DRAFT
ENVIRONMENTAL IMPACT REPORT

FOR THE

DON ALEJANDRO VALDEZ COMMUNITY PLAN, ANNEXATION, GENERAL PLAN AMENDMENT AND PREZONING

SCH# 2003061111

Prepared for:

CITY OF MENDOTA
Planning Department
643 Quince Street
Mendota, California 93640
Contact: Gabriel Gonzalez (559) 655-3291

Prepared by:

PACIFIC MUNICIPAL CONSULTANTS
585 Cannery Row, Suite 304
Monterey, California 93940
(831) 644-9174

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Twining Laboratories, Inc. Phase I Environmental Site Assessment for the Mendota Project, Fresno County, California. June 27, 2003.

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RM Associates. *Don Alejandro Valdez Development Project, Engineering Impact Analysis*. February, 2002.

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S - Executive Summary

This section of the Environmental Impact Report (EIR) provides a summary overview of the project environmental analysis, impacts and mitigation measures. For additional detail regarding specific issues, please consult the appropriate Subsection of Section 3.0, Environmental Setting, Impacts and Mitigation Measures.

S.1 PURPOSE AND SCOPE OF THE EIR

This EIR provides an analysis of the potential environmental effects associated with the approval of the Don Alejandro Valdez Community Plan, located in the City of Mendota.

The purpose of an EIR is to identify the significant effect on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided (CEQA Guidelines 21002.1(a)).

The lead agency shall focus the discussion in the EIR on those potential effects on the environment resulting from a proposed project that the lead agency has determined are or may be significant. Based on the results of public input generated during the Notice of Preparation response period for the project, Section 3.0 of the EIR focuses upon aesthetic/visual resources, archaeological and cultural resources, air quality, biological resources, geology and geological constraints, noise, hazards and hazardous materials, hydrology and water quality, land use and agriculture, public services and facilities, traffic, and utilities and services.

S.2 PROJECT CHARACTERISTICS

The Don Alejandro Valdez Community Plan project involves the annexation of approximately 68 acres into the City of Mendota. The project site is located on the City's northeastern edge, immediately east of the incorporated boundary of Mendota within the City's designated sphere of influence (SOI). The project site is currently designated by the City of Mendota as Agriculture for the area north of Bass Avenue and Multi-Use Open Space south of Bass Avenue. Fresno County designates the northern portion as Agriculture and the southern as proposed Open Space. The site is zoned by the County as AE-20 (Exclusive Agriculture, 20-acre minimum parcel size) on the north and AL (Limited Agriculture) on the south. As part of the annexation process, the site will be pre-zoned by the City as R-1 (Medium Density/Single-Family Residential), R-3 (High Density/Multiple Family Residential) and C-3 (Central Commercial).

The project will require a General Plan Amendment, zone change and Subdivision Master Development Plan. In addition, the Applicant requests an amendment to the City of Mendota's Redevelopment Plan to allow the project site to be incorporated in the City's Redevelopment Project Area.

The project Applicant, I-5 Social Services Corporation, proposes to create a "Farmworker Community" that consists of a mix of affordable multi-family housing and low to moderate income single-family housing, regional job training and education center, commercial amenities, childcare and transportation services. Project land uses gross acreage and densities are represented in Table 2-1 in Section 2.0 (Project Description) of this EIR.

This EIR provides the environmental information and analysis and primary CEQA documentation necessary for the City to adequately consider the effects of the requested land annexation and pre-zoning. The City of Mendota, as lead agency, has approval authority and responsibility for considering the environmental effects of the whole of the project.

S.3 PROJECT ALTERNATIVES CONSIDERED

Three alternatives to the proposed project were considered including: Alternative 1 – "No Project" (No Development); Alternative 2 – Reduced Project Size (No Development within Airport Safety Zone); and Alternative 3 – Reduced Project Size (Decreased Density). Based on the alternatives analysis contained within Section 4.0, the EIR concludes that Alternative 1 is the environmentally superior alternative. When the "No Project" alternative is identified as being superior, CEQA requires the second most environmentally superior alternative to be identified. Correspondingly, Alternative 2, Reduced Project Size / No Development Within Airport Safety Zone, represents the second environmentally superior alternative. Alternative 3, the Reduced Project Size Alternative, proposes a substantial reduction in project density. While more impacts would be reduced relative to the proposed project under Alternative 3, the significant reduction in dwelling units would be less consistent with the project objective of providing affordable housing opportunities to the residents of the City of Mendota and Fresno County.

See Section 4.0 for a more detailed discussion of the alternatives.

S.4 SUMMARY OF ENVIRONMENTAL IMPACTS

Table S-1 presents a summary of project impacts and proposed mitigation measures that would reduce, minimize, or avoid potential impacts. In the table the level of significance of each environmental impact is indicated after the application of the recommended mitigation measure(s).

For detailed discussions of all project impacts and mitigation measures, the reader is referred to topical environmental analysis in Section 3.0 of this EIR.

S-1 EXECUTIVE SUMMARY TABLE

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
Aesthetics and Visual Resources			
Impact 3.1-1 The project would alter the aesthetic character of the project site and surrounding area from rural agricultural use to urban residential, commercial, and public use	Potentially Significant	**MM 3.1-1a** Prior to Final Map recordation, lighting and landscaping of the project site will be incorporated into a Lighting and Landscaping Maintenance District to maintain the visual quality of the project site as described under **MM 3.1-3b**. Landscaping plans shall be submitted by the project Applicant for all specific development proposals within the project area, and shall indicate landscape and signage criteria based on the recommendations of a certified landscape architect, including themes, monumentation and design concepts. The landscape criteria shall be reviewed and approved by the City and incorporated into the final subdivision map(s) and future site plans for the project. **MM 3.1-1b** Each applicant within the project area shall be responsible for the construction of utility lines in the proposed subdivision and shall design all utility lines to be placed underground to minimize the visual impacts of man-made elements at the project site. The City Engineer shall review and approve the applicant's utility improvement plans.	Less than Significant
Impact 3.1-2 Development within the annexation area would result in the conversion of agricultural land to residential, commercial, and public uses creating changes to the existing views to and from surrounding properties and public viewing areas.	Less than Significant		
Impact 3.1-3 Buildout of the annexation area would introduce new sources of lighting within the project area that could adversely affect adjacent residential uses and uses within the project area.	Potentially Significant	**MM 3.1-3a** Project applicants for all future projects within the annexation area shall be required to submit detailed lighting plans indicating the locations and type of fixtures to be used and demonstrating that exterior lighting maintains acceptable non-intrusive levels	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		consistent with and not exceeding existing lighting in the vicinity of the project. Lighting plans shall also incorporate baffles and lens cut-offs to direct lighting downward and to minimize the unwanted spillover of light. All external lighting shall be indicated on project plans as they are submitted for future site development. Lighting plans shall be submitted to the City of Mendota Public Works Department for review and approval. **MM 3.1-3b** At the time of Final Map, the owner, developer and/or successors of interest shall agree to include the entire project area into a Lighting Maintenance District subject to the approval of the City Engineer.	
Impact 3.1-4 Nighttime ambient light and glare could be increased by new residential, commercial, and public facility development in the project area.	Less Than Significant		
Archaeological and Cultural Resources			
Impact 3.2-1 The project site contains no recorded, observed or anticipated resources of archaeological, cultural, or prehistoric significance. However site preparation and grading activities could potentially disrupt undiscovered archaeological and cultural resources of importance under CEQA and/or eligible for listing on the California Register.	Potentially Significant	**MM 3.2-1a** Should any previously undisturbed cultural, histories, or archaeological resources be exposed or discovered during either site preparation of subsurface construction, operations should stop within 25 feet of the find and a qualified professional archaeologist should be contacted for evaluation and further recommendations. If the find is determined to be significant, appropriate mitigation measure shall be formulated and implemented. **MM 3.2-1b** In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		suspected to overlie adjacent remains until the coroner of Fresno County has determined whether the remains are subject to the coroner authority. This is in accordance with Section 7050.5 of the California Health and Safety Code. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of identification. Pursuant to Section 5097.98 of the Public Resource Code, the Native American Heritage Commission will identify a "Native American Most Likely Descendent" to inspect the site and provide recommendations for the proper treatment of the remains and any associated grave goods.	
Air Quality			
Impact 3.3-1 Construction activities such as site clearing, excavation and grading operations, construction vehicle traffic and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that would temporarily affect local air quality for adjacent land uses.	Potentially Significant	**MM 3.3-1** The project applicant shall implement and follow the following measures before and during construction in order to control dust and reduce exhaust emissions during construction: ▪ Water all active construction sites at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure. ▪ Prohibit all grading activities during periods of high wind (over 15 mph). ▪ Apply non-toxic soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days.) ▪ Cover all trucks hauling dirt, sand or loose materials, or maintain at least 2 feet of freeboard. ▪ Cover inactive storage piles. ▪ Sweep streets if visible soil material is carried out from	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		the construction site. ▪ Post a publicly visible sign that specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the San Joaquin Valley Unified Air pollution Control District shall be posted on-site as well. ▪ Prior to issuance of construction contracts and after consultation with the SJVUAPCD a review of new technology for heavy-duty equipment should be performed to determine what, if any, advances in emission reduction are available for use to reduce NOx and PM_{10} emissions from equipment. ▪ Equipment not in use for more than ten minutes should be turned off. ▪ Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use. ▪ Whenever feasible and cost effective, use electrically driven equipment (provided they are not run via a portable generator set).	
Impact 3.3-2 The project would change traffic volumes and congestion levels, changing carbon monoxide concentrations at land uses near roadways and intersections.	Less than Significant		
Impact 3.3-3 Development at the project site will result in an increase in air pollutant emissions within the San Joaquin Valley Air Basin.	Potentially Significant	**MM 3.3-3** To meet the threshold of significance set by the San Joaquin Valley Unified Air Pollution Control District the project applicant, prior to Final Tentative Map approval shall implement the following measure that will be monitored by the City of Mendota Public Works Department. ▪ Provide physical improvements, such as sidewalk	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		improvements, landscaping and the installation of bus shelters and bicycle parking that would act as incentives for pedestrian, bicycle, and transit modes of travel. ▪ Coordinate with local transit operators to extend or expand service to the project. ▪ Provide transit use incentives, provide transit alternatives information such as printed schedules and establish transit information kiosks at appropriate locations. ▪ Use energy efficient design including automated control system for heating/air conditioning and energy efficiency, utilize lighting controls and energy-efficient lighting in buildings and use light colored roof materials to reflect heat. ▪ Plant deciduous trees on the south and westerly facing sides of buildings. ▪ Provide low nitrogen oxide (NO_x) emitting and/or high efficiency water heaters. ▪ Utilize low-emission, alternatively fueled or electrical-driven maintenance vehicles and equipment. ▪ Implement carpool/vanpool program, e.g., carpool ride-matching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc. ▪ Allow only natural gas/LPG fireplaces, pellet stoves or EPA-Certified wood-burning fireplaces or stoves within the project. Conventional open-hearth fireplaces should not be permitted. EPA-Certified fireplaces and fireplace inserts are 75 percent effective in reducing emissions from this source, while natural-gas/LPG fireplaces are nearly 100% effective in	

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		reducing emissions and have virtually no potential for odor or nuisance.	
Impact 3.3-4 Implementation of the Don Alejandro Valdez Community Plan will result in an increase of regional emission within the San Joaquin Valley air basin.	Significant Cumulative	**MM 3.3-4** San Joaquin Valley Unified Air Pollution Control District guidance provides that a project that would individually have a significant air quality impact is also considered to have a significant cumulative air quality impact. Regional emissions from the proposed Don Alejandro Valdez Community Plan would exceed the significance thresholds for ozone precursors by a substantial amount, so the project is considered to have a significant cumulative impact on regional air quality. Implementation of **MM 3.3-3** would reduce the cumulative impact of pollutants caused by regional emissions to less than significant.	Less than Significant
Biological Resources			
Impact 3.4-1 Implementation of the proposed project may result in the construction of buildings, roads and other facilities that may in turn result in the loss or disturbance of common natural habitats at the project site, including Disturbed Annual Grassland and Ruderal/Developed.	Less than Significant		
Impact 3.4-2 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss or disturbance of sensitive natural communities at the project site (i.e., Emergent Marsh and Seasonal Wetland).	Potentially Significant	**MM 3.4-2** Implementation of **MM 3.4-10,** discussed under **Impact 3.4-10**., will reduce impacts to sensitive natural communities to a less than significant level by requiring sufficient compensation and regulatory approvals.	Less than Significant
Impact 3.4-3 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of habitat or loss or disturbance of the following special-status plant species: heartscale (*Atriplex cordulata*), brittlescale (*Atriplex depressa*), San Joaquin spearscale (*Atriplex joaquiniana*), lesser saltscale (*Atriplex miniscula*), Lost Hills crownscale	Potentially Significant	**MM 3.4-3a** Prior to construction, the project Applicant shall conduct a rare plant survey. Surveys shall be conducted by qualified biologists in accordance with the most current CDFG and/or USFWS guidelines or protocols and shall be conducted at the time of year when the plants named above are identifiable. Based on the results of the survey, and prior to design approval,	Less Than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
(*Atriplex vallicola*), San Joaquin woollythreads (*Monolopia congdonii*), and Sanford's sagittaria (*Sagittaria sanfordii*).		the project Applicant in consultation with CDFG and/or USFWS shall determine whether the project would result in a significant impact to any special-status plant species. Evaluation of project impacts shall consider the following: ▪ The status of the species in question (e.g., officially listed by the state or federal Endangered Species Acts, candidate list, CNPS list); ▪ The relative density and distribution of the onsite occurrence versus typical occurrences of the species in question; and, ▪ The habitat quality of the onsite occurrence relative to historic, current or potential distribution of the population. If these surveys reveal no occurrences of any special-status plant species, or if the project Applicant in consultation with CDFG and/or USFWS determines that no significant impacts to any special-status plant species would result from project implementation, then no further mitigation would be required. Should one or more special-status plant species occur at the project site and a determination of significant impact be made, the project Applicant shall implement **MM 3.4-3b**. **MM 3.4-3b** Prior to construction and after implementation of **MM 3.4-3a**, the project Applicant shall, in consultation with CDFG and/or USFWS, prepare and implement a mitigation plan that reduces impacts to special-status plants to a less than significant level. The mitigation plan must be in accordance with any applicable state and/or federal statutes and laws, must be implemented prior to site grading and may include any	

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		or all of the following: ▪ Conducting protocol-level surveys; ▪ Minimization of impacts through avoidance of occupied areas; ▪ Formal consultation with the USFWS and/or development of a Memorandum of Understanding (MOU) with CDFG; ▪ Off-site mitigation on a protected lands site for disturbance or loss of occupied habitat; ▪ Funding for long-term management and monitoring of the protected lands; ▪ Worker awareness training; and, ▪ Mitigation success criteria, remedial measures, and reporting requirements.	
Impact 3.4-4 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of habitat or loss or disturbance of the following listed (i.e., federally or California state endangered, threatened, or candidate) wildlife species: blunt-nosed leopard lizard, giant garter snake, San Joaquin antelope squirrel, Fresno kangaroo rat, and San Joaquin kit fox.	Potentially Significant	**MM 3.4-4a** Within 30 days prior to start of construction, the project Applicant shall contract with a qualified biologist to conduct focused habitat evaluations for listed wildlife species at and adjacent to the project site. Surveys shall be conducted in accordance with the most current CDFG and/or USFWS guidelines or protocols. Based on the results of the survey and prior to design approval, the project Applicant in consultation with CDFG and/or USFWS shall determine whether the project would result in a significant impact to any listed wildlife species. Evaluation of project impacts shall consider the following: ▪ The habitat quality of the project site relative to historic, current or potential distribution of the population; ▪ The habitat value of the project site (i.e., the importance of the habitat to the recovery of the	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		species); and, ▪ If the species is present, the relative density and distribution of the onsite occurrence versus typical occurrences of the species in question. ▪ If these surveys reveal no occurrences of any listed wildlife species, or if the project Applicant in consultation with CDFG and/or USFWS determines that no significant impacts to any listed wildlife species would result from project implementation, then no further mitigation would be required. **MM 3.4-4b** Within 30 days prior to start of construction and after implementation of **MM 3.4-4a**, the project Applicant shall, in consultation with CDFG and/or USFWS, prepare and implement mitigation plan(s) that reduce impacts to listed wildlife species to a less than significant level. The mitigation plan(s) must be in accordance with any applicable state and/or federal statutes and laws, must be implemented prior to site grading and may include any or all of the following mitigation measures: ▪ Conducting protocol-level surveys; ▪ Minimization of impacts through avoidance of occupied areas; ▪ Formal consultation with the USFWS and/or development of a Memorandum of Understanding (MOU) with CDFG; ▪ Off-site mitigation on a protected lands site for disturbance or loss of occupied habitat; ▪ Funding for long-term management and monitoring of the protected lands; ▪ Worker awareness training; and,	

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		▪ Mitigation success criteria, remedial measures, and reporting requirements.	
Impact 3.4-5 The proposed project may result in the loss or disturbance to western pond turtle.	Potentially Significant	**MM 3.4-5a** Prior to work being performed in or immediately adjacent to the canal, a qualified biologist shall conduct a pre-construction survey for western pond turtle in the irrigation canal adjacent to the project site. If pond turtles are not found during surveys, no further mitigation is necessary. If pond turtles are found adjacent to the project site, the project Applicant shall implement **MM 3.4-5b**. **MM 3.4-5b** The Applicant shall contract with a qualified biologist to work in consultation with CDFG, in order to relocate western pond turtles located adjacent to the project site to suitable habitat, before work in the irrigation canal begins.	Less than Significant
Impact 3.4-6 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of habitat or disturbance of western burrowing owl.	Potentially Significant	**MM3.4-6a** Within 30 days prior to start of construction, a qualified biologist to be approved by the City Manager shall conduct preconstruction surveys for western burrowing owl in accordance with the most current CDFG guidelines. If these surveys reveal no occurrences of western burrowing owl, then no further mitigation would be required. If western burrowing owls occur at the project site the project Applicant shall implement **MM 3.4-6b.** **MM3.4-6b** Prior to site grading and after implementation of **MM 3.4-6a**, the project Applicant shall, in consultation with CDFG, prepare and implement a mitigation plan that reduces impacts to western burrowing owl to a less than significant level. The mitigation plan must be in accordance with any applicable state and/or federal statutes and laws. The mitigation plan may include any or all of the following	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		mitigation measures: Minimization of impacts to the species through avoidance of occupied burrows (i.e., no ground disturbing activities within approximately 250 feet during the breeding season [February 1 through August 31], and within approximately 160 feet during the non-breeding season [September 1 through August 31]); On-site mitigation by retaining a minimum of 6.5 acres of suitable habitat per pair or resident bird; When destruction of occupied burrows is unavoidable, off-site mitigation at a 2:1 ratio on a protected lands site; Passive relocation of western burrowing owls during the non-breeding season (September 1 through August 31); Funding for long-term management and monitoring of the protected lands; and/or, Mitigation success criteria, remedial measures, and reporting requirements.	
Impact 3.4-7 Implementation of the proposed project may result in the construction of buildings, roads and other facilities that would result in the loss of Swainson's hawk foraging habitat.	Less than Significant		
Impact 3.4-8 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that would result in disturbance of nesting raptors, including nesting Swainson's hawk.	Less than Significant		
Impact 3.4-9 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of habitat or loss of the following wildlife species of concern: silvery legless lizard and San Joaquin pocket mouse.	Less than Significant		

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 3.4-10 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss or disturbance of jurisdictional Waters of the United States at the project site (i.e., Emergent Marsh and Seasonal Wetland).	Potentially Significant	All required permits shall be obtained prior to any grading activities within or adjacent to wetlands. Prior to issuance of a grading permit, formal wetland delineation shall be performed and submitted to the Corps for verification. If the Corps determines that any of the wetlands at the project site are jurisdictional Waters of the U.S., design of site-specific proposals shall mitigate impacts, wherever possible, using a combination of avoidance and compensation as described below. If wetland impacts are unavoidable, authorization shall be obtained through a wetland fill permit from the Corps under Section 404 of the Clean Water Act for any fills, road crossings, utility crossings, or other direct impacts as specified by the Corp's permitting requirements. As part of this authorization, a mitigation plan shall be prepared and complied with for full compensation of Waters of the U.S. losses, thereby reducing project impacts to less than significant levels. Such a mitigation plan will include an on-site compensation or, if necessary, a combination of on-site and off-site compensation, and shall include provisions for re-evaluation in the event that mitigation success criteria are not met within specified time frames. Compensation for Waters of the U.S. must meet, but not necessarily be limited to, the following success criteria: ▪ Compensation wetlands will remain inundated or saturated for sufficient duration to support hydrophytic vegetation. ▪ Compensation Waters of the U.S., including wetlands, will exhibit biotic communities comparable to impacted habitats. ▪ Project designs must provide a drainage system to prevent surface stormwater or landscaping irrigation	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		runoff from flowing into preserve zones, compensation wetlands, or other nearby wetlands areas, unless adequately filtered by new wetlands or grasslands ▪ Compensation Waters of the U.S. will be monitored each year for five years and a report of monitoring results will be submitted to the Corps and Fresno County Planning Department for review. A request for water quality certification from the Regional Water Quality Control Board (RWQCB) will also be required pursuant to Section 401 of the Clean Water Act. For fill in wetlands and other Waters of the U.S., the project will most likely require an individual Section 404 permit if the project does not qualify under any other Nationwide Permit. The Corps authorization for fill must be secured and the appropriate mitigation plan must be approved by the Corps, prior to issuance of construction permits or recordation of parcel or subdivision maps.	
Impact 3.4-11 Annexation and conversion of the project site to urban uses, in conjunction with other future development proposed in the Mendota area, would contribute to the loss of habitat or loss or disturbance of special-status wildlife species.	Potentially Significant and Unavoidable	The project's contribution, in conjunction with other future regional development projects, may result in the loss of habitat or loss or disturbance to several species that are listed as threatened or endangered, including the blunt-nosed leopard lizard, giant garter snake, San Joaquin antelope squirrel, Fresno kangaroo rat, San Joaquin kit fox, western burrowing owl and Swainson's hawk. Mitigation measures identified in this section would reduce the impact to biological resources in the immediate area; however, there is no feasible method to mitigate the cumulative impacts of habitat removal or	Potentially Significant and Unavoidable

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		alteration. Much of this determination depends upon the results of future surveys identified in the above mitigation measures. The larger habitat impact shall be considered potentially significant and unavoidable, assuming the identified species are indeed present. However, if future surveys determine that the identified species are not present, the project will have a less than significant cumulative impact.	
Geology and Geological Constraints			
Impact 3.5-1 Placement of new structures at the project site could result in potential structural damage and associated human safety hazards resulting from seismic ground shaking caused by earthquakes on nearby active and potentially active faults.	Potentially Significant	**MM 3.5-1** Prior to Final Tentative Map approval, a site-specific geotechnical investigation shall be prepared by a qualified geotechnical engineer for each development proposal to determine the site-specific surface and subsurface geologic and soil constraints for the proposed project. The investigation shall be subject to review and approval by the City of Mendota and all future development shall be designed in accordance with these requirements and the current edition of the California Building Code.	Less than Significant
Impact 3.5-2 Placement of new structures at the project site could result in potential structural damage and associated human safety hazards resulting from liquefaction, differential compaction, and lateral spreading.	Less Than Significant		
Impact 3.5-3 Placement of new structures at the project site could result in potential structural damage and associated human safety hazards resulting from expansive soils at the project site.	Less than Significant		
Impact 3.5-4 The proposed project has the potential to result in short-term soil erosion during construction activities.	Potentially Significant	There is no evidence of significant soil erosion at the project site due primarily to level topography. However, soil erosion and loss of topsoil may occur with the construction of improvements such as buildings, roads, parking areas, drainage, and other permanent	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		improvements. Heavy earth moving equipment is used for site grading and compaction. In general, grading activities create the potential for increased ground instability and erosion. Grading and other construction-related activities would disturb the soil, which could increase soil erosion rates. All disturbed soil is subject to erosion with the amount of erosion dependent on soil type, vegetation cover, slope length, and gradient. Erosion resulting from the project can be successfully controlled and prevented using a variety of methods, including drainage control plans and adherence to Best Management Practices (BMPs) to control runoff. Implementation of **MM 3.8-1a and b** in Section 3.8 Hydrology will reduce short-term erosion impacts to a less than significant level by requiring the Applicant to prepare drainage control plans and adhere to permanent BMPs to control stormwater runoff.	
Noise			
Impact 3.6-1 Activities associated with construction could result in elevated noise levels, with maximum noise levels ranging from 72-92 dB at 50 feet. This is above the standards 65 CNEL Db outdoor and 45 CNEL Db interior maximum noise levels thresholds.	Potentially Significant	**MM 3.6-1a** To reduce the effects of construction noise, the applicant shall require construction contractors to limit high noise-producing activities to the least noise-sensitive times of day and week (e.g., 7:00 am to 6:00 pm, Monday through Friday). Monitoring of construction activities shall be conducted by the City of Mendota. **MM 3.6-1b** During construction activities the project Applicant shall distribute a disclosure statement to surrounding owners and tenants at the project site that describes the extent of the noise that can be expected, and who to call if there are noise related complaints during construction activities. This disclosure notice shall also be posted at the project site in a visible location. Information in the disclosure notice shall include a	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		construction schedule showing the dates and location of activities; and the name and contact information for a construction noise coordinator for the project Applicant who will be responsible for implementing the noise control measures and responding to complaints.	
Impact 3.6-2 Sensitive land uses constructed as part of the proposed project would be exposed to aircraft noise from the Mendota Municipal Airport located directly adjacent to the southeast corner of the project site.	Potentially Significant	**MM 3.6-2a** The City shall require the Applicant to record an Aviation Easement across the project site. The aviation easement shall be prepared and recorded concurrent with recordation of the final map of the first phase of the proposed project and referenced on all final maps. **MM 3.6-2b** The Applicant shall notify future residents that the project site is subject to aircraft over flights and single event noise exposure due to the proximity of the project site to Mendota Municipal Airport. The Applicant shall prepare and record the notification agreement prior to or concurrent with recordation of the final map of the first phase of the proposed project. All future residents shall be notified of the noise exposure prior to entering in an agreement to purchase a home within the project area. **MM 3.6-2c** During construction, the Applicant shall install proper mechanical ventilation and air conditioning for units within the 55 dB contour line to enable the residents to have windows and doors remained closed. Building plans shall be subject to review and approval by the Planning and Building Inspector. Prior to project approval the noise insulation features should clearly demonstrate the project site when exposed to aircraft noise levels are clearly within the acceptable noise level standards as set by the City of Mendota.	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 3.6-3 The proposed project could possibly increase traffic on the existing roadway network by the addition of future residents and roadways, which would result in traffic noise level increases that could affect, the proposed project site and surrounding land uses.	Potentially Significant	**MM 3.6-3a** Prior to approval of building permits for each phase, an acoustical analysis report shall be submitted by the project Applicant pursuant to Section 1208A.8 of the State of California Building Code. The report shall show how the prescribed interior level of a CNEL of 45 dB will be met in residential structures exposed to a CNEL greater than 65 dB. Typically, sound-rated windows, doors, and sometimes, exterior walls are required. Those units that are required to have their windows closed to meet the prescribed interior noise level shall require a ventilation or air conditioning system to provide a habitable interior noise environment. **MM 3.6-3b** Prior to approval of building permits for any phase, the project Applicant shall revise/refine the site plan to be reviewed by the City of Mendota, to include solid barriers or combination of earthen berms and solid barriers to attenuate roadway sound. The sound barriers should be at a height sufficient to mitigate the increase in noise from existing plus project generated traffic from the proposed roadways. Construction of this acoustical barrier would ensure that outdoor noise levels at the project site would not exceed 65 CNEL dB.	Less than Significant
Impact 3.6-4 The project would develop adjacent to agricultural operations, which may not be a compatible land use, in terms of noise.	Potentially Significant	**MM 3.6-4** The applicant shall notify potential buyers of residential lots within the project area, at the time of sale, of the proximity of agricultural uses and the right-to-farm clause required as a condition of Final Map recordation. The notification agreement shall be prepared prior to recording the Final Map of the first phase of the proposed project.	Less than Significant
Impact 3.6-5 The proposed project would contribute to cumulative traffic on the roadway network over existing conditions, which would contribute to cumulative traffic	Potentially Significant	Pursuant to the Significance Criteria shown in **Table 3.6-5**, a substantial increase in traffic noise levels is defined as 1.5 to 5 dB, depending on the pre-project traffic noise	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
noise in the city limits.		level. Project-related traffic noise level increases could exceed those thresholds for either weekday or weekend periods, on Bass Avenue, "H" Street, Kate Street, Lazano Street and Fourth Street; therefore, the cumulative increase in traffic noise levels is considered a potentially significant impact. The noise analysis required by MM 3.6.3a will mitigate this potential impact. Implementation of **MM 3.6-3a** will reduce the potentially significant impact to a less than significant if the Study recommends that the proposed project will not significantly impact the existing road network throughout the City of Mendota. If the Noise Assessment Study demonstrates that the proposed project site will significantly impact cumulative traffic throughout the city the study should include proper mitigation measures to alleviate the impacts.	
Hazards and Hazardous Materials			
Impact 3.7-1 Implementation of the project may expose people or property to construction related hazards.	Less than Significant		
Impact 3.7-2 Implementation of the project may expose the public or the environment to identified hazardous materials.	Potentially Significant	**MM 3.7-2a** Prior to project implementation, the applicant(s) shall remove the 22 metal drums containing waste oil and properly disposed of in accordance with state and county regulations governing hazardous wastes. **MM 3.7-2b** Prior to grading the project Applicant shall have a qualified professional conduct a Phase II Soils Report to determine the extent of soil contamination. Based on the results of the Phase II Report the Applicant shall remediate/remove contaminated soils and dispose accordingly, and/or comply with any other recommendations of the Phase II Report. **MM 3.7-2c** Prior to development the applicant(s)	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		shall remove, handle and dispose of all materials containing PCBs, the materials should be disposed of as hazardous waste. There are two disposal options for PCBs (1) placement in lab packs for disposal in a hazardous landfill, or (2) incineration at a facility permitted to incinerate PCB waste. Fluorescent tubing may be recycled at an authorized facility, or disposed of at a Class III landfill.	
Impact 3.7-3 The project site is adjacent to the Mendota Municipal airport and respective runway. The proposed project could expose people to excess noise levels and safety hazards from aircraft operations in the vicinity of the project site.	Potentially Significant	**MM 3.7-3** The project Applicant shall redesign the project to be consistent with the *Fresno County Airport Land Use Policy (1983)*. Subject to the approval of the Mendota City Council prior to submittal of the proposed project to Fresno LAFCO, all project plans and maps that contain sensitive uses within the Mendota Municipal Airport Traffic Pattern Zone shall be compatible with the Fresno County Airports Land Use Plan Safety Compatibility Criteria, as follows: All proposed residential uses shall have a density of no greater than four dwelling units per acre in this area. All proposed commercial uses shall not include schools, hospitals, nursing homes, or similar uses (including day care centers). The area of the project site within the Traffic Pattern Zone shall have at least 20% of area open (having a size and shape such that a small aircraft could conceivably make an emergency landing without damage to buildings or serious injury to aircraft occupants). The project redesign shall be subject to review and approval of the Fresno County Airport Land Use Commission.	Less than Significant
Impact 3.7-4 Development of the project could expose people, property, and the environment to hazardous	Less than Significant		

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
materials and conditions.			
Hydrology and Water Quality			
Impact 3.8-1 Development of the project site may result in violation of water quality standards.	Potentially Significant	**MM 3.8-1a** Prior to issuance of grading permits, the project Applicant shall submit a stormwater drainage plan ensuring that stormwater discharge volumes into the receiving drainage system are equal to or less than runoff from the site prior to development. Plans shall be submitted to the City of Mendota for review and approval, with review comments incorporated and shown on Final Maps. Drainage plans shall incorporate permanent Best Management Practices (filters, traps, swales, etc.) to ensure that urban runoff contaminants are minimized. The stormwater drainage plan shall be designed in accordance with standards established by the Fresno Metropolitan Flood Control District (FMFCD). **MM 3.8-1b** In accordance with RWQCB regulations, development resulting in grading or excavation that disturbs one acre or more shall require the Applicant to obtain a General Permit for Stormwater Discharges Associated with Construction Activities (Water Quality Order 99-08-DWQ), as required by the National Pollution Discharge Elimination System (NPDES). Coverage under this permit requires the Applicant to file a Notice of Intent (NOI) with the State through the RWQCB and prepare a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must list Best Management Practices (BMP), which specify how the discharger will protect water quality during the course of construction. The SWPPP shall be consistent with RWQCB standards.	Less than Significant
Impact 3.8-2 Development resulting from project approval would alter existing drainage patterns, increase	Potentially Significant	**MM 3.8-2** Concurrent with final map submittals, the project Applicant shall submit detailed engineering	Less than

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
impervious surfaces and increase surface water runoff, thus contributing to existing localized drainage, flooding and erosion problems on or off-site.		plans for on- and off-site stormwater drainage facilities for review and approval by the City of Mendota.	Significant
Impact 3.8-3 Slope and soil disturbance associated with site preparation, grading and construction activities resulting from the project may cause soil erosion and sedimentation or the release of other pollutants into adjacent waterways.	Potentially Significant	Eventual construction on the project site would consist of substantial grading and vegetation removal activities, which would increase soil erosion rates in the areas of proposed development. The exposure of raw soil to the natural elements (e.g. wind, rain) during grading operations may impact surface runoff by increasing the amount of silt and debris carried by stormwater runoff. Areas with uncontrolled concentration flow will experience loss of material within the graded area and could potentially impact the downstream water quality of area waterways. Refueling and the parking of construction equipment and other vehicles onsite during construction may result in spills of oil, grease or related pollutants that may discharge into on-site drainages. Improper handling, storage or disposal of fuels and materials or improper cleaning of machinery close to area tributaries could also cause water quality degradation. Implementation of **MM 3.8-1a and b** and **MM 3.8-2** will reduce construction water quality impacts to a less than significant level by requiring coverage under the NPDES General Permit and drainage and erosion control plans.	Less than Significant
Impact 3.8-4 Development of the proposed stormwater drainage system may create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems.	Potentially Significant	The Applicant proposes to mitigate project-generated stormwater impacts with construction of drainage system improvements listed above under Impact 3.8-2. Implementation of **MM 3.8-1a** and **3.8-2** will reduce drainage system impacts to a less than significant level by requiring the drainage system be designed with adequate capacity to handle stormwater generated by the proposed	Less Than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		project.	
Impact 3.8-5 The project site is not within the recognized 100-year flood plain.	Less than Significant		
Impact3.8-6 The proposed project will contribute increased demand on the City of Mendota's water supply.	Less than Significant		
Impact 3.8-7 New development, combined with other reasonably foreseeable projects in the City of Mendota, would contribute to increased surface runoff and greater runoff contamination.	Less than Significant		
Land Use and Agriculture			
Impact 3.9-1 The proposed project would result in a conflict with existing policy adopted to avoid or mitigate environmental impacts.	Potentially Significant	Implementation **of MM 3.7-3** will reduce the impact to a less than significant level by limiting the residential density and prohibiting certain commercial uses on that portion of the project site that falls within the Traffic Pattern Zone.	Less Than Significant
Impact 3.9-2 The annexation and project development will not disrupt or divide an established community.	Less than Significant		
Impact 3.9-3 Development of the proposed project could create land use compatibility conflicts with surrounding uses.	Less than Significant		
Public Services and Facilities			
Impact 3.10-1 The proposed project will generate additional demand for law enforcement services.	Potentially Significant	**MM 3.10-1** The project Applicant shall be required to pay all applicable impact fees to address public services impacts. In the absence of sufficient impact fees, the City of Mendota shall assess fees through alternative mechanisms to address public services impacts where a nexus can be demonstrated.	Less than Significant
Impact 3.10-2 Construction of the project will result in	Potentially	**MM 3.10-2** The FCFPD will review and evaluate	Less than

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
additional incremental demand for fire protection services generating the need for additional equipment and personnel.	Significant	the proposed project for compliance with fire safety standards per the Uniform Fire Code and other State and local ordinances. Mitigation Measure 3.10-1 also applies to this impact.	Significant
Impact 3.10-3 The proposed project will increase the number of school-aged children served by the Mendota Unified School District.	Potentially Significant	According to the Mendota Unified School District (MUSD), the proposed project could generate approximately 600 students upon project buildout, which would create additional demand for educational services. State law prohibits a local agency from either denying approval of a land use project due to inadequate school facilities or imposing school impact measures other than designated fees. Therefore, the Applicant shall be required to pay school impact fees of $2.24 per square foot of residential development to the Mendota Unified School District, in accordance with the provisions of the State Education Code and School Facilities Act of 1998. Payment of school impact fees will reduce school related impacts to a less than significant level.	Less than Significant
Impact 3.10-4 The proposed project will accommodate approximately 2,390 new residents at buildout, which will generate additional demand for parks and recreation facilities.	Less than Significant		
Impact 3.10-5 The project, combined with other projects anticipated with the buildout of the General Plan (2010), may result in cumulative impacts to public services and facilities.	Less than Significant	Implementation of **MM 3.10-1** and submittal of a Municipal Service Plan to LAFCO will reduce the impact to a less than significant level.	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
Traffic			
Impact 3.11-1 Buildout of the project is expected to result in increased delays and deterioration of LOS at some roadway segments and intersections.	Potentially Significant	**MM 3.11-1** The Applicant shall design and construct the following roadway improvements prior to residential occupancy, or, The Applicant shall pay its fair share fees to Caltrans at the time of Building Permit issuance, for the listed improvements. Should development proceed in advance of the roadway improvements, building permits will only be issued by the City of Mendota up to the point where a signal warrant is triggered for the intersection of SR 33 and Bass Avenue. Signalization of the SR 33 and Bass Avenue intersection. Installation of a separate left-turn lane for southbound traffic on SR 33. Installation of a separate right-turn lane for northbound traffic on SR 33.	Less than Significant
Impact 3.11-2 Buildout of the proposed project will result in a need for on-site parking facilities.	Less than Significant		
Impact 3.11-3 The proposed project will result in the construction of residential development in a largely rural setting lacking adequate pedestrian facilities, bicycle lanes and stop controls.	Less than Significant		
Impact 3.11-4 Buildout of the proposed project will result in a greater demand for area transit services.	Less than Significant		
Impact 3.11-5 Buildout of the project will result in traffic impacts to existing adjacent uses.	Less than Significant		
Impact 3.11-6 The project, combined with other projects in the vicinity, may result in increased delays and deterioration of LOS at some segments and intersections in	Potentially Significant	Year 2020 traffic was forecast using existing traffic as a base and increased by a growth factor of two percent per year. There is one cumulative project in the vicinity of	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
the Year 2020.		the proposed project that would have a significant impact on traffic. Project trips generated by this development were incorporated into the LOS analysis reflected in Table 3.11-5. Implementation of **MM 3.11-1** will reduce the project's contribution to intersection LOS deterioration to a less than significant level by requiring construction of roadway improvements or payment of fees dedicated towards those improvements in order to address traffic operations and safety impacts.	
Utilities and Service Systems			
Impact 3.12-1 The proposed project would increase demand for, and use of, water resources.	Less than Significant		
Impact 3.12-2 The project would require extension of the existing potable water delivery system to provide water to the project site.	Potentially Significant	**MM 3.12-2** The Applicant shall be responsible for necessary improvements to the water system to serve the proposed project site. All water delivery infrastructure shall be designed in accordance with standards of the City of Mendota prior to approval of final improvement plans.	Less than Significant
Impact 3.12-3 The project will result in an incremental increase in demand for sewer capacity at the City's wastewater treatment plant and require extension of the existing wastewater system.	Potentially Significant	**MM 3.12-3a** Building permits for the proposed project will not be issued until the capacity of the wastewater treatment facility is adequate to accommodate the proposed project. This determination shall be made subject to review and approval by the City of Mendota and the Central Valley Regional Water Quality Control Board. **MM 3.12-3b** The Applicant shall be responsible for necessary improvements to the wastewater system to serve the proposed project site. All sewer infrastructure shall be designed in accordance with standards of the City of Mendota prior to approval of final improvement plans.	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 3.12-4 The proposed project will increase demand for electric, natural gas, telephone and cable services.	Less than Significant		
Impact 3.12-5 The proposed project will increase the amount of solid waste generated at the project site.	Less than Significant		
Impact 3.12-6 The project, combined with other projects anticipated with the buildout of the General Plan (2010), may result in cumulative impacts to the City's wastewater treatment plant.	Potentially Significant	Implementation of the proposed project, in combination with anticipated cumulative development in the project vicinity, will result in an increase in demand for sewer capacity at the City's wastewater treatment plant. Mitigation Measure 3.12-3a requires that building permits for the proposed project not be issued until the capacity of the wastewater treatment facility is adequate to accommodate the proposed project. In addition, the proposed project will require Fresno County LAFCO approval for annexation by the City of Mendota. LAFCO requires that the capacity of public facilities and the adequacy of public services serving the proposed annexation area be analyzed in a Municipal Service Plan, to be included as part of the annexation submittal.	Less than Significant

1.0 Introduction

This Draft Environmental Impact Report (DEIR) for the Don Alejandro Valdez Community Plan has been prepared in accordance with the California Environmental Quality Act (CEQA). The purpose of the DEIR is to evaluate the potential environmental effects associated with the annexation, General Plan Amendment, and prezoning of approximately 68 acres of land located northeast of and adjacent to the City of Mendota. This section summarizes the purpose of the EIR; describes the environmental procedures that are to be followed according to state law; the intended uses of the EIR; the EIR's scope and organization; public review process and impact terminology.

1.1 BACKGROUND AND PURPOSE

The City of Mendota (City) is the Lead Agency in the preparation of this EIR to provide the public, responsible agencies and trustee agencies with information about the potential environmental effects of the proposed Don Alejandro Valdez Community Plan (project). As described in CEQA Guidelines Section 15121(a), an EIR is a public information document that assesses potential environmental effects of the proposed project and identifies mitigation measures and alternatives to the proposed project that could reduce or avoid adverse environmental impacts. Public agencies are charged with the duty to consider and minimize environmental impacts of proposed development where feasible, and have an obligation to balance a variety of public objectives, including environmental, economic and social factors.

CEQA requires the preparation of an EIR prior to approval of any "project" that may have a significant effect on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has potential to result in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed Don Alejandro Valdez Community Plan, the City has determined the annexation (and reasonably foreseeable development) of the property is a "project" within the definition of CEQA, which has the potential to result in significant environmental effects.

1.2 TYPE OF DOCUMENT

CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a "Program" EIR pursuant to CEQA Guidelines Section 15168. A Program EIR is an EIR, which may be prepared for a series of actions that can be characterized as one large project and are related either:

1) *Geographically,*
2) *As logical parts in the chain of contemplated actions,*

3) *In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or*

4) *As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.*

In this case, a series of actions in the form of project phasing and individual development proposals are anticipated over time within a defined geographic area.

1.3 INTENDED USES OF THIS EIR

This EIR has been prepared in accordance with CEQA and is consistent with the most recent edition of the CEQA Guidelines and its updates. This document will be used by the City of Mendota and any other responsible or reviewing agency as a first-tier document to identify and evaluate significant environmental issues at the project site. This analysis is based on the potential effects of the proposed project, as measured against the existing condition of the site and its surroundings. Section 2.0 contains a detailed Project Description. Actions that would be taken relative to the project evaluated in this EIR are listed under subheading 2.7, Requested Actions and Required Approvals.

1.4 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR will involve the following procedural steps:

NOTICE OF PREPARATION

In accordance with Section 15063 of the CEQA Guidelines, the City of Mendota determined that an EIR would clearly be necessary for the project; therefore, no Initial Study was prepared. In accordance with Section 15082(a) of the CEQA Guidelines, the City prepared a Notice of Preparation (NOP) of an EIR in March 2005. The NOP is included in the Appendices. The NOP was circulated to the public, local, state, and federal agencies, and other interested parties to solicit comments on the proposed project. Concerns raised in response to the NOP were considered during preparation of the Draft EIR and are also included in the Appendices.

DRAFT EIR

The DEIR contains a description of the project, description of the environmental setting, identification of project impacts and effects found not to be significant, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives. Upon completion of the DEIR, the City will file a Notice of Completion (NOC) with the

State Office of Planning and Research, in accordance with Section 15085 of the CEQA Guidelines. This begins the public review period (Public Resources Code, Section 21161) for the DEIR.

PUBLIC NOTICE/PUBLIC REVIEW

Concurrent with the NOC, the City will provide public notice of the availability of the DEIR for public review in accordance with CEQA Guidelines Section 15087(a) and will invite comment from the general public, Responsible Agencies, organizations, and other interested parties. The review period in this case will be 45 days. Although no public hearings on the EIR are required by CEQA, the City may hold a public review meeting during the 45-day review period at which time public comment on the DEIR will be accepted both in written form and orally. Notice of the time and location of the hearing will be published prior to the meeting.

All comments or questions regarding the Draft EIR should be addressed to:

Gabriel A. Gonzalez, City Manager
City of Mendota
643 Quince Street
Mendota, CA 93640
Phone: (559) 655-3291

RESPONSE TO COMMENTS/FINAL EIR

Following the public review and comment period for the DEIR, a Final EIR (FEIR) will be prepared. The FEIR will respond to written comments received during the public review and comment period and to oral comments made at any public hearings. The Planning Commission and City Council will review and consider the FEIR prior to their decision to approve, revise or reject the proposed project.

CERTIFICATION OF THE EIR

If the City finds that the FEIR is "adequate and complete," the City may certify the FEIR. The rule of adequacy generally holds that the EIR can be certified if: 1) it shows a good faith effort at full disclosure of environmental information, and 2) provides sufficient analysis to allow decisions to be made regarding the project in contemplation of environmental considerations.

PROJECT CONSIDERATION

Upon review and consideration of the FEIR, the City may act upon the project. A decision to approve the project would be accompanied by written Findings in accordance with CEQA Guidelines Section 15091 and, if applicable, Section 15093 (Statement of

Overriding Considerations). As an annexation, the proposal also requires approval by the Fresno County Local Agency Formation Commission (LAFCO). If the FEIR is certified by the City Council, the City will subsequently petition LAFCO for the annexation and boundary adjustment.

MITIGATION MONITORING

The City must also adopt a Mitigation Monitoring and Reporting Program for mitigation measures that have been incorporated into or imposed upon the project to reduce or avoid significant effects on the environment (Public Resources Code Section 21081.6(a)). This program will be designed to ensure that these measures are carried out during project implementation. The specific reporting or monitoring program required by CEQA is not required to be included in the EIR. Throughout the EIR, however, mitigation measures have been clearly identified and presented in language that will facilitate establishment of a monitoring and reporting program. Any mitigation measures adopted by the City as part of the certified FEIR will be considered as conditions for approval of the project and will be included in the Mitigation Monitoring and Reporting Program to ensure and verify compliance.

1.5 SCOPE AND ORGANIZATION

Sections 15122 through 15132 of the CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include:

- a description of the environmental setting;
- an environmental impact analysis;
- mitigation measures;
- alternatives;
- significant irreversible environmental changes;
- growth-inducing impacts; and
- cumulative impacts.

The environmental issues addressed in the DEIR were established through the preparation of environmental documentation and supporting technical reports developed for the project, public agency responses to the Notice of Preparation, and comments received. Based upon documentation, technical reports, NOP responses, agency consultation and review of the project application, the City has determined the scope for this EIR. This Draft EIR is organized in the following manner:

SECTION S - EXECUTIVE SUMMARY

This section summarizes the characteristics of the proposed project and provides a concise summary matrix of the project's environmental impacts, associated mitigation measures and project alternatives.

SECTION 1.0 - INTRODUCTION

This section provides an introduction and overview describing the intended use of the EIR and the review and certification process.

SECTION 2.0 - PROJECT DESCRIPTION

This section provides a detailed description of the proposed project, including intended objectives, background information, and physical and technical characteristics of the project.

SECTION 3.0 - ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

This section contains an analysis of environmental topic areas to be addressed, as identified below. Each subsection contains a description of the existing setting of the project area, identifies project-related impacts, and recommends mitigation measures where necessary.

The following major environmental topics shall be addressed in this section:

- ***3.1 Aesthetics and Visual Resources:*** The potential change in character as measured against the existing setting and visual conditions of the project area is discussed. Project visibility, scale, additional light and glare and community character are considered relative to the existing character of the area.

- ***3.2 Archaeological and Cultural Resources:*** This section analyzes the presence or absence of potentially significant resources and examines the results of a general sensitivity review based upon database searches, known resources in the area and surveys.

- ***3.3 Air Quality:*** This section addresses the requirements of the San Joaquin Valley Air Pollution Control District and analyzes local and regional air quality impacts associated with project implementation, including long-term operational emissions from mobile and stationary sources.

- ***3.4 Biological Resources:*** Potential impacts upon biological resources in the affected area are analyzed. This section emphasizes the potential degradation or elimination of important species and the impacts on listed, proposed and candidate threatened and endangered species.

- ***3.5 Geology and Geologic Constraints:*** This section examines potential geologic and seismic hazards, as well as any engineering constraints and general soil suitability for the land uses proposed for the project site.

- ***3.6 Noise:*** Compatibility between the existing noise environment and anticipated noise levels generated by the project and cumulative noise from area roadways are examined. Noise impacts from the adjacent Mendota Municipal Airport are also evaluated.

- ***3.7 Hazards and Hazardous Materials:*** The potential presence of hazardous materials and contaminated soil on the project site is discussed. The potential risk of these conditions in proximity to existing and proposed development and human activities is evaluated. Potential hazards due to the proximity of the Mendota Municipal Airport are also evaluated.

- ***3.8 Hydrology and Water Quality:*** The impacts of the proposed project on hydrology, storm drainage and water quantity and quality are discussed. The analysis identifies existing drainage patterns and the planned storm drainage improvements.

- ***3.9 Land Use and Agriculture:*** The project's relationship to relevant regional and local plans is discussed, including the City of Mendota General Plan and other local planning documents. The analysis focuses on project consistency with adopted plans and policies. This section also provides a thorough discussion of LAFCO policies governing annexations.

- ***3.10 Public Services and Utilities:*** This section addresses the availability of existing public facilities and calculates demand generated by the project for additional facilities such as schools, parks, police and fire services It also provides a general assessment of additional system requirements and physical improvements needed to serve the buildout demands of the project.

- ***3.11 Traffic and Circulation:*** This section examines potential impacts on the area roadway network, including roadway segments and intersections. Existing roadway conditions, existing plus project conditions and cumulative conditions are evaluated.

- ***3.12 Utilities and Service Systems:*** This section provides a general assessment of additional utilities requirements and physical improvements needed to serve the project upon buildout.

SECTION 4.0 – ALTERNATIVES TO THE PROJECT

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project, which could feasibly attain the basic objectives of the project and avoid and/or lessen the environmental effects of the project. This alternatives analysis compares the proposed project and the selected alternatives. These alternatives include:

- ***Alternative 1 – No Project / No Development:*** CEQA Guidelines Section 15126.6(e)(3) requires that a "No Project" alternative be evaluated as part of an EIR, proceeding along one of two lines: the project site remaining in its existing undeveloped state or development of the project site under existing underlying land use designations. The "No Project" alternative considers the comparative environmental effects of not approving the proposed project, with the site remaining in its current ruderal, undeveloped condition.

- ***Alternative 2 – Reduced Project Size / No Development Within Airport Safety Zones:*** The proposed project is located adjacent to the northwestern end of the Mendota Municipal Airport and is subject to the requirements of the *Fresno County Airport Land Use Policy Plan* (1983). The eastern portion of the project site is partially contained within the designated Traffic Pattern Zone; this is considered a potentially significant impact due to hazards posed by airport operations. Mitigation Measures listed in **Section 3.7 Hazards**, will require that portion of the project site falling within the Traffic Pattern Zone be subject to residential density restrictions; prohibition of certain commercial uses such as schools, hospitals, nursing homes or similar uses (including child care facilities) and significant open space requirements. This alternative assumes a reduction in the overall project size by leaving that portion of the project site falling within the Traffic Pattern Zone as permanent open space.

- ***Alternative 3 – Decreased Density:*** This alternative assumes a smaller project size by reducing the number of dwelling units by 25 percent. Under this scenario, the number of single-family homes would be reduced to 55 from the proposed 73 and multiple-family/farm labor housing units would decrease to 360 from 480. The associated population would be reduced by approximately 600 residents at project buildout. The intent of this scenario is to reduce traffic, noise, air quality, public services and utilities impacts.

SECTION 5.0 – CUMULATIVE IMPACT SUMMARY

This section evaluates the cumulative impacts generated by a list of past, present and reasonably foreseeable future projects in proximity to the project area, as identified by the City of Mendota and County of Fresno, along with various technical analyses. This

information is coordinated with the traffic analysis to ensure that it is consistent with cumulative growth.

SECTION 6.0 – OTHER SECTIONS REQUIRED BY CEQA

This section contains required discussions and analyses of various topical issues mandated by CEQA Guidelines Section 15126.2, including: significant and unavoidable environmental effects; growth inducing impacts; irreversible environmental changes and effects found not to be significant.

SECTION 7.0 - REPORT PREPARERS AND REFERENCES

The purpose of this section is to provide a list of all authors and agencies that assisted in the preparation of the report by name, title, and company or agency affiliation. It also itemizes supporting and reference data used in the preparation of the Draft EIR and lists all governmental agencies, organizations, and other individuals consulted in preparing the Draft EIR.

APPENDICES

This section includes all notices and other procedural documents pertinent to the EIR, as well as all technical reports prepared in support of the analysis.

1.6 IMPACT TERMINOLOGY

This Draft EIR uses the following terminology to describe environmental effects of the proposed project:

- ***Standards of Significance:*** A set of criteria used by the lead agency to determine at what level, or "threshold", an impact would be considered significant. Significance criteria used in this EIR include the CEQA Guidelines and Statutes; factual or scientific information; regulatory performance standards of local, state, and federal agencies; and the Goals, Objectives, and Policies of the City of Mendota General Plan.

- ***Less Than Significant Impact:*** A less than significant impact would cause no substantial change in the environment and no mitigation is required.

- ***Potentially Significant Impact:*** A potentially significant impact may cause a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects using specified standards of significance. Mitigation measures and/or project alternatives are identified to reduce project effects to the environment.

- ***Significant Unavoidable Impact:*** A significant and unavoidable impact would result in a substantial change in the environment for which no feasible mitigation is available to reduce the impact to a less than significant level, although mitigation may be available to lessen the degree of the impact.

- ***Cumulative Impact:*** Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

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2.0 Project Description

2.1 OVERVIEW OF THE PROJECT

The project Applicant, I-5 Social Services Corporation (hereinafter "project Applicant" or "Applicant"), has applied to the City of Mendota to develop a mixed-use farmworker community on approximately 68 acres located adjacent to the northeastern incorporated City limits within Mendota's designated Sphere of Influence (SOI).

The Applicant, a non-profit organization located in Fresno, proposes to develop The Don Alejandro Valdez Community Plan (project), consisting of affordable housing, regional job training and education facilities, professional offices, commercial amenities, child care center and transportation services.

The project involves the annexation of property into the City of Mendota. The proposed annexation is technically a reorganization, involving annexation of territory to the City of Mendota and detachment from Fresno County. The project site is currently designated by the City of Mendota as Agriculture for the area north of Bass Avenue and Multi-Use Open Space south of Bass Avenue. Fresno County designates the northern portion as Agriculture and the southern as proposed Open Space. The site is zoned by the County as AE-20 (Exclusive Agriculture, 20-acre minimum parcel size) on the north and AL (Limited Agriculture) on the south. As part of the annexation process, the site will be prezoned by the City as R-1 (Medium Density/Single-Family Residential), R-3 (High Density/Multiple Family Residential) and C-3 (Central Commercial).

The project will require a General Plan amendment, zone change and subdivision. In addition, the Applicant requests an amendment to the City of Mendota's Redevelopment Plan to allow the project site to be incorporated in the City's Redevelopment Project Area. Project details are described below, consistent with CEQA Guidelines Section 15124.

2.2 REGIONAL LOCATION

The project site is located adjacent to the City of Mendota, situated in the San Joaquin Valley in central Fresno County. The San Joaquin Valley is considered one of the most productive agricultural regions in the world. U. S. Highway 5 is the main regional highway linking central California to Stockton, 115 miles to the north. The City is located along Highway 33 approximately 37 miles east of Fresno, 162 miles south of Sacramento and 137 miles north of Bakersfield. Neighboring communities within a 25-mile radius include the cities of Dos Palos and Firebaugh to the north, and San Joaquin and Kerman to the south. The project's regional location is illustrated in **Figure 2-1.**

2.3 PROJECT SITE AND IMMEDIATE VICINITY

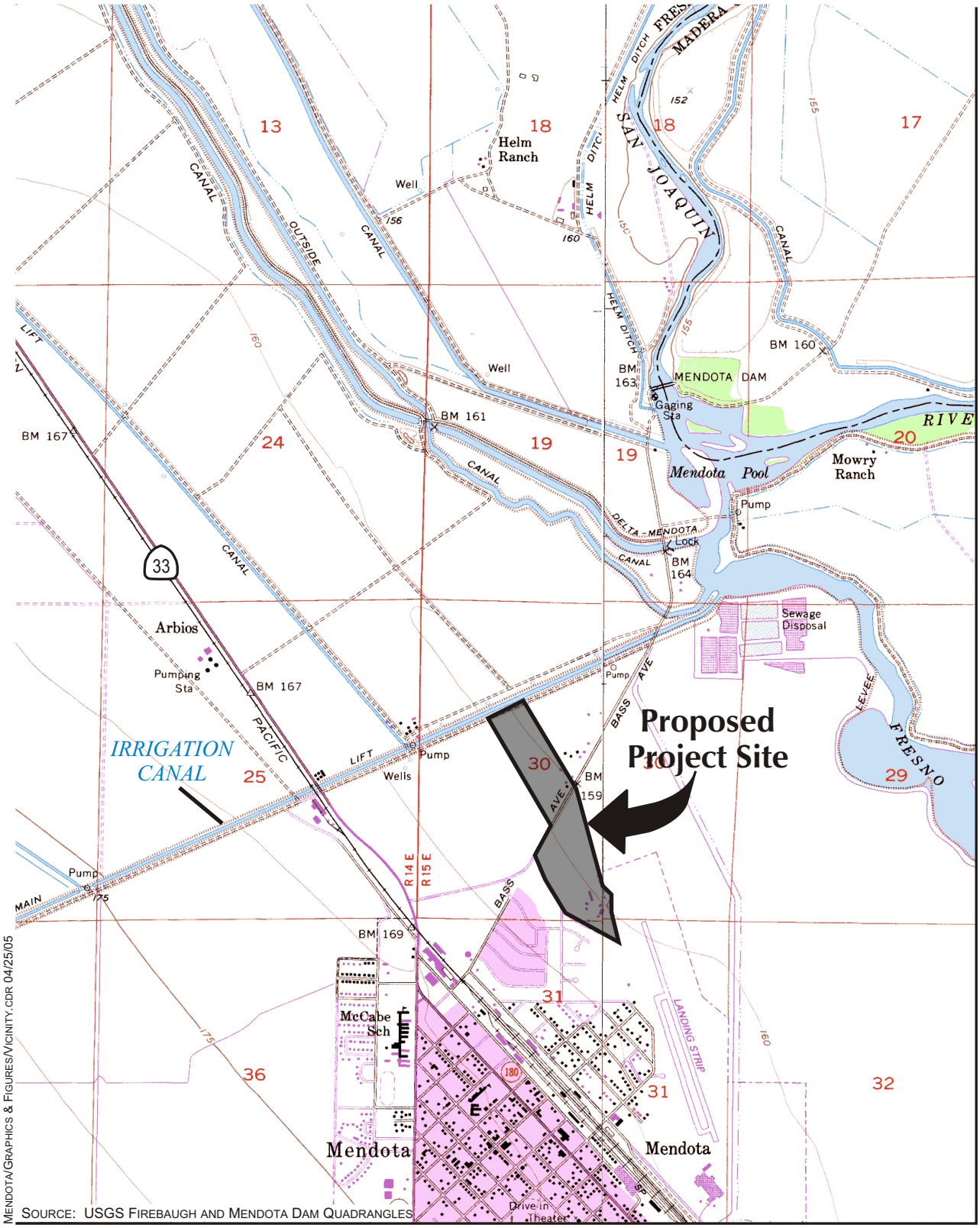
The project site is located on the City's northeastern edge, immediately east of the incorporated boundary of Mendota. Bass Avenue bisects the site diagonally. The 68-acre site consists of four parcels under various ownerships: Assessor's Parcel Numbers (APN) 013-050-12S, 013-05045S, 013-060-09S and 013-050-13. The project Applicant, a non-profit organization located in Fresno, owns one parcel and holds options on the remaining three parcels. Prior to annexation, the Applicant will either exercise their option to purchase or the current owners will have to consent to the annexation.

The topography of the project site and relative vicinity is generally flat, typical of the region. The site lies at an elevation of approximately 165 feet above mean sea level with the ground surface sloping gently to the east. The site is predominately open space and fallow agricultural land occupied by a large metal storage building and several piles of demolished labor housing. There are also approximately a half dozen abandoned buses, tires, and metal drums containing unspecified substances. A portion of the site was once used as a farm labor-housing complex. Therefore, along with the demolished structures, an abandoned parking lot and lighting fixtures remain on the site. An intake canal borders the property to the north and a drainage canal bisects the site on the east side of Bass Avenue.

The project site and vicinity is illustrated in **Figures 2-2 and 2-2. Table 2-1**, below, summarizes the ownership, size, current uses, and improvements on each parcel.

TABLE 2-1
SUMMARY OF OWNERSHIP AND CURRENT SITE USE

APN	Address	Owner	Size (acres)	Current Use	Improvements
013-050-12S (Portion)	4819 N. San Diego Avenue Firebaugh, CA 93622	Etchegoingberry Family Limited Partnership	23.00	Fallow agricultural land/ open space	Dirt road along the northeast side, canal along north side
013-050-45S	PO Box 67 Mendota, CA 93640	Silver Creek Packing Company	35.09	Fallow agricultural land/ open space	Abandoned parking lot, large metal storage building, demolished farmworker housing
013-060-095	PO Box 67 Mendota, CA 93640	Silver Creek Packing Company	4.01	Fallow agricultural land/ open space	None
013-050-13	6621 N. Ferger Avenue Fresno, CA 93704	Alex P,Eva E Valdez	5.67	Fallow agricultural land/ open space	Canal along north side
		TOTAL	**67.70**		



MENDOTA/GRAPHICS & FIGURES/VICINITY.CDR 04/25/05

SOURCE: USGS FIREBAUGH AND MENDOTA DAM QUADRANGLES

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SCALE IN MILES

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FIGURE 2.1
PROJECT VICINITY

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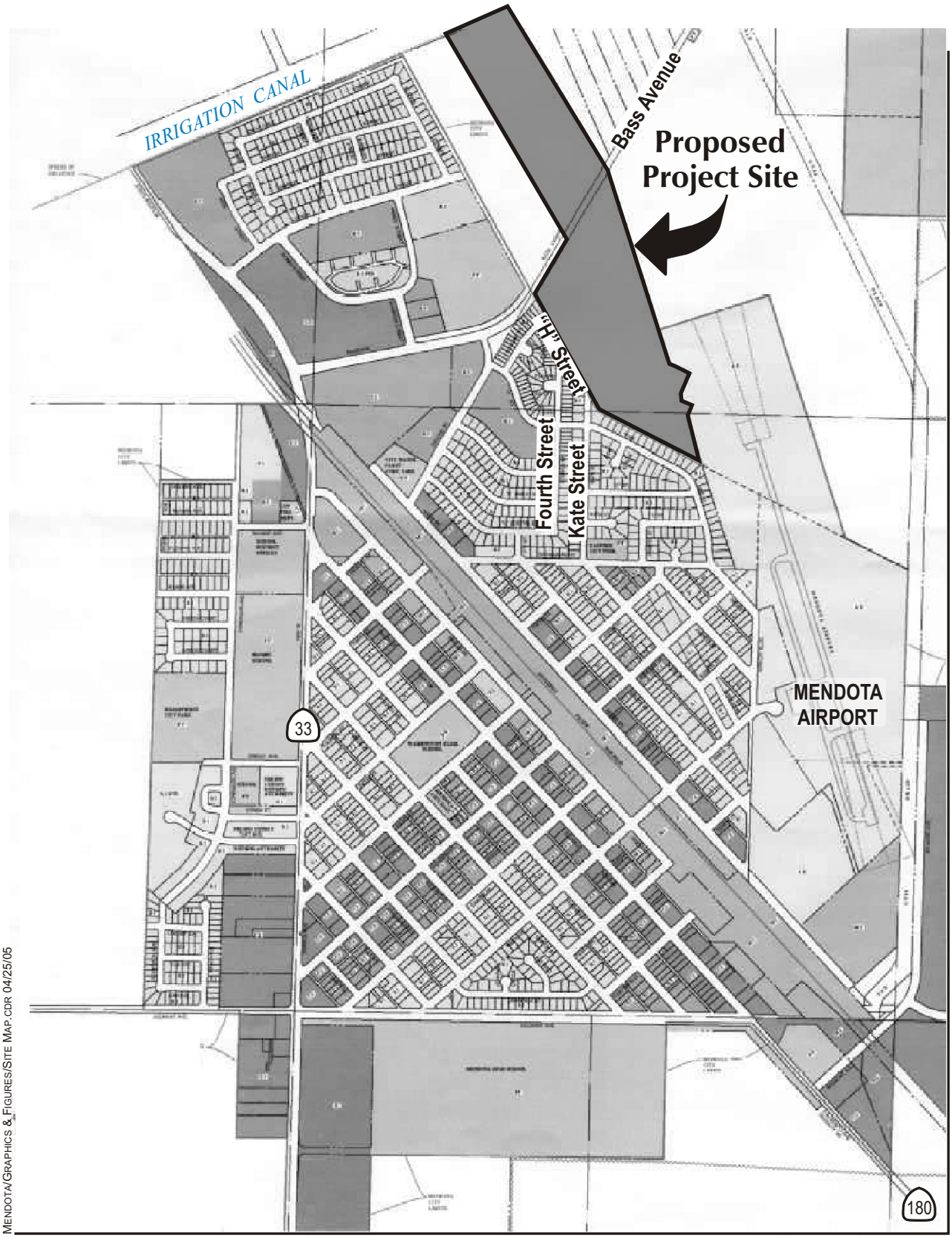

MENDOTA/GRAPHICS & FIGURES/SITE MAP.CDR 04/25/05

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FIGURE 2.2
PROJECT SITE

PMC
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SURROUNDING LAND USES

The proposed project site is bound to the north by the Firebaugh Main Lift Canal, a regional irrigation canal, and vacant unincorporated County land to the east. The Mendota Airport borders a portion of the site to the southeast

Adjacent parcels to the north, east and southeast have been historically used for farming and are currently vacant. The parcels to the northeast of the site contain several rural residences interspersed with agricultural storage. The adjacent parcel immediately northwest of the project site, within the City Limits, is Phase 1 of the Hacienda Gardens residential development. A retention basin and an unmanicured sports field border the site to the west, and Mendota Park, an older residential subdivision, is located adjacent the project site's southwestern boundary. The bounding residential streets are quiet and semi-rural in character with very little vehicular traffic. The United Health Center, the Village at Mendota, and the Country Way Apartments are visible from the site. An adjacent biomass plant dominates the skyline to the south.

The project's site and surrounding land uses are illustrated in **Figure 2-3**.

2.4 PROJECT RELATIONSHIP TO EXISTING PLANNING DOCUMENTS

The project site is currently under Fresno County jurisdiction and has a *Fresno County General Plan* designation as Agriculture for that portion of the site lying north of Bass Avenue and proposed Open Space, south of Bass Avenue. The site is zoned by the County as AE-20 (Exclusive Agriculture, 20-acre minimum parcel size) on the north and AL (Limited Agriculture) on the south. The project site is designated by the City of Mendota as Agriculture for the northern portion and Multi-Use Open Space on the south. The project site is within the existing Fresno County Local Agency Formation Commission (LAFCO) recognized SOI and has been anticipated for annexation into the City of Mendota over the long-term.

Annexation is the process by which a city increases its incorporated land area and extends its municipal services and utilities, regulations, voting privileges and taxing authority to new territory that is already within the SOI. The SOI is a planning tool adopted and used LAFCO to designate the future incorporated boundary and service area for a city or special district. Within the SOI, the municipality or district is empowered to plan for future land uses and service/facility improvements.

The Applicant's intent is to have the site designated as Single Family Residential, Multiple Family Residential and Commercial. In conjunction with the annexation process, the area would be prezoned R-1 (Medium Density/Single Family Residential), R-3 (High Density/Multiple Family Residential) and C-3 (Central Commercial).

The project requires a General Plan amendment, Zoning Map amendment and subdivision. In addition, the Applicant is requesting a Redevelopment Plan Amendment. Each of these items is briefly described below.

Prezoning. As part of the annexation process, the site will be prezoned R-1 (Medium Density/Single Family Residential), R-3 (High Density/Multiple Family Residential), and C-3 (Central Commercial).

General Plan Amendment. The project requires a change in the *Mendota General Plan* designation of the site from Agriculture and Multi-Use Open Space to Single Family Residential, Multiple Family Residential and Commercial.

Tentative Subdivision Map. A tentative subdivision map submitted by the Applicant creates 8 lots in order to implement the components of the project.

Redevelopment Plan Amendment. The Applicant requests an amendment to the City of Mendota's Redevelopment Plan to allow the project site to be incorporated in the City's Redevelopment Project Area.

A complete analysis of the project compared to existing plans and policies is contained in **Section 3.1**.

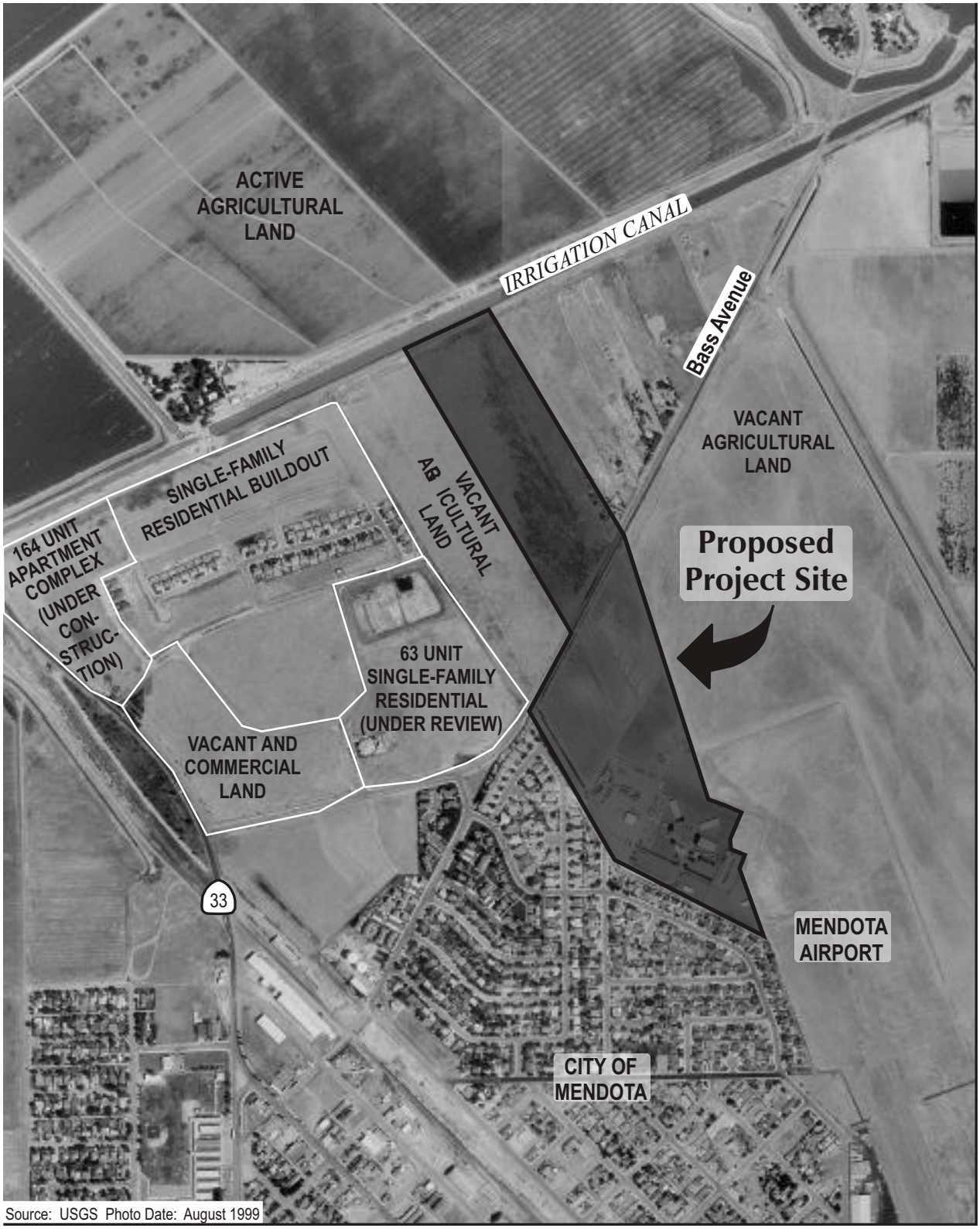

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FIGURE 2.3
SURROUNDING LAND USE

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2.5 PROJECT OBJECTIVES

Consistent with CEQA Guidelines Section 15124(b), a clear statement of objectives and the underlying purpose of the project shall be discussed. The following description of the project objectives is based on information provided by the project Applicant.

