Table 4a
PM Traffic Signal Warrants

		2024			2024+Project			2044			2044+Project		
#	Intersection	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met
1	I-5 Southbound Ramps at Stockdale Hwy	356	73	NO	517	493	YES	420	173	NO	685	557	YES
2	I-5 Northbound Ramps at Stockdale Hwy	457	41	NO	725	180	YES	709	109	NO	977	248	YES

Table 4b
AM Traffic Signal Warrants

		2024			2024+Project			2044			2044+Project		
#	Intersection	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met
1	I-5 Southbound Ramps at Stockdale Hwy	142	44	NO	655	216	YES	446	129	NO	959	301	YES
2	I-5 Northbound Ramps at Stockdale Hwy	164	44	NO	504	219	YES	387	131	NO	727	306	YES

It is important to note that a signal warrant defines the minimum condition under which signalization of an intersection might be warranted. Meeting this threshold does not suggest traffic signals are required, but rather, that other traffic factors and conditions be considered in order to determine whether signals are truly justified.

It is also noted that signal warrants do not necessarily correlate with level of service. An intersection may satisfy a signal warrant condition and operate at or above an acceptable level of service, or operate below an acceptable level of service and not meet signal warrant criteria.

ROADWAY ANALYSIS

A capacity analysis of the study roadways was conducted using Table 4 in the State of Florida Department of Transportation *Quality/Level of Service Handbook* dated June 2020 (see Appendix). The level of service goal for Interstate 5 within the study limits is LOS "C" and Stockdale Highway is LOS "C" based on the route concept report provided by Caltrans. The analysis was performed for the following AM and PM traffic scenarios:

- Existing (2024)
- Existing (2024) + Project
- Future Cumulative (2044)
- Future Cumulative (2044) + Project

Table 5a
PM Roadway Level of Service

Street	2024 Two-Way LOS		2024+Project Two-Way LOS		2044 Two-Way LOS		2044+Project Two-Way LOS	
	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS
Stockdale Hwy: I-5 SB Ramps - I-5 NB Ramps	459	C	866	C	757	C	1164	C

Table 5b
AM Roadway Level of Service

Street	2024 Two-Way LOS		2024+Project Two-Way LOS		2044 Two-Way LOS		2044+Project Two-Way LOS	
	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS
Stockdale Hwy: I-5 SB Ramps - I-5 NB Ramps	183	C	665	C	467	C	949	C

QUEUE LENGTH ANALYSIS

Existing volumes and future volumes, both with and without project traffic were used to analyze turn movements at the Interstate 5 & Stockdale Highway Ramps. Queue length analysis was conducted using SimTraffic software. The results of the queue length analysis are shown in Tables 6a and 6b below.

Table 6a
PM Queue Length Analysis

Intersection	I-5 SB Ramps & Stockdale Hwy	I-5 NB Ramps & Stockdale Hwy
Movement	SB	NB
Storage Length	1000	1000
2024	79	44
2024+Project	255	90
2044	160	77
2044+Project	751	491
2044+Project with Mitigation	190	217

Table 6b
AM Queue Length Analysis

Intersection	I-5 SB Ramps & Stockdale Hwy	I-5 NB Ramps & Stockdale Hwy
Movement	SB	NB
Storage Length	1000	1000
2024	40	35
2024+Project	92	99
2044	60	48
2044+Project	175	225
2044+Project with Mitigation	116	195

Queue length analysis indicates that the storage length is adequate for all scenarios.

IMPROVEMENTS

Intersection improvements needed by the year 2044 to maintain or improve the operational level of service of the street system in the vicinity of the project are presented in Table 7.

Table 7
Future Intersection Improvements

#	Intersection	Total Improvements Required by Project Opening	Total Improvements Required by 2044	Project Percent Share
1	I-5 SB Ramps & Stockdale Hwy	All Way Stop Control	Signal	70.10%
2	I-5 NB Ramps & Stockdale Hwy	Signal	Signal	55.98%

Project percent share is calculated using the following formula:

$$\% \text{ Share} = \frac{\text{Project Traffic}}{\text{(Future+Project Traffic) - Existing Traffic}} \times 100\%$$

VEHICLE MILES TRAVELED (VMT)

An analysis of project vehicle miles traveled (VMT) was conducted based on metrics consistent with SB 743 requirements for evaluating transportation impacts within the California Environmental Quality Act (CEQA).

Background

Guidelines for assessing project VMT as part of a transportation impact analysis under CEQA are contained in the *Technical Advisory on Evaluating Transportation Impacts in CEQA*, dated December 2018, from the State of California, Office of Planning and Research (OPR TA). The advisory contains recommendations regarding VMT assessment, significance thresholds and mitigation measures. Under CEQA, lead agencies have the authority to establish their own VMT significance thresholds and analysis methodologies or rely on thresholds and methodologies recommended by other agencies, provided such guidelines are supported by substantial evidence.

Project VMT

The project includes commercial and lodging land uses. According to OPR TA recommendations, a land development with mixed uses may be analyzed either based on individual project land uses or the project's dominant land use. The latter approach was taken for the purposes of this study.

The dominant project land use, as defined in terms of trip generation, is the convenience market/gas station and truck stop. As shown on the project site plan (Figure 3), these retail land uses has a building area of approximately 13,348 square feet and will generate approximately 7,100 daily trips and 63% of the daily traffic to the project.

According to OPR TA, stores with less than 50,000 square feet of floor space may be presumed to create a less than significant VMT impact since such "local-serving" retail developments typically provide closer shopping destinations resulting in shorter trip lengths. Therefore, consistent with OPR guidelines, the project's traffic would not result in a significant transportation impact.

SUMMARY AND CONCLUSIONS

The purpose of this study is to evaluate the potential traffic impacts of a proposed mixed-use development located on the northwest quadrant of the Interstate 5 and Stockdale Highway interchange in Kern County, CA. The study included both level of service (LOS) and vehicle miles traveled (VMT) analyses.

Level of Service Analysis

The two intersections are anticipated to operate at an acceptable level of service in the existing year and in 2044. With the addition of project traffic, both intersections are anticipated to operate below an acceptable level of service. Therefore, the addition of a signal at both intersections is recommended.

Roadway Capacity

The roadway segment within the scope of the study currently operates at or above LOS C prior to, and with the addition of project traffic through 2044. Therefore, no improvements are recommended.

VMT

It was determined that project VMT is presumed to have less than significant impact due to being locally serving retail.

REFERENCES

1. Annual Traffic Census, KernCOG
2. Kern County General Plan, approved September 22, 2009
3. Highway Capacity Manual, Special Report 209, Transportation Research Board
4. California Manual on Uniform Traffic Control Devices for Streets and Highways, 2014 Edition, Federal Highway Administration (FHA)
5. Governor's Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018
6. Trip Generation, 11th Edition, Institute of Transportation Engineers (ITE)
7. Vehicle Miles Traveled-Focused Transportation Impact Study Guide, May 20, 2020

APPENDIX

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	8	0	10	124	0	0	0	0	41	0	3
Future Volume (vph)	0	8	0	10	124	0	0	0	0	41	0	3
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1900	1900	1900	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt											0.992	
Flt Protected					0.996						0.955	
Satd. Flow (prot)	0	1863	0	0	1855	0	0	0	0	0	1765	0
Flt Permitted					0.996						0.955	
Satd. Flow (perm)	0	1863	0	0	1855	0	0	0	0	0	1765	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1540			1283			909			1420	
Travel Time (s)		19.1			15.9			11.3			17.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	9	0	11	135	0	0	0	0	45	0	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	146	0	0	0	0	0	48	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.00	1.00	1.00	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 23.7% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	8	0	10	124	0	0	0	0	41	0	3
Future Vol, veh/h	0	8	0	10	124	0	0	0	0	41	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	9	0	11	135	0	0	0	0	45	0	3