The principal objectives of the Don Alejandro Valdez Community Plan project are as follows:

- Annexation into the City of Mendota, General Plan Amendment and prezoning of approximately 68 acres, and extension of necessary services in accordance with LAFCO policy;
- To establish the land use, environmental, and processing framework for the planned development of residential, commercial and public uses;
- To accommodate increased demand for housing within the City of Mendota and Fresno County by providing a variety of affordable housing including farmworker family housing, multi-family housing and low to mid-income single-family homes;
- To provide regional transportation for farmworkers by creating a Regional Transportation Terminal that accommodates mass transit;
- To provide local commercial amenities through the development of a commercial center that will accommodate up to 40,000 square feet of space and may include a market place, and government center that houses several federal, state, or local agencies and professional offices;
- To provide child care through the development of a 10,000 square foot child care center; and
- To establish a pattern of contiguous urban development within the northeastern side of the City's Planning Area, as identified in the General Plan.

These objectives are critical in the evaluation of the comparative merits of the Project Alternatives in Section 4.0 of this document.

2.6 PROJECT CHARACTERISTICS

The Applicant proposes to create a "Farmworker Community" that consists of a mix of affordable multi-family housing and low to moderate income single-family housing, regional job training and education center, commercial amenities, childcare and transportation services. Identified land uses are illustrated conceptually as **Figure 2-4** and are listed in **Table 2-2** below.

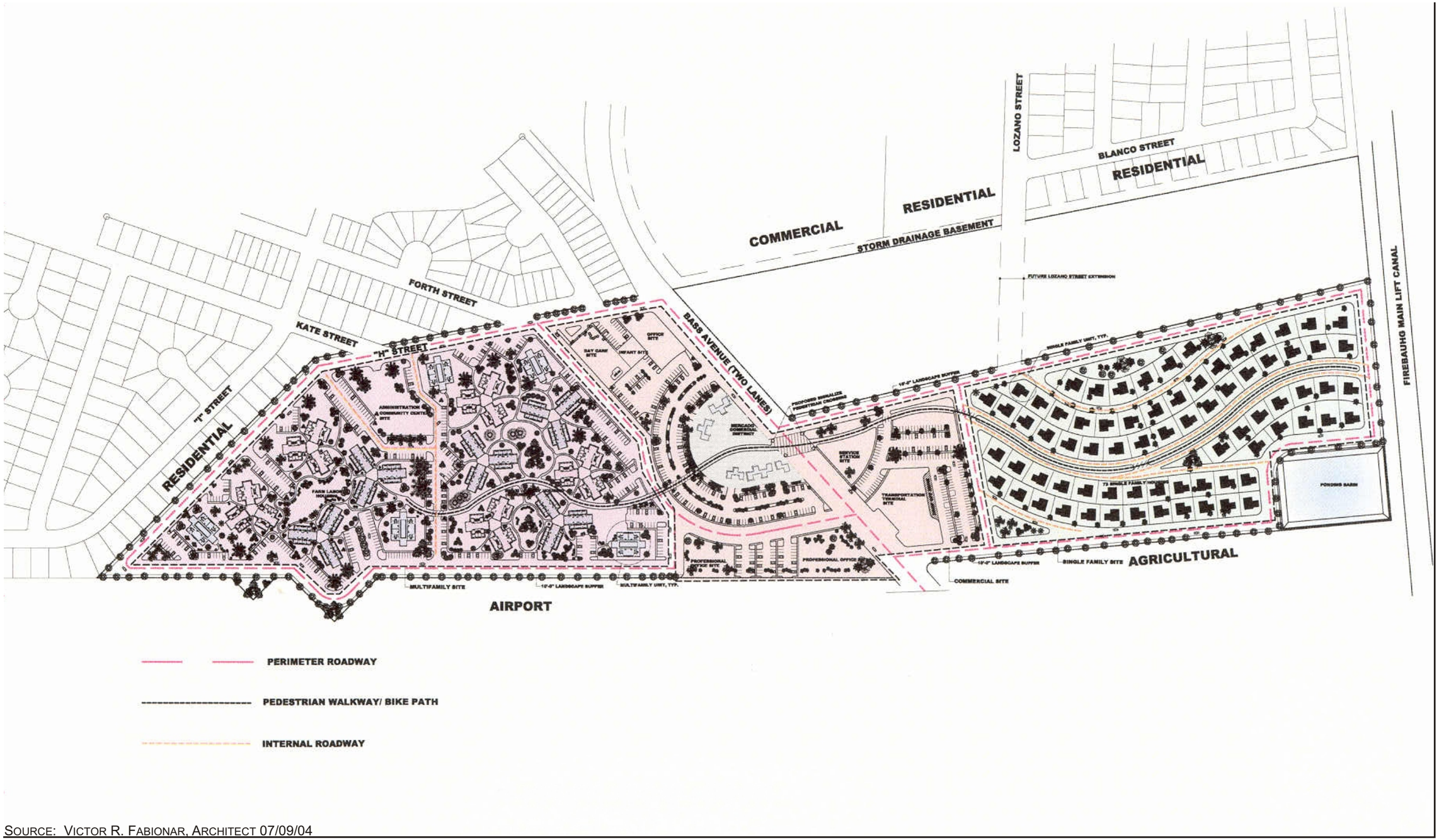
TABLE 2-2
PROJECT LAND USES

Land Use	# Units	Net Acreage
Residential Components		
Single-Family Housing (acreage includes potential detention basin)	73	22.11
Multi-Family Housing / Farm Labor Housing / Community Center	480	23.83
Commercial / Office / Transportation Components		
Farm Labor Transportation Terminal / Government Services Station	N/A	4.87
Commercial Center (Market Place)	N/A	4.65
Child Care Facility	N/A	2.64
Professional Office	N/A	2.38
Total	**553**	**60.48**

Source: Don Alejandro Valdez Schematic Master Plan (Revised, Jan. 28, 2005) & Tentative Tract Map #5003 (Revised, Jan. 31, 2005)

The Applicant proposes to implement the project in three phases. Phase I includes the development of a child care facility and low to moderate income single-family homes. Phase II includes construction of multi-family housing, farm labor housing and Transit Center. Phase III includes development of a commercial center that could include a Mexican Mercado, one-stop government center and/ or professional office space. The exact order and timing of the implementation of these phases is not determined at this time.

In 1999 the Applicant, in association with the City of Mendota, received a Rural Housing and Economic Development Grant from the U. S. Department of Housing and Urban Development (HUD). This grant funds preliminary planning and permitting activities toward the development of the rural farmworker community.



MENDOTA/GRAPHICS & FIGURES/SCHEMMATIC MASTER PLAN.CDR 05/02/05

SOURCE: VICTOR R. FABIONAR, ARCHITECT 07/09/04

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SCALE IN FEET

FIGURE 2-4
SCHEMATIC MASTER PLAN

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No subdivision maps or detailed site plans are proposed as part of the annexation request at this time; however, the project Applicant has produced a preliminary land use "concept plan" for the annexation area depicting general locations and acreage of the proposed land uses. It is assumed that the annexation area will be fully developed within approximately 15 years. Infrastructure, lot platting and other improvements will be discussed upon receiving future, more detailed development proposals within the annexation area.

The Applicant's conceptual plans are discussed in more detail below.

CONCEPTUAL PLANS

A total of 73 single-family homes are proposed for the northern portion of the site for low and moderate-income families. Single-family homes will be available to rent or own. The Applicant also intends to build a total of 480 multi-family units with densities that will not exceed 16 units per acre. Multi-family units will offer open space, covered carports, and floor plans accommodating up to four bedrooms. Of the 480 multifamily units, 160 units will be developed as farmworker housing and will be built to accommodate both single persons as well as families, and will incorporate open space elements into their design.

The Applicant anticipates that the commercial center will encompass the following uses: retail establishments, professional offices, childcare facility and a "one stop" Government Center. The professional offices may be occupied by those in the medical, dental, insurance or legal professions, while prospective tenants of the Government Center include: The State Department of Motor Vehicles, the Employment Development Department, the State Highway Patrol, the Fresno County Sheriff Department and a field office for the U. S. Department of Agriculture (USDA). These Commercial tenants represent the 's vision, however, no leases have been secured for any of these potential uses.

The proposed commercial center includes a 10,000 square-foot childcare facility. The facility will be designed to care for approximately 200 children. The facility will be open to those living and working at the project site, as well as other families living and working in and around the City of Mendota and immediate vicinity.

In order to provide regional accessibility, the project includes a Regional Transportation Terminal. Upon completion, the Transportation Terminal will provide an accessible mode of transportation into, and out of the farmworker community. Development of the Transportation Terminal will be coordinated with the Federal and State Departments of Labor and Commerce.

INFRASTRUCTURE

The City's water supply is provided by groundwater resources consisting of three domestic wells. All of the wells are located north of the city along the west side of Bass Avenue. To service the development the Applicant proposes to install a 12-inch line from the intersection of Second Street and Bass Avenue that will connect to the converted 10-inch water main along the project's frontage. The Applicant will also install 8-inch and 10-inch lines that will connect to existing mains beneath 4th and Kate Streets. New 8-inch and 10-inch lines will also service the northern portion of the site connecting to the existing water main at Lozano Street (Hacienda Gardens).

The existing Mendota Wastewater Treatment Plant (WWTP) is located outside the city limits, northeast of the Mendota Municipal Airport. Facilities consist of an effluent lift station, Parshall flume, two aerated lagoons and nine oxidation ponds. The project site is within the WWTP service district and proposes to connect to the existing 30-inch sewer interceptor along the southerly right-of-way in Bass Avenue. The northern portion of the site will also connect to this 30-inch line.

The Applicant has not proposed any stormwater drainage, grading or erosion control plans at this time.

2.7 REQUESTED ACTIONS AND REQUIRED APPROVALS

This EIR provides the environmental information and analysis and primary CEQA documentation necessary for the City to adequately consider the effects of the requested land annexation and prezoning. The City of Mendota, as lead agency, has approval authority and responsibility for considering the environmental effects of the whole of the project. In order to implement the proposed project, an application has been prepared by the City. Concurrent and subsequent actions that would be taken relative to the project evaluated in this EIR may include:

- Prezoning of parcels and General Plan Amendment;
- Local Agency Formation Commission (LAFCO) approval of the City boundary adjustment. (Annexation);
- Redevelopment Plan amendment.

Future approvals within the annexation area will require CEQA compliance, separate from this environmental review, and may include, but are not limited to:

- Approval of Subdivision Maps, pursuant to the Subdivision Map Act;
- Zoning Approvals;

- Site Plans;
- Utility Plans;
- Conditional Use Permits;
- Development Agreements;
- Grading and Building Permits; and/or
- All related subsequent actions to the greatest extent possible.

In addition, the project will require City review and approval of any subsequent development agreements.

EFERENCES / DOCUMENTATION

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3.0 Environmental Setting, Impacts and Mitigation Measures

Section 3.1
Aesthetics and Visual Resources

This section of the EIR identifies potential visual and aesthetic impacts that could occur as a result of the project. The primary visual and aesthetic concerns are the general changes in land use and visual character from agricultural uses to urban uses and the potential impacts to existing views from adjacent properties and public viewing areas. Visual impacts were evaluated using a combination of site reconnaissance, photo documentation and review of existing policy documents.

3.1.1 EXISTING SETTING

PLANNING AREA SETTING

Incorporated in 1942, the City of Mendota is located in western Fresno County. As part of the San Joaquin Valley, the City of Mendota has retained much of its agricultural character. The elevation of the City is approximately 165 feet above sea level. The terrain is mostly flat and level and slopes downward towards the east, with no significant hills or topographic features. Located nine miles south of Firebaugh and 37 miles west of Fresno, Mendota is bounded by vast agricultural lands that slowly transition into more urbanized areas. The Mendota wildlife refuge is located east of the City and includes mostly riparian habitat. The Delta Mendota Canal is located east of the City and flows into the Sewage Treatment Facility outside of the city limits. The City of Mendota lies within the Panoche/Silver Creek Watershed and is part of the Firebaugh Canal Water District. Due to occasional flooding from the Panoche Creek and as a result of surface water contracts, numerous drainage and irrigation canals traverse the City. State Routes 33 and 180 provide access to the City and the Southern Pacific Railroad established a storage and switching facility in Mendota in 1891.

VISUAL CHARACTER OF THE ANNEXATION AREA

The 68-acre project site is located north and south of Bass Avenue, east of State Route 33, and northeast of the incorporated boundary of the City of Mendota. The bounding residential streets are quiet and semi-rural in character with very little vehicular traffic space. Bass Avenue and State Route 33 experience moderate to heavy traffic flow during peak hours. Adjacent parcels to the north, east and southeast are vacant and were primarily used for farming. The incorporated City limit line forms the project site's western and southwestern boundary. The adjacent parcel immediately west of the project site, within the City limits, is Phase 1 of the Hacienda Gardens development. Mendota Park, an older residential subdivision is located adjacent the project's southwestern boundary. The United Health Center, The Village at Mendota, and the Country Way Apartments are all visible from the site. A retention basin and an unmanicured sports field border the site to the west, while the adjacent biomass plant is visible in the skyline to the south.

The project site is predominately open space and fallow agricultural land occupied by a large metal storage building and several piles of demolished labor housing. There are also approximately a half dozen abandoned buses, tires, and metal drums containing unspecified substances. A portion of the site was once used as a farm labor-housing complex. Therefore, along with the demolished structures, an abandoned parking lot and lighting fixtures remain on the site. An intake canal borders the property to the north and a drainage canal bisects the site on the east side of Bass Avenue. Existing conditions of the Don Alejandro project site can be seen in **Figures 3.1-1a** and **b**.

SCENIC VISTAS

A scenic vista is a view of natural environmental, historic, and/or architectural features possessing visual and aesthetic qualities of value to the community. Views from the project site include vast expanses of vacant farmland, agricultural machinery, and rural housing. Views of modern residential developments are also available from the project site. Surrounding views from the project site represent a blend of past economic and cultural influences and modern developments. **Figure 3.1-2** provides views of adjacent land uses.

SCENIC RESOURCES

Scenic resources include but are not limited to, trees, rock outcroppings, historic buildings and scenic highways. The proposed project site primarily consists of fallow agricultural land; there are no significant scenic resources within the project site. Development of the project would not substantially degrade the view of any scenic resource for the surrounding land uses or future residents.

Project Site South of Bass Avenue

Project Site North of Bass Avenue

(A) PROJECT SITE PHOTOS.CDR 04/25/05

PHOTO DATE: 05/13/03

FIGURE 3.1-1A

PROJECT SITE PHOTOS

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Dilapidated Housing and Agricultural Vehicles to the Northeast of the Site

View of Hacienda Gardens to the West

(B) PROJECT SITE PHOTOS.CDR 04/25/05

PHOTO DATE: 05/13/03

FIGURE 3.1-1B
PROJECT SITE PHOTOS

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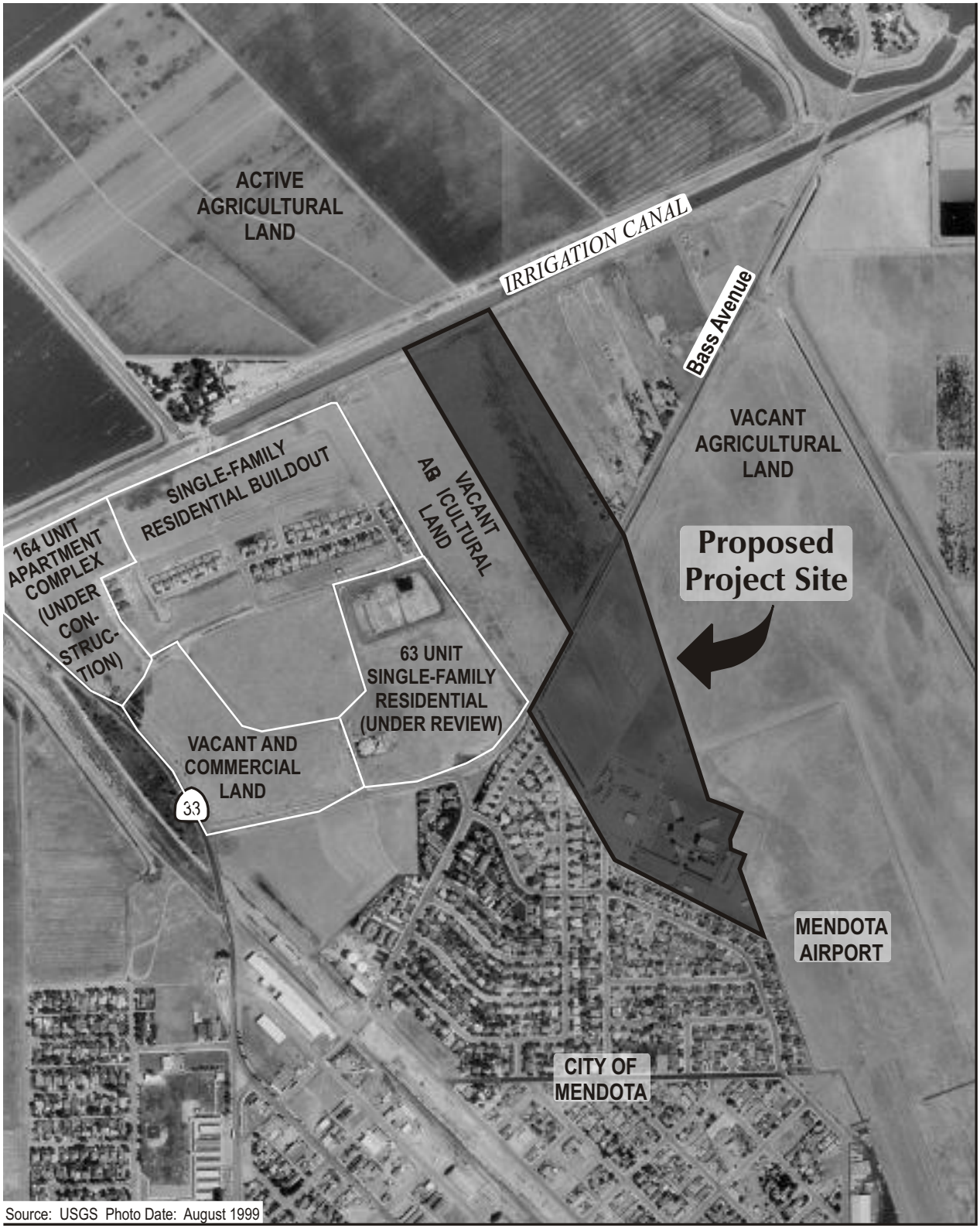

MENDOTA/GRAPHICS & FIGURES/SURROUNDING LAND USE.CDR 04/27/05

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FIGURE 3.1-2
SURROUNDING LAND USE

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3.1.2 REGULATORY SETTING

CITY OF MENDOTA GENERAL PLAN

The current General Plan update for the City of Mendota does not provide any specific goals and/or policies relevant to the aesthetic character or visual resources of the City. The General Plan EIR included in the update identifies that implementation of the General Plan will eventually result in the loss of open views, most of which are currently agricultural in nature, and the replacement of cultivated areas with urban development. While the City of Mendota offers no mitigation for the loss of scenic resources throughout the City, the General Plan update does make note to consider city entrance beautification, preservation of areas of scenic beauty, maintenance of appropriate open space, park development and landscaping standards.

FRESNO COUNTY GENERAL PLAN

The existing Fresno County General Plan contains goals and policies relevant to this discussion including the following:

Goal OS-K:	To conserve, protect and maintain the scenic quality of Fresno County and discourage development that degrades areas of scenic quality.
Policy OS-K.1:	The County shall encourage the preservation of outstanding scenic views, panoramas, and vistas wherever possible. Methods to achieve this may include encouraging private property owners to enter into open space easements for designated scenic areas.
Policy OS-K.4	The County should require development adjacent to scenic areas, vistas, and roadways to incorporate natural features of the site and be developed to minimize impacts to scenic qualities of the site.
Goal OS-L:	To conserve, protect, and maintain the scenic quality of land and landscape adjacent to scenic roads in Fresno County.
Policy OS-L.4	The County shall require proposed new development along designate scenic roadways within urban areas and unincorporated communities to underground utility lines on and adjacent to the site of proposed development or, when this is infeasible, to contribute their fair share of funding for future undergrounding.

Policy OS-L.9 The County shall work with the Department of Transportation to pursue scenic highway designation from the State of California for the State highway segments eligible for such designation.

CALIFORNIA SCENIC HIGHWAY PROGRAM

The California Scenic Highway Program was created by the State Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change, which would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in Section 260 of the Streets and Highways Code. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code. Cities and counties can nominate eligible scenic highways for official designation by identifying and defining the scenic corridor of the highway. The municipality must also adopt ordinances to preserve the scenic quality of the corridor or document such regulations that already exist in various portions of local codes. These ordinances make up the Scenic Corridor Protection Program for each designated highway corridor under the California Scenic Highway Program.

3.1.3 PROJECT IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and other performance standards recognized by the City of Mendota. For the purposes of this EIR, a significant impact will occur if the project will result in one or more of the following:

1) Cause substantial negative aesthetic alteration to, or "sense of loss" of, the existing visual character of the area;

2) Disrupt or have a substantial adverse effect on a scenic vistas; or

3) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic, buildings within a state scenic highway.

4) Generate a new source of light and/or glare, which would adversely affect day or nighttime views in adjacent areas.

METHODOLOGY

The analysis of potential aesthetic impacts is based upon field review of the project site and the surrounding areas, review of technical reports, background documents of the City of Mendota including the General Plan, County of Fresno General Plan Policy Document, and photographs of visual vantage points surrounding the project site. This information was used in conjunction with forecasting the predicted effects of eventual urban development at this site.

PROJECT IMPACTS AND MITIGATION MEASURES

Aesthetic and Visual Character

Impact 3.1-1 The project would alter the aesthetic character of the project site and surrounding area from rural agricultural use to urban residential, commercial, and public use. This is a **potentially significant** impact.

The project site can be characterized as vacant open space and fallow farmland. Previously demolished structures remain on both the north and south portions of the site, along with several abandoned busses and other construction refuse. An abandoned storage building surrounded by a chain-linked fence is located upon the remnants of a parking lot that was once used in conjunction with the now demolished farmworker-housing complex. Dilapidated rural housing and agricultural machinery dominate the parcels to the northeast while parcels to the north, east, and southeast remain as vacant open space. The Hacienda Gardens residential development is located to the west of the project site and the southwestern portion of the site is bordered by an older residential neighborhood. The proposed project would continue this pattern of contiguous urban development in this portion of the City. However, in moving from rural agricultural to urban uses the aesthetic quality and character of the site will be dramatically changed. Development of the project site may actually improve thee visual condition of the area, by clearing the site of noted debris and potential hazards, which would provide a benefit to the City. However without detailed plans provided by the Applicant the change to the rural character is considered a **potentially significant** impact and the following mitigation measures will be required:

Mitigation Measures

MM 3.1-1a Prior to Final Map recordation, lighting and landscaping of the project site will be incorporated into a Lighting and Landscaping Maintenance District as described under **MM 3.1-3b** to maintain the visual quality of the project site. Landscaping plans shall be submitted by the project Applicant for all specific development proposals within the project area, and shall indicate landscape and signage criteria based on the recommendations of a certified landscape architect, including themes,

monumentation and design concepts. The landscape criteria shall be reviewed and approved by the City and incorporated into the final subdivision map(s) and future site plans for the project.

MM 3.1-1b Each Applicant within the project area shall be responsible for the construction of utility lines in the proposed subdivision and shall design all utility lines to be placed underground to minimize the visual impacts of man-made elements at the project site. The City Engineer shall review and approve the Applicant's utility improvement plans.

Implementation of the above mitigation measures would reduce the potential impacts to aesthetic and visual character to a **less than significant** level by requiring landscaping concepts consistent with the character of the community, design, and construction of underground utility lines by the Applicant.

Existing Views and Scenic Vistas

Impact 3.1-2 Development within the annexation area would result in the conversion of agricultural land to residential, commercial, and public uses creating changes to the existing views to and from surrounding properties and public viewing areas. This is considered a **less than significant** impact.

The site is ultimately planned for residential, commercial, and public facility development. Commercial development will abut Bass Avenue and be visible from both the east and westbound lanes. The proposed residential development, including the single family, multi-family, and farmworker housing, will most likely be visible from the east and westbound lanes of Bass Avenue. The development will be visible from adjacent properties to the north, east, south and west. The proposed development would be highly visible from the Hacienda Gardens residential neighborhood, which abuts the northwest corner of the project site.

Significant scenic views to and from the project site are limited due to the lack of topography and visual features in the area. In addition, the character of the site is heavily obscured by vegetation, dilapidated rural housing, abandoned buses, and other site debris including steel drums and canisters. Future development will not impose upon any significant views or vistas as seen from neighboring properties or public rights-of-way.

Further, Mendota has no designated scenic corridors, protected vistas or policies regulating development in scenic areas within its jurisdiction and the project site is not located within any designated scenic corridors or viewsheds. Therefore the impact to scenic views and vistas is considered **less than significant.** No mitigation is required.

Light and Glare

Impact 3.1-3 Buildout of the annexation area would introduce new sources of lighting within the project area that could adversely affect adjacent residential uses and uses within the project area. The increase of residual glare and light is **potentially significant**.

Eventual development of the proposed project site would result in the installation of street and parking lot lighting, security lighting, possible additional traffic lights, and other light sources typical to residential, commercial, and public uses. Night-time spillover of glare and light may potentially affect adjacent residential neighborhoods to the west and southwest. The glare and light spill over could potentially impact future uses within the project area as well. Therefore, the following mitigation measure shall be required as a condition of specific development proposals.

Mitigation Measure

MM 3.1-3a Project applicants for all future projects within the annexation area shall be required to submit detailed lighting plans indicating the locations and type of fixtures to be used and demonstrating that exterior lighting maintains acceptable non-intrusive levels consistent with and not exceeding existing lighting in the vicinity of the project. Lighting plans shall also incorporate baffles and lens cut-offs to direct lighting downward and to minimize the unwanted spillover of light. All external lighting shall be indicated on project plans as they are submitted for future site development. Lighting plans shall be submitted to the City of Mendota Public Works Department for review and approval.

MM 3.1-3b At the time of Final Map, the owner, developer and/or successors of interest shall agree to include the entire project area into a Lighting Maintenance District subject to the approval of the City Engineer.

Implementation of the above mitigation measure will ensure that light and glare impacts are reduced to a **less than significant** level by requiring that lighting be consistent with existing lighting in the project vicinity and that the project area is included in a Lighting Maintenance District.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Nighttime Ambient Light and Glare

Impact 3.1-4 Nighttime ambient light and glare could be increased by new residential, commercial, and public facility development in the project area. This is a **less than significant** impact.

The project, combined with other cumulative projects, will incrementally increase ambient light and glare in an area generally devoid of light sources. However, implementation of Mitigation Measure **MM 3.1-3** would reduce the effects of nighttime ambient light and glare. Therefore, the project's contribution to cumulative light and glare impacts is considered **less than significant**. No additional mitigation is required.

REFERENCES/DOCUMENTATION

California Department of Transportation. *California Scenic Highway Program*. http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm. March 2, 2005.

City of Mendota. *General Plan Update and Environmental Impact Report*. 1991.

County of Fresno. *Fresno County General Plan Policy Document*. 2000.

Section 3.2
Archaeological and Cultural Resources

This section of the EIR discusses existing cultural and historic resources and evaluates the potential impacts to cultural and historic resources that could result from project implementation. The analysis is based on an archaeological resources assessment including a records search and field survey of the project site conducted by Basin Research Associates (March 2005).

3.2.1 EXISTING SETTING

REGIONAL SETTING

Prehistory

The project site study area is located in the vicinity of the lower San Joaquin River and Fresno Slough. The project site and its immediate vicinity, also known as the Area of Potential Effects (APE), would have provided a favorable environment for prehistoric Native Americans despite the periodic flooding of the bottom lands, intense summer heat, and ever present annoyance of mosquitoes. Native American occupation sites in the region appear to have been selected for accessibility, protection from seasonal flooding and availability of resources. General overviews and perspectives on the regional prehistory of the project area are presented in Wallace (1978a), Elsasser (1978), King (1981) and Moratto (1984).

Ethnography

The proposed project site and APE is located within the *Nopchinchi (Noptinchi, Noptinte, Nupchenche, Nupchenches)* tribelet territory of the Northern Valley Yokuts. Little is known of the aboriginal inhabitants of the lower or Northern San Joaquin Valley as a result of introduced diseases, missionization and displacement by gold seekers. The *Nopchinchi* were located east of the San Joaquin River and reportedly the village of *Tape* was located near or just south of the great bend of the San Joaquin. The Yokutasan-speaking people numbered approximately 18,000 and were dispersed in 40-50 tribelets speaking at least 21 dialects. Yokuts subsistence relied on hunting and gathering, most especially salmon and acorns, but also on fowling and the consumption of tule roots. Reportedly Yokuts tribes were practically extinct on the West Side of the San Joaquin River before 1790. Between 1830 and 1840, raids by Miwok and Yokut groups in Hispanic territory were notable. In addition, a notable pestilence swept through Yokuts territory on the East Side as far south as the Fresno River in 1833. After 1833 forays against the missions and settlers were constant and Mission San Juan Bautista was reported as under siege in 1841. These raids were a means of securing horses and cattle and have been also interpreted as a consequence of the mission system, which entrapped and confined Indians to missions as laborers who endured punishment, abuse, and an inadequate diet. The aboriginal

inhabitants of the San Joaquin Valley were transformed from hunters and gatherers into agricultural laborers who lived at the Hispanic missions.

History

The history of the project site and the APE can be divided into two distinct categories, the Hispanic period and the American Period. Each period individually contributed to the current character and cultural identity of Mendota.

Hispanic Period

Early exploration had a profound effect on the Native populations. However, the routes of the early explorers cannot be determined with total accuracy. The first party to travel through the study area, reportedly in 1805 or 1806, was led by Gabriel Moraga who proceeded from San Juan Bautista through Pacheco Pass and the San Joaquin Valley to as far north as the Mokelumne River. The Spanish philosophy of government in northwestern New Spain was directed at the founding of presidios, missions, and secular towns with the land held by the Crown (1769-1821), while later Mexican Period policy (1822-1848) stressed individual ownership of the land. None of the ranchos or mission lands were situated in the or near the Project *El Camino Viejo*, the Spanish and Mexican Era Road which followed old animal and Indian trails, ran along the west side of the San Joaquin Valley. *El Camino Viejo a Los Angeles* or Los Angeles Trail, the oldest north-south trail through the entire San Joaquin Valley had two branches through west part of county including *La Libertad* (present-day Liberty), *Las Juntas*, and *Rancho de Los Californianos*. The *Pueblo de las Juntas* on the west bank of the San Joaquin River at is junction with Fresno Slough north of Mendota and the Project and the *Rancho de los Californios* several miles east of Las Juntas and Fresno Slough) were the closest settlements to the Project.

American Period

In the mid-19th century, the majority of the rancho and pueblo lands and some of the ungranted land in California were subdivided as the result of population growth, the American takeover, and the confirmation of property titles. Growth can be attributed to the Gold Rush (1848), followed by the completion of the transcontinental railroad (1869) and regional and local railroads. Still later, the development of the refrigerator railroad car used for the transport of agricultural produce to distant markets had a major impact on California agriculture. The agricultural land-use pattern throughout has been rapidly replaced by urban and suburban development since post- World War II (Hart 1987).

PROJECT SITE SETTING

Basin Research Associates completed a systematic field inventory of the APE in accordance with standard archaeological practice in June of 2003 and additionally in March of 2004.

The pedestrian survey was conducted in two sections - north and then south of Bass Avenue – with north/south transects spaced at approximately 30-meter intervals, the North section of land was surveyed beyond the project boundaries, as the project site was larger at one time.

North Subarea: The approximately 50-acres area north of Bass Avenue is bordered by an unpaved road (along the Main Lift) on the north, a dry earth-lined drainage ditch on the west, a vacant fallow agricultural field to the east, and Bass Avenue on the south. The parcel is a former agricultural field with a variety of dry grasses and shrubs and numerous ground squirrel burrows. Overall surface visibility ranged from 40% visibility along the west edge of the parcel to 65-75% overall. A slightly obscured ditch about four feet wide and dry at the time of the survey runs along the northern boundary. Several recent faunal remains were observed on the surface (e.g., rodent, *Canis* [dog], and deer [Artiodactyls]). The burrows were inspected and did not reveal any indicators of cultural material (culturally affected soils, lithics, etc.). Modern trash including home appliances, beds, mobile home walls, 50-gallon drums, tires, etc. have been dumped and scattered in various parts of the parcel, with the greatest concentration towards the northeast corner and southwest edge.

South Subarea: The approximately 41-acre area south of Bass Avenue is bounded by Bass Avenue on the north, a fence on the south, a ranch fence on the east and a chain-link fence on the west. The vegetation and animal burrows were similar to the North Subarea and the burrows inspected lacked indicators of cultural material. Visibility was approximately 45% along the northwest edge of the parcel with 85% overall. Two manholes were noted just south of an approximately four-foot wide earth-lined drainage ditch, which parallels Bass Avenue. A T-shape upside-down elevated earthen berm was observed in the northern third the Subarea which proceeds south of below the midpoint of Bass Avenue southerly to an east-west earthen "linear" which extends the entire width of the Subarea. Five abandoned busses, numerous tires, and large agricultural transport boxes were observed, but none of the buildings or remnants of buildings shown on 1984 USGS in the southern part of the Subarea were observed. Basin Research Associates confirmed upon field reconnaissance the debris associated with the farm worker housing had been constructed within the past 30 years. In addition, a large pre-fab steel equipment shed and two open-wall steel-framed storage structures were also present that had been built within the last 25 years.

No surface or subsurface evidence of prehistoric or significant historic archaeological material was observed during the field inventory conducted for the proposed project.

3.2.2 REGULATORY FRAMEWORK

CEQA GUIDELINES

The California Environmental Quality Act (CEQA) requires that lead agencies determine whether projects may have a significant effect on archaeological and historical resources. This determination applies to those resources that meet significance criteria qualifying them as "unique," "important," listed on the California Register of Historic Resources (CRHR), or eligible for listing on the CRHR. If the agency determines that a project may have a significant effect on a significant resource, the project is determined to have a significant effect on the environment, and these effects must be addressed. If a cultural resource is found not to be significant under the qualifying criteria, it need not be considered further in the planning process.

Public Resources Code 5024.1 presents criteria for determining the eligibility of a cultural resource for inclusion in the California Register of Historical Resources. These criteria include:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual or possesses high artistic value; or,
- Has yielded, or may yield, information important in prehistory or history.

CEQA also requires planning to consider the effects of a project on unique archaeological resources. If an archaeological artifact, object, or site meets the definition of a unique archaeological resource, then the artifact, object, or site must be treated in accordance with the special provisions for such resources as presented at Public Resources Code 21083.2(e). Public Resources Code 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site that:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or,
- Is associated with a scientifically recognized important prehistoric or historic person or event.

CEQA, at Section 15064.5, defines a significant effect as one that may cause a substantial adverse change in the significance of an historical resource. A "substantial adverse change" means physical demolition, destruction, relocation or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired. The Lead Agency shall identify potentially feasible mitigation measures to mitigate significant adverse changes in the significance of an historical resource.

CEQA emphasizes avoidance of archaeological and historical resources as the preferred means of reducing potential significant effects. If avoidance is not feasible, an excavation program or some other form of mitigation must be developed to mitigate these impacts.

CALIFORNIA OFFICE OF HISTORIC PRESERVATION, REGIONAL INFORMATION CENTERS

The California Office of Historic Preservation established the Regional Information Centers as local repositories for all archaeological reports prepared under cultural resource management regulations. State guidelines and current professional standards require a background search at the appropriate Regional Information Center. Following the completion of a project, a copy of the report must be deposited at the appropriate Regional Information Center to assist with future background searches.

CITY OF MENDOTA GENERAL PLAN

Neither the General Plan update nor the General Plan EIR for the City of Mendota identifies any policies or regulations for dealing with the disturbance or removal of archaeological or cultural resources.

3.2.2 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and other performance standards recognized by the City of Mendota. For the purposes of this EIR, a significant impact will occur if the project will result in one or more of the following:

1) Cause a substantial adverse change in the significance of an historical or archaeological resource as defined in CEQA Guidelines Section 15064.5;

2) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or

3) Disturb any human remains, including those interred outside of formal cemeteries.

METHODOLOGY

The impact analysis for this section is based on an Archaeological Assessment Report conducted for the project site by Basin Research Associates. The report includes an archival records search of the California Register of Historical Resources; a review of pertinent literature, maps and archival records; an archaeological field inventory; and a presents findings and management recommendations; and consultation with the State of California Native American Heritage Commission. The report was prepared to meet applicable state and federal regulatory requirements for historic properties (cultural resources) that require the identification and evaluation of cultural resources that could be affected by the project.

Archaeological and Cultural Resources

Impact 3.2-1 The project site contains no recorded, observed or anticipated resources of archaeological, cultural, or prehistoric significance. However site preparation and grading activities could potentially disrupt undiscovered archaeological and cultural resources of importance under CEQA and/or eligible for listing on the California Register. This is considered a **potentially significant** impact.

Archaeological field inventories and review of formally recorded records and maps on file at the Southern San Joaquin Information Center at CSU Bakersfield, as well as a review of archival materials on file at Basin Research Associates for Fresno County including material on file with Bancroft Library, University of California Berkeley, and a review of the *Sacred Lands Inventory* maintained by the State of California Native American Heritage Commission did not reveal any archaeological resource on or within the vicinity of the project site. No archaeological or architectural sites have been recorded in, adjacent, or within 0.25 mile of the project site. No known Native American prehistoric, ethnographic settlements, trails, traditional or contemporary Native American use acres have been identified in or adjacent to the project site. No local, state, and/or federal archeological sites, historically or architecturally significant structures, landmarks or points of interest have been identified or are located on or adjacent of the project site. However, destruction or disturbance of disturbance of undiscovered resources, whether planned or inadvertent, is possible and is considered a **potential significant** impact. Therefore, the following mitigation measures are required.

Mitigation Measures

MM 3.2-1a Should any previously undisturbed cultural, histories, or archaeological resources be exposed or discovered during either site preparation of subsurface construction, operations should stop within 25 feet of the find and a qualified professional archaeologist should be contacted for evaluation and further recommendations. If the find is determined to be

significant, appropriate mitigation measure shall be formulated and implemented.

MM 3.2-1b In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of Fresno County has determined whether the remains are subject to the coroner authority. This is in accordance with Section 7050.5 of the California Health and Safety Code. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of identification. Pursuant to Section 5097.98 of the Public Resource Code, the Native American Heritage Commission will identify a "Native American Most Likely Descendent" to inspect the site and provide recommendations for the proper treatment of the remains and any associated grave goods.

Implementation of the above mitigation measure will reduce the potential impact of undiscovered archaeological, historic, or cultural resources to a **less than significant** level by halting operation in the event of discovery of cultural, historic, or archaeological resources in order to make an assessment and recommend appropriate action and by following the recognized protocol for discovery of human remains in accordance with Section 7050.5 of the California Health and Safety Code.

CUMULATIVE SETTING

The cumulative setting associated with the proposed project includes proposed, planned, reasonably foreseeable, and approved projects in the vicinity of the project site. However, the site-specific nature of cultural resources (and the fact that no archaeological or cultural resources were identified) removes the potential for cumulative effects.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Implementation of the project, in combination with development activity in the region, could contribute to the loss of undiscovered cultural resources. However, implementation of Mitigation Measures **MM 3.2-1a** and **b** as described above would reduce the project's potential future contribution to this cumulative impact to a **less than significant** level.

REFERENCES/DOCUMENTATION

Basin Research Associates. *Archaeological Assessment Report for the Don Alejandro Valdez Community Plan*. March 15, 2005.

California Public Resources Code section 5020-5029.5. http://www.leginfo.ca.gov. March 2005.

City of Mendota. *General Plan Update and Environmental Impact Report*. 1991

County of Fresno. *Fresno County General Plan Policy Document*. 2000.

Section 3.3
Air Quality

This section of the EIR discusses the air quality impacts that may be associated with the implementation of the Don Alejandro Valdez Community Plan. This section includes the identification of pollutant standards, current air quality conditions, a quantitative assessment of air quality impacts and associated mitigation measures. The air quality analysis contained in this section is primarily based on the *Air Quality Impact Evaluation for the Don Alejandro Valdez Community Plan* prepared by Donald Ballanti in July 2003. Estimates of regional emissions generated by project traffic and on-site area sources were made using the URBEMIS-2002 air quality-modeling program.

3.3.1 EXISTING SETTING

LOCAL CLIMATE

The project site is located adjacent to the City of Mendota in Fresno County, California. The climate of the project area is typical of inland California valleys, with hot dry summers and cool, mild winters. Daytime temperatures in the summer often exceed 100 degrees, with lows in the 60's. In winter, daytime temperatures are usually in the 50's, with lows around 35 degrees. Radiation fog is common in the winter, and may persist for days. Winds are predominantly up-valley (from the north-northwest) in all seasons, but more so in the summer and spring months. Winds in the fall and winter are generally lighter and more variable in direction.

The City of Mendota is located within the San Joaquin Valley Air Basin, which is defined by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. The surrounding topographic features restrict air movement through and out of the basin and, as a result, impede the dispersion of pollutants from the basin. Inversion layers are formed in the San Joaquin Valley air basin throughout the year. (An inversion layer is created when a mass of warm dry air sits over cooler air near the ground, preventing vertical dispersion of pollutants from the air mass below). During the summer, the San Joaquin Valley experiences daytime temperature inversions at elevations from 2,000 to 2,500 feet above the valley floor. During the winter months, inversions occur from 500 to 1,000 feet above the valley floor.

The pollution potential of the San Joaquin Valley is very high. Surrounding elevated terrain in conjunction with temperature inversions frequently restrict lateral and vertical dilution of pollutants. Abundant sunshine and warm temperatures in summer are ideal conditions for the formation of photochemical oxidant, and the Valley frequently experiences photochemical pollution.

HEALTH EFFECTS OF POLLUTANTS

The primary air quality problems in the San Joaquin Valley Air Basin are ozone and particulate matter. Carbon monoxide has been a problem in the past within the San Joaquin Valley Air Basin in larger cities such as Fresno, Bakersfield, Modesto and Stockton. The following is a discussion of the health effects of these important pollutants.

OZONE

Ozone is produced by chemical reactions, involving nitrogen oxides (NOx) and reactive organic gases (ROG) that are triggered by sunlight. Nitrogen oxides are created during combustion of fuels, while reactive organic gases are emitted during combustion and evaporation of organic solvents. Since ozone is not directly emitted to the atmosphere, but is formed as a result of photochemical reactions, it is considered a secondary pollutant. In the San Joaquin Valley Air Basin ozone is a seasonal problem, occurring roughly from April through October.

Ozone is a strong irritant that attacks the respiratory system, leading to the damage of lung tissue. Asthma, bronchitis and other respiratory ailments as well as cardiovascular diseases are aggravated by exposure to ozone. A healthy person exposed to high concentrations may become nauseated or dizzy, may develop headache or cough, or may experience a burning sensation in the chest. Research has shown that exposure to ozone damages the alveoli (the individual air sacs in the lung where the exchange of oxygen and carbon dioxide between the air and blood takes place) as well as vegetation.

SUSPENDED PARTICULATE

Suspended particulate matter consists of solid and liquid particles small enough to remain suspended in the atmosphere indefinitely. The major components of suspended particulate are dust particles, nitrates, and sulfates. A portion of suspended particulate is directly emitted to the atmosphere as a by-product of combustion, wind erosion of soil and unpaved road travel. Small particles are also created in the atmosphere through chemical reactions.

Particles greater than 10 microns in diameter can cause irritation in the nose, throat, and bronchial tubes. Natural mechanisms remove much of these particles, but smaller particles are able to pass through the body's natural defenses and the mucous membranes of the upper respiratory tract and enter into the lungs. The particles can damage the alveoli, tiny air sacs responsible for gas exchange in the lungs. The particles may also carry carcinogens and other toxic compounds, which adhere to the particle surfaces and can enter the lungs.

CARBON MONOXIDE

Carbon monoxide is a local pollutant in that high concentrations occur only very near the source. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volumes. Carbon monoxide's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, carbon monoxide reduces the amount of oxygen in the blood, causing heart difficulties in people with chronic diseases, reduced lung capacity and impaired mental abilities.

Carbon monoxide concentrations are highly seasonal, with the highest concentrations occurring in the winter. This is partly due to the fact that automobiles create more carbon monoxide in colder weather and partly due to the very stable atmospheric conditions that exist on cold winter evenings when winds are calm. Concentrations typically are highest during stagnant air periods within the period November through January.

3.3.2 REGULATORY SETTING

AMBIENT AIR QUALITY STANDARDS

Both the U. S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants that represent safe levels that avoid specific adverse health effects associated with each pollutant. The federal and state ambient standards were developed independently with differing purposes and methods, although both federal and state standards are intended to avoid health related effects. As a result, the federal and state standards differ in some cases. In general, the California state standards are more stringent. This is particularly true for ozone and PM_{10}.

Federal Air Quality Standards

The 1977 Federal Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for the six "criteria" air pollutants. These criteria pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), suspended particulate matter (PM_{10}), and lead (Pb). EPA publishes criteria documents to justify the choice of standards. These standards represent the levels of air quality necessary, with an adequate margin of safety, to protect the public health and welfare. Standards for these pollutants are listed in **Table 3.3-1**.

In June 1997, the EPA adopted new national air quality standards for ground level ozone and for fine particulate matter. The EPA intends to phase out the 1-hour ozone standard of

0.12 parts per million (PPM) and replace it with an 8-hour standard of 0.08 PPM. The EPA also adopted an additional standard for particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). Although currently in effect, the planning process to determine compliance with these new standards and the development of control programs to meet these standards, if needed, are several years away since a monitoring network has to be established and a minimum 3-year monitoring period is required to determine designations.

Implementation of the new standards has been further complicated by a recent court decision. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit ruled that the application of the Clean Air Act, in setting the new public health standards for ozone and particulate matter, was an improper delegation of legislative authority to the EPA, and thus unconstitutional. The decision was appealed to the Supreme Court and on February 27, 2001 the Supreme Court unanimously ruled in favor of the EPA, clearing the way for implementation of the new standards.

State Air Quality Standards

The 1988 California Clean Air Act established state standards for criteria pollutants, which are also identified in **Table 3.3-1.** These standards are referred to as State Ambient Air Quality Standards (SAAQS), and are equal to, or more stringent than, their NAAQS counterparts. SAAQS have also been established for certain pollutants not covered by the NAAQS, such as hydrogen sulfide and vinyl chloride.

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of regulated pollutants. Toxic Air Contaminants (TACs) are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated on the basis of risk rather than specification of safe levels of contamination.

TABLE 3.3-1
FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	8-Hour 1-Hour	0.08 PPM 0.12 PPM	0.09 PPM --
Carbon Monoxide	8-Hour 1-Hour	9.0 PPM 35.0 PPM	9.0 PPM 20.0 PPM
Nitrogen Dioxide	Annual 1-Hour	0.05 PPM --	-- 0.25
Sulfur Dioxide	Annual 24-Hour 1-Hour	0.03 PPM 0.14 PPM --	-- 0.05 PPM 0.5 PPM
PM_{10}	Annual 24-Hour	50 $\mu g/m^3$ 150 $\mu g/m^3$	30 $\mu g/m^3$ 50 $\mu g/m^3$
$PM_{2.5}$	Annual 24-Hour	15 $\mu g/m^3$ 65 $\mu g/m^3$	-- --
Lead	30-Day Avg. Month Avg.	-- 1.5 $\mu g/m^3$	1.5 $\mu g/m^3$ --

PPM = Parts per Million; $\mu g/m^3$ = Micrograms per Cubic Meter
Source: Don Ballanti, Air Quality Impact Analysis for the Don Alejandro Valdez Community Plan. July 2003.

The California Air Resources Board and San Joaquin Valley Unified Air Pollution Control District operate air-monitoring sites in the San Joaquin Valley Air Basin. The closest monitoring sites to the project site are in Fresno to the east, and in Madera to the north. A three-year summary of air quality data from these monitoring sites is shown in **Table 3.3-2**.

TABLE 3.3-2
AMBIENT AIR QUALITY

Pollutant/Standard	Year	Days Exceeding Standard at: Fresno	Madera
Ozone/State 1-Hour	2000 2001 2002	48 51 45	8 15 21
Ozone/Fed. 1-Hour	2000 2001 2002	5 5 11	0 0 2
Ozone/Fed. 8-Hour	2000 2001 2002	41 40 41	9 13 18

Pollutant/Standard	Year	Days Exceeding Standard at: Fresno	Madera
Carbon Monoxide/State-Fed. 8-Hour	2000	0	-
	2001	0	-
	2002	0	-
Nitrogen Dioxide/State 1- Hour	2000	0	0
	2001	0	0
	2002	0	0
PM_{10}/State-Hour	2000	11	-
	2001	15	-
	2002	15	-
PM_{10}/Federal 24-Hour	2000	0	-
	2001	1	-
	2002	0	-
$PM_{2.5}$/Federal 24-Hour	2000	18	-
	2001	10	-
	2002	13	-

Source: Air Resources Board Aerometric Data Analysis and Management System (ADAM), 2003

Federal and state air quality laws require identification of areas not meeting the ambient air quality standards. These areas must develop regional air quality plans to eventually attain the standards. Under both the federal and state Clean Air Acts, the San Joaquin Valley Air Basin is a non-attainment area (standards have not been attained) for ozone and PM_{10}. The air basin is either attainment or unclassified for other ambient standards.

Sensitive Receptors

The SJVUAPCD defines a sensitive receptor as a location where human populations, especially children, seniors, and sick persons are present and where there is a reasonable expectation of continuous human exposure to pollutants. Examples of sensitive receptors include residences, hospitals, and schools. The closest sensitive receptors to the site are the adjacent residences to the west.

3.6.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based upon CEQA Guidelines, SJVAPCD thresholds, and previous standards used by the City of Mendota. For the purposes of this EIR, impacts are considered significant if the following could result from implementation of the proposed project:

1) Conflict with or obstruct implementation of the applicable air plan;

2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

3) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;

4) Expose sensitive receptors to substantial pollutant concentrations

5) Create objectionable odors frequently affecting a substantial number of people

6) Contribute significantly to any cumulative air quality impact.

CEQA Guidelines provide that, when available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make determinations of significance.

San Joaquin Valley Unified Air Pollution Control District

While the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) CEQA guidance recognizes that PM_{10} is a major air quality issue in the basin, it currently has not established numerical thresholds for significance for PM_{10}. However, for the purposes of this analysis, the Air Quality Impact Evaluation performed by Donald Ballanti, Ph.D., indicates that a PM_{10} emission of 15 tons per year (82 pounds per day) was used as a significance threshold. This emission quantity is the SJVUAPCD threshold level at which new stationary sources requiring permits from the District must provide emissions "offsets". This threshold of significance for PM_{10} is consistent with the District's ROG and NO_x thresholds of ten tons per year, which are also the offset thresholds established in SJVUAPCD Rule 2201 New and Modified Stationary Source Review Rule.

Construction Impacts

Grading, earthmoving and excavation are the activities that generate the most PM_{10} emissions. The SJVUAPCD significance threshold for construction dust impacts is based on the appropriateness of construction dust controls. The SJVUAPCD guidelines provide feasible control measures for construction emission of PM_{10} beyond that required by district regulations. If the appropriate construction controls are to be implemented, then air pollutant emissions for construction activities would be considered less than significant.

Automobile Traffic and Carbon Monoxide

The most significant local air pollutant is carbon monoxide. The primary source of carbon monoxide is automobile traffic. The highest concentrations of carbon monoxide are normally found near roads and highways, particularly at intersections. The SJVUAPCD's *Guide for Assessing and Mitigation Air Quality Impacts* provides screening criteria to identify situations where modeling is warranted. If neither of the following criteria is met at intersections affected by the project, the project is concluded to have no potential to create a violation of the carbon monoxide standards:

- The Level of Service (LOS) on one or more streets or at one or more signalized intersections in the project vicinity will be reduced to LOS E or F, or
- The project will substantially worsen an already existing LOS F on one or more streets or at one or more signalized intersections in the project vicinity.

METHODOLOGY

Estimates of emissions generated by project traffic and on-site area sources were made using URBEMIS-2002. URBEMIS-2002 estimates emissions resulting from various land use development projects. Land use projects can include residential uses such as single-family dwelling units, apartments and condominiums, and nonresidential uses such as shopping centers, office buildings, and industrial parks. URBEMIS-2002 contains default values for much of the information needed to calculate emissions. However, project-specific, user-supplied information can also be used when it is available. Average trip lengths, average speeds and vehicle mixes for the San Joaquin Valley Air Basin were used.

PROJECT IMPACTS AND MITIGATION MEASURES

Construction Impacts

Impact 3.3-1 Construction activities such as site clearing, excavation and grading operations, construction vehicle traffic and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that would temporarily affect local air quality for adjacent land uses. This is a **potentially significant** impact.

The San Joaquin Valley Unified Air Pollution Control District regulates construction emissions through its Regulation VIII. The provisions of Regulation VIII pertaining to construction activities require:

- Effective dust suppression for land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill and demolition activities.
- Effective stabilization of all disturbed areas of a construction site, including storage piles, not used for seven or more days.
- Control of fugitive dust from on-site unpaved roads and off-site unpaved access roads.
- Removal of accumulations of mud or dirt at the end of the workday or once every 24 hours from public paved roads, shoulders and access ways adjacent to the site.

Grading, earthmoving and excavation are the activities that generate the most PM_{10} emissions. The fine, silty soils in the project area and often-strong afternoon winds exacerbate the potential for dust, particularly in the summer months. Construction equipment and vehicles would also generate exhaust emissions during active construction. Although operated temporarily at construction sites, construction equipment is a substantial source category within the San Joaquin Valley Air Basin, generating ozone precursors as well as PM_{10}.

Although impacts would be localized and variable, they would last for a period of months for any given parcel. Construction impacts are considered to be **potentially significant** on a localized basis, and could result in nuisance complaints. Therefore, the following mitigation measure shall be required:

Mitigation Measure

MM 3.3-1 The project applicant shall implement and follow the following measures before and during construction in order to control dust and reduce exhaust emissions during construction:

- Water all active construction sites at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
- Prohibit all grading activities during periods of high wind (over 15 mph).
- Apply non-toxic soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days.)
- Cover all trucks hauling dirt, sand or loose materials, or maintain at least 2 feet of freeboard.

- Cover inactive storage piles.
- Sweep streets if visible soil material is carried out from the construction site.
- Post a publicly visible sign that specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the San Joaquin Valley Unified Air pollution Control District shall be posted on-site as well.
- Prior to issuance of construction contracts and after consultation with the SJVUAPCD a review of new technology for heavy-duty equipment should be performed to determine what, if any, advances in emission reduction are available for use to reduce NOx and PM_{10} emissions from equipment.
- Equipment not in use for more than ten minutes should be turned off.
- Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use.
- Whenever feasible and cost effective, use electrically driven equipment (provided they are not run via a portable generator set).

Prior to each start of construction at any parcel within the project, a dust plan demonstrating compliance with current SJVAPCD Regulation VIII requirements and implementation of the above measures will be submitted for approval to the SJVAPCD. With the implementation of Regulation VIII controls for PM_{10} and the above additional measures constriction impacts will be reduced to **a less than significant** level.

Carbon Monoxide Emissions

Impact 3.3-2 The project would change traffic volumes and congestion levels, changing carbon monoxide concentrations at land uses near roadways and intersections. This is considered a **less than significant** impact.

The most significant local air pollutant is carbon monoxide. The primary source of carbon monoxide is automobile traffic. The highest concentrations of carbon monoxide are normally found near roads and highways.

The SJVUAPCD's *Guide for Assessing and Mitigation Air Quality Impacts* provides screening criteria to identify situations where modeling is warranted. If neither of the

following criteria is met at intersections affected by the project, the project is concluded to have no potential to create a violation of the carbon monoxide standards:

- The Level of Service (LOS) on one or more streets or at one or more signalized intersections in the project vicinity will be reduced to LOS E or F, or
- The project will substantially worsen an already existing LOS F on one or more streets or at one or more signalized intersections in the project vicinity.

The transportation impact analysis conducted for the proposed project found one intersection forecast to operate at LOS E or F with the project, however, this was based on an un-signalized, stop-sign controlled intersection. Signalization of the intersection was identified as a mitigation measure for project traffic impacts resulting in an LOS of C or better. Based on the SJVUAPCD criteria and the forecasted mitigated Level of Service, the project would have no potential to create a violation of the carbon monoxide standards. Therefore, any carbon monoxide concentration increases resulting from the proposed project would be **less than significant.**

Regional Pollutant Levels

Impact 3.3-3 Development at the project site will result in an increase in air pollutant emissions within the San Joaquin Valley Air Basin. This is a **potentially significant** impact.

Trips to and from the project would result in air pollutant emissions within the air basin. The residential portions of the project would also contain area sources such as natural gas combustion for heating, wood burning and consumer products. The annual increase in regional emissions from auto travel and area sources are shown in **Table 3.3-3** for reactive organic gases (hydrocarbons) and oxides of nitrogen (the two precursors of ozone) and PM_{10}.

TABLE 3.3-3
PROJECT REGIONAL EMISSIONS IN TONS PER YEAR

	Reactive Organic Gases	Nitrogen Oxides	PM_{10}
Vehicles	10.65	9.13	14.56
Area Sources	8.65	1.73	8.37
Total	19.30	10.87	22.93
SJVUAPCD Significance Threshold	10.00	10.00	15.00

Source: Don Ballanti, Air Quality Impact Analysis for the Don Alejandro Valdez Community Plan. July 2003.

The San Joaquin Valley Unified Air Pollution Control District has established a threshold of significance for ozone precursors of 10 tons per year, and 15 tons per year has been assumed to represent a significant impact for PM_{10}. Project build-out emissions are well above the thresholds of significance for ozone precursors and PM_{10}, therefore, project impacts on regional air quality would be potentially significant.

Mitigation Measure

MM 3.3-3 To meet the threshold of significance set by the San Joaquin Valley Unified Air Pollution Control District the project applicant, prior to Final Tentative Map approval shall implement the following measure that will be monitored by the City of Mendota Public Works Department.

- Provide physical improvements, such as sidewalk improvements, landscaping and the installation of bus shelters and bicycle parking that would act as incentives for pedestrian, bicycle, and transit modes of travel.
- Coordinate with local transit operators to extend or expand service to the project.
- Provide transit use incentives, provide transit alternatives information such as printed schedules and establish transit information kiosks at appropriate locations.
- Use energy efficient design including automated control system for heating/air conditioning and energy efficiency, utilize lighting controls and energy-efficient lighting in buildings and use light colored roof materials to reflect heat.
- Plant deciduous trees on the south and westerly facing sides of buildings.
- Provide low nitrogen oxide (NO_x) emitting and/or high efficiency water heaters.
- Utilize low-emission, alternatively fueled or electrical-driven maintenance vehicles and equipment.
- Implement carpool/vanpool program, e.g., carpool ride-matching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.
- Allow only natural gas/LPG fireplaces, pellet stoves or EPA-Certified wood-burning fireplaces or stoves within the project. Conventional open-hearth fireplaces should not be permitted. EPA-Certified fireplaces and fireplace inserts are 75 percent effective in reducing emissions from

this source, while natural-gas/LPG fireplaces are nearly 100% effective in reducing emissions and have virtually no potential for odor or nuisance.

Proper implementation this mitigation measure will reduce potential impacts to a **less than significant** level regarding regional air pollution by requiring the project applicant to implement the above measure including, but not limited to, providing physical improvements, such as sidewalk improvements, landscaping and the installation of bus shelters and bicycle parking that would act as incentives for pedestrian, bicycle, and transit modes of travel.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Impact 3.3-4 Implementation of the Don Alejandro Valdez Community Plan will result in an increase of regional emission within the San Joaquin Valley air basin. This impact is a **significant cumulative** impact.

San Joaquin Valley Unified Air Pollution Control District guidance provides that a project that would individually have a significant air quality impact is also considered to have a significant cumulative air quality impact. Regional emissions from the proposed Don Alejandro Valdez Community Plan would exceed the significance thresholds for ozone precursors by a substantial amount, so the project is considered to have a significant cumulative impact on regional air quality. Implementation of Mitigation Measure **MM 3.3-3** would reduce the cumulative impact of pollutants caused by regional emissions to **less than significant** level.

REFERENCES/DOCUMENTATION

Ballanti, Donald, Ph.D. *Air Quality Impact Evaluation for the Don Alejandro Valdez Community Plan Project*. July 2003.

Governor's Office of Planning and Research, State of California. *Guidelines for Implementation of the California Environmental Quality Act,* as amended. 2005.

San Joaquin Valley Air Pollution Control District. www.valleyair.org. March 2005.

Section 3.4
Biological Resources

This section of the EIR discusses the biological resource impacts that may be associated with the future development of the project site and identifies mitigation measures necessary to reduce any potential impacts to a less than significant level. Information contained in this section is based on the Biological Resources Assessment conducted by May & Associates on July 1, 2003, which included review of existing documents pertaining to the natural resources of the project site, examination of photographs and biological resources/vegetation maps, detailed field investigations and queries of the California Natural Diversity Database.

3.4.1 EXISTING SETTING

REGIONAL SETTING

Fresno County is located in the San Joaquin Valley of Central California. The broad, flat valley is ringed by the Diablo and Coast Ranges on the west and the Sierra Nevada foothills on the east. Well-suited for farming, the San Joaquin Valley is hot and dry in the summer with temperatures reaching well into the 90s. Winters are moist and cool, often blanketing the Valley with heavy fog.

Due to its extensive geography, several special-status wildlife and plant species are known to occur within the San Joaquin Valley. The Tricolored blackbird (*Agelaius tricolor*), the White-faced ibis (*Plegadis chihi*), and the Western burrowing owl (*Athene cunicularia hypugea*) are year-round inhabitants, nesting and burrowing throughout the region. Special status plant species include Palmate bird's-beak (*Cordylanthus palmatus*), San Joaquin woollythreads (*Monolopia congdonii*) and Munz's tidy-tips (*Layia munzii*). Many of the plant species listed are rare, threatened or endangered in California and elsewhere.

PROJECT SITE SETTING

The 68-acre project site is flat and is currently vacant with the exception of a dilapidated residence, maintenance shed, barn and abandoned farmworker housing. The property has been historically used for agricultural row-crop production and farm labor housing as well as disposal of inoperable vehicles and construction materials. Agricultural buildings, yards, and associated homesteads remain northeast of the site while single-family and multi-family housing developments border the site to the northwest and southwest. The project site is bounded to the north by a water canal and agricultural fields (across the canal). Disturbed Annual Grassland occurs on the majority of the project site. Ruderal/Developed areas occur along Bass Avenue and in the southern portion of the project site.

Habitat Types and Biotic Communities

The project site was surveyed on July 1, 2003 by May & Associates, Inc. The survey focused on classifying, describing, and mapping natural communities; and identifying special-status plant and wildlife species and suitable habitat to support special-status plant and wildlife species at or adjacent to the project site that could be affected by project implementation. Two common habitats and two sensitive natural communities were observed at the project site, however, no special-status wildlife species were observed. A visual site visit by PMC in 2005 verified that site conditions since 2003 had not significantly changed. Common and sensitive natural communities and special-status plant and wildlife species with potential to occur at the project site are described below.

Common Habitats

Ruderal/Developed

Ruderal/Developed refers to those areas that have been subject to some form of development (e.g., buildings, roads, grading, construction debris) or those areas that have been subject to a considerable amount of human disturbance (either in the recent past or ongoing). Many of these areas are largely unvegetated. Those areas that are vegetated show evidence of significant soil disturbance such as past grading. Ruderal/Developed areas occur along Bass Avenue and in the southern portion of the project site.

Vegetated areas within the Ruderal/Developed habitat are dominated by introduced annual grasses and forbs. Dominant plant species include Russian thistle (*Salsola* sp.), wild radish (*Raphanus* sp.), cheeseweed (*Malva neglecta*), saltbush (*Atriplex* sp.), Mediterranean barley (*Hordeum murinum* ssp. *leporinum*) and spotted knapweed (*Centaurea maculosa*). Other plant species observed include bindweed (*Convolvulus arvensis*), caltrop vine (*Tribulus terrestris),* cocklebur (*Xanthium strumarium*), pigroot (*Amaranthus* sp.), and cressa (*Cressa truxilliensis)*.

The southern portion of the project site is a fenced boneyard (e.g., old buses, scrap metal, truck trailers, boxes) and contains several buildings and planted trees. Annual grasses are intermixed with this Ruderal/Developed area, therefore this area also supports grass species listed below under Disturbed Annual Grassland.

There is very little vegetation along Bass Avenue, as the roadside soil is fill that is mostly covered with gravel. Rows of oleander (*Neriun oleander*) are planted at the project site south of Bass Avenue, most notably parallel to Bass Avenue and along the western edge of the project site.

Ruderal/Developed areas support common mammals and birds that are typically adapted to human disturbance and activity. Wildlife species observed during the field survey

included: Brewer's blackbird (*Euphagus cyanocephalus*), northern mockingbird (*Mimus polyglottos*), killdeer (*Charadrius vociferus*), American crow (*Corvus brachyrhynchos*), and rock dove (*Columba livia*).

Disturbed Annual Grassland

Disturbed Annual Grassland refers to those areas supporting annual grasses that have been subject to disturbance by humans (i.e., trespass, dumping of trash) and/or have been periodically disked for weed abatement or agricultural production. These areas usually have a high vegetative cover of annual grass species and Russian thistle in disturbed areas. There are also small areas with very little vegetative cover. The Disturbed Annual Grassland at the project site is associated with alkaline soil and occurs in the majority of the site.

Dominant plant species in the Disturbed Annual Grassland areas are Russian thistle (*Salsola* sp.), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), six-weeks fescue (*Vulpia octoflora*), wild oats (*Avena fatua*), wild mustard (*Hirschfeldia incana*), spotted knapweed (*Centaurea maculosa*), and mustards (*Brassica* sp.). Other plant species observed included fiddleneck (*Amsinckia* sp.), saltbush (*Atriplex* sp.), common sunflower (*Helianthus annus*), white sweetclover (*Melilotus alba*) and alkali heliotrope (*Heliotropium curassavicum*).

The majority of the project site north of Bass Avenue is dominated by the plant species mentioned above. The project site south of Bass Avenue is dominated mostly by annual grass species (i.e., ripgut brome and red brome).
The west side of the project site just north of Bass Avenue is covered with mounds of fill material comprised of dirt, gravel, small rocks, and pieces of brick and clay pipe. This area supports limited vegetation (mostly Russian thistle and wild oats) in the depressions between the mounds of fill material.

Disturbed Annual Grassland areas support common mammals and birds. Wildlife species observed during the field survey included: Brewer's blackbird (*Euphagus cyanocephalus*), red-tailed hawk (*Buteo jamaicensis*), northern mockingbird, barn swallow (*Hirundo rustica),* western meadowlark (*Sturnella neglecta*), western kingbird (*Tyrannus verticalis*), black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*) and California ground squirrel (*Spermophilus beecheyi*).

Sensitive Natural Communities

Emergent Marsh

A ditch (average width 3.5 feet) runs through the project site parallel to the southern side of Bass Avenue. The western portion of the ditch supports emergent marsh dominated by

cattail (*Typha latifolia*) and the eastern portion of the ditch is dominated by saltgrass (*Distichlys spicata*). Other species observed growing in or adjacent to the ditch included rabbits-foot grass (*Polypogon australis*), curly dock (*Rumex crispus*), and alkali bulrush (*Scirpus robustus*). The emergent marsh is potentially considered a Waters of the United States by the US Army Corps of Engineers (Corps).

Red swamp crayfish (*Procambarus clarkii*) and mosquitofish (*Gambuzia affinis*) were observed in the ditch during the field visit. The ditch likely provides a water source for drinking and bathing by common birds and mammals and breeding and foraging habitat for aquatic insects and other invertebrates.

Seasonal Wetland

At the northern end of the project site is an area with dry, cracked soil and sparse vegetation. This area is highly alkaline and the only plant species observed growing in this area was bush seepweed (*Suaeda moquinii*). A few individuals of quailbush (*Atriplex lentiformis*) were growing adjacent to this area. The Corps may consider this seasonal wetland area potential jurisdictional Waters of the United States.

SPECIAL-STATUS SPECIES

May & Associates biologists reviewed existing information to identify sensitive biological resources (i.e., special-status plant and wildlife species and sensitive plant communities) known to occur, or with potential to occur at or adjacent to the project site.

Several data sources were reviewed, including:

- A records search of the California Department of Fish and Game's (CCDFG) Natural Diversity Database (NDDB) Coit Ranch, Firebaugh, Mendota Dam, and Tranquillity 7.5-minute USGS Quadrangles (NDDB 2002);
- Sensitive species occurrence information from the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California for Fresno County (CNPS 2001); and,
- May & Associates, Inc. unpublished file information.

Based on the review of existing information, an initial list of special-status plant and wildlife species known for the region was developed (**Tables 3.4-1** and **3.4-2**). These lists were used to focus the site investigations on the biological resources with potential to be present in the project area.

Special-Status Plants

Of the eight species initially identified to be targeted during field surveys, see **Table 3.4-1** below, seven were considered to have some form of suitable habitat at the project site: heartscale (*Atriplex cordulata*), brittlescale (*Atriplex depressa*), San Joaquin spearscale (*Atriplex joaquiniana*), lesser saltscale (*Atriplex miniscula*), Lost Hills crownscale (*Atriplex vallicola*), San Joaquin woollythreads (*Monolopia congdonii*) and Sanford's sagittaria (*Sagittaria sanfordii*).

The timing of the July 1, 2003 field survey was such that the *Atriplex* plants collected were not mature enough be identified at the species level. As such, special-status *Atriplex* may be present at the project site. A complete discussion of plant species and potential for occurrence at the project site can be found in the *Biological Resources Assessment for the Proposed Don Alejandro Valdez Community Plan Project Site, Mendota, California* (2003) included in the appendices of this EIR.

TABLE 3.4-1
SPECIAL-STATUS PLANT SPECIES

Common Name	Scientific Name	Status
Heartscale	*Atriplex cordulata*	-/-/1B
Brittlescale	*Atriplex depressa*	-/-/1B
San Joaquin spearscale	*Atriplex joaquiniana*	-/-/1B
Lesser saltscale	*Atriplex miniscula*	-/-/1B
Lost Hills crownscale	*Atriplex vallicola*	-/-/1B
Palmate bird's-beak	*Cordylanthus palmatus*	E/E/1B
Munz's tidy-tips	*Layia munzii*	-/-/1B
San Joaquin woollythreads	*Monolopia congdonii*	E/-/1B
Sagittaria sanfordii	*Sagittaria sanfordii*	-/-/1B
Status Codes, Federal: *E=listed as endangered; T=listed as threatened; PE=proposed for listing as endangered; PT=proposed for listing as threatened; C=candidate for federal listing; SC=USFWS species of concern; ---=no listing status;* State: *E=listed as endangered; R=listed as rare; T=listed as threatened; CP=fully protected under CA Fish & Game Code; SSC=species of special concern; ---=no listing;* CA Native Plant Society: *1B=rare, threatened or endangered in CA & elsewhere; 2=rare, threatened or endangered in CA & more common elsewhere; 3=plants for which more information is needed to determine rarity; 4=plants of limited distribution, a watch list*		

Source: May & Associates, Inc. (2003)

Special-Status Wildlife

Of the fifteen species initially identified to be targeted during field surveys, see **Table 3.4-2** below, ten were considered to have some form of suitable habitat (i.e., either foraging, breeding, or both) at or adjacent to the project site: western pond turtle (*Clemmys*

marmorata), blunt-nosed leopard lizard (*Gambelia silus*), silvery legless lizard (*Anniella pulchra pulchra*), giant garter snake (*Thamnophis gigas*), Swainson's hawk (*Buteo swainsoni*), western burrowing owl (*Athene cunicularia hypugea*), San Joaquin antelope squirrel (*Ammospermophilus nelsoni*), Fresno kangaroo rat (*Dipodomys nitratoides exilis*), San Joaquin pocket mouse (*Perognathus inornatus inornatus*) and San Joaquin kit fox (*Vulpes macrotis mutica*). Although none of these species were observed during the biological survey, there is potential foraging and/or roosting habitat for some of the species of birds on the project site.

No western pond turtles or giant garter snakes were observed during the July 1, 2003 field survey, although the irrigation canal adjacent to the north provides suitable habitat for these species.

Disturbed Annual Grassland at the project site provides low quality habitat or marginally suitable habitat for many species, including the blunt-nosed lizard, silvery legless lizard, San Joaquin antelope squirrel, Fresno kangaroo rat, and the San Joaquin pocket mouse. The quality of the habitat is diminished by high levels of disturbance both present (e.g., trespass, dumping, domestic animal use) and past (e.g., disking), surrounding residential development and agriculture, its fragmented nature (i.e., Bass Avenue cuts the project site in half), and high perimeter to area ratio. These species have a low potential to occur due to these conditions.

There are no suitable nest trees for Swainson's hawk or other raptors at the project site; however, suitable nesting habitat is present within ½-mile of the project site and the nearest NDDB nesting occurrence of this species is approximately 1.3 miles northeast (NDDB 2002). Low-quality suitable foraging habitat (i.e., Disturbed Annual Grassland) exists and Swainson's hawks potentially forage at the project site.

Suitable habitat (i.e., Disturbed Annual Grassland) for western burrowing owl exists at and adjacent to the project site. An active ground squirrel population provides suitable burrows for this owl. Although no western burrowing owls or evidence of burrowing owls (e.g., pellets, feathers, whitewash surrounding burrows) was observed, this species potentially breeds and/or winters at the project site.

The Disturbed Annual Grassland at the project site provides marginally suitable habitat for the San Joaquin kit fox. No San Joaquin kit fox, evidence of kit fox, or suitable burrows was observed during the July 1, 2003 field survey.

A complete discussion of the identified wildlife species and potential for their occupancy or use of the project site can be found in the *Biological Resources Assessment for the Proposed Don Alejandro Valdez Community Plan Project Site, Mendota, California* (2003) included in the appendices of this EIR.

TABLE 3.4-2
SPECIAL-STATUS WILDLIFE SPECIES

Common Name	Scientific Name	Status	
		Federal	State
Western spadefoot	*Scaphiopus hammondii*	SC	SSC
Western pond turtle	*Clemmys marmorata*	SC	SSC
Blunt-nosed leopard	*Gambelia (=Crotaphytus) silus*	E	E; FP
Silvery legless lizard	*Anniella pulchra pulchra*	SC	SSC
Giant garter snake	*Thamnophis gigas*	T	T
White-faced ibis	*Plegadis chihi (rookery sites)*	SC	SSC
Swainson's hawk	*Buteo swainsoni (nesting)*	MNBMC	T
Western burrowing owl	*Athene cunicularia hypugea*	SC;MNBMC	SSC
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	C;MNBMC	E
Bank swallow	*Riparia riparia (nesting)*	--	T
Tricolored blackbird	*Agelaius tricolor*	SC;MNBMC	SSC
San Joaquin antelope squirrel	*Ammospermophilus nelsoni*	SC	T
Fresno kangaroo rat	*Dipodomys nitratoides exilis*	E	E
San Joaquin pocket mouse	*Perognathus inornatus inornatus*	SC	--
San Joaquin kit fox	*Vulpes macrotis mutica*	E	T

Status codes, Federal: *E=listed as endangered; T=listed as threatened; D=delisted; C=candidate for federal listing; MNBMC=Migratory Nongame Birds of Management Concern; SC=species of concern; PE=proposed for listing as endangered; PT=proposed for listing as threatened; —=no listing status;* State: *E=listed as endangered; R=listed as rare; T=listed as threatened; FP=fully protected under CA Fish & Game Code; SSC=species of special concern; —=no listing status*

Source: May & Associates, Inc. (2003)

3.4.2 REGULATORY SETTING

MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA) implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill any migratory bird, part, nest, egg or product, manufactured or not. The Act makes it unlawful to ship, transport or carry from one state, territory or district to another, or through a foreign country, any bird, part, nest or egg that was captured, killed, taken, shipped, transported or carried contrary to the laws from where it was obtained. The Act also makes it unlawful to import from Canada any bird, part, nest or egg obtained contrary to the laws of the province from which it was obtained. Raptors are protected under the Migratory Bird Treaty Act during their nesting season.

FEDERAL REGULATIONS

Federal Endangered Species Act

Pursuant to the requirements of the Federal Endangered Species Act (FESA), a governmental agency reviewing a proposed project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat propose to be designated for such species (16 USC 1536[3], [4]). FESA is administered by the U.S. Fish and Wildlife Service (USFWS) and the U.S. National Marine Fisheries Service (NMFS).

USFWS Candidate Species List

USFWS also publishes a list of candidate species. Species on this list receive "special attention" from the federal agencies during environmental review, although they are not protected otherwise under the FESA. The candidate species are taxa for which the USFWS has sufficient biological information to support a proposal to list the species as endangered or threatened.

Federal Clean Water Act

Areas meeting the regulatory definition of "Waters of the United States" (jurisdictional waters) are subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) under provisions of Section 404 of the Clean Water Act (1972) and Section 10 of the Rivers and Harbors Act (1899). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as "Waters of the U.S.," tributaries of waters otherwise defined as "Waters of the U.S.," the territorial seas, and wetlands (termed Special Aquatic Sites) adjacent to "Waters of the U.S." (Code of Federal Regulations, Title 33, Part 328, Section 328.3). Wetlands on non-agricultural lands are identified using the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987).

Areas not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially-irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water-filled depressions (Code of Federal Regulations, Title 33, Part 328).

Construction activities within jurisdictional waters are regulated by the Corps. The placement of fill into such waters must be in compliance with permit requirements of the Corps. No Corps permit will be effective in the absence of state water quality certification pursuant to Section 401 of the Clean Water Act. The State Water Resources Control Board and the Regional Water Quality Control Boards are charged with implementing water quality certification in California.

STATE REGULATIONS

California Endangered Species Act

Sensitive, endangered, and threatened plants and animals of California are listed pursuant to Section 1904 (Native Plant Protection Act of 1977) and Section 2074.2 and 2077.5 (California Endangered Species Act of 1984) of the California Department of Fish and Game Code. Under the California Endangered Species Act (CESA), the CDFG has the responsibility for maintaining a list of threatened and endangered species. The CDFG also maintains lists of "species of special concern" which serve as "watch lists." Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any State listed endangered or threatened species may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species. In addition, the CDFG encourages informal consultation on any proposed project that may impact a candidate species.

It is prohibited to "take" (California Fish and Game Code Section 86) species listed as threatened or endangered under CESA (CF&GC 2080) or as fully protected (CF&GC 3511, 4700, and 5050), which is defined by the following:

- Direct mortality;
- Permanent or temporary loss of occupied habitat that would result in mortality to or disruption of reproduction of at least one individual of the species; or
- Avoidance by individuals of biologically important habitat for substantial periods that would result in the mortality or disruption of reproduction to at least one individual of the species.

In addition, the Fish and Game Code protects raptors during their nesting season(s).

Determination of Jurisdictional Streambeds

Activities that result in the diversion or obstruction of the natural flow of a stream, or substantially change its bed, channel or bank, or utilize any materials (including vegetation) from the streambed require that the project Applicant enter into a Streambed Alteration

Agreement with CDFG, under sections 1600-1603 of the California Fish and Game Code. The CDFG potentially extends the definition of stream to include "intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams mapped on US Geological Survey quad maps, and watercourses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife" (CDFG 1994).

CALIFORNIA NATIVE PLANT SOCIETY

The California Native Plant Society (CNPS) is a statewide non-profit, non-governmental organization with common interest in California's native plants. It has no governmental decision-making authority. CNPS seeks to protect California native flora and to increase awareness in the general population. CNPS Plant Science Programs focus on plant conservation and emphasize data-driven advocacy through gathering and dissemination of science-based information about California plant communities. CNPS programs seek to promote the use of best-available science by public agencies, local jurisdictions, and others involved in the land use decision-making process.

3.4.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines. For the purposes of this EIR, impacts are considered to be significant if any of the following would result from implementation of the proposed project:

1) Have a substantial adverse effect, either directly or through habitat modifications, on any plant or animal species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the CDFG or USFWS or species habitat or wildlife corridors;

2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS;

3) Disturb or degrade Waters of the United States or wetlands subject to U.S. Army Corps of Engineers or CDFG jurisdiction;

4) Conflict with any local policies or ordinances protecting biological resources; or,

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

METHODOLOGY

Prior to conducting field surveys, an investigation was conducted by May & Associates to identify biological resources and special-status plant and wildlife species with potential to occur at the project site. Several data sources were reviewed including the CDFG Natural Diversity Database (NDDB 2002) and the CNPS Inventory of Rare and Endangered Vascular Plants of California (CNPS 2001). A field survey was conducted by May & Associates Biologist Erin Serra on July 1, 2003 to identify biotic habitats, evaluate botanical and wildlife resources, and assess the suitability of the study area to support special-status plant and animal species.

PROJECT IMPACTS AND MITIGATION MEASURES

Loss or Disturbance of Common Habitats

Impact 3.4-1 Implementation of the proposed project may result in the construction of buildings, roads and other facilities that may in turn result in the loss or disturbance of common natural habitats at the project site, including Disturbed Annual Grassland and Ruderal/Developed. This impact is considered **less than significant**.

As determined by the May & Associates *Biological Resources Assessment* (August, 2003), these common habitats are widespread and abundant in the local region and their loss or disturbance is considered **less than significant**; therefore, no mitigation is required.

Loss or Disturbance of Sensitive Natural Communities

Impact 3.4-2 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss or disturbance of sensitive natural communities at the project site (i.e., Emergent Marsh and Seasonal Wetland). The loss of sensitive natural communities at the project site is considered a **potentially significant** impact.

Emergent Marsh and Seasonal Wetland habitats in the Central Valley are sensitive natural communities that have undergone significant historic losses and continue to suffer losses today throughout California. Impacts to wetlands can arise from direct impacts (e.g., fills) or indirect impacts (e.g. sedimentation from grading adjacent to wetland areas). The Corps

and CDFG have adopted "no-net-loss" policies for wetlands, requiring compensation for lost wetland functions and values.

Future development proposals that result in one or more of these direct or indirect impacts will constitute significant impact to Waters of the U.S., which are subject to jurisdiction of the Corps. Due to the documented scarcity of these types of wetlands, mitigation for their loss is required.

Implementation of **MM 3.4-10**, discussed under **Impact 3.4-10.**, will reduce impacts to sensitive natural communities to a **less than significant** level by requiring sufficient compensation and regulatory approvals.

Loss or Disturbance of Special-Status Plants

Impact 3.4-3 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of habitat or loss or disturbance of the following special-status plant species: heartscale (*Atriplex cordulata*), brittlescale (*Atriplex depressa*), San Joaquin spearscale (*Atriplex joaquiniana*), lesser saltscale (*Atriplex miniscula*), Lost Hills crownscale (*Atriplex vallicola*), San Joaquin woollythreads (*Monolopia congdonii*), and Sanford's sagittaria (*Sagittaria sanfordii*). This is considered a **potentially significant** impact.

Implementation the proposed project would impact special-status plants, both directly (removal) and indirectly (altered site conditions). Federal and state regulatory agencies consider sensitive plants species to be a significant biological resource. Therefore, alteration of the project site would require the following mitigation measures:

Mitigation Measures

MM 3.4-3a Prior to construction, the project Applicant shall conduct a rare plant survey. Surveys shall be conducted by qualified biologists in accordance with the most current CDFG and/or USFWS guidelines or protocols and shall be conducted at the time of year when the plants named above are identifiable. Based on the results of the survey, and prior to design approval, the project Applicant in consultation with CDFG and/or USFWS shall determine whether the project would result in a significant impact to any special-status plant species. Evaluation of project impacts shall consider the following:

- The status of the species in question (e.g., officially listed by the state or federal Endangered Species Acts, candidate list, CNPS list);

- The relative density and distribution of the onsite occurrence versus typical occurrences of the species in question; and,
- The habitat quality of the onsite occurrence relative to historic, current or potential distribution of the population.

If these surveys reveal no occurrences of any special-status plant species, or if the project Applicant in consultation with CDFG and/or USFWS determines that no significant impacts to any special-status plant species would result from project implementation, then no further mitigation would be required.

Should one or more special-status plant species occur at the project site and a determination of significant impact be made, the project Applicant shall implement **MM 3.4-3b**.

MM 3.4-3b Prior to construction and after implementation of **MM 3.4-3a**, the project Applicant shall, in consultation with CDFG and/or USFWS, prepare and implement a mitigation plan that reduces impacts to special-status plants to a less than significant level. The mitigation plan must be in accordance with any applicable state and/or federal statutes and laws, must be implemented prior to site grading and may include any or all of the following:

- Conducting protocol-level surveys;
- Minimization of impacts through avoidance of occupied areas;
- Formal consultation with the USFWS and/or development of a Memorandum of Understanding (MOU) with CDFG;
- Off-site mitigation on a protected lands site for disturbance or loss of occupied habitat;
- Funding for long-term management and monitoring of the protected lands;
- Worker awareness training; and,
- Mitigation success criteria, remedial measures, and reporting requirements.

Implementation of the above programmatic mitigation measures will reduce impacts to habitats for special-status plant species to a **less than significant** level by conducting a pre-construction survey to determine the presence of special-status plants, notifying the USFWS and/or CDFG for appropriate avoidance or disturbance minimization measures should

special-status plants be found onsite and implementation of a mitigation plan prior to site grading.

Loss of Habitat or Loss or Disturbance of Special-Status Wildlife Species

Impact 3.4-4 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of habitat or loss or disturbance of the following listed (i.e., federally or California state endangered, threatened, or candidate) wildlife species: blunt-nosed leopard lizard, giant garter snake, San Joaquin antelope squirrel, Fresno kangaroo rat, and San Joaquin kit fox. This is considered a **potentially significant** impact.

Mitigation Measures

MM 3.4-4a Within 30 days prior to start of construction, the project Applicant shall contract with a qualified biologist to conduct focused habitat evaluations for listed wildlife species at and adjacent to the project site. Surveys shall be conducted in accordance with the most current CDFG and/or USFWS guidelines or protocols.

Based on the results of the survey and prior to design approval, the project Applicant in consultation with CDFG and/or USFWS shall determine whether the project would result in a significant impact to any listed wildlife species. Evaluation of project impacts shall consider the following:

- The habitat quality of the project site relative to historic, current or potential distribution of the population;
- The habitat value of the project site (i.e., the importance of the habitat to the recovery of the species); and,
- If the species is present, the relative density and distribution of the onsite occurrence versus typical occurrences of the species in question.

If these surveys reveal no occurrences of any listed wildlife species, or if the project Applicant in consultation with CDFG and/or USFWS determines that no significant impacts to any listed wildlife species would result from project implementation, then no further mitigation would be required.

Should one or more listed wildlife species occur at the project site and a determination of significant impact be made, the project Applicant shall implement Mitigation Measure **MM 3.4-4b**.

MM 3.4-4b Within 30 days prior to start of construction and after implementation of **MM 3.4-4a**, the project Applicant shall, in consultation with CDFG and/or USFWS, prepare and implement mitigation plan(s) that reduce impacts to listed wildlife species to a less than significant level. The mitigation plan(s) must be in accordance with any applicable state and/or federal statutes and laws, must be implemented prior to site grading and may include any or all of the following mitigation measures:

- Conducting protocol-level surveys;
- Minimization of impacts through avoidance of occupied areas;
- Formal consultation with the USFWS and/or development of a Memorandum of Understanding (MOU) with CDFG;
- Off-site mitigation on a protected lands site for disturbance or loss of occupied habitat;
- Funding for long-term management and monitoring of the protected lands;
- Worker awareness training; and,
- Mitigation success criteria, remedial measures, and reporting requirements.

Implementation of the above programmatic mitigation measures will reduce impacts to habitats for special-status wildlife species to a **less than significant** level by conducting a pre-construction survey to determine the presence of special-status wildlife, notifying the USFWS and/or CDFG for appropriate avoidance or disturbance minimization measures should special-status wildlife be found on site and implementation of a mitigation plan prior to site grading.

Special-Status Animal Species – Western Pond Turtle

Impact 3.4-5 The proposed project may result in the loss or disturbance to western pond turtle. This is considered a **potentially significant** impact.

If implementation of the proposed project involves conducting work in the Firebaugh Main Lift Canal adjacent to the north of the project site, construction activities may result in the loss or disturbance of any existing western pond turtle; therefore, the following mitigation measures shall be required:

Mitigation Measures

MM 3.4-5a Prior to work being performed in or immediately adjacent to the canal, a qualified biologist shall conduct a pre-construction survey for western pond turtle in the irrigation canal adjacent to the project site. If pond turtles are not found during surveys, no further mitigation is necessary. If pond turtles are found adjacent to the project site, the project Applicant shall implement **MM 3.4-5b**.

MM 3.4-5b The Applicant shall contract with a qualified biologist to work in consultation with CDFG, in order to relocate western pond turtles located adjacent to the project site to suitable habitat, before work in the irrigation canal begins.

Implementation of the above mitigation measures will reduce impacts to western pond turtle to a **less than significant** level by conducting a pre-construction survey to determine the presence of this species within the irrigation canal and providing for relocation measures if any individuals are subsequently discovered.

Special-Status Animal Species – Western Burrowing Owl

Impact 3.4-6 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of habitat or disturbance of western burrowing owl. This is considered a **potentially significant** impact.

Burrowing Owls are small, terrestrial owls of open country that are protected as raptors, migratory birds and as species of special concern. Burrowing Owls favor flat, open grassland or gentle slopes and sparse shrubland ecosystems. They also prefer annual and perennial grasslands, typically with sparse, or nonexistent, tree or shrub canopies. In California, Burrowing Owls are found in close association with California ground squirrels, and use ground squirrel burrows for shelter and nesting. Ground squirrels also maintain short vegetation height, which provides foraging habitat and visual protection from avian predators. In the absence of ground squirrel populations, habitats soon become unsuitable for occupancy by these owls.

No owls or secondary evidence of their presence such as feathers, castings or prey remains were observed during reconnaissance surveys. However, because the site is consistent with burrowing owl habitat, the following mitigation measures shall be required:

Mitigation Measures

MM 3.4-6a Within 30 days prior to start of construction, a qualified biologist to be approved by the City Manager shall conduct preconstruction surveys for western burrowing owl in accordance with the most current CDFG guidelines. If these surveys reveal no occurrences of western burrowing owl, then no further mitigation would be required. If western burrowing owls occur at the project site the project Applicant shall implement **MM 3.4-6b**.

MM 3.4-6b Prior to site grading and after implementation of **MM 3.4-6a**, the project Applicant shall, in consultation with CDFG, prepare and implement a mitigation plan that reduces impacts to western burrowing owl to a less than significant level. The mitigation plan must be in accordance with any applicable state and/or federal statutes and laws. The mitigation plan may include any or all of the following mitigation measures:

- Minimization of impacts to the species through avoidance of occupied burrows (i.e., no ground disturbing activities within approximately 250 feet during the breeding season [February 1 through August 31], and within approximately 160 feet during the non-breeding season [September 1 through August 31]);
- On-site mitigation by retaining a minimum of 6.5 acres of suitable habitat per pair or resident bird;
- When destruction of occupied burrows is unavoidable, off-site mitigation at a 2:1 ratio on a protected lands site;
- Passive relocation of western burrowing owls during the non-breeding season (September 1 through August 31);
- Funding for long-term management and monitoring of the protected lands; and/or,
- Mitigation success criteria, remedial measures, and reporting requirements.

Implementation of the above mitigation measures will reduce potential impacts to burrowing owls to a **less than significant** level by requiring that appropriate measures be taken to identify potential impacts and, if necessary, implementing standard avoidance measures and project modification or habitat compensation in the event that burrowing owls are found on-site.

Loss of Swainson's Hawk Foraging Habitat

Impact 3.4-7 Implementation of the proposed project may result in the construction of buildings, roads and other facilities that would result in the loss of Swainson's hawk foraging habitat. This is considered a **less than significant** impact.

Swainson's hawks nest most often in oaks or cottonwoods in or near riparian habitats and forage in grasslands, irrigated pastures and grain fields. There are no suitable nest trees for Swainson's hawk at the project site. Suitable nesting habitat occurs within ½-mile of the project site; however, because the foraging habitat that exists at the project site is considered low-quality (i.e., Disturbed Annual Grassland), this impact is considered **less than significant**.

Disturbance of Nesting Raptors

Impact 3.4-8 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that would result in disturbance of nesting raptors, including nesting Swainson's hawk. This is considered a **less than significant** impact.

Habitat for nesting raptors may be disturbed by project construction activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered a "taking" by the CDFG and the USFWS. Any loss of fertile eggs or nests, or any activities resulting in nest abandonment, could constitute a significant impact. Because there are no suitable nest trees for Swainson's hawks or other raptors on the project site, this impact is considered **less than significant**.

Loss of Habitat or Loss or Disturbance to Silvery Legless Lizard and San Joaquin Pocket Mouse

Impact 3.4-9 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of habitat or loss of the following wildlife species of concern: silvery legless lizard and San Joaquin pocket mouse. This is considered a **less than significant** impact.

The Disturbed Annual Grassland at the project site provides low quality habitat for the silvery legless lizard and San Joaquin pocket mouse. The quality of the habitat at the project site is diminished by high levels of disturbance, both present (e.g., trespass, dumping, domestic animal use) and past (e.g., discing), surrounding residential development and agriculture, its fragmented nature (e.g., Bass Avenue cuts the site in half)

and the high perimeter to area ratio. Annual Grassland is a locally and regionally common habitat. Due to the common occurrence of this habitat and its low quality at the project site, the silvery legless lizard and San Joaquin pocket mouse have low potential to occur; therefore, this impact is considered **less than significant**.

Loss or Disturbance of Waters of the United States

Impact 3.4-10 Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss or disturbance of jurisdictional Waters of the United States at the project site (i.e., Emergent Marsh and Seasonal Wetland). This is considered a **potentially significant** impact.

Waters of the United States are subject to the jurisdiction of the Corps. Emergent Marsh and Seasonal Wetland habitats in the Central Valley are sensitive natural communities that have undergone significant historic losses and continue to suffer losses today throughout California. The Corps and CDFG have adopted "no-net-loss" policies for wetlands, requiring compensation for lost wetland functions and values. Wetland impacts that may occur as a result of the proposed project may include direct impacts, such as discharge of fill materials into the emergent marsh and drainage ditch and increased channelization of the drainage ditch, as well as indirect impacts, such as increased sedimentation in these areas resulting from adjacent grading.

Future development proposals that result in one or more of these direct or indirect impacts will constitute a significant impact to Waters of the U.S. The magnitude of each of these impacts is dependent upon project design. Due to the documented scarcity of these types of wetlands, mitigation for their loss is required.

Mitigation Measure

MM 3.4-10 All required permits shall be obtained prior to any grading activities within or adjacent to wetlands. Prior to issuance of a grading permit, formal wetland delineation shall be performed and submitted to the Corps for verification. If the Corps determines that any of the wetlands at the project site are jurisdictional Waters of the U.S., design of site-specific proposals shall mitigate impacts, wherever possible, using a combination of avoidance and compensation as described below.

If wetland impacts are unavoidable, authorization shall be obtained through a wetland fill permit from the Corps under Section 404 of the Clean Water Act for any fills, road crossings, utility crossings, or other direct impacts as specified by the Corp's permitting requirements. As part of this authorization, a mitigation plan shall be prepared and complied

with for full compensation of Waters of the U.S. losses, thereby reducing project impacts to less than significant levels. Such a mitigation plan will include an on-site compensation or, if necessary, a combination of on-site and off-site compensation, and shall include provisions for re-evaluation in the event that mitigation success criteria are not met within specified time frames. Compensation for Waters of the U.S. must meet, but not necessarily be limited to, the following success criteria:

- Compensation wetlands will remain inundated or saturated for sufficient duration to support hydrophytic vegetation.
- Compensation Waters of the U.S., including wetlands, will exhibit biotic communities comparable to impacted habitats.
- Project designs must provide a drainage system to prevent surface stormwater or landscaping irrigation runoff from flowing into preserve zones, compensation wetlands, or other nearby wetlands areas, unless adequately filtered by new wetlands or grasslands.
- Compensation Waters of the U.S. will be monitored each year for five years and a report of monitoring results will be submitted to the Corps and Fresno County Planning Department for review.

A request for water quality certification from the Regional Water Quality Control Board (RWQCB) will also be required pursuant to Section 401 of the Clean Water Act. For fill in wetlands and other Waters of the U.S., the project will most likely require an individual Section 404 permit if the project does not qualify under any other Nationwide Permit. The Corps authorization for fill must be secured and the appropriate mitigation plan must be approved by the Corps, prior to issuance of construction permits or recordation of parcel or subdivision maps.

Implementation of Mitigation Measure **MM 3.4-10** will mitigate impacts to Waters of the U.S. by requiring sufficient compensation and regulatory approvals, reducing impacts to a **less than significant** level.

Adopted Local, Regional, and State Policies and Plans

There are no local policies protecting biological resources or any local, regional or state conservation plans associated with the project site. Implementation of the proposed project will not conflict with established resource policy. Therefore, **no impact** is anticipated.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Loss of Habitat or Loss or Disturbance of Special-Status Wildlife Species

Impact 3.4-11 Annexation and conversion of the project site to urban uses, in conjunction with other future development proposed in the Mendota area, would contribute to the loss of habitat or loss or disturbance of special-status wildlife species. This is considered a **potentially significant and unavoidable impact**.

The project's contribution, in conjunction with other future regional development projects, may result in the loss of habitat or loss or disturbance to several species that are listed as threatened or endangered, including the blunt-nosed leopard lizard, giant garter snake, San Joaquin antelope squirrel, Fresno kangaroo rat, San Joaquin kit fox, western burrowing owl and Swainson's hawk.

Mitigation measures identified in this section would reduce the impact to biological resources in the immediate area; however, there is no feasible method to mitigate the cumulative impacts of habitat removal or alteration. Much of this determination depends upon the results of future surveys identified in the above mitigation measures. The larger habitat impact shall be considered **potentially significant and unavoidable**, assuming the identified species are indeed present. However, if future surveys determine that the identified species are not present, the project will have a **less than significant** cumulative impact.

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Section 3.5
Geology and Geological Constraints

This section of the EIR provides a discussion of the geologic, seismic and soil conditions that currently exist at the project site. The potential impacts of the proposed project related to these existing conditions are evaluated and mitigation measures are proposed where applicable. This examination is based on the Land Use Element of the *Mendota General Plan Update* and *EIR* (1991), the *Fresno County General Plan, Background Report* and *Draft EIR* (2000), a Phase I Environmental Site Assessment and materials provided by the project Applicant.

3.5.1 EXISTING SETTING

TOPOGRAPHY, GEOLOGY AND SOILS

Regional Geologic Setting

The City of Mendota is situated in the San Joaquin Valley, a structural trough whose main axis trends northwest-southeast and is bordered on the east by the granitic complex of the Sierra Nevada and on the west by the folded and faulted sedimentary, volcanic and metamorphic rocks of the Coast Range. The relatively flat floor of the San Joaquin Valley overlies thousands of feet of alluvial, lacustrine and marine deposits that have accumulated in the Valley as the trough has been lowered and the adjacent mountains have been elevated. The low alluvial plains and fans in the Valley floor are relatively flat and featureless, occupying most of the floor's area. The extensive fans along the eastern margin of the Valley contain high proportions of well-sorted gravel and sand, while the interstream areas between the fans are underlain by poorly sorted, fine-grained fluvial sediment deposited by intermittent streams. The average elevation of Mendota is 175 feet above mean sea level, with the terrain sloping gently from the southwest to the northeast.

Project Site Setting

The proposed project is located immediately northeast of the incorporated City limits, within Mendota's Sphere of Influence (SOI). The project site is located northwest of the Mendota Municipal Airport and adjacent to the Hacienda Gardens development. The approximately 68-acre site is relatively level with no topographic features. The site lies at an elevation of approximately 165 feet above mean sea level with the ground surface sloping gently to the east.

Soils Characteristics

The Land Capability Classification (LCC) system is used by the US Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), to determine a soil's agricultural productivity. The LCC indicates the suitability of soils for most kinds of field crops. Soils are grouped according to their limitations for field crops, the risk of damage if

they are used for crops, and the way they respond to management. Soils are rated from Class I to Class VIII, with soils having the fewest limitations receiving the highest rating (Class I). Soil within the project site has been identified and mapped as Class III. This rating indicates that major limitations exist due to fine texture, saline-alkaline conditions and sub-surface drainage problems. This soil type is not considered a prime soil.

Expansive Soils

Expansive soils are those that greatly increase in volume when they absorb water and shrink when they dry out. Expansion is measured by shrink-swell potential, which is the relative volume change in soil with a gain in moisture. If the shrink-swell potential is rated moderate to high, damage to buildings, roads and other structures can occur. Soils in the project area are not listed as expansive in the *Fresno County General Plan* (2000).

Erosion

Natural forces, both chemical and physical, are continually at work breaking down soils. Erosion poses two hazards: it removes soils, thereby undermining roads and buildings and producing unstable slopes and it deposits eroded soil in reservoirs, lakes, drainage structures and on roads as mudslides. Natural erosion is frequently accelerated by human activities such as clearing and grading. Soils in the project area are not susceptible to erosion according to the *Fresno County General Plan* (2000).

FAULTS AND SEISMICITY

A fault is classified as active if it has demonstrated activity within recent geologic time (the last 11,000 years) and there is a potential for activity in the future. A fault is categorized as potentially active if there has not been a rupture in historic time but there is geologic evidence that a rupture has occurred in the recent geologic past and could happen in the future. An inactive fault is one for which there is no evidence of activity in recent geologic time.

Severe damage can result from ground rupture along a fault trace or from severe ground shaking for any sustained amount of time. The size of the earthquake, distance to the fault that generated the earthquake and the geology of the site determine the severity of ground shaking. Thick, loose materials tend to amplify and prolong the ground shaking during an event whereas dense materials such as bedrock tend to minimize the effects of ground shaking.

Primary damage from ground shaking during an earthquake consists of damage to structures as a result of repeated lateral movement. Secondary damage to structures results from liquefaction and seismic compaction, land sliding and dam failure. Liquefaction is the transformation of soil from a solid to a liquid state due to increased pore-water pressure,

usually in response to strong ground shaking. Liquefaction usually occurs in loose, saturated silts and sands. Structures supported on top of such soil during an earthquake can experience sudden differential settlement. Subsidence, or dynamic compaction, is the densifying of loose, unconsolidated materials during an event and can cause similar damage to structures. Lateral spreading occurs when soils liquefy beneath a slope, but can also occur beneath level ground if an open topographic face is near.

Seismically, Mendota is in a zone of low primary hazard. No major faulting has occurred along the Mendota margin of the central San Joaquin Valley. The nearest fault to the City of Mendota is the Ortigalita Fault, which is located approximately 30 miles west, near the community of Panoche. This fault zone extends approximately 50 miles from western Stanislaus County to the far northwestern corner of Fresno County. Most of the fault is considered active and has been designated an Earthquake Hazard Zone under the Alquist-Priolo Earthquake Fault Zoning Act of 1994.

Intensity Criteria

Earthquake magnitude is a measure of the total amount of energy released in an earthquake. With increasing magnitude (i.e. larger earthquakes), ground motions are stronger, last longer and are felt over larger areas. Earthquake intensity is a measure of the effects of earthquake ground motions on people and buildings. Earthquake intensity is often more useful than magnitude when discussing the damaging effects of earthquakes. The most common intensity scale is the Modified Mercalli Intensity scale, which ranges from I to XII.

Table 3.5-1 below, describes the effects of earthquakes and compares the Richter Scale (magnitude) to the Modified Mercalli Scale (intensity).

TABLE 3.5-1
MODIFIED MERCALLI INTENSITY SCALE FOR EARTHQUAKES

Richter Magnitude Scale	Modified Mercalli Scale	Effects of Intensity
0.1-0.9	I	Earthquake shaking not felt.
1.0-2.9	II	Shaking felt by those at rest.
3.0-3.9	III	Felt by most people indoors; some can estimate duration of shaking.
4.0-4.5	IV	Felt by most people indoors. Hanging objects rattle, wooden walls, frames creak.
4.6-4.9	V	Felt by everyone indoors; many estimate duration of shaking. Standing autos rock. Crockery clashes, dishes and glasses rattle. Doors open, close, and swing.
5.0-6.4	VII	People frightened and walls unsteady. Pictures and books thrown,

Richter Magnitude Scale	Modified Mercalli Scale	Effects of Intensity
		dishes/glass are broken. Weak chimneys break. Plaster, loose bricks and parapets fall.
6.5-6.9	VIII	Difficult to stand, waves on ponds, cohesionless soils slump. Stucco and masonry walls fall. Chimneys, stacks, towers, elevated tanks twist and fall.
7.0-7.4	IX	General fright as people are thrown down. Hard to drive, trees broken, damage to foundations and frames. Reservoirs damaged, underground pipelines broken.
7.5-7.9	X	General panic, ground cracks, masonry and frame buildings destroyed. Bridges destroyed, dams, dikes and embankments damaged. Railroads bent.
8.0-8.4	XI	Large landslides, water thrown, general destruction of buildings; pipelines destroyed; railroads bent.
8.5 +	XII	Total nearby damage, rock masses displaced. Lines of sight/level distorted. Objects thrown into air.

Source: California Geological Survey, 2005

In addition to the Mercalli Scale, faults are classified according to criteria provided by the Uniform Building Code, as identified in **Table 3.5-2** below:

TABLE 3.5-2
UNIFORM BUILDING CODE FAULT CLASSIFICATIONS

Fault type	Characteristics
A	Faults that have a Richter magnitude potential of 7.0 and a slip rate equal to or greater than 5 mm/year. These types of faults are considered to be active and capable of producing large magnitude events. Most segments of the San Andreas Fault are be classified as a Type A fault.
B	All faults that are not Type A or Type C. Includes most of the active faults in California.
C	Faults that have a Richter magnitude potential of less than 6.5 and a slip rate of less than or equal to 2 mm/year. These faults are considered to be sufficiently inactive and not capable of producing large magnitude events such that potential near-source ground shaking effects can be ignored. Most faults outside of California are Type C.

Source: Uniform Building Code, 2004

Surface Ground Rupture

The project site is not located within an Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist. There are no known or potentially active faults located within or

near the vicinity of the project site. Therefore, the potential for surface ground rupture at the project site is considered low.

Ground Shaking

Ground shaking is the source of the most widespread earthquake damage. When movement occurs along a fault, the energy generated is released as waves which cause ground shaking. The amount of ground shaking at a particular site depends on characteristics of the earthquake source, distance from the fault and amplification effects of local geologic deposits. As a rule, the greater the earthquake magnitude and the closer the fault rupture to the site, the greater the intensity of ground shaking.

Although most of Fresno County is situated within an area of relatively low seismic activity, the faults and fault systems that lie along the eastern and western boundaries of the County, as well as other regional faults, have the potential to produce high-magnitude earthquakes throughout the County. The San Joaquin Valley is located on alluvial deposits, which tend to experience greater ground shaking intensities than areas located on hard rock. Therefore, structures in the Valley would tend to suffer greater damage from ground shaking than those located in the foothill and mountain areas.

Most of Fresno County, including the Mendota area, is located in Seismic Zone 3, as defined by the California Uniform Building Code (UBC). According to the California Geological Survey's Probabilistic Seismic Hazard Map, estimated peak horizontal ground acceleration ranges from 0.1g in the Valley and foothills and increases outward to as high as 0.7g in the southwestern corner of the County. These estimates assume a 10% probability of earthquake occurrence in fifty years. The Mendota area lies in the 0.2 to 0.4g range.

Liquefaction

Liquefaction is the loss of strength in saturated granular soils produced by seismic shaking and is often accompanied by the surface occurrence of free water produced by sand boils. Areas most prone to liquefaction are those that are water saturated (e.g., where the water table is less than thirty feet below the surface) and consist of relatively uniform sands that are loose to medium density. In addition to necessary soil conditions, the ground acceleration and duration of the earthquake must be of sufficient energy to induce liquefaction. Ground acceleration must usually approach 0.3g before liquefaction occurs in a sandy soil with relative densities typical of the San Joaquin alluvial deposits. Liquefaction during major earthquakes has caused severe damage to structures on level ground as a result of settling, titling or floating. Also of particular concern in terms of developed and newly developing areas are fill areas that have been poorly compacted. Areas where groundwater is less than thirty feet below the surface occur in the Valley. However, soil

types in the project area are not conducive to liquefaction because they are either too coarse or too high in clay content.

Land Subsidence

Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil or natural gas. This type of ground failure can be aggravated by ground shaking. Subsidence from any cause accelerates maintenance problems on roads, lined and unlined canals and underground utilities. All new installations in areas suspected of subsidence should be engineered to withstand such subsidence. The usual remedial action involves raising the water table by injecting water or by reducing groundwater pumpage. This increases the fluid pressure in the aquifer and, in most instances, subsidence decreases or stops after a period of time. The City of Mendota is on the edge of an area of deep subsidence according to the *Fresno County General Plan* (2000).

3.5.2 REGULATORY SETTING

CALIFORNIA AND UNIFORM BUILDING CODES

The California Building Code (Title 24) and the Uniform Building Code provide standards for testing and building construction as well as safety measures for development within earthquake prone areas.

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. This state law was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures.

The Alquist-Priolo Earthquake Fault Zoning Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards.

The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. ("Earthquake Fault Zones" were called "Special Studies Zones" prior to January 1, 1994.) The maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. Local agencies must regulate most development projects within the zones. Projects include all land divisions and most structures for human occupancy. Single family wood-frame and steel-frame dwellings up to

two stories not part of a development of four units or more are exempt. However, local agencies can be more restrictive than state law requires.

Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally fifty feet).

SEISMIC HAZARDS MAPPING ACT

The Seismic Hazards Mapping Act (1990) requires the State Geologist to designate Seismic Hazard Zones. These zones assist cities and counties in fulfilling their responsibilities for protecting the public from the effects of non-surface fault rupture earthquake hazards such as strong ground shaking, earthquake-induced landslides, liquefaction or other ground failures. Before a development permit can be issued for a project within such a zone, cities and counties must require a site-specific investigation to determine whether a significant hazard exists at the site and, if so, recommend mitigation measures to reduce the risk to an acceptable level. The California Geological Survey has not issued a Seismic Hazards Map for the Mendota area.

FRESNO COUNTY GENERAL PLAN

The Health and Safety Element of the *Fresno County General Plan* (2000) contains the following policies relevant to Seismic and Geologic Hazards:

Policy HS-D.3 The County shall require that a soils engineering and geologic-seismic analysis be prepared by a California-registered engineer or engineering geologist prior to permitting development, including public infrastructure projects, in areas prone to geologic or seismic hazards.

Policy HS-D.4 The County shall require all proposed structures, additions to structures, utilities, or public facilities situated within areas subject to geologic-seismic hazards as identified in the soils engineering and geologic-seismic analysis to be sited, designed, and constructed in accordance with applicable provisions of the Uniform Building Code (Title 24 of the California Code of Regulations) and other relevant professional standards to minimize or prevent damage or loss and to minimize the risk to public safety.

Policy HS-D.8 The County shall require a soils report by a California-registered engineer or engineering geologist for any proposed development, including public infrastructure projects, that requires a County permit and is located in an area containing soils with high "expansive" or "shrink-swell" properties. Development in such areas shall be prohibited unless suitable design and construction measures are incorporated to reduce the potential risks associated with these conditions.

Policy HS-D.9 The County shall seek to minimize soil erosion by maintaining compatible land uses, suitable building designs, and appropriate construction techniques. Contour grading, where feasible, and revegetation shall be required to mitigate the appearance of engineered slopes and to control erosion.

3.5.3 PROJECT IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and generally accepted standards for environmental documents prepared pursuant to CEQA. For the purposes of this EIR, impacts are considered to be significant if any of the following would result from implementation of the proposed project:

1) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving,

   a) 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;

   b) Strong seismic ground shaking;

   c) Seismic-related ground failure including liquefaction; or,

   d) Landslides;

2) Result in a substantial soil erosion or the loss of topsoil;

3) 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, collapse, or be located on expansive soils; or,

4) Contributes significantly to any cumulative geological, soils or seismicity impact.

METHODOLOGY

The analysis of potential geology and soils impacts is based on the Land Use Element of the *Mendota General Plan* (1991), the *Fresno County General Plan* (2000) and materials provided by the project Applicant.

PROJECT IMPACTS AND MITIGATION MEASURES

Ground Rupture

No faults are mapped across the project site and it is not located within an Alquist-Priolo Fault Zone, as mapped by the State Geologist. Based on the distance of the nearest fault to the project site, the proposed project would not expose people or property to ground rupture; therefore, **no impact** is expected.

Seismic Ground Shaking

Impact 3.5-1 Placement of new structures at the project site could result in potential structural damage and associated human safety hazards resulting from seismic ground shaking caused by earthquakes on nearby active and potentially active faults. This considered a **potentially significant** impact.

Most of Fresno County, including the Mendota area, is located in Seismic Zone 3, as defined by the California Uniform Building Code (UBC). According to the California Geological Survey's Probabilistic Seismic Hazard Map, estimated peak horizontal ground acceleration ranges from 0.1g in the Valley and foothills and increasing outward to as high as 0.7g in the southwest corner of the County. These estimates assume a 10% probability of earthquake occurrence in fifty years. The Mendota area lies in the 0.2 to 0.4g range.

To ensure that the proposed project will not result in exposure of persons or property to substantial adverse effects resulting form strong seismic ground shaking, the following mitigation measure shall be required:

Mitigation Measure

MM 3.5-1 Prior to Final Tentative Map approval, a site-specific geotechnical investigation shall be prepared by a qualified geotechnical engineer for each development proposal to determine the site-specific surface and subsurface geologic and soil constraints for the proposed project. The investigation shall be subject to review and approval by the City of Mendota and all future development shall be designed in accordance

with these requirements and the current edition of the California Building Code.

By ensuring compliance with all building standards, including the California Building Code and site-specific engineering recommendations for the project site, potential impacts to residents and structures from seismic ground shaking will be reduced to a **less than significant** level.

Liquefaction, Differential Compaction, and Lateral Spreading

Impact 3.5-2 Placement of new structures at the project site could result in potential structural damage and associated human safety hazards resulting from liquefaction, differential compaction, and lateral spreading. This is considered a **less than significant** impact**.**

Soil liquefaction is a condition where saturated, granular soils undergo a substantial loss of strength and deformation due to cyclic stress induced by earthquakes, resulting in both horizontal and vertical movements if the soil mass is not confined. Areas supported by softer or looser material will settle more than those supported by harder or denser material. These conditions can stress and possibly damage foundations and surface improvements, causing severe cracks and displacement. Ground acceleration must usually approach 0.3g before liquefaction occurs in a sandy soil with relative densities typical of the San Joaquin Valley alluvial deposits. Soil types in the Mendota area are not conducive to liquefaction because they are either too coarse or too high in clay content. The project site is nearly level, therefore, the potential hazard of lateral spreading is considered very low as well.

Implementation of Mitigation Measure **MM 3.5-1**, above, requires that the Applicant design all development in accordance with the requirements of the California Building Code and the recommendations contained within a site-specific soils engineering report, subject to review and approval by the City of Mendota. This mitigation measure will reduce the effects of liquefaction, differential compaction, and lateral spreading at the project site to a **less than significant** level.

Landslides

The project site and its surroundings are generally flat and level. There are no slopes or mapped landslides in the vicinity that possess significant landslide potential either as a result of strong seismic activity or site construction and there is very low potential for landsliding or slope stability problems. **No impact** is expected.

Expansive Soils

Impact 3.5-3 Placement of new structures at the project site could result in potential structural damage and associated human safety hazards resulting from expansive soils at the project site. This is considered a **less than significant** impact.

Expansive soils tend to swell with seasonal increases in soil moisture and shrink during the dry season as the soil moisture decreases. The volume change that the soils undergo in this cyclical pattern can stress and damage slabs and foundations if precautionary measures are not incorporated into the design and construction procedure. The Fresno County General Plan does not list soils in the project area as expansive. However, soil expansion maps in the General Plan are generalized representations; therefore, a site-specific investigation will be necessary to determine whether any expansive soils are located on the project site.

Implementation of Mitigation Measure **MM 3.5-1**, above, requires that the Applicant design all development in accordance with the requirements of the California Building Code and the recommendations contained within a site-specific soils engineering report, subject to review and approval by the City of Mendota. This mitigation measure will reduce the effects of potential expansive soils at the project site to a **less than significant** level.

Short-Term Soil Erosion During Construction Activities

Impact 3.5-4 The proposed project has the potential to result in short-term soil erosion during construction activities. This is considered a **potentially significant** impact.

There is no evidence of significant soil erosion at the project site due primarily to level topography. However, soil erosion and loss of topsoil may occur with the construction of improvements such as buildings, roads, parking areas, drainage, and other permanent improvements. Heavy earth moving equipment is used for site grading and compaction. In general, grading activities create the potential for increased ground instability and erosion. Grading and other construction-related activities would disturb the soil, which could increase soil erosion rates. All disturbed soil is subject to erosion with the amount of erosion dependent on soil type, vegetation cover, slope length, and gradient.

Erosion resulting from the project can be successfully controlled and prevented using a variety of methods, including drainage control plans and adherence to Best Management Practices (BMPs) to control runoff. Implementation of Mitigation Measures **MM 3.8-1a** and **b** in **Section 3.8 Hydrology** will reduce short-term erosion impacts to a **less than significant** level by requiring the Applicant to prepare drainage control plans and adhere to permanent BMPs to control stormwater runoff.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

The project will not combine with any other factors or projects and, thus, is not significant due to the localized, site-specific nature of geotechnical and seismic impacts. No significant cumulative impacts are predicted relative to geology or geologic hazards. Cumulative development would result in **no cumulative impacts**.

REFERENCES/DOCUMENTATION

City of Mendota. *General Plan Update and EIR*. 1991.

City of Mendota. *Notice of Preparation of a Draft Environmental Impact Report*. April 8, 2005.

County of Fresno. *General Plan*. Adopted October 3, 2000.

County of Fresno. *General Plan, Background Report*. Adopted October 3, 2000.

Governor's Office of Planning and Research, State of California. *Guidelines for Implementation of the California Environmental Quality Act,* as amended. 2004.

Section 3.6
Noise

This section of the EIR discusses the existing noise environment of the area and identifies potential changes to the existing environment that may result form development of the proposed project. This section analyzes the probable noise levels at the project site due to surrounding land uses and development of the project. This section of the EIR is based on City of Mendota goals and policies for noise assessment, County of Fresno noise policies and standards, Fresno County Airports Land Use Policy Plan and generalized noise data from PMC's project files.

3.6.1 EXISTING SETTING

BACKGROUND

Sound is defined as any pressure variation in air that the human ear can detect. Airborne sound is the rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured in decibels (dB) with 0 dB corresponding roughly to the threshold hearing under near perfect or laboratory conditions. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness. Most of the sounds that a person can hear in our normal environment do not consist of a single frequency, but rather a broad range of frequencies. Human hearing is imperfect so the equipment has a filter to mimic the imperfections of the human hearing; it is called "A-weighting".

Noise is defined as unwanted sound. All environmental noise is reported in terms of A-weighted decibels, dB. **Table 3.6-1** demonstrates the human response to common sources of dB.

TABLE 3.6-1
THE DB SCALE, HUMAN RESPONSE AND COMMON SOURCES

Noise Level, dB	Human Response	Noise Source
120-150+	Painfully Loud	Sonic Boom (140dB)
100-120	Physical Discomfort	Train horn @ 50 ft. 104 dB
70-100	Annoying	Freeway 80 dB
50-70	Intrusive	Vacuum Cleaner 70 dB
0-50	Quiet	Normal Conversation 50 dB

Source: Edward L. Pack Assoc. 2004

It is important to account for the difference in response of people to daytime and nighttime noise. During the nighttime, exterior background noises are generally lower that daytime

levels, as is the case for most household noise. Exterior noise on the other hand becomes more noticeable. To account for this sensitivity, the Day-Night-level (DNL or L_{dn}), noise descriptor was developed. The DNL divides the 24-hour day into two sections (nighttime and day time), with nighttime measured with higher sensitivity. The Community Noise Equivalent Level (CNEL) is another 24-hour average, which includes sensitivity penalties for evening and nighttime as well.

The effects of noise that effect people are listed into three categories: subjective effects of annoyance, nuisance, dissatisfaction; interference with activities such as speech, sleep, learning; and physiological effects such as startling or hearing loss. Most environmental noises cause effects in the first two categories. A worker in an industrial plant can experience the third effect, for example. Since there is not a satisfactory way to measure subjective effects of noise, comparing a person's reaction to new noise to the existing environment "ambient" generally gives a satisfactory interpretation to what is acceptable or not in terms of noise.

The Environmental Protection Agency has established the following relationships, with regards to noise level changes and the effect on the general public. **Table 3.6-2** is commonly used to show expected public reaction to changes in environmental noise levels. This table was developed on the basis of test subjects' reactions to changes in the levels of steady-state pure tones or broad-band noise and to changes in levels of a given noise source.

TABLE 3.6-2
NOISE LEVEL CHANGES & PUBLIC REACTION

Noise Level Increase	Reaction of the General Public
1 dB	Imperceptible except under carefully controlled lab conditions.
3 dB	A just perceptible difference outside the laboratory
5 dB	Required for any noticeable change in community response to be expected
10 dB	A 10dB change is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse change in community response

Source: Architectural Acoustics, M. David Egan, 1998

Appendix G of the California Environmental Quality Act (CEQA) Guidelines defines a significant noise impact from a project if it would result in exposure of residents to noise levels in excess of local standards, to excessive ground vibration or to a substantial permanent or temporary increases in the ambient noise levels. A 1-2 dB increase is usually considered insignificant, 3-5dB is often the threshold of significance, unless ambient noise levels exist at 3-5 dB.

TABLE 3.6-3
ACOUSTICAL TERMINOLOGY

Term	Definition
Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.

Source: Architectural Acoustics, M. David Egan, 1998

PROJECT VICINITY

Existing Noise Sensitive Land Uses

The 68-acre project site is predominately open space and fallow agricultural land. The site is bisected by Bass Avenue and is approximately one mile from both Highway 180, and Highway 33. Adjacent land uses include a mix of agricultural fields, the Mendota Airport, and residential developments. Vacant fields within the immediate project vicinity are primarily fallow agricultural land located to the north, east and southeast of the project site. Single-family homes border the site to the west and southeast, while multi-family developments also are located west of the site.

Existing Noise Environment

The existing ambient noise environment in the immediate project vicinity is subjectively characterized as relatively quiet, with the only identified noise sources of consequence being local traffic, Mendota Municipal Airport, and agricultural uses. The airstrip is located directly adjacent to the southeastern portion of the of the project site. The project site is also intersected by Bass Avenue and surrounded residential arterial streets to the west. The analysis of potential noise impacts focuses on the noise impacts from the Mendota Municipal Airport and traffic noise issues.

Aircraft Noise Levels

The Mendota Municipal Airport is located adjacent to the southeastern of the project site. The airport consists of a 14/32 (140/320 degrees magnetic) runway that is approximately 3550 x 50 ft feet (or approximately 0.75 miles) long. The runway is oriented in a southeast to northwest direction and is parallel with proposed project site. Based on information contained within the Fresno County Airports Land Use Policy Plan aircraft routinely overfly the project site while preparing to land or after departing from the airport.

Aircraft noise exposure is defined in terms of Community Noise Equivalent Level (CNEL) for noise compatibility planning as required by the State of California. The land use compatibility criterion applied by the State is 65 CNEL dB. The Fresno County Airports Land Use Policy Plan contains CNEL contours for the Mendota Municipal Airport indicating a maximum noise exposure standard of 60 CNEL dB. The CNEL and L_{dn} are considered to be equivalent descriptors of community noise exposure, with the only difference being that the CNEL incorporates an evening penalty of 5 dB for calculation and the L_{dn} does not. Both the CNEL and the L_{dn} incorporates a nighttime penalty of 10 dB. The CNEL and L_{dn} are calculated values and represent the time-weighted noise exposure during a 24-hour day. Aircraft single events usually produce numerically higher noise levels than the CNEL at a given location.

The Fresno County Airports Land Use Policy Plan contains CNEL contour operation standards for the Mendota Airport and accompanying airstrip as well as surrounding uses in the immediate vicinity of the airport and airstrip. The CNEL 60 dB contour for operations lies completely within the airport boundary. The CNEL 55 contour extends out around the airport and airstrip to include surrounding uses, including the southeastern portion of the proposed project site.

Based on the *Fresno County Airports Land Use Policy Plan* the Don Alejandro Valdez project site is not within the designated 60 CNEL dB contour, however the project site is partially within the 55 CNEL dB contour. Aircraft noise levels are clearly audible throughout the project site during individual aircraft departures, traffic pattern entry, and downwind approaches over the project site and during aerobatic training flights in the

airport area.

Existing Traffic Noise Levels

The existing traffic volumes on Bass Avenue in the vicinity of the project are relatively low, as Bass Avenue dead ends at the canal, west of the project, and there is no through traffic. Existing ambient noise from vehicles in the immediate project vicinity is typically from residential collector street, including "H" Street, Kate Street, Fourth Street and Lozano Street.

Agricultural Noise

The proposed project would be developed in the immediate vicinity of existing agricultural uses. The project borders vacant agricultural land in unincorporated Fresno County on the east. An irrigation canal forms the northern boundary, with active agricultural fields across the canal.

3.6.2 REGULATORY SETTING

In order to limit population exposure to physically and/or psychologically damaging noise levels, the State of California, various county governments, and most municipalities in the State have established standards and ordinances to control noise. The Fresno County *General Plan*, *Airports Land Use Policy Plan* and CEQA provide regulations regarding noise levels for uses relevant to the proposed project. The following provides a general overview of the existing regulations established by the County and CEQA.

CITY OF MENDOTA GENERAL PLAN

The City of Mendota currently has no available Noise Element policies or standards contained within the Mendota General Plan update to regulate noise assessment of proposed project. However, a right-to-farm clause is required as a condition of Final Map recordation.

FRESNO COUNTY AIRPORTS LAND USE POLICY PLAN

The Fresno County Airports Land Use Policy Plan contains descriptive policies that establish noise exposure standards for land use compatibility in terms of the noise levels. Levels are not to exceed 60 CNEL dB for all residential areas. The Policy Plan includes the relative acceptability or unacceptability of particular land uses with respect to noise levels to which they would be exposed. Acceptability is identified in the "Airport/Land Use Noise Compatibility Criteria Matrix." These criteria are to be used as the principal determinates of whether a proposed land use is compatible with the Mendota Municipal Airport. The Policy Plan also includes Interior Noise Level criteria for proposed uses within the vicinity

of the Airport. These thresholds are used to determine if new development to be included within the City of Mendota (including the Don Alejandro Valdez project site) is compatible with the Mendota Municipal Airport.

CALIFORNIA OFFICE OF NOISE CONTROL

The State of California Office of Noise Control (ONC) developed the Model Community Noise Control Ordinance to assist cities and counties in the development of appropriate noise standards for their jurisdictions. The ONC standards are recommended in terms of hourly levels, and include adjustments for the rural versus urban nature of the community, the time of day the noise occurs, the duration of the intrusive sound, the ambient conditions, and the characteristics of the noise (impulsive, tonal, speech or music, etc.). The ONC recommended standards that would be most applicable to the proposed sensitive land uses included in the proposed project are included in **Table 3.6-4**.

TABLE 3.6-4
STATE OF CALIFORNIA MODEL NOISE ORDINANCE RECOMMENDED STANDARDS
(SUBURBAN LAND USES)

Receiving Land Use	Duration of Intrusive Sound	Daytime Standard (7 a.m. - 10 p.m.)	Nighttime Standard (10 p.m. - 7 a.m.)
One & Two Family Residential	30 - 60 minutes per hour	55	45
	15 - 30 minutes per hour	60	50
	5 - 15 minutes per hour	65	55
	1 - 5 minutes per hour	70	60
	Less than 1 minute per hour	75	65

1. *If the offensive noise contains a steady, audible tone such as a whine, screech, or hum, or is a repetitive noise such as hammering, or riveting, or contains music or speech, the standard limits shown shall be reduced by 5 dB.*
2. *Source: State of California Model Community Noise Control Ordinance.*

FEDERAL INTERAGENCY COMMITTEE ON NOISE

The effects of increased traffic noise resulting from a new project at existing off-site and on-site noise-sensitive land uses are often evaluated using standards developed by the Federal Interagency Committee on Noise (FICON). The FICON standards provide thresholds for likely noise impacts based on the difference between anticipated project-related noise level increase and the pre-project ambient noise conditions.

The FICON standards are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were developed to assess aircraft noise impacts, they have commonly been applied to all sources of noise that are described in terms of cumulative noise exposure metrics such as L_{dn}. The FICON standards are shown in **Table 3.6-5**.

TABLE 3.6-5
SIGNIFICANCE OF CHANGES IN CUMULATIVE NOISE EXPOSURE

Ambient Noise Level Without Project (L_{dn} or CNEL)	Significant Impact
< 60 dB	+ 5.0 dB or more
60-65 dB	+ 3.0 dB or more
> 65 dB	+ 1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON).

3.6.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed, as discussed previously in the Regulatory Setting heading of this Section. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local planning criteria or ordinances, or substantially increase noise levels at noise-sensitive land uses.

For this EIR, noise impacts associated with the proposed project would be considered significant if the following were to occur:

1) Noise levels at proposed residences within the Don Alejandro Valdez Community project area are predicted to exceed 65 dB L_{dn} at outdoor activity areas or 45 dB L_{dn} at interior spaces of the proposed residential uses;

2) Noise levels generated by the proposed projects land uses are predicted to exceed the ONC standards;

3) The project-related traffic noise level increases are predicted to exceed the FICON standards, or;

4) The project would contribute significantly to any cumulative noise impact.

METHODOLOGY

A combination of use of existing literature and general application of accepted noise thresholds were used to determine the impact of ambient noise levels resulting from and on development within the project area. Project-related noise components include increased traffic, noise from commercial uses, noise generated from the Mendota Municipal Airport, construction noise agricultural noise. Sensitive land uses in the area were identified. Noise impacts of each of these noise sources are described below.

PROJECT IMPACTS AND MITIGATION MEASURES

Construction Noise

Impact 3.6-1 Activities associated with construction could result in elevated noise levels, with maximum noise levels ranging from 72-92 dB at 50 feet. This is above the standards 65 CNEL Db outdoor and 45 CNEL Db interior maximum noise levels thresholds. This is a **potentially significant** impact.

Construction activities at the proposed project site could create temporary increases in noise levels at adjacent noise sensitive land uses. These activities could affect sensitive receptors in the vicinity of the site, including residential uses and commercial uses. Normal phases of construction include grading, foundation work, framing and interior work. Typically, the noisier work occurs during the site preparation phase and includes large diesel powered earthmoving equipment. Construction equipment can generate noise levels in the range of 72-92 dB at a 50 feet distance form the source and has the potential for disturbing the nearby residences when operating the equipment. The most impacted residences would be located on the south and west sides of the project site. Since construction is carried out in several discrete phases, each will have its own mix of equipment and consequently its own noise characteristics. Generally in Phase I of construction the site preparation will require heavy equipment, such as bulldozers, backhoes, scrapers, cement and diesel trucks (**Table 3.6-6** demonstrates the Noise level at 50 feet of such equipment). Upon completion of the project the area's noise environment will not be effected by construction on the Don Alejandro Valdez site.

TABLE 3.6-6
CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dB at 50 feet
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85

Source: Environmental Noise Pollution, Patrick R. Cunniff, 1977

Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours. However, because construction activities would result in periods of elevated noise levels that may exceed the thresholds for sensitive receptors in the project area, this impact is considered **potentially significant**. The following mitigation measure would reduce this potentially significant impact to a **less than significant** level.

Mitigation Measures

MM 3.6-1a To reduce the effects of construction noise, the Applicant shall require construction contractors to limit high noise-producing activities to the least noise-sensitive times of day and week (e.g., 7:00 am to 6:00 pm, Monday through Friday). Monitoring of construction activities shall be conducted by the City of Mendota.

MM 3.6-1b During construction activities the project Applicant shall distribute a disclosure statement to surrounding owners and tenants at the project site that describes the extent of the noise that can be expected, and who to call if there are noise related complaints during construction activities. This disclosure notice shall also be posted at the project site in a visible location. Information in the disclosure notice shall include a construction schedule showing the dates and location of activities; and the name and contact information for a construction noise coordinator for the project Applicant who will be responsible for implementing the noise control measures and responding to complaints.

Implementation of the above measures would reduce construction noise impacts to a **less than significant** level by requiring that high noise producing construction activities take place only during specified times and neighboring residences and commercial uses are properly notified.

Exposure to Aircraft Noise

Impact 3.6-2 Sensitive land uses constructed as part of the proposed project would be exposed to aircraft noise from the Mendota Municipal Airport located directly adjacent to the southeast corner of the project site. This is considered a **potentially significant** impact.

The Fresno County Airports Land Use Policy Plans contains Compatibility Criteria for examining the compatibility the Mendota Municipal Airports surrounding land uses, including the project site. According to the Airport/Land Use Noise Compatibility Criteria for compatible uses, the airport could affect the Don Alejandro Community Project. The proposed project would be partially included in the 55 CNEL dB contour surrounding the airport and runway. At the 55 CNEL dB level the project's land uses, including Multi-family Residential uses, Commercial uses and transient uses would be *Clearly Acceptable*. These activities should be able to be carried out without any interference airport noise exposure. Single-Family Residential uses within the 55 CNEL dB would be considered *Normally Acceptable* by the Fresno County Airport/Land Use Noise Compatibility Criteria Table. *Normally Acceptable* suggests that noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction will eliminate most noise intrusions upon indoor activities. The project Applicant will be required to

comply with the State of California Building Code, to ensure that all land uses are adequately constructed.

However due to the proximity of the airport to the project site, aircraft noise exposure could cause moderate interference with outdoor activities and with indoor activities when windows are open. The land uses are subject to review by the Airport Land Use Commission. The Commission may determine the land use acceptable under conditions where outdoor activities are minimal and normal construction features provide sufficient noise attenuation (e.g. installation of air conditioning so that windows can be kept closed.) New development such as the proposed project will be allowed to develop only after noise insulation features included in the design clearly demonstrate a reduction in noise levels to acceptable standards as set by the City. The following mitigation measures would reduce the noise impacts associated with the propose project to a **less than significant** level.

Mitigation Measures

MM 3.6-2a The City shall require the Applicant to record an Aviation Easement across the project site. The Aviation Easement shall be prepared and recorded concurrent with recordation of the final map of the first phase of the proposed project and referenced on all final maps.

MM 3.6-2b The Applicant shall notify future residents that the project site is subject to aircraft over flights and single event noise exposure due to the proximity of the project site to Mendota Municipal Airport. The Applicant shall prepare and record the notification agreement prior to or concurrent with recordation of the final map of the first phase of the proposed project. All future residents shall be notified of the noise exposure prior to entering in an agreement to purchase a home within the project area.

MM3.6-2c During construction, the Applicant shall install proper mechanical ventilation and air conditioning for units within the 55 dB contour line to enable the residents to have windows and doors remained closed. Building plans shall be subject to review and approval by the Planning and Building Inspector. Prior to project approval the noise insulation features should clearly demonstrate that future resident's exposure to aircraft noise levels are within the acceptable standards as set by the City of Mendota.

Implementation of the above mitigation measures will reduce impacts from aircraft noise sensitive receptors within the project area to a less than significant level by requiring an Aviation Easement and proper mechanical ventilation and air conditioning for units within the 55 dB contour line. In addition, the Applicant will be required to provide full disclosure of the potential for aircraft noise to future residents.

Traffic Related Noise Impacts

Impact 6.3-3 The proposed project could possibly increase traffic on the existing roadway network by the addition of future residents and roadways, which would result in traffic noise level increases that could affect, the proposed project site and surrounding land uses. This could be **potentially significant**.

Development of the proposed project could incrementally increase noise levels on streets within the vicinity due to generation of additional traffic associated with the proposed residential uses, commercial uses, and primarily the proposed transportation terminal and service sites. An increase of ambient noise levels could occur along the major streets that border and bisect the project site including Bass Avenue, "H" Street, Kate Street, Fourth Street and Lozano Street. As the project is in the conceptual stage at this point the precise effects of the development are estimated.

MM 3.6-3a Prior to approval of building permits for each phase, an acoustical analysis report shall be submitted by the project Applicant pursuant to Section 1208A.8 of the State of California Building Code. The report shall show how the prescribed interior level of a CNEL of 45 dB will be met in residential structures exposed to a CNEL greater than 65 dB. Typically, sound-rated windows, doors, and sometimes, exterior walls are required. Those units that are required to have their windows closed to meet the prescribed interior noise level shall require a ventilation or air conditioning system to provide a habitable interior noise environment.

MM3.6-3b Prior to approval of building permits for any phase, the project Applicant shall revise/refine the site plan to be reviewed by the City of Mendota, to include solid barriers or combination of earthen berms and solid barriers to attenuate roadway sound. The sound barriers should be at a height sufficient to mitigate the increase in noise from existing plus project generated traffic from the proposed roadways. Construction of this acoustical barrier would ensure that outdoor noise levels at the project site would not exceed 65 CNEL dB.

Implementation of the above mitigation measures would reduce the impact of noise from the additional 7,881 trips anticipated from development of the project to a **less than significant** level by requiring sound barriers along the borders of the project site and sound-rated windows, doors, and/or exterior walls at residential uses.

Adjacent Agricultural Noise

Impact 3.6-4 The project would develop adjacent to agricultural operations, which may not be a compatible land use, in terms of noise. This is a **potentially significant** impact.

The project would develop adjacent to active agricultural operations to the east of the site. This may result in noise incompatibility during early morning hours of the crop harvesting and planting seasons. Agricultural equipment may seasonally generate noise levels of up to 80 to 90 dB at 100 feet. Implementation of the following mitigation measures requiring disclosure of the adjacent agricultural uses right=to-farm and the potential noise effects of agricultural operations on adjacent land uses to future project residents as well as implementation of **MM 3.3-6b** would reduce potential agricultural noise impacts to a **less than significant** impact.

MM 3.6-4 The Applicant shall notify potential buyers of residential lots within the project area, at the time of sale, of the proximity of agricultural uses. The notification agreement shall be prepared prior to recording the Final Map of the first phase of the proposed project.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Traffic Noise

Impact 3.6-5 The proposed project would contribute to cumulative traffic on the roadway network over existing conditions, which would contribute to cumulative traffic noise in the city limits. This is considered a **potentially significant** impact.

Pursuant to the Significance Criteria shown in **Table 3.6-5**, a substantial increase in traffic noise levels is defined as 1.5 to 5 dB, depending on the pre-project traffic noise level. Project-related traffic noise level increases could exceed those thresholds for either weekday or weekend periods, on Bass Avenue, "H" Street, Kate Street, Lazano Street and Fourth Street; therefore, the cumulative increase in traffic noise levels is considered a potentially significant impact. The noise analysis required by **MM 3.6.3a** will mitigate this potential impact.

Implementation of **MM 3.6-3a** will reduce the potentially significant impact to a less than significant if the Study recommends that the proposed project will not significantly impact the existing road network throughout the City of Mendota. If the Noise Assessment Study demonstrates that the proposed project site will significantly impact cumulative traffic throughout the city the study should include proper mitigation measures to alleviate the impacts.

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Section 3.7
Hazards and Hazardous Materials

This section of the EIR discusses the results of the Phase I Environmental Site Assessment conducted by Twining Laboratories, Inc. (June 27, 2003). The Phase I Environmental Site Assessment was designed to identify the presence of recognized environmental conditions (RECs) on the subject site and adjacent properties that could present material risk of harm to public health or to the environment. This section of the EIR also discusses the potential risk of development of the project site due to the close proximity of the Mendota Municipal Airport.

3.7.1 EXISTING SETTING

PROJECT VICINITY

The project site is located adjacent to the City of Mendota, in Fresno County, California. The site is bisected by Bass Avenue and is approximately one mile from both Highway 180, and Highway 33. Adjacent land uses include a mix of agricultural fields, the Mendota Municipal Airport, and residential developments. Fields within the immediate project vicinity are primarily fallow and contain several rural residences interspersed with agricultural storage. Single-family homes border the site to the north and southwest, while multi-family developments exist primarily west of the site.

SITE SETTING

The 68-acre site is predominately open space and fallow agricultural land occupied by a large metal storage building and several piles of demolished labor housing. There are also approximately a half dozen abandoned buses, tires, and metal drums. Silver Creek Packing occupied the site from 1976 through 2001, using a portion of the site for farm labor housing. Therefore, along with the demolished structures, an abandoned parking lot and lighting fixtures remain on the site.

There are three structures located on the southern portion of the site. These structures are canopies with concrete foundations. An intake canal borders the property to the north and a drainage canal bisects the site on the east side of Bass Avenue. The topography of the project site and relative vicinity is generally flat, typical of the region. The site lies at an elevation of approximately 165 feet above mean sea level with the ground surface sloping gently to the southwest. There is an asphalt road bordering the western boundary of the southern portion of the site.

Hazardous Substances and Wastes

Twining Laboratories, Inc. performed a site reconnaissance on June 9, 2003. During the reconnaissance, Twining employees observed approximately 15, 55-gallon drums at the southeastern portion of the project site, north of the existing equipment shed directly east

of the storage bins. An additional seven drums were identified within the equipment shed and appear to contain waste oil. A significant amount of oil was also observed beneath the drums located in the shed. The location of the oil drums and other hazardous substances can be seen in **Figure 3.7-1 Location of Hazardous Substances.**

Hazardous Material

Fluorescent light ballasts that contain PCBs and spent fluorescent light tubes containing mercury are regulated by the Department of Toxic Substances Control (DTSC) and are listed as hazardous waste in CCR Title 22, Chapter 11, Appendix X. Ballasts manufactured after January 1, 1978 do not contain PCBs and should be labeled as such on the ballast. Ballasts containing PCBs must be handled, transported and disposed of as hazardous waste. Four pole-mounted transformers were identified on-site. This equipment is expected to contain polychlorinated biphenyls (PCBs).

Storage Tanks

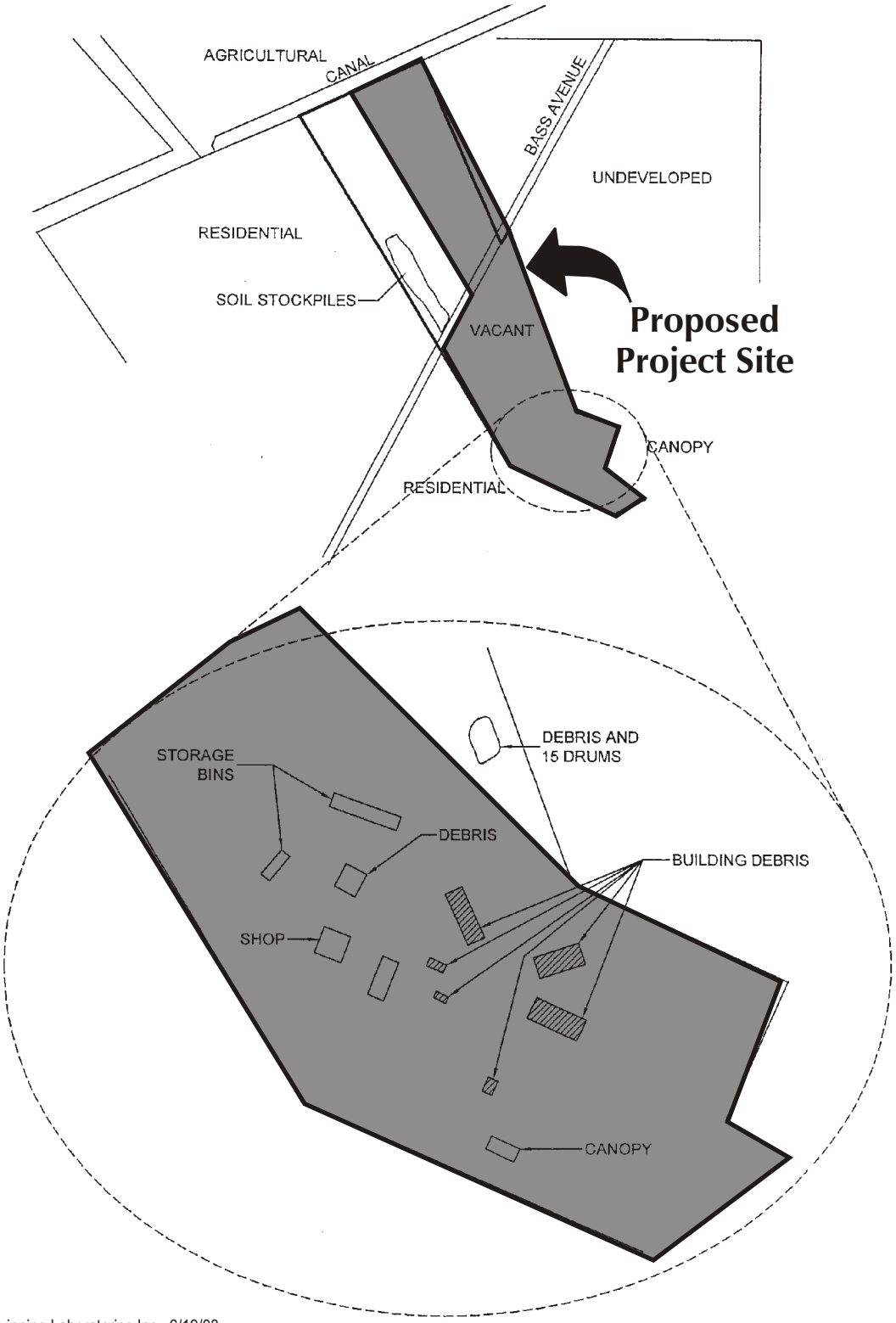
There were no indications of Underground Storage Tanks (USTs) such as vent lines or fill ports. Additionally, no indications of Aboveground Storage Tanks (ASTs) were observed on the site during Twining's reconnaissance. However, a previous investigation conducted for Silver Creek Packing identified the site as a leaking underground storage tank (LUST) facility. The site was apparently impacted from three 10,000-gallon USTs that were removed from the site in June 1988.