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	9	0	0	166	166	135
Stage 1	-	-	-	-	-	-	157	157	-
Stage 2	-	-	-	-	-	-	9	9	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1611	-	0	824	727	914
Stage 1	0	-	-	-	-	0	871	768	-
Stage 2	0	-	-	-	-	0	1014	888	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1611	-	-	818	0	914
Mov Cap-2 Maneuver	-	-	-	-	-	-	818	0	-
Stage 1	-	-	-	-	-	-	871	0	-
Stage 2	-	-	-	-	-	-	1007	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.5	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1611	-	824
HCM Lane V/C Ratio	-	-	0.007	-	0.058
HCM Control Delay (s)	-	-	7.2	0	9.6
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	47	0	0	115	245	16	0	28	0	0	0
Future Volume (vph)	2	47	0	0	115	245	16	0	28	0	0	0
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.908			0.914				
Flt Protected		0.998						0.982				
Satd. Flow (prot)	0	1859	0	0	1691	0	0	1672	0	0	0	0
Flt Permitted		0.998						0.982				
Satd. Flow (perm)	0	1859	0	0	1691	0	0	1672	0	0	0	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1283			30254			1547			679	
Travel Time (s)		15.9			375.0			19.2			8.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	51	0	0	125	266	17	0	30	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	391	0	0	47	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 31.1% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	47	0	0	115	245	16	0	28	0	0	0
Future Vol, veh/h	2	47	0	0	115	245	16	0	28	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	51	0	0	125	266	17	0	30	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	391	0	-	-	-	0	313	446	51
Stage 1	-	-	-	-	-	-	55	55	-
Stage 2	-	-	-	-	-	-	258	391	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1168	-	0	0	-	-	680	507	1017
Stage 1	-	-	0	0	-	-	968	849	-
Stage 2	-	-	0	0	-	-	785	607	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1168	-	-	-	-	-	679	0	1017
Mov Cap-2 Maneuver	-	-	-	-	-	-	679	0	-
Stage 1	-	-	-	-	-	-	966	0	-
Stage 2	-	-	-	-	-	-	785	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	861	1168	-	-	-
HCM Lane V/C Ratio	0.056	0.002	-	-	-
HCM Control Delay (s)	9.4	8.1	0	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	14	0	18	224	0	0	0	0	74	0	5
Future Volume (vph)	0	14	0	18	224	0	0	0	0	74	0	5
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1900	1900	1900	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt											0.992	
Flt Protected					0.996						0.955	
Satd. Flow (prot)	0	1863	0	0	1855	0	0	0	0	0	1765	0
Flt Permitted					0.996						0.955	
Satd. Flow (perm)	0	1863	0	0	1855	0	0	0	0	0	1765	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1540			1283			909			1420	
Travel Time (s)		19.1			15.9			11.3			17.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	15	0	20	243	0	0	0	0	80	0	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	263	0	0	0	0	0	85	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.00	1.00	1.00	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 30.6%
Analysis Period (min) 15

ICU Level of Service A

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	14	0	18	224	0	0	0	0	74	0	5
Future Vol, veh/h	0	14	0	18	224	0	0	0	0	74	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	0	20	243	0	0	0	0	80	0	5

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	15	0	0	298	298	243
Stage 1	-	-	-	-	-	-	283	283	-
Stage 2	-	-	-	-	-	-	15	15	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1603	-	0	693	614	796
Stage 1	0	-	-	-	-	0	765	677	-
Stage 2	0	-	-	-	-	0	1008	883	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1603	-	-	683	0	796
Mov Cap-2 Maneuver	-	-	-	-	-	-	683	0	-
Stage 1	-	-	-	-	-	-	765	0	-
Stage 2	-	-	-	-	-	-	994	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.5	11
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1603	-	689
HCM Lane V/C Ratio	-	-	0.012	-	0.125
HCM Control Delay (s)	-	-	7.3	0	11
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	85	0	0	208	442	29	0	51	0	0	0
Future Volume (vph)	4	85	0	0	208	442	29	0	51	0	0	0
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.908			0.915				
Flt Protected		0.998						0.982				
Satd. Flow (prot)	0	1859	0	0	1691	0	0	1674	0	0	0	0
Flt Permitted		0.998						0.982				
Satd. Flow (perm)	0	1859	0	0	1691	0	0	1674	0	0	0	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1283			30254			1547			679	
Travel Time (s)		15.9			375.0			19.2			8.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	92	0	0	226	480	32	0	55	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	706	0	0	87	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 49.5% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	85	0	0	208	442	29	0	51	0	0	0
Future Vol, veh/h	4	85	0	0	208	442	29	0	51	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	92	0	0	226	480	32	0	55	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	706	0	-	-	-	0	566	806	92
Stage 1	-	-	-	-	-	-	100	100	-
Stage 2	-	-	-	-	-	-	466	706	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	892	-	0	0	-	-	486	316	965
Stage 1	-	-	0	0	-	-	924	812	-
Stage 2	-	-	0	0	-	-	632	439	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	892	-	-	-	-	-	484	0	965
Mov Cap-2 Maneuver	-	-	-	-	-	-	484	0	-
Stage 1	-	-	-	-	-	-	919	0	-
Stage 2	-	-	-	-	-	-	632	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.4	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	709	892	-	-	-
HCM Lane V/C Ratio	0.123	0.005	-	-	-
HCM Control Delay (s)	10.8	9.1	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.4	0	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	66	7	21	16	0	0	0	0	353	0	3
Future Volume (vph)	0	66	7	21	16	0	0	0	0	353	0	3
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1900	1900	1900	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986									0.999	
Flt Protected					0.972						0.953	
Satd. Flow (prot)	0	1837	0	0	1811	0	0	0	0	0	1773	0
Flt Permitted					0.972						0.953	
Satd. Flow (perm)	0	1837	0	0	1811	0	0	0	0	0	1773	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1540			1283			909			1420	
Travel Time (s)		19.1			15.9			11.3			17.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	72	8	23	17	0	0	0	0	384	0	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	0	0	40	0	0	0	0	0	387	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.00	1.00	1.00	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 36.6% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	10.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	66	7	21	16	0	0	0	0	353	0	3
Future Vol, veh/h	0	66	7	21	16	0	0	0	0	353	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	72	8	23	17	0	0	0	0	384	0	3

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	80	0	0	139	143	17
Stage 1	-	-	-	-	-	-	63	63	-
Stage 2	-	-	-	-	-	-	76	80	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1518	-	0	854	748	1062
Stage 1	0	-	-	-	-	0	960	842	-
Stage 2	0	-	-	-	-	0	947	828	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1518	-	-	841	0	1062
Mov Cap-2 Maneuver	-	-	-	-	-	-	841	0	-
Stage 1	-	-	-	-	-	-	960	0	-
Stage 2	-	-	-	-	-	-	933	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	4.2	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1518	-	842
HCM Lane V/C Ratio	-	-	0.015	-	0.46
HCM Control Delay (s)	-	-	7.4	0	12.9
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0	-	2.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	418	0	0	36	157	2	4	35	0	0	0
Future Volume (vph)	3	418	0	0	36	157	2	4	35	0	0	0
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.890			0.883				
Flt Protected								0.998				
Satd. Flow (prot)	0	1863	0	0	1658	0	0	1642	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	1863	0	0	1658	0	0	1642	0	0	0	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1283			30254			1547			679	
Travel Time (s)		15.9			375.0			19.2			8.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	454	0	0	39	171	2	4	38	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	457	0	0	210	0	0	44	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 34.4% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	418	0	0	36	157	2	4	35	0	0	0
Future Vol, veh/h	3	418	0	0	36	157	2	4	35	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	454	0	0	39	171	2	4	38	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	210	0	-	-	-	0	585	670	454
Stage 1	-	-	-	-	-	-	460	460	-
Stage 2	-	-	-	-	-	-	125	210	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1361	-	0	0	-	-	473	378	606
Stage 1	-	-	0	0	-	-	636	566	-
Stage 2	-	-	0	0	-	-	901	728	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1361	-	-	-	-	-	472	0	606
Mov Cap-2 Maneuver	-	-	-	-	-	-	472	0	-
Stage 1	-	-	-	-	-	-	634	0	-
Stage 2	-	-	-	-	-	-	901	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	597	1361	-	-	-
HCM Lane V/C Ratio	0.075	0.002	-	-	-
HCM Control Delay (s)	11.5	7.7	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	67	7	29	22	0	0	0	0	360	0	5
Future Volume (vph)	0	67	7	29	22	0	0	0	0	360	0	5
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1900	1900	1900	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987									0.998	
Flt Protected					0.972						0.953	
Satd. Flow (prot)	0	1839	0	0	1811	0	0	0	0	0	1772	0
Flt Permitted					0.972						0.953	
Satd. Flow (perm)	0	1839	0	0	1811	0	0	0	0	0	1772	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1540			1283			909			1420	
Travel Time (s)		19.1			15.9			11.3			17.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	73	8	32	24	0	0	0	0	391	0	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	81	0	0	56	0	0	0	0	0	396	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.00	1.00	1.00	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 37.8% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	10.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	67	7	29	22	0	0	0	0	360	0	5
Future Vol, veh/h	0	67	7	29	22	0	0	0	0	360	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	73	8	32	24	0	0	0	0	391	0	5

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	81	0	0	165	169	24
Stage 1	-	-	-	-	-	-	88	88	-
Stage 2	-	-	-	-	-	-	77	81	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1517	-	0	826	724	1052
Stage 1	0	-	-	-	-	0	935	822	-
Stage 2	0	-	-	-	-	0	946	828	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1517	-	-	809	0	1052
Mov Cap-2 Maneuver	-	-	-	-	-	-	809	0	-
Stage 1	-	-	-	-	-	-	935	0	-
Stage 2	-	-	-	-	-	-	926	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	4.2	13.6
HCM LOS			B

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1517	-	812
HCM Lane V/C Ratio	-	-	0.021	-	0.489
HCM Control Delay (s)	-	-	7.4	0	13.6
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	2.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	583	0	0	54	236	3	6	55	0	0	0
Future Volume (vph)	4	583	0	0	54	236	3	6	55	0	0	0
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.890			0.884				
Flt Protected								0.998				
Satd. Flow (prot)	0	1863	0	0	1658	0	0	1643	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	1863	0	0	1658	0	0	1643	0	0	0	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1283			30254			1547			679	
Travel Time (s)		15.9			375.0			19.2			8.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	634	0	0	59	257	3	7	60	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	638	0	0	316	0	0	70	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 44.4% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	583	0	0	54	236	3	6	55	0	0	0
Future Vol, veh/h	4	583	0	0	54	236	3	6	55	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	634	0	0	59	257	3	7	60	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	316	0	-	-	-	0	830	958	634
Stage 1	-	-	-	-	-	-	642	642	-
Stage 2	-	-	-	-	-	-	188	316	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1244	-	0	0	-	-	340	257	479
Stage 1	-	-	0	0	-	-	524	469	-
Stage 2	-	-	0	0	-	-	844	655	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1244	-	-	-	-	-	338	0	479
Mov Cap-2 Maneuver	-	-	-	-	-	-	338	0	-
Stage 1	-	-	-	-	-	-	521	0	-
Stage 2	-	-	-	-	-	-	844	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	0	14
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	469	1244	-	-	-
HCM Lane V/C Ratio	0.148	0.003	-	-	-
HCM Control Delay (s)	14	7.9	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.5	0	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	244	0	10	370	0	0	0	0	41	0	165
Future Volume (vph)	0	244	0	10	370	0	0	0	0	41	0	165
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1900	1900	1900	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt											0.892	
Flt Protected					0.999						0.990	
Satd. Flow (prot)	0	1863	0	0	1861	0	0	0	0	0	1645	0
Flt Permitted					0.999						0.990	
Satd. Flow (perm)	0	1863	0	0	1861	0	0	0	0	0	1645	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1540			1283			909			1420	
Travel Time (s)		19.1			15.9			11.3			17.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	265	0	11	402	0	0	0	0	45	0	179
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	265	0	0	413	0	0	0	0	0	224	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.00	1.00	1.00	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 46.6% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	244	0	10	370	0	0	0	0	41	0	165
Future Vol, veh/h	0	244	0	10	370	0	0	0	0	41	0	165
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	265	0	11	402	0	0	0	0	45	0	179

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	265	0	0	689	689	402
Stage 1	-	-	-	-	-	-	424	424	-
Stage 2	-	-	-	-	-	-	265	265	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1299	-	0	412	369	648
Stage 1	0	-	-	-	-	0	660	587	-
Stage 2	0	-	-	-	-	0	779	689	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1299	-	-	407	0	648
Mov Cap-2 Maneuver	-	-	-	-	-	-	407	0	-
Stage 1	-	-	-	-	-	-	660	0	-
Stage 2	-	-	-	-	-	-	770	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.2	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1299	-	580
HCM Lane V/C Ratio	-	-	0.008	-	0.386
HCM Control Delay (s)	-	-	7.8	0	15.1
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	0	-	1.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	125	0	0	197	0	180	0	28	0	0	0
Future Volume (vph)	160	125	0	0	197	0	180	0	28	0	0	0
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt								0.982				
Flt Protected		0.973						0.958				
Satd. Flow (prot)	0	1812	0	0	1863	0	0	1752	0	0	0	0
Flt Permitted		0.973						0.958				
Satd. Flow (perm)	0	1812	0	0	1863	0	0	1752	0	0	0	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1283			30254			1547			679	
Travel Time (s)		15.9			375.0			19.2			8.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	136	0	0	214	0	196	0	30	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	310	0	0	214	0	0	226	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 47.5% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	10.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	160	125	0	0	197	0	180	0	28	0	0	0
Future Vol, veh/h	160	125	0	0	197	0	180	0	28	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	174	136	0	0	214	0	196	0	30	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	214	0	-	-	-	0	698	698	136
Stage 1	-	-	-	-	-	-	484	484	-
Stage 2	-	-	-	-	-	-	214	214	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1356	-	0	0	-	-	407	364	913
Stage 1	-	-	0	0	-	-	620	552	-
Stage 2	-	-	0	0	-	-	822	725	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1356	-	-	-	-	-	350	0	913
Mov Cap-2 Maneuver	-	-	-	-	-	-	350	0	-
Stage 1	-	-	-	-	-	-	534	0	-
Stage 2	-	-	-	-	-	-	822	0	-

Approach	EB	WB	NB
HCM Control Delay, s	4.5	0	27.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	382	1356	-	-	-
HCM Lane V/C Ratio	0.592	0.128	-	-	-
HCM Control Delay (s)	27.2	8	0	-	-
HCM Lane LOS	D	A	A	-	-
HCM 95th %tile Q(veh)	3.7	0.4	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	250	0	18	470	0	0	0	0	74	0	167
Future Volume (vph)	0	250	0	18	470	0	0	0	0	74	0	167
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1900	1900	1900	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt											0.906	
Flt Protected					0.998						0.985	
Satd. Flow (prot)	0	1863	0	0	1859	0	0	0	0	0	1662	0
Flt Permitted					0.998						0.985	
Satd. Flow (perm)	0	1863	0	0	1859	0	0	0	0	0	1662	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1540			1283			909			1420	
Travel Time (s)		19.1			15.9			11.3			17.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	272	0	20	511	0	0	0	0	80	0	182
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	272	0	0	531	0	0	0	0	0	262	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.00	1.00	1.00	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 60.4% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	250	0	18	470	0	0	0	0	74	0	167
Future Vol, veh/h	0	250	0	18	470	0	0	0	0	74	0	167
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage,#	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	272	0	20	511	0	0	0	0	80	0	182

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	272	0	0	823	823	511
Stage 1	-	-	-	-	-	-	551	551	-
Stage 2	-	-	-	-	-	-	272	272	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1291	-	0	343	309	563
Stage 1	0	-	-	-	-	0	577	515	-
Stage 2	0	-	-	-	-	0	774	685	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1291	-	-	335	0	563
Mov Cap-2 Maneuver	-	-	-	-	-	-	335	0	-
Stage 1	-	-	-	-	-	-	577	0	-
Stage 2	-	-	-	-	-	-	757	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.3	22.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1291	-	466
HCM Lane V/C Ratio	-	-	0.015	-	0.562
HCM Control Delay (s)	-	-	7.8	0	22.2
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	0	-	3.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	162	163	0	0	290	0	193	0	51	0	0	0
Future Volume (vph)	162	163	0	0	290	0	193	0	51	0	0	0
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt								0.972				
Flt Protected		0.976						0.962				
Satd. Flow (prot)	0	1818	0	0	1863	0	0	1742	0	0	0	0
Flt Permitted		0.976						0.962				
Satd. Flow (perm)	0	1818	0	0	1863	0	0	1742	0	0	0	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1283			30254			1547			679	
Travel Time (s)		15.9			375.0			19.2			8.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	176	177	0	0	315	0	210	0	55	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	353	0	0	315	0	0	265	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 56.6% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	15.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	162	163	0	0	290	0	193	0	51	0	0	0
Future Vol, veh/h	162	163	0	0	290	0	193	0	51	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	176	177	0	0	315	0	210	0	55	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	315	0	-	-	-	0	844	844	177
Stage 1	-	-	-	-	-	-	529	529	-
Stage 2	-	-	-	-	-	-	315	315	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1245	-	0	0	-	-	334	300	866
Stage 1	-	-	0	0	-	-	591	527	-
Stage 2	-	-	0	0	-	-	740	656	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1245	-	-	-	-	-	282	0	866
Mov Cap-2 Maneuver	-	-	-	-	-	-	282	0	-
Stage 1	-	-	-	-	-	-	498	0	-
Stage 2	-	-	-	-	-	-	740	0	-

Approach	EB	WB	NB
HCM Control Delay, s	4.2	0	49.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	328	1245	-	-	-
HCM Lane V/C Ratio	0.809	0.141	-	-	-
HCM Control Delay (s)	49.4	8.4	0	-	-
HCM Lane LOS	E	A	A	-	-
HCM 95th %tile Q(veh)	6.8	0.5	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	265	7	21	224	0	0	0	0	353	0	140
Future Volume (vph)	0	265	7	21	224	0	0	0	0	353	0	140
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1900	1900	1900	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996									0.962	
Flt Protected					0.996						0.965	
Satd. Flow (prot)	0	1855	0	0	1855	0	0	0	0	0	1729	0
Flt Permitted					0.996						0.965	
Satd. Flow (perm)	0	1855	0	0	1855	0	0	0	0	0	1729	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1540			1283			909			1420	
Travel Time (s)		19.1			15.9			11.3			17.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	288	8	23	243	0	0	0	0	384	0	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	296	0	0	266	0	0	0	0	0	536	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.00	1.00	1.00	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 64.0% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	34.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	265	7	21	224	0	0	0	0	353	0	140
Future Vol, veh/h	0	265	7	21	224	0	0	0	0	353	0	140
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	288	8	23	243	0	0	0	0	384	0	152