Soil Mounds

There are numerous soil mounds located north of Bass Avenue, along the northwest boundary of the Site. These soil mounds encompass an area of approximately 50 feet wide by 800 feet long. The origin of the soil mounds is not known.

ADJACENT LAND USES

Residential developments and fallow agricultural lands border the site to the north, northeast, northwest, and west. The Mendota Biomass Power Plant, and the Mendota Municipal Airport are currently in operation south of the project site. Bass Avenue bisects the site and serves as a major arterial connection to the remainder of the City.



MENDOTA/GRAPHICS & FIGURES/LOCATION OF HAZARDOUS SUBSTANCES.CDR 07/01/05

Source: Twinning Laboratories Inc. 6/19/03

NOT TO SCALE

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FIGURE 3.7-1

LOCATION OF HAZARDOUS SUBSTANCES

PMC

PACIFIC MUNICIPAL CONSULTANTS

3.7.2 REGULATORY SETTING

DEFINITION OF HAZARDOUS MATERIALS

A hazardous material is defined in Title 22 of the California Code of Regulations (CCR) as:

> *A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed (California Code of Regulations, Title 22, Section 66260.10).*
>
> *Chemical and physical properties cause a substance to be considered hazardous, including the properties of toxicity, ignitability, corrosivity, and reactivity. These terms are defined in the CCR, Title 22, and Sections 66261.20-66261.24. Factors that influence the health effects of exposure to hazardous material include the dose to which the person is exposed, the frequency of exposure, the exposure pathway, and individual susceptibility.*

A material is also considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency.

Cortese List

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. Government Code section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. The project site is not contained within 24 sites listed for Fresno County on the Cortese List.

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

The primary mission of the San Joaquin Valley Air Pollution Control District is to improve the health and quality of life for all Valley residents through cooperative and effective air quality programs. To meet federal Clean Air Act requirements, the District has adopted an Ozone Attainment Demonstration Plan (1994) and a PM_{10} Attainment Demonstration Plan (1997). In addition, to meet California Clean Air Act requirements, the District has also adopted an Air Quality Attainment Plan (1991) and corresponding updates to address the

California ozone standard. The San Joaquin Valley Air Pollution Control District monitors Toxic Air Contaminants (TAC's) through federal, state and local programs, including the Clean Air Act at the federal level. The SJVUAPCD has developed a number of rules to control TAC's from both new and existing sources. These rules originated through State directives, CAA amendments, or the SJVUAPCD rulemaking process.

FRESNO COUNTY GENERAL PLAN

The Fresno County General Plan clearly outlines goals, objectives, and policies designed to minimize the risk of exposure to hazardous materials. The General Plan discusses the production, storage, transportation, and disposal of miscellaneous hazards as well as the agencies responsible for enforcing laws governing these actions. As detailed in the General Plan, it is the County's responsibility to develop evacuation plans that will readily, and effectively relocate residents from hazardous areas to locations of greater safety.

FRESNO COUNTY ZONING ORDINANCE

The Fresno County Zoning Ordinance provides development standards that regulate land use and development, in order to minimize risk to life and property and damage to the natural environment.

CITY OF MENDOTA GENERAL PLAN

The General Plan EIR for the City of Mendota identifies of the potential hazardous risks to in association with the increase of new development within the city's sphere of influence. The General Plan states that all potential health hazards and hazardous materials on a parcel applying for annexation into the city need to be identified before the consideration annexation.

FRESNO COUNTY AIRPORT LAND USE POLICY PLAN

The Fresno County Airport Land Use Policy Plan contains safety policies that land uses must adhere to if they are located within the vicinity of the Mendota Municipal Airport, including:

- Land uses or land use characteristics, which may effect safe air navigation or which, because of their nature and proximity to an airport, may pose high risks to the land users shall be avoided in the vicinity of the airport. The criteria that shall be used is included in the in Table Three of the *Fresno County Airport Land Use Policy Plan (1983)*.

- Land uses, which attract concentration of birds, are a special concern in Fresno County because of the agricultural uses near may of the airports. In

applying the Safety Compatibility Criteria to agricultural areas, attention should be given to whether a particular type of agricultural use commonly attracts birds.

3.7.3 PROJECT IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and other performance standards recognized by the City of Mendota. For the purposes of this EIR, a significant impact will occur if the project will result in one or more of the following:

1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous material into the environment;

3) Exposure of people or property to hazards including hazardous materials and substances;

4) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;

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

6) Impair implementation of or physically interfere with an adopted emergency response plan or evacuation plan; or,

7) Contribute significantly to any cumulative health hazard impact.

METHODOLOGY

Twining Laboratories Inc., completed the Phase I ESA for the proposed project site on June 27, 2003 in conformance with the American Society for Testing and Materials (ASTM) E1527-00 Standard Practice for Environmental Site Assessments. The Phase I ESA constitutes appropriate inquiry designed to identify Recognized Environmental Conditions

(RECs) in connection with the previous ownership and uses of the subject site as defined by ASTM E1527-00. The scope of the assessment included a) a review of current and past uses at the site since 1937 b) a site reconnaissance assessing evidence of current and/or past use or storage of toxic or hazardous materials c) a review of historical aerial photographs, d) a visual review of adjacent properties e) a review of available federal and state Environmental Protection Agency (EPA) lists of known or potential hazardous waste sites or landfills, and sites currently under investigation for environmental violations as well as f) interview(s) with relevant municipal, county and state agencies to review readily available records and permits.

PMC staff assessed the potential risk of developing the Don Alejandro Valdez Community Plan using the policies and guidelines for projects within airport safety zones contained within the *Fresno County Airport Land Use Policy Plan (1983)*.

PROJECT IMPACTS AND MITIGATION MEASURES

Construction-Related Hazards

Impact 3.7-1 Implementation of the project may expose people or property to construction related hazards. This is considered a **less than significant** impact.

Construction-related hazards include exposure to hazards such as contaminated soil or leaking on-site storage tanks, as well as hazards generated during construction activities; such as exposure to small amounts of flammable materials and reactive chemicals, heat stress, chemical exposures, hazards from energized electrical equipment, biological hazards, moving equipment, noise, vibration and risks during excavations. Construction firms and workers are protected by worker safety regulations of the California Occupational Safety and Health Administration (OSHA) and Best Management Practices (BMPs) will be implemented to ensure safety during all phases of project development. The public will access much of the project area; therefore, the project will not utilize hazardous building materials or generate substantial hazardous wastes. Impacts due to construction are expected to be **less than significant**. No mitigation is required.

Exposure to Hazardous Materials

Impact 3.7-2 Implementation of the project may expose the public or the environment to identified hazardous materials. This is considered a **potentially significant** impact.

Oil Drums

At the time of the Phase I ESA, there were 15, 55-gallon metal drums located on the southern portion of the site, and seven drums within the storage shed that appear to contain waste oil. No soil staining or other evidence of leakage or spillage was observed in association with the exposed drums. However, a significant amount of oil was observed beneath and around the drums within the equipment shed.

Mitigation Measures

MM 3.7-2a Prior to project implementation, the applicant(s) shall remove the 22 metal drums containing waste oil and properly disposed of in accordance with state and county regulations governing hazardous wastes.

MM 3.7-2b Prior to grading the project Applicant shall have a qualified professional conduct a Phase II Soils Report to determine the extent of soil contamination. Based on the results of the Phase II Report the Applicant shall remediate/remove contaminated soils and dispose accordingly, and/or comply with any other recommendations of the Phase II Report.

Implementation of the Mitigation Measures **MM 3.7-2a** and **b** would reduce the potential impact of hazardous waste material to a **less than significant** level, by requiring the project Applicant to remove the 22 metal drums containing waste oil and properly disposed of them and having a qualified specialist conduct a Phase II Soils Report to determine the extent of soil contamination.

Underground Storage Tanks

According to the Phase I ESA, there are no underground storage tanks (USTs) on the project site. However, according to files reviewed at the Regional Water Quality Control Board (RWQCB), three 10,000-gallon petroleum product USTs were excavated and removed in June 1988. The report indicated that all three USTs were structurally sound at the time of removal. During the excavation, five soil samples were taken and tested for petroleum product constituents (PPCs). Results indicated the presence of benzene, toluene, xylene, and petroleum hydrocarbons as gasoline, which could be a **potentially significant** impact. Subsequently, in 1994 over 2,600 cubic yards of degraded soil was excavated. Reportedly, an insignificant amount of PPC degraded soils remain underneath the equipment shed. Excavation could not be extended any further without compromising the integrity of the structure. Implementation of Mitigation Measure **MM 3.7-2b** will reduce the impact to **less than significant** level, by requiring the project Applicant conduct a Phase II Soils Report to test the soils beneath the storage shed for hazardous materials. Should significant amounts of hazardous materials be present, the soil shall be remediated in accordance with RWQCB regulations.

Soil Mounds

There are numerous soil mounds north of Bass Avenue along the northwest boundary of the site. The soil mounds encompass an area approximately 50 feet wide by 800 feet long. The origin of the mounds is unknown. As identified in the Phase I ESA, these mounds may contain hazardous materials, which could be a **potentially significant** impact. Implementation of Mitigation Measure **MM 3.7-2b** would reduce the impact of hazardous material within the soil mounds to a **less than significant** level, by requiring the project Applicant conduct a Phase II Soils Report to test the soil mounds for hazardous material. If the soil mounds are found to be hazardous the project Applicant should remove the soil mounds in accordance with state and county regulations regarding hazardous material removal.

PCBs

Four pole-mounted transformers were identified during the Phase I ESA, two at the southern portion, and two at the southwestern portion of the site. There were no indications of leaks or stains associated with the transformers. However, the transformers do contain polychlorinated biphenyls, a known hazardous material. The following mitigation measure would reduce this impact to **less than significant**.

Mitigation Measure

MM 3.7-2c Prior to development the applicant(s) shall remove, handle and dispose of all materials containing PCBs, the materials should be disposed of as hazardous waste. There are two disposal options for PCBs (1) placement in lab packs for disposal in a hazardous landfill, or (2) incineration at a facility permitted to incinerate PCB waste. Fluorescent tubing may be recycled at an authorized facility, or disposed of at a Class III landfill.

Implementation of the above mitigation measures would reduce potential impacts from hazardous substances to a **less than significant** level by requiring that all contaminants and contaminant sources be identified, removed, and disposed of in compliance with applicable standards prior to site development.

Safety Hazards at the Project Site from Airport Operations

Impact 3.7-3 The project site is adjacent to the Mendota Municipal airport and respective runway. The proposed project could expose people to excess noise levels and safety hazards from aircraft operations in the vicinity of the project site. This is a **potentially significant** impact.

The proposed Don Alejandro Valdez Community Plan project site is located adjacent to the northwestern end of the Mendota Municipal Airport and airstrip. The close proximity of the airport and airstrip to the proposed project site could potentially have safety impacts on future residents. The *Fresno County Airport Land Use Policy Plan (1983)* includes six Safety Zones in the Airport/Land Use Safety Compatibility Criteria used to determine if a parcel will be compatible with the airport. The Don Alejandro Valdez Community Plan is consistent with three of the six safety zones presented by the Airport Land Use Commission. The project does not fall into the following Airport Safety Zones: the Clear and Runway Zones; Inner Approach Zones; and Outer Approach Zones. The project site and all its proposed uses will be considered acceptable with little or no risks from aircraft flight in these zones. The project site is, however within the Horizontal and Conical safety zones. According to the *Fresno County Airport Land Use Policy Plan (1983),* even though the project site falls within these safety zones the project site will be acceptable with minimal to no risks to future development and residents of the project site.

The proposed project site also falls within the safety zone designated as the Traffic Pattern Zone. (**See Figure #3.7-2 Airport Safety Zones**) The eastern portion of the project site is partially contained within the Traffic Pattern Zone. This is considered a **potentially significant** impact. The *Fresno County Airport Land Use Policy (1983)* included in the appendices of the *Mendota General Plan (1991)* contains policies and guidelines for projects within safety zones. Adherence to these guidelines will deem the portion of the project site contained within the Traffic Pattern Zone conditionally acceptable. Implementation of the following mitigation measures which incorporate the standards and guidelines of the Safety Compatibility Criteria contained within the *Fresno County Airport Land Use Policy (1983),* along with compliance with Mitigation Measures **MM 3.6-2a** and **b** requiring the Applicant obtain an Aviation Easement and produce a notification agreement, will reduce the impact to a **less than significant** level.

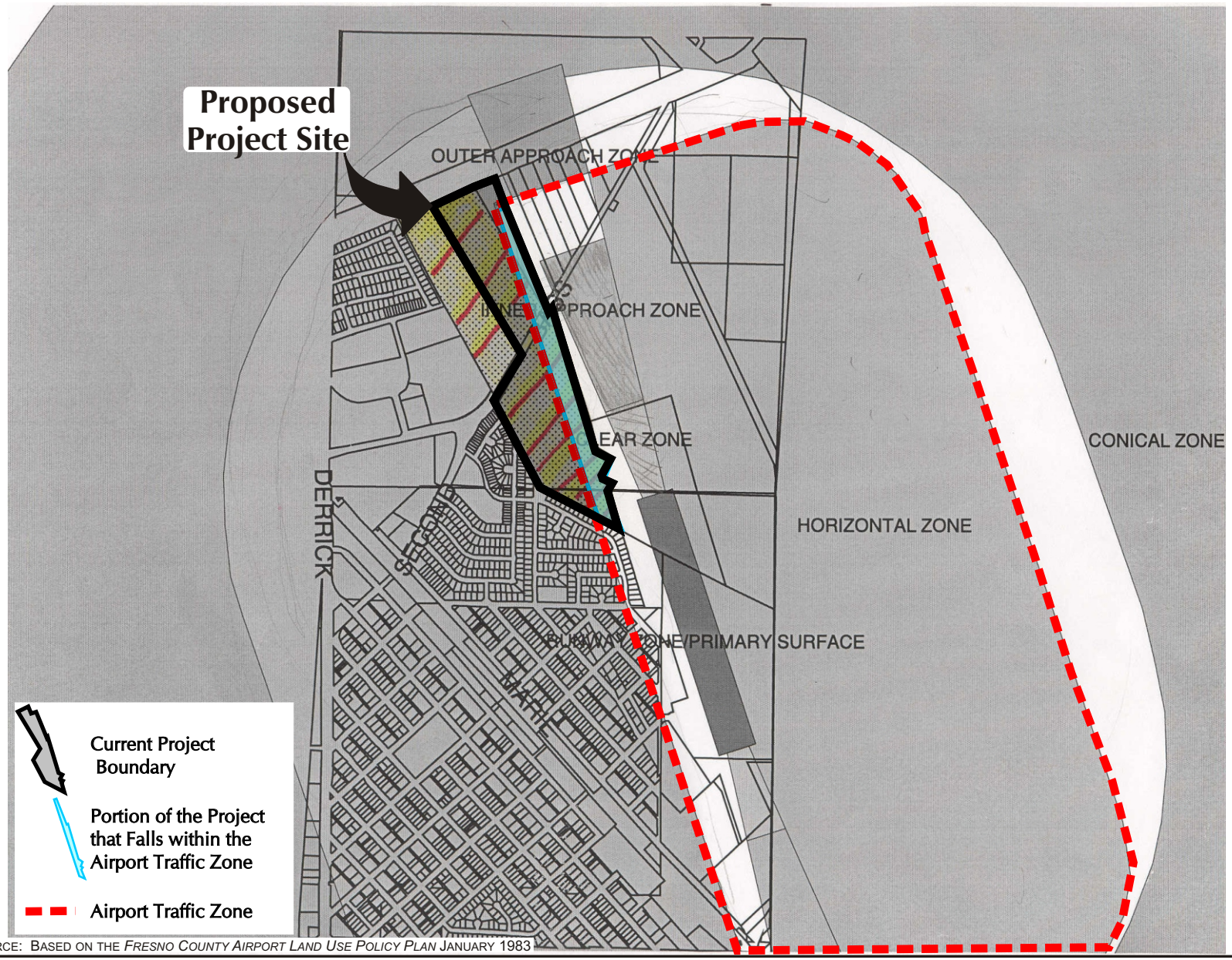
Mitigation Measure

MM. 3.7-3 The project Applicant shall redesign the project to be consistent with the *Fresno County Airport Land Use Policy (1983).* Subject to the approval of the Mendota City Council prior to submittal of the proposed project to Fresno LAFCO, all project plans and maps that contain sensitive uses within the Mendota Municipal Airport Traffic Pattern Zone shall be compatible with the Fresno County Airports Land Use Plan Safety Compatibility Criteria, as follows:

- All proposed residential uses shall have a density of no greater than four dwelling units per acre in this area.
- All proposed commercial uses shall not include schools, hospitals, nursing homes, or similar uses (including day care centers).

- The area of the project site within the Traffic Pattern Zone shall have at least 20% of area open (having a size and shape such that a small aircraft could conceivably make an emergency landing without damage to buildings or serious injury to aircraft occupants).
- The project redesign shall be subject to review and approval of the Fresno County Airport Land Use Commission.

Implementation of the above mitigation measure will reduce the safety hazards at the project site from the adjacent airport by reducing the density the project site area that falls within the air traffic pattern zone.



SOURCE: BASED ON THE *FRESNO COUNTY AIRPORT LAND USE POLICY PLAN* JANUARY 1983

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MENDOTA/GRAPHICS & FIGURES/AIRPORTSAFETY ZONES.CDR 07/01/05

FIGURE 3.7-2
AIRPORT SAFETY ZONES

PMC
PACIFIC MUNICIPAL CONSULTANTS

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Risk of Exposure to Hazardous Waste or Materials

Impact 3.7-4 Development of the project could expose people, property, and the environment to hazardous materials and conditions. This cumulative impact is considered **less than significant.**

Implementation of the proposed project could result in risks associated with the potential exposure to hazardous materials such as oil, PCBs, and petroleum product constituents. These impacts would be site specific and are generally not affected by the cumulative development in the region. The Phase I Environmental Site Assessment (ESA) did not reveal evidence of environmental violations or reported loss of hazardous materials on the subject site or adjacent properties. Therefore, implementation of the project with accompanying mitigation measures would not contribute to an increase in the potential for soil, air, or groundwater contamination. The project itself is not anticipated to contribute to a hazard-related impact that would cumulatively affect the environment, the impact is therefore considered **less than significant.**

REFERENCES/DOCUMENTATION

California Department of Toxic Substances. Cortese List. http://www.dtsc.ca.gov/database/Calsites/Cortese_List.cfm. 2005.

City of Mendota. *General Plan Update and EIR*. 1991.

County of Fresno. *General Plan*. Adopted October 3, 2000.

Fresno County Airports Land Use Policy Plan. Fresno County Airport Land Use Commission. January 1983.

I-5 Social Services Inc. *The Don Alejandro/Municipal Airport Compatibility Report*. March 18, 2002

Twining Laboratories, Inc. *Phase I Environmental Site Assessment for the Mendota Project, Fresno County, California*. June 27, 2003.

Section 3.8
Hydrology and Water Quality

This section of the EIR discusses surface hydrology, groundwater and water quality relative to the proposed project site. Changes in drainage patterns, flooding, erosion and degradation of existing water quality are analyzed. Information provided in this section is based primarily on the Applicant's storm drainage analysis prepared by RM Associates (2002). Additional information was provided by the Land Use Element of the *Mendota General Plan Update* and *EIR* (1991). **Section 3.12 Utilities and Services** includes discussion of potential impacts regarding potable water demand and expansion of wastewater collection and treatment systems.

3.8.1 EXISTING SETTING

REGIONAL SETTING

Drainage Patterns

The City of Mendota is situated in the San Joaquin Valley, a structural trough with a northwest-southeast axis bordered on the east by the Sierra Nevada range and on the west by the Coast Ranges. The low alluvial plains and fans in the Valley floor are relatively flat and featureless, occupying most of the floor's area. Mendota lies at approximately 175 feet above mean sea level. Terrain in the area slopes gently from the southwest to the northeast.

The City is located within the drainage basin of Panoche/Silver Creek which originates in the Diablo Range about thirty miles west of Mendota. The Panoche/Silver Creek watershed is approximately 300,000 acres in size and ranges in elevation from 100 to 5,000 feet above sea level. The creek flows through steep mountain canyons in well-defined channels to the California Aqueduct. From the Aqueduct to Mendota, the land is relatively flat and the channel steadily decreases in size and carrying capacity due to siltation and vegetation growth until it terminates at Belmont Avenue along the southern limits of the City.

Mendota has a Mediterranean climate characterized by warm and dry summers with little or no precipitation and cool, moist winters. Rainfall averages around ten inches per year. Besides open irrigation channels, there are no significant surface water features in the City.

Flood Hazards

The City of Mendota experiences flood problems primarily in the southeastern portions of the community, caused by runoff from Panoche/Silver Creek. Both creeks lack established drainage courses to the Fresno Slough, which drains into the San Joaquin River. The Silver Creek Drainage District was established in an effort to alleviate the problem of sediment build-up and flooding, and constructed a stormwater retention basin just east of the Mendota Municipal Airport.

Groundwater

The City of Mendota lies above the San Joaquin Valley groundwater basin. The groundwater basin consists of an upper and lower aquifer. The groundwater levels of the upper zone are relatively high throughout the Mendota area. Groundwater levels fluctuate from season to season, primarily due to agricultural pumping. Primary groundwater recharge in the area is from agricultural irrigation and the San Joaquin River. In non-drought years, groundwater withdrawal is negligible because surface water delivered via the canal system, not groundwater, is the primary source of agricultural irrigation water. Local groundwater is currently the City of Mendota's sole municipal water supply source, pumped by three wells in the City. See also **Section 3.12 Utilities and Services** for discussion of water supply and infrastructure impacts.

PROJECT SITE SETTING

Drainage Pattern and Flood Hazards

Stormwater run-off in Mendota generally flows easterly via surface areas (primarily streets) to the Fresno Slough. Two areas of Mendota are prone to flooding and drainage impacts: along Belmont Avenue and the area around the intersection of Bass Avenue and Derrick Avenue (SR 33). Flooding along Belmont is a result of the Panoche/Silver Creek overflowing into Belmont Avenue and being rechannelized by a flood embankment to the Firebaugh Main Lift Canal and ultimately discharging into the Fresno Slough. Flooding in the Bass Avenue/SR 33 area has been partially mitigated by a stormwater retention basin located adjacent to the proposed project site on the east, constructed as part of the Hacienda Gardens residential development in the City of Mendota.

The majority of the project site is located within flood Zone C, according to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) for the project area. Zone C is classified as an area of minimal flooding. A portion of the site on the far north, bordering the Firebaugh Main Lift Canal, is located within flood Zone B; this designation delineates areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood.

3.8.2 REGULATORY SETTING

FEDERAL CLEAN WATER ACT

Water quality objectives for all waters in the State are established under applicable provisions of Secton 303 of the Federal Clean Water Act (CWA) and the State Porter-

Cologne Water Quality Control Act. The State Water Resources Control Board (SWRCB) and the Central Valley Regional Water Quality Control Board (RWQCB) are responsible for assuring implementation and compliance with the provisions of the CWA and the Porter-Cologne Water Quality Act.

Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. Section 304(a) requires the Environmental Protection Agency (EPA) to publish water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in the water. Water quality standards are typically numeric, although narrative criteria passed upon biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. Section 303(c)(2)(b) of the CWA requires states to adopt numerical water quality standards for toxic pollutants for which the EPA has published water quality criteria and which reasonably could be expected to interfere with designated uses in a water body.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to the 1987 Amendments to the Clean Water Act and 1991 regulations promulgated by the Environmental Protection Agency, the SWRCB has adopted the National Pollutant Discharge Elimination System (NPDES) with two general permits for storm water dischargers. One permit applies to industrial dischargers and the other permit relates to construction activities.

NPDES was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States. Each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Secetion 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that EPA must consider in setting effluent limits for priority pollutants.

The purpose of the NPDES program is to establish a comprehensive storm water quality program to manage urban storm water and minimize pollution of the environment to the maximum extent practicable. The NPDES program consists of: 1) characterizing receiving water quality, 2) identifying harmful constituents, 3) targeting potential sources of pollutants and 4) implementing a Comprehensive Stormwater Management Program.

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

The Central Valley Regional Water Quality Control Board (RWQCB) is responsible for the issuance of NPDES permits under the CWA and on behalf of the SWRCB and the EPA for activities that could cause water quality impacts to surface waters and groundwater, including construction activities. Development of the project site would be required to

comply with the permitting requirements in effect at the time of construction activities. The NPDES storm water-permitting program, under Section 402(p) of the CWA, is administered by the RWQCB on behalf of the US Environmental Protection Agency. The permit requires that the following general measures be implemented during construction activity:

- Eliminate or reduce non-storm water discharges to storm water systems and other waters of the US;
- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP); and,
- Perform inspections of storm water control structures and pollution prevention measures.

CALIFORNIA WATER CODE

California Water Code Section 231 requires the California Department of Water Resources to develop well standards to protect California's ground water quality. DWR Bulletin 74-90 (Supplement to Bulletin 74-81), *California Well Standards, Water wells, Monitoring wells, Cathodic protection wells, June 1991*, contains the minimum requirements for constructing, altering, maintaining, and destroying these types of wells. The standards apply to all water well drillers in California and the local agencies that enforce them.

3.8.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and generally accepted standards for environmental documents prepared pursuant to CEQA and the City's environmental checklist. An impact to surface hydrology and water quality is considered significant if implementation of the proposed project will result in any of the following:

1) Violate any water quality standards or waste discharge requirements;

2) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in, or contribute to, flooding on- or off-site;

3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site;

4) Significantly degrade surface water quality due to erosion, urban runoff, on-site sewage treatment and disposal system, or other factors, as a result of either construction activities or daily operation;

5) 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;

6) Expose people or structures to flood hazards as a result of development within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map or place within a 100-year flood hazard area structures which would impede or redirect flood flows;

7) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam;

8) Inundation by seiche, tsunami, or mudflow;

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

10) Contributes significantly to any cumulative hydrology or water quality impact.

METHODOLOGY

The hydrology and water quality analysis is based on a review of the Applicant's storm drainage analysis prepared by RM Associates (2002) and the Land Use Element of the *Mendota General Plan Update* and *EIR* (1991).

PROJECT IMPACTS AND MITIGATION MEASURES

Water Quality Standards

Impact 3.8-1 Development of the project site may result in violation of water quality standards. This is a **potentially significant** impact.

The proposed project would develop a 68-acre site as a mixed-use farmworker community consisting of 480 farm labor/multiple family housing units, 73 single-family residential units, a commercial center, a childcare facility, professional office sites and a farm labor transportation center. Potential non-point source pollution from driveways and streets could enter the stormwater system and negatively affect water quality. Such discharge could violate the standards of the Federal Clean Water Act if not mitigated properly. In addition, construction activities, particularly earth moving activities, can affect water quality. The project site is within the jurisdiction of the Central Valley Regional Water Quality Control Board (RWQCB), which develops and enforces water quality objectives and implementation plans that safeguard the quality of water resources. In order to reduce potential adverse water quality impacts, the following mitigation measures shall be required:

Mitigation Measures

MM 3.8-1a Prior to issuance of grading permits, the project Applicant shall submit a stormwater drainage plan ensuring that stormwater discharge volumes into the receiving drainage system are equal to or less than runoff from the site prior to development. Plans shall be submitted to the City of Mendota for review and approval, with review comments incorporated and shown on Final Maps. Drainage plans shall incorporate permanent Best Management Practices (filters, traps, swales, etc.) to ensure that urban runoff contaminants are minimized. The stormwater drainage plan shall be designed in accordance with standards established by the Fresno Metropolitan Flood Control District (FMFCD).

MM 3.8-1b In accordance with RWQCB regulations, development resulting in grading or excavation that disturbs one acre or more shall require the Applicant to obtain a General Permit for Stormwater Discharges Associated with Construction Activities (Water Quality Order 99-08-DWQ), as required by the National Pollution Discharge Elimination System (NPDES). Coverage under this permit requires the Applicant to file a Notice of Intent (NOI) with the State through the RWQCB and prepare a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must list Best Management Practices (BMP), which specify how the discharger will protect water quality during the course of construction. The SWPPP shall be consistent with RWQCB standards.

Implementation of the above mitigation measures will reduce the potential for violation of water quality standards to a **less than significant** level by requiring the Applicant prepare drainage control plans and adhere to permanent best management practices to control stormwater runoff.

Drainage Pattern / Localized Flooding and Erosion

Impact 3.8-2 Development resulting from project approval would alter existing drainage patterns, increase impervious surfaces and increase surface water runoff, thus contributing to existing localized drainage, flooding and erosion problems on or off-site. This is a **potentially significant** impact.

The proposed project will involve grading activities typical of development on relatively flat terrain. Implementation of the proposed project would result in the eventual conversion of 68 acres of disturbed annual grassland to residential, commercial, public facility and transportation uses. The conversion of this land would increase the amount of surface area impervious to water, such as pavement, roofing and walkways, and would therefore increase stormwater runoff from the project site and alter existing drainage patterns. Grading activities may alter existing drainage patterns and lead to erosion and siltation on or off the project site.

The project Applicant proposes the following phased improvements to address stormwater drainage impacts:

- Piping of existing Bass Avenue drainage ditch from the intersection of Second Street and "I" Street, easterly along the old alignment of Bass Avenue and along the southerly right-of-way of Bass Avenue to the easterly boundary of the project.

- Enlargement of the airport drainage basin and installation of a collection and conveyance system for the southerly parcels with a control interconnection to the proposed Bass Avenue storm drain. On-site storm drain piping would also be provided to convey stormwater from this southerly parcel to the enlarged airport basin.

- Enlargement of the existing Hacienda Gardens drainage basin into the planned development to provide a regional basin north of Bass Avenue or construction of a new joint use storm drainage basin within the proposed multi-use park zone.

- Acquisition (if deemed feasible and obtainable with City assistance) of a flood/drainage easement and construction of an overflow channel southerly and along the Firebaugh Main Lift Canal. The easement and flood channel would traverse along the northerly portion (undeveloped) of the existing large residential parcels located easterly of the planned development and northerly of Bass Avenue and redirect the flood water away from Bass Avenue and through the existing opening of the San Luis Drain towards the Fresno Slough.

- Construction of a stormwater lift station at the northwesterly corner of the proposed development with the assistance of the Firebaugh Irrigation District, the Silver Creek Drainage District and the City of Mendota to discharge stormwater from the proposed northerly drainage basin into the Firebaugh Main Lift Canal.

To ensure design capacity and to address water quality impacts, the following mitigation measure will be required:

Mitigation Measure

MM 3.8-2 Concurrent with final map submittals, the project Applicant shall submit detailed engineering plans for on- and off-site stormwater drainage facilities for review and approval by the City of Mendota.

Implementation of the above mitigation measure, in conjunction with Mitigation Measures **MM 3.8-1a** and **b**, will reduce surface runoff and flooding impacts to a **less than significant** level.

Construction Water Quality

Impact 3.8-3 Slope and soil disturbance associated with site preparation, grading and construction activities resulting from the project may cause soil erosion and sedimentation or the release of other pollutants into adjacent waterways. This is a **potentially significant** impact.

Eventual construction on the project site would consist of substantial grading and vegetation removal activities, which would increase soil erosion rates in the areas of proposed development. The exposure of raw soil to the natural elements (e.g. wind, rain) during grading operations may impact surface runoff by increasing the amount of silt and debris carried by stormwater runoff. Areas with uncontrolled concentration flow will experience loss of material within the graded area and could potentially impact the downstream water quality of area waterways.

Refueling and the parking of construction equipment and other vehicles onsite during construction may result in spills of oil, grease or related pollutants that may discharge into on-site drainages. Improper handling, storage or disposal of fuels and materials or improper cleaning of machinery close to area tributaries could also cause water quality degradation.

Implementation of Mitigation Measures **MM 3.8-1a** and **b** and **MM 3.8-2** will reduce construction water quality impacts to a **less than significant** level by requiring coverage under the NPDES General Permit and drainage and erosion control plans.

Capacity of Existing / Planned Stormwater Drainage System

Impact 3.8-4 Development of the proposed stormwater drainage system may create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. This is a **potentially significant** impact.

The Applicant proposes to mitigate project-generated stormwater impacts with construction of drainage system improvements listed above under **Impact 3.8-2**. Implementation of Mitigation Measures **MM 3.8-1a** and **3.8-2** will reduce drainage system impacts to a **less than significant** level by requiring the drainage system be designed with adequate capacity to handle stormwater generated by the proposed project.

Flood / Inundation Hazards

Impact 3.8-5 The project site is not within the recognized 100-year flood plain. Therefore, the impact is considered **less than significant**.

The majority of the project site is located within flood Zone C, according to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) for the project area (No. 065029 0820 B). Zone C is classified as an area of minimal flooding. A portion of the site on the far north, bordering the Firebaugh Main Lift Canal, is located within flood Zone B; this designation delineates areas between limits of the 100-year flood and 500-year flood. The project area is not located in a coastal area and is therefore not subject to tsunami or seiche and it is relatively flat and not subject to mudflow. Therefore, floodplain hazards and impacts from potential inundation are considered **less than significant**.

Groundwater Resources

Impact 3.8-6 The proposed project will contribute increased demand on the City of Mendota's water supply. This is considered a **less than significant** impact.

As discussed in **Section 3.12 Utilities and Services**, the City of Mendota utilizes groundwater resources consisting of three domestic wells with a combined pumping capacity of about 3,000 gallons per minute (gpm), or 4.3 mgd. Current peak day domestic demand on the system averages approximately 1,800 gpm, or 2.5 mgd. Projected water demand created by the proposed project will not significantly impact the City's water supply; there is adequate pumping capacity in the City's water treatment system to accommodate the proposed project. Therefore, this impact is considered to be **less than significant**. See **Section 3.12 Utilities and Services** for further discussion of water supply and delivery impacts.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Surface Runoff and Contamination

Impact 3.8-7 New development, combined with other reasonably foreseeable projects in the City of Mendota, would contribute to increased surface runoff and greater runoff contamination. This cumulative impact is considered **less than significant**.

Ultimate development of the project site would contribute to cumulative drainage flows and surface water quality impacts when combined with other growth and development in the project vicinity. However, implementation of City of Mendota stormwater drainage standards and required permits, as described above in Mitigation Measures **MM 3.8-1a** and **b**, will reduce cumulative stormwater runoff impacts to a **less than significant** level.

REFERENCES/DOCUMENTATION

City of Mendota. *General Plan Update and EIR*. 1991.

City of Mendota. *Notice of Preparation of a Draft Environmental Impact Report*. April 8, 2005.

Governor's Office of Planning and Research, State of California. *Guidelines for Implementation of the California Environmental Quality Act,* as amended. 2004.

RM Associates. *Don Alejandro Valdez Development Project, Engineering Impact Analysis*. February, 2002.

Section 3.9
Land Use and Agriculture

This section of the EIR describes the existing land uses of the project site, characterizes surrounding uses and discusses the proposed project within the context of the policies of the City of Mendota, the County of Fresno and the Fresno County Local Agency Formation Commission (LAFCO). Potential impacts focus on adopted environmental plans and policies, compatibility of future residential, commercial and public facilities with surrounding land use patterns and the conversion of land to urban uses. This examination is based on the Land Use Element of the *Mendota General Plan Update* and *EIR* (1991), the *Fresno County General Plan, Background Report* and *Draft EIR* (2000), the *Fresno County Airport Land Use Policy Plan* (1983) and materials provided by the project Applicant.

3.9.1 EXISTING SETTING

REGIONAL SETTING

The City of Mendota is located in the heart of the San Joaquin Valley. Approximately nine miles south of Firebaugh, and thirty-seven miles west of Fresno, Mendota is bordered by vast agricultural lands. The region has been called "the world's richest agricultural valley," and remains predominately agricultural in its land use character and industries. However, the San Joaquin Valley includes half a dozen substantial cities, from Stockton to Bakersfield, including Fresno, the county seat. The City of Mendota was incorporated in 1942 with a population of 1,650 residents. As of 2000, the City has a population of 7,890 residents and is projected to reach more than 13,000 residents by the year 2020. Mendota is a central shipping point for many of the agricultural products from the west side of the San Joaquin Valley and is served by State Highways 33 and 180.

SITE SETTING AND EXISTING USES

The proposed project is located immediately northeast of the incorporated City limits but within Mendota's Sphere of Influence (SOI). The site is bisected by Bass Avenue. The project site is located northwest of the Mendota Municipal Airport and adjacent to the Hacienda Gardens residential neighborhood within Mendota.

The project site consists of approximately 68 acres and is currently vacant with the exception of a dilapidated residence, maintenance shed, barn and abandoned farmworker housing. It appears the property has been historically used to dispose of inoperable vehicles and construction materials. Disturbed Annual Grassland occurs on the majority of the project site. These areas support annual grasses that have been subject to disturbance by humans (i.e., trespass, dumping of trash) and/or have been periodically disked for weed abatement of agricultural production. Ruderal/Developed areas occur along Bass Avenue and in the southern portion of the project site. These areas have been subject to some form of development (e.g., buildings, roads, grading, construction debris) or have been subject

to a considerable amount of human disturbance. Limited areas of Emergent Marsh and Seasonal Wetland located on-site are discussed in **Section 3.4 Biological Resources**.

The topography of the project site and relative vicinity is generally flat, typical of the region. The site lies at an elevation of approximately 165 feet above mean sea level with the ground surface sloping gently to the east.

FARMLAND AND SOILS CHARACTERISTICS

The Land Capability Classification (LCC) system is used by the US Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), to determine a soil's agricultural productivity. The LCC indicates the suitability of soils for most kinds of field crops. Soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops and the way they respond to management. Soils are rated from Class I to Class VIII, with soils having the fewest limitations receiving the highest rating (Class I). Soil within the project site has been identified and mapped as Class III. This rating indicates that major limitations exist due to fine texture, saline-alkaline conditions and sub-surface drainage problems. This soil type is not considered a prime soil.

The Farmland Mapping and Monitoring Program (FMMP) was established in 1982 by the California Department of Conservation to continue the Important Farmland mapping efforts begun in 1975 by the NRCS. The intent of the NRCS was to produce agricultural resource maps based on soil quality and land use across the nation. As part of the nationwide agricultural land use mapping effort, the NRCS developed a series of definitions known as Land Inventory and Monitoring (LIM) criteria. The LIM criteria classified the land's suitability for agricultural production; suitability included both the physical and chemical characteristics of soils and the actual land use. Important Farmland Maps are derived from the NRCS soil survey maps using the LIM criteria. The Important Farmlands Map of Fresno County (2002) classifies the proposed project site as Farmland of Local Importance.

PLANNING AREA AND SPHERE OF INFLUENCE

The City's Planning Area, as determined by the *Mendota General Plan* (1991), includes land within the incorporated City limits of Mendota and unincorporated areas surrounding the City. The Planning Area corresponds to the SOI established by LAFCO and encompasses an area of approximately 3.5 square miles. The SOI is a planning tool adopted and used by LAFCO to designate the future incorporated boundary and service area for a city or special district within a specific period of time. Within the SOI, the municipality is empowered to plan and annex land for future uses, services and facility improvements.

GENERAL PLAN DESIGNATION

The project site is currently under Fresno County jurisdiction and has a Fresno County General Plan designation of Agriculture for the portion of the site lying north of Bass Avenue; south of Bass Avenue, the site is designated as proposed Open Space. The project site is currently designated by the City of Mendota as Agriculture for the area north of Bass Avenue and Multi-Use Open Space, south of Bass Avenue. Implementation of the project will require a General Plan Amendment identifying the site as Single Family Residential, Multiple Family Residential and Commercial.

PREZONING

The site is zoned by Fresno County as AE-20 (Exclusive Agriculture, 20-acre minimum parcel size) north of Bass Avenue and AL (Limited Agriculture) south of Bass Avenue. Unincorporated territory adjoining the City may be prezoned for the purpose of determining the zoning that will apply to such property in the event of subsequent annexation to the City. The site will be prezoned R-1 (Medium Density/Single Family Residential), R-3 (High Density/Multiple Family Residential) and C-3 (Central Commercial) as part of the annexation process.

SURROUNDING LAND USE

Agricultural buildings, yards and associated homesteads remain northeast of the site and an irrigation canal forms the northern boundary, with agricultural fields across the canal. The adjacent parcel immediately northwest of the project site includes Phase 1 of the Hacienda Gardens residential development and is within the Mendota City limits. Land further south of Hacienda Gardens features a retention basin and an unmanicured sports field. Mendota Park, an older residential subdivision, is located adjacent to the project's southwestern boundary. The far southeastern portion of the project site borders the Mendota Municipal Airport. The project borders vacant agricultural land in unincorporated Fresno County on the east.

3.9.2 REGULATORY SETTING

The purpose of this section is to evaluate the proposed project for land use consistency with relevant adopted plans and policies. These include policies and plans of the Cortese-Knox Government Reorganization Acts, LAFCO, the City of Mendota and Fresno County.

CALIFORNIA LAND CONSERVATION ACT (WILLIAMSON ACT)

The California Land Conservation Act of 1965, also known as the Williamson Act, is designed to preserve agricultural and open space lands by discouraging their premature

and unnecessary conversion to urban uses. In addition, the Williamson Act provides protection for wildlife habitats, marshlands, salt flats and scenic highway corridors.

CORTESE-KNOX LOCAL GOVERNMENT REORGANIZATION ACTS

The Cortese-Knox Local Government Reorganization Acts of 1985 and 2000 govern the incorporation of new cities and city boundaries. The 1985 Act gives authority to the LAFCO in each county to consider proposals for incorporation and annexations within the County.

LOCAL AGENCY FORMATION COMMISSION

The Fresno County LAFCO is responsible for coordinating logical and timely changes in local governmental boundaries (reorganizations), including annexations, incorporations of new cities and boundary changes in special districts like school and utility districts. LAFCO ensures that local government and special district boundary changes take place in a logical and timely manner by creating a Sphere of Influence (SOI) for each jurisdiction, in cooperation with the municipality. The SOI is used by LAFCO to designate the future boundary and service area for a city or special district. The annexation of land within the SOI is based on standards of evaluation that may require the proposal be consistent with appropriate city general and specific plans, a consideration of the agricultural significance of the proposal area, whether the site is adjacent to or surrounded by existing urban development and the capacity of public facilities and adequacy of public services to serve the proposed area.

CITY OF MENDOTA LAND USE POLICY

The City of Mendota uses the General Plan, Zoning Ordinance and permit process to regulate land development within the City's incorporated boundaries.

City of Mendota General Plan

The General Plan was adopted in 1991. Within the General Plan, the Land Use Element is the primary document used by the City to provide guidance for future development. The following policies from the Land Use Element are relevant to the proposed project regarding land use impacts:

Land Use Goals

1.1 Achieve orderly development in the community by providing a workable design for urban growth.

1.2 Encourage a land use pattern which will provide for the economically efficient provision of urban services.

1.5 Provide all necessary public facilities, infrastructure, and services to support residential, commercial and industrial uses.

1.6 Coordinate land use policies and planning decisions with Fresno County, the Local Agency Formation Commission (LAFCO), Council of Fresno County Governments, and other affected agencies as necessary to ensure cooperative attainment of City land use goals.

1.8 Ensure a residential environment which provides for safe, sanitary, and adequate housing opportunities to all socio-economic sectors.

Land Use Policies

2.3 Provisions for variable housing densities shall be made to ensure that development of housing is accessible to all economic segments of the community.

2.5 Consumption of prime agricultural land shall be discouraged.

2.7 Neighborhood commercial sites should serve sections of the community without ready access to other commercial facilities, and should be confined to grocery, sundry and related "convenience" outlets. They should be located at the intersections of the arterials and/or major collector streets, and should not be located so that traffic movement is affected, or that lights or noise adversely impact surrounding land uses.

City of Mendota Permitting Process

The City of Mendota regulates land development within the City through the permitting process. Approval of the proposed Annexation, Prezoning and General Plan Amendment is subject to review by the Planning Commission, which provides a recommendation on the proposed action to the City Council. Pending approval of the boundary change by LAFCO, the City Council has final approval authority on annexations.

FRESNO COUNTY LAND USE POLICY

The County of Fresno regulates land use in the unincorporated areas adjacent to the City of Mendota. Fresno County has entered into Memoranda of Understanding (MOU) with all fifteen incorporated cities in the County regarding land use and tax sharing for the development and annexation of lands within a city's adopted SOI. In general, the MOU states that the County will consult with the affected city regarding growth management policies and when new development is proposed within the city's SOI. In most cases the

MOU says that such development will be referred to the city for annexation before the County will consider approval, and that such development must be consistent with the city's general plan and development standards.

Relevant goals and policies contained in the Fresno County General Plan are listed below:

Goal LU-G To direct urban development within city spheres of influence to existing incorporated cities and to ensure that all development in city fringe areas is well planned and adequately served by necessary public facilities and infrastructure and furthers countywide economic development goals.

Policy LU-G.1 The County acknowledges that the cities have primary responsibility for planning within their LAFCO-adopted spheres of influence and are responsible for urban development and the provision of urban services within their spheres of influence.

FRESNO COUNTY AIRPORT LAND USE POLICY PLAN

The *Fresno County Airport Land Use Policy Plan* (1983) contains safety policies that land uses must adhere to if they are located within the vicinity of the Mendota Municipal Airport, including:

- Land uses or land use characteristics, which may affect safe air navigation or which, because of their nature and proximity to an airport, may pose high risks to the land users shall be avoided in the vicinity of the airport. The criteria that shall be used is included in Table Three of the *Fresno County Airport Land Use Policy Plan*.

3.9.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and other performance standards recognized by the City of Mendota. For the purposes of this EIR, impacts are considered significant if the following would result from implementation of the proposed project:

1) Conflict with the adopted goals and policies of the General Plan or other planning program adopted for the purpose of avoiding or mitigating environmental effects;

2) Conflicts with any applicable habitat conservation plan or natural community conservation plan;

3) Physically divides or disrupts an established community;

4) Involves land uses that are found to be incompatible with surrounding uses, or internally incompatible;

5) Conflicts with existing Williamson Act contracts;

6) Converts Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses; or,

7) Contributes significantly to any cumulative land use or agricultural impact.

METHODOLOGY

The evaluation of potential land use and agricultural impacts is based on field reconnaissance and several documents including the *Mendota General Plan Update* and *EIR* (1991), Zoning Ordinance, the *Fresno County General Plan, Background Report* and *Draft EIR* (2000), the *Fresno County Airport Land Use Policy Plan* (1983) and the Applicant's project description and application.

PROJECT IMPACTS AND MITIGATION MEASURES

Conflicts with Goals and Policies Adopted to Avoid or Mitigate Environmental Effects

Impact 3.9-1 The proposed project would result in a conflict with existing policy adopted to avoid or mitigate environmental impacts. The impact is considered **potentially significant**.

The City's Zoning Ordinance and subdivision standards govern the manner in which the proposed project will be implemented. State law requires that General Plan land use designations and corresponding zoning classifications be consistent with one another. The proposed project is located immediately adjacent to the incorporated City limits and is entirely within the City of Mendota Planning Area and SOI. Implementation of the proposed project will require a General Plan Amendment identifying the site as Single Family Residential, Multiple Family Residential and Commercial. The site will be prezoned R-1 (Medium Density/Single Family Residential), R-3 (High Density/Multiple Family Residential) and C-3 (Central Commercial)). The proposed project and its intent to support development of affordable housing, regional job training and education, commercial amenities, childcare and transportation uses would be consistent with the goals and policies of the City of Mendota, upon approval of General Plan and Zoning amendments. Therefore, **no impact** is expected.

LAFCO controls boundary changes for local jurisdictions and special districts in Fresno County, including annexations. As such, it is a responsible agency in considering the project and the decision making body for the annexation. LAFCO policies require that urban development be contiguous with existing or proposed development and that a planned, orderly and compact urban development pattern results upon annexation. LAFCO states that loss of agricultural lands should not be a primary issue of annexation where city and county general plans indicate urban development is appropriate and there is a consistency with the City's SOI. The proposed project site does not contain prime agricultural soils, the site is located entirely within Mendota's SOI, it is adjacent to the existing City limits of Mendota and development of the project site as a residential neighborhood would continue the residential urban pattern established by the City of Mendota to the west and southwest. Therefore, this impact is considered to be **less than significant**.

The proposed project is located adjacent to the northwestern end of the Mendota Municipal Airport. The proximity of the airport and airstrip to the project site could potentially have safety impacts on future residents. The *Fresno County Airport Land Use Policy Plan* (ALUP) includes six Safety Zones in the Airport/Land Use Safety Compatibility Criteria, which is used to determine if a particular land use will be compatible with the airport. The eastern portion of the project site is partially contained within the Traffic Pattern Zone. This is considered a **potentially significant** impact. Implementation of **Mitigation Measure 3.7-3** will reduce the impact to a **less than significant** level by limiting the residential density and prohibiting certain commercial uses on that portion of the project site that falls within the Traffic Pattern Zone. See **Section 3.7 Hazards** for further discussion of this impact.

Conflicts with Applicable Habitat Conservation Plan

There are no habitat conservation plans for the proposed project site. Therefore, **no impact** would occur.

Effects Upon an Established Community

Impact 3.9-2 The annexation and project development will not disrupt or divide an established community. The impact is considered **less than significant**.

The proposed annexation area is located adjacent to the existing City limits and represents a continuation of the urban pattern of the City of Mendota. The project site would expand the existing residential areas located within Mendota, to the west. Rural residential areas northeast of the site are not part of a cohesive, established community. Therefore, the annexation, prezoning and eventual development of the site will not disrupt or divide an established community and the impact is considered **less than significant**.

Conflict with Surrounding Land Uses

Impact 3.9-3 Development of the proposed project could create land use compatibility conflicts with surrounding uses. This is considered a **less than significant** impact.

Land use impacts are primarily a function of the project's compatibility with surrounding adjacent land uses, which in this case are residential, agricultural and the Mendota Municipal Airport. Land use compatibility is measured in terms of specific environmental effects such as noise, air quality (including dust and odor), aesthetics and traffic. To the greatest extent possible, the EIR uses "quantifiable" data to measure such impacts, which can have an effect upon the "quality of life" in a defined area. For this reason, the land use analysis is supported by other specific discussions within the EIR, including **Section 3.3 Air Quality**; **Section 3.6 Noise**; **Section 3.7 Hazards**; **Section 3.9 Aesthetics and Visual Resources** and **Section 3.11 Traffic and Circulation**.

Planned residential uses would be compatible with existing residential uses located to the west of the annexation area. The southwestern tip of the project site adjoins the Mendota Municipal Airport. Compatibility issues with the airport are discussed in **Impact 3.9-1**, above, and in **Section 3.7 Hazards**. Land adjoining the site to the east is designated as Agriculture and is located in unincorporated Fresno County, but within the City of Mendota SOI. Because land within the SOI represents the City's probable future boundary and service area, these areas will likely be converted to urban uses in the future. Therefore, the proposed project will have a **less than significant** impact regarding compatibility with surrounding land uses.

Conversion of Prime Farmland

Development of the proposed project would result in the conversion of land from fallow agricultural and ruderal development to residential, commercial, office and transportation uses. The Important Farmlands Map of Fresno County (2002) classifies the proposed project site as Farmland of Local Importance; therefore, conversion of the site to non-agricultural uses would result in **no impact** regarding conversion of Prime Farmland.

Conflicts with Existing Williamson Act Contracts

There are no Williamson Act contracts or conflicts with any other farmland conservation plans on the project site. Therefore, **no impact** is expected.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

The project as proposed will have a less than significant impact regarding land use and agricultural issues. Development of the project would not contribute to a cumulatively

greater land use impact when combined with other potential projects in the City of Mendota. Therefore, the proposed project would result in **no impact** to cumulative development.

REFERENCES/DOCUMENTATION

California Department of Conservation, Farmland Mapping and Monitoring Program. *Fresno County Important Farmlands Map*. 2002.

City of Mendota. *General Plan Update and EIR*. 1991.

City of Mendota. *Notice of Preparation of a Draft Environmental Impact Report*. April 8, 2005.

County of Fresno. Airport Land Use Commission. *Airport Land Use Policy Plan*. 1983.

County of Fresno. *General Plan and Background Report*. 2000.

County of Fresno. *General Plan Draft EIR*. 2000.

Governor's Office of Planning and Research, State of California. *Guidelines for Implementation of the California Environmental Quality Act,* as amended. 2004.

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SECTION 3.10
PUBLIC RESOURCES AND FACILITIES

This section of the EIR addresses existing public services and facilities within the City of Mendota serving the project site. These include services such as law enforcement, fire protection, parks and recreation and education. The analysis identifies the availability of existing public facilities and calculates demands generated by the project for additional facilities based upon generation rates used by service providers. This examination is based on the Land Use Element of the *Mendota General Plan Update* and *EIR* (1991), the *Fresno County General Plan, Background Report* and *Draft EIR* (2000), materials provided by the project Applicant and comments received from Responsible Agencies during the Notice of Preparation review period.

3.10.1 EXISTING SETTING

LAW ENFORCEMENT

Law enforcement services in Mendota are contracted out to the Fresno County Sheriff's Department. The Department provides patrol services for the entire unincorporated portion of Fresno County. In 1983, patrol services were decentralized and divided into four patrol areas. Each area is commanded by a lieutenant who supervises field services from a substation located in each of the areas. These four patrol areas are divided between two Bureaus. The Southwest Field Services Bureau is comprised of Area 1 and Area 3.

Area 1 covers over 2,400 square miles in western Fresno County and includes the City of Mendota. Area 1 has within its boundaries six incorporated cities: Coalinga, Huron, San Joaquin, Kerman, Mendota and Firebaugh. The Department is also the contract law enforcement provider for the cities of Mendota and San Joaquin. Personnel in Area 1 consist of one lieutenant, eight sergeants, an office assistant, four community service officers and thirty-four deputy sheriffs. The men and women assigned to Area 1 provide 24-hour patrol and detective services, crime prevention, youth services with deputy sheriffs assigned to local schools and the Operation Safe Streets program, as well as a host of community liaison functions.

FIRE PROTECTION

The City of Mendota contracts with the Fresno County Fire Protection District (FCFPD) for fire prevention and protection services. The FCFPD protects 2,566 square miles, nearly 50 percent of the total area in Fresno County. There are thirteen permanently staffed stations and eight stations staffed with Paid Call Firefighters. Each permanently staffed station serves an area of approximately 170 square miles. Station #96 serves the Mendota area and is located at the corner of McCabe Avenue and Derrick Avenue (State Highway 33), in Mendota.

In addition to fire protection, the FCFPD provides emergency medical services to the citizens in its area of responsibility. District personnel are trained to the Emergency Medical Technician level and frequently arrive on the scene prior to the ambulance, especially in the outlying county area. Approximately 60 percent of the FCFPD responses are for medical emergencies. The District is not funded nor reimbursed for their medical responses.

SCHOOLS

The Mendota Unified School District (MUSD) would provide public school services to the project site. Mendota public schools include two elementary schools, one junior high school, one senior high school, one community day school and one continuation high school. According to the California Department of Education, elementary schools enrolled 1,376 students, 334 students were in junior high and 578 in senior high during the 2003-2004 school year. The enrollment levels are shown below in **Table 3.10-1**.

TABLE 3.10-1
MENDOTA UNIFIED SCHOOL DISTRICT 2003-2004 ENROLLMENT

School	Enrollment	Pupil Teacher Ratio
McCabe Elementary	725	21.7
Washington Elementary	651	21.7
McCabe Junior High School	334	22.3
Mendota High School	578	19.6
Mendota Continuation High	15	7.5
Mendota Community Day	11	11.0
District Total	2,314	20.6

Source: California Department of Education (2005)

Currently, the MUSD is experiencing overcrowded conditions. Enrollment in the 2004-2005 school year is 2,383. The available capacity, as determined by the MUSD in accordance with Education Code Section 17071, is 2,071; therefore, the school district is currently in excess of 300 students over capacity.

PARKS AND RECREATION

The City of Mendota provides parks and recreation facilities and services to its citizens. There are approximately 140 acres of parks or recreational open space in Mendota's Planning Area, which includes land located in the City's Sphere of Influence (SOI). Of this total, twenty acres are developed parkland and 120 acres are devoted to schools. Park and recreational land is determined in the General Plan by the combined total of developed park acreage plus 50 percent of the amount of school sites that have adjoining sports fields. Based upon this formula, there are presently 80 acres of parks and recreational land

available within Mendota. Currently, three parks are developed for recreational use in Mendota: East Side Park, Gil Park and Rojas-Pierce Park.

3.10.2 REGULATORY SETTING

School Facilities Act of 1998

The School Facilities Act of 1998, also known as SB 50, provides state funding for new school construction projects that can satisfy criteria for such funding, including eligibility due to growth, Division of State Architect plan approval and California Department of Education site approval. However, the Act also dramatically limits the maximum amount of impact fees which can be charged by school districts as mitigation for new residential, commercial and industrial construction. Furthermore, if the maximum amount is insufficient to meet their established polices, cities and counties are prohibited from imposing additional conditions to bring the development application into conformity with the established policies. The Act also prohibits local agencies from denying a development application on the basis of a person's refusal to provide school facilities mitigation that exceeds the fee amount or refusing to approve any legislative or adjudicative act on the basis that school facilities are inadequate.

CITY OF MENDOTA GENERAL PLAN

The following policies from the Land Use Element of the *Mendota General Plan Update* (1991) are relevant regarding consideration of public services improvements:

Goal 1.5 Provide all necessary public facilities, infrastructure and services to support residential, commercial and industrial uses.

Policy 2.11 The City shall continue to satisfy the community's needs for park and recreational facilities required to serve anticipated population growth.

Policy 2.12 The City shall combine, when feasible, the dual use of parks and ponding basins.

3.10.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and previous standards used by the City. Public service impacts may be considered significant if implementation of the project will result in one or more of the following:

1) A need for a new or physically altered government facility, the construction of which could cause significant physical or environmental impacts, in order to maintain acceptable law enforcement or fire service levels;

2) An increased demand for additional police personnel, equipment or facilities that impairs the ability to maintain current service levels;

3) An increased demand for additional fire protection staff, equipment or facilities in excess of the ability of service providers to maintain an acceptable level of service;

4) Additional students of a quantity great enough to create physical overcrowding or other physical strain on existing school facilities;

5) An increased demand for park and recreational services, such that substantial physical deterioration of a park or facility would occur or be accelerated; or,

6) Contributes significantly to any cumulative public service or utility impact.

METHODOLOGY

The analysis of potential public services impacts is based upon information contained in the Land Use Element of the *Mendota General Plan Update* and *EIR* (1991), the *Fresno County General Plan, Background Report* and *Draft EIR* (2000) and materials provided by the project Applicant.

PROJECT IMPACTS AND MITIGATION MEASURES

Law Enforcement Services

Impact 3.10-1 The proposed project will generate additional demand for law enforcement services. This is considered a **potentially significant** impact.

Law enforcement services in Mendota are contracted out to the Fresno County Sheriff's Department. The Department primarily serves the unincorporated population of Fresno County with 329 sworn officers for a ratio of 1.09 officers per 1,000 residents.

An estimated population increase of 2,390 could result from buildout of the proposed project. Population growth, anticipated to occur throughout Fresno County, has been recognized in the *Fresno County General Plan Draft EIR* (2000) as a significant impact due to the increase in the number of sworn officers necessary to provide patrol and investigative duties for the increased population. The project would not result in the need for a new, or physically altered, facility and would not result in direct environmental impacts. However, Policy PF-G.3 of the Draft EIR requires new development to pay its fair

share of the costs for providing law enforcement facilities and equipment to maintain service standards. Thus, the proposed project requires the following mitigation:

Mitigation Measure

MM 3.10-1 The project Applicant shall be required to pay all applicable impact fees to address public services impacts. In the absence of sufficient impact fees, the City of Mendota shall assess fees through alternative mechanisms to address public services impacts where a nexus can be demonstrated.

Implementation of the above mitigation measure will reduce impacts on law enforcement services to a **less than significant** level by requiring impact fees contributed by the Applicant be dedicated towards maintaining existing service standards.

Fire Protection

Impact 3.10-2 Construction of the project will result in additional incremental demand for fire protection services generating the need for additional equipment and personnel. This is considered a **potentially significant** impact.

The City of Mendota contracts with the Fresno County Fire Protection District (FCFPD) for fire prevention and protection services. Station #96 serves Mendota from the corner of McCabe Avenue and Derrick Avenue (State Highway 33) and has three available engines.

An estimated population increase of 2,390 will result from buildout of the proposed project. Emergency response to the project site is dependent upon adequate emergency access and water flows for fire protection services. The area of Mendota served by the FCFPD has an ISO rating of 5 according to the *Fresno County General Plan Draft EIR* (2000). Station 96 is slightly more than ½-mile from the project site. Extension and improvement of water lines serving the project site from Bass Avenue, as outlined in **Section 3.12 Utilities and Services**, will be necessary to meet fire flow requirements and domestic demand.

The proposed project would not result in the need for a new, or physically altered, facility and would not result in direct environmental impacts. However, Policy PF-H.9 of the Draft EIR requires new development to pay its fair share of the costs for providing fire protection facilities and equipment to maintain service standards. Thus, the proposed project requires the following mitigation:

Mitigation Measure

MM 3.10-2 The FCFPD will review and evaluate the proposed project for compliance with fire safety standards per the Uniform Fire Code and other State and local ordinances.

Implementation of Mitigation Measure **MM 3.10-1** and **MM 3.10-2** will reduce impacts on fire protection services to a **less than significant** level by requiring impact fees contributed by the Applicant be dedicated towards maintaining existing service standards.

Schools

Impact 3.10-3 The proposed project will increase the number of school-aged children served by the Mendota Unified School District. This is considered to be a **potentially significant** impact.

According to the Mendota Unified School District (MUSD), the proposed project could generate approximately 600 students upon project buildout, which would create additional demand for educational services. State law prohibits a local agency from either denying approval of a land use project due to inadequate school facilities or imposing school impact measures other than designated fees. Therefore, the Applicant shall be required to pay school impact fees of $2.24 per square foot of residential development to the Mendota Unified School District, in accordance with the provisions of the State Education Code and School Facilities Act of 1998. Payment of school impact fees will reduce school related impacts to a **less than significant** level.

Parks and Recreation

Impact 3.10-4 The proposed project will accommodate approximately 2,390 new residents at buildout, which will generate additional demand for parks and recreation facilities. This is considered a **less than significant** impact.

Parks and recreational land is determined in Mendota by the combined total of developed park acreage plus 50 percent of the amount of school sites that have adjoining sports fields. Using this formula, there are currently 80 acres of parks and recreational land available within Mendota. The City of Mendota does not have a standard ratio of parkland to population; however, the generally accepted ratio of parkland required per resident is about 3-4 acres per 1,000 residents. Applying this ratio to Mendota results in about 28 acres necessary to serve the existing population. The addition of approximately 2,390 residents upon project buildout would require 7-10 acres of parkland. The City has sufficient parkland available to serve these additional residents; therefore, the impact is considered **less than significant**.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Public Services and Facilities

Impact 3.10-5 The project, combined with other projects anticipated with the buildout of the General Plan (2010), may result in cumulative impacts to public services and facilities. This impact is considered **less than significant**.

The proposed project, in addition to anticipated cumulative development in the project vicinity, may result in the need for increased public facilities and or personnel for the provision of law enforcement and fire protection services. The proposed project will also require Fresno County LAFCO approval for annexation by the City of Mendota. LAFCO requires that the capacity of public facilities and the adequacy of public services serving the proposed annexation area be analyzed in a Municipal Service Plan, included as part of the annexation submittal.

Mitigation Measure **MM 3.10-1** requires that the cost of additional services resulting from the proposed project be mitigated by development impact fees assessed by the City of Mendota. The proposed project's contribution to cumulative public services and facilities impacts will be addressed by payment of all applicable impact fees and submission of a Municipal Service Plan to LAFCO; therefore, the impact is considered **less than significant**.

REFERENCES/DOCUMENTATION

City of Mendota. *General Plan Update and EIR*. 1991.

City of Mendota. *Notice of Preparation of a Draft Environmental Impact Report*. April 8, 2005.

County of Fresno. *General Plan and Background Report*. 2000.

County of Fresno. *General Plan Draft EIR*. 2000.

Governor's Office of Planning and Research, State of California. *Guidelines for Implementation of the California Environmental Quality Act,* as amended. 2004.

Section 3.11
Traffic and Circulation

This section of the EIR examines traffic generation and circulation issues associated with the proposed project. This analysis utilizes a Traffic Impact Analysis prepared by VRPA Technologies (2002) for the Applicant, which was prepared in coordination with City of Mendota staff. The complete traffic study is included in the Technical Appendices of this document.

3.11.1 EXISTING SETTING

ROADWAY NETWORK

State Highways 33 and 180 provide regional access to the City of Mendota. They are designed to carry two lanes of traffic with no medians in the vicinity of the project site. Key intersections are located at Belmont Avenue and Highway 180, Oller Street and Derrick Avenue and Bass Avenue and Highway 33. Highways 33 and 180 are the main arterial roadways for the City of Mendota. The City's roadway network is comprised mainly of local streets arranged in grid formation. Bass Avenue is the City's primary collector street and bisects the project site into northern and southern portions. East and westbound lanes on Bass Avenue will provide general access to the project site. Streets and key intersections serving the project site are shown below in **Figure 3.11-1**.

TRANSIT NETWORK

Fresno County Rural Transit Agency

Fresno County Rural Transit Agency (FCRTA) services are available to the elderly (60+), disabled, low income and general public patrons within thirteen incorporated cities of Fresno County. Limited service is available to neighboring counties. Currently, the FCRTA has eighteen transit subsystems that are offered on a demand responsive and/or scheduled, fixed route basis. Scheduled, multiple round-trip, intercity service is provided to Mendota through Kerman to the Fresno-Clovis Metropolitan Area and to Firebaugh, Monday through Friday, by the Westside Transit system. Demand-responsive services are also available Monday through Friday. In accordance with the Clean Air Act, all of FCRTA's vehicles are alternatively fueled by propane, compressed natural gas or electric batteries.

Other Transportation

Greyhound provides bus service to the following cities within Fresno County: Fresno and Coalinga. Passenger rail service is available in Fresno, thirty-seven miles to the east.

Bicycle Facilities

Bicycle traffic comprises a small proportion of the total vehicular traffic in Mendota. There are no implemented bike paths in the City. The Regional Bikeways Plan (prepared by the Council of Fresno County Governments) defines the bikeway system for Fresno County. The plan provides connectivity between cities and unincorporated areas, between Fresno County and adjoining counties and access to recreational areas, regional parks and recreational bicycling routes. The Rural Bikeways Plan is intended to guide bikeway planning and implementation in conjunction with new development or improvement of the roadways shown on this diagram. The Council of Fresno County Governments has designated a route for intra-city circulation along SR 180 to its intersection with SR 33, proceeding north on SR 33 to Firebaugh, as a bikeway of regional significance.

PROJECT SITE SETTING

The approximately 68-acre project site is located north and south of Bass Avenue, in the northern portion of the City's Sphere of Influence (SOI). The intersection of Highway 33 and Bass Avenue is the nearest study intersection relative to the project site.

LEVEL OF SERVICE

Intersection Level of Service

Levels of Service (LOS) ratings are qualitative descriptions of intersection operations and are reported using an "A" through "F" letter rating system to describe travel delay and congestion. Intersections analyzed for this proposed project are currently unsignalized, two-way stop intersections. These intersections measure LOS by determining the amount of vehicle delay. Delay of a vehicle is calculated from the time the vehicle stops at an intersection, or the last vehicle in queue, until the time the vehicle leaves the stop bar. The varying levels of service are described below in **Table 3.11-1**.

TABLE 3.11-1
INTERSECTION LEVEL OF SERVICE DESCRIPTION

LOS	Description	Intersection Signalized Delay (seconds)	Intersection Unsignalized Delay (seconds)
A	Represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.	≤ 10	0 - 10
B	Stable flow, but the presence of other users in the traffic stream begins to be noticeable.	10 - 20	10 - 15
C	Stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.	20 - 35	15 - 25
D	Represents high density, but stable flow.	35 - 55	25 - 35
E	Represents operating conditions at or near the capacity level.	55 - 80	35 - 50
F	Represents forced or breakdown flow.	> 80	> 50

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board (1985)

Segment Level of Service

According to the 1997 *Highway Capacity Manual* (HCM), LOS is categorized by two parameters of traffic: uninterrupted and interrupted flow. Uninterrupted flow facilities do not have fixed elements such as traffic signals that cause interruptions in traffic flow. Interrupted flow facilities do have fixed elements that cause an interruption in the flow of traffic, such as stop signs and signalized intersections along arterial roads. A roadway segment is defined as a stretch of roadway generally located between signalized or controlled intersections. The HCM-based LOS analysis considers a calculation of traffic volume and other variables, such as the number of lanes, number of passing lanes and terrain.

To determine the existing LOS for each street segment analyzed, segment LOS was estimated using Modified HCM-based LOS Tables (Florida Tables), which are approved for use in Fresno County. The tables consider the capacity of individual segments based on numerous roadway variables (design speed, number of passing lanes, number of lanes, saturation flow, etc.). These variables were identified and applied in the LOS tables to reflect existing traffic LOS conditions in the project vicinity. **Table 3.11-2** below, describes the LOS conditions for road segments.

TABLE 3.11-2
SEGMENT LEVEL OF SERVICE DESCRIPTION

Level of Service	Description
LOS A	Represents free flow. Individual vehicles are virtually unaffected by the presence of others in the traffic stream.
LOS B	In the range of stable flow, but the presence of other vehicles in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
LOS C	In the range of stable flow, but marks the beginning of the range of flow in which the operation of individual vehicles becomes significantly affected by interactions with other vehicles in the traffic stream.
LOS D	Represents a crowded segment of roadway with a large number of vehicles restricting mobility and a stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
LOS E	Represents operating conditions at or near the level of capacity. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
LOS F	Used to define forced or breakdown flow (stop-and-go gridlock). This condition exists when the amount of traffic approaches a point where the amount of traffic exceeds the amount that can travel to a destination. Operations within the queues are characterized by stop-and-go waves and they are extremely unstable.

Source: Highway Capacity Manual (1997)

STUDY INTERSECTIONS AND STREET SEGMENTS

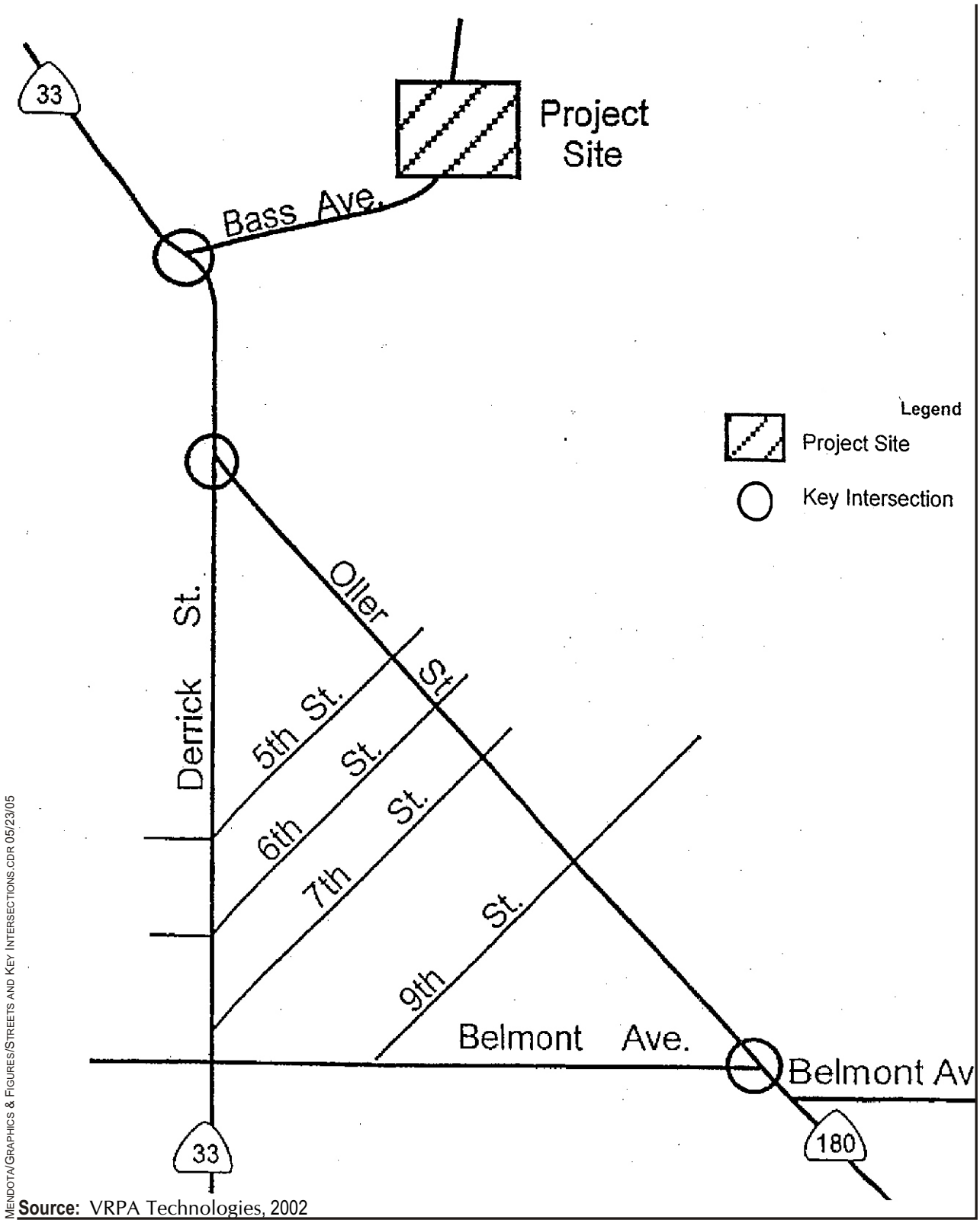
Three intersections and three street segments in the project vicinity were chosen for analysis of potential traffic impacts due to the proposed development. All intersections are currently controlled by stop signs, with stop control for the minor street only.