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	296	0	0	581	585	243
Stage 1	-	-	-	-	-	-	289	289	-
Stage 2	-	-	-	-	-	-	292	296	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1265	-	0	476	423	796
Stage 1	0	-	-	-	-	0	760	673	-
Stage 2	0	-	-	-	-	0	758	668	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1265	-	-	466	0	796
Mov Cap-2 Maneuver	-	-	-	-	-	-	466	0	-
Stage 1	-	-	-	-	-	-	760	0	-
Stage 2	-	-	-	-	-	-	742	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.7	71.1
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1265	-	528
HCM Lane V/C Ratio	-	-	0.018	-	1.015
HCM Control Delay (s)	-	-	7.9	0	71.1
HCM Lane LOS	-	-	A	A	F
HCM 95th %tile Q(veh)	-	-	0.1	-	14.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	484	0	0	105	0	141	4	35	0	0	0
Future Volume (vph)	136	484	0	0	105	0	141	4	35	0	0	0
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt								0.974				
Flt Protected		0.989						0.962				
Satd. Flow (prot)	0	1842	0	0	1863	0	0	1745	0	0	0	0
Flt Permitted		0.989						0.962				
Satd. Flow (perm)	0	1842	0	0	1863	0	0	1745	0	0	0	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1283			30254			1547			679	
Travel Time (s)		15.9			375.0			19.2			8.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	148	526	0	0	114	0	153	4	38	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	674	0	0	114	0	0	195	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 56.5% ICU Level of Service B
Analysis Period (min) 15

Intersection												
Int Delay, s/veh	9.5											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	136	484	0	0	105	0	141	4	35	0	0	0
Future Vol, veh/h	136	484	0	0	105	0	141	4	35	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	148	526	0	0	114	0	153	4	38	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	114	0	-	-	-	0	936	936	526
Stage 1	-	-	-	-	-	-	822	822	-
Stage 2	-	-	-	-	-	-	114	114	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1475	-	0	0	-	-	294	265	552
Stage 1	-	-	0	0	-	-	432	388	-
Stage 2	-	-	0	0	-	-	911	801	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1475	-	-	-	-	-	252	0	552
Mov Cap-2 Maneuver	-	-	-	-	-	-	252	0	-
Stage 1	-	-	-	-	-	-	371	0	-
Stage 2	-	-	-	-	-	-	911	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.7	0	42
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	283	1475	-	-	-
HCM Lane V/C Ratio	0.691	0.1	-	-	-
HCM Control Delay (s)	42	7.7	0	-	-
HCM Lane LOS	E	A	A	-	-
HCM 95th %tile Q(veh)	4.7	0.3	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	266	7	29	230	0	0	0	0	360	0	142
Future Volume (vph)	0	266	7	29	230	0	0	0	0	360	0	142
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1900	1900	1900	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996									0.962	
Flt Protected					0.994						0.965	
Satd. Flow (prot)	0	1855	0	0	1852	0	0	0	0	0	1729	0
Flt Permitted					0.994						0.965	
Satd. Flow (perm)	0	1855	0	0	1852	0	0	0	0	0	1729	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1540			1283			909			1420	
Travel Time (s)		19.1			15.9			11.3			17.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	289	8	32	250	0	0	0	0	391	0	154
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	297	0	0	282	0	0	0	0	0	545	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.00	1.00	1.00	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15

Intersection												
Int Delay, s/veh	43.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	266	7	29	230	0	0	0	0	360	0	142
Future Vol, veh/h	0	266	7	29	230	0	0	0	0	360	0	142
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	289	8	32	250	0	0	0	0	391	0	154

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	297	0	0	607	611	250
Stage 1	-	-	-	-	-	-	314	314	-
Stage 2	-	-	-	-	-	-	293	297	-
Critical Hdwy	-	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	0	-	-	1264	-	0	460	409	789
Stage 1	0	-	-	-	-	0	741	656	-
Stage 2	0	-	-	-	-	0	757	668	-
Platoon blocked, %		-	-		-				
Mov Cap-1 Maneuver	-	-	-	1264	-	-	447	0	789
Mov Cap-2 Maneuver	-	-	-	-	-	-	447	0	-
Stage 1	-	-	-	-	-	-	741	0	-
Stage 2	-	-	-	-	-	-	735	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0.9	88.9
HCM LOS			F

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1264	-	509
HCM Lane V/C Ratio	-	-	0.025	-	1.072
HCM Control Delay (s)	-	-	7.9	0	88.9
HCM Lane LOS	-	-	A	A	F
HCM 95th %tile Q(veh)	-	-	0.1	-	16.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	649	0	0	123	0	142	6	55	0	0	0
Future Volume (vph)	137	649	0	0	123	0	142	6	55	0	0	0
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt								0.963				
Flt Protected		0.991						0.966				
Satd. Flow (prot)	0	1846	0	0	1863	0	0	1733	0	0	0	0
Flt Permitted		0.991						0.966				
Satd. Flow (perm)	0	1846	0	0	1863	0	0	1733	0	0	0	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1283			30254			1547			679	
Travel Time (s)		15.9			375.0			19.2			8.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	149	705	0	0	134	0	154	7	60	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	854	0	0	134	0	0	221	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 69.7% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	20.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	137	649	0	0	123	0	142	6	55	0	0	0
Future Vol, veh/h	137	649	0	0	123	0	142	6	55	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	149	705	0	0	134	0	154	7	60	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	134	0	-	-	-	0	1137	1137	705
Stage 1	-	-	-	-	-	-	1003	1003	-
Stage 2	-	-	-	-	-	-	134	134	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1451	-	0	0	-	-	223	202	436
Stage 1	-	-	0	0	-	-	355	320	-
Stage 2	-	-	0	0	-	-	892	785	-
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	1451	-	-	-	-	-	185	0	436
Mov Cap-2 Maneuver	-	-	-	-	-	-	185	0	-
Stage 1	-	-	-	-	-	-	295	0	-
Stage 2	-	-	-	-	-	-	892	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.4	0	108
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	220	1451	-	-	-
HCM Lane V/C Ratio	1.003	0.103	-	-	-
HCM Control Delay (s)	108	7.8	0	-	-
HCM Lane LOS	F	A	A	-	-
HCM 95th %tile Q(veh)	9.1	0.3	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	265	7	21	224	0	0	0	0	353	0	140
Future Volume (vph)	0	265	7	21	224	0	0	0	0	353	0	140
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1900	1900	1900	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996									0.962	
Flt Protected					0.996						0.965	
Satd. Flow (prot)	0	1855	0	0	1855	0	0	0	0	0	1729	0
Flt Permitted					0.996						0.965	
Satd. Flow (perm)	0	1855	0	0	1855	0	0	0	0	0	1729	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1540			1283			909			1420	
Travel Time (s)		19.1			15.9			11.3			17.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	288	8	23	243	0	0	0	0	384	0	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	296	0	0	266	0	0	0	0	0	536	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.00	1.00	1.00	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 64.0% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	21.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	265	7	21	224	0	0	0	0	353	0	140
Future Vol, veh/h	0	265	7	21	224	0	0	0	0	353	0	140
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	288	8	23	243	0	0	0	0	384	0	152
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	14.8	14.1	29.4
HCM LOS	B	B	D

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	9%	72%
Vol Thru, %	97%	91%	0%
Vol Right, %	3%	0%	28%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	272	245	493
LT Vol	0	21	353
Through Vol	265	224	0
RT Vol	7	0	140
Lane Flow Rate	296	266	536
Geometry Grp	1	1	1
Degree of Util (X)	0.493	0.45	0.824
Departure Headway (Hd)	6.001	6.082	5.538
Convergence, Y/N	Yes	Yes	Yes
Cap	597	589	654
Service Time	4.077	4.161	3.597
HCM Lane V/C Ratio	0.496	0.452	0.82
HCM Control Delay	14.8	14.1	29.4
HCM Lane LOS	B	B	D
HCM 95th-tile Q	2.7	2.3	8.7

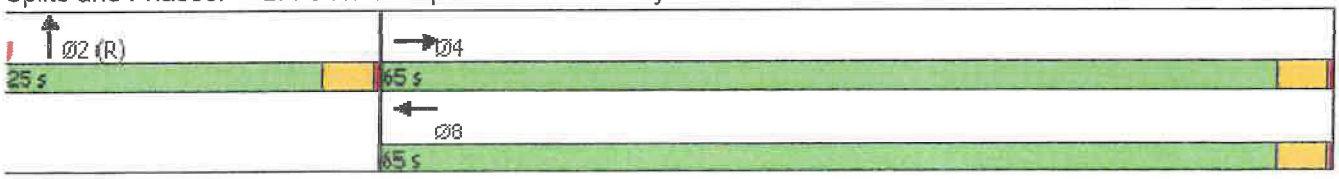
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	484	0	0	105	0	141	4	35	0	0	0
Future Volume (vph)	136	484	0	0	105	0	141	4	35	0	0	0
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt								0.974				
Flt Protected		0.989						0.962				
Satd. Flow (prot)	0	1842	0	0	1863	0	0	1745	0	0	0	0
Flt Permitted		0.898						0.962				
Satd. Flow (perm)	0	1673	0	0	1863	0	0	1745	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								13				
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1283			30254			1547			679	
Travel Time (s)		15.9			375.0			19.2			8.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	148	526	0	0	114	0	153	4	38	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	674	0	0	114	0	0	195	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1		1	1				
Detector Template												
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	50	50			50		50	50				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.0	20.0			20.0		20.0	20.0				
Total Split (s)	65.0	65.0			65.0		25.0	25.0				
Total Split (%)	72.2%	72.2%			72.2%		27.8%	27.8%				
Maximum Green (s)	61.0	61.0			61.0		21.0	21.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.0			4.0			4.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Recall Mode	None	None			None		C-Max	C-Max				
Walk Time (s)	5.0	5.0			5.0		5.0	5.0				
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		48.9			48.9			33.1				
Actuated g/C Ratio		0.54			0.54			0.37				
v/c Ratio		0.74			0.11			0.30				
Control Delay		20.3			8.4			23.8				
Queue Delay		0.0			0.0			0.0				
Total Delay		20.3			8.4			23.8				
LOS		C			A			C				
Approach Delay		20.3			8.4			23.8				
Approach LOS		C			A			C				

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 19.6 Intersection LOS: B
Intersection Capacity Utilization 56.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB Ramps & Stockdale Hwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	484	0	0	105	0	141	4	35	0	0	0
Future Volume (veh/h)	136	484	0	0	105	0	141	4	35	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1723	1870	0	0	1870	1723	1723	1870	1723			
Adj Flow Rate, veh/h	148	526	0	0	114	0	153	4	38			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	193	585	0	0	796	0	663	17	165			
Arrive On Green	0.43	0.43	0.00	0.00	0.43	0.00	0.49	0.49	0.49			
Sat Flow, veh/h	340	1373	0	0	1870	0	1366	36	339			
Grp Volume(v), veh/h	674	0	0	0	114	0	195	0	0			
Grp Sat Flow(s),veh/h/ln	1713	0	0	0	1870	0	1741	0	0			
Q Serve(g_s), s	30.1	0.0	0.0	0.0	3.4	0.0	5.8	0.0	0.0			
Cycle Q Clear(g_c), s	33.5	0.0	0.0	0.0	3.4	0.0	5.8	0.0	0.0			
Prop In Lane	0.22		0.00	0.00		0.00	0.78		0.19			
Lane Grp Cap(c), veh/h	778	0	0	0	796	0	845	0	0			
V/C Ratio(X)	0.87	0.00	0.00	0.00	0.14	0.00	0.23	0.00	0.00			
Avail Cap(c_a), veh/h	1206	0	0	0	1268	0	845	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	24.3	0.0	0.0	0.0	15.8	0.0	13.4	0.0	0.0			
Incr Delay (d2), s/veh	4.3	0.0	0.0	0.0	0.1	0.0	0.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	12.4	0.0	0.0	0.0	1.3	0.0	2.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	0.0	0.0	0.0	15.9	0.0	14.1	0.0	0.0			
LnGrp LOS	C	A	A	A	B	A	B	A	A			
Approach Vol, veh/h		674			114			195				
Approach Delay, s/veh		28.6			15.9			14.1				
Approach LOS		C			B			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		47.7		42.3				42.3				
Change Period (Y+Rc), s		4.0		4.0				4.0				
Max Green Setting (Gmax), s		21.0		61.0				61.0				
Max Q Clear Time (g_c+I1), s		7.8		35.5				5.4				
Green Ext Time (p_c), s		0.5		2.8				0.4				
Intersection Summary												
HCM 6th Ctrl Delay			24.3									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	244	0	10	370	0	0	0	0	41	0	165
Future Volume (vph)	0	244	0	10	370	0	0	0	0	41	0	165
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1900	1900	1900	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt											0.892	
Flt Protected					0.999						0.990	
Satd. Flow (prot)	0	1863	0	0	1861	0	0	0	0	0	1645	0
Flt Permitted					0.999						0.990	
Satd. Flow (perm)	0	1863	0	0	1861	0	0	0	0	0	1645	0
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1540			1283			909			1420	
Travel Time (s)		19.1			15.9			11.3			17.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	265	0	11	402	0	0	0	0	45	0	179
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	265	0	0	413	0	0	0	0	0	224	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.00	1.00	1.00	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 46.6% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	244	0	10	370	0	0	0	0	41	0	165
Future Vol, veh/h	0	244	0	10	370	0	0	0	0	41	0	165
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	265	0	11	402	0	0	0	0	45	0	179
Number of Lanes	0	1	0	0	1	0	0	0	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	11	13.9	10.5
HCM LOS	B	B	B

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	3%	20%
Vol Thru, %	100%	97%	0%
Vol Right, %	0%	0%	80%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	244	380	206
LT Vol	0	10	41
Through Vol	244	370	0
RT Vol	0	0	165
Lane Flow Rate	265	413	224
Geometry Grp	1	1	1
Degree of Util (X)	0.368	0.555	0.314
Departure Headway (Hd)	4.999	4.834	5.056
Convergence, Y/N	Yes	Yes	Yes
Cap	711	739	703
Service Time	3.09	2.915	3.15
HCM Lane V/C Ratio	0.373	0.559	0.319
HCM Control Delay	11	13.9	10.5
HCM Lane LOS	B	B	B
HCM 95th-tile Q	1.7	3.4	1.3

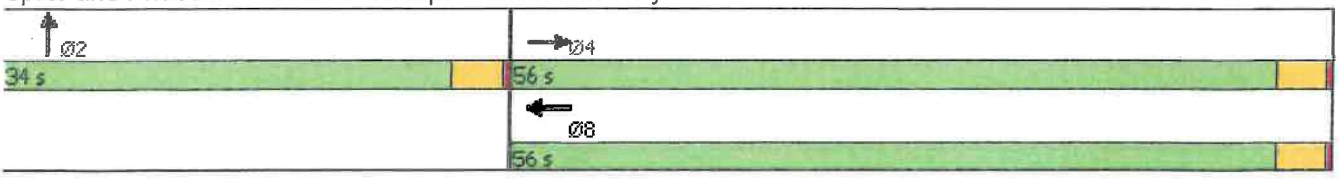
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	125	0	0	197	0	180	0	28	0	0	0
Future Volume (vph)	160	125	0	0	197	0	180	0	28	0	0	0
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt								0.982				
Flt Protected		0.973						0.958				
Satd. Flow (prot)	0	1812	0	0	1863	0	0	1752	0	0	0	0
Flt Permitted		0.665						0.958				
Satd. Flow (perm)	0	1239	0	0	1863	0	0	1752	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								12				
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1283			30254			1547			679	
Travel Time (s)		15.9			375.0			19.2			8.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	136	0	0	214	0	196	0	30	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	310	0	0	214	0	0	226	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1		1	1				
Detector Template												
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	50	50			50		50	50				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.0	20.0			20.0		20.0	20.0				
Total Split (s)	56.0	56.0			56.0		34.0	34.0				
Total Split (%)	62.2%	62.2%			62.2%		37.8%	37.8%				
Maximum Green (s)	52.0	52.0			52.0		30.0	30.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.0			4.0			4.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Recall Mode	None	None			None		Max	Max				
Walk Time (s)	5.0	5.0			5.0		5.0	5.0				
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		17.8			17.8			30.3				
Actuated g/C Ratio		0.32			0.32			0.54				
v/c Ratio		0.79			0.36			0.24				
Control Delay		32.6			16.1			8.5				
Queue Delay		0.0			0.0			0.0				
Total Delay		32.6			16.1			8.5				
LOS		C			B			A				
Approach Delay		32.6			16.1			8.5				
Approach LOS		C			B			A				

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 56.1
Natural Cycle: 40
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 20.6 Intersection LOS: C
Intersection Capacity Utilization 47.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB Ramps & Stockdale Hwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	125	0	0	197	0	180	0	28	0	0	0
Future Volume (veh/h)	160	125	0	0	197	0	180	0	28	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1723	1870	0	0	1870	1723	1723	1870	1723			
Adj Flow Rate, veh/h	174	136	0	0	214	0	196	0	30			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	281	193	0	0	595	0	818	0	125			
Arrive On Green	0.32	0.32	0.00	0.00	0.32	0.00	0.54	0.00	0.54			
Sat Flow, veh/h	567	608	0	0	1870	0	1520	0	233			
Grp Volume(v), veh/h	310	0	0	0	214	0	226	0	0			
Grp Sat Flow(s),veh/h/ln	1175	0	0	0	1870	0	1752	0	0			
Q Serve(g_s), s	9.5	0.0	0.0	0.0	4.9	0.0	3.8	0.0	0.0			
Cycle Q Clear(g_c), s	14.5	0.0	0.0	0.0	4.9	0.0	3.8	0.0	0.0			
Prop In Lane	0.56		0.00	0.00		0.00	0.87		0.13			
Lane Grp Cap(c), veh/h	475	0	0	0	595	0	944	0	0			
V/C Ratio(X)	0.65	0.00	0.00	0.00	0.36	0.00	0.24	0.00	0.00			
Avail Cap(c_a), veh/h	1335	0	0	0	1746	0	944	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	18.7	0.0	0.0	0.0	14.6	0.0	6.8	0.0	0.0			
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.0	0.4	0.0	0.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	0.0	1.6	0.0	1.0	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	0.0	0.0	0.0	15.0	0.0	7.4	0.0	0.0			
LnGrp LOS	C	A	A	A	B	A	A	A	A			
Approach Vol, veh/h		310			214			226				
Approach Delay, s/veh		20.2			15.0			7.4				
Approach LOS		C			B			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		34.0		21.7				21.7				
Change Period (Y+Rc), s		4.0		4.0				4.0				
Max Green Setting (Gmax), s		30.0		52.0				52.0				
Max Q Clear Time (g_c+I1), s		5.8		16.5				6.9				
Green Ext Time (p_c), s		0.8		1.3				0.7				
Intersection Summary												
HCM 6th Ctrl Delay			14.9									
HCM 6th LOS			B									