Intersections

1) Highway 33 (SR 33) / Bass Avenue
2) Highway 180 (SR 180) / Belmont Avenue (pro-rata share calculation only)
3) SR 180 / SR 33 (pro-rata share calculation only)

Segments

1) SR 33 – North of Bass Avenue
2) SR 33 – South of Bass Avenue
3) Bass Avenue – North of SR 33



MENDOTA/GRAPHICS & FIGURES/STREETS AND KEY INTERSECTIONS.CDR 05/23/05

Source: VRPA Technologies, 2002

NOT TO SCALE

N

FIGURE 3.11-1

STREETS AND KEY INTERSECTIONS

PMC

PACIFIC MUNICIPAL CONSULTANTS

SR 33 is a two-lane highway with no median in the vicinity of the project site. Traffic traveling on SR 33 is not required to stop at the intersection with Bass Avenue. The lanes on SR 33 are typically 12-feet wide and the shoulder ranges from four to six feet in width. The Southern Pacific railroad crosses SR 33 approximately 400 feet south of Bass Avenue. There are no existing turn lanes at Bass Avenue.

Bass Avenue consists of two lanes near the project site, one eastbound and one westbound. Bass Avenue forms a tee intersection with SR 33 and does not extend to the west side of SR 33. A stop sign controls westbound traffic at the intersection with SR 33.

EXISTING LEVEL OF SERVICE CONDITIONS

All intersection LOS analyses were estimated using Highway Capacity Software (HCS), based on the 1997 *Highway Capacity Manual*. Street segment LOS was determined using Arterial LOS Tables (Florida Tables). Results of the analysis indicate that street segments and the intersection closest to the project site are currently operating at acceptable LOS. **Table 3.11-3** below, illustrates existing conditions for this intersection and segments.

TABLE 3.11-3
EXISTING PEAK HOUR SEGMENT AND INTERSECTION LEVEL OF SERVICE (LOS)

Segment or Intersection	Traffic Control	AM Peak	PM Peak
SR 33/ North of Bass Ave	n/a	LOS B	LOS B
SR 33/ South of Bass Ave	n/a	LOS C	LOS B
Bass Ave/ North of SR 33	n/a	LOS B	LOS B
SR 33 and Bass Avenue	Two-way Stop	LOS C	LOS B

Source: VRPA Technologies (2002)

Turning movement counts for each of the study intersections were collected during October, 2001 for the AM and PM peak hours (7:00 to 9:00 AM and 4:00 to 6:00 PM). Seasonal fluctuations in traffic can vary significantly in certain areas of Fresno County. In order to provide traffic counts that are representative of peak season conditions, turning movement counts conducted by VRPA were compared to the peak hour counts published by Caltrans in the annual *Traffic Volumes on State Highways* report and adjusted accordingly. These counts are considered to reflect peak hour season counts. Whenever the turning movements would result in roadway segment counts less than shown for the peak hour in the Caltrans report, the turning movement counts were adjusted proportionally to match the peak season counts.

The City of Mendota has not adopted a LOS goal that can be used to evaluate intersection performance. However, Fresno County has an objective of maintaining an overall LOS "C" or LOS "D" depending on certain conditions. The Caltrans minimum LOS is "C" except where the existing LOS is "D" or below. For the purposes of the proposed project, LOS "D"

was used as the LOS standard for both Caltrans and Fresno County. Specific actions intended to ensure implementation of these minimum levels of service should include the following:

- Enforcement of LOS standards that are practical and understandable and that meet an affected agency's objective to provide a high level of mobility for residents and high levels of mobility for activity centers. Where adopted LOS are exceeded, complete all possible improvements and implement measures to reduce additional burden to roadways, such as synchronization of traffic signals.
- All new facilities should be designed to operate at the policy LOS or better for a period of at least twenty years following their construction.
- Permit new development projects only when circulation facilities already exist or will be completed as part of, or prior to, completion of a project so that project-related traffic does not cause LOS to deteriorate below acceptable levels.

3.11.2 REGULATORY SETTING

REGIONAL TRANSPORTATION PLANNING

Council of Fresno County Governments

The Council of Fresno County Governments (Fresno COG) is the transportation planning, coordinating and financing agency for Fresno County. Fresno COG functions as both the Regional Transportation Planning Agency (RTPA) -- a state designation -- and for federal purposes, as the region's Metropolitan Planning Organization (MPO). The agency is responsible for the Regional Transportation Plan (RTP), a comprehensive assessment of all forms of transportation available in Fresno County and of needs for travel and goods movement projected to the year 2030. The first RTP was adopted in 1975; the current plan is the fifteenth edition, and is a continuation of a process of intergovernmental cooperation, coordination and long-range planning which has involved fifteen cities, Fresno County, staff from related local public agencies, the Air District, Caltrans and the public. Federal and State legislation mandate that long range transportation planning be done every three years for a period of at least twenty years into the future.

CITY OF MENDOTA GENERAL PLAN

The following goals and policies from the Circulation Element of the *Mendota General Plan* are relevant to the proposed project regarding transportation and circulation impacts:

Goal 1.1 Provide a traffic circulation system for motor vehicles and pedestrians, ensuring safe and efficient access to employment, education, commerce and recreation without interference to adjacent land uses.

Goal 1.2 Assure adequate access by emergency vehicles to all areas within the community.

Goal 1.5 Assure the efficient use of public transit in the community of Mendota and connections to other areas of the County.

Goal 1.8 Incorporate bicycling and bikeway development as an integral, active function of a multi-modal transportation system.

Policy 2.2 The circulation system should be developed and dedicated to the appropriate extent and width when development or division of property occurs.

Policy 2.3 The circulation network should provide a quick and efficient route for emergency vehicles, including police, fire and other vehicles. The length of single-entry access routes should be restricted.

Policy 2.9 The local street network should be designed to limit high-speed and through traffic.

Policy 2.11 The circulation system should be designed to minimize excessive noise impacts on land uses.

Policy 2.18 Consider the impacts of new development in and around the vicinity of the airport prior to any approvals.

Policy 3.5 Signalization shall be created at Highway 33 and Bass Avenue.

3.11.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and accepted Fresno County standards used by the City of Mendota. For the purposes of this EIR, impacts are considered significant if the following could result from implementation of the proposed project:

1) Increase traffic and degrade the level of service of roadways or intersections below LOS "D";

2) Exacerbate existing traffic conditions that are currently experiencing an unacceptable LOS;

3) Result in insufficient parking capacity on-site or off-site as calculated by City standards;

4) Result in roadway design inconsistent with engineering or safety standards or cause unsafe conditions for pedestrians or bicyclists;

5) Impact existing transit systems;

6) Results in a disruption of the operations of existing uses, such as schools; or,

CIRCULATION DESIGN

The circulation design for the proposed project is still in the conceptual phase. Currently, the site is served by Bass Avenue, which bisects the property into northern and southern areas. This road will serve as the main access point between the project and the City of Mendota. Internal streets and connections to existing streets within Mendota have not been established at this time. Final designs will be required to feature a logical and comprehensive internal circulation plan and interconnectivity with the existing street network. Other elements to be included include installation of sidewalks and a multiple-use pedestrian/bike way, allowing access across the site to non-automobile users and to the farm labor transportation center.

PROJECT TRIP GENERATION AND DISTRIBUTION

Project Trip Generation

Project trip generation rates were derived using data contained in the 6th edition of the Institute of Transportation Engineering (ITE), *Trip Generation Manual* (1997) and information from the Applicant regarding approximate acreage for proposed land uses. **Table 3.11-4** below, presents the trip generation rates used for each land use. Development of the proposed project is expected to generate up to 7,881 trips per day with 580 trips (261 entering and 319 exiting the project site) during the AM peak hour and 845 trips (441 entering and 404 exiting) during the PM peak hour.

TABLE 3.11-4
PROJECT SITE TRIP GENERATION

Land Use	Units/ Size*	Daily Trip Rate	ADT	Internal Capture Trip Reduction	ADT minus Capture	%AM Peak	%AM In	In	%AM Out	Out	%PM Peak	%PM In	In	%PM Out	Out
Multi-Family Residential	**480 units**	6.6	3,168	10%	**2,851**	7.8% (**222**)	25%	**56**	75%	**166**	10.6% (**302**)	65%	**196**	35%	**106**
Single-Family Residential	**73 units**	10.0	730	10%	**657**	7.7% (**51**)	15%	**8**	85%	**43**	9.4% (**62**)	65%	**40**	35%	**22**
Retail	**4.84 ac**	675	3,267	15%	**2,777**	2.4% (**66**)	50%	**33**	50%	**33**	8.7% (**242**)	50%	**121**	50%	**121**
Comm Office	**3.38 ac**	173	585	5%	**556**	14.2% (**79**)	88%	**70**	12%	**9**	13.5% (**75**)	17%	**13**	83%	**62**
Govt Office	**1.46 ac**	173	253	5%	**240**	14.2% (**34**)	88%	**30**	12%	**4**	13.5% (**32**)	17%	**5**	83%	**27**
Child Care	**1.45 ac**	690	1001	20%	**800**	16.0% (**128**)	50%	**64**	50%	**64**	16.6% (**132**)	50%	**66**	50%	**66**
Total					**7,881**			**261**		**319**			**441**		**404**

**Note: Acreage derived from Don Alejandro Valdez Schematic Master Plan (Revised, Jan. 28, 2005)*

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Project Trip Distribution

Trip distribution for existing conditions was distributed and assigned to the local street network based on the type of existing and proposed land uses and current traffic flows in Mendota.

Existing Plus Cumulative Projects Plus Project Traffic Conditions

Traffic impact analysis typically requires the analysis of a scenario that includes existing traffic, traffic generated at approved developments (i.e., cumulative traffic) and traffic generated by the project. There is one cumulative project in the vicinity of the proposed project that would have a significant impact on traffic. Project trips from this development (which includes a motel and convenience store), located at the intersection of Bass Avenue and SR 33, were taken from a traffic impact study conducted for the project. Existing traffic was added to traffic generated at this cumulative development and traffic generated by the proposed project.

Future No Project and With Project Traffic Conditions

The impacts of future traffic conditions were analyzed with and without the project, corresponding to the Year 2020. Year 2020 traffic was forecast using existing traffic as a base and increasing this traffic by a growth factor of two percent per year.

METHODOLOGY

This section summarizes a Traffic Impact Analysis (TIA) prepared by VRPA Technologies (2002) for the Applicant. Project trip generation from the TIA have been modified based on changes in land uses to the proposed project since completion of the TIA. Impacts and mitigation measures from the TIA have been incorporated into this analysis, however, due to the overall similarity of the original land use plan with the current proposed project. Impacts have been assessed based upon CEQA significance standards, input from Caltrans and the standards and thresholds utilized by the City.

PROJECT IMPACTS AND MITIGATION MEASURES

The following section summarizes traffic and circulation impacts for all scenarios discussed above.

Increase in Project Related Traffic Volumes/Level of Service

Impact 3.11-1 Buildout of the project is expected to result in increased delays and deterioration of LOS at some roadway segments and intersections. This impact is considered **potentially significant**.

Results of the capacity analysis indicate that all intersections and street segments adjacent to or near the project site are currently operating at acceptable LOS. Traffic generated by buildout of the proposed project would cause a significant decrease in LOS for the segments and intersections listed below in **Table 3.11-5**.

TABLE 3.11-5
SEGMENT AND INTERSECTION LEVEL OF SERVICE, EXISTING AND FUTURE (AM/PM PEAK HOUR)

Segment or Intersection	Existing Conditions	Existing Plus Project	Future No Project	Future Plus Project
SR 33/ North of Bass Ave	B/B	C/C	B/C	C/C
SR 33/ South of Bass Ave	C/B	D/F	C/C	F/F
Bass Ave/ North of SR 33	B/B	C/E	B/B	C/E
SR 33 and Bass Avenue	C/B	F/F	D/D	F/F

Source: VRPA Technologies (2002)

In order to relieve expected traffic congestion at the intersection of SR 33 and Bass Avenue, the following mitigation measure will be required:

Mitigation Measure

MM 3.11-1 The Applicant shall design and construct the following roadway improvements prior to residential occupancy, or,

The Applicant shall pay its fair share fees to Caltrans at the time of Building Permit issuance, for the listed improvements. Should development proceed in advance of the roadway improvements, building permits will only be issued by the City of Mendota up to the point where a signal warrant is triggered for the intersection of SR 33 and Bass Avenue.

- Signalization of the SR 33 and Bass Avenue intersection.
- Installation of a separate left-turn lane for southbound traffic on SR 33.
- Installation of a separate right-turn lane for northbound traffic on SR 33.

The resulting LOS with the recommended improvements is shown below in **Table 3.11-6**.

TABLE 3.11-6
SEGMENT AND INTERSECTION LEVEL OF SERVICE, EXISTING AND FUTURE WITH MITIGATION (AM/PM PEAK HOUR)

Segment/Intersection	Existing Conditions	Existing Plus Project	Future No Project	Future Plus Project
SR 33/ North of Bass Ave	B/B	C/C	B/C	C/C
SR 33/ South of Bass Ave	C/B	D/F	C/C	F/F
Bass Ave/ North of SR 33	B/B	C/E	B/B	C/E
SR 33 and Bass Avenue	C/B	C/C	D/D	C/D

Source: VRPA Technologies (2002)

Roadway segment LOS deficiencies are identified in this table, but the more detailed intersection analysis indicates that there will be no operational problems if the recommended intersection improvements are implemented.

Incorporating the above mitigation measure will reduce project related impacts due to increases in traffic volumes and LOS to a **less than significant** level by requiring construction of roadway improvements or payment of fees dedicated towards those improvements in order to address traffic operations and safety impacts.

Parking Capacity

Impact 3.11-2 Buildout of the proposed project will result in a need for on-site parking facilities. This is considered a **less than significant** impact.

The proposed project will be required to provide sufficient on-site parking supply meeting the City's standards for each of the proposed land uses. Final site plans will be required to show adequate on-site parking facilities, in accordance with the Mendota Zoning Ordinance, for each identified land use and shall comply with all other City of Mendota parking standards.

Pedestrian and Bicycle Facilities

Impact 3.11-3 The proposed project will result in the construction of residential development in a largely rural setting lacking adequate pedestrian facilities, bicycle lanes and stop controls. This is considered a **less than significant** impact.

The residential nature of the proposed development will require the design of adequate pedestrian and internal stop controls. The proposed project includes installation of sidewalks and a multiple-use pedestrian/bike way, allowing access across the site to all land uses, including the farm labor transportation center. Sidewalks will connect, where

appropriate, to existing neighborhoods in the City of Mendota that border the site on the northwest and southwest. The impact to pedestrian and bicycle facilities is considered **less than significant**.

Transit System

Impact 3.11-4 Buildout of the proposed project will result in a greater demand for area transit services. This is considered a **less than significant** impact.

Presently, the Westside Transit system operates in the City of Mendota. It has no fixed routes and is a demand-response system. The City is also served by regular Greyhound Bus service. Future residential, commercial and public facility development at the project site is expected to result in slight increases in demand, but is not expected to require physical expansion of any transit systems. Furthermore, the Applicant proposes to provide additional transit services to and from the site to aid in farmworker transportation. Therefore, the impact to area transit systems is considered **less than significant**. No mitigation is required.

Disruption of Existing Uses

Impact 3.11-5 Buildout of the project will result in traffic impacts to existing adjacent uses. This is a **less than significant** impact.

The project site is located in a lightly populated rural area outside the existing City limits of Mendota. No significant land use attractions such as shopping centers, industrial parks or schools are located in the project vicinity. Therefore, increased traffic conditions will have a **less than significant** impact on existing land uses in terms of disruption.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Increase in Traffic Volumes/Level of Service

Impact 3.11-6 The project, combined with other projects in the vicinity, may result in increased delays and deterioration of LOS at some segments and intersections in the Year 2020. This is considered a **potentially significant** impact.

Year 2020 traffic was forecast using existing traffic as a base and increased by a growth factor of two percent per year. There is one cumulative project in the vicinity of the proposed project that would have a significant impact on traffic. Project trips generated by this development were incorporated into the LOS analysis reflected in **Table 3.11-5**.

Implementation of **MM 3.11-1** will reduce the project's contribution to cumulative intersection LOS deterioration to a **less than significant** level by requiring construction of

roadway improvements or payment of fees dedicated towards those improvements in order to address traffic operations and safety impacts.

REFERENCES/DOCUMENTATION

City of Mendota. *General Plan Update and EIR*. 1991.

City of Mendota. *Notice of Preparation of a Draft Environmental Impact Report*. April 8, 2005.

County of Fresno. *General Plan and Background Report*. 2000.

County of Fresno. *General Plan Draft EIR*. 2000.

VRPA Technologies. *Transportation Impact Analysis, I-5 Social Service Corporation Site, City of Mendota*. January, 2002.

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Section 3.12
Utilities and Service Systems

This section of the EIR addresses existing utility and infrastructure systems within the City of Mendota serving the project site. The analysis discusses the ability of existing or planned systems to accommodate the project in terms of distribution and supply and identifies potential environmental impacts that could result from the need for new or expanded systems. This examination is based on the Land Use Element of the *Mendota General Plan Update* and *EIR* (1991), the *Fresno County General Plan, Background Report* and *Draft EIR* (2000) and materials provided by the project Applicant. **Section 3.8 Hydrology and Water Quality**, includes discussion of stormwater infrastructure impacts.

3.12.1 EXISTING SETTING

The City of Mendota provides a range of public services to the community, including water and wastewater services and contracts to Mid-Valley Disposal for solid waste collection. Other services are provided by a variety of other companies, including Pacific Gas & Electric, SBC Communications and Comcast.

WATER SUPPLY AND DISTRIBUTION

The City of Mendota utilizes groundwater resources consisting of three domestic wells with a combined capacity of 3,000 gallons per minute (gpm). Current domestic demand on the system ranges from 540 to 1,800 gpm (0.8 - 2.6 mgd). Water from the new well field meets primary and secondary drinking water standards. The City has approximately 2.0 million gallons of reservoir storage capacity for fire flow and peak demand requirements.

WASTEWATER AND SEWER SERVICE

The City of Mendota utilizes a 1.24 mgd secondary wastewater treatment facility located northeast of the project site along Bass Avenue. This facility is currently operating at near capacity. Facilities at the plant consist of two aerated lagoons, nine oxidation ponds and 55 acres of spreading basins. Effluent disposal is accomplished primarily by pond evaporation/percolation on City owned property. In 1984, an irrigation pump station and additional yard piping were installed. Treated wastewater can be pumped from Oxidation Pond Nos. four through six. A second effluent pump station was constructed to provide plant makeup water for a private biomass electrical generation facility, but is not in service at this time. The City is currently planning to expand the Wastewater Treatment facility to a capacity of 2.5 mgd.

SOLID WASTE SERVICES

The City of Mendota contracts with Mid-Valley Disposal for solid waste disposal services. Mendota utilizes the American Avenue Landfill, located approximately 15 miles southeast of Mendota in Tranquillity. The 361-acre landfill is a Class III landfill and will only accept

standard municipal waste. This landfill provides solid waste disposal services to areas of unincorporated Fresno County as well as the cities of Mendota, Fresno, Firebaugh, Kerman and other area municipalities. The landfill has a total capacity of 41.1 million cubic yards and handles on average 1,700 tons per day. The facility is anticipated to have an estimated closure date of 2031.

ELECTRIC, NATURAL GAS, TELEPHONE AND CABLE SERVICE

Pacific Gas & Electric (PG&E) provides electrical and natural gas service, SBC Communications provides residential and commercial telephone service and Comcast provides cable television service. Distribution lines for these utilities would need to be extended and/or improved to meet providers' standards.

3.12.2 REGULATORY SETTING

SENATE BILLS 610 AND 221

Senate Bill 610 (Chapter 643, Statutes of 2001) and Senate Bill 221 (Chapter 642, Statutes of 2001) amended state law, effective January 1, 2002, in order to improve the link between information on water supply availability and certain land use decisions made by cities and counties. Senate Bill 610 and Senate Bill 221 are companion measures, which seek to promote more collaborative planning between local water suppliers and cities and counties. Both statutes require detailed information regarding water availability to be provided to the city and county decision-makers prior to approval of specified large development projects and that the information be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects.

Both measures recognize local control and decision-making regarding the availability of water for projects and the approval of projects. Under Senate Bill 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912 [a]) subject to the California Environmental Quality Act. Under Senate Bill 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply.

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995 and 50 percent by January 1, 2000.

The Act further requires every city and county to prepare two documents to demonstrate how the mandated rates of diversion will be achieved. The first document is the Source Reduction and Recycling Element (SRRE) describing the chief source of the jurisdiction's waste, the existing diversion programs, and the current rates of waste diversion and new or expanded diversion programs intended to implement the Act's mandate. The second document is the Household Hazardous Waste (HHW) Element, which describes what each jurisdiction must do to ensure that household hazardous wastes are not mixed with regular non-hazardous solid waste and deposited at a landfill.

CITY OF MENDOTA GENERAL PLAN

The following policies from the Land Use Element of the *Mendota General Plan Update* (1991) are relevant regarding consideration of utilities improvements:

Goal 1.1 Achieve orderly development in the community by providing a workable design for urban growth.

Goal 1.2 Encourage a land use pattern which will provide for the economically efficient provision of urban services.

Goal 1.5 Provide all necessary public facilities, infrastructure and services to support residential, commercial and industrial uses.

Goal 1.8 Ensure a residential environment which provides for safe, sanitary and adequate housing opportunities to all socio-economic sectors.

Goal 1.9 Continue to upgrade and expand the City's water system to accommodate future planned growth.

Goal 1.10 Continue to upgrade and expand the City's Wastewater Treatment and Disposal System to accommodate future planned growth.

3.12.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and previous standards used by the City of Mendota. For the purposes of this EIR, impacts are considered significant if the following could result from implementation of the proposed project:

1) A substantial increase in demand for an adequate water supply over the existing condition;

2) An inability to provide an adequate water supply, including facilities for treatment, storage and distribution;

3) Require the construction of new water or wastewater treatment facilities;

4) Substantial increases in demand necessitating new or extended electric, natural gas, telephone or cable services in excess of the ability to provide service, in a manner that would create physical environmental effects;

6) Create a demand for solid waste services and generate solid waste in an amount greater than the ability of landfill facilities to accommodate such waste; and/or

7) Contributes significantly to any cumulative public service or utility impact.

METHODOLOGY

The analysis of potential utility and service system impacts is based upon information contained in the Land Use Element of the *Mendota General Plan Update* and *EIR* (1991), the *Fresno County General Plan, Background Report* and *Draft EIR* (2000) and materials provided by the project Applicant.

PROJECT IMPACTS AND MITIGATION MEASURES

Potable Water Demand

Impact 3.12-1 The proposed project would increase demand for, and use of, water resources. This impact is considered **less than significant**.

The project site will accommodate approximately 553 dwelling units and 2,390 residents at buildout. According to the City of Mendota Engineer the following water usage rates apply to the project: 600 gallons per day (gpd) for multi-family residential dwelling units, 750 gpd for single-family units and 5,000 gpd per acre for commercial, office and the child care facility. The project will include 73 single-family dwelling units, at 750 gpd the total water usage will be approximately 0.054 million gallons per day (mgd) of potable water. At project buildout the multifamily dwelling units will total 480, at 600 gpd per unit the multi-family units would total 0.288 mgd. The commercial, office and the child care facility portion of the project will encompass approximately 14.54 acres of the project site. According to the water usage rate of 5,000 gpd per acre the commercial, office and the child care facility will use approximately 0.072 mgd. The project at buildout will therefore generate demand for approximately 0.41 (mgd).

The City of Mendota utilizes groundwater resources consisting of three domestic wells with a combined pumping capacity of about 3,000 gallons per minute, or 4.3 mgd. Current

peak day domestic demand on the system averages approximately 1,800 gallons per minute, or 2.5 mgd. Projected water demand created by the proposed project will not significantly impact the City's water supply; there is adequate pumping capacity in the City's water treatment system to accommodate the proposed project. Therefore, this impact is considered to be **less than significant**.

Water Delivery

Impact 3.12-2 The project would require extension of the existing potable water delivery system to provide water to the project site. This is considered a **potentially significant** impact.

The project site is not currently served by the City's water distribution system. One 24-inch untreated water supply line on Bass Avenue currently delivers water from the City's well field to the water treatment plant on Second Street. One 10-inch treated water line delivers treated water to the seven parcels located north of Bass Avenue and east of the proposed project site.

In order to provide an adequate water supply to the site, the project Applicant proposes a series of improvements listed below:

- Installation of a new 12-inch water main from the intersection of Second Street and Bass Avenue, easterly along Bass Avenue across the entire project site and connecting to the converted 10-inch water main.
- Installation of an 8- and 10-inch water main from the proposed Bass Avenue 12-inch water main in the southerly parcels and looping to connect with the existing water mains located in the stub streets (4th Street and Kate Street) along the westerly boundary of the southerly development.
- Installation of 8- and 10-inch looping water mains from the proposed Bass Avenue 12-inch water main in the northerly parcels and connecting to the existing water main located in Lozano Street.

In order to ensure adequate potable water delivery to the project site, the following mitigation measure will be required:

Mitigation Measure

MM 3.12-2 The Applicant shall be responsible for necessary improvements to the water system to serve the proposed project site. All water delivery infrastructure shall be designed in accordance with standards of the City of Mendota prior to approval of final improvement plans.

Implementation of the above mitigation measure will reduce water delivery impacts to a **less than significant** level by incorporating standard water infrastructure improvements as required by the City of Mendota.

Wastewater Collection and Treatment

Impact 3.12-3 The project will result in an incremental increase in demand for sewer capacity at the City's wastewater treatment plant and require extension of the existing wastewater system. This is considered a **potentially significant** impact.

The project site will accommodate approximately 553 dwelling units and 2,390 residents at buildout. According to the City of Mendota Engineer, Giersch & Associates, the following wastewater demand rates apply to the project: 400 gallons per day (gpd) for multi-family residential dwelling units, 600 gpd for single-family units and 3,500 gpd per acre for commercial, office and the child care facility. According to the wastewater demand rate of 600 gpd for single-family units, the proposed 73 single-family dwelling units will use approximately 0.043 million gallons per day (mgd). The project proposes 480 multi-family dwelling units; at a wastewater demand rate of 400 gpd per unit, the multi-family units would produce approximately 0.192 mgd. The commercial, office and the child care facility portion of the project will encompass approximately 14.54 acres of the project site. According to the wastewater demand rate of 3,500 gpd per acre the commercial, office and the child care facility will use approximately 0.051 mgd. The project at buildout will therefore generate wastewater of approximately 0.29 mgd.

The City of Mendota utilizes a 1.24 mgd secondary wastewater treatment facility located northeast of the project site along Bass Avenue. This facility is currently operating at near capacity (current flows average 1.0 mgd); thus, additional wastewater generated by the proposed project would create a significant impact. The following mitigation measure will be required to address wastewater impacts:

Mitigation Measure:

MM 3.12-3a Building permits for the proposed project will not be issued until the capacity of the wastewater treatment facility is adequate to accommodate the proposed project. This determination shall be made subject to review and approval by the City of Mendota and the Central Valley Regional Water Quality Control Board (RWQCB).

The proposed project will connect to the City's sewage treatment system. Extension of wastewater lines from Bass Avenue will be necessary to serve the project site. The project Applicant proposes to connect the southern half of the project site (south of Bass Avenue) to an existing 30-inch interceptor sewer along the southerly right-of-way in Bass Avenue.

The northern portion of the site will also connect to this 30-inch line. According to the Applicant, the 30-inch line has sufficient capacity for the proposed project. The proposed project is within the sewer service area of current upgrade measures affecting the City's wastewater, treatment and disposal systems according to the *Application/Report of Waste Discharge, Mendota Wastewater Treatment Report* (2000).

In order to ensure that wastewater infrastructure serving the project site is adequate, the following mitigation measure will be required:

Mitigation Measure:

MM 3.12-3b The Applicant shall be responsible for necessary improvements to the wastewater system to serve the proposed project site. All sewer infrastructure shall be designed in accordance with standards of the City of Mendota prior to approval of final improvement plans.

Implementation of the above mitigation measures will reduce wastewater impacts to a **less than significant** level by ensuring adequate capacity exists at the wastewater treatment plant and by incorporating standard infrastructure improvements as required by the City of Mendota.

Electric, Natural Gas, Telephone and Cable Services

Impact 3.12-4 The proposed project will increase demand for electric, natural gas, telephone and cable services. This impact is considered **less than significant**.

Pacific Gas & Electric (PG&E) provides electrical and natural gas service, SBC Communications provides residential and commercial telephone service and Comcast provides cable television. The proposed project will require extension of these services to the project site sufficient to meet providers' needs. As standard practice, gas, electricity and telephone service providers review development applications to identify the necessary utility easements for the adequate provision of service. The project Applicant will be required to install municipal utility improvements and infrastructure to the project site as necessary. Because the site is contiguous to existing services provided in Mendota, provision of new services is not expected to be problematic. Therefore, the impact is considered **less than significant**.

Solid Waste Services

Impact 3.12-5 The proposed project will increase the amount of solid waste generated at the project site. This is considered a **less than significant** impact.

The City of Mendota utilizes the American Avenue Landfill, located about fifteen miles southeast of Mendota in Tranquillity. The landfill has a total capacity of 41.1 million cubic yards and handles on average 1,700 tons per day. The facility is anticipated to have an estimated closure date of 2031. According to the *Fresno County General Plan Draft EIR* (2000), the average solid waste generation rate is 0.776 tons per year per capita. Based on this estimate, the proposed project at buildout will generate about 1855 tons of solid waste annually. Adequate landfill capacity exists for solid waste generated by the proposed project; therefore, the impact is considered **less than significant**.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Wastewater Collection and Treatment

Impact 3.12-6 The project, combined with other projects anticipated with the buildout of the General Plan (2010) may result in cumulative impacts to the City's wastewater treatment plant. This impact is considered **potentially significant**.

Implementation of the proposed project, in combination with anticipated cumulative development in the project vicinity, will result in an increase in demand for sewer capacity at the City's wastewater treatment plant. Mitigation Measure **MM 3.12-3a** requires that building permits for the proposed project not be issued until the capacity of the wastewater treatment facility is adequate to accommodate the proposed project. In addition, the proposed project will require Fresno County LAFCO approval for annexation by the City of Mendota. LAFCO requires that the capacity of public facilities and the adequacy of public services serving the proposed annexation area be analyzed in a Municipal Service Plan, included as part of the annexation submittal.

Implementation of Mitigation Measure **MM 3.12a** and submission of a Municipal Service Plan to LAFCO will reduce cumulative wastewater impacts to a **less than significant** level by ensuring adequate capacity exists at the wastewater treatment plant to accommodate cumulative development.

REFERENCES/DOCUMENTATION

California Integrated Waste Management Board. Official website. www.ciwmb.ca.gov Accessed February 18, 2005.

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County of Fresno. *General Plan and Background Report*. 2000.

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4.0 Alternatives to the Project

4.1 GENERAL CEQA REQUIREMENTS

CEQA requires that a reasonable range of alternatives to the proposed project be described and considered within an EIR. The alternatives considered should represent scenarios that could feasibly attain most of the basic objectives of the project, but will avoid or substantially lessen any of the significant environmental effects. The purpose of this process is to provide decision makers and the public with a discussion of viable development options and to document that other options to the proposal were considered within the application process (CEQA Guidelines, §15126.6).

CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Where a lead agency has determined that even after the adoption of all feasible mitigation measures, a project as proposed will still cause significant environmental effects that cannot be substantially lessened or avoided, the agency, prior to approving the project as mitigated, must first determine whether, with respect to such impacts, there remain any project alternatives that are both environmentally superior and feasible within the meaning of CEQA.

CEQA provides the following guidelines for discussing project alternatives:

- An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation (§15126.6(a)).
- An EIR is not required to consider alternatives which are infeasible (§15126.6(a)).
- The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project (§15126.6(b)).
- The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects (§15126.6(c)).
- The EIR should briefly describe the rationale for selecting the alternatives to be discussed (§15126.6(c)).
- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis and comparison with the proposed project (§15126.6(d)).

4.2 RELATIONSHIP TO PROJECT OBJECTIVES

The following is a summary of the principal objectives of the Don Alejandro Valdez Community Plan project based on information provided by the project Applicant. The objectives provide an important benchmark in conducting the comparative alternatives analysis and the feasibility of each alternative. As discussed previously, an alternative is only meaningful for consideration if it can meet the basic objectives of the project as proposed.

- Annexation into the City of Mendota, General Plan Amendment and prezoning of approximately 68 acres, and extension of necessary services in accordance with LAFCO policy;
- To establish the land use, environmental and processing framework for the planned development of residential, commercial and public uses;
- To accommodate increased demand for housing within the City of Mendota and Fresno County by providing a variety of affordable housing, including farmworker family housing, multi-family housing and low to mid-income single-family homes;
- Provide regional transportation for farmworkers by creating a Regional Transportation Terminal that accommodates mass transit;
- Provide local commercial amenities through the development of a commercial center that will accommodate up to 40,000 square feet of space and may include a Mexican Mercado, government center that houses several federal, state or local agencies and professional offices;
- Provide child care through the development of a 10,000 square foot child care center; and,
- To establish a pattern of contiguous urban development within the northeastern side of the City's Planning Area, as identified in the General Plan.

4.3 ALTERNATIVES CONSIDERED BUT REJECTED

For the purposes of the alternatives analysis, an "Alternative Site" scenario was not considered a feasible alternative. The amount of land necessary for construction of the number of dwelling units proposed by the Applicant represents a significant constraint on development within the City of Mendota. Areas within the City designated as High Density residential by the *Mendota General Plan Update* (1991) are generally small, infill parcels that would preclude development of a project with the amount of housing proposed by the

Applicant. Other uses included in the proposed project, such as the Mercado and transportation terminal, would also be limited due to the lack of available land within Mendota.

4.4 PROJECT ALTERNATIVES

As identified within various sections of this EIR, the proposed project would result in significant environmental impacts. However, each impact identified can be mitigated to a less than significant level with the adoption of mitigation measures as specified within this EIR. Notwithstanding, the following alternatives discussion identifies and examines a range of alternatives to the proposed project:

- **Alternative 1 – No Project / No Development**
- **Alternative 2 – Reduced Project Size / No Development Within Airport Safety Zone**
- **Alternative 3 – Reduced Project Size / Decreased Density**

Environmental impacts associated with each of the three alternatives are compared with impacts resulting from the proposed project. The impact level of the alternative as compared to the project (less, similar or greater) is noted in parentheses at the beginning of each comparison. **Table 4-1** at the conclusion of this section provides a summary. This section also includes identification of the "environmentally superior" alternative.

ALTERNATIVES ANALYSIS

Alternative 1 – No Project / No Development

CEQA Guidelines Section 15126.6(e)(3) requires that a "No Project" alternative be evaluated as part of an EIR, proceeding along one of two lines: the project site remaining in its existing undeveloped state or development of the project site under existing underlying land use designations. The "No Project" alternative considers the comparative environmental effects of not approving the proposed project, with the site remaining in its current ruderal, undeveloped condition.

Comparative Analysis

3.1 Aesthetics and Visual Resources (similar): No potential impacts to visual resources would result although views of the current dilapidated site would remain. The existing rural character would continue under a "No Development" scenario; however, the site is not located in a visually sensitive area, nor is it subject to policies designed to protect scenic resources.

3.2 Archaeological and Cultural Resources: (less): The potentially significant impacts to pre-historic, historic or archaeological resources resulting from eventual site construction would not occur under this alternative, on-site conditions would remain unchanged.

3.3 Air Quality (less): The potentially significant short-term air quality impacts that would result from construction allowed by the project, including dust, mud and debris generated by construction activity, exposed or disturbed soil surfaces and stockpiles of materials, would not occur under this alternative. Similarly, increased automobile emissions resulting from higher traffic volumes would not occur under this scenario.

3.4 Biological Resources (less): Potentially significant impacts to various special status wildlife species would be less under this scenario, as the site would not be subject to site disturbance or construction/demolition activities. Although all biological impacts have been reduced to a less than significant level through the application of mitigation measures, under the "No Project" alternative, no potential impacts would occur and no mitigation would be required.

3.5 Geology and Geologic Constraints (less): The potentially significant impacts relating to ground shaking, earthquake-induced settlement or adverse soil characteristics would not result with implementation of this alternative. Exposure of persons to seismic events would not occur under this alternative.

3.6 Noise (less): The potentially significant short-term impact of noise generated by eventual construction activities and the ongoing impacts of noise generated by residential traffic would not occur under this alternative. Exposure of residents to aircraft noise would likewise not occur.

3.7 Hazards and Hazardous Materials (similar): Potential hazards on the project site associated with storage drums and soil contamination from these drums would remain under this scenario. Continuing usage of the site as undeveloped land would prevent the public from being introduced to the potential hazards of the site, but would also remove the incentive to remediate the site and result in the continued presence of hazardous materials.

3.8 Hydrology and Water Quality (less): The potentially significant surface runoff and water quality impacts of construction activities and post-development non-point source pollution from automobiles would not occur under this scenario. Neither project-specific groundwater impacts nor the project's contribution to cumulative groundwater impacts would occur with a "No Development" alternative.

3.9 Land Use and Agriculture (less): Continuing the present use of the site would eliminate the need for annexation by the City of Mendota. The "No Development" alternative would also eliminate the conversion of Farmland of Local Importance to urban uses.

3.10 Public Services and Facilities (less): The potential impacts to law enforcement and fire protection services, available park space and schools would not occur under a "No Development" alternative as there would be no increased demand for these services.

3.11 Traffic (less): The potentially significant impacts of increased traffic within the vicinity of the project would not occur under this alternative. Fewer daily vehicle trips would decrease project impacts on adjacent streets and would reduce incremental noise and air quality impacts associated with daily operation as well.

3.12 Utilities and Service Systems (less): The potential impacts to water and sewer services, solid waste collection and other utilities would not occur under a "No Development" alternative as there would be no increased demand for these services.

Alternative 2 – Reduced Project Size / No Development Within Airport Safety Zone

The proposed project is located adjacent to the northwestern end of the Mendota Municipal Airport and is subject to the requirements of the *Fresno County Airport Land Use Policy Plan* (1983). The eastern portion of the project site is partially contained within the designated Traffic Pattern Zone; this is considered a potentially significant impact due to hazards posed by airport operations. Mitigation Measures listed in **Section 3.7 Hazards**, will require that portion of the project site falling within the Traffic Pattern Zone be subject to residential density restrictions; prohibition of certain commercial uses such as schools, hospitals, nursing homes or similar uses (including child care facilities) and significant open space requirements. This alternative assumes a reduction in the overall project size by leaving that portion of the project site falling within the Traffic Pattern Zone as permanent open space.

Comparative Analysis

3.1 Aesthetics and Visual Resources (less): Potentially significant impacts associated with visual character and excess light and glare would be reduced under this alternative due to the smaller overall development area.

3.2 Archaeological and Cultural Resources (similar): Potentially significant impacts to historic, cultural or archaeological resources would still exist under this alternative and the same mitigation strategies would apply; however, that portion of the project site left as open space would remain relatively undisturbed.

3.3 Air Quality (similar): The potentially significant short-term air quality impacts that would result from the construction of the project would still occur under this alternative. Mitigation measures to reduce potential impacts during construction would still be required regardless of the reduced project size. The number of new vehicle trips generated under the proposed project and this alternative are considered to be similar.

3.4 Biological Resources (less): Potentially significant impacts to various special status wildlife species would still exist under this alternative and the same mitigation strategies would apply; however, that portion of the project site left as open space would remain relatively undisturbed thus reducing potential habitat loss.

3.5 Geology and Geologic Constraints (similar): Although there would be a reduced development area associated with this alternative, the potentially significant impacts from exposure of people to seismic and geologic hazards would be similar and the same mitigation measures would be required.

3.6 Noise (less): Potentially significant impacts associated with the adjacent airport and agricultural uses would be reduced under this alternative. The eastern portion of the project site would remain as open space, which would provide additional buffer to potential noise impacts due to airport operations and the agricultural area bordering the site to the east.

3.7 Hazards and Hazardous Materials (similar): While a reduced number of people would occupy the site under this alternative, the existing hazards would still pose a risk. Similar mitigation would be necessary to remediate the project site.

3.8 Hydrology and Water Quality (less): Potentially significant impacts to hydrology and water quality would be reduced under this scenario. Groundwater impacts would be reduced, as the smaller impervious surface area would allow larger volumes of stormwater to percolate into the groundwater basin and reduce the amount of water entering the storm drainage system.

3.9 Land Use and Agriculture (less): Although mitigation measures would reduce land use impacts to a less than significant level by restricting the amount and type of development allowed within the airport Traffic Pattern Zone, exclusion of development altogether in this safety zone would further reduce potential impacts associated with airport operations.

3.10 Public Services and Facilities (similar): A reduction in development size would only minimally decrease the demand for law enforcement services, fire protection and school facilities—assuming that a similar number of dwelling units would be constructed on the remaining portion of the project site.

3.11 Traffic (similar): Potentially significant impacts associated with traffic would be similar under this scenario. This assumption is also based on a similar number of dwelling units being constructed on the remaining portion of the project site.

3.12 Utilities and Service Systems (similar): A reduction in development size would only minimally decrease the demand for water and sewer services, solid waste collection and

other utilities as a similar number of residents would be accessing and utilizing these services.

Alternative 3 – Reduced Project Size / Decreased Density

This alternative assumes a smaller project size by reducing the number of dwelling units by 25 percent. Under this scenario, the number of single-family homes would be reduced to 55 from the proposed 73 and multiple-family/farm labor housing units would decrease to 360 from 480. The associated population would be reduced by approximately 600 residents at project buildout. The intent of this scenario is to reduce traffic, noise, air quality, public services and utilities impacts.

3.1 Aesthetics and Visual Resources (less): Potentially significant impacts associated with visual character and excess light and glare would be reduced under this alternative due to the smaller overall development size.

3.2 Archaeological and Cultural Resources (similar): Potentially significant impacts to historic, cultural or archaeological resources would still exist under this alternative and the same mitigation strategies would apply.

3.3 Air Quality (less): Potentially significant air quality impacts from non-point and point sources would be reduced under this alternative proportionate to the reduction in density and resulting vehicle trips. Short-term construction related impacts would be reduced due to less overall construction activities.

3.4 Biological Resources (similar): Potentially significant impacts to various special status wildlife species would still exist under this alternative and the same mitigation strategies would apply, as the entire site would undergo transition to urban uses.

3.5 Geology and Geologic Constraints (similar): Although there would be a reduced number of dwelling units associated with this alternative, the potentially significant impacts from exposure of people to seismic and geologic hazards would be similar and the same mitigation measures would be required.

3.6 Noise (less): Potentially significant impacts associated with implementation of the project would be reduced under this alternative. A smaller number of dwelling units and less grading and site preparation activity would result in reduced construction-related impacts to nearby sensitive receptors. In addition, fewer dwellings would generate fewer residents, which would generate fewer vehicle trips, reducing traffic-related noise impacts.

3.7 Hazards and Hazardous Materials (similar): While a reduced number of people would occupy the site under this alternative, the existing hazards would still pose a risk. Similar mitigation would be necessary to remediate the project site.

3.8 Hydrology and Water Quality (less): Potentially significant impacts to hydrology and water quality would be reduced under this scenario. Groundwater impacts would be reduced, as the smaller impervious surface area would allow larger volumes of stormwater to percolate into the groundwater basin and reduce the amount of water entering the storm drainage system.

3.9 Land Use and Agriculture (less): Although there would be a reduced number of dwelling units associated with this alternative, the entire site would still undergo transition to urban uses. However, potentially significant impacts caused by the proximity of proposed residential uses to the adjacent airport and farmland would be reduced due to the presence of fewer dwellings in close proximity to those uses.

3.10 Public Services and Facilities (less): This alternative would result in a reduction in the overall number of housing units and the number of residents, which would decrease the demand for law enforcement services, fire protection and school facilities.

3.11 Traffic (less): Potentially significant impacts associated with traffic would be reduced with a reduction in density. Fewer vehicle trips to and from the project site at buildout would occur. Fewer daily vehicle trips would decrease project impacts on adjacent streets and would reduce incremental noise and air quality impacts associated with daily operation as well.

3.12 Utilities and Service Systems (less): This alternative would result in a reduction in the overall number of housing units and the number of residents, would decrease the demand for water and sewer services, solid waste collection and other utilities.

4.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6(e)(2) requires that the environmentally superior alternative be identified. If the environmentally superior alternative is the "No Project" Alternative, the EIR shall also identify an environmentally superior alternative among other alternatives. In this case, Alternative 1 -- No Project / No Development, represents the environmentally superior alternative because, as determined from the above analysis, most impacts would be reduced relative to the proposed project. From the remaining options, Alternative 2 -- Reduced Project Size / No Development Within Airport Safety Zone, represents the environmentally superior alternative. While more impacts would be reduced relative to the proposed project under Alternative 3, the significant reduction in dwelling units would be less consistent with the project objective of providing affordable housing opportunities to the residents of the City of Mendota and Fresno County. A summary matrix is provided below, which compares each considered alternative with the proposed project.

TABLE 4.1
COMPARISON OF PROJECT ALTERNATIVES TO THE PROPOSED PROJECT

Environmental Category	Alt. 1 No Project/ No Development	Alt. 2 No Development Within Airport Safety Zone	Alt. 3 Decreased Density
Aesthetics	Similar	Less	Less
Air Quality	Less	Similar	Less
Biological Resources	Less	Less	Similar
Cultural Resources	Less	Similar	Similar
Geology	Less	Similar	Similar
Hazards	Similar	Similar	Similar
Hydrology & Water Quality	Less	Less	Less
Land Use & Agriculture	Less	Less	Less
Noise	Less	Less	Less
Traffic	Less	Similar	Less
Public Services & Facilities	Less	Similar	Less
Utilities & Service Systems	Less	Similar	Less
Consistency with Project Objectives	Less Consistent	Consistent	Less Consistent

Greater = Impacts greater than those identified for the proposed project would result.
Less = Impacts less than those identified for the proposed project would result.
Similar = Impacts similar to those identified for the proposed project would result.
Consistent = Alternative would be consistent with project objectives.
Less Consistent = Alternative would be less consistent with project objectives.

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5.0 Cumulative Impacts Summary

This section of the EIR identifies the cumulative impacts associated with the proposed Don Alejandro Valdez Community Plan project as statutorily required by CEQA. Cumulative impacts expected from the project are the result of combining the potential effects of the project with other cumulative development anticipated by growth within the City of Mendota General Plan. The following discussion considers the impacts of the relevant environmental areas. This information is taken from the various analyses within **Section 3.0** of this EIR.

5.1 ANALYSIS REQUIREMENT

CEQA GUIDELINES

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed project. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in relation with the effects of past projects, the effects of other current projects and the effects of probable future projects. As defined in CEQA Guidelines Section 15355, cumulative impacts refer to two or more individual effects which, when considered together, are substantial or which compound or increase other environmental impacts. A cumulative impact occurs from:

> *…the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

(1) Either:

(A) A list of past, present, and probably future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or

(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

(2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available, and

(3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. CEQA Guidelines Section 15130(a) also states the following with regard to cumulative impacts that are not significant:

- An EIR is not required to discuss impacts that do not result in part from the project evaluated in the EIR (Section 15130(a)(1)).
- When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR (Section 15130(a)(2)).
- An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact (Section 15130(a)(3)).

CEQA Guidelines (Section 15130(b)(1)) requires the use of one method of cumulative analysis from two choices offered: a list of known past, present and probable future projects in the area or a summary of projections contained in adopted municipal plans and planning documents. For the purposes of cumulative impact analysis for this EIR, the list method is used. Relative to this method, CEQA Guidelines state the following:

> *When utilizing a list…factors to consider when determining whither to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since the projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.*

Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used (Section 15130(b)(2).

5.2 CUMULATIVE IMPACT ANALYSIS AND ASSUMPTIONS

Based on project conditions, assessment of the project's contribution to cumulative impacts were discussed for each of the topic areas in **Section 3.0 Environmental Setting, Impacts and Mitigation Measures**. Using assumed regional growth identified in the *Fresno County General Plan* (2000) and the *Mendota General Plan Update* (1991), the impacts associated with that growth were projected. According to the *Mendota General Plan Update*, full buildout within the planning area would encompass approximately 1,856 acres. According to the *Fresno County Final Environmental Impact* (2000). the population for the City of Mendota will increase to approximately 12,000 by the year 2020, a 3.47 percent annual increase in population.

For each section, the discussion of cumulative impacts of these projects follows direct project impacts and mitigation measures. Throughout the cumulative analysis presented in this EIR, the appropriate cumulative context is described and considered in light of the types of impacts created by the project. The cumulative impacts summarized below are also presented in each of the Environmental Analysis Subsections of the EIR (see **Sections 3.1 through 3.12**). Each cumulative impact is determined to have one of the following levels of significance: **less than significant**, **potentially significant**, or **significant and unavoidable**, thus requiring a Statement of Overriding Considerations.

AESTHETICS AND VISUAL RESOURCES

NIGHTTIME AMBIENT LIGHT AND GLARE

Impact 3.1-4 Nighttime ambient light and glare could be increased by new residential, commercial, and public facility development in the project area. **This is a less than significant** impact**.**

The project, combined with other cumulative projects, will incrementally increase ambient light and glare in an area generally devoid of light sources. However, implementation of Mitigation Measure **MM 3.1-3** would reduce the effects of nighttime ambient light and glare. Therefore, the project's contribution to cumulative light and glare impacts is considered **less than significant**. No additional mitigation is required.

ARCHAEOLOGICAL AND CULTURAL RESOURCES

Implementation of the project, in combination with development activity in the region, could contribute to the loss of undiscovered cultural resources. However, implementation

of Mitigation Measures **MM 3.2-1** and **MM 3.8-2** would reduce the project's potential future contribution to this cumulative impact to a **less than significant** level.

AIR QUALITY

Impact 3.3-4 Implementation of the Don Alejandro Valdez Community Plan will result in an increase of regional emission within the San Joaquin Valley air basin. This impact is a **significant cumulative** impact**.**

San Joaquin Valley Unified Air Pollution Control District guidance provides that a project that would individually have a significant air quality impact is also considered to have a significant cumulative air quality impact. Regional emissions from the proposed Don Alejandro Valdez Community Plan would exceed the significance thresholds for ozone precursors by a substantial amount, so the project is considered to have a significant cumulative impact on regional air quality. Implementation of Mitigation Measure **MM 3.3-3** would reduce the cumulative impact of pollutants caused by regional emissions to **less than significant** levels.

BIOLOGICAL RESOURCES

LOSS OF HABITAT OR LOSS OR DISTURBANCE OF SPECIAL-STATUS WILDLIFE SPECIES

Impact 3.4-11 Annexation and conversion of the project site to urban uses, in conjunction with other future development proposed in the Mendota area, would contribute to the loss of habitat or loss or disturbance of special-status wildlife species. This is considered a **potentially significant and unavoidable impact**.

The project's contribution, in conjunction with other future regional development projects, may result in the loss of habitat or loss or disturbance to several species that are listed as threatened or endangered, including the blunt-nosed leopard lizard, giant garter snake, San Joaquin antelope squirrel, Fresno kangaroo rat, San Joaquin kit fox, western burrowing owl and Swainson's hawk.

Mitigation measures identified in this section would reduce the impact to biological resources in the immediate area; however, there is no feasible method to mitigate the cumulative impacts of habitat removal or alteration. Much of this determination depends upon the results of future surveys identified in the above mitigation measures. The larger habitat impact shall be considered **potentially significant and unavoidable**, assuming the identified species are indeed present. However, if future surveys determine that the identified species are not present, the project will have a **less than significant** cumulative impact.

GEOLOGY AND GEOLOGICAL CONSTRAINTS

The project will not combine with any other factors or projects and, thus, is not significant due to the localized, site-specific nature of geotechnical and seismic impacts. No significant cumulative impacts are predicted relative to geology or geologic hazards. Cumulative development would result in **no cumulative impacts**.

NOISE

CUMULATIVE TRAFFIC NOISE

Impact 3.6-5 The proposed project would contribute to cumulative traffic on the roadway network over existing conditions, which would contribute to cumulative traffic noise in the city limits. This is considered a **potentially significant** impact.

Pursuant to the Significance Criteria shown in **Table 3.6-5**, a substantial increase in traffic noise levels is defined as 1.5 to 5 dB, depending on the pre-project traffic noise level. Project-related traffic noise level increases could exceed those thresholds for either weekday or weekend periods, on Bass Avenue, "H" Street, Kate Street, Lazano Street and Fourth Street; therefore, the cumulative increase in traffic noise levels is considered a potentially significant impact. The noise analysis required by **MM 3.6.3a** will mitigate this potential impact.

Implementation of **MM 3.6-3a** will reduce the potentially significant impact to a less than significant if the Study recommends that the proposed project will not significantly impact the existing road network throughout the City of Mendota. If the Noise Assessment Study demonstrates that the proposed project site will significantly impact cumulative traffic throughout the city the study should include proper mitigation measures to alleviate the impacts.

HAZARDS AND HAZARDOUS MATERIALS

RISK OF EXPOSURE TO HAZARDOUS WASTE OR MATERIALS

Impact 3.7-4 Development of the project could expose people, property, and the environment to hazardous materials and conditions. This cumulative impact is considered **less than significant**.

Implementation of the proposed project could result in risks associated with the potential exposure to hazardous materials such as oil, PCBs, and petroleum product constituents. These impacts would be site specific and are generally not affected by the cumulative development in the region. The Phase I Environmental Site Assessment (ESA) did not reveal evidence of environmental violations or reported loss of hazardous materials on the subject site or adjacent properties. Therefore, implementation of the project with accompanying

mitigation measures would not contribute to an increase in the potential for soil, air, or groundwater contamination. The project itself is not anticipated to contribute to a hazard-related impact that would cumulatively affect the environment, the impact is therefore considered **less than significant.**

HYDROLOGY AND WATER QUALITY

SURFACE RUNOFF AND CONTAMINATION

Impact 3.8-7 New development, combined with other reasonably foreseeable projects in the City of Mendota, would contribute to increased surface runoff and greater runoff contamination. This cumulative impact is considered **less than significant.**

Ultimate development of the project site would contribute to cumulative drainage flows and surface water quality impacts when combined with other growth and development in the project vicinity. However, implementation of City of Mendota stormwater drainage standards and required permits, as described above in Mitigation Measures **MM 3.8-1a** and **b**, will reduce cumulative stormwater runoff impacts to a **less than significant** level.

LAND USE AND AGRICULTURE

The project as proposed will have a less than significant impact regarding land use and agricultural issues. Development of the project would not contribute to a cumulatively greater land use impact when combined with other potential projects in the City of Mendota. Therefore, the proposed project would result in **no impact** to cumulative development.

PUBLIC SERVICE AND FACILITIES

Impact 3.10-5 The project, combined with other projects anticipated with the buildout of the General Plan (2010), may result in cumulative impacts to public services and facilities. This impact is considered **less than significant**.

The proposed project, in addition to anticipated cumulative development in the project vicinity, may result in the need for increased public facilities and or personnel for the provision of law enforcement and fire protection services. The proposed project will also require Fresno County LAFCO approval for annexation by the City of Mendota. LAFCO requires that the capacity of public facilities and the adequacy of public services serving the proposed annexation area be analyzed in a Municipal Service Plan, included as part of the annexation submittal.

Mitigation Measure **MM 3.10-1** requires that the cost of additional services resulting from the proposed project be mitigated by development impact fees assessed by the City of

Mendota. The proposed project's contribution to cumulative public services and facilities impacts will be addressed by payment of all applicable impact fees and submission of a Municipal Service Plan to LAFCO; therefore, the impact is considered **less than significant**.

TRAFFIC

INCREASE IN TRAFFIC VOLUMES/LEVEL OF SERVICE

Impact 3.11-6 The project, combined with other projects in the vicinity, may result in increased delays and deterioration of LOS at some segments and intersections in the Year 2020. This is considered a **potentially significant** impact.

Year 2020 traffic was forecast using existing traffic as a base and increased by a growth factor of two percent per year. There is one cumulative project in the vicinity of the proposed project that would have a significant impact on traffic. Project trips generated by this development were incorporated into the LOS analysis reflected in **Table 3.11-5**.

Implementation of Mitigation Measure **MM 3.11-1** will reduce the project's contribution to intersection LOS deterioration to a **less than significant** level by requiring construction of roadway improvements or payment of fees dedicated towards those improvements in order to address traffic operations and safety impacts.

UTILITIES AND SERVICE SYSTEMS

WASTEWATER COLLECTION AND TREATMENT

Impact 3.12-6 The project, combined with other projects anticipated with the buildout of the General Plan (2010), may result in cumulative impacts to the City's wastewater treatment plant. This impact is considered **potentially significant**.

Implementation of the proposed project, in combination with anticipated cumulative development in the project vicinity, will result in an increase in demand for sewer capacity at the City's wastewater treatment plant. Mitigation Measure **MM 3.12-3a** requires that building permits for the proposed project not be issued until the capacity of the wastewater treatment facility is adequate to accommodate the proposed project. In addition, the proposed project will require Fresno County LAFCO approval for annexation by the City of Mendota. LAFCO requires that the capacity of public facilities and the adequacy of public services serving the proposed annexation area be analyzed in a Municipal Service Plan, included as part of the annexation submittal.

Implementation of Mitigation Measure **MM 3.12a** and submission of a Municipal Service Plan to LAFCO will reduce cumulative wastewater impacts to a **less than significant** level

by ensuring adequate capacity exists at the wastewater treatment plant to accommodate cumulative development.

6.0 Other Sections Required by CEQA

This section discusses the long-term implications of the project as required by CEQA. The topics discussed include significant irreversible environmental changes/irretrievable commitment of resources, growth-inducing impacts and significant and unavoidable environmental effects.

6.1 IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA REQUIREMENT

Public Resources Code Section 21100(b)(2)(B) requires an Environmental Impact Report to include a detailed statement setting forth any significant effects on the environment that would be irreversible if a project is implemented. Examples of irreversible environmental changes, as set forth in CEQA Guidelines Section 15126.2(c), include the following:

- The project would involve a large commitment of nonrenewable resources such that removal or nonuse thereafter is unlikely;
- The primary and secondary impacts of a project would generally commit future generations to similar uses (e.g. a highway providing access to a previously inaccessible area);
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or,
- The phasing of the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

A proposed project would result in significant irreversible effects if it is determined that key resources would be degraded or destroyed to the extent that there is little possibility of restoring them. Irreversible environmental changes should be evaluated to assure that such current consumption is justified (CEQA Guidelines Section 15126.2(c)).

ANALYSIS

The Don Alejandro Valdez Community Plan project would result in increased intensity of development, with the conversion of currently vacant, ruderal land to residential, commercial, government and transportation uses. A variety of nonrenewable and limited resources would be irretrievably committed for project construction and maintenance, including, but not limited to, oil, natural gas, gasoline, lumber, sand and gravel, asphalt, steel, water, land, energy, construction materials and human resources. In addition, the project would result in an increase in demand on public services and utilities.

An increase in the intensity of land uses on the site would result in an increase in regional electric energy consumption to satisfy additional electricity demands from the project. These energy resource demands relate to initial project construction, transport of people and goods, and lighting, heating and cooling of buildings.

Development of the site to support urban uses may be regarded as a permanent and irreversible change. The site was historically used for farm labor housing and is currently vacant agricultural land. Site development would essentially eliminate any future agricultural production on the site. Grading, utility extensions, drainage improvements, new and improved roadways and construction of buildings would permanently alter the character of the site to one that is urbanized. The project would generally commit future generations to similar urban uses on the site.

6.2 GROWTH INDUCING IMPACTS

CEQA REQUIREMENT

Public Resources Code Section 21100(a)(5) requires that the growth-inducing impacts of a project be addressed in the EIR. A project may be growth-inducing if it directly or indirectly fosters economic or population growth or additional housing, removes obstacles to growth, taxes community services facilities or encourages or facilitates other activities that cause significant environmental effects (CEQA Guidelines Section 15126.2(d)). Direct growth-inducing impacts result when the development associated with a project directly induces population growth or the construction of additional developments within the same geographic area. These impacts may impose burdens on a community or encourage new local development, thereby triggering subsequent growth-related impacts.

The analysis of potential growth-inducing impacts includes a determination of whether a project would remove physical obstacles to population growth. This often occurs with the extension of infrastructure facilities that can provide services to new development. Indirect growth-inducing impacts result from projects that serve as catalysts for future unrelated development in an area. Development of public institutions, such as colleges, and the introduction of employment opportunities within the same geographic area are examples of projects that may result in direct growth-inducing impacts.

CEQA provides no criteria for determining if induced growth is detrimental or beneficial. Induced growth is considered a significant impact only if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth could significantly affect the environment in some other way.

ANALYSIS

Extension of Utility Systems

Impact 6.0-1 Extension of potable water delivery and wastewater collection systems to serve the project site may directly or indirectly create additional pressure to develop lands adjacent to these service lines. This is considered a **less than significant** growth-inducing impact.

The Don Alejandro Valdez Community Plan project area is adjacent to other developed and developing areas and would extend potable water delivery and wastewater collection systems throughout the project site. Facilities and infrastructure currently exist either adjacent to the site within the City of Mendota or along Bass Avenue, which bisects the project site. However, proposed infrastructure improvements associated with the project would not be extended into adjacent areas that are not planned for future development. Potential development adjacent to the proposed project site is limited due to existing residential areas to the west and northeast, the Firebaugh Main Lift Canal on the north and the Mendota Municipal Airport to the southeast. Land directly east of the project site would be subject to restrictive development regulations due to its location within safety zones associated with the Airport.

The project would result in a permanent increase to the City's population; however, the population resulting from the proposed project is anticipated by the Mendota General Plan and Council of Fresno County Governments population projections. As such, implementation of the Don Alejandro Valdez Community Plan project is considered to have a **less than significant** growth-inducing impact on the surrounding area.

Creation of New Residential Uses

Impact 6.0-2 Implementation of the Don Alejandro Valdez Community Plan will yield approximately 533 new residential units and 2,300 residents. This is a **less than significant** growth-inducing impact.

The *Fresno County Final Environmental Impact Report* (2000) includes regional population forecasts for each city within Fresno County. According to the population projections contained in the *Fresno County Final Environmental Impact Report*, the City of Mendota is expected to grow to a population of 11,838 by 2020.

The Don Alejandro Valdez Community Plan calls for the development of approximately 533 residential units. With the average household size of 4.32 persons per household this would add a total of approximately 2,300 new residents to the City's population. According to the County of Fresno population projections, approximately 3,500 new residents will be added to the City of Mendota within the next 15 years. The City of

Mendota currently has a total of 1,878 dwelling units; the Don Alejandro Valdez Community Plan would increase the total number to 2,411. The County of Fresno indicates that the number of dwelling units by the year 2020 will be approximately 2,676 residences. The Don Alejandro Valdez Community Plan is consistent with the project population and housing increase as projected by Fresno County. Therefore incorporation of the project would not create a growth inducing impact, and is considered **less than significant**. No mitigation is required.

Development of Commercial Land Uses

Impact 6.0-3 The development of commercial uses in the center of the project site on both sides of the extended portion of Bass Avenue may directly or indirectly create additional auto and pedestrian traffic on roads surrounding the project site. This is a **less than significant** impact.

The Don Alejandro Valdez Community Plan is proposing approximately 14.50 acres of commercial development in the center of the project site on the north and south sides of Bass Avenue. The commercial uses include a Farm Labor Transportation Terminal / Government Services Station, a Day Care Facility, Commercial Center (Market Place) and Professional Office space. The residents of the proposed development will primarily use the commercial uses, Farm Labor Housing will primarily use the Farm Labor Transportation Terminal, and future residents of the project will primarily use the Child Care facility. Heavy traffic from other areas throughout the City of Mendota excluding adjacent developments in not expected. Therefore the development of the commercial use at the project site is considered a **less than significant** impact.

6.3 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL EFFECTS

Public Resources Code Section 21100(b)(2)(A) requires an EIR to include a detailed statement setting forth any significant effects on the environment that cannot be avoided if a project is implemented. CEQA Guidelines Section 15126.2(b) states that such impacts include those, which can be mitigated but not reduced to a level of insignificance. In addition, Section 15093(a) of the CEQA Guidelines allows the decision-making agency to determine if the benefits of a proposed project outweigh the unavoidable adverse environmental impacts of implementing the project. The City of Mendota can approve a project with unavoidable adverse impacts if it prepares a "Statement of Overriding Considerations" setting forth the specific reasons for making such a judgment. Based upon the environmental analysis provided in **Section 3.0**, the proposed project would not result in the significant and unavoidable environmental effects.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Loss of Habitat or Loss or Disturbance of Special-Status Wildlife Species

Impact 3.4-11 Annexation and conversion of the project site to urban uses, in conjunction with other future development proposed in the Mendota area, would contribute to the loss of habitat or loss or disturbance of special-status wildlife species. This is considered a **potentially significant and unavoidable impact**.

The project's contribution, in conjunction with other future regional development projects, may result in the loss of habitat or loss or disturbance to several species that are listed as threatened or endangered, including the blunt-nosed leopard lizard, giant garter snake, San Joaquin antelope squirrel, Fresno kangaroo rat, San Joaquin kit fox, western burrowing owl and Swainson's hawk.

Mitigation measures identified in this section would reduce the impact to biological resources in the immediate area; however, there is no feasible method to mitigate the cumulative impacts of habitat removal or alteration. Much of this determination depends upon the results of future surveys identified in the above mitigation measures. The larger habitat impact shall be considered **potentially significant and unavoidable**, assuming the identified species are indeed present. However, if future surveys determine that the identified species are not present, the project will have a **less than significant** cumulative impact.

6.4 EFFECTS FOUND NOT TO BE SIGNIFICANT

A significant effect on the environment is generally defined as a substantial or potentially substantial adverse change in the physical environment (CEQA Guidelines Section 15358). The term "environment", as used in this definition, means the physical conditions that exist within the area that will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise and objects of historic or aesthetic significance. The area involved shall be the area in which significant effects would occur either directly or indirectly as a result of the project. The "environment" includes both natural and man-made conditions (CEQA Guidelines Section 15360).

Detailed analyses and discussion of environmental topics found to be significant is provided within **Section 3.0** of this EIR. Listed below are those environmental issues found to have absolutely no impact as a result of the project. This determination is based on the scope of prior environmental documentation for this site, standards of significance contained within the CEQA Guidelines and the Notice of Preparation process for the Don

Alejandro Valdez Community Plan project. The completed NOP and responses from the public and affected agencies and organizations are included in **Appendix A**.

LAND USE

Conflicts with Goals and Policies Adopted to Avoid or Mitigate Environmental Effects

The City's Zoning Ordinance and subdivision standards govern the manner in which the proposed project will be implemented. State law requires that General Plan land use designations and corresponding zoning classifications be consistent with one another. The proposed project is located immediately adjacent to the incorporated City limits and is entirely within the City of Mendota Planning Area and SOI. Implementation of the proposed project will require a General Plan Amendment identifying the site as Single Family Residential, Multiple Family Residential and Commercial. The site will be prezoned R-1 (Medium Density/Single Family Residential), R-3 (High Density/Multiple Family Residential) and C-3 (Central Commercial). The proposed project and its intent to support development of affordable housing, regional job training and education, commercial amenities, childcare and transportation uses would be consistent with the goals and policies of the City of Mendota, upon approval of General Plan and Zoning amendments.

Conflicts with Applicable Habitat Conservation Plan

There are no habitat conservation plans for the City of Mendota.

Conflicts with Existing Williamson Act Contracts

There are no Williamson Act contracts or conflicts with any other farmland conservation plans on the project site.

GEOLOGY, SOILS AND SEISMICITY

Unique Geologic Feature/Landform Alteration

Landform alteration impacts that may result from development on the project site include land clearing for the construction of roads, building pads, parking areas, and other permanent improvements. These improvements require portions of the site to be graded and compacted with earth moving equipment; however, the project site, located in the relatively flat, nearly floor of the San Joaquin Valley. There are no open topographic surfaces on the site or in the immediate vicinity that would be altered as a result of this project. Therefore, the project will not result in the destruction or alteration of unique geologic features or extensive landform alteration.

Ground Rupture

The project site is not located within an Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist. There are no known or potentially active faults located within or near the vicinity of the project site. Therefore, the potential for surface ground rupture at the project site is considered low.

Landslides

The project site and its surroundings are flat and nearly level. There are no slopes or mapped landslides in the vicinity that possess significant landslide potential either as a result of strong seismic activity or site construction and there is very low potential for landsliding or slope stability problems.

Mineral Resources

Mineral resource impacts are considered significant if the project would 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 or of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. The project site is not located within any designated Mineral Resource Zones. The project would not result in the loss of access to, or availability of, a known mineral resource that would be of value to the city, region or the state.

HYDROLOGY AND WATER QUALITY

Capacity of Existing / Planned Stormwater Drainage System

The City of Mendota requires that off-site drainage from development project areas be the same or less after project completion as prior to development activities. The project will be required to mitigate project stormwater generation on-site with the Applicant submitting a detailed stormwater drainage plan ensuring that stormwater discharge volumes into the receiving drainage system are equal to or less than runoff from the site prior to development and the construction of on-site detention basins and enlargement of adjacent off site basins and other best management practices, in accordance with City standards, and as identified in Mitigation Measures **MM 3.8-1a, MM 3.8-1b** and **MM 3.8-2**.

BIOLOGICAL RESOURCES

Sensitive Riparian Habitat or Natural Communities

Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss or disturbance of sensitive natural communities at the project site (i.e., Emergent Marsh and Seasonal Wetland). Emergent

Marsh and Seasonal Wetland habitats in the Central Valley are sensitive natural communities that have undergone significant historic losses and continue to suffer losses today throughout California. Impacts to wetlands can arise from direct impacts (e.g., fills) or indirect impacts (e.g. sedimentation from grading adjacent to wetland areas). The Corps and CDFG have adopted "no-net-loss" policies for wetlands, requiring compensation for lost wetland functions and values. Future development proposals that result in one or more of these direct or indirect impacts will constitute significant impact to Waters of the U.S., which are subject to jurisdiction of the Corps. Due to the documented scarcity of these types of wetlands, mitigation for their loss is required. Implementation of Mitigation Measures **MM 3.4-10** in **Section 3.0**, discussed in **Impact 3.4-10 Loss or Disturbance of Waters of the U.S.**, will reduce impacts to sensitive natural communities level by requiring sufficient compensation and regulatory approvals.

Jurisdictional Waters

There are no watercourses on site likely to meet the regulatory definition of jurisdictional waters or that could be subject to the regulatory jurisdiction of the CDFG. The proposed project will not disturb or degrade Waters of the U. S. or wetlands subject to the USACE.

Adopted Local, Regional and State Policies and Plans

There are no local policies protecting biological resources or any local, regional or state conservation plans associated with the project site. Implementation of the proposed project will not conflict with established resource policy.

RECREATION

Parks and recreational land is determined in the City of Mendota by the combined total of developed park acreage plus 50 percent of the amount of school sites that have adjoining sports fields. Using this formula, there are currently 80 acres of parks and recreational land available within Mendota. The City of Mendota does not have a standard ratio of parkland to population; however, the generally accepted ratio of parkland required per resident is about 3-4 acres per 1,000 residents. Applying this ratio to Mendota results in about 28 acres necessary to serve the existing population. The addition of approximately 2,390 residents upon project buildout would require 7-10 acres of parkland. The City has sufficient parkland available to serve these additional residents.

HEALTH HAZARDS AND RISK OF UPSET

Wildland Fire

Wildland fire impacts may be considered significant if the project would expose people or structures to a significant risk of loss, injury or death involving wildland fires, including

where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. However, the project site is not located in an area prone to wildland fire or excessive fuel loading.