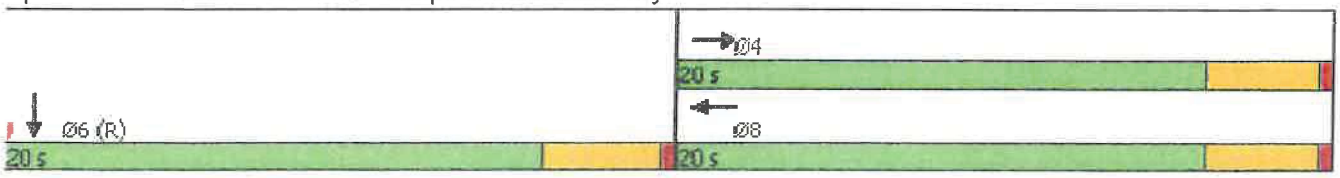
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	266	7	29	230	0	0	0	0	360	0	142
Future Volume (vph)	0	266	7	29	230	0	0	0	0	360	0	142
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1900	1900	1900	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996									0.962	
Flt Protected					0.994						0.965	
Satd. Flow (prot)	0	1855	0	0	1852	0	0	0	0	0	1729	0
Flt Permitted					0.936						0.965	
Satd. Flow (perm)	0	1855	0	0	1744	0	0	0	0	0	1729	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4									59	
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1540			1283			909			1420	
Travel Time (s)		19.1			15.9			11.3			17.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	289	8	32	250	0	0	0	0	391	0	154
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	297	0	0	282	0	0	0	0	0	545	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.00	1.00	1.00	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		1		1	1					1	1	
Detector Template												
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Detector 1 Position(ft)		0		0	0					0	0	
Detector 1 Size(ft)		50		50	50					50	50	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0					0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0					0.0	0.0	
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					20.0	20.0	
Total Split (s)		20.0		20.0	20.0					20.0	20.0	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Maximum Green (s)		16.0		16.0	16.0					16.0	16.0	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.0			4.0						4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	
Recall Mode		None		None	None					C-Max	C-Max	
Walk Time (s)		5.0		5.0	5.0					5.0	5.0	
Flash Dont Walk (s)		11.0		11.0	11.0					11.0	11.0	
Pedestrian Calls (#/hr)		0		0	0					0	0	
Act Effct Green (s)		11.5			11.5						20.5	
Actuated g/C Ratio		0.29			0.29						0.51	
v/c Ratio		0.55			0.56						0.60	
Control Delay		15.3			15.9						11.9	
Queue Delay		0.0			0.0						0.0	
Total Delay		15.3			15.9						11.9	
LOS		B			B						B	
Approach Delay		15.3			15.9						11.9	
Approach LOS		B			B						B	

Intersection Summary

Area Type: Other
Cycle Length: 40
Actuated Cycle Length: 40
Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 13.8 Intersection LOS: B
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB Ramps & Stockdale Hwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	266	7	29	230	0	0	0	0	360	0	142
Future Volume (veh/h)	0	266	7	29	230	0	0	0	0	360	0	142
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1723	1723	1870	0				1723	1870	1723
Adj Flow Rate, veh/h	0	289	8	32	250	0				391	0	154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	443	12	120	353	0				686	0	270
Arrive On Green	0.00	0.24	0.24	0.24	0.24	0.00				0.56	0.00	0.56
Sat Flow, veh/h	0	1811	50	81	1445	0				1235	0	486
Grp Volume(v), veh/h	0	0	297	282	0	0				545	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1861	1526	0	0				1721	0	0
Q Serve(g_s), s	0.0	0.0	5.7	1.5	0.0	0.0				8.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	5.7	7.3	0.0	0.0				8.2	0.0	0.0
Prop In Lane	0.00		0.03	0.11		0.00				0.72		0.28
Lane Grp Cap(c), veh/h	0	0	455	473	0	0				956	0	0
V/C Ratio(X)	0.00	0.00	0.65	0.60	0.00	0.00				0.57	0.00	0.00
Avail Cap(c_a), veh/h	0	0	745	742	0	0				956	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	13.6	13.8	0.0	0.0				5.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.6	1.2	0.0	0.0				2.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.8	1.6	0.0	0.0				1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	15.2	15.0	0.0	0.0				8.3	0.0	0.0
LnGrp LOS	A	A	B	B	A	A				A	A	A
Approach Vol, veh/h		297			282						545	
Approach Delay, s/veh		15.2			15.0						8.3	
Approach LOS		B			B						A	

Timer - Assigned Phs			4		6		8					
Phs Duration (G+Y+Rc), s			13.8		26.2		13.8					
Change Period (Y+Rc), s			4.0		4.0		4.0					
Max Green Setting (Gmax), s			16.0		16.0		16.0					
Max Q Clear Time (g_c+I1), s			7.7		10.2		9.3					
Green Ext Time (p_c), s			0.6		1.2		0.5					

Intersection Summary												
HCM 6th Ctrl Delay			11.8									
HCM 6th LOS			B									

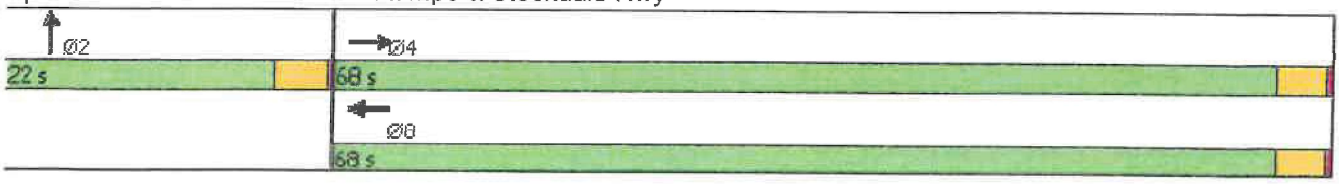
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	649	0	0	123	0	142	6	55	0	0	0
Future Volume (vph)	137	649	0	0	123	0	142	6	55	0	0	0
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt								0.963				
Flt Protected		0.991						0.966				
Satd. Flow (prot)	0	1846	0	0	1863	0	0	1733	0	0	0	0
Flt Permitted		0.916						0.966				
Satd. Flow (perm)	0	1706	0	0	1863	0	0	1733	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								19				
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1283			30254			1547			679	
Travel Time (s)		15.9			375.0			19.2			8.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	149	705	0	0	134	0	154	7	60	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	854	0	0	134	0	0	221	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1		1	1				
Detector Template												
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	50	50			50		50	50				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.0	20.0			20.0		20.0	20.0				
Total Split (s)	68.0	68.0			68.0		22.0	22.0				
Total Split (%)	75.6%	75.6%			75.6%		24.4%	24.4%				
Maximum Green (s)	64.0	64.0			64.0		18.0	18.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.0			4.0			4.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Recall Mode	None	None			None		Max	Max				
Walk Time (s)	5.0	5.0			5.0		5.0	5.0				
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		36.4			36.4			18.7				
Actuated g/C Ratio		0.57			0.57			0.29				
v/c Ratio		0.87			0.13			0.42				
Control Delay		21.6			5.6			23.2				
Queue Delay		0.0			0.0			0.0				
Total Delay		21.6			5.6			23.2				
LOS		C			A			C				
Approach Delay		21.6			5.6			23.2				
Approach LOS		C			A			C				

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 63.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 20.1 Intersection LOS: C
Intersection Capacity Utilization 69.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB Ramps & Stockdale Hwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	649	0	0	123	0	142	6	55	0	0	0
Future Volume (veh/h)	137	649	0	0	123	0	142	6	55	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1723	1870	0	0	1870	1723	1723	1870	1723			
Adj Flow Rate, veh/h	149	705	0	0	134	0	154	7	60			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	211	813	0	0	1016	0	380	17	148			
Arrive On Green	0.54	0.54	0.00	0.00	0.54	0.00	0.32	0.32	0.32			
Sat Flow, veh/h	251	1496	0	0	1870	0	1203	55	469			
Grp Volume(v), veh/h	854	0	0	0	134	0	221	0	0			
Grp Sat Flow(s),veh/h/ln	1747	0	0	0	1870	0	1726	0	0			
Q Serve(g_s), s	19.6	0.0	0.0	0.0	2.0	0.0	5.7	0.0	0.0			
Cycle Q Clear(g_c), s	24.7	0.0	0.0	0.0	2.0	0.0	5.7	0.0	0.0			
Prop In Lane	0.17		0.00	0.00		0.00	0.70		0.27			
Lane Grp Cap(c), veh/h	1024	0	0	0	1016	0	546	0	0			
V/C Ratio(X)	0.83	0.00	0.00	0.00	0.13	0.00	0.40	0.00	0.00			
Avail Cap(c_a), veh/h	2025	0	0	0	2103	0	546	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	11.4	0.0	0.0	0.0	6.4	0.0	15.3	0.0	0.0			
Incr Delay (d2), s/veh	1.9	0.0	0.0	0.0	0.1	0.0	2.2	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.7	0.0	0.0	0.0	0.5	0.0	2.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.3	0.0	0.0	0.0	6.5	0.0	17.5	0.0	0.0			
LnGrp LOS	B	A	A	A	A	A	B	A	A			