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7.0 Report Preparers and References

7.1 PREPARERS OF THE ENVIRONMENTAL IMPACT REPORT

CITY OF MENDOTA STAFF

- Gabriel A. Gonzalez, City Manager
- Bill Skinner, Valley Planning Associates, Contract Planning Staff

PACIFIC MUNICIPAL CONSULTANTS

- Tad Stearn, Principal
- Barb Kinison Brown, Project Manager
- William Heppler, Assistant Planner
- Cory Barringhaus, Assistant Planner

BASIN RESEARCH ASSOCIATES - ARCHAEOLOGICAL ASSESSMENT REPORT

- Colin Busby, Principal

BALLANTI, DONALD, PH.D. – AIR QUALITY IMPACT EVALUATION

MAY & ASSOCIATES – BIOLOGICAL RESOURCES ASSESSMENT

TWINING LABORATORIES, INC. – PHASE I ENVIRONMENTAL SITE ASSESSMENT

- Timothy W. Thomas, Environmental Assessor
- William R. Cooper, Quality Control Reviewer

RM ASSOCIATES – ENGINEERING ANALYSIS

VRPA TECHNOLOGIES – TRANSPORTATION IMPACT ANALYSIS

7.2 REFERENCES/DOCUMENTATION

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Appendices

TECHNICAL APPENDICES

Appendix A – Notice of Preparation and Responses

NOTICE OF PREPARATION

To: Interested Parties and Responsible Agencies

Subject: Notice of Preparation of a Draft Environmental Impact Report (EIR)

Lead Agency:

City of Mendota
643 Quince Street
Mendota, CA 93640
Contact: Gabriel Gonzalez
Interim City Manager

Consulting Firm:

Pacific Municipal Consultants
585 Cannery Row, Suite 304
Monterey, CA 93940
Contact: Tad Stearn, Principal

Project Title: Don Alejandro Valdez Community Plan

Project Applicant: I-5 Social Services Corporation

Notice is hereby given that the City of Mendota will be the Lead Agency and will prepare a Draft Environmental Impact Report (Draft EIR) for the project identified below. We are interested to know your views regarding the scope and content of the environmental information germane to your agency's statutory responsibilities in connection with the proposed project.

The project description, location, and the probable environmental effects are contained in the attached materials. Due to the time limits mandated by State law, your response must be sent no later than *30 days after receipt of this notice*.

Please send your response to Gabriel Gonzales, City of Mendota, at the address shown above.

Date: _____

Signature:_____
Gabriel Gonzales
Title: City Manager

Phone: (559) 655-3291
Fax: (559) 655-4064

NOTICE OF PREPARATION PROJECT DATA

Project Title: Don Alejandro Valdez Community Plan

Project Applicant: I-5 Social Services Corporation

Project Location: The proposed annexation site is located north and south of Bass Avenue, outside the City Limits and within the City of Mendota Sphere of Influence (SOI). The project site is located northwest of the Mendota Municipal Airport and adjacent to the Hacienda Gardens development.

Project Description

The project site consists of approximately 68 acres of land and is currently vacant with the exception of a dilapidated residence, maintenance shed, barn and abandoned farmworker housing. It appears the property has been historically used to dispose of inoperable vehicles and construction materials. The proposed project is to annex the property from Fresno County to the City of Mendota. The site will then be developed as a mixed-use farmworker community consisting of 480 farm labor/multiple family housing units, 73 single-family residential units, a commercial center, a childcare facility, a service station, professional office sites and a farm labor transportation center.

The proposed project includes preparation of a Community Plan, the following land uses: 23.83 acres farm labor/multiple family housing and a community center site, 4.87 acres designated for a farm labor transportation center and service station including adequate parking for each, 9.67 acres designated for the commercial district, professional office site and child care facility and 22.11 acres of single family residential units. The project site is within the City's Sphere of Influence (SOI) and currently identified in the City's General Plan as Multiple-Use Open Space and Agriculture. Implementation of the project will require a General Plan Amendment identifying the site as Multiple-Family Residential, Commercial and Single-Family Residential. The site will be pre-zoned R-1 (Medium Density/Single-Family Residential), R-3 (High Density/Multiple Family Residential) and C-3 (Central Commercial) as part of the annexation process. Implementation of the proposed land uses will be consistent with the new zoning designations.

In 1999 the I-5 Social Services Corporation, in association with the City of Mendota, received a Rural Housing and Economic Development Grant from the U. S. Department of Housing and Urban Development (HUD). This grant will fund preliminary activities toward the development of a rural farmworker community in the City of Mendota. The I-5 Social Services Corporation has also applied for several state housing and recreation grants. As Federal funds will be used for the project,

the City will prepare an Environmental Assessment (EA) in order to comply with the requirements of the National Environmental Policy Act (NEPA).

The EIR will provide the environmental information and evaluation necessary for the planning, construction, operation, and maintenance of the project that is consistent with the range of development evaluated in the EIR. The EIR will provide the foundational CEQA compliance documentation for all future project land use permits and other approvals. This includes without limitation all those approvals necessary or desirous to such planning, construction, operation, and maintenance (e.g., zoning approvals, development plans, subdivision maps, use permits, development agreements, improvement agreements, grading permits, building permits, architectural review, certificates of occupancy and other development-related approvals). In addition, the EIR will provide environmental information and evaluation needed by responsible agencies acting on permits relative to the project site, including, without limitation, to the City of Mendota, County of Fresno and California Department of Fish and Game (CDFG).

Potential Areas of Concern

The EIR for this project is anticipated to thoroughly examine the following probable environmental effects of the project. The level of analysis for these subject areas may be refined or additional subject areas may be analyzed based on responses to this Notice of Preparation and/or refinements to the project that may occur subsequent to the publication of this NOP.

1. Aesthetics
2. Air Quality and Odor
3. Biological Resources
4. Archaeological and Cultural Resources
5. Geology and Geologic Constraints
6. Site Hazards and Hazardous Materials
7. Hydrology and Water Quality
8. Land Use and Agricultural Resources
9. Noise
10. Public Services and Facilities
11. Traffic and Circulation
12. Utilities and Services

The EIR will also examine project alternatives that could feasibly obtain the primary objectives of the project and reduce one or more environmental impacts.

Initial assumptions for each area of analysis are provided below:

Aesthetics
This section of the EIR will address project impacts as measured against the existing setting and visual conditions in the project area. The analysis will determine if the project represents a "demonstrable negative aesthetic effect" to the open, agricultural character of the area or if the project will impact any significant visual resources. Project visibility, scale, additional light and glare and community character may be issues of local importance in light of the character of the existing landscape.

Air Quality and Odor
The air quality analysis will address all the requirements of the San Joaquin Valley Air Pollution Control District and CEQA Air Quality Guidelines. State standards will be described, along with the current status of air quality planning programs.

Both local and regional air quality impacts will be assessed. Intersections meeting the District's criteria for modeling would be identified, if any, and appropriate air quality modeling conducted. The URBEMIS-7G computer program would be employed to calculate regional pollutants, which would be compared to thresholds of significance recommended by the District. Construction impacts of the proposed project and measures to reduce dust and construction pollutants will be identified.

Biological Resources
A Biological Resource Assessment will be conducted for the project site by PMC's biological consultant. The reconnaissance survey and resulting report will describe the existing site conditions, provide a list of special status plant and animal species potentially present (based on CDFG's Natural Diversity Data Base and federal Endangered Species Act), identify common and any special status species surveyed at the site, if any. The assessment will identify any direct or indirect potentially significant resource impacts (on species or habitats) and provide appropriate mitigation measures.

Archaeological and Cultural Resources
An archaeological survey and analysis of the project area will be conducted to confirm the presence/absence of any potentially significant resources on the site. The site will be reviewed for general sensitivity based upon data base searches and known resources in the area, and surveyed by the consulting archaeologist. The survey will also analyze any structures on-site or in the immediate vicinity for age and potential historical importance based on the requirements of the State Historic Preservation Officer (SHPO), and the most current changes to the CEQA Guidelines.

Geology and Geologic Constraints
This section will focus on potential geologic and seismic hazards, as well as any engineering constraints and general soil suitability for residential development. This scope assumes that all information for this discussion will be based on information

obtained from the General Plan and other available resources.

Site Hazards and Hazardous Materials
This section will be based upon the Phase I Environmental Site Assessment (ESA) prepared by Twining Laboratories. The ESA will describe the potential for on-site contamination, and document the potential presence of other site hazards such as underground storage tanks (USTs) and hazardous materials such as petroleum, stored chemicals, asbestos or lead paints. All findings and recommendations of the Phase I will be reviewed and incorporated into the EIR as appropriate.

Hydrology and Water Quality
The hydrology analysis will identify existing drainage patterns and nearby watercourses, and estimate approximate storm drainage runoff volumes that would be created by conversion to urban use. The analysis will include storm drain design recommendations and mitigation measures that should be implemented to reduce impacts to downstream receiving waters, such as the incorporation of detention basins and other measures to control flows and optimize groundwater recharge.

Groundwater quantity and quality, including the drawdown on the local aquifer and groundwater contamination, are existing, significant issues. The project will contribute cumulatively to groundwater usage, and this issue will be addressed as a cumulative impact as it relates to other projects in the vicinity.

Land Use and Agricultural Resources
This section will describe the project's consistency with (and relationship to) relevant regional and local plans including the City's General Plan and any regional habitat management plans. Consistent with CEQA Guidelines, the analysis will focus on project consistency with those adopted plans and policies that are in place to further environmental goals. Such plans may include the Fresno County General Plan, applicable Air Quality Management Plan, Fresno County Airport Land Use Policy Plan (as it relates to Mendota Airport), any applicable water resources management plan, and any applicable farmland preservation program.

This section will also analyze the proposed project site for conversion of land from disturbed annual grassland to urban use and any current or historical agricultural uses. This issue is of critical importance to LAFCO in their consideration of the annexation. Areas of important soils and farmland, existing uses, and existing uses, and the existence of any Williamson Act contracts will be identified.

Noise
The City's noise standards will be identified and programmatic mitigation provided as necessary to address construction noise and locations anticipated to experience heavy traffic volumes. Similarly, the noise standards of the Fresno County Airport Land Use Policy Plan will be reviewed and applied to the project. Mitigation

measures may include setbacks from roadways, noise insulation, or barriers as appropriate.

Public Services and Facilities
For informational purposes, this EIR section will identify the availability of existing public facilities, and calculate demands generated by the project for additional facilities (schools, parks, police and fire service, government services, etc.), based upon generation rates used by the service providers.

Traffic and Circulation
The traffic analysis conducted by Valley Research and Planning Associates will be reviewed and incorporated into the EIR. The study includes area reconnaissance, data collection, street network analysis, recommendations and mitigation.

The reconnaissance task included a detailed area investigation of traffic regulations, intersection lane configurations, observed traffic operational conditions on the roadway network (including roadway segments and intersections), visibility conditions, and availability of multi-modal facilities. Based upon initial review, the proposal will result in significant roadway and intersection impacts, and mitigation improvements have already been identified.

Utilities and Services
This section will quantify demands for water, sewer, and utility service systems based upon the proposed land use concept. The analysis will discuss the ability of existing or planned systems to accommodate the project, and identify potential environmental impacts that could result from the need for new or expanded systems. Much of this analysis will be based on information provided by the project applicant in the Infrastructure Reports included with the general application. Additional information will be obtained from the City detailing existing and planned sewer and water systems and their capacities.

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
1352 WEST OLIVE AVENUE
P.O. BOX 12616
FRESNO, CA 93778-2616
PHONE (559) 445-5868
FAX (559) 488-4088
TTY (559) 488-4066

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May 3, 2005

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2131-IGR/CEQA
6-FRE-33-62.506+/-
NOP DEIR
DON ALEJANDRO VALDEZ
COMMUNITY PLAN
SCH 2003061111

Mr. Gabriel Gonzalez
City of Mendota
643 Quince Street
Mendota, CA 93640

Dear Mr. Gonzalez:

We have completed our review of the proposed mixed-use development on a 68-acre site located approximately ½ mile east of the State Route (SR) 33 intersection at Bass Avenue. The use would include 480 apartment units, 73 single-family homes, a commercial center, professional offices, a service station, child care facility, multi-purpose park, community center and farm labor transportation center. Caltrans has the following comments:

Caltrans has identified the need for improvements to the SR 33 intersections at Bass Avenue, (two left turn lanes, a right-turn lane, signalization), SR 180 (signalization), Belmont Avenue (left turn lane, signalization,) and California/Panoche Road (two left turn lanes, signals). It is thus recommended that the traffic study portion of the EIR analyze this proposed development's opening day and future impacts to these four intersections and recommend mitigation for those impacts..

Please send a response to our comments prior to staff's recommendations to the Planning Commission and the City Council. If you have any questions, please call me at (559) 445-5868.

Sincerely,

MICHAEL NAVARRO
Office of Transportation Planning
District 06

C: SCH

Mendota Unified School District

115 McCabe Avenue ♦ Mendota, Ca 93640 ♦ (559) 655-4942 ♦ (559) 655-4944

Rosemary Ramirez ♦ Mary Silva ♦ Lupe Flores ♦ Freddie Valdez
Richard Knight ♦ Isabel Maldonado ♦ Sergio Valdez

Gilbert Rossette, Superintendent

Aztecs

April 29, 2005

Gabriel Gonzalez
City Manager
City of Mendota
643 Quince Street
Mendota, CA 93640

Subject: Response to Notice of Preparation – Don Alejandro Valdez Community Plan

Dear Mr. Gonzalez:

On behalf of the Mendota Unified School District, I would like to thank you for the opportunity to respond to the Notice of Preparation (NOP) for the Don Alejandro Valdez Community Plan Environmental Impact Report. According to the NOP, the proposed project would be a mixed-use farm worker community consisting of 480 farm labor/multiple family housing units, 73 single-family residential units, a commercial center, a child care facility, a multiple purpose park and community center, a service station, professional office sites, and a farm labor transportation center. The project will occupy approximately 68 acres located north and south of Bass Avenue, outside the City Limits but within Mendota's Sphere of Influence.

The Mendota Unified School District will be responsible for providing public educational services for students generated by the project. The EIR should evaluate the direct and cumulative impacts of project on these services and should present the measures available to mitigate the impacts. The District will be most willing to provide the City with background information necessary to conduct the evaluation.

Based upon a preliminary review, it appears the project will generate almost 600 new students that must be housed in District schools. The numbers of student was calculated using current District student generation rates as shown on the following page.

The District's K-12 enrollment as of the 2004-05 school year (October 2004 CBEDS) is 2,383. The capacity of the District's facilities, determined in accordance with Education Code section 17071 (SAB 50-02) is 2,071. Therefore, for the purpose of determining state eligibility for new construction funding, the District is currently in excess of 300 students over capacity. The additional approximately 600 students generated by the proposed project would increase the current capacity shortfall to almost 900 students.

The EIR should report this direct impact and should calculate the cumulative impacts of this and other projects that may be under consideration within the District.

PROJECT STUDENT GENERATION			
Single Family Detached Units			
Grades	**No. of Units**	**Student Generation Rate**	**No. of Students**
K-6	73	0.8553	62
7-8		0.1316	10
9-12		0.2632	19
Totals		*1.2500*	*91*
Multiple Family Attached Units			
Grades	**No. of Units**	**Student Generation Rate**	**No. of Students**
K-6	480	0.7955	382
7-8		0.1364	65
9-12		0.1250	60
Totals		*1.0568*	*507*
Total Students from Single and Multiple Family Units			
Grades			**No. of Students**
K-6			444
7-8			75
9-12			79
Total Students			*598*

The District currently levies a school facilities fee of $2.24 per square foot for residential development, which is the current state maximum for Level 1 fees. This fee falls substantially short of covering the actual cost of providing school facilities for students from new development. Based on an average cost per student for school facilities of $14,063 (2004 District developer fee study), an average single family house size of 1,248 square feet and a student generation rate of 1.25 students per unit (2005 School Facilities Planning & Management SGR Study), the estimated cost for school facilities would be $14.09 per residential square foot. Even if it is assumed that the state would provide up to 50% of school facilities costs, the estimated unfunded cost, assuming payment of the Level 1 fee, would still be approximately $4.81 per square foot.

As is evident from the foregoing information, this project will significantly impact District facilities. As such, it would be appropriate for the developer to work with the District to ensure that adequate school facilities are provided to accommodate the students generated by the development. This is essential to maintaining and improving educational opportunities in the community, which directly affects the desirability and value of new homes in the community.

The District looks forward to working cooperatively with the developer and the City to ensure that adequate school facilities are available to serve the students generated by the proposed development. Please contact me if you have any questions regarding this letter. Also, please include me on your mailing list to receive all project-related public notices, CEQA documents, and planning documents.

Sincerely,

Gilbert Rossette

Gilbert Rossette
Superintendent

TECHNICAL APPENDICES

Appendix B – Archaeological and Cultural Resources

Basin Research Associates. Archaeological Assessment Report *for the Don Alejandro Valdez Community Plan*. March 15, 2005

March 8, 2005

Mr. Tad Stearn
Pacific Municipal Consultants
225K Cannery Row
Monterey, CA 93940

RE: Archaeological Assessment Report
Don Alejandro Valdez Community Plan, Mendota, Fresno County, California

Dear Mr. Stearn,

Please let this letter stand as Basin Research Associates' archaeological resources assessment for the *Don Alejandro Valdez Community Plan* near Mendota in Fresno County. This report provides the results of: (1) an archival records search by the California Historical Resources Information System; (2) a review of pertinent literature, maps and archival records; (3) an archaeological field inventory; and, (4) presents findings and management recommendations. This report has been prepared to meet applicable state and federal regulatory requirements for historic properties (cultural resources) which require the identification and evaluation of cultural resources that could be affected by the project.

This assessment was undertaken to fulfill the various mandates of the California Environmental Quality Act (CEQA), to meet any local cultural resources and planning directives of Fresno County and subsequently, the City of Mendota after projected annexation, and to comply with the regulatory requirements of the U.S. Department of Housing and Urban Development (HUD) as federal funding could be used for the project. Federal funding requires the project proponent to complete the federal regulatory requirements for cultural resources pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended) (16 U.S.C., Section 470f) and its implementing regulations 36 CFR Part 800. These regulations require a federal agency with jurisdiction over a federal, federally assisted or federally licensed undertaking to take into account the effort of the undertaking on properties listed on or eligible for the National Register of Historic Places (National Register) and to afford the Advisory Council on Historic Preservation an opportunity to comment on the undertaking. The County/City, as the lead state agency in accordance with CEQA, is required to determine potential impacts on both historical and archaeological cultural resources and mitigate impacts on historically or culturally significant resources located within and near a development project.

This report provides the information necessary to meet the requirements of CEQA and supporting materials for the Section 106 identification and evaluation process. This report provides the

information for reviewing agencies to determine that: (1) the identification effort is complete pursuant to 36 CFR Part 800.4(a)-(c); and, (2) concur with the determination of *No historic properties affected* for the project (36 CFR Part 800.4(d)(1) as the undertaking will have no effect as defined in 36 CFR Part 800.16(i).

SUMMARY OF FINDINGS

- No historic properties eligible for inclusion on the National Register of Historic Places and/or the California Register of Historical Resources have been identified in or adjacent to the Area of Potential Effects as result of archival research and field inventory.

Identification Effort Findings

The identification effort included archival research, a review of pertinent literature, a systematic archaeological field inventory and consultation with the Native American Heritage Commission (NAHC).

- No prehistoric or historic era archaeological sites have been recorded or observed in or adjacent to the project.
- No ethnographic resources or traditional/contemporary Native American use areas and/or other features of cultural significance have been identified in or adjacent to the project.
- No Hispanic Period or American Period historic archaeological resources have been recorded or identified in or adjacent to the project.
- No buildings are present within the proposed project.

Conclusions

- No historic properties eligible for the National Register of Historic Places have been identified in or adjacent to the project's APE.
- The undertaking will not affect any historic properties eligible for inclusion on the California Register of Historical Resources.
- It is the opinion of Basin Research Associates that a determination of *No historic properties affected* (36 CFR Part 800.4(d)(1) appears appropriate.

MITIGATION MEASURES

- No specific mitigation measures are required for historic properties/cultural resources.
- Post-review discoveries shall be handled as per 36 CFR Part 800.13(b).
- The development of a formal *Post-Review Discovery Plan* is not recommended due to the very low potential for exposing prehistoric or historic archaeological material within or adjacent to the APE.
- The exposure of Native American burials shall be handled in accordance with state law.

PROJECT LOCATION AND DESCRIPTION

The proposed Don Alejandro Valdez Community Plan (the project) is located on the West Side of the San Joaquin Valley just north of the City of Mendota and east of State Highway 33 in northwest Fresno County, California. This wedge shaped 91-acre Regional Master Plan Development is located just north of the Mendota Airport and approximately 1.0 mile west of the Union Pacific railroad. The project is bisected approximately midway by Bass Avenue with approximately 41-acres south of Bass Avenue and approximately 50-acres on the north. The parcel is bounded on the north by an unpaved road adjacent to the Main Lift of the Central Valley Project (CVP). The Fresno Slough (alternatively South or Fresno Branch of the San Joaquin River or "Fish Slough") is located about 1.5 miles east of the Project. The Mendota Pool, where the San Joaquin River, Helm Ditch, Main Canal, Outside Canal, and Delta-Mendota Canal diverge, is approximately 1.75 miles to the northwest of the project (T 13S R15E, part Sections 30 & 31; United States Geological Survey [USGS], Firebaugh, Calif., 1984 and Mendota Dam, Calif. 1984, 7.5' quadrangle topographic map, 1984; Hoover et al. 1966:92; CAL/OHP 1979) [Figs. 1-2].

The proposed project will include zones with a Regional Youth and Adult Sports Center; 70 units of single-family housing; 200 units of multi-family housing; and 160 units of farm labor housing. In addition a variety of services would flank Bass Avenue: a "one-stop center" with social services, police station, Department of Motor Vehicles (DMV), Employment Development Department (EDD), and California Highway Patrol (CHP) offices; child care facility; a commercial district; professional offices; and farm labor transportation terminal (Pacific Municipal Consultants (PMC) 2003).

REGULATORY CONTEXT

This report has been prepared to meet applicable state and federal regulatory requirements for historic properties (cultural resources) which require the identification and evaluation of cultural resources that could be affected by the project. Cultural resources include prehistoric and historic archaeological sites, districts and objects; standing historic structures, buildings, districts and objects; and locations of important historic events or sites of traditional/cultural importance to various groups. The analysis of cultural resources can provide valuable information on the cultural heritage of both local and regional populations.

The California Environmental Quality Act (CEQA) requires a lead agency to determine potential impacts on both historical and archaeological cultural resources eligible for the California Register of Historical Resources (California Register) and mitigate impacts on historically or culturally significant resources located within and near a development project. The proposed undertaking must also comply with Section 106 of the National Historic Preservation of 1966 (NHPA) and its implementing regulations 36 CFR Part 800 which requires a federal agency with jurisdiction over a federal, federally assisted or federally licensed undertaking to take into account the effect of the undertaking on properties listed on or eligible for the National Register of Historic Places (National Register) and prior to approval of an undertaking to afford the Advisory Council on Historic Preservation an opportunity to comment on the undertaking.

IDENTIFICATION EFFORT AND RESULTS

The identification effort consisted of: (1) the compilation and review of archival information including a records review focusing on the project and adjacent areas relying on: information from the California Historical Resources Information System, Southern San Joaquin Information Center, CSU Bakersfield (Baldwin 2003, CHRIS/SSJVIC File No. 03-189 dated June 20, 2003); (2) a review archival materials on file at Basin Research Associates for Fresno County[1] including material on file with Bancroft Library, University of California at Berkeley; (3) a review of the *Sacred Lands Inventory* maintained by the State of California Native American Heritage Commission; and, (4) a systematic archaeological field inventory of the project parcel.

No archaeological or architectural sites have been recorded in, adjacent, or within 0.25 mile of the Project (CHRIS/SSJVIC File No. 03-189 dated June 20, 2003).

No known Native American prehistoric sites, ethnographic settlements, trails, traditional or contemporary Native American use areas have been identified in or adjacent to the proposed project.

No known Hispanic Period or American Period dwellings or other significant structures, features, etc. (e.g., rancho headquarters, ranchsteads, Chinese railroad labor camps, water conveyance elements, etc.) have been identified in or adjacent to the project. The nearest built environment feature, the Main Lift, is a water conveyance element associated with the Central Valley Project (CVP). The feature is adjacent to the northern boundary of the project and is separated from the parcel by an unimproved dirt road. The CVP has been evaluated as eligible for inclusion on the National Register under Criteria A and C. However, no archaeological or other important component associated with the CVP is in or adjacent to the project.

None of the cultural resources reports on file with the CHRIS/SSJVIC includes the proposed Project; one is mapped adjacent to the proposed Project. The report, *Archaeological Survey for an Elementary School Site Mendota Unified School District* (Wren 1990/FR-1032)[2] provides the results of a records search and brief ethnographic and historical background, and a field survey. No cultural resources were identified.

No local, state and/or federal archaeological sites, historically or architecturally significant structures, landmarks or points of interest have been identified or are located in or adjacent to the Project.

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1. Specialized listings consulted include the *Historic Properties Directory* for Fresno County (CAL/OHP 2003a) with the most recent updates of the National Register of Historic Places, California Historical Landmarks, and California Points of Historical Interest as well as other evaluations of properties reviewed by the State of California Office of Historic Preservation. Other sources consulted *California History Plan* (CAL/OHP 1973); *California Inventory of Historic Resources* (CAL/OHP 1976); *California Historical Landmarks* (CAL/OHP 1990/1996); *Five Views: An Ethnic Sites Survey for California* (CAL/OHP 1988); and *Archaeological Determinations of Eligibility* (CAL/OHP 2003b).

2. Report number assigned by SSJVIC.

A systematic field inventory of the project area was conducted by Mr. Christopher Canzonieri (M.A.), on June 25-26, 2003 in accordance with standard archaeological practice. No cultural resources were noted.

INDIVIDUALS, GROUP AND AGENCY PARTICIPATION

The State of California Native American Heritage Commission (NAHC) was contacted for a review of the Sacred Lands Inventory (Busby 2003). The records search failed to indicate the presence of Native American cultural resources in the immediate project area (Wood 2003).

BACKGROUND REVIEW

NATIVE AMERICAN

Prehistoric

The study area located in the vicinity of the lower San Joaquin River and Fresno Slough, would have provided a favorable environment for prehistoric Native Americans despite the periodic flooding of the bottomlands, intense summer heat, and the ever-present annoyance of mosquitoes. Native American occupation sites in this region appear to have been selected for accessibility, protection from seasonal flooding, and the availability of resources (Wallace 1978a:463).

Prehistoric occupation and use of the general area appears to extend over 5000-7000 years and may be longer. The current archaeological data suggests an increase in the prehistoric population over time due to more efficient resource procurement, storage and increasing political complexity. The absence of prehistoric sites in and adjacent to the Project and the paucity of recorded sites in the study area reiterates Moratto's assessment of the area south of the Stockton District of the San Joaquin Valley, as one of the least-known archaeological areas in California (Moratto 1984:215). In terms of the potential for aboriginal sites in the vicinity of water resources, especially vernal pools, Roop has reported on the presence of ". . . millingstones, manos, pestles of a type designed for use in wooden mortars, and occasional flaked-stone tools on the margins of vernal pools". He has also postulated occupation ". . . near these pools for brief intervals each spring to harvest freshwater shrimp, take occasional waterfowl, and especially to gather the greens, bulbs, and seeds of clover, hairgrass, eryngium, navarretia, tarweed, brodiaea, and other plants associated with the pools" (Moratto 1984:198 after Roop 1981). In contrast, another research synthesis noted that flooding would have prevented occupation in the "winter and spring seasons" along creeks in the study area (Peak & Associates 1982:20).

General overviews and perspectives on the regional prehistory can be found in Wallace (1978a), Elsasser (1978) and King (1978), and Moratto (1984).

Ethnographic

Little is known of the aboriginal inhabitants of the lower or Northern San Joaquin Valley as a result of introduced diseases,[3] missionization and displacement by gold seekers. The proposed Project appears to be located within the *Nopchinchi* (*Noptinchi, Noptinte, Nupchenche,*

3. For example, trappers through the San Joaquin valley in autumn 1832 noted numerous Native Americans in contrast to only five living Native Americans the following summer (Schenk 1926:131).

Nupchenches) tribelet territory of the Northern Valley Yokuts. The *Nopchinchi* were located east of the San Joaquin River and reportedly the village of *Tape* was located near or just south of the great bend of the San Joaquin (Cook 1955:76, Map 4; Wallace 1978a:462, Fig. 1, 462, 469-470). In contrast, Latta places the Project north of the territory of the *Kahwatchwah* Yokuts (People of the Grass Nut County) who reportedly inhabited the area north of the Project between Los Banos Creek and five miles south of Firebaugh [Mendota is about 8.5 miles] (Latta 1977:frontispiece #18, 143-147). Clough and Secrest 1984:6 [map]) also place the Firebaugh and Mendota area as within *Kahwatchwah* Yokuts territory and illustrate a number of unnamed villages along the west and south side of San Joaquin River.

Researchers agree that the group known as the *Pitkachi* was located further west of the Project on the south side of the San Joaquin River. *Pitkachi* villages include *Gewachiu* several miles east of Fresno Slough and *Kohuou* near Herndon (Kroeber 1925:Plate 47; Wallace 1978a:462, Fig. 1, 462, 469-470; Hoover et al. 1966:89; Latta 1977:frontispiece #30, 161; Clough and Secrest 1984:252 [map].

The Yokutsan-speaking people numbered approximately 18,000 and were dispersed in 40-50 small tribelets speaking at least 21 dialects.[4] These dialects appear to belong to 12 Yokutsan language groups within two divisions. Nearby dialects were probably intelligible, while geographically distant groups probably spoke unintelligible dialects. Yokuts subsistence relied on hunting and gathering, most especially salmon and acorns, but also on fowling and the consumption of tule roots. Reportedly Yokuts tribes were practically extinct on the West Side of the San Joaquin River before 1790. Between 1830 and 1840, raids by Miwok and Yokut groups in Hispanic territory were notable. In addition, a notable pestilence swept through Yokuts territory on the East Side as far south as the Fresno River in 1833. After 1833 forays against the missions and settlers were constant and Mission San Juan Bautista was reported as under siege in 1841. These raids were a means of securing horses and cattle and have been also interpreted as a consequence of the mission system which entrapped and confined Indians to missions as laborers who endured punishment, abuse, and an inadequate diet. The aboriginal inhabitants of the San Joaquin Valley were transformed from hunters and gatherers into agricultural laborers who lived at the missions including Mission San Jose, Santa Clara, Soledad, San Juan Bautista and San Antonio and worked with former neighboring groups such as the Costanoan and Esselen. Mission San Juan Bautista to the west/northwest, founded in 1797, would have been the closest mission (Cook 1955:67; Hoover et al. 1966:91; Beck and Haase 1974:#20, 22-23; Latta 1977:xxix; Wallace 1978a:462, Fig. 1, 464; Shipley 1978:83 after Kroeber 1925:474, 883 and Kroeber 1963).

For a more extensive review of the aboriginal inhabitants of the San Joaquin River and vicinity see Kroeber (1925), Gayton (1948), Latta (1977), and Wallace (1978a-b), as well as Silverstein (1978), and Spier (1978).

HISTORIC ERA RESOURCES

Hispanic Period

Early exploration had a profound effect on the Native populations. However, the routes of the early explorers cannot be determined with total accuracy. On March 30, 1772, Juan Crespi with

4. Latta (1977:xxx) as 60 tribes with an average of 400 individuals each.

Pedro Fages saw the San Joaquin River and named it *San Francisco*. The first party to travel through the study area, reportedly in 1805 or 1806, was led by Gabriel Moraga who proceeded from San Juan Bautista through Pacheco Pass and the San Joaquin Valley to as far north as the Mokelumne River. This expedition named the river *San Joaquin*, although portions of the river were variously named until ca. 1810. Moraga was also the first European to discover and name the Merced River, namesake of Merced County, in 1806 the *Rió de Nuestra Señora de Merced* (River of Mercy). San Luis Gongaza located southwest of the Project appears to have been observed and named for the saint's day, St. Aloysius Gonzaga. Padre Muñoz, who accompanied Moraga mentions the place in September 1806. In 1810, Jose Viader, accompanied by Gabriel Moraga and José Dolores Pico accompanied by Father Jaime Escudo in 1815 also traveled the approximate route via San Luis Gonzaga and along the west side the San Joaquin River. Later, in 1826, Pico again traveled via San Luis Gonzaga along the San Joaquin River. None these routes were close to the Project (Bancroft 1886:51 [map]; Schenck 1926:125-129; Hoover et al. 1966:539; Beck and Haase 1974:#20-22; Cabezut-Ortiz 1987:18; Gudde 1998:234, 337, 340).

The Spanish philosophy of government in northwestern New Spain was directed at the founding of presidios, missions, and secular towns with the land held by the Crown (1769-1821), while later Mexican Period policy (1822-1848) stressed individual ownership of the land. After the secularization of the missions by Mexico (decrees 1826, 1834-1836), vast tracts of mission lands were granted to individual citizens (Hart 1987).

None of the ranchos or mission lands were situated in the or near the Project (Beck and Haase 1974:#33; USGS 1984:Firebaugh and Mendota Dam; Hart 1987:314-315, 329, 464, 489-490). *El Camino Viejo*, the Spanish and Mexican Era Road which followed old animal and Indian trails, ran along the west side of the San Joaquin Valley. *El Camino Viejo a Los Angeles* or Los Angeles Trail, the oldest north-south trail through the entire San Joaquin Valley had two branches through west part of county including *La Libertad* (present-day Liberty), *Las Juntas*, and *Rancho de Los Californianos*. The *Pueblo de las Juntas* on the west bank of the San Joaquin River at is junction with Fresno Slough north of Mendota[5] and the Project and the *Rancho de los Californios*[6] (several miles east of Las Juntas and Fresno Slough) were the closest settlements to the Project (CAL/OHP 1976:141; Clough and Secrest 1984:39, 252 [map]); see American Period below for additional information).

Mountain men are also important in the history of the west as the precursors of Anglo-American settlement and the San Joaquin Valley was a favorite route from the 1820s. They first explored, trapped and traded and later "regularized" trails and escorted others who would eventually settle in the area. As early as the 1820s Anglo-American mountain men followed many of routes favored by Spanish explorers through the San Joaquin Valley in the general area. These included Jedediah Strong Smith in 1827, the Ewing-Young expedition in 1832-1833,[7] and Joseph Reddeford Walker

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5. Apparently also the location of the "old Indian village" (CAL/OHP 1979), probably *Tape* (e.g., Wallace 1978b:470).

6. Also identified with the *Pitkachi* village of *Gewachiu* at the Herminghaus Ranch (or *Rancho de los Californios* [Hispanic Era settlement] Latta 1977:161, #30). Hoover (et al. 1966:91) places the rancho at the northwest corner of Ashlan and Lake avenues, 4.0 miles north of Highway 180/Whites Bridge Road between Kerman and White's Bridge, about 14 miles south and west of the Project (e.g. AAA 1996:Fresno and Kings County).

7. A member of this expedition commented on the numerous Indian villages and the devastated depopulation (Schenck 1926:131).

and his group in 1833 (Schenck 1926:131; Hoover et al. 1966:539; Beck and Haase 1974:#43; Hart 1987). In addition, John Charles Fremont led five expeditions through the San Joaquin Valley from 1842 through 1853-1854 (e.g., early American Period; Egan 1977:frontispiece; Clough and Secrest 1984:29 [map of Smith expedition].

American Period

In the mid-19th century, the majority of the rancho and pueblo lands and some of the ungranted land in California were subdivided as the result of population growth, the American takeover, and the confirmation of property titles. Growth can be attributed to the Gold Rush (1848), followed by the completion of the transcontinental railroad (1869) and regional and local railroads. Still later, the development of the refrigerator railroad car (ca. 1880s) used for the transport of agricultural produce to distant markets had a major impact on California agriculture. The agricultural land-use pattern throughout has been rapidly replaced by urban and suburban development since post-World War II (Hart 1987).

The Project is situated within the original boundaries of Fresno County (*Fresno* or ash tree) which was created in April 1856 from part of Merced and Mariposa counties (Hoover et al. 1966:89; Coy 1973:101, between 106-107 [map]). Historic era activity in the study area has been associated with transportation by water and then rail as well as agriculture. Transportation through the San Joaquin region relied on steamboats with huge barges traveling from Stockton to as far as Firebaugh and Fresno City loaded with groceries, lumber, and posts, etc., exchanged for hides, wool, tallow and grain. The first stages through the county in summer 1858 proceeded along the west side of the San Joaquin River en route from San Francisco to the Missouri River. In turn, the stage was replaced by rail transport (Lewis Publishing Company 1892; Clark 1973:8; Beck and Haase 1974:#52; Clough and Secrest 1984:44 [map]; Cabezut-Ortiz 1987:54-59).

The Project as well as nearby Mendota was situated in Miller & Lux lands. In 1858, Henry Miller, a German immigrant wholesale butcher who, formed a partnership with a fellow German butcher named Charles Lux. Within a few decades, they became the most important landowners in the region by acquiring Mexican land grants. Their empire eventually amounted to one million acres in three states, as well as hundreds of thousands of cattle and sheep, slaughter houses, banks, stores and hotels (Thompson 1891:55; Vandor 1919:255; Clark 1973:10). Its core in Merced and Fresno Counties included at one time over 268,000 acres in Fresno County from the Coast Range on the west to the Central Pacific Railroad on the east (Chavez et al. 1986:K3-23 - K3-25 after Vandor 1919:256, 261; Clough and Secrest 1984:252 [map]).

Early towns in the study area included **Firebaugh** (Firebaugh's Ferry) and **Las Juntas** (*Pueblo de las Juntas*) on the west bank of the San Joaquin River north of Mendota and the Project and the **California Ranch** (*Rancho de los Californios*) east of the Project on the south side of the San Joaquin River (Clough and Secrest 1986:44, 252 [maps]. All three are listed on the *California History Plan* (CAL/OHP 1973:65) and *California Inventory of Historic Resources* (CAL/OHP 1976:135, 141, 231). The closest, *Pueblo de las Juntas* (junction or meeting place) was located within about 0.75 mile northwest of the Project. This town, along with California Ranch (*Rancho de los Californios*), was one of the oldest and roughest towns in the entire San Joaquin Valley. It was "a rendezvous for adventurers, refugees, and a few pioneers from Spanish settlements to the west... and one of the very first places in the San Joaquin Valley to be settled by Spaniards and Mexicans." It was notorious for horse-stealing, gambling, drinking, murders, supplying the

Murieta and Vásquez gang, etc. in the 1850s-1860s and a stop on the Butterfield Overland Stage. *Las Juntas* was purchased by San Joaquin and Kings River Canal Company (Miller and Lux) and ordered residents to vacate in 1879. As a result, population increased from about 50 to 250 (Clough and Secrest 1984:255). According to Hoover et al., the Delta-Mendota Canal runs through the former town (Hoover et al. 1966:91).

In addition, **Fresno City**, the namesake of both the county and present-day City of Fresno, was established about 1855-1875 at head of navigation of Fresno Slough.[8] The city included a pier for the transfer of freight from small steamboats, flatboats and barges as well as warehouses, several homes, and a hotel, "Casa Blanca". Fresno City post office established January 4, 1860 and was discontinued June 8th, 1863. The town experienced a brief boom in 1860 due to its location on the Butterfield Stage Lines, as the southern terminus of the transcontinental telegraph line to San Francisco, and the construction of a ship canal southward to C.A. Hawley and W.B. Cummings agricultural settlement (not completed). Fresno City was largely abandoned by end of Civil War [1865]. Later, City of Fresno established 1872, about 30 miles to southwest of the Project on the new Central Pacific Railroad (Hoover et al. 1966:92; CAL/OHP 1976:135; CAL/OHP 1979; Clough and Secrest 1984:253, 256-258, 261 [1860 plat]; Werner 1984:45, Map 9, #8; Patera 1991:78). Fresno City is California State Landmark #488 and listed in the *California History Plan* (CAL/OHP 1973:65) and *California Inventory of Historic Resources* (CAL/OHP 1976:135, 141, 231).

The San Pablo & Tulare Railroad Company was consolidated in 1888 with the Southern Pacific Railroad (SP) and ran about 0.5 mile west of the Project. This SP San Joaquin Valley "West Side Line" is now part of the Union Pacific Corporation. As the line proceed south through the San Joaquin Valley, Miller and Lux gave the railroad land in Firebaugh. The first train arrived in December 24, 1890 in Firebaugh followed by Mendota in 1895 [date not specified]. In addition Mendota was connected to the San Joaquin Valley Railroad Company line, conveyed to the Pacific Improvement Company and weeks later to SP in December 1893 which ran from Pollasky (now Friant) to Fresno[9] and west to Mendota and Firebaugh (Thompson 1891:55 [San Pablo & Tulare]; Clough and Secrest 1984:255; USGS 1984:Firebaugh and Mendota Dam; Fickewirth 1992:131, 133; Walker 1997:CA-24; Gudde 1998:234).

Firebaugh, as in the case of Las Juntas (*Pueblo de las Juntas*) and California Ranch (*Rancho de los Californios*), had a reputation as a tough, raucous town, especially in sheep shearing season. When the Los Banos-Armona railroad[10] was constructed and facilities for storage, switching and etc., were required, SP surveyed and platted the town of **Mendota** in early 1891. This station was situated about 9.0 miles southeast of Firebaugh within about 0.25 mile south of the Project. The

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8. Hoover (et al. 1966:92) as about 1.75 miles north and slightly west of Tranquillity. CAL/OHP (1979) as about 30 miles southwest of present-day City of Fresno, laid out on the south line of Section 25, T14S R15E and Section 30 of T14S R16.

9. The segment from between Fresno and Friant has been assigned P-10-003930/CA-Fre-3109H (Hooper and Flint 1999). This portion is also listed on the *California History Plan (1973:66)* and *California Inventory of Historic Resources* (CAL/OHP 1976:103, 231).

10. Los Banos-Armona [sic, after Clough and Secrest 1984:255; not Walker 1997]. Los Banos located about 26 miles north of Firebaugh in Merced County; Armona is located between Hanford and Lemoore in Kings County (AAA 1995). Walker shows "PRI" Port Railroads, Inc., a Kyle subsidiary from Fresno to Firebaugh which was operated by SJVR San Joaquin Valley Railroad (Walker 1997:75, CA-24 [map]).

SP facilities at Mendota included a station, warehouse, sitting-room, ticket-office and living-room; an artesian well, large tank, turntable and many sidetracks, fencing, and "large deposit of coal" and reportedly by late November 1891, generally had at least three locomotives at the rail yard and 200 cars on sidetracks. The Mendota post office was established shortly thereafter on July 21, 1892. By the mid-1890s, Mendota was a sheep shearing center with estimated population of 200 along with a variety of businesses and services. SP was biggest employer with 28 men including station attendant, yardmen, switchmen, firemen, brakemen, car repairers, machinists, foremen, and general laborers (Clough and Secrest 1984:255-256).

The arrival of the SP coincided with the development of modern canal system irrigation in the San Joaquin Valley (JRP/Caltrans 2000:20). Miller and Lux monopolized water resources by purchasing water rights and during the 1870s completed the San Joaquin and Kings River Canals (the Outside Canal[11] about 0.5 mile and Main Canal[12] about 0.75-1.0 mile northeast of the Project. These canals were hand dug by Chinese, Mexican and Euro-American laborers who lived in labor camps on the banks of these canals (Chavez et al. 1986:K3-24 after Shallat 1978:17-18). Later, the Delta-Mendota Canal, part of the Central Valley Project (CVP) approved by the citizens of California in 1933 was built between 1946-1952 about 0.5 mile northeast of the Project (Hornbeck 1983:79; JRP/Caltrans 2000:73-77). As a result of the irrigation canal system, the West Side was characterized by large farms producing a variety of agricultural products (Chavez et al. 1986:K3-32).

Summary Historic Map Review

The Project area was not patented and no features, including roads, are shown within or near the Project on the 1853-1855 Government Land Office survey plat (US/BLM [GLO] v.d.). No features in the study area with the exception of the San Joaquin River are shown Goddard's 1857 *Map of the State of California*. Wallace W. Elliot & Co. 1882 *Map of Southern Central California showing Railroad Routes* shows only Firebaugh in the vicinity of the Project. The 1956 USGS Mendota Dam quadrangle map photorevised in 1980 shows six buildings in the southern part of the Project area and an unpaved road runs along the south edge of the Main Lift of Central Valley Project (CVP) which provides access to pumps located within 0.25 of the Project.

Formally Recorded Resources

Several water conveyance features associated with the Central California Irrigation District (CCID) dating from 1874 to 1896 are within a half-mile of the project. The Mendota Dam, constructed in 1917 and the Mendota Pool -- where the San Joaquin River, the Helm Ditch, the Main Canal, the Outside Canal, and the Delta-Mendota Canal diverge -- are located approximately one mile northeast of the project. The Delta-Mendota Canal is a component of the Central Valley Project (CVP). The **Main Lift**, located on the north side of an unpaved road adjacent to the project, is also part of the CVP. The CVP has been evaluated as eligible for inclusion on the National Register as under criteria A and C (Applied Earth Works 2002). However, no

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11. The Outside Canal was laid out the right-of-way from 0.5 to 3 miles west of the Main Canal in 1896 and completed between 1900 and 1909.

12. Initial canal construction began in 1866 by the San Joaquin & Kings River Canal Company (Byrd 1996:2). See Byrd (1996) and Chavez et al. (1986) for additional historical information.

archaeological component appears to have been associated with the CVP in or adjacent to the Project.

ARCHAEOLOGICAL FIELD INVENTORY

A systematic field inventory of the 91-acre project parcel was completed by Mr. Christopher Canzonieri (M.A.), on June 25-26, 2003 in accordance with standard archaeological practice. The pedestrian survey was conducted in two sections - north and then south of Bass Avenue - with north/south transects spaced at approximately 30 meter intervals.

North Subarea: The approximately 50-acres area north of Bass Avenue is bordered by an unpaved road (along the Main Lift) on the north, a dry earth-lined drainage ditch on the west, and a residential barbed-wire property fence on the east, and Bass Avenue on the south. The parcel is a former agricultural field with a variety of dry grasses and shrubs and numerous ground squirrel burrows. Overall surface visibility ranged from 40% visibility along the west edge of the parcel to 65-75% overall. A slightly obscured ditch about 4 feet wide and dry at the time of the survey runs along the northern boundary. Several recent faunal remains were observed on the surface (e.g., rodent, *Canis* [dog], and deer [Artiodactyls]). The burrows were inspected and did not reveal any indicators of cultural material (culturally affected soils, lithics, etc.). Modern trash including home appliances, beds, mobile home walls, 50 gallon drums, tires, etc. have been dumped and scattered in various parts of the parcel, with the greatest concentration towards the northeast corner and southwest edge.

South Subarea: The approximately 41-acre area south of Bass Avenue is bounded Bass Avenue on the north, a fence on the south,[13] a ranch fence on the east, and a chain-link fence on the west. The vegetation and animal burrows were similar to the North Subarea and the burrows inspected lacked indicators of cultural material. Visibility was approximately 45% along the northwest edge of the parcel with 85% overall. Two manholes were noted just south of an approximately 4-foot wide earth-lined drainage ditch which parallels Bass Avenue. An elevated earthen upside-down T-shape was observed in the northern third the Subarea -- the vertical proceeds south of below the midpoint of Bass Avenue southerly to an east-west earthen "linear" which extends the entire width of the Subarea. Five abandoned busses, numerous tires, and large agricultural transport boxes were observed, but none of the buildings or remnants of buildings shown on 1984 USGS in the southern part of the Subarea were observed.

No surface or subsurface evidence of prehistoric or significant historic archaeological material was observed during the field inventory conducted for the proposed project.

FINDING OF EFFECT

Basin Research Associates has made a reasonable and good faith effort to identify historic properties listed, determined, or potentially eligible for inclusion on the National Register[14] and/or

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13. Contemporary trash was observed next the fence, adjacent to parcel.

14. Eligibility criteria for the National Register of Historic Places include: 1. is at least 50 years unless of exceptional historical significance; 2. retains integrity of location, design, setting, materials, workmanship, feeling, and association; and, 3. has one or all of the following characteristics associated: a. . . . with events that have made a significant contribution to the broad patterns of our history; or, b. . . . with the lives of persons significant in our

the California Register[15] within the project parcel pursuant to applicable federal and state regulatory requirements for cultural resources. The identification effort consisting of archival research, a field inventory, and consultation with the State of California Native American Heritage Commission has determined that there are no National Register listed, determined or potentially eligible resources within or adjacent to the project parcel. No historic resources are present which appear eligible for the California Register.

The regulations implementing Section 106 of the NHPA (36 CFR Part 800) define an effect as any action that would alter the characteristics of the property that may qualify the property for inclusion in the National Register; and, diminish the integrity of a property's location, setting, design, materials, workmanship, feeling or association (36 CFR Part 800.5(a)(1-2)). It is the opinion of Basin Research Associates that a determination of *No Historic Properties Affected* is applicable since no historic properties are within or adjacent to the APE that are listed, eligible or appear to be eligible for inclusion on the National Register of Historic Places (36 CFR Part 800.4). In regard to CEQA, the project will not have a significant effect on archaeological sites or a property of historic or cultural significance to a community or ethnic group eligible for inclusion in the California Register (CEQA *Guidelines*).

MITIGATION MEASURES

No mitigation measures are required. The proposed undertaking will not affect any National Register properties or adversely affect any historic resources eligible for the California Register.

Post-review discoveries of cultural resources shall be treated in accordance with 36 CFR Part 800.13(b). The development of a formal *Post-Review Discovery Plan* is not recommended due to the very low potential for exposing archaeological material within the property. However, if any significant cultural materials[16] are exposed or discovered during either site preparation or

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past; or, c. . . . embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or, d. . . . have yielded, or may be likely to yield, information important in prehistory or history.

15. A historical resource may be listed in the California Register of Historical Resources f it meets one or more of the following criteria: "(1) it is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; (2) it is associated with the lives of persons important to local, California or national history; (3) it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or (4) it has yielded or has the potential to yield information important in the prehistory or history of the local area, California or the nation."

16. Significant prehistoric cultural resources may include:

    a. Human bone - either isolated or intact burials.
    b. Habitation (occupation or ceremonial structures as interpreted from rock rings/features, distinct ground depressions, differences in compaction (e.g., house floors).
    c. Artifacts including chipped stone objects such as projectile points and bifaces; groundstone artifacts such as manos, metates, mortars, pestles, grinding stones, pitted hammerstones; and, shell and bone artifacts including ornaments and beads.
    d. Various features and samples including hearths (fire-cracked rock; baked and vitrified clay), artifact caches, faunal and shellfish remains (which permit dietary reconstruction), distinctive changes in soil stratigraphy indicative of prehistoric activities.
    e. Isolated artifacts

subsurface construction, operations should stop within 25 feet of the find and a qualified professional archaeologist contacted for evaluation and further recommendations. The exposure of any Native American burials shall be handled in accordance with state law.

CONCLUDING REMARKS

If I can provide any additional information or be of further service please don't hesitate to contact me. Thank you for retaining our firm for the Project.

Sincerely yours,
BASIN RESEARCH ASSOCIATES, INC.

Colin I. Busby, Ph.D., RPA
Principal

CIB/dg

Historic cultural materials may include finds from the late 19th through early 20th centuries. Objects and features associated with the Historic Period can include.

a. Structural remains or portions of foundations (bricks, cobbles/boulders, stacked field stone, postholes, etc.).
b. Trash pits, privies, wells and associated artifacts.
c. Isolated artifacts or isolated clusters of manufactured artifacts (e.g., glass bottles, metal cans, manufactured wood items, etc.).
d. Human remains.

In addition, cultural materials including both artifacts and structures that can be attributed to Hispanic, Asian and other ethnic or racial groups are potentially significant. Such features or clusters of artifacts and samples include remains of structures, trash pits, and privies.

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Abbreviations

n.d. no date
v.d. various dates
N.P. no publisher noted
n.p. no place of publisher noted

Note: The phrase "CHRIS/SSJIC, CSU Bakersfield" is used for S- reports and other material on file at the California Historical Resources Information System, Southern San Joaquin Information Center, California State University (CSU), Bakersfield. This CHRIS assigns report numbers within counties (e.g., MA - Madera, FR -Fresno, etc.). "CHRIS/CCIC, CSU Stanislaus, Turlock" is used for material on file at the California Historical Resources Information System, Central California Information Center, California State University Stanislaus in Turlock.

ATTACHMENTS

FIGURES

FIGURE 1 GENERAL PROJECT LOCATION

FIGURE 2 PROJECT LOCATION (USGS Firebaugh, Calif., 1984; Mendota Dam, Calif. 1984; Coit Ranch, Calif. 1984 and Tranquility, Calif. 1984)

TECHNICAL APPENDICES

Appendix C – Air Quality

Ballanti, Donald, Ph.D. Air Quality Impact Evaluation for the Don Alejandro Valdez Community Plan Project. July 2003

AIR QUALITY IMPACT ANALYSIS FOR THE DON ALEJANDRO VALDEZ COMMUNITY PLAN PROJECT
CITY OF MENDOTA

Prepared for:

Pacific Municipal Consultants
225 Cannery Row, Suite K
Monterey, CA. 93940

July 2003

INTRODUCTION

This report describes the impacts of the proposed project on local and regional air quality. The section was prepared using thresholds of significance recommended by the San Joaquin Valley Air Pollution Control District. This report describes existing air quality; construction-related impacts, direct and indirect emissions associated with the project; the impacts of these emissions on both the local and regional scale; and mitigation measures warranted to reduce or eliminate any identified significant impacts.

EXISTING CONDITIONS

Air Pollution Climatology

The project is located in the San Joaquin Valley air basin, which is defined by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. The surrounding topographic features restrict air movement through and out of the basin and, as a result, impede the dispersion of pollutants from the basin. Inversion layers are formed in the San Joaquin Valley air basin throughout the year. (An inversion layer is created when a mass of warm dry air sits over cooler air near the ground, preventing vertical dispersion of pollutants from the air mass below). During the summer, the San Joaquin Valley experiences daytime temperature inversions at elevations from 2,000 to 2,500 feet above the valley floor. During the winter months, inversions occur from 500 to 1,000 feet above the valley floor (SJVAPCD, 1998).

The climate of the project area is typical of inland valleys in California, with hot dry summers and cool, mild winters. Daytime temperatures in the summer often exceed 100 degrees, with lows in the 60's. In winter daytime temperatures are usually in the 50's, with lows around 35 degrees. Radiation fog is common in the winter, and may persist for days. Winds are predominantly up-valley (from the north-northwest) in all seasons, but more so in the summer and spring months. Winds in the fall and winter are generally lighter and more variable in direction (CARB, 1974).

The pollution potential of the San Joaquin Valley is very high. Surrounding elevated terrain in conjunction with temperature inversions frequently restrict lateral and vertical dilution of pollutants. Abundant sunshine and warm temperatures in summer are ideal conditions for the formation of photochemical oxidant, and the Valley is a frequent scene of photochemical pollution.

Ambient Air Quality Standards

The federal and California state ambient air quality standards are summarized in Table 1 for important pollutants. The federal and state ambient standards were developed independently with differing purposes and methods, although both processes attempted to avoid health-related effects. As a result, the federal and state standards differ in

Table 1
Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour 8-Hour	0.12 ppm 0.08 ppm	0.09 ppm --
Carbon Monoxide	8-Hour 1-Hour	9.0 ppm 35.0 ppm	9.0 ppm 20.0 ppm
Nitrogen Dioxide	Annual 1-Hour	0.05 ppm --	-- 0.25 ppm
Sulfur Dioxide	Annual 24-Hour 1-Hour	0.03 ppm 0.14 ppm --	-- 0.05 ppm 0.5 ppm
PM_{10}	Annual 24-Hour	50 ug/m^3 150 ug/m^3	20 ug/m^3 50 ug/m^3
$PM_{2.5}$	Annual 24-Hour	15 ug/m^3 65 ug/m^3	12 ug/m^3 --
Lead	30-Day Avg. Month Avg.	-- 1.5 ug/m^3	1.5 ug/m^3 --

ppm = parts per pillion
ug/m^3 = Micrograms per Cubic Meter

some cases. In general, the California state standards are more stringent. This is particularly true for ozone and PM_{10}.

The U.S. Environmental Protection Agency established new national air quality standards for ground-level ozone and for fine particulate matter in 1997. Implementation of these standards was delayed by litigation, but they were determined to be valid and enforceable by the U. S. Supreme Court in a decision issued in February of 2001. Complete implementation will not occur until the U. S. Environmental Protection Agency has issued court-approved guidance.

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. Toxic Air Contaminants (TACs) are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation and monitoring of TACs is relatively recent compared to that for criteria pollutants.

Health Effects of Pollutants

The primary air quality problems in the San Joaquin Valley Air Basin are ozone and particulate matter. Carbon monoxide has been a problem in the past within the San Joaquin Valley Air Basin in larger cities such as Fresno, Bakersfield, Modesto and Stockton. The following is a discussion of the health effects of these important pollutants.

Ozone

Ozone is produced by chemical reactions, involving nitrogen oxides (NOx) and reactive organic gases (ROG) that are triggered by sunlight. Nitrogen oxides are created during combustion of fuels, while reactive organic gases are emitted during combustion and evaporation of organic solvents. Since ozone is not directly emitted to the atmosphere, but is formed as a result of photochemical reactions, it is considered a secondary pollutant. In the San Joaquin Valley Air Basin ozone is a seasonal problem, occurring roughly from April through October.

Ozone is a strong irritant that attacks the respiratory system, leading to the damage of lung tissue. Asthma, bronchitis and other respiratory ailments as well as cardiovascular diseases are aggravated by exposure to ozone. A healthy person exposed to high concentrations may become nauseated or dizzy, may develop headache or cough, or may experience a burning sensation in the chest.

Research has shown that exposure to ozone damages the alveoli (the individual air sacs in the lung where the exchange of oxygen and carbon dioxide between the air and blood takes place). Research has shown that ozone also damages vegetation.

Suspended Particulate

Suspended particulate matter consists of solid and liquid particles small enough to remain suspended in the atmosphere indefinitely. The major components of suspended particulate are dust particles, nitrates, and sulfates. A portion of suspended particulate is directly emitted to the atmosphere as a by-product of combustion, wind erosion of soil and unpaved road travel. Small particles are also created in the atmosphere through chemical reactions.

Particles greater than 10 microns in diameter can cause irritation in the nose, throat, and bronchial tubes. Natural mechanisms remove much of these particles, but smaller particles are able to pass through the body's natural defenses and the mucous membranes of the upper respiratory tract and enter into the lungs. The particles can damage the alveoli, tiny air sacs responsible for gas exchange in the lungs. The particles may also carry carcinogens and other toxic compounds, which adhere to the particle surfaces and can enter the lungs.

Carbon Monoxide

Carbon monoxide is a local pollutant in that high concentrations occur only very near the source. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volumes.

Carbon monoxide's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, carbon monoxide reduces the amount of oxygen in the blood, causing heart difficulties in people with chronic diseases, reduced lung capacity and impaired mental abilities.

Carbon monoxide concentrations are highly seasonal, with the highest concentrations occurring in the winter. This is partly due to the fact that automobiles create more carbon monoxide in colder weather and partly due to the very stable atmospheric conditions that exist on cold winter evenings when winds are calm. Concentrations typically are highest during stagnant air periods within the period November through January.

Regional Air Quality Planning

Federal and state air quality laws require identification of areas not meeting the ambient air quality standards. These areas must develop regional air quality plans to eventually attain the standards. Under both the federal and state Clean Air Acts, the San Joaquin Valley Air Basin is a non-attainment area (standards have not been attained) for ozone and PM_{10}. The air basin is either attainment or unclassified for other ambient standards.

The federal ozone non-attainment designation of the air basin was officially changed from “serious” to “severe” on December 10, 2001. Under this designation, the San Joaquin Valley air basin is required to meet the federal ozone standards by November 15, 2005. Failure to meet the attainment deadline could result in increased offset requirements for new industrial sources and potential sanctions, including withholding of federal grants for capacity-expanding transportation projects, new transportation plans and can ultimately stop all federally funded transportation projects in the District (except safety projects). The District is currently considering requesting reclassification to “extreme” non-attainment, which would delay the attainment date to 2010, but would result in even stricter controls for stationary sources of pollutants. (SJUAPCD, 2001)

The air basin is designated as a “serious” non-attainment area for federal PM_{10} ambient air quality standards. Under this designation, the air district is required to meet the 24-hour and annual PM_{10} standards by December 31, 2006. Failure to meet the attainment deadline could result in increased offset requirements for new industrial sources and potential sanctions including withholding of federal grants for capacity-expanding transportation projects, new transportation planning requirements and can ultimately stop all federally funded transportation projects in the District (except safety projects).

To meet California Clean Air Act requirements, the District has also adopted and updated an Air Quality Attainment Plan addressing the California ozone standard. The California Legislature, when it passed the California Clean Air Act in 1988, recognized the relative intractability of the PM_{10} problem with respect to the state ambient standard and excluded it from the basic planning requirements of the Act. The Act did require the CARB to prepare a report to the Legislature regarding the prospect of achieving the State ambient air quality standard for PM_{10}. This report recommended a menu of actions, but did not recommend imposing a planning process similar to that for ozone or other pollutants for achievement of the standard within a certain period of time.

Current Air Quality

The California Air Resources Board and San Joaquin Valley Air Pollution Control District operation air monitoring sites in the San Joaquin Valley Air Basin. The closest monitoring sites are in Fresno, east of the project site and in Madera, north of the project site. A three-year summary of air quality data from these monitoring sites is shown in Table 2. Table 2 shows that the federal/state standards for ozone, PM_{10} and $PM_{2.5}$ are frequently exceeded in central San Joaquin Valley.

Sensitive Receptors

The SJUAPCD defines a sensitive receptor as a location where human populations, especially children, seniors, and sick persons are present and where there is a reasonable expectation of continuous human exposure to pollutants. Examples of sensitive receptors include residences, hospitals and schools. The closest sensitive receptors to the site are residences that abut the site on the west.

Table 2
Ambient Air Quality

Pollutant/Standard	Year	Days Exceeding Standard at: Fresno	Madera
Ozone/State 1-Hour	2000	48	8
	2001	51	15
	2002	45	21
Ozone/Fed. 1-Hour	2000	5	0
	2001	5	0
	2002	11	2
Ozone/Fed. 8-Hour	2000	41	9
	2001	40	13
	2002	41	18
Carbon Monoxide/State-Fed. 8-Hour	2000	0	-
	2001	0	-
	2002	0	-
Nitrogen Dioxide/State 1- Hour	2000	0	0
	2001	0	0
	2002	0	0
PM_{10}/State-Hour	2000	11	-
	2001	15	-
	2002	15	-
PM_{10}/Federal 24-Hour	2000	0	-
	2001	1	-
	2002	0	-
$PM_{2.5}$/Federal 24-Hour	2000	18	-
	2001	10	-
	2002	13	-

Source: Air Resources Board Aerometric Data Analysis and Management System (ADAM), 2003

IMPACTS

Significance Criteria

The San Joaquin Valley Air Pollution Control District (SJVAPCD) has established the following standards of significance (SJVAPCD, 1998):

- A project results in estimated carbon monoxide concentrations exceeding the California Ambient Air Quality Standard of 9 parts per million averaged over 8 hours and 20 ppm for 1-hour.

- A project results in new direct or indirect emissions of ozone precursors (ROG or NO_x) in excess of 10 tons per year.

- Any project with the potential to frequently expose members of the public to objectionable odors will be deemed to have a significant impact.

- Any project with the potential to expose sensitive receptors (including residential areas) or the general public to substantial levels of toxic air contaminants would be deemed to have a potentially significant impact.

While San Joaquin Valley Unified Air Pollution Control District CEQA guidance recognizes that PM_{10} is a major air quality issue in the basin, it has to date not established numerical thresholds for significance for PM_{10}. However, for the purposes of this analysis, a PM_{10} emission of 15 tons per year (82 pounds per day) was used as a significance threshold. This emission is the SJVUAPCD threshold level at which new stationary sources requiring permits for the District must provide emissions "offsets". This threshold of significance for PM_{10} is consistent with the District's ROG and NO_x thresholds of ten tons per year, which are also the offset thresholds established in SJVUAPCD Rule 2201 New and Modified Stationary Source Review Rule.

The SJVAPCD significance threshold for construction dust impacts is based on the appropriateness of construction dust controls. The SJVAPCD guidelines provide feasible control measures for construction emission of PM_{10} beyond that required by district regulations. If the appropriate construction controls are to be implemented, then air pollutant emissions for construction activities would be considered less than significant.

Construction Impacts

Construction within the project site area would result in numerous activities that would generate dust. The fine, silty soils in the project area and often strong afternoon winds exacerbate the potential for dust, particularly in the summer months. Grading, earthmoving and excavation are the activities that generate the most PM_{10} emissions. Impacts would be localized and variable. Construction impacts would last for a period of months for any given parcel. Construction dust impacts are considered to be potentially significant on a localized basis, and could result in nuisance complaints.

Construction equipment and vehicles would also generate exhaust emissions during active construction. Although operated temporarily at construction sites, construction equipment is a substantial source category within the San Joaquin Valley Air Basin, generating ozone precursors as well as PM_{10}. Since construction equipment is normally considered part of the existing inventory of sources quantification of this emission is not recommended by the SJVUAPCD except for very large projects.

The San Joaquin Valley Air Pollution Control District regulates construction emissions through its Regulation VIII. The provisions of Regulation VIII pertaining to construction activities require:

- Effective dust suppression for land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill and demolition activities.

- Effective stabilization of all disturbed areas of a construction site, including storage piles, not used for seven or more days.

- Control of fugitive dust from on-site unpaved roads and off-site unpaved access roads.

- Removal of accumulations of mud or dirt at the end of the work day or once every 24 hours from public paved roads, shoulders and access ways adjacent to the site.

Regulation VIII requires that a dust control plan be prepared, and violations of the requirements of Regulation VIII are subject to enforcement action. Violations are indicated by the generation of visible dust clouds and/or generation of complaints.

Permanent Local Impacts

On the local scale the pollutant of greatest interest is carbon monoxide. Concentrations of this pollutant are related to the levels of traffic and congestion along streets and at intersections.

The SJVAPCD's *Guide for Assessing and Mitigation Air Quality Impacts* provides screening criteria to identify situations where modeling is warranted. If neither of the following criteria is met at intersections affected by the project, the project is concluded to have no potential to create a violation of the carbon monoxide standards:

- The Level of Service (LOS) on one or more streets or at one or more signalized intersections in the project vicinity will be reduced to LOS E or F, or

- The project will substantially worsen an already existing LOS F on one or more streets or at one or more signalized intersections in the project vicinity.

The transportation impact analysis conducted for the proposed project found one intersection forecast to operate at LOS E or F with the project, however, this was based on an un-signalized, stop-sign controlled intersection. Signalization of the intersection was identified as a mitigation measure for project traffic impacts. Based on the SJVAPCD criteria and the forecasted mitigated Level of Service, the project would have no potential to create a violation of the carbon monoxide standards. Any carbon monoxide concentration increases resulting from the proposed project would be less than significant.

Permanent Regional Impacts

Project traffic emissions would have an effect on air quality outside the project vicinity. Trips to and from the project would result in air pollutant emissions within the air basin. The residential portions of the project would also contain area sources such as natural gas combustion for heating, wood burning and consumer products. To evaluate

emissions associated with the project, the URBEMIS-2002 computer program was employed. The URBEMIS-2002 output is included in an Appendix.

The annual increase in regional emissions from auto travel and area sources are shown in Table 3 for reactive organic gases (hydrocarbons) and oxides of nitrogen (the two precursors of ozone) and PM_{10}. The San Joaquin Valley Unified Air Pollution Control District has established a threshold of significance for ozone precursors of 10 tons per year, and 15 tons per year has been assumed to represent a significant impact for PM_{10}. Project build-out emissions are well above the thresholds of significance for ozone precursors and PM_{10}, so project impacts on regional air quality would be significant.

Cumulative Air Quality Impacts

SJVUAPCD guidance provides that a project that would individually have a significant air quality impact is also considered to have a significant cumulative air quality impact. Regional emissions from the proposed project would exceed the significance thresholds for ozone precursors by a substantial amount, so the project is considered to have a significant cumulative impact on regional air quality.

MITIGATION MEASURES

Construction Impacts

The following measures are appropriate dust control strategies to be implemented that go beyond the requirements of SJVAPCD Regulation VIII:

- Limit traffic speeds on unpaved roads to 15 mph.
- Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.
- Suspend excavation and grading activities when winds exceed 20 mph.
- Limit size of area subject to excavation, grading or other construction activity at any one time to avoid excessive dust.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- Expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring.

The following are appropriate mitigation measures that would reduce exhaust emissions during construction:

- Prior to issuance of construction contracts and after consultation with the SJVAPCD a review of new technology for heavy-duty equipment should be performed to determine what, if any, advances in emission reduction are available for use to reduce NOx and PM_{10} emissions from equipment.
- Equipment not in use for more than ten minutes should be turned off.

Table 3
Project Regional Emissions in Tons Per Year

	Reactive Organic Gases	Nitrogen Oxides	PM_{10}
Vehicles	10.65	9.13	14.56
Area Sources	8.65	1.73	8.37
Total	19.30	10.87	22.93
SJVUAPCD Significance Threshold	10.00	10.00	15.00

- Limit the hours of operation of heavy duty equipment and/or the amount of equipment in use.
- Whenever feasible and cost effective, use electrically driven equipment (provided they are not run via a portable generator set).

Prior to each the start of construction at any parcel within the project, a dust control plan demonstrating compliance with current SJVAPCD Regulation VIII requirements and implementation of the above measures will be submitted for approval to the SJVAPCD. With implementation of Regulation VIII controls and the above additional measures construction impacts would be reduced to a less-than-significant level.

Regional and Cumulative Impacts

Measures to be implemented within all portions of the project:

- Provide physical improvements, such as sidewalk improvements, landscaping and the installation of bus shelters and bicycle parking that would act as incentives for pedestrian, bicycle and transit modes of travel.
- Coordinate with local transit operators to extend or expand service to the project.
- Provide transit use incentives, provide transit alternatives information such as printed schedules and establish transit information kiosks at appropriate locations.
- Use energy efficient design including automated control system for heating/air conditioning and energy efficiency, utilize lighting controls and energy-efficient lighting in buildings and use light colored roof materials to reflect heat.
- Plant deciduous trees on the south and westerly facing sides of buildings.
- Provide low nitrogen oxide (NO_x) emitting and/or high efficiency water heaters.
- Utilize low-emission, alternatively-fueled or electrical-driven maintenance vehicles and equipment.

Measures to be implemented within commercial and office development within the site:

- Implement carpool/vanpool program, e.g., carpool ride-matching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.
- Provide showers and lockers for employees bicycling or walking to work.

Measures to be implemented within the single-family housing portion of the site:

- Allow only natural gas/LPG fireplaces, pellet stoves or EPA-Certified wood-burning fireplaces or stoves within the project. Conventional open-hearth fireplaces should not be permitted. EPA-Certified fireplaces and fireplace inserts are 75 percent effective in reducing emissions from this source, while natural-gas/LPG fireplaces are nearly 100% effective in reducing emissions and have virtually no potential for odor or nuisance.

While the above measures would reduce project impacts, the project would have a significant impact after implementation of mitigation.

References

Bay Area Air Quality Management District. 1996. *BAAQMD CEQA Guidelines.*

California Air Resources Board (CARB). 1974. *Climate of the San Joaquin Valley Air Basin*.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2002. *Guidance for Assessing and Mitigating Air Quality Impacts*.

San Joaquin Valley Air Pollution Control District. December 20, 2001. *Staff Report: Ramifications of Pursuing Severe or Extreme Attainment Demonstration Track.*

APPENDIX: URBEMIS-2002

Estimates of regional emissions generated by project traffic and on-site area sources were made using a program called URBEMIS-2002.[1] URBEMIS-2002 is a program that estimates the emissions that result from various land use development projects. Land use project can include residential uses such as single-family dwelling units, apartments and condominiums, and nonresidential uses such as shopping centers, office buildings, and industrial parks. URBEMIS-2002 contains default values for much of the information needed to calculate emissions. However, project-specific, user-supplied information can also be used when it is available.

Inputs to the URBEMIS-2002 program include trip generation rates, vehicle mix, average trip length by trip type and average speed. Average trip lengths, average speeds and vehicle mixes for the San Joaquin Valley Air Basin were used. The URBEMIS-2002 program can predict project emissions on a daily or annual basis.

Analysis year was 2015. The URBEMIS-2002 output is attached.

[1] Yolo-Solano Air Qualty Management District, *Software User's Guide: URBEMIS-2002 For Windows with Enhanced Construction Module*, Version 7.4, May 2003.

TECHNICAL APPENDICES

Appendix D – Biological Resources

May & Associates. *Biological Resources Assessment for the Proposed Valdez Community Plan Project Site, Mendota, California* August 2003.

Biological Resources Assessment
for the
Proposed Don Alejandro Valdez Community Plan Project Site, Mendota, California

Prepared for:
Pacific Municipal Consultants
225-K Cannery Row
Monterey, CA 93940
Contact: Darcy Wheeles (831) 644-9174

Prepared by:
May & Associates, Inc.
414 Jackson Street, Suite 402
San Francisco, CA 94111
Contact: Erin Serra (415) 391-1000

August 2003

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1.0 INTRODUCTION

May & Associates, Inc. was retained by Pacific Municipal Consultants (PMC) to conduct a biological resources assessment for the Proposed Don Alejandro Valdez Community Plan Project Site, Fresno County, California (hereafter referred to as the "project site").

1.1 Project Location and Description

The approximately 91-acre project site is located at the northeast edge of the city of Mendota, Fresno County, California (Figures 1 and 2). The project site is in the Township 13S, Range 15E, Sections 30 and 31 of the Firebaugh and Mendota Dam 7.5 minute U.S. Geological Survey (USGS) Quadrangle Maps. The project site is bisected by Bass Avenue.

1.2 Biological Setting

Regional Setting. Fresno County (County) is located in the San Joaquin Valley of Central California. The County is bounded by the crest of the Sierra Nevada Range on the east, the San Joaquin River on the north, and the Diablo Range on the west (Figure 1). The County consists of approximately 3.84 million acres and is largely agricultural.

The County is characterized by the dry hills of the Diablo Range in the far west, the flat and largely agricultural San Joaquin Valley in the center, and the foothills and forested mountains of the Sierra Nevada Range in the east. Vegetative communities on the San Joaquin Valley floor consist primarily of agricultural crops; however, areas of grassland, chenopod scrub, riparian woodlands, and marsh still remain.

Local Setting. The project site is located within the predominantly agricultural San Joaquin Valley floristic sub-region of the California Floristic Province (Hickman 1993). The project site is bounded on the south, west, and east sides by development, and on the north side by an water canal and agricultural fields (across the canal) (Exhibit A). The project site is flat and currently supports disturbed annual grassland and developed areas. The site bears evidence of having been used for agricultural production in the past.

1.3 Definitions

Several terms relating to biological resources used in this report are described briefly below.

> ***{PRIVATE }Natural Community.*** **{tc \l 4 " · 2.3.1 Natural Community"}**A natural community is an assemblage of populations of plants, animals, bacteria, and fungi that live in an environment and interact with one another, forming a distinctive living system with its own composition, structure, environmental relationships, development, and functions (Whittaker 1975).

{PRIVATE }Sensitive Natural Community{tc \l5 " · 2.3.2 Sensitive Natural Community"}. ***{***tc \l 5 " · ***"}***A sensitive natural community is a type of natural community that has particularly high ecological value or functions. Sensitive natural communities are considered important because their degradation or destruction could threaten populations of dependent plant and wildlife species and significantly reduce the regional distribution and viability of the community. As the number and extent of sensitive natural communities continues to diminish, the endangerment status of dependent special-status species (i.e., rare, threatened, or endangered) could become more precarious, and populations of currently stable species (i.e., non-special status species) could become rare. Loss of sensitive natural communities can also eliminate or reduce important ecosystem functions, such as water filtration by wetlands and bank stabilization by riparian forests or wetlands.

{PRIVATE }{tc \l5 "'}

{PRIVATE }Special-Status Species. **{tc \l 5 "2.3.3 Special-Status Species"}**Special-status species are defined as plants and animals that are:

1. legally protected under the California and Federal Endangered Species Acts or under other regulations;
2. considered sufficiently rare by the scientific community to qualify for such listing; or
3. are considered to be sensitive because they are unique, declining regionally or locally, or are at the extent of their natural range.

For the purpose of this report, special-status species are defined to include the following:

Special-Status Plant Species

- Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (ESA) (50 CFR 17.12 for listed plants and various notices in the Federal Register for proposed species).
- Plants that are candidates for possible future listing as threatened or endangered under the Federal (ESA) (50 CFR Part 17, June 13, 2002; 40657-40679).
- Plants that meet the definitions of rare or endangered species under the California Environmental Quality Act (CEQA) (*CEQA Guidelines*, Section 15380).
- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered" in California (Lists 1B and 2 in CNPS 2001).
- Plants listed by CNPS as plants about which we need more information and plants of limited distribution (Lists 3 and 4 in CNPS 2001).
- Plants listed or proposed for listing by the State of California as threatened or endangered under the California ESA (14 CCR 670.5).
- Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq.).
- Plants considered sensitive or unique by the scientific community or occurring at the limits of its natural range (*CEQA Guidelines*, Appendix G).

Special-Status Animal Species

- Animals listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (50 CFR 17.11 for listed animals and various notices in the Federal Register for proposed species, DFG 2003).
- Animals that are candidates for possible future listing as threatened or endangered under the Federal Endangered Species Act (54 CFR 554, DFG 2003).
- Animals that meet the definitions of rare or endangered species under the CEQA (*CEQA Guidelines*, Section 15380).
- Animals listed or proposed for listing by the State of California as threatened and endangered under the California ESA (14 CCR 670.5, DFG 2003).
- Animal species of special concern to the California Department of Fish and Game (DFG 2003).
- Animal species that are fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

Waters of the United States, Including Wetlands. "Waters of the United States" is an encompassing term for areas that qualify for federal regulation under Section 404 of the Clean Water Act. Waters of the United States include "wetlands" and "other waters of the United States". For regulatory purposes, wetlands are defined as:

> "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (CFR 328.3, CFR 230.3).

Other waters of the United States refer to unvegetated waterways and water bodies with a defined bed and bank, such as drainages, creeks, rivers, and lakes.

2.0 METHODS

2.1 Data Compilation

May & Associates, Inc. biologists reviewed existing information to identify sensitive biological resources (i.e., special-status plant and wildlife species and sensitive plant communities) known to occur, or with potential to occur at or adjacent to the project site.

Several data sources were reviewed, including:

- a records search of the California Department of Fish and Game's (DFG's) Natural Diversity Database (NDDB) Coit Ranch, Firebaugh, Mendota Dam, and Tranquillity 7.5-minute USGS Quadrangles (NDDB 2002);

- sensitive species occurrence information from the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California, for Frresno County (CNPS 2001); and

- May & Associates, Inc. unpublished file information.

Based on the review of existing information, an initial list of special-status plant and wildlife species known from the region was developed (Tables 1 and 2). These lists were used to focus the site investigations on the biological resources with potential to be present in the area.

2.2 Field Survey Dates and Personnel

The project site was surveyed on July 1, 2003 by May & Associates, Inc., biologist Erin Serra.

The survey focused on:

- Classifying, describing, and mapping natural communities; and

- Identifying special-status plant and wildlife species and suitable habitat to support special-status plant and wildlife species at or adjacent to the project site that could be affected by project implementation.

2.3 Field Survey Methods

Plant Surveys. Plant surveys followed guidelines established by the Department of Fish and Game (Nelson 1987). Due to survey timing, a reconnaissance-level assessment was conducted to identify late blooming and perennial plants, and to determine potential of the site to support special-status plants known from the region. A systematic search of the entire site was conducted using meandering transects to sample all terrestrial and aquatic habitats present. All plant species encountered during the survey were identified to the level necessary to determine if they met the definition of special-status species. All plants not

identifiable to the species level were collected and keyed by May & Associates, Inc. botanist Matt Gause. Plants were identified using identification keys in The Jepson Manual (Hickman et al. 1993). Major vegetation types were classified based on the *Preliminary Descriptions of the Terrestrial Vegetation of California* (Holland 1986) and the Manual of California Vegetation (Sawyer and Keeler-Wolf 1995).

Wildlife Surveys. Wildlife surveys followed methods recommended by the California Department of Fish and Game (DFG) and U.S. Fish and Wildlife Service. A systematic search of the project site was conducted using meandering transects to sample all habitats present and to detect as many wildlife species as possible. Visual surveys were made for flying and soaring birds. Special attention was also given to waterways and other wetland habitats, and to nesting habitats for such species as bank swallow and raptor species. All wildlife species that were detected were noted. Signs of wildlife presence such as tracks, scat, burrows, feather piles, and dead animals were also noted.

3.0 RESULTS

Two common habitats and two sensitive natural communities were observed at the project site. No special-status wildlife species were observed at the project site. Common and sensitive natural communities and special-status plant and wildlife species with potential to occur at the project site are described in more detail below.

3.1 Common Habitats

The two common habitats at the project site are Ruderal/Developed and Disturbed Annual Grassland. A list of plant species observed at the project site is shown in Table 3.

3.1.1 Ruderal/Developed. Ruderal/Developed refers to those areas that have been subject to some form of development (e.g., buildings, roads, grading, construction debris) or those areas that have been subject to a considerable amount of human disturbance (either in the recent past or ongoing). Many of these areas are largely unvegetated. Those areas that are vegetated show evidence of significant soil disturbance such as past grading. Ruderal/Developed areas occur along Bass Avenue, and in the southern portion of the project site (Exhibit A).

Vegetated areas within the Ruderal/Developed habitat are dominated by introduced annual grasses and forbs. Dominant plant species include Russian thistle (*Salsola* sp.), wild radish (*Raphanus* sp.), cheeseweed (*Malva neglecta*), saltbush (*Atriplex* sp.), Mediterranean barley (*Hordeum murinum* ssp. *leporinum*), and spotted knapweed (*Centaurea maculosa*). Other plant species observed include bindweed (*Convolvulus arvensis*), caltrop vine (*Tribulus terrestris*), cocklebur (*Xanthium strumarium*), pigroot (*Amaranthus* sp.), and cressa (*Cressa truxilliensis).*

The southern portion of the project site is a fenced boneyard (e.g., old buses, scrap metal, truck trailers, boxes) and has several buildings and planted trees (Appendix A, Site Photograph 1). Annual grasses are intermixed with this Ruderal/Developed area, therefore this area also supports grass species listed below under Disturbed Annual Grassland.

There is very little vegetation along Bass Avenue, as the roadside soil is fill that is mostly covered with gravel (Appendix A, Site Photograph 2).

Rows of oleander (N*eriun oleander*) are planted at the project site south of Bass Avenue, most notably parallel to Bass Avenue, and along the western edge of the project site (Exhibit A).

Ruderal/Developed areas support common mammals and birds that are typically adapted to of human disturbance and activity. Wildlife species observed during the field survey included: Brewer's blackbird (*Euphagus cyanocephalus*), northern mockingbird (*Mimus polyglottos*), killdeer (*Charadrius vociferus*), American crow (*Corvus brachyrhynchos*), and rock dove (*Columba livia*).

3.1.2 Disturbed Annual Grassland. Disturbed Annual Grassland refers to those areas supporting annual grasses that have been subject to disturbance by humans (i.e., trespass, dumping of trash) and/or have been periodically disked for weed abatement of agricultural production. These areas usually have a high vegetative cover of annual grass species and Russian thistle in disturbed areas. There are also small areas with very little vegetative cover. The Disturbed Annual Grassland at the project site is associated with alkaline soil. Disturbed Annual Grassland occurs in the majority of the project site (Exhibit A).

Dominant plant species in the Disturbed Annual Grassland areas are Russian thistle (*Salsola* sp.), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), six-weeks fescue (*Vulpia octoflora*), wild oats (*Avena fatua*), wild mustard (*Hirschfeldia incana*), spotted knapweed (*Centaurea maculosa*), and mustards (*Brassica* sp.). Other plant species observed included fiddleneck (*Amsinckia* sp.), saltbush (*Atriplex* sp.), common sunflower (*Helianthus annus*), white sweetclover (*Melilotus alba*), and alkali heliotrope (*Heliotropium curassavicum*).

The majority of the project site north of Bass Avenue is dominated by the plant species mentioned above. The project site south of Bass Avenue is dominated mostly by annual grass species (i.e., ripgut brome and red brome) (Appendix A, Site Photograph 3).

The west side of the project site just north of Bass Avenue is covered with mounds of fill material comprised of dirt, gravel, small rocks, and pieces of brick and clay pipe (Appendix A, Site Photograph 4). This area supports limited vegetation (mostly Russian thistle and wild oats) in the depressions between the mounds of fill material.

The Disturbed Annual Grassland areas support common mammals and birds. Wildlife species observed during the field survey included: Brewer's blackbird (*Euphagus cyanocephalus*), red-tailed hawk (*Buteo jamaicensis*), northern mockingbird, barn swallow (*Hirundo rustica*), western meadowlark (*Sturnella neglecta*), western kingbird (*Tyrannus verticalis*), black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), and California ground squirrel (*Spermophilus beecheyi*).

3.2 Sensitive Natural Communities

Two sensitive natural communities were observed at the project site, emergent marsh and seasonal wetland, are described below.

3.2.1 Emergent Marsh. A ditch (average width 3.5 feet) runs through the project site parallel to the southern side of Bass Avenue (Exhibit A). The western portion of the ditch supports emergent marsh dominated by cattail (*Typha latifolia*) (Appendix A, Site Photograph 5), and the eastern portion of the ditch was dominated by saltgrass (*Distichlys spicata*) (Appendix A, Site Photograph 6). Other species observed growing in or adjacent to the ditch included rabbits-foot grass (*Polypogon australis*), curly dock (*Rumex crispus*), and alkali bulrush (*Scirpus robustus*). The emergent marsh is potentially considered a Waters of the United States by the U.S. Army Corps of Engineers (Corps).

Red swamp crayfish (*Procambarus clarkii*) and mosquitofish (*Gambuzia affinis*) were observed in the ditch during the field visit. The ditch likely provides a water source for drinking and bathing by common birds and mammals, and breeding and foraging habitat for aquatic insects and other invertebrates.

3.2.2 Seasonal Wetland. At the northern end of the project site is an area with dry, cracked soil and sparse vegetation (Exhibit A and Appendix A, Site Photograph 8). This area is highly alkaline and the only plant species observed growing in this area was bush seepweed (*Suaeda moquinii*). A few individuals of quailbush (*Atriplex lentiformis*) were growing adjacent to this area. The Corps may consider this seasonal wetland area jurisdictional Waters of the United States.

3.3 Special-Status Species

3.3.1 Special-Status Plants. Of the eight species initially identified to be targeted during field surveys (Table 1), seven were considered to have some form of suitable habitat at the project site: heartscale (*Atriplex cordulata*), brittlescale (*Atriplex depressa*), San Joaquin spearscale (*Atriplex joaquiniana*), lesser saltscale (*Atriplex miniscula*), Lost Hills crownscale (*Atriplex vallicola*), San Joaquin woollythreads (*Monolopia congdonii*), and Sanford's sagittaria (*Sagittaria sanfordii*) (Table 1).

The timing of the July 1, 2003 field survey was such that the *Atriplex* plants collected were not mature enough be identified to the species level. As such, special-status *Atriplex* may be present at the project site.

3.3.2 Special-Status Wildlife. Of the fifteen species initially identified to be targeted during field surveys (Table 2), ten were considered to have some form of suitable habitat (i.e., either foraging, breeding, or both) at or adjacent to the project site: western pond turtle (*Clemmys marmorata*), blunt-nosed leopard lizard (*Gambelia silus*), silvery legless lizard (*Anniella pulchra pulchra*), giant garter snake (*Thamnophis gigas*), Swainson's hawk (*Buteo swainsoni*), western burrowing owl (*Athene cunicularia hypugea*), San Joaquin antelope squirrel (*Ammospermophilus nelsoni*), Fresno kangaroo rat (*Dipodomys nitratoides exilis*), San Joaquin pocket mouse (*Perognathus inornatus inornatus*), and San Joaquin kit fox (*Vulpes macrotis mutica*). These species are discussed further below.

> **Western pond turtle.** The western pond turtle is a federal Species of Concern and a California state Species of Special Concern (DFG 2003).
>
> Western pond turtle can commonly be found in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest (below about 1,830 m or 6,000 feet). It is associated with permanent or nearly permanent water in a wide variety of habitat types. Pond turtles require basking sites such as partially submerged logs, rocks, mats of floating vegetation, or open mud banks.
>
> Although no pond turtles were observed during the July 1, 2003 field survey, the irrigation canal adjacent to the north end of the project area provides suitable habitat

for the western pond turtle. The nearest NDDB occurrence of this species is approximately 1.0 mile northeast of the project site (NDDB 2002).

Blunt-nosed leopard lizard. The blunt-nosed leopard lizard is federally and California state listed as endangered, and is fully protected by DFG (DFG 2003).

Blunt-nosed leopard lizards are scarce residents of sparsely vegetated alkali and desert scrub habitats in areas of low topographic relief. In areas of high relief, distribution is usually confined to broad sandy washes. Distribution of the species has been extensively reduced by conversion of habitat to cropland. Currently occurs at scattered sites in the San Joaquin Valley and adjacent foothills. Shade for leopard lizards is provided by mammal burrows, shrubs or structures such as fence posts. Apparently leopard lizards do not excavate their own burrows. (DFG 2000)

The Disturbed Annual Grassland at the project site provides low quality habitat for this species. The Disturbed Annual Grassland at the project site supports a low proportion of plant species (e.g., saltbush) indicative of chenopod (alkali) scrub. However, the quality of the habitat at the project site is diminished by high levels of disturbance both present (e.g., trespass, dumping, domestic animal use) and past (e.g. discing), surrounding residential development and agriculture, and its fragmented nature (i.e., Bass Avenue cuts the project site in half), and high perimeter to area ratio.

The blunt-nosed leopard lizard has low potential to occur in the Disturbed Annual Grassland at the project site. No blunt-nosed leopard lizards were observed during the July 1, 2003 field survey. The nearest NDDB occurrence of this species is approximately 1.5 miles southeast of the project site (NDDB 2002).

Silvery legless lizard. The silvery legless lizard is a federal Species of Concern and a California state Species of Special Concern (DFG 2003).

The silvery legless lizard is a fossorial lizard common in coastal central and southern California, and less common in the San Joaquin Valley. They are common in several habitats but especially in coastal dune, valley-foothill grassland, chaparral, and coastal scrub types. They are primarily found in areas with sandy or loose organic soils or where there is plenty of leaf litter. (DFG 2000)

The Disturbed Annual Grassland at the project site provides low quality habitat for this species. The Disturbed Annual Grassland at the project site supports a low proportion of plant species (e.g., saltbush) indicative of chenopod (alkali) scrub. However, the quality of the habitat at the project site is diminished by high levels of disturbance both present (e.g., trespass, dumping, domestic animal use) and past (e.g. discing), surrounding residential development and agriculture, and its fragmented nature (i.e., Bass Avenue cuts the project site in half), and high perimeter to area ratio.

The silvery legless lizard has low potential to occur in the Disturbed Annual Grassland at the project site. No silvery legless lizards were observed during the July 1, 2003 field survey. The nearest NDDB occurrence of this species is approximately 5.2 miles east of the project site (NDDB 2002).

Giant garter snake. The giant garter snake is federally and California state listed as threatened (DFG 2003).

The giant garter snake occurs in the Central Valley from Fresno County north to the Gridley/Sutter Buttes area; it has been extirpated from areas south of Fresno County. This species inhabits sloughs, canals, and other small waterways where there is a prey base of small fish and amphibians. It requires grassy banks and emergent vegetation for basking, and areas of high ground protected from flooding during the winter months.

There is no suitable habitat for this species at the project site; however, the irrigation canal adjacent to the north end of the project site provides suitable habitat for the species. No giant garter snakes were observed during the July 1, 2003 field survey. The nearest NDDB occurrence of this species is approximately 1.1 miles south of the project site (NDDB 2002).

Swainson's hawk. The Swainson's hawk (nesting) is a U.S. Fish and Wildlife Service (USFWS) Migratory Non-Game Bird of Management Concern and is California state listed as threatened (DFG 2003).

Swainson's hawks occur in the San Joaquin and lower Sacramento Valleys, the Klamath Basin, and Butte Valley. They nest most often in oaks or cottonwoods in or near riparian habitats, and forage in grasslands, irrigated pastures, and grain fields. Swainson's hawks migrate south for the winter, some as far south as Central and South America, and return in the spring to breed.

There are no suitable nest trees for Swainson's hawk at the project site; however, suitable nesting habitat is present within 0.5-mile of the project site, and the nearest NDDB nesting occurrence of this species is approximately 1.3 miles northeast of the project site (NDDB 2002). Low-quality suitable foraging habitat (i.e., Disturbed Annual Grassland) exists at the project site, and Swainson's hawks potentially forage at the project site.

Western burrowing owl. The western burrowing owl is a federal Species of Concern, a USFWS Migratory Non-Game Bird of Management Concern, and a California state Species of Special Concern (DFG 2003).

Western burrowing owls are year-round residents of open, dry grassland and desert habitats, and in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. Individuals in northern parts of the range may winter to the south, but most remain within California. They usually nests in old burrows of ground squirrels

or other small mammals, but may dig their own burrow in soft soil or use pipes, culverts, and nest boxes where burrows are scarce. (DFG 2000)

Suitable habitat (i.e., Disturbed Annual Grassland) for western burrowing owl exists at and adjacent to the project site. There is an active ground squirrel population at the project site that provides suitable burrows for western burrowing owl. Although no western burrowing owls or evidence of burrowing owls (e.g., pellets, feathers, whitewash surrounding burrows) was observed at the project site this species potentially breeds and/or winters at the project site. The nearest NDDB occurrence of this species is approximately 4.4 miles southeast of the project site (NDDB 2002).

San Joaquin antelope squirrel. The San Joaquin antelope squirrel is a federal Species of Concern and is California state listed as threatened (DFG 2003).

The San Joaquin antelope squirrel is a permanent resident of the western San Joaquin Valley from 60-360 m (200-1200 ft) elevation on dry sandy loam soils with sparse alkali scrub vegetation. It is found from southern Merced Co., south to Kern, Kings, and Tulare Counties, and also occurs in portions of eastern San Luis Obispo County. Suitable habitat has widely scattered shrubs, annual forbs and grasses, and is distributed over broken terrain with small gullies and washes. Loss of habitat to cultivation and the effects of rodenticides have contributed to the decline of this species. These squirrels dig burrows, or use kangaroo rat burrows. They also use cover provided by rocks and other topographic features. Nests are constructed in burrows associated with shrubs such as *Atriplex* spp. and *Ephedra* spp. (DFG 2000)

The Disturbed Annual Grassland at the project site provides marginally suitable habitat for this species. The Disturbed Annual Grassland at the project site supports a low proportion of plant species (e.g., saltbush) indicative of chenopod (alkali) scrub. However, the quality of the habitat at the project site is diminished by high levels of disturbance both present (e.g., trespass, dumping, domestic animal use) and past (e.g. discing), surrounding residential development and agriculture, and its fragmented nature (i.e., Bass Avenue cuts the project site in half) and high perimeter to area ratio.

The San Joaquin antelope squirrel has low potential to occur in the Disturbed Annual Grassland at the project site. No San Joaquin antelope squirrels were observed during the July 1, 2003 field survey. The nearest NDDB occurrence of this species is approximately 1.5 miles southeast of the project site (NDDB 2002).

Fresno kangaroo rat. The Fresno kangaroo rat is federally and California state listed as Endangered (DFG 2003).

The Fresno kangaroo rat is a permanent resident of grassland and chenopod scrub habitats. It is restricted to a few remaining alkali sink areas of marginal habitat in Merced, Madera, Fresno, Kings, and Tulare Counties. Rapid urbanization, and agricultural developments associated with the State Water Projects have extirpated

this species from much of its historical range. Fresno kangaroo rats excavate their burrows in sandy loam soils. (DFG 2000)

The Disturbed Annual Grassland at the project site provides marginally suitable habitat for this species. The Disturbed Annual Grassland at the project site supports a low proportion of plant species (e.g., saltbush) indicative of chenopod (alkali) scrub. However, the quality of the habitat at the project site is diminished by high levels of disturbance both present (e.g., trespass, dumping, domestic animal use) and past (e.g. discing), surrounding residential development and agriculture, and its fragmented nature (i.e., Bass Avenue cuts the project site in half) and high perimeter to area ratio.

The Fresno kangaroo rat has low potential to occur in the Disturbed Annual Grassland at the project site. No Fresno kangaroo rats were observed during the July 1, 2003 field survey. The nearest NDDB occurrence of this species is approximately 5.4 miles southeast of the project site (NDDB 2002).

San Joaquin pocket mouse. The San Joaquin pocket mouse is a federal Species of Concern (DFG 2003).

The San Joaquin pocket mouse occurs in dry, open grasslands or alkali scrub areas on fine-textured soils in the Central and San Joaquin Valleys. The species digs burrows for cover. Little information is available about this species. (DFG 2000)

The Disturbed Annual Grassland at the project site provides marginally suitable habitat for this species. The Disturbed Annual Grassland at the project site supports a low proportion of plant species (e.g., saltbush) indicative of chenopod (alkali) scrub. However, the quality of the habitat at the project site is diminished by high levels of disturbance both present (e.g., trespass, dumping, domestic animal use) and past (e.g. discing), surrounding residential development and agriculture, and its fragmented nature (i.e., Bass Avenue cuts the project site in half) and high perimeter to area ratio.

The San Joaquin pocket mouse has low potential to occur in the Disturbed Annual Grassland at the project site. No San Joaquin pocket mice were observed during the July 1, 2003 field survey. The nearest NDDB occurrence of this species is approximately 1.5 miles southeast of the project site (NDDB 2002).

San Joaquin kit fox. The San Joaquin kit fox is federally listed as endangered and California state listed as threatened (DFG 2003).

The San Joaquin kit fox is an uncommon to rare, permanent resident of arid regions of the southern half of the state (primarily the San Joaquin Valley and adjacent open foothills to the west). It lives in annual grasslands or grassy open stages of vegetation dominated by scattered brush, shrubs, and scrub. They dig dens in open, level areas with loose-textured, sandy and loamy soils. (DFG 2000)

The Disturbed Annual Grassland at the project site provides marginally suitable habitat for this species. The Disturbed Annual Grassland at the project site supports a low proportion of plant species (e.g., saltbush) indicative of chenopod (alkali) scrub. However, the quality of the habitat at the project site is diminished by high levels of disturbance both present (e.g., trespass, dumping, domestic animal use) and past (e.g. discing), surrounding residential development and agriculture, and its fragmented nature (i.e., Bass Avenue cuts the project site in half) and high perimeter to area ratio.

The San Joaquin kit fox has low potential to occur in the Disturbed Annual Grassland at the project site. No San Joaquin kit fox, evidence of kit fox, or suitable burrows were observed during the July 1, 2003 field survey. The nearest NDDB occurrence of this species is approximately 8.3 miles north of the project site (NDDB 2002).

4.0 POTENTIAL PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

4.1 Loss or Disturbance of Common Habitats

Impact 1. Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss or disturbance of common natural habitats at the project site, including Disturbed Annual Grassland and Ruderal/Developed. These common habitats are widespread and abundant in the local region and their loss or disturbance is considered less than significant, therefore no mitigation is required.

4.2 Loss or Disturbance of Sensitive Natural Communities

Impact 2. Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss or disturbance of sensitive natural communities at the project site (i.e., Emergent Marsh and Seasonal Wetland). Sensitive natural communities are protected under the California Environmental Quality Act (CEQA). The loss of Emergent Marsh and Seasonal Wetland at the project site as a result of project implementation is considered a significant impact.

Note: Mitigation Measures identified below also apply to impacts to Waters of the U.S., as identified under Impact 11.

Mitigation Measure 2a. Obtain Section 404 Clean Water Act Permit, and Section 401 Water Quality Certification. All permits will need to be obtained prior to any grading activities within or adjacent to wetlands. During project plan development and before issuance of grading permit or recordation of parcel of subdivision maps, a wetland delineation shall be performed and submitted to the Corps for verification. If the Corps determines that any of the wetlands at the project site are jurisdictional Waters of the United States, design of site-specific proposals shall mitigate impacts to Waters of the United States wherever possible using a combination of avoidance and compensation as described below. If wetland impacts are unavoidable, authorization shall be obtained through a wetland fill permit from the Corps under Section 404 of the Clean Water Act, for any fills, road crossings, utility crossings, or other direct impacts to Waters of the United States as specified by the Corp's permitting requirements. As part of this authorization, a mitigation plan shall be prepared and complied with for full compensation of Waters of the United States losses, thereby reducing project impacts to less than significant levels. Such a mitigation plan will include an on-site compensation or, if necessary, a combination of on-site and off-site compensation, and shall include provisions for re-evaluation in the event that mitigation success criteria are not met within specified time frames. The mitigation plan must also be submitted to the County Planning Department as a component of individual project applications. Compensation for Waters of the United States must meet, but not necessarily be limited to, the following success criteria:

- Compensation wetlands will remain inundated or saturated for sufficient duration to support hydrophytic vegetation.
- Compensation Waters of the United States, including wetlands will exhibit biotic communities comparable to impacted habitats.
- Project designs must provide a drainage system to prevent surface storm water or landscaping irrigation runoff from flowing into preserve zones, compensation wetlands, or other nearby wetlands areas, unless adequately filtered by new wetlands or grasslands.
- Compensation Waters of the United States will be monitored each year for five years, and a report of monitoring results will be submitted to the Corps and Fresno County Planning Department for review.

A request for water quality certification from the Regional Water Quality Control Board (RWQCB) will also be required pursuant to Section 401 of the Clean Water Act. For fill in wetlands and other Waters of the U.S. the project will most likely require an individual Section 404 permit if the project does not qualify under any other Nationwide Permit.

The Corps authorization for fill must be secured, and the appropriate mitigation plan must be approved by Fresno County and the Corps prior to issuance of construction permits or recordation of parcel or subdivision maps.

Mitigation Measure 2b. Prior to the construction of utilities or road crossings through riparian zones and stream channels, the project applicant shall obtain and comply with a 1603 Streambed Alteration Agreement with the DFG. The Streambed Alteration Agreement shall include, but not be limited to, definition of a limited time period for construction, provisions for notification and cleanup of any accidental spills, stream bank revegetation requirements, construction debris and materials removal, and inspection procedures. Provisions in the Streambed Alteration Agreement will reduce impacts to Waters of the United States to less than significant levels.

Implementation of Mitigation Measures 2a and 2b will mitigate impacts to Waters of the United States by requiring sufficient compensation and regulatory approvals, reducing the impacts to less than significant levels.

Compliance with wetland avoidance and minimization measures will be monitoring prior to, and periodically during, construction activities by the County.

Implementation of Mitigation Measures 2a and 2b would reduce the impacts sensitive natural communities to a less than significant level.

4.3 Loss or Disturbance of Special-Status Plants

Impact 3. Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of habitat or loss or disturbance of the following special-status plant species: heartscale (*Atriplex cordulata*),

brittlescale (*Atriplex depressa*), San Joaquin spearscale (*Atriplex joaquiniana*), lesser saltscale (*Atriplex miniscula*), Lost Hills crownscale (*Atriplex vallicola*), San Joaquin woollythreads (*Monolopia congdonii*), and Sanford's sagittaria (*Sagittaria sanfordii*).

Mitigation Measure 3a. Conduct a Rare Plant Survey. During project plan development, the project applicant shall conduct a rare plant survey. Surveys shall be conducted by qualified biologists in accordance with the most current DFG and/or U.S. Fish and Wildlife Service (USFWS) guidelines or protocols and shall be conducted at the time of year when the plants named above are identifiable. (Identification periods are included in Table 1.)

Based on the results of the survey, and prior to design approval, the project applicant in consultation with DFG and/or USFWS shall determine whether the project would result in a significant impact to any special-status plant species. Evaluation of project impacts shall consider the following:

- The status of the species in question (e.g., officially listed by the state or federal Endangered Species Acts, candidate list, CNPS list);
- The relative density and distribution of the onsite occurrence versus typical occurrences of the species in question; and
- The habitat quality of the onsite occurrence relative to historic, current or potential distribution of the population.

If these surveys reveal no occurrences of any special-status plant species, or if the project applicant in consultation with DFG and/or USFWS determines that no significant impacts to any special-status plant species would result from project implementation, then no further mitigation would be required.

Should one or more special-status plant species occur at the project site, and a determination of significant impact be made, the project applicant shall implement Mitigation Measure 3b.

Mitigation Measure 3b. Prepare and Implement a Special-Status Plant Mitigation Plan. During project plan development, and after implementation of Mitigation Measure 3a, the project applicant shall, in consultation with DFG and/or USFWS, prepare and implement a mitigation plan that reduces impacts to special-status plants to a less than significant level. The mitigation plan must be in accordance with any applicable state and/or federal statutes and laws.

If special-status plant species were found at the project site, implementation of Mitigation Measures 3a and 3b would reduce the impacts to special-status plant species to a less than significant level.

4.4 Loss of Habitat or Loss or Disturbance of Special-Status Wildlife Species

Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of habitat or loss or disturbance of the following special-status wildlife species: western pond turtle (*Clemmys marmorata pallida*), blunt-nosed leopard lizard (*Gambelia silus*), silvery legless lizard (*Anniella pulchra pulchra*), giant garter snake (*Thamnophis gigas*), Swainson's hawk (*Buteo swainsoni*), western burrowing owl (*Athene cunicularia hypugea*), San Joaquin antelope squirrel (*Ammospermophilus nelsoni*), Fresno kangaroo rat (*Dipodomys nitratoides exilis*), San Joaquin pocket mouse (*Perognathus inornatus inornatus*), and San Joaquin kit fox (*Vulpes macrotis mutica*).

Impact 4. Loss or Disturbance to Listed Wildlife Species. Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of habitat of loss or disturbance of the following listed (i.e., federally or California state endangered, threatened, or candidate) wildlife species: blunt-nosed leopard lizard, giant garter snake, San Joaquin antelope squirrel, Fresno kangaroo rat, and San Joaquin kit fox. Any impacts to these species would be considered significant.

Mitigation Measure 4a. Conduct Focused Habitat Evaluations. During project plan development, the project applicant shall conduct focused habitat evaluations for listed wildlife species at and adjacent to the project site. Surveys shall be conducted by qualified biologists in accordance with the most current DFG and/or U.S. Fish and Wildlife Service (USFWS) guidelines or protocols.

Based on the results of the survey, and prior to design approval, the project applicant in consultation with DFG and/or USFWS shall determine whether the project would result in a significant impact to any listed wildlife species. Evaluation of project impacts shall consider the following:

- The habitat quality of the project site relative to historic, current or potential distribution of the population;
- The habitat value of the project site (i.e., the importance of the habitat to the recovery of the species); and
- If the species is present, the relative density and distribution of the onsite occurrence versus typical occurrences of the species in question.

If these surveys reveal no occurrences of any listed wildlife species, or if the project applicant in consultation with DFG and/or USFWS determines that no significant impacts to any listed wildlife species would result from project implementation, then no further mitigation would be required.

Should one or more listed wildlife species occur at the project site, and a determination of significant impact be made, the project applicant shall implement Mitigation Measure 4b.

Mitigation Measure 4b. Prepare and Implement Mitigation Plan(s) for Listed Species. During project plan development, and after implementation of Mitigation Measure 4a, the project applicant shall, in consultation with DFG and/or USFWS, prepare and implement mitigation plan(s) that reduce impacts to listed wildlife species to a less than significant level. The mitigation plan(s) must be in accordance with any applicable state and/or federal statutes and laws, and may include any or all of the following mitigation measures:

- Conducting protocol-level surveys;
- Minimization of impacts through avoidance of occupied areas;
- Formal consultation with the USFWS and/or development of a Memorandum of Understanding (MOU) with DFG;
- Off-site mitigation on a protected lands site for disturbance or loss of occupied habitat;
- Funding for long-term management and monitoring of the protected lands;
- Worker awareness training; and
- Mitigation success criteria, remedial measures, and reporting requirements.

If listed wildlife species were found at the project site, implementation of Mitigation Measures 4a and 4b would reduce the impacts to listed wildlife species to a less than significant level.

Impact 5. Loss or Disturbance to Western Pond Turtle. If implementation of the proposed project involves conducting work in the irrigation canal adjacent to the north edge of the project site, implementation of the proposed project may result in the loss or disturbance of western pond turtle. Loss or disturbance to western pond turtle is considered a significant impact.

Mitigation Measure 5a. Conduct a Pre-Construction Survey for Western Pond Turtle. Prior to work being performed in the canal, a qualified biologist shall conduct a pre-construction survey for western pond turtle in the irrigation canal adjacent to the project site. If pond turtles are not found during surveys, no further mitigation is necessary.

If pond turtles are found adjacent to the project site, the project applicant shall implement Mitigation Measure 5b.

Mitigation Measure 5b. Relocate Western Pond Turtles. In consultation with DFG, a qualified biologist shall relocate western pond turtles occurring adjacent to the project site before work in the irrigation canal begins.

If western pond turtles are found adjacent to the project site, implementation of Mitigation Measures 5a and 5b would reduce impacts to western pond turtle to less than significant levels.

Impact 6. Loss or Disturbance Western Burrowing Owl. Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of habitat of loss or disturbance of western burrowing owl. Loss of habitat or loss or disturbance of western burrowing owl is considered a significant impact.

Mitigation Measure 6a. Conduct Pre-Construction Surveys for Western Burrowing Owl. Within the 30 days prior to start of construction, a qualified biologist shall conduct preconstruction surveys for western burrowing owl in accordance with the most current DFG guidelines.

If these surveys reveal no occurrences of western burrowing owl, then no further mitigation would be required.

If western burrowing owls occur at the project site the project applicant shall implement Mitigation Measure 6b.

Mitigation Measure 6b. Prepare and Implement a Mitigation Plan for Western Burrowing Owl. During project plan development, and after implementation of Mitigation Measure 6a, the project applicant shall, in consultation with DFG, prepare and implement a mitigation plan that reduces impacts to western burrowing owl to a less than significant level. The mitigation plan must be in accordance with any applicable state and/or federal statutes and laws. The mitigation plan may include any or all of the following mitigation measures (adapted from DFG 1995):

- Minimization of impacts to the species through avoidance of occupied burrows (i.e., no ground disturbing activities within approximately 250 feet during the breeding season [February 1 through August 31], and within approximately 160 feet during the non-breeding season [September 1 through August 31]);
- On-site mitigation by retaining a minimum of 6.5 acres of suitable habitat per pair or resident bird;
- When destruction of occupies burrows is unavoidable, off-site mitigation at a 2:1 ratio on a protected lands site;
- Passive relocation of western burrowing owls during the non-breeding season (September 1 through August 31);
- Funding for long-term management and monitoring of the protected lands; and
- Mitigation success criteria, remedial measures, and reporting requirements.

If western burrowing owls were found at the project site, implementation of Mitigation Measures 6a and 6b would reduce the impacts western burrowing owl to a less than significant level.

Impact 7. Loss of Swainson's Hawk Foraging Habitat. Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that would result in the loss of low-quality Swainson's hawk foraging habitat. Since there is a known Swainson's hawk nesting occurrence approximately 1.3 miles from the project site,

the project will be considered as impacting Swainson's hawk foraging habitat. This impact is considered significant.

Mitigation Measure 7a. Compensate for Loss of Swainson's Hawk Foraging Habitat. The project proponent will mitigate for the loss of Swainson's hawk foraging habitat by providing for the preservation and management (in perpetuity) of off-site Swainson's hawk foraging habitat, or by providing in-lieu fees to DFG for such purposes. The mitigation ratio will be determined in consultation with DFG.

Impact 8. Disturbance of Nesting Raptors. Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that would result in disturbance of nesting raptors, including nesting Swainson's hawk.

Mitigation Measure 8. Conduct Pre-Construction Surveys for Nesting Raptors. Within the 30 days prior to start of construction, a qualified biologist shall conduct preconstruction surveys for nesting raptors (including nesting Swainson's hawk) in accordance with the most current DFG guidelines.

If these surveys reveal no occurrences of nesting raptors, then no further mitigation would be required.

If the survey identifies a nest at the project site or within 0.5-mile of the project site, the project proponent will confer with DFG to determine whether a buffer zone should be established or whether construction monitoring will be needed to ensure that construction activities do not disturb nesting raptors.

Implementation of Mitigation Measure 8 will reduce construction impacts on nesting raptors to a less than significant level.

Impact 9. Loss of Habitat for the Silvery Legless Lizard and San Joaquin Pocket Mouse. Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of habitat for the following wildlife species of concern: silvery legless lizard (*Anniella pulchra pulchra*), and San Joaquin pocket mouse (*Perognathus inornatus inornatus*).

The Disturbed Annual Grassland at the project site provides low quality habitat for the silvery legless lizard and the San Joaquin pocket mouse. The quality of the habitat at the project site is diminished by high levels of disturbance both present (e.g., trespass, dumping, domestic animal use) and past (e.g. discing), surrounding residential development and agriculture, and its fragmented nature (i.e., Bass Avenue cuts the project site in half), and high perimeter to area ratio. Annual Grassland is a locally and regionally common habitat. Due to the common occurrence and low quality of the habitat at the project site, loss of the habitat in itself does not represent a significant impact to the silvery legless lizard or the San Joaquin pocket mouse, therefore no mitigation is required.

Impact 10. Loss or Disturbance to Silvery Legless Lizard and San Joaquin Pocket Mouse. Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss of the following wildlife species of concern: silvery legless lizard (*Anniella pulchra pulchra*), and San Joaquin pocket mouse (*Perognathus inornatus inornatus*). This potential impact is considered either significant or less than significant.

The silvery legless lizard and San Joaquin pocket mouse have low potential to occur in the Disturbed Annual Grassland at the project site. The nearest NDDB occurrence of silvery legless lizard is approximately 5.2 miles east of the project site, and the nearest NDDB occurrence of San Joaquin pocket mouse is approximately 1.5 miles southeast of the project site (NDDB 2002).

Mitigation Measure 10a. Conduct a Focused Habitat Evaluation for Silvery Legless Lizard and San Joaquin Pocket Mouse. During project plan development, the project applicant shall conduct focused habitat evaluations for silvery legless lizard and San Joaquin pocket mouse at and adjacent to the project site. Surveys shall be conducted by qualified biologists in accordance with the most current DFG and/or U.S. Fish and Wildlife Service (USFWS) guidelines or protocols.

Based on the results of the survey, and prior to design approval, the project applicant in consultation with DFG and/or USFWS shall determine whether the project would result in a significant impact to the wildlife species of concern mentioned above. Evaluation of project impacts shall consider the following:

- The habitat quality of the project site relative to historic, current or potential distribution of the population; and
- If the species is present, the relative density and distribution of the onsite occurrence versus typical occurrences of the species in question.

If these surveys reveal no occurrences of wildlife species of concern, or if the project applicant in consultation with DFG and/or USFWS determines that no significant impacts to silvery legless lizard of San Joaquin pocket mouse would result from project implementation, then no further mitigation would be required.

Should silvery legless lizard or San Joaquin pocket mouse occur at the project site, and a determination of significant impact be made, the project applicant shall implement Mitigation Measure 10b.

Mitigation Measure 10b. Develop and Implement Mitigation Plan(s) for Silvery Legless Lizard and/or San Joaquin Pocket Mouse. During project plan development, and after implementation of Mitigation Measure 9a, the project applicant shall, in consultation with DFG and/or USFWS, prepare and implement mitigation plan(s) that reduce impacts to silvery legless lizard and/or San Joaquin pocket mouse to a less than significant level. The mitigation plan(s) must be in accordance with any applicable state

and/or federal statutes and laws, and may include any or all of the following mitigation measures:

- Conducting intensive species-specific surveys;
- Avoidance or minimization of impacts through project design;
- Compensation for impacted areas;
- Funding for long-term management and monitoring of protected lands; and
- Mitigation success criteria, remedial measures, and reporting requirements.

If silvery legless lizard and/or San Joaquin pocket mouse were found at the project site, implementation of Mitigation Measures 10a and 10b would reduce the impacts to these wildlife species to a less than significant level.

4.5. Loss or Disturbance of Waters of the United States

Impact 11. Implementation of the proposed project may result in the construction of buildings, roads, and other facilities that may in turn result in the loss or disturbance of jurisdictional Waters of the United States at the project site (i.e., Emergent Marsh and Seasonal Wetland). Waters of the United States are subject to the jurisdiction of the Corps. Emergent Marsh and Seasonal Wetland habitats in the Central Valley are sensitive natural communities that have undergone significant historic losses and continue to suffer losses today throughout California. The Corps and DFG have adopted "no-net-loss" policies for wetlands, requiring compensation for lost wetland functions and values. Because of the documented scarcity of these types of wetlands, mitigation for their loss is required. The loss of wetlands at the project site as a result of project implementation is considered a significant impact.

Waters of the United States, including wetland impacts that may occur as a result of the proposed project include, but may not be limited to the following:

- Discharge of fill material into wetlands or waters;
- Bridges, culverts, or other types or road crossings;
- Flood-control measures;
- Channelization;
- Increased surface runoff (volume and/or velocity); and
- Increased sedimentation.

Impacts to wetlands can arise from direct impacts (e.g., fills) or indirect impacts (e.g. sedimentation from grading adjacent to wetland areas). Future development proposals that result in one or more of these direct or indirect impacts will constitute significant impact to Waters of the U.S. The magnitude of each of these impacts is dependent upon project design.

Implement Mitigation Measures 2a and 2b.

Implementation of Mitigation Measures 2a and 2b will mitigate impacts to Waters of the United States by requiring sufficient compensation and regulatory approvals, reducing the impacts to less than significant levels.

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APPENDIX A.

REPRESENTATIVE SITE PHOTOGRAPHS

Site Photograph 1. Ruderal/Developed and Disturbed Annual Grassland at the south end of the project site.

Site Photograph 2. Ruderal/Developed along Bass Avenue.

Site Photograph 3. Disturbed Annual Grassland north of Bass Avenue.

Site Photograph 4. Disturbed Annual Grassland mounds of fill along the western edge of the project site north of Bass Avenue.

Site Photograph 5. West end of the ditch adjacent to Bass Avenue.

Site Photograph 5. Eastern portion of the ditch along Bass Avenue. Note that the dominant vegetation is cattail.

Site Photograph 6. Irrigation canal adjacent to the north end of the project site.

Site Photograph 8. Potential seasonal wetland at the northwest corner of the project site near the irrigation canal.

Table 1. Special-Status Plant Species with Potential to Occur at the Proposed Don Alejandro Valdez Community Plan Project Site, Fresno County, California

Common and Scientific Name	Status*	Distribution	Habitat Requirements	Identification Period	Comments
Heartscale *(Atriplex cordulata)*	-/-/1B	Western Central Valley and valleys of adjacent foothills	Alkali grassland, alkali meadow, alkali scrub	May-October	Low quality suitable habitat for this species occurs at the project site. The nearest NDDB occurrence (Occurrence #28) is at Alkali Sink Ecological Preserve approximately 5.4 miles southeast of the project site.
Brittlescale *(Atriplex depressa)*	-/-/1B	Western Central Valley and valleys of adjacent foothills	Alkali grassland, alkali meadow, alkali scrub	June-October	Low quality suitable habitat for this species occurs at the project site. The nearest NDDB occurrence (Occurrence #34) is at Alkali Sink Ecological Preserve approximately 5.4 miles southeast of the project site.
San Joaquin spearscale *(Atriplex joaquiniana)*	-/-/1B	Central Valley	Chenopod scrub, meadows and seeps, valley and foothill grassland with alkali soil	April-October	Low quality suitable habitat for this species occurs at the project site. The nearest NDDB occurrence (Occurrence #17) is approximately 75 miles northwest of the project site.
Lesser saltscale *(Atriplex miniscula)*	-/-/1B	Southern San Joaquin Valley	In or adjacent to alkali sink and alkaline vernal pools, on sandy soils	May-October	Low quality suitable habitat for this species occurs at the project site. The nearest NDDB occurrence (Occurrence #12) is approximately 6.6 miles northeast of the project site.
Lost Hills crownscale *(Atriplex vallicola)*	-/-/1B	Western San Joaquin Valley	Alkali sink, alkaline vernal pool	May-August	Low quality suitable habitat for this species occurs at the project site. The nearest NDDB occurrence (Occurrence #6) is approximately 0.7 miles south of the project site.
Palmate bird's-beak *(Cordylanthus palmatus)*	E/E/1B	Central Valley	Alkali meadow, alkali scrub	May-October	This species is not likely to occur at the project site due past disturbance of suitable habitat. The nearest NDDB occurrence (Occurrence #15) is at Alkali Sink Ecological Reserve approximately 4.8 miles southeast of the project site.
Munz's tidy-tips *(Layia munzii)*	-/-/1B	Fresno, Kern, and San Luis Obispo Counties	Chenopod scrub, valley and foothill grassland (alkaline clay)	March-April	Low quality suitable habitat for this species occurs at the project site. Survey timing was too late to observe this species. The nearest NDDB occurrence (Occurrence #2) is at Alkali Sink Ecological Reserve approximately 3.5 miles northwest of the project site.
San Joaquin woollythreads *(Monolopia congdonii)*	E/-/1B	San Joaquin Valley	Chenopod scrub, valley and foothill grassland (sandy)	February-May	Low quality suitable habitat for this species occurs at the project site. The nearest NDDB occurrence (Occurrence #11) is approximately 6.7 miles south of the project site.

Sagittaria sanfordii *(Sagittaria sanfordii)*	-/-/1B	Central Valley	Freshwater marsh, shallow streams, ditches	May-August	This species potentially occurs in the ditch at the project site, or in the adjacent canal. The nearest NDDB occurrence (Occurrence #12) is approximately 0.9 miles northeast of the project site.

*Status Explanations:

Federal

E = listed as endangered under the federal Endangered Species Act (ESA).
T = listed as threatened under the federal Endangered Species Act.
PE = proposed for listing as endangered.
PT = proposed for listing as threatened.
C = Candidate for federal listing. Species for which USFWS has on file enough substantial information on biological vulnerability and threat to support proposals to list them.
SC = USFWS species of concern; not an legal status under federal ESA.
-- = no listing status.

State

E = listed as endangered under the California Endangered Species Act.
R = listed as rare under the California Endangered Species Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.
T = listed as threatened under the California Endangered Species Act.
CP = fully protected under the California Fish and Game Code.
SSC = Department of Fish and Game species of special concern.
-- = no listing status.

California Native Plant Society

1B = List 1B species: rare, threatened or endangered in California and elsewhere.
2 = List 2 species: rare, threatened or endangered in California, more common elsewhere.
3 = List 3 species: plants for which more information is needed to determine rarity
4 = List 4 species: plants of limited distribution, a watch list.

Table 2. Special-Status Wildlife Species with Potential to Occur at the Proposed Don Alejandro Valdez Community Plan Project Site, Fresno County, California

Common and Scientific Name	Legal Status*		Distribution	Habitat Association	Identification Period	Comments
	Federal	State				
Western spadefoot *Scaphiopus hammondii*	SC	SSC	Sierra Nevada foothills, Central Valley, Coast Ranges, coastal counties in southern California.	Shallow streams with riffles and seasonal wetlands, such as vernal pools in annual grasslands and oak woodlands.	January-July	Not expected to occur at the project site due to lack of suitable habitat. Not observed during the field survey. There are no known occurrences at or near the project site. The nearest NDDB occurrence (Occurrence No. 238) is near vernal pools approximately 5.0 miles southeast of the project site.
Western pond turtle *Clemmys marmorata*	SC	SSC	Generally below 1,829 m; artificial/natural flowing/standing water.	Aquatic turtle: requires ponds, slow-moving waterways such as creeks and irrigation ditches where water ponds. Prefers habitats with basking sites, aquatic vegetation, and suitable upland habitats for egg-laying.	February - November	Not expected to occur at the project site due to lack of suitable habitat; however, may occur in the canal at the north edge of the project site. Not observed during the field survey. Nearest NDDB occurrence (Occurrence No. 22) is in the San Joaquin River approximately 1.0 mile northeast of the project site.
Blunt-nosed leopard lizard *Gambelia (=Crotaphytus) silus*	E	E;FP	San Joaquin Valley from Stanislaus County through Kern County and along the eastern edges of San Luis Obispo and San Benito Counties.	Open habitats with scattered low bushes on alkali flats, and low foothills, canyon floors, plains, washes, and arroyos; substrates may range from sandy or gravelly soils to hardpan.	Warmer months	Low quality habitat exists for this species at the project site. Potentially occurs at the project site. Not observed during the field survey. There are no known occurrences at or near the project site. The nearest NDDB occurrence (Occurrence No. 4) is approximately 1.5 miles southeast of the project site.
Silvery legless lizard *Anniella pulchra pulchra*	SC	SSC	Coastal central and southern California, and the San Joaquin Valley.	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential.	Year-round	Low quality habitat exists for this species at the project site. Potentially occurs at the project site. Not observed during the field survey. There are no known occurrences at or near the project site. The nearest NDDB occurrence (Occurrence No. 13) is approximately 5.2 miles east of the

Table 2. Special-Status Wildlife Species with Potential to Occur at the Proposed Don Alejandro Valdez Community Plan Project Site, Fresno County, California

Common and Scientific Name	Legal Status*		Distribution	Habitat Association	Identification Period	Comments
	Federal	State				
Giant garter snake *Thamnophis gigas*	T	T	Occurs in the Central Valley from Fresno north to the Gridley/Sutter Buttes area; has been extirpated from areas south of Fresno.	Found in sloughs, canals, and other small waterways, where there is a prey base of small fish and amphibians; requires grassy banks and emergent vegetation for basking, and areas of high ground protected from flooding during winter.	March -October	Not expected to occur at the project site due to lack of suitable habitat; however, may occur in the canal at the north edge of the project site. Not observed during the field survey. Nearest NDDB occurrences are approximately 1.0 mile northeast of the project site (Occurrence No. 3), and 1.1 miles south of the project site (Occurrence No. 5).
White-faced ibis *Plegadis chihi* (rookery sites)	SC	SSC	Both resident and winter populations on the Salton Sea as well as isolated areas in Imperial, San Diego, Ventura, and Fresno Counties; breeds at Honey Lake in Lassen County and near Woodland in Yolo County; winters in Merced County and along the Sacramento-San Joaquin River Delta.	Prefers freshwater marshes with Tules, cattails, and rushes, but may nest in trees and forage in flooded agricultural fields.	Year-round	Not expected to breed or winter at the project site due to lack of suitable habitat. There are no known occurrences at or near the project site. The nearest NDDB rookery occurrence (Occurrence No. 9) is in Fresno Slough approximately 6.5 miles southeast of the project site.
Swainson's hawk *Buteo swainsoni* (nesting)	MNBMC	T	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley.	Nests in oaks or cottonwoods in or near riparian habitats; forages in grasslands, irrigated pastures, and grain fields.	Spring and Summer	Not expected to nest at the project site due to lack of suitable habitat; however, may forage in the annual grassland at or adjacent to the project site. Not observed during the field survey. Nearest NDDB nesting occurrence (Occurrence No. 784) is approximately 1.3 miles northeast of the project site.

Table 2. Special-Status Wildlife Species with Potential to Occur at the Proposed Don Alejandro Valdez Community Plan Project Site, Fresno County, California

Common and Scientific Name	Legal Status*		Distribution	Habitat Association	Identification Period	Comments
	Federal	State				
Western burrowing owl *Athene cunicularia hypugea*	SC; MNBMC	SSC	Central and southern coastal habitats, Central Valley, Great Basin and deserts.	Open annual grasslands or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent upon burrowing mammals (especially California ground squirrel) for burrows.	Year-round	Suitable nesting or wintering habitat is present at the project site. Not observed during the field survey. There are no known occurrences from the project site; however, suitable nesting and wintering habitat exists at the project site. The nearest NDDB occurrence (Occurrence No. 89) is approximately 4.4 miles southeast of the project site.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	C;MNBMC	E	Nests along the upper Sacramento, Lower Feather, south fork of the Kern Ammargosa, Santa Ana, and Colorado Rivers.	Found in large, dense riparian forests with a thick understory of willows for nesting.	Year-round	Not expected to occur at the project site due to lack of suitable habitat. There are no known occurrences at or near the project site. The nearest NDDB occurrence (Occurrence No. 85) is at the San Joaquin River approximately 1.0 mile northeast of the project site.
Bank swallow *Riparia riparia* (nesting)	--	T	Nesting areas include the plains east of the Cascade Range south through Lassen County, northern Siskiyou County, along the Sacramento River from Tehama to Sacramento Counties, and in the Owens Valley; small populations near the coast from San Francisco to Monterey Counties.	Nests in bluffs or banks adjacent to water where the soil consists of sand or sandy loam to allow digging.	April-September	Not expected to occur at the project site due to lack of suitable habitat. Not observed during the field survey. There are no known colonies at or adjacent to the project site. The nearest NDDB occurrence (Occurrence No. 162) is along the San Joaquin River approximately 0.9-mile northeast of the project site.
Tricolored blackbird *Agelaius tricolor*	SC; MNBMC	SSC	Sacramento-San Joaquin Valleys and low foothills of coast ranges and the Sierra Nevada; Great Basin.	Nests colonially in vicinity of freshwater marshes. Prefers dense stands of tules, cattails, and brambles.	Year-round	Not expected to occur at the project site due to lack of suitable habitat. Not observed during the field survey. There are no known colonies at or adjacent to the project site. The nearest NDDB colony occurrence (Occurrence No. 224) is at Mendota Wildlife Area approximately 4.2 miles southeast of the project site.

Table 2. Special-Status Wildlife Species with Potential to Occur at the Proposed Don Alejandro Valdez Community Plan Project Site, Fresno County, California

Common and Scientific Name	Legal Status*		Distribution	Habitat Association	Identification Period	Comments
	Federal	State				
San Joaquin antelope squirrel *Ammospermophilus nelsoni*	SC	T	Western San Joaquin Valley from 61-366 m; dry, sparsely vegetated loam soils.	Chenopod scrub; dig burrows or use kangaroo-rat burrows; scattered shrubs, forbs, and grasses in broken terrain with gullies and washes.	Year-round	Not expected to occur at the project site due to lack of suitable habitat. Not observed during the field survey. There are no known occurrences from the project site. The nearest NDDB occurrence (Occurrence No. 81) is approximately 1.5 miles southeast of the project site.
Fresno kangaroo rat *Dipodomys nitratoides exilis*	E	E	Fresno County.	Alkali sink - open grassland habitats. Usually bare alkaline clay-based soils subject to seasonal inundation, with more friable soils mounds around shrubs and grasses.	Year-round	Not expected to occur at the project site. Not observed during the field survey. There are no known occurrences at or near the project site. The nearest NDDB occurrences are approximately 5.2 miles north (Occurrence No. 14) and 5.4 miles southeast (Occurrence No. 1) of the project site. The project site is not within a designated critical habitat area for the species.
San Joaquin pocket mouse *Perognathus inornatus inornatus*	SC	--	Occurs in dry, open grasslands or scrub areas on fine-textured soils between 350 and 600 m in the Central and Salinas Valleys.	Coastal scrub, valley/foothill grassland; needs friable soils.	Year-round	Suitable habitat for the species is present at the project site. Not observed during the field survey. The nearest NDDB occurrences are approximately 0.2-mile north (Occurrence No. 34), and 1.5 miles southeast (Occurrence No. 33) of the project site.
San Joaquin kit fox *Vulpes macrotis mutica*	E	T	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County.	Saltbush scrub, grassland, oak, savanna, and agricultural fields.	Year-round	Not expected to occur at the project site. No evidence of San Joaquin kit fox , and no suitable burrows (i.e., burrows greater than four inches in diameter) were observed at the project site. There are no known occurrences at or near the project site. The nearest NDDB occurrence (Occurrence No. 13) is approximately 8.3 miles north of the project site.

Table 2. Special-Status Wildlife Species with Potential to Occur at the Proposed Don Alejandro Valdez Community Plan Project Site, Fresno County, California

Common and Scientific Name	Legal Status*		Distribution	Habitat Association	Identification Period	Comments
	Federal	State				

*** Status explanations**

Federal

E = listed as endangered under the federal Endangered Species Act.
T = listed as threatened under the federal Endangered Species Act.
D = delisted
C = Candidate for federal listing. Species for which USFWS has on file enough substantial information on biological vulnerability and threat to support proposals to list them.
MNCMC = Fish and Wildlife Service: Migratory Nongame Birds of Management Concern
SC = species of concern; formerly Category 2 candidate for federal listing.
PE = proposed for listing as endangered.
PT = proposed for listing as threatened.
-- = no listing status.

State

E = listed as endangered under the California Endangered Species Act.
R = listed as rare under the California Endangered Species Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.
T = listed as threatened under the California Endangered Species Act.
FP = fully protected under the California Fish and Game Code.
SSC = species of special concern.
-- = no listing status.

TECHNICAL APPENDICES

Appendix E - Hazards and Hazardous Materials

Twining Laboratories, Inc. Phase I Environmental Site Assessment for the Mendota Project, Fresno County, California. June 27, 2003.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

MENDOTA PROJECT

FRESNO, CALIFORNIA

Prepared For:

Pacific Municipal Consultants
225K Cannary Row
Monterey, California 93740

Prepared By:

The Twining Laboratories, Inc.
2527 Fresno Street
Fresno, California 93721

E20104.01

June 27, 2003

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ACRONYMS

ug/g	micrograms per gram
AST(s)	Aboveground Storage Tank(s)
AWP	Annual Workplan
CAL-EPA	State of California, Environmental Protection Agency
CERCLIS	Comprehensive Environmental Responsibility, Compensation, and Liability Information System
CRWQCB-CVR	California Regional Water Quality Control Board, Central Valley Region
DTSC	Department of Toxic Substances Control
ERNS	Emergency Response and Notification System
FCAO	Fresno County Assessor's Office
FCEHD	Fresno County Environmental Health Department
FCRO	Fresno County Recorder's Office
IWMB	Integrated Waste Management Board
LUST	Leaking Underground Storage Tank
NPL	National Priority List
RCRA	Resource Conservation and Recovery Act
RWQCB	Regional Water Quality Control Board
SWIS	Solid Waste Information System
SWRCB	State Water Resource Control Board
TSD	Hazardous Waste Transport, Storage, or Disposal Facilities
US EPA	United States Environmental Protection Agency
UST(s)	Underground Storage Tanks(s)

1.0 INTRODUCTION

The Twining Laboratories, Inc. (Twining) was retained by Pacific Municipal Consultants, to conduct a Phase I Environmental Site Assessment (Phase I). The Site is bisected by Bass Avenue, and is bordered by the Main Lift canal to the north and the Mendota airport to the south, in Mendota, Fresno County, California (Site). This Phase I was conducted in general conformance with the methods and procedures described in the American Society for Testing and Materials (ASTM) "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (Standard Designation E 1527-00), published July 2000, and in accordance with Twining's proposal to Pacific Municipal Consultants, dated April 24, 2003.

1.1 Objective

The objective of this assessment is to identify recognized environmental conditions located at the Site or adjacent properties which could present material risk of harm to public health or to the environment. Recognized environmental conditions are defined within ASTM Designation E-1527 as the presence or likely presence of any hazardous wastes and/or substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

1.2 Scope of Services

This Phase I was performed to evaluate the potential presence of environmental conditions that may have resulted from operations at the Site or at nearby properties. The assessment included a Site reconnaissance, review of available documentation of land-use history for evidence of the use, storage and/or disposal of hazardous substances, and a review of available regulatory information. This Phase I included the following tasks:

- A review of the current and past uses of the Site since at least 1937

- A Site reconnaissance to assess evidence of current and/or past use or storage of toxic or hazardous material; on-Site ponds, landfills, drywells, waste streams or other disposal units; visible soil discoloration; aboveground or underground storage tanks; electrical transformers containing polychlorinated biphenyls (PCBs); and drums, barrels and other storage containers.

- A visual review of adjacent properties to assess their potential to adversely impact the Site.

- A review of available federal and state Environmental Protection Agency (EPA) lists of known or potential hazardous waste sites or landfills, and sites currently under investigation for environmental violations in the Site area. Using area-profile services provided by Environmental Data Resources, Inc (EDR), Twining cataloged sites in the vicinity of the Site that have been

identified on regulatory agency lists. Search criteria were in conformance with ASTM Standard E 1527-00.

- Contact with relevant municipal, county and state agencies to review readily available records and permits.

- Preparation of this written report to present the findings and conclusions.

The Scope of Services specifically excluded sampling and analysis for the potential presence of asbestos containing building materials or an assessment for radon gas.

1.3 Limitations and Limited Conditions

The purpose of an environmental assessment is to reasonably assess the potential for, or actual impact of, past practices on a given site which may pose an environmental impairment to it. No assessment is thorough enough to identify all potential environmental impairments at a given site. If environmental impairments have not been identified during the assessment, such a finding should not, therefore, be construed as a guarantee of the absence of such conditions on the site, but rather the result of the services performed within the scope, limitations, and cost of the work performed.

The conclusions presented in this report are solely professional opinions based on information provided regarding the Site and the findings of the reconnaissance and records search. Information obtained from the aerial photographs is an interpretation of features observed in the photographs. Actual conditions at the Site may have been different from those interpreted. Conclusions presented are based on conditions as they existed at the time the work was performed. Changes in existing conditions of the Site due to time lapse, natural causes, or operations adjacent to the Site may deem conclusions presented invalid, unless the changes are reviewed and the conclusions reevaluated. Such conditions may require additional field and laboratory investigations to assess if the conclusions are applicable considering the changed conditions.

This work was performed for the sole use of our client. Any reliance on this report by a third party is at such party's sole risk. Others who seek to rely on the findings have a duty to determine the adequacy of this report for their intended use, time, and location. Twining does not warrant the accuracy of information supplied by others, nor the use of segregated portions of this report. No other warranty, either express or implied, is made. The standard of practice is time-dependent. Services provided were performed consistent with generally-accepted professional consulting principles and practices for environmental assessors in Fresno County, California at the time the work was performed. The findings and conclusions presented in this report are solely professional opinions derived in accordance with current standards of professional practice. There were no limiting conditions encountered during the completion of this Phase I with the exception that the Site is predominantly covered with vegetation which may conceal potential environmental concerns at the Site. Additionally, the demolished buildings also may conceal potential environmental concerns at the Site.

2.0 SITE DESCRIPTION

Information concerning the Site was obtained from a Site reconnaissance conducted by Mr. Timothy Thomas and Mr. William Cooper of the Twining Fresno, California office on Monday, June 09, 2003; interviews with Site representatives; and review of the documents referenced in Section 3.0 of this report.

2.1 Location and Description of Property

The Site is comprised of approximately 91 acres and is bisected by Bass Avenue. The northern portion of the Site is bordered by the Main Lift canal, and the southern portion of the Site is bordered by the Mendota airport, in Mendota, Fresno County, California. The Fresno County Assessor's Office has assigned the following Assessor's Parcel Numbers (APN) and, and listed the owner as:

APN# 013-050-45s:	**Silver Creek Packing**
APN# 013-060-09s:	**Po Box 67**
	Mendota, California 93640
APN# 013-050-12s:	**Etchegoinberry Family LTD Partnership**
	Warentine Ed
	4819 N. San Diego
	Firebaugh, California 93622

The Site consists of two commercially and residentially developed parcels and two undeveloped parcels. A Site location Map is presented as Drawing 1, and a Site plan is presented as Drawing 2 in Appendix A.

2.2 Environmental Setting

Environmental characteristics including topography, geology, and hydrogeology were evaluated based on Site observations, published literature, and maps.

Topography

Topographic map coverage of the Site is provided by the United States Geological Survey (USGS), Firebaugh, California, 7.5-minute quadrangle map dated 1956. The Site lies within the northwest quarter of Section 31 and the western portion of section 30, Township 13 South, Range 14 East, Mount Diablo Baseline and Meridian. According to the map, the Site is located at an elevation of approximately 160 feet above mean sea level, and the land surface slopes slightly toward the southwest. Areas to the northeast of the Site appear to be topographically upgradient.

Geology

The Site is located within the central portion of the San Joaquin Valley. The San Joaquin Valley is part of the Great Valley Geomorphic Province, a topographic and structural basin bounded on the east by the Sierra Nevada and to the west by the Coast Range. The Sierra Nevada, a fault block dipping gently to the southwest, is composed of igneous and metamorphic rocks of pre-Tertiary age which comprise the basement complex beneath the valley. (USGS, 1986).

Hydrogeology

Sediments containing fresh groundwater in the San Joaquin Valley are largely unconsolidated silts and sands derived from river channel, flood plain, and alluvial fan deposits of Pliocene to Recent age (Davis and others, 1959). The depth of first encountered groundwater underlying the Site has not been assessed. However, according to a map published by the California Department of Water Resources entitled Lines of Equal Elevation of Water in Wells, Spring 2000, the depth to groundwater underlying the Site is estimated to be 10 feet below grade, and flow trends to the northeast.

2.3 Description of Structures, Roads, & Other Site Improvements

There are three structures currently standing on the southern portion of the Site. These structures are canopies with concrete foundations. There is also a metal framed shop building with a concrete foundation. There is an asphalt paved road bordering the western boundary of the southern portion of the Site. The Site can be accessed from Bass Avenue.

3.0 HISTORICAL AND CURRENT INFORMATION OF THE SITE AND ADJOINING PROPERTIES.

The history of land-use on and near the Site was determined from interviews, review of historic aerial photographs maps, building permits, information from previous investigations and an environmental questionnaire and disclosure statement.

3.1 Aerial Photograph Review

Available historical aerial photographs of the Site and vicinity for the years 1937, 1950, 1957, 1961, 1965, 1967, 1973, 1987, 1993, and 1998 were reviewed for indications of past use and/or activities which may have involved the manufacture, generation, use, storage, and/or disposal of hazardous materials. The aerial photographs were reviewed at the Fresno State University Map Library on Monday, June 11, 2003.

- The 1937 aerial photograph depicts the Site and adjoining properties as undeveloped range land.

- The 1950, 1957, 1961, 1965, 1967, and 1973 aerial photographs depicts the Site and adjoining properties to the south, west, and southeast as undeveloped range land. The adjoining property to the northeast is in residential use.

- The 1987, 1993, and 1998 aerial photographs depict the northern portion of the Site as undeveloped land. The southern portion of the Site is depicted with several commercial buildings. The adjoining properties to the west are in residential use and undeveloped land. The adjoining property to the north is in agricultural use. The adjoining property to the northeast is in residential use and the adjoining properties to the southeast and south are undeveloped land.

3.2 Sanborn Fire Insurance Map Review

Twining reviewed Sanborn Fire Insurance Maps online at http://sanborn.umi.com, sponsored by Bell & Howell UMI. Sanborn Maps can provide historical information regarding a site. Sanborn Fire Insurance Maps drawn for the city of Mendota did not include the Site or surrounding area.

3.3 Historical City Directory Review

City directories published by Haines were reviewed at the Fresno County Library, located in Fresno, California. City directories can provide information concerning past and current occupancy of the Site for the purpose of identifying businesses which may present an environmental concern. Silver Creek Packing was listed as occupying the southern portion of the Site from 1976, through 2001.

3.4 Building Permit Review

Building permit records were reviewed at the Fresno County Planning and Development Department, in Fresno, California. These records were reviewed to assess features which may present a potential environmental concern. The following is a summery of building permits filed in June of 1983.

- Construction of an office, equipment shed
- Patio at the southwest corner of the Site
- Truck wash rack
- Three 10,000-gallon USTs.

3.5 Interviews and Discussion of Environmental Questionnaire and Disclosure Statement

An Environmental Questionnaire and Disclosure Statement was submitted to the Site owners. Prior to the completion of this report questionnaires were not returned.

3.6 Previous Investigations

Twining was not supplied with any previous environmental investigations pertaining to the Site. However, during the file review, a previous investigation for Silver Creek Packing was identified. Silver Creek Packing is located at 2158 Bass Avenue. According to the investigation the Site is identified as a leaking underground storage tank (LUST) facility., The Site was reportedly impacted from three 10,000-gallon USTs which were removed from the Site in June 1988. See section 5.1 for further information.

3.7 Past Uses of the Property

Based on a review of historical aerial photographs, building permit, and city directory reviews, the following summarizes the uses of the property. The Site was undeveloped range land from at least 1937 to 1976. From 1976 to recent the southern portion of the Site was in use as farm labor housing facility and was also occupied by a transit system. The remainder of the land has been undeveloped. In 1983 three USTs, and a truck wash rack were installed south of the equipment shed.

3.8 Past Uses of Adjoining Property

The adjoining properties to the east, south and northwest have historically been undeveloped land. The adjoining properties to the west and northeast have been in residential use.

3.9 Current Uses of the Property

The northern portion of the Site is vacant land. The southern portion of the Site is commercially developed and is currently not in use. Additionally, the southern portion of the Site contains demolished residential structures.

3.10 Current Uses of the Adjoining Properties

The adjoining properties to the west and east are a combination of residential use and undeveloped land. The Mendota Airport is located to the south of the Site, and agriculture land is located to the north.

4.0 INFORMATION FROM THE SITE RECONNAISSANCE

Twining's Site reconnaissance was conducted on June 9, 2003, and included a Site walk to observe and photograph the Site. Photographs of the Site are presented in Appendix B.

4.1 Site Reconnaissance

Twining's Site reconnaissance was conducted by Mr. Timothy Thomas, and William Cooper, Twining environmental assessors. The Site is predominantly over-grown with native vegetation.

The findings of the Site reconnaissance are summarized in the following subsection. A Site Plan depicting the Site, adjoining property use, and observed on-Site features is presented as Drawing 2 in Appendix A. Copies of selected photographs are presented in Appendix B.

Hazardous Substances and Wastes

Hazardous wastes were observed on the southern portion Site the day of the Site reconnaissance (See Drums below). Therefore, indications of operations involving the use and/or storage of hazardous materials and wastes were observed.

Drums

There are fifteen drums at the southern portion of the Site, and seven drums within the equipment shed on-Site, that contain what appears to be waste oil. No soil staining or other evidence of leakage or spillage was observed in association with the drums at the southeast portion of the Site. However, a significant amount of oil was observed beneath and around the drums within the equipment shed.

Underground/Aboveground Storage Tanks

There were no indications of Underground Storage Tanks (USTs) such as vent lines or fill ports. Additionally, no indications of Aboveground Storage Tanks (ASTs) were observed on the Site during Twining's Site reconnaissance. However, the review of the previous investigation report indicated three USTs were removed from an area to the south of the equipment shed.

Potential Polychlorinatedbiphenyl (PCB)-Containing Equipment

Four pole-mounted transformers were identified on-Site, two at the southern portion and two at the southwestern portion of the Site. The transformers appeared to be in good condition. There were no indications of leaks or stains associated with the transformers.