Approach Vol, veh/h		854			134			221	
Approach Delay, s/veh		13.3			6.5			17.5	
Approach LOS		B			A			B	
Timer - Assigned Phs		2		4				8	
Phs Duration (G+Y+Rc), s		22.0		34.9				34.9	
Change Period (Y+Rc), s		4.0		4.0				4.0	
Max Green Setting (Gmax), s		18.0		64.0				64.0	
Max Q Clear Time (g_c+I1), s		7.7		26.7				4.0	
Green Ext Time (p_c), s		0.5		4.2				0.4	

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

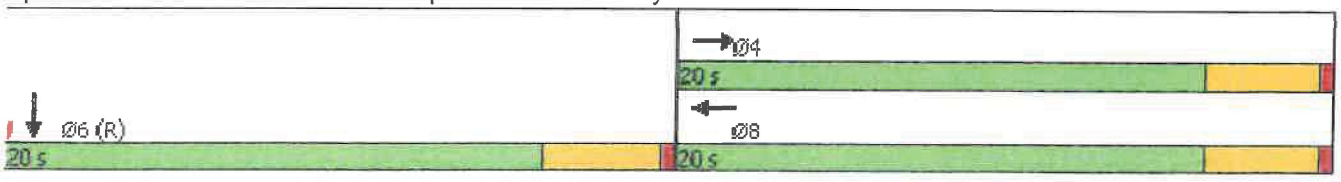
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	250	0	18	470	0	0	0	0	74	0	167
Future Volume (vph)	0	250	0	18	470	0	0	0	0	74	0	167
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1900	1900	1900	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt											0.906	
Flt Protected					0.998						0.985	
Satd. Flow (prot)	0	1863	0	0	1859	0	0	0	0	0	1662	0
Flt Permitted					0.983						0.985	
Satd. Flow (perm)	0	1863	0	0	1831	0	0	0	0	0	1662	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											182	
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1540			1283			909			1420	
Travel Time (s)		19.1			15.9			11.3			17.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	272	0	20	511	0	0	0	0	80	0	182
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	272	0	0	531	0	0	0	0	0	262	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.00	1.00	1.00	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		1		1	1					1	1	
Detector Template												
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Detector 1 Position(ft)		0		0	0					0	0	
Detector 1 Size(ft)		50		50	50					50	50	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0					0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0					0.0	0.0	
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					20.0	20.0	
Total Split (s)		20.0		20.0	20.0					20.0	20.0	
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	
Maximum Green (s)		16.0		16.0	16.0					16.0	16.0	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.0			4.0						4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	
Recall Mode		None		None	None					C-Max	C-Max	
Walk Time (s)		5.0		5.0	5.0					5.0	5.0	
Flash Dont Walk (s)		11.0		11.0	11.0					11.0	11.0	
Pedestrian Calls (#/hr)		0		0	0					0	0	
Act Effct Green (s)		14.7			14.7						17.3	
Actuated g/C Ratio		0.37			0.37						0.43	
v/c Ratio		0.40			0.79						0.32	
Control Delay		10.9			21.8						4.3	
Queue Delay		0.0			0.0						0.0	
Total Delay		10.9			21.8						4.3	
LOS		B			C						A	
Approach Delay		10.9			21.8						4.3	
Approach LOS		B			C						A	

Intersection Summary

Area Type: Other
Cycle Length: 40
Actuated Cycle Length: 40
Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 14.7 Intersection LOS: B
Intersection Capacity Utilization 60.4% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: I-5 SB Ramps & Stockdale Hwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	250	0	18	470	0	0	0	0	74	0	167
Future Volume (veh/h)	0	250	0	18	470	0	0	0	0	74	0	167
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1723	1723	1870	0				1723	1870	1723
Adj Flow Rate, veh/h	0	272	0	20	511	0				80	0	182
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	626	0	103	609	0				233	0	530
Arrive On Green	0.00	0.33	0.00	0.33	0.33	0.00				0.47	0.00	0.47
Sat Flow, veh/h	0	1870	0	30	1820	0				501	0	1139
Grp Volume(v), veh/h	0	272	0	531	0	0				262	0	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1850	0	0				1640	0	0
Q Serve(g_s), s	0.0	4.5	0.0	3.1	0.0	0.0				4.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.5	0.0	10.7	0.0	0.0				4.1	0.0	0.0
Prop In Lane	0.00		0.00	0.04		0.00				0.31		0.69
Lane Grp Cap(c), veh/h	0	626	0	712	0	0				763	0	0
V/C Ratio(X)	0.00	0.43	0.00	0.75	0.00	0.00				0.34	0.00	0.00
Avail Cap(c_a), veh/h	0	748	0	832	0	0				763	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.88	0.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	10.4	0.0	12.4	0.0	0.0				6.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	2.8	0.0	0.0				1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.2	0.0	3.1	0.0	0.0				0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.8	0.0	15.1	0.0	0.0				8.0	0.0	0.0
LnGrp LOS	A	B	A	B	A	A				A	A	A
Approach Vol, veh/h		272			531						262	
Approach Delay, s/veh		10.8			15.1						8.0	
Approach LOS		B			B						A	

Timer - Assigned Phs		4		6		8			
Phs Duration (G+Y+Rc), s		17.4		22.6		17.4			
Change Period (Y+Rc), s		4.0		4.0		4.0			
Max Green Setting (Gmax), s		16.0		16.0		16.0			
Max Q Clear Time (g_c+I1), s		6.5		6.1		12.7			
Green Ext Time (p_c), s		0.6		0.7		0.7			

Intersection Summary									
HCM 6th Ctrl Delay	12.3								
HCM 6th LOS	B								

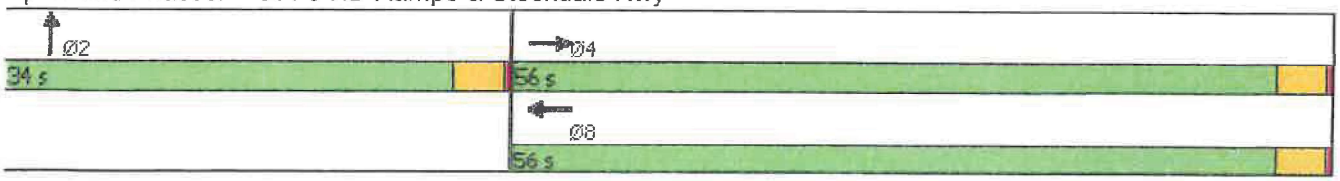
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	162	163	0	0	290	0	193	0	51	0	0	0
Future Volume (vph)	162	163	0	0	290	0	193	0	51	0	0	0
Ideal Flow (vphpl)	1750	1900	1750	1750	1900	1750	1750	1900	1750	1750	1900	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt								0.972				
Flt Protected		0.976						0.962				
Satd. Flow (prot)	0	1818	0	0	1863	0	0	1742	0	0	0	0
Flt Permitted		0.556						0.962				
Satd. Flow (perm)	0	1036	0	0	1863	0	0	1742	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								16				
Link Speed (mph)		55			55			55			55	
Link Distance (ft)		1283			30254			1547			679	
Travel Time (s)		15.9			375.0			19.2			8.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	176	177	0	0	315	0	210	0	55	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	353	0	0	315	0	0	265	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11	1.11	1.00	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1		1	1				
Detector Template												
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	50	50			50		50	50				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.0	20.0			20.0		20.0	20.0				
Total Split (s)	56.0	56.0			56.0		34.0	34.0				
Total Split (%)	62.2%	62.2%			62.2%		37.8%	37.8%				
Maximum Green (s)	52.0	52.0			52.0		30.0	30.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		4.0			4.0			4.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Recall Mode	None	None			None		Max	Max				
Walk Time (s)	5.0	5.0			5.0		5.0	5.0				
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		21.7			21.7			30.4				
Actuated g/C Ratio		0.36			0.36			0.50				
v/c Ratio		0.94			0.47			0.30				
Control Delay		54.2			16.7			11.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		54.2			16.7			11.0				
LOS		D			B			B				
Approach Delay		54.2			16.7			11.0				
Approach LOS		D			B			B				

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 60.2
Natural Cycle: 40
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 29.3 Intersection LOS: C
Intersection Capacity Utilization 56.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: I-5 NB Ramps & Stockdale Hwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	163	0	0	290	0	193	0	51	0	0	0
Future Volume (veh/h)	162	163	0	0	290	0	193	0	51	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1723	1870	0	0	1870	1723	1723	1870	1723			
Adj Flow Rate, veh/h	176	177	0	0	315	0	210	0	55			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	262	236	0	0	716	0	671	0	176			
Arrive On Green	0.38	0.38	0.00	0.00	0.38	0.00	0.49	0.00	0.49			
Sat Flow, veh/h	456	618	0	0	1870	0	1376	0	360			
Grp Volume(v), veh/h	353	0	0	0	315	0	265	0	0			
Grp Sat Flow(s),veh/h/ln	1074	0	0	0	1870	0	1737	0	0			
Q Serve(g_s), s	12.3	0.0	0.0	0.0	7.7	0.0	5.7	0.0	0.0			
Cycle Q Clear(g_c), s	20.0	0.0	0.0	0.0	7.7	0.0	5.7	0.0	0.0			
Prop In Lane	0.50		0.00	0.00		0.00	0.79		0.21			
Lane Grp Cap(c), veh/h	499	0	0	0	716	0	846	0	0			
V/C Ratio(X)	0.71	0.00	0.00	0.00	0.44	0.00	0.31	0.00	0.00			
Avail Cap(c_a), veh/h	1126	0	0	0	1580	0	846	0	0			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	19.3	0.0	0.0	0.0	14.1	0.0	9.5	0.0	0.0			
Incr Delay (d2), s/veh	1.9	0.0	0.0	0.0	0.4	0.0	1.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.0	0.0	0.0	0.0	2.6	0.0	1.7	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.2	0.0	0.0	0.0	14.5	0.0	10.5	0.0	0.0			
LnGrp LOS	C	A	A	A	B	A	B	A	A			
Approach Vol, veh/h		353			315			265				
Approach Delay, s/veh		21.2			14.5			10.5				
Approach LOS		C			B			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		34.0		27.6				27.6				
Change Period (Y+Rc), s		4.0		4.0				4.0				
Max Green Setting (Gmax), s		30.0		52.0				52.0				
Max Q Clear Time (g_c+I1), s		7.7		22.0				9.7				
Green Ext Time (p_c), s		0.9		1.5				1.1				
Intersection Summary												
HCM 6th Ctrl Delay			15.9									
HCM 6th LOS			B									

Turning Movement Count Report AM

Location ID: 1
North/South: Stockdale Highway
East/West: I-5 Southbound Ramps

Date: 01/10/24
City: Bakersfield, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	Totals:
6:00	0	0	9	0	17	5	0	0	0	0	2	0	33
6:15	0	0	11	0	29	1	0	0	0	0	2	0	43
6:30	2	0	15	0	50	3	0	0	0	0	2	0	72
6:45	1	0	6	0	28	1	0	0	0	0	2	0	38
7:00	0	0	13	0	8	3	0	0	0	0	2	0	26
7:15	0	0	21	0	11	1	0	0	0	0	4	0	37
7:30	1	1	19	0	13	5	0	0	0	0	4	0	43
7:45	0	0	16	0	8	3	0	0	0	0	3	0	30
Total Volume:	4	1	110	0	164	22	0	0	0	0	21	0	322
Approach %	3%	1%	96%	0%	88%	12%	0%	0%	0%	0%	100%	0%	
Peak Hr Begin:	6:00												
PHV	3	0	41	0	124	10	0	0	0	0	8	0	186
PHF	0.647			0.632			0.000			1.000			

Prepared by City Count, LLC. (www.citycount.com)

Turning Movement Count Report PM

Location ID: 1
North/South: Stockdale Highway
East/West: I-5 Southbound Ramps

Date: 01/10/24
City: Bakersfield, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	**Totals:**
16:00	2	0	85	0	4	9	0	0	0	2	13	0	115
16:15	1	0	92	0	4	4	0	0	0	1	17	0	119
16:30	0	0	75	0	5	2	0	0	0	3	21	0	106
16:45	0	0	101	0	3	6	0	0	0	1	15	0	126
17:00	0	0	96	0	1	3	0	0	0	1	7	0	108
17:15	1	0	56	0	4	7	0	0	0	3	12	0	83
17:30	0	1	61	0	5	4	0	0	0	0	5	0	76
17:45	1	0	50	0	5	3	0	0	0	1	7	0	67
Total Volume:	5	1	616	0	31	38	0	0	0	12	97	0	800
Approach %	1%	0%	99%	0%	45%	55%	0%	0%	0%	11%	89%	0%	
Peak Hr Begin:	16:00												
PHV	3	0	353	0	16	21	0	0	0	7	66	0	466
PHF	0.881			0.712			0.000			0.760			

Prepared by City Count, LLC. (www.citycount.com)

Pedestrian/Bicycle Count Report

Location ID: 1
North/South: Stockdale Highway
East/West: I-5 Southbound Ramps

Date: 01/10/24
City: Bakersfield, CA

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
6:00	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0

Turning Movement Count Report AM

Location ID: 2
North/South: Stockdale Highway
East/West: I-5 Northbound Ramps

Date: 01/10/24
City: Bakersfield, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	**Totals:**
6:00	0	0	0	61	22	0	5	0	0	0	10	0	98
6:15	0	0	0	74	25	0	5	0	4	0	13	1	122
6:30	0	0	0	61	46	0	8	0	6	0	14	1	136
6:45	0	0	0	49	22	0	10	0	6	0	10	0	97
7:00	0	0	0	37	11	0	6	1	0	0	13	0	68
7:15	0	0	0	50	11	0	11	1	1	0	25	0	99
7:30	0	0	0	57	17	0	5	0	1	0	25	0	105
7:45	0	0	0	43	10	0	9	0	0	0	19	0	81
Total Volume:	0	0	0	432	164	0	59	2	18	0	129	2	806
Approach %	0%	0%	0%	72%	28%	0%	75%	3%	23%	0%	98%	2%	
Peak Hr Begin:	6:00												
PHV	0	0	0	245	115	0	28	0	16	0	47	2	453
PHF	0.000			0.841			0.688			0.817			

Turning Movement Count Report PM

Location ID: 2
North/South: Stockdale Highway
East/West: I-5 Northbound Ramps

Date: 01/10/24
City: Bakersfield, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	**Totals:**
16:00	0	0	0	37	14	0	10	0	0	0	102	0	163
16:15	0	0	0	42	8	0	7	3	0	0	110	0	170
16:30	0	0	0	48	8	0	8	0	0	0	93	1	158
16:45	0	0	0	30	6	0	10	1	2	0	113	2	164
17:00	0	0	0	29	4	0	9	0	0	0	103	0	145
17:15	0	0	0	38	11	0	9	0	0	0	64	0	122
17:30	0	0	0	36	9	0	10	0	0	0	68	0	123
17:45	0	0	0	30	8	0	9	0	0	0	58	0	105
Total Volume:	0	0	0	290	68	0	72	4	2	0	711	3	1150
Approach %	0%	0%	0%	81%	19%	0%	92%	5%	3%	0%	100%	0%	
Peak Hr Begin:	16:00												
PHV	0	0	0	157	36	0	35	4	2	0	418	3	655
PHF	0.000			0.862			0.788			0.915			

Pedestrian/Bicycle Count Report

Location ID: 2
North/South: Stockdale Highway
East/West: I-5 Northbound Ramps

Date: 01/10/24
City: Bakersfield, CA

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
6:00	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0

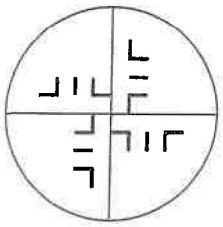
Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0

FIGURE 4A

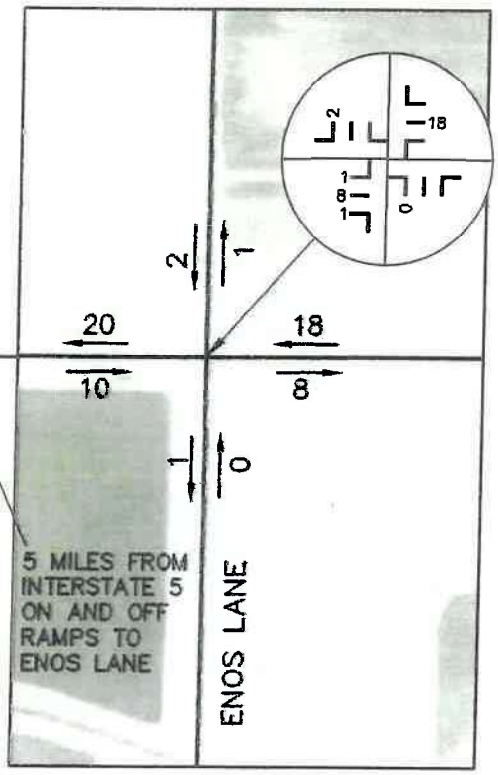
A.M. PROJECT GENERATED TRAFFIC

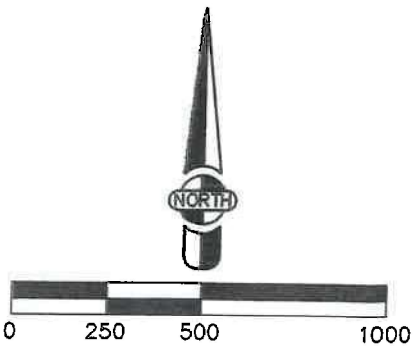
LEGEND:

- EXISTING FREEWAY
- EXISTING ARTERIAL STREET
- EXISTING COLLECTOR STREET
- XXX — SEGMENT VOLUME – PEAK HOUR



INTERSECTION TURNING MOVEMENTS





DATE: OCTOBER 2023

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