Soil Mounds

There are numerous soil mounds, north of Bass Avenue, along the northwest boundary of the Site. The soil mound encompass an area of approximately 50 feet wide by 800 feet long. The origin of the soil mounds is not known.

Solid Waste

Twining did not observe any solid waste at the Site.

Drains and Sumps

No drains or sumps were observed at the Site.

Wastewater

Wastewater is not generated at the Site.

Water Wells

There were no water wells observed on-Site.

Oil and Gas Wells

No on-Site oil or gas wells were identified during the Site reconnaissance or within California Department of Conservation - Division of Oil & Gas maps reviewed during this assessment.

Pits, Ponds, and Lagoons

No pits, ponds or lagoons were observed on the Site.

Pipelines and Pipes of unknown use or origin.

No pipes of unknown use or origin were observed on the Site.

Other Physical Evidence of Contamination

Indications of contamination (i.e., stressed vegetation, pavement degradation, etc.) were not observed on the Site the day of the Site reconnaissance.

5.0 RECORDS REVIEW

Track Info Services, LLC (TIS) to perform searches of available Federal, State, and Local database information systems for the purpose of identifying known recognized environmental conditions present on the Site and nearby properties which have the potential to adversely impact the Site being assessed in this study. Information regarding the list, record, and permit review findings is summarized in Table 1. The complete report furnished by TIS is included in Appendix D of the report.

TABLE 1
SUMMARY OF REGULATORY LISTS SEARCHED BY EDR AND RECORDS REVIEWED

SOURCE	SEARCH RADIUS (mile)	PROXIMITY TO SITE (miles)			
		On-Site	Adjoining Property	Within½	½-1
FEDERAL, NPL and Proposed NPL	1	NONE	NONE	NONE	NONE
FEDERAL, CERCLIS	1/2	NONE	NONE	NONE	NA
FEDERAL, CERC-NFRAP	Site & Adj.	NONE	NONE	NA	NA
FEDERAL, CORRACTS	1	NONE	NONE	NONE	NONE
FEDERAL, RCRIS-TSD	1/2	NONE	NONE	NONE	NA
FEDERAL,RCRA, RCRIS Generators	Site & Adj.	NONE	NONE	NA	NA
FEDERAL, ERNS List	Site	NONE	NA	NA	NA
STATE, AWP, CHMIRS	Site & Adj.	NONE	NONE	NA	NA
STATE, Cal-Sites, Cortese	1	NONE	NONE	NONE	NONE
STATE, Notify 65, Toxic Pits	1	NONE	NONE	NONE	NONE
STATE, Landfill, WMUDS/SWAT	1/2	NONE	NONE	NONE	NA
STATE, SWRCB LUSTs	1/2	2	NONE	NONE	NA
STATE, SWRCB USTs	Site & Adj.	NONE	NONE	NA	NA
STATE, UST Historical Data	Site & Adj.	NONE	NONE	NA	NA
Oil/Gas Wells, Munger Map Book	Site & Adj.	NONE	NONE	NA	NA

NA = Not Applicable

5.1 Facilities Identified in the Regulatory Lists and Record Review

The information regarding the following facility was obtained from files at the Regional Water Quality Control Board in Fresno (RWQCB), California on June 12, 2003.

- **Silver Creek Packing,** located at 2158 Bass Avenue, occupied a portion of the Site, which is the subject of this Phase I. According to files reviewed at the RWQCB, three 10,000-gallon petroleum product USTs were excavated and removed from the Site in June 1988. The report indicated that all three USTs appeared to be structurally sound. During the excavation, five soil samples were collected and analyzed for petroleum product constituents (PPC). Soil sample analysis results indicated benzene up to 830 milligrams per kilogram (mg/kg) , toluene up to 620 mg/kg, xylene up to 2,000 mg/kg, and total petroleum hydrocarbons as gasoline up to 12,000 mg/kg. During subsequent remediation activities in 1994 over 2,600 cubic yards of degraded soil was excavated. Reportedly, an insignificant quantity of PPC degraded soils remains under the equipment shed. Excavation could not be extended any further without compromising the structural stability of the building. The soil was considered remediated, and the RWQCB issued regulatory closure of the investigation on October 9, 1996.

The remaining facilities identified in the list and records review were either closed, or based on distance and/or direction of groundwater flow, are not considered to pose a threat to the Site soil and/or groundwater. It is Twining's experience that contamination in groundwater from leaking USTs and hazardous waste sites is unlikely to migrate beyond one-quarter mile from the source of the impact.

6.0 FINDINGS AND CONCLUSION

On behalf of Pacific Municipal Consultants, Twining performed a Phase I at the Site bisected by Bass Avenue, and bordered by the Main Lift canal and the Mendota airport, in Mendota, Fresno County, California. This Phase I was performed during June 2003. This Phase I has not identified any recognized environmental conditions in connection with the Site except for the following:

- The 55-gallon drums containing waste oil should be removed and disposed of in accordance with state and county regulations governing hazardous wastes.

- Soil mounds located along the northwestern boundary of the Site should be further investigated to determine if they contain, or are considered hazardous waste.

- In the opinion of Twining, soil beneath the equipment shed potentially impacted with petroleum products, is not considered a recognized environmental condition, but rather, represents a historical recognized environmental condition. This finding is based on the following: The past release of petroleum products has been remediated, with such remediation accepted by the RWQCB by the issuance of a closure letter; and, the existence of the potential contaminants in their current state, beneath the concrete slab. However, the potentially impacted soil may represent a recognized environmental condition if the equipment shed and concrete slab are removed.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-00 of the Site. Any exceptions to, or deletions from, this practice are described in the following paragraph.

The material content of this report is intended to be consistent with a standard of practice as defined by ASTM practice E 1527. However, the report format differs in style, arrangement, and presentation of material facts from the format described by ASTM.

7.0 CLOSING

We appreciate the opportunity to be of service to you on this project. If you have questions regarding this report, please feel free to contact us at (559) 268-7021.

Sincerely,

THE TWINING LABORATORIES, INC.
Environmental Services Division

Timothy W. Thomas
Environmental Assessor

William R. Cooper
Quality Control Reviewer

8.0 REFERENCES

American Society for Testing and Materials, 2000, *ASTM Standards on Environmental Site Assessments for Commercial Real Estate*, 2nd ed., E 1527-00, Philadelphia, Pennsylvania.

Munger, Averill H., Ed. 1994. *Munger Map Book, California-Alaska Oil and Gas Fields*. Munger:
Los Angeles, California.

United States Department of the Interior. 1959. Ground-water Conditions and Storage Capacity in the San Joaquin Valley, California. George H. Davis, J.H. Green, F. H. Olmstad, and D.W. Brown. Geologic Survey Water-Supply Paper 1469. Washington: United States Government Printing Office.

United States Geological Survey, 1956, Firebaugh, California Quadrangle, 7.5 Minute Series Topographic Map.

APPENDIX A

DRAWINGS

APPENDIX B

SITE PHOTOGRAPHS

APPENDIX C

ENVIRONMENTAL QUESTIONNAIRE AND DISCLOSURE STATEMENT

APPENDIX D

TIS REPORT

TECHNICAL APPENDICES

Appendix F – Hydrology and Water Quality / Utilities and Services

RM Associates. *Don Alejandro Valdez Development Project, Engineering Impact Analysis*. February, 2002.

DON ALEJANDRO VALDEZ

DEVELOPMENT PROJECT

ENGINEERING IMPACT ANALYSIS

MENDOTA, CALIFORNIA

Prepared for:

I-5 Social Service Corporation

February 2002

Prepared by:

RM ASSOCIATES
401 W. FALLBROOK, SUITE 205
FRESNO, CA 93711
PH: 559-449-0400
FAX: 559-449-0419
rm-associates@juno.com

SECTION I

INTRODUCTION

The proposed "Don Alejandro Valdez" Planned Land Development is to be located on parcels north and south of Bass Avenue and just west of the City of Mendota's airport ***(see attached maps)***. The project will contain residential and commercial development addressing badly needed housing and economic development needs of the community. The following provides a preliminary analysis of the impacts that this development will have on water, sewer, drainage, electrical and underground gas systems.

prepared by: ***RM Associates***
401 W. Fallbrook, Suite 205
Fresno, CA 93711
PH: 559-449-0400

SECTION II

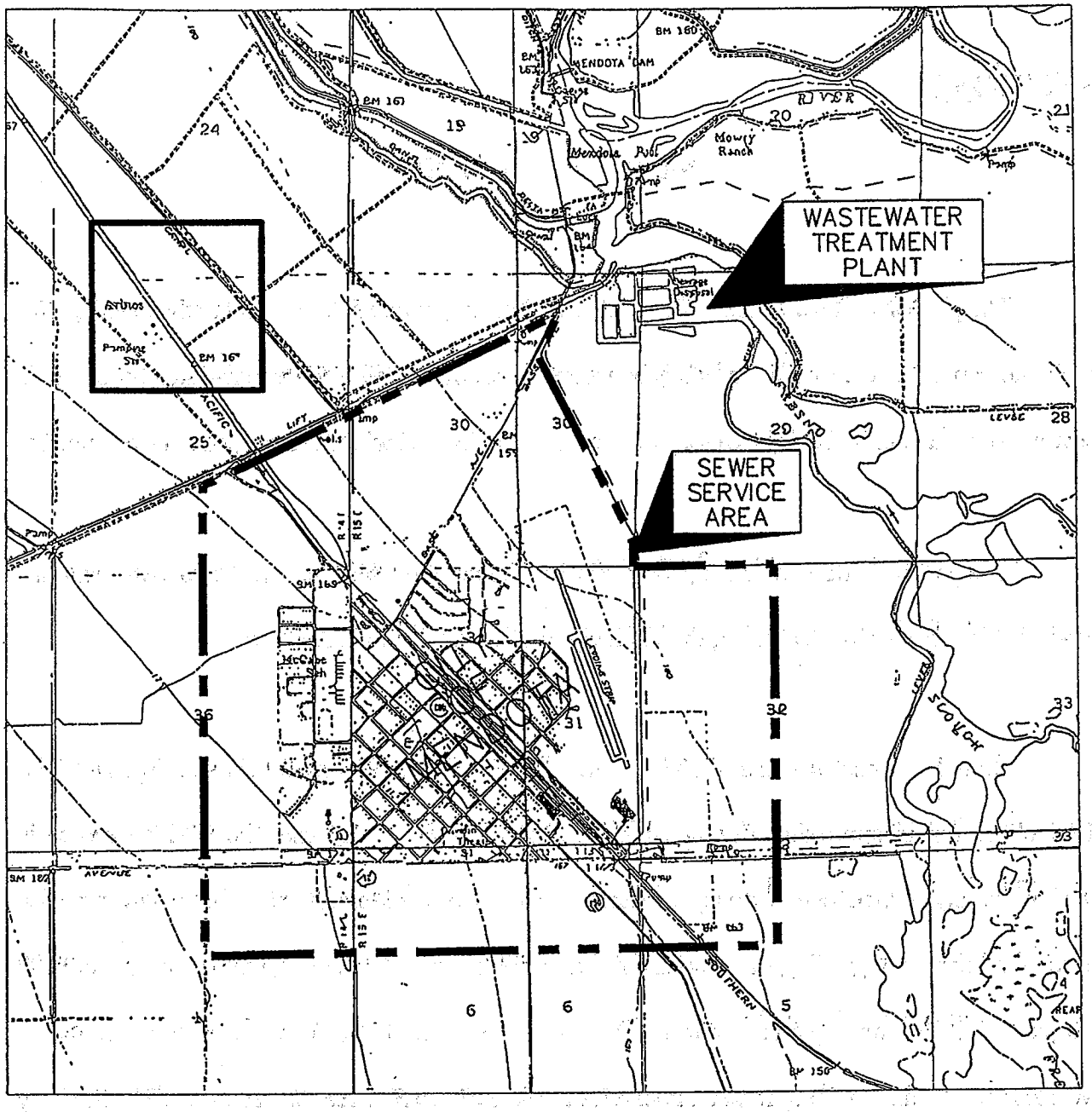
SANITARY SEWER

The portion of development (South of Bass Avenue) proposes to connect to the existing 18-inch interceptor sewer along the westerly boundary of the development and the existing 30-inch trunk sewer along the southerly right-of-way of Bass Avenue, located within the proposed development.

The portion of development (North of Bass Avenue) proposes to connect also to the existing 30-inch trunk sewer located along the southerly right-of-way of Bass Avenue.

Both the 18-inch sewer and 30-inch sewer have sufficient capacity for the development. The 18-inch sewer is approximately at 60 percent of design capacity and the 30-inch sewer is approximately at 25 percent of design capacity. The planned development is within the sewer service area of the current upgrading wastewater collection, treatment and disposal systems (December 1997 project feasibility report) and November 2000 Application/Report of Waste Discharge, Mendota Wastewater Treatment Report ***(see attached map for limits of Sanitary Sewer area)***. The Sanitary Sewer Generation Table outlines the estimated discharges per categories of land use developments and totals for entire development.

prepared by: *RM Associates*
401 W. Fallbrook, Suite 205
Fresno, CA 93711
PH: 559-449-0400



RM ASSOCIATES

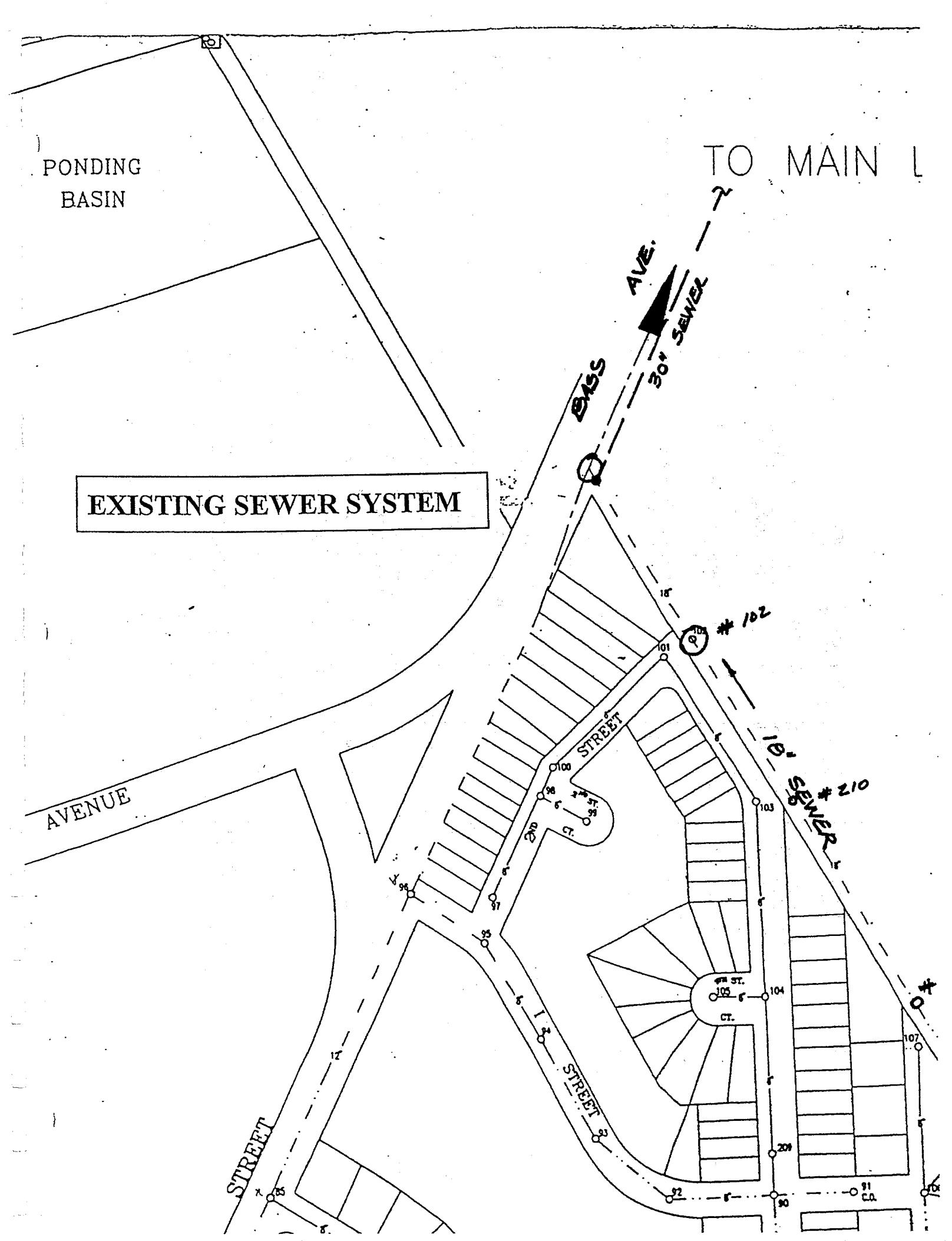
Civil and Environmental Engineers
Economic and Community Development Consultants

401 West Fallbrook Avenue, Suite #205
Fresno, California 93711
Phone: (559) 449-0400 Fax: (559) 449-0419
E-mail: rm-associates@juno.com

NO SCALE

FIGURE NO. 2
SEWER SERVICE AREA

REF:99400
99400V05.dwg 4-11-02 8:51:42 am EST


EXISTING SEWER SYSTEM
PONDING BASIN
TO MAIN L
BASS AVE.
30" SEWER
18" SEWER
#102
#210
AVENUE
STREET
2ND CT.
4TH ST.
CT.
STREET
STREET
101
100
98
99
97
96
95
93
92
90
91
C.O.
103
104
105
107
209
85

Street	Manhole From	To	Rim El. From	To	Inv. El. From	To	Pipe Dia. (IN)	Length (LF)	Slope (FT/FT)	V(full) (FT/S)	Q(full) (CFS)	Residential service	Other Services(gpd)	Q(avg)ww (CFS)	Cumilative Qavg(CFS)	Qpeak (CFS)
Juanita	211	129	161.46	160.79	156.63	155.69	8	305	0.00308197	1.92186096	0.67085603	9	0	0.0059	0.0059	0.0177
L	129	128	160.79	159.70	155.67	154.35	8	420	0.00314286	1.94075305	0.67745061	15	0	0.0098	0.0157	0.0471
L	128	126	159.70	159.59	154.23	153.94	8	125	0.00232	1.66744666	0.58204869	4	0	0.0026	0.0183	0.0549
Inez	126	125	159.59	158.98	153.74	152.96	8	275	0.00283636	1.84369429	0.64357072	7	0	0.0046	0.0327	0.0981
J	117	124	161.91	159.13	??	??	8	??	#VALUE!	#VALUE!	#VALUE!	24	0	0.0157	0.0157	0.0471
J	124	125	159.13	158.98	153.11	153.01	8	127	0.0007874	0.97141789	0.33908881	0	0	0.0000	0.0157	0.0471
Inez	125	123	158.98	158.67	152.89	152.56	8	80	0.004125	2.22341194	0.77611718	1	0	0.0007	0.0007	0.0020
Inez	123	122	158.67	158.60	152.46	152.12	8	125	0.00272	1.80547886	0.63023102	5	0	0.0033	0.0039	0.0118
I	122	112	160.46	159.77	153.79	150.55	8	405	0.008	3.09637071	1.08083727	12	0	0.0078	0.0118	0.0353
Kate	202	120	162.57	162.03	??	??	8	??	#VALUE!	#VALUE!	#VALUE!	6	0	0.0039	0.0039	0.0118
Kate	121	120	162.07	162.03	??	??	8	??	#VALUE!	#VALUE!	#VALUE!	10	0	0.0065	0.0065	0.0196
Kate	120	117	162.03	161.91	??	??	8	??	#VALUE!	#VALUE!	#VALUE!	5	0	0.0033	0.0137	0.0412
Kate	117	106	161.91	160.80	??	??	8	??	#VALUE!	#VALUE!	#VALUE!	16	0	0.0105	0.0242	0.0726
Kate	107	106	161.97	160.80	??	??	8	??	#VALUE!	#VALUE!	#VALUE!	4	0	0.0026	0.0268	0.0804
I St.	106	109	160.80	160.46	??	??	8	??	#VALUE!	#VALUE!	#VALUE!	6	0	0.0039	0.0549	0.1647
I St.	109	110	160.46	159.94	??	??	8	??	#VALUE!	#VALUE!	#VALUE!	2	0	0.0013	0.0562	0.1687
Bou Circle	111	110	160.63	159.94	155.61	155.12	8	203	0.00241379	1.70081853	0.59369767	7		0.0046	0.0608	0.1824
I St.	110	112	159.94	159.77	154.94	154.71	8	163	0.00141104	1.30040333	0.45392639	2		0.0013	0.1183	0.3550
	112	113	159.77	159.16	??	??	??	??	#VALUE!	#VALUE!	#VALUE!			0.0000	0.1301	0.3903
	113	108	159.16	160.22	148.5	148.49	18	319	3.1348E-05	0.33281352	0.58813004	0	0	0.0000	0.3589	1.0766
	108	102	160.22	158.89	148.25	147.79	18	593	0.00077572	1.65557123	2.92563586	0	0	0.0000	0.3589	1.0766

TABLE 4

WASTEWATER COLLECTION PIPING DATA
CITY OF MENDOTA
COMMUNITY INFRASTRUCTURE STUDY

Manhole Numbers	Linear Distance (ft)	Elevation (ft)	Elevation (ft)	Depth to Pipe Lip (ft)	Depth to Pipe Lip (ft)	Invert Pipe Elevation (ft)	Invert Pipe Elevation (ft)	Slope (%)	Pipe Diameter (ft)	Max. Flowrate (cfs)	Velocity (ft/s)
59-57	433	162.85	163.43	4.50	6.03	158.35	157.40	0.219	0.67	0.57	1.63
60-57	200	163.88	163.43	5.15	5.91	158.73	157.52	0.605	0.67	0.95	2.70
61-62	400	163.77	163.27	4.61	5.49	159.16	157.78	0.345	0.67	0.72	2.04
64-63	533	162.78	161.90	3.91	5.15	158.87	156.75	0.398	0.67	0.77	2.19
64-201	566	162.78	161.82	3.91	5.12	158.87	156.70	0.383	0.67	0.76	2.15
65-69	580	160.45	160.75	5.75	6.59	154.70	154.16	0.093	0.67	0.37	1.06
204-70	350	161.62	160.92	5.42	5.64	156.20	155.28	0.263	0.67	0.63	1.78
76-75	340	164.28	163.82	7.90	8.03	156.38	155.79	0.174	0.67	0.51	1.45
77-76	283	164.48	164.28	7.68	7.72	156.80	156.56	0.085	0.67	0.36	1.01
78-77	410	163.49	164.48	5.68	7.59	157.81	156.89	0.224	0.67	0.58	1.65
79-78	203	163.08	163.49	4.53	5.42	158.55	158.07	0.236	0.67	0.60	1.69
90-208	350	161.36	161.77	4.20	3.59	157.16	158.18	-0.291	0.67	NA	NA
90-92	170	161.36	161.03	4.23	4.40	157.13	156.63	0.294	0.67	0.66	1.88
92-93	160	161.03	160.72	4.38	4.36	156.65	156.36	0.181	0.67	0.52	1.48
93-94	160	160.72	160.64	4.49	4.92	156.23	155.72	0.319	0.67	0.69	1.96
97-98	213	159.95	159.58	5.14	5.57	154.81	154.01	0.376	0.5	0.34	1.75
98-100	50	159.58	159.53	5.56	5.73	154.02	153.80	0.440	0.5	0.37	1.90
100-101	283	159.53	159.06	5.73	6.37	153.80	152.69	0.392	0.5	0.35	1.79
103-101	263	159.60	159.06	5.93	6.63	153.68	152.43	0.473	0.5	0.39	1.97
104-103	350	160.38	159.60	5.27	5.77	155.11	153.83	0.366	0.5	0.34	1.73
105-104	87	161.06	160.38	5.60	5.09	155.46	155.29	0.195	0.5	0.25	1.26
209-104	300	161.17	160.38	4.84	5.22	156.33	155.16	0.390	0.5	0.35	1.78
108-210	593	160.22	158.89	11.97	11.10	148.25	147.79	0.078	1.5	2.92	1.66
210-102	366	158.89	157.36	11.20	10.88	147.69	146.48	0.331	1.5	6.04	3.42
111-110	203	160.63	159.94	5.02	4.82	155.61	155.12	0.241	0.5	0.28	1.40

"Don Alejandro Valdez"
Planned Development

(Sanitary Sewer Generation Table)

Land Use	Size	Units	Acres	Estimated sewer generation rates (gallons per day)	Estimated sewer generation per land use (gallons per day)
Multi-family Residential	400	d.u.	23.80	300 - gpd/unit	120,000
Single-family Residential	64	d.u.	16.00	320 - gpd/unit	20,480
Retail (1)			8.00	3,500 gpd/acre	28,000
Commercial Office (1)			5.00	3,500 gpd/acre	17,500
Government Office (1)			6.00	3,500 gpd/acre	21,000
Day Care			3.40	3,500 gpd/unit	11,900
Neighborhood Park			20.90	500 gpd/acre	10,450
	TOTAL =		83.10	TOTAL =	229,330

prepared by: *RM Associates*
401 W. Fallbrook, Suite 205
Fresno, CA 93711
PH: 559-449-0400

SECTION III

WATER

Two-10-inch Raw Water supply lines on Bass Avenue currently deliver water from existing well field (easterly of the proposed development) to the water treatment plant located on Second Street. One 10-inch raw water supply line delivers untreated water during the summer (peak supply period) and treated water during the winter (non-peak period) to the seven parcels located north of Bass Avenue, south of Firebaugh Main Canal and easterly of the proposed development.

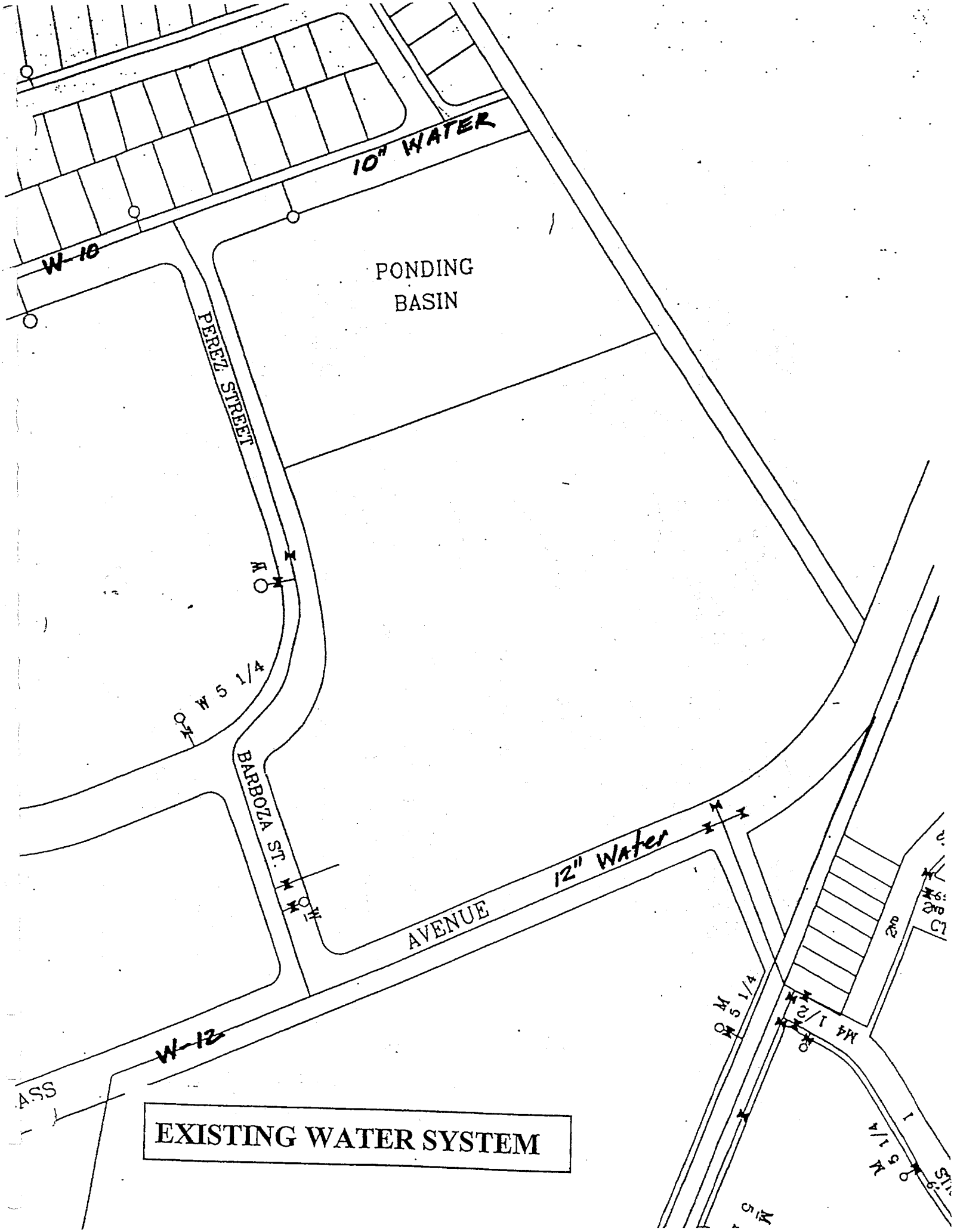
A USDA/Rural Development grant condition requires the City, as part of the new system upgrades (new well field development, upgrading of the water treatment plant and installation of a new 18-inch raw water supply line from the B&B Farms well field to the water treatment plant) to convert the newest 10" raw water supply line to deliver treated water to developed parcels along Bass Avenue.

The applicant proposes as part of the planned development (phase improvements):

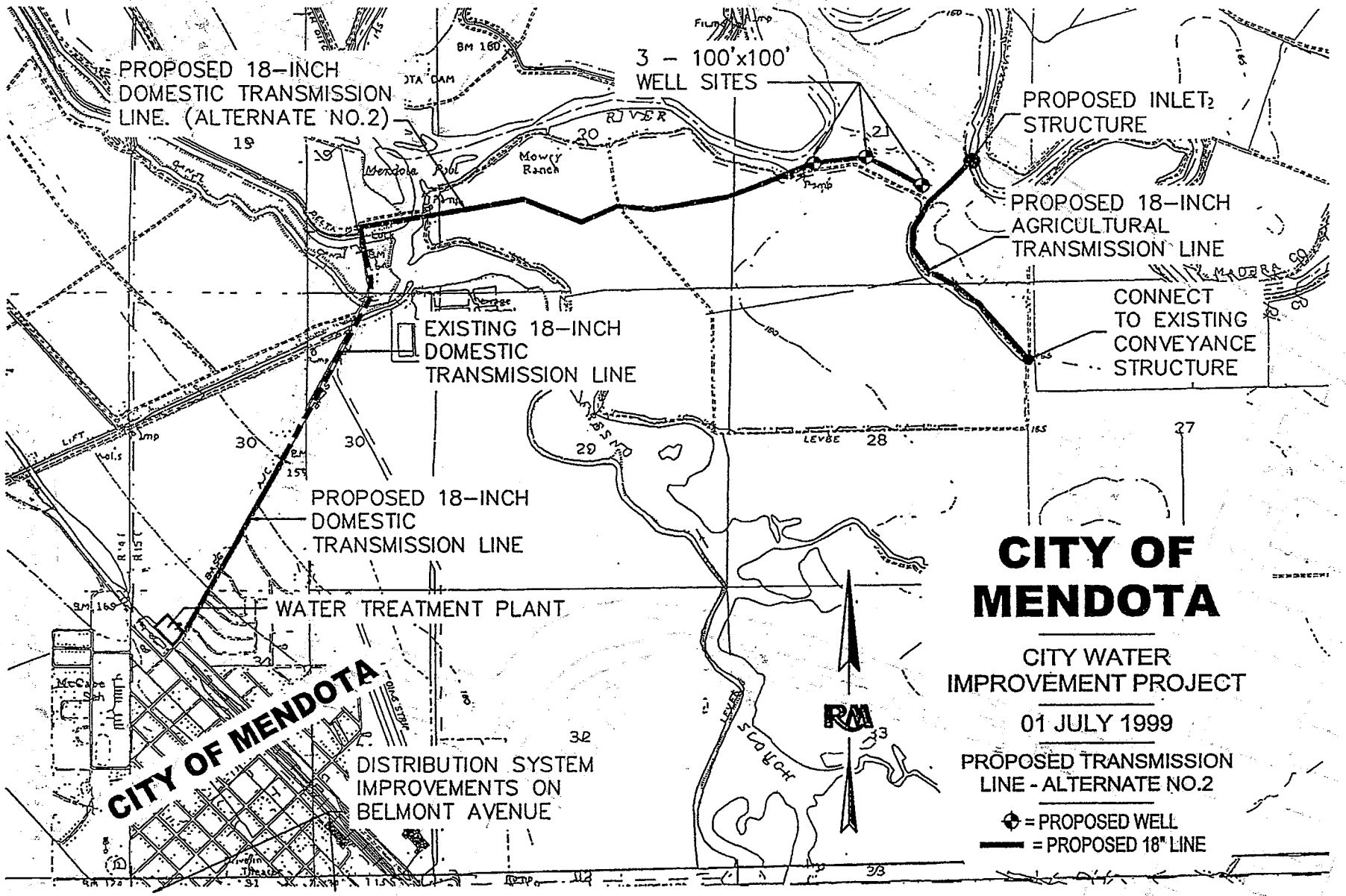
- Installation of a new 12" water main from the intersection of Second Street and Bass Avenue, easterly along Bass Avenue across the entire frontage of development and connecting to the converted 10-inch water main,

- Installation of an 8-inch and 10-inch water main from the proposed Bass Avenue, 12-inch water main in the southerly parcels and looping and connecting to the existing water mains located in the stub (dead-end) streets (4th Street and Kate Street) along the westerly boundary of the southerly development and,
- Installation of an 8-inch and 10-inch looping water mains from the proposed Bass Avenue, 12-inch water main in the northerly parcels and connecting to the existing water main locating in Lozano Street (Hacienda Gardens).

The Water Consumption Table outlines the estimated water consumption per category of land uses and total requirement for entire development.



EXISTING WATER SYSTEM



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"Don Alejandro Valdez"
Planned Development

(Water Consumption Table)

Land Use	Size	Units	Acres	Estimated Water Consumption rates (gallons per day)	Estimated Water Consumption per land use (gallons per day)
Multi-family Residential	400	d.u.	23.80	430 gpd/unit	172,000
Single-family Residential	64	d.u.	16.00	460 gpd/unit	29,440
Retail (1)			8.00	5000 gpd/acre	40,000
Commercial Office (1)			5.00	5000 gpd/acre	25,000
Government Office (1)			6.00	5000 gpd/acre	30,000
Day Care			3.40	5000 gpd/acre	17,000
Neighborhood Park			20.90	6000 gpd/acre	125,400
	TOTAL =		83.10	TOTAL =	438,840

prepared by: *RM Associates*
401 W. Fallbrook, Suite 205
Fresno, CA 93711
PH: 559-449-0400

SECTION IV

STORM DRAINAGE

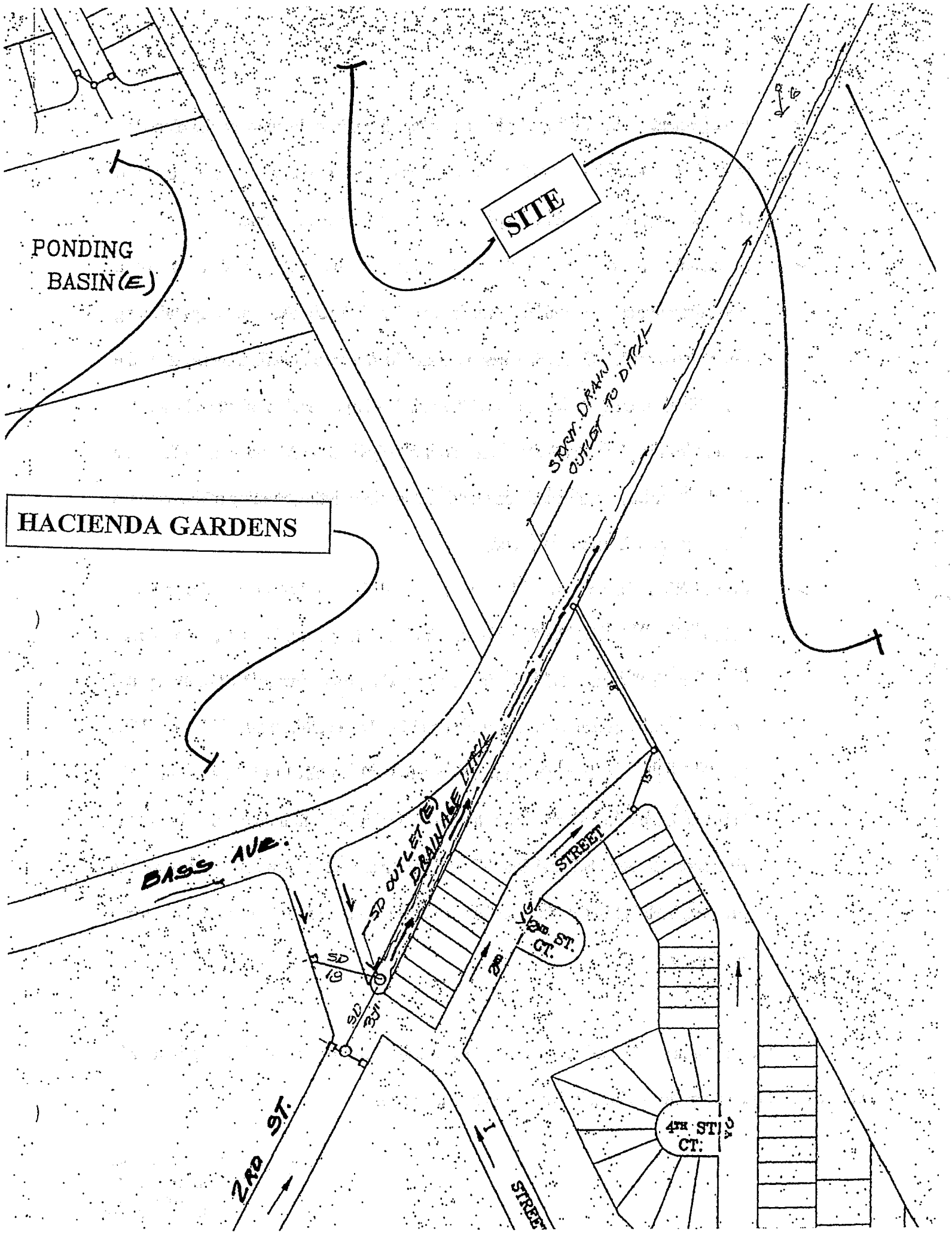
The northerly portion of the planned development is located within flood zones "B" and "C": areas of minimal flooding and areas between limits of the 100 year flood and 500 year flood, with no base flood elevation determined. The southerly portion of the planned development is entirely located within flood zone "C". All flooding is the result of Panoche - Silver Creek watershed overflowing into Belmont Avenue, flowing easterly towards the City of Mendota and being rechannelized by Belmont Avenue flood embankment and Firebaugh Main Lift Canal towards the northern portion of the City of Mendota and discharging to the Fresno Slough.

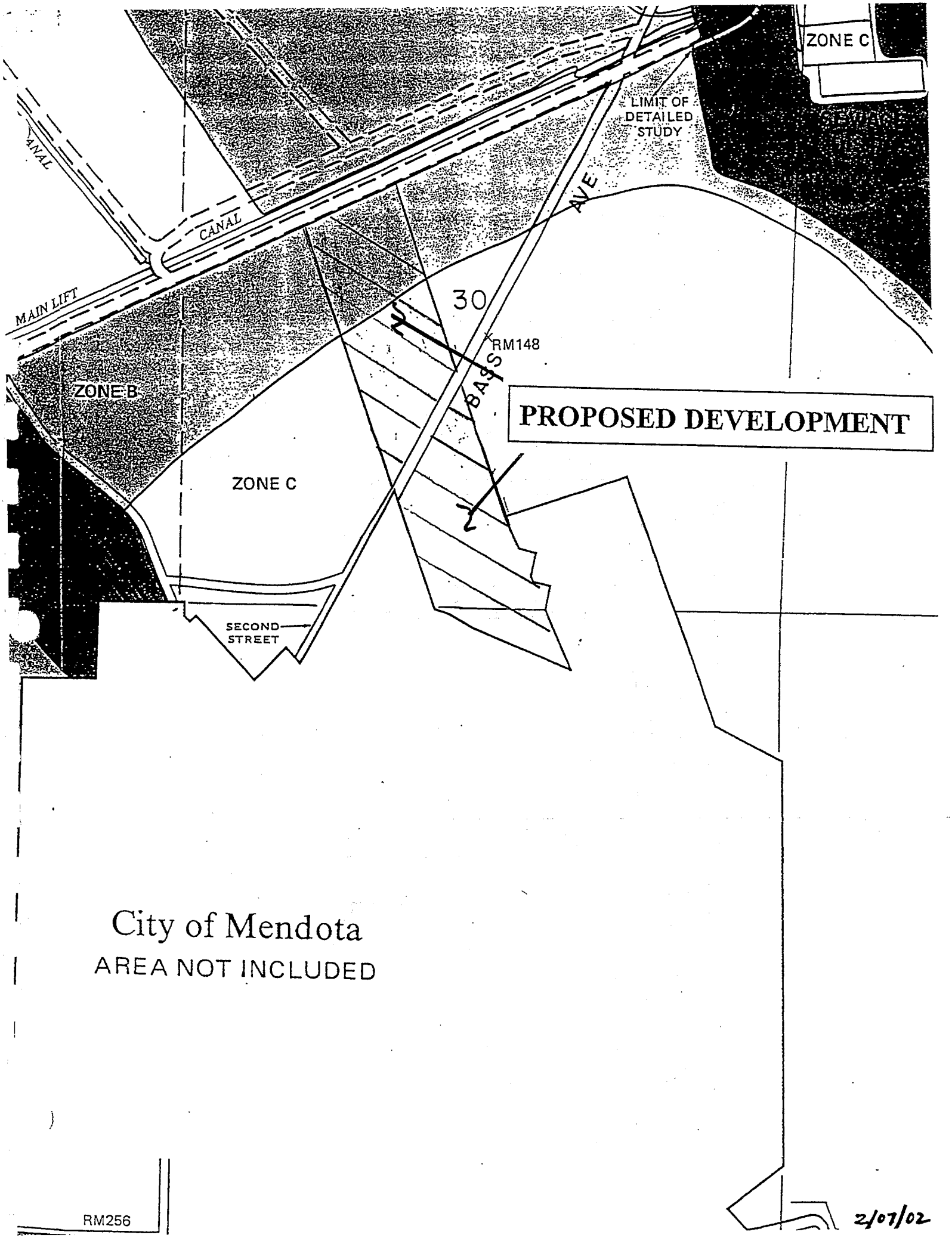
The applicant proposes as part of the planned development (phase improvements):

- Piping of existing Bass Avenue drainage ditch from the intersection of Second and "I" Street, easterly along the old alignment of Bass Avenue and along southerly right-of-way of Bass Avenue to the easterly boundary of the project,
- Enlargement of the airport drainage basin and installation of a collection and conveyance system for the southerly parcels with a control interconnection to the proposed Bass Avenue storm drain. Onsite storm drain piping would also be provided to convey the storm water from this southerly parcel to the enlarged airport drainage basin.

- Enlargement of the existing Hacienda drainage basin into the planned developed to provide a regional basin north of Bass Avenue or construction of a new joint use storm drainage basin within the proposed multi-purpose park zone,
- Acquisition (if deemed feasible and obtainable with City assistance) of a flood/drainage easement and construction of an overflow channel southerly and along Firebaugh Main Lift Canal. Said easement and flood channel would traverse along the northerly portion (undeveloped) of the existing large residential parcels located easterly of the planned development and northerly of Bass Avenue and redirect the flood water away from Bass Avenue and through the existing opening of the San Luis Drain towards Fresno Slough and,
- Construction of a stormwater lift station at the northwesterly corner of the proposed development with the assistance of the Firebaugh Irrigation District, Silver Creek Drainage District and the City of Mendota to discharge stormwater from the proposed northerly drainage basin into the Firebaugh Main Lift Canal. (It should be noted that the Firebaugh Irrigation District installed a large CMP Culvert Pipe to discharge the Panoche Creek Flood water from the Flood Diversion Ditch as a condition of the Hacienda Gardens Subdivision. The District installed this overflow culvert into Firebaugh Main Lift Canal so that homes located within Hacienda Gardens would not be flooded).

The Storm Drainage Generation Table outlines the estimated storm water discharges from the various land use categories and totals from the entire development.


SITE
PONDING BASIN (E)
HACIENDA GARDENS
STORM DRAIN OUTLET TO DITCH
SD OUTLET (E) DRAINAGE DITCH
BASS AVE.
STREET
2ND ST. CT.
2ND ST.
4TH ST. CT.
STREET
SD
SD


ZONE C
LIMIT OF DETAILED STUDY
CANAL
CANAL
MAIN LIFT
AVE
30
RM148
BASS
ZONE B
PROPOSED DEVELOPMENT
ZONE C
SECOND STREET
City of Mendota
AREA NOT INCLUDED
RM256
2/07/02

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

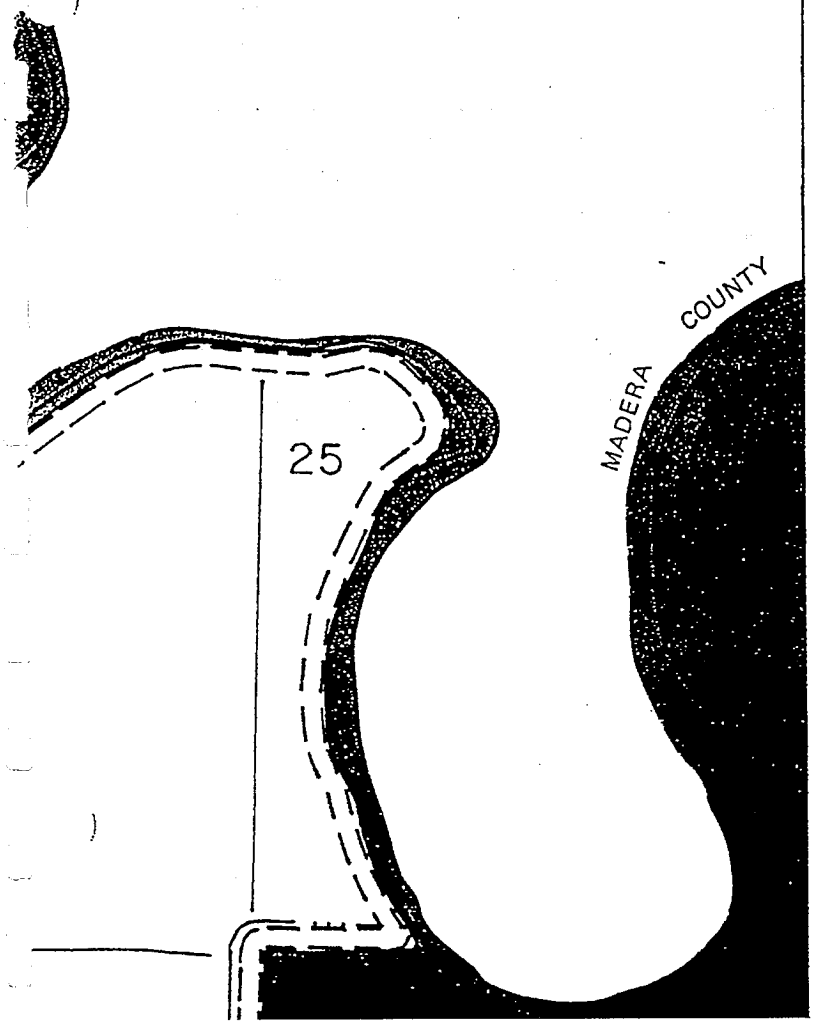
FRESNO COUNTY, CALIFORNIA
(UNINCORPORATED AREAS)

PANEL 820 OF 1800
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
065029 0820 B

EFFECTIVE DATE:
DECEMBER 1, 1982

Federal Emergency Management Agency



KEY TO MAP

500-Year Flood Boundary	
100-Year Flood Boundary	
Zone Designations*	
100-Year Flood Boundary	
500-Year Flood Boundary	
Base Flood Elevation Line With Elevation In Feet**	513
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7×
Zone D Boundary	
River Mile	•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
DECEMBER 23, 1971

"Don Alejandro Valdez"
Planned Development

(Storm Drainage Generation Table)

Land Use	Size	Units	Acres	"C"	"I" (feet)	Volume (acre feet)
Multi-family Residential	400	d.u.	23.80	0.50	0.50	5.95
Single-family Residential	64	d.u.	16.00	0.35	0.50	2.80
Retail (1)			8.00	0.95	0.50	3.80
Commercial Office (1)			5.00	0.95	0.50	2.38
Government Office (1)			6.00	0.95	0.50	2.85
Day Care			3.40	0.95	0.50	1.62
Neighborhood Park			20.90	0.25	0.50	2.62
	TOTAL =		83.10	TOTAL =		22.02

prepared by: *RM Associates*
401 W. Fallbrook, Suite 205
Fresno, CA 93711
PH: 559-449-0400

SECTION V

ELECTRICAL

Overhead electric high voltage (12kv) transmission lines currently exist along Bass Avenue. The transmission lines provide points of connection for underground electric service to the Planned Development. Underground electric service west of the Planned Development was also previously installed with the Hacienda Gardens Subdivision.

prepared by: *RM Associates*
401 W. Fallbrook, Suite 205
Fresno, CA 93711
PH: 559-449-0400

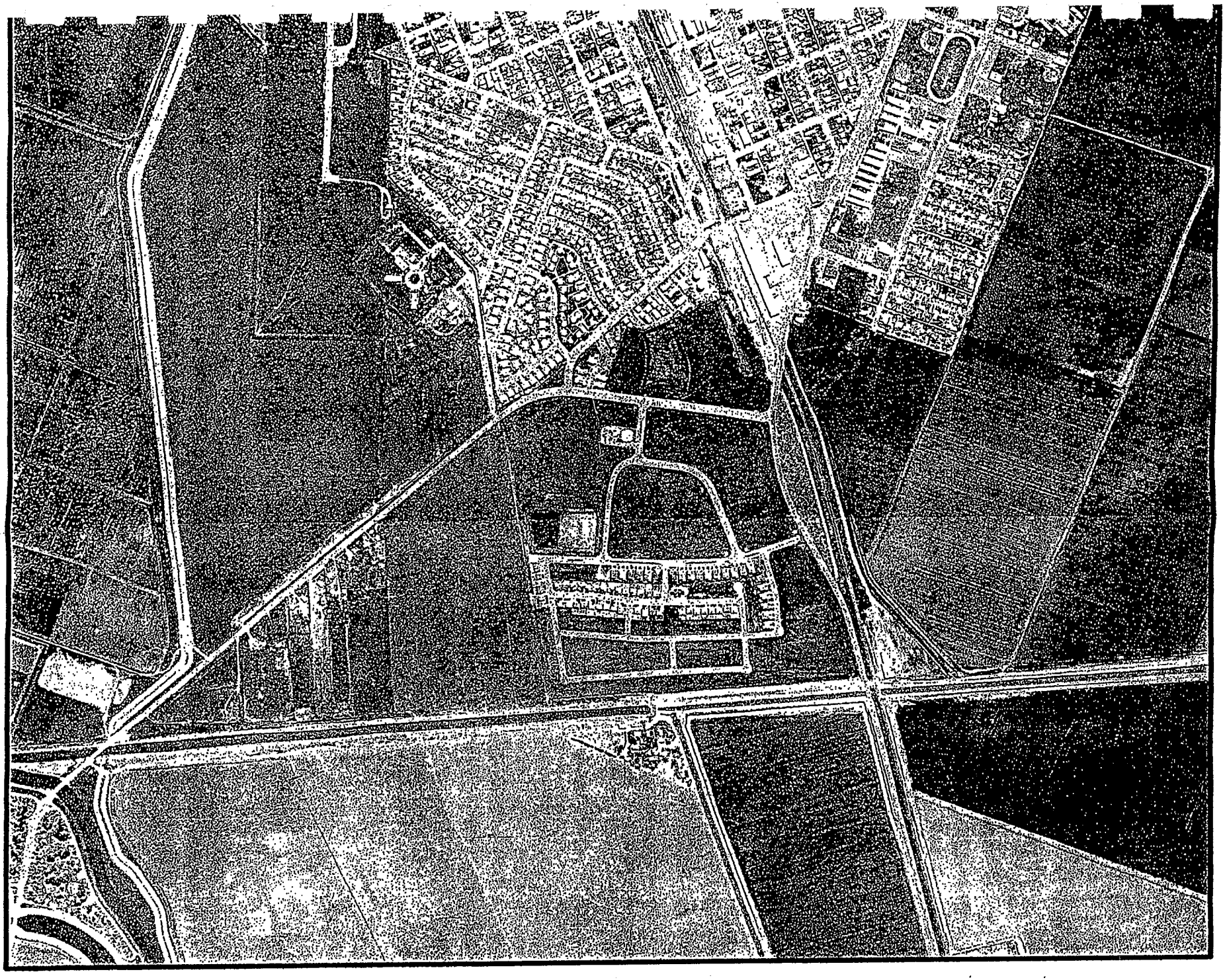
SECTION VI

GAS

A 6-inch high pressure underground gas main currently exists along Bass Avenue terminating approximately 100 feet easterly of the westerly boundary line of the Planned Development. This line previously provided gas service to the "old" Silver Creek Headquarter's and Labor Camp Housing that was developed within Fresno County, as a conditional use permit project. It predates the expansion of the Mendota Airport and residential development to the west.

The above outlines a preliminary analysis of the various utility services that will be required for this development, including proposed points of connection and services and estimated requirements on the various systems. It is expected that as this project is further planned and designed that these initial findings will be modified.

prepared by: *RM Associates*
401 W. Fallbrook, Suite 205
Fresno, CA 93711
PH: 559-449-0400



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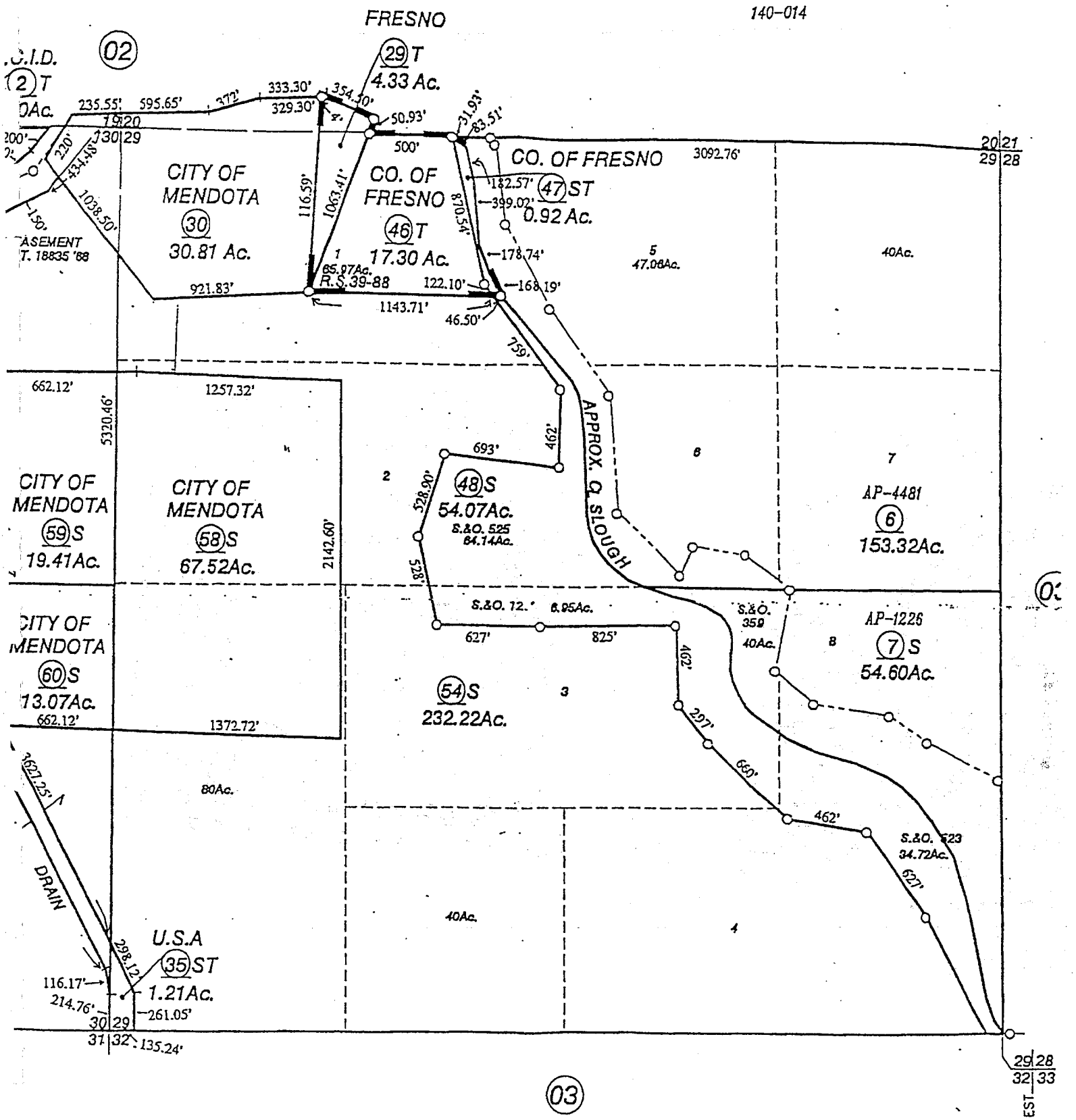

Assessor's Map Bk. 13 Pg.
County of Fresno, Calif.

NOTE - Assessor's Block Numbers Shown in Ellipses.
Assessor's Parcel Numbers Shown in Circles.

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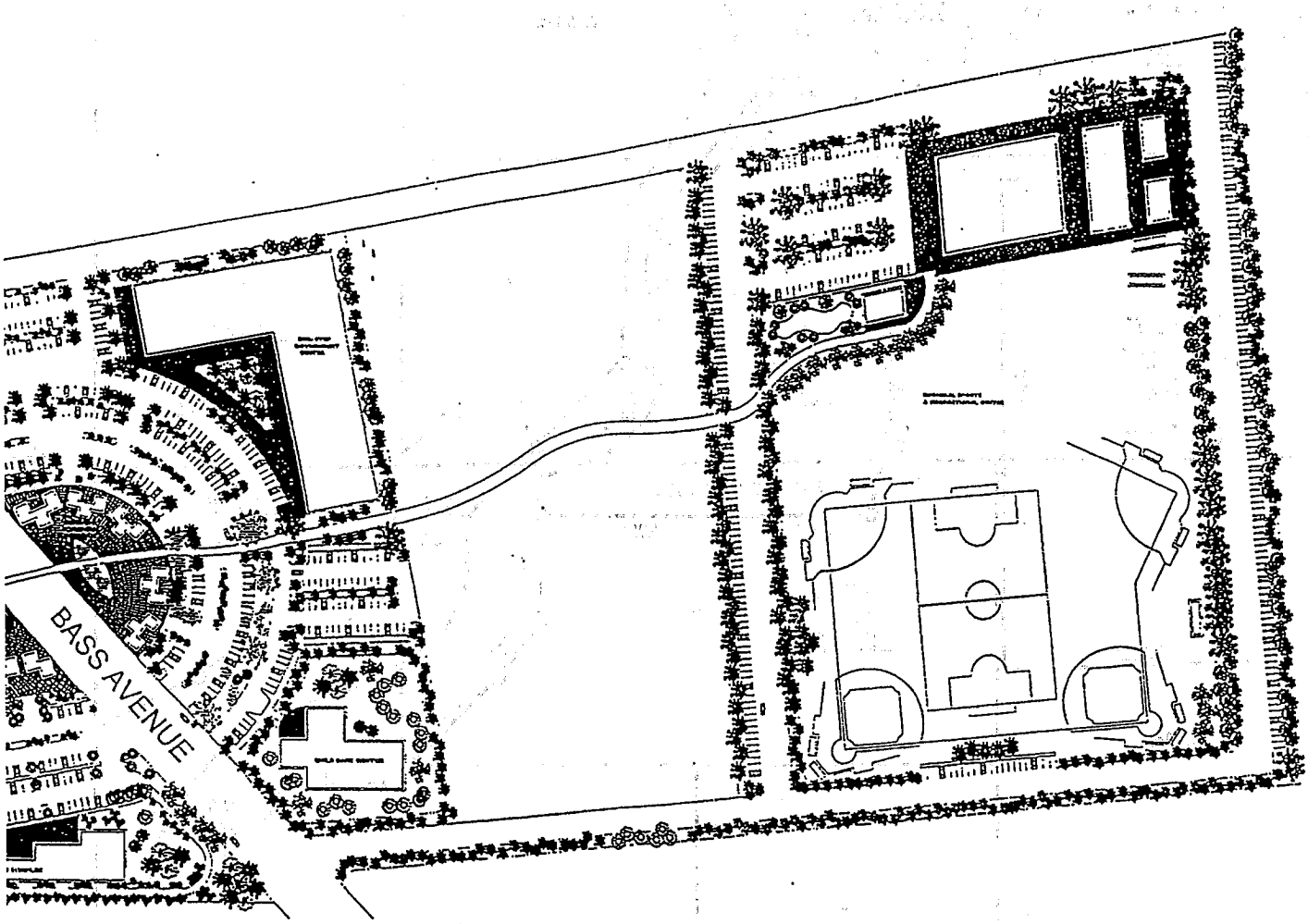

MUNITY PLAN
LEJANDRO VALDEZ

REF:, 99400
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TECHNICAL APPENDICES

Appendix G – Traffic and Circulation

VRPA Technologies. *Transportation Impact Analysis, I-5 Social Service Corporation Site, City of Mendota*. January, 2002.

TRANSPORTATION IMPACT ANALYSIS

I-5 SOCIAL SERVICE CORPORATION SITE

CITY OF MENDOTA

Prepared for:

I-5 Social Service Corporation

Prepared by:

VRPA Technologies
4746 W. Jennifer, Suite 103
Fresno, CA 93722
(559) 271-1200
FAX (559) 271-1269

January 2002

TRANSPORTATION IMPACT ANALYSIS

I-5 SOCIAL SERVICE CORPORATION SITE

CITY OF MENDOTA

This Traffic Impact Analysis (TIA) has been prepared for the purpose of analyzing traffic conditions related to the development of the proposed I-5 Social Service Corporation Site and identifying potential traffic impacts. The proposed Project is located along Bass Avenue in the City of Mendota.

1.0 INTRODUCTION

1.1 DESCRIPTION OF THE REGION/PROJECT

The Social Service Corporation site (Project site) is located in central San Joaquin Valley within the City of Mendota. Figure 1-1 shows the location of the project along with major roadways in the vicinity of the project site. Figure 1-2 provides a site plan for the project.

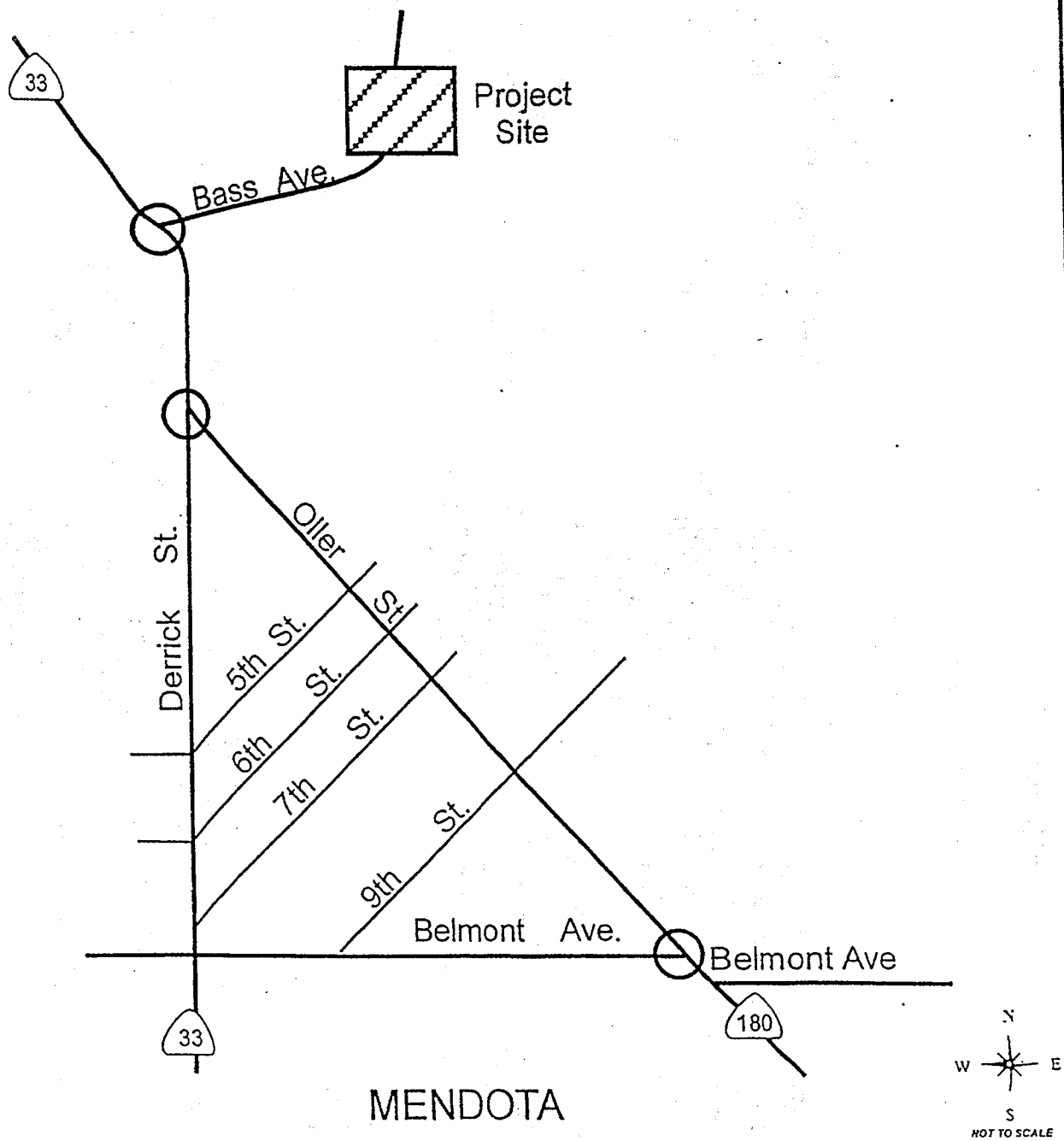
For traffic impact analysis purposes, the Project is defined as the construction of 400 mulit-family dwelling units, 64 single-family dwelling units of, 8 acres of Retail, 2.4 acres of Commercial Office, 6 aces of Government Office, 3.4 acres of Day Care and a 20.9 acre Neighborhood Park.

1.2 METHODOLOGY

When preparing a TIA, guidelines set by affected agencies are followed. In analyzing street and intersection capacities the Level of Service (LOS) methodologies are applied. LOS standards are applied by transportation agencies to quantitatively assess a street and highway system's performance. In addition, safety concerns are analyzed to determine the need for appropriate mitigation resulting from increased traffic near sensitive uses, the need for dedicated ingress and egress access lanes to the Project, and other evaluations such as the need for signalized intersections or other improvements.

Intersection Level of Service

Intersection level of service analysis was conducted using the methods of the 1997 Highway Capacity Manual. Levels of Service can be determined for both signalized and unsignalized intersections. Intersections analyzed as part of this Project are currently unsignalized.



PROJECT LOCATION

Figure 1-1

Legend

Project Site

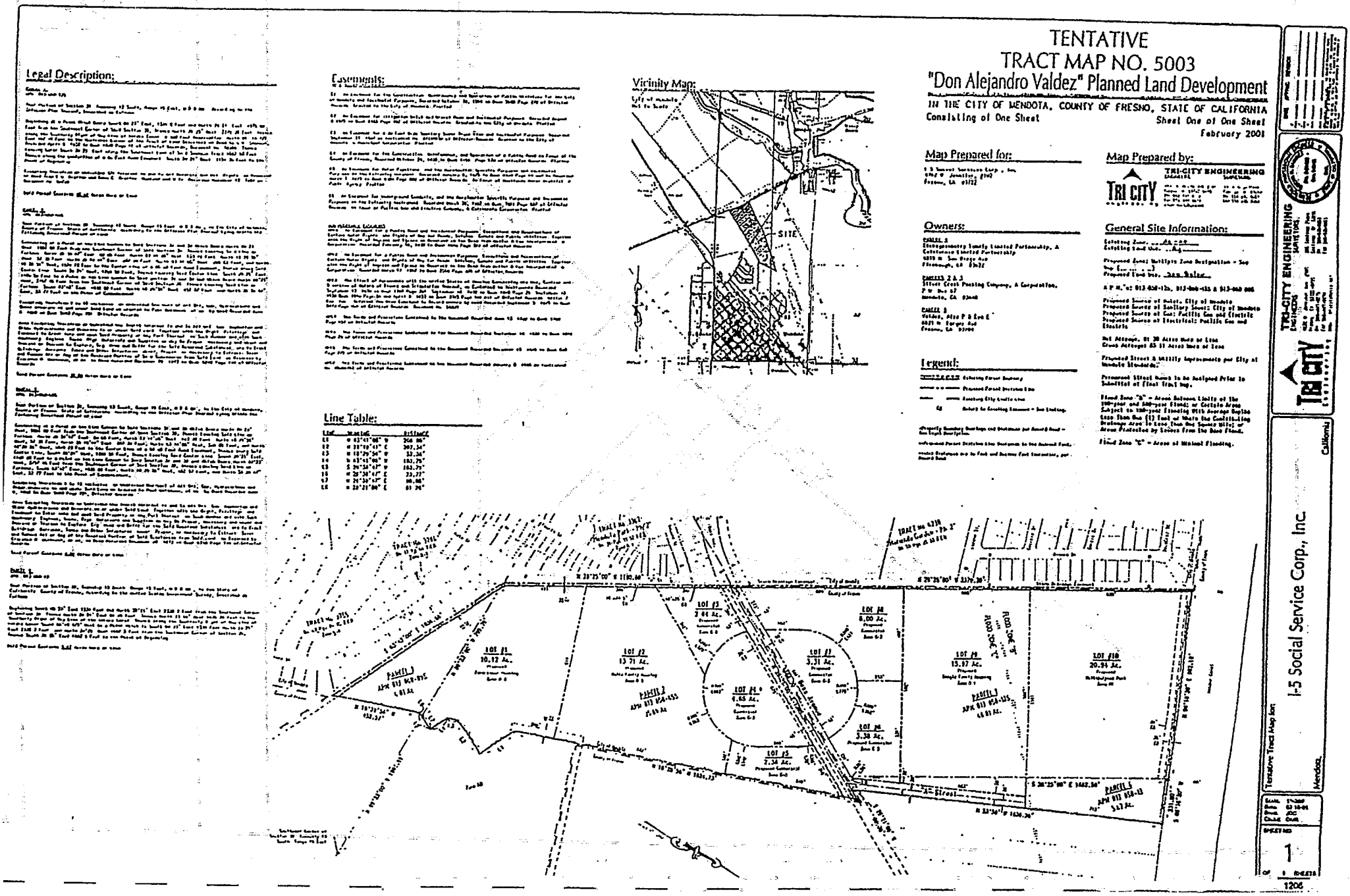
Key Intersection

VRPA TECHNOLOGIES

tripdst2.cdr

FIGURE 1

PROJECT SITE PLAN



Two-Way Stop Controlled intersections measure LOS by determining the amount of vehicle delay. Delay of a vehicle is calculated from the time the vehicle stops at the intersection or the last vehicle in the queue, until the time the vehicle leaves the stop bar (reference Table 1-1 which describes LOS versus delay). Signalized intersections are analyzed using average delay for all vehicles.

Segment Level of Service

According to the 1997 Highway Capacity Manual (HCM), LOS is categorized by two parameters of traffic: uninterrupted and interrupted flow. Uninterrupted flow facilities do not have fixed elements such as traffic signals that cause interruptions in traffic flow. Interrupted flow facilities do have fixed elements that cause an interruption in the flow of traffic, such as stop signs and signalized intersections along arterial roads. A roadway segment is defined as a stretch of roadway generally located between signalized or controlled intersections. The HCM-based LOS analysis considers a calculation of traffic volume and other variables previously described, such as the number of lanes, number of passing lanes, terrain and other variables (reference Table 1-2 for a complete definition of segment levels of service).

To determine the existing LOS for each street segment analyzed, segment LOS was estimated using the Modified HCM-Based LOS Tables (Florida Tables), which are approved for use in Fresno County. The Tables consider the capacity of individual segments based on numerous roadway variables (freeway design speed, number of passing lanes, number of lanes, saturation flow, etc.). These variables were identified and applied in the LOS Tables to reflect existing traffic LOS conditions in the Project area. A complete description of the Modified Tables and the variables, applied to calculate segment LOS, is included in Technical Appendix A.

1.3 POLICIES TO MAINTAIN LEVEL OF SERVICE

An important goal is to maintain acceptable levels of service along the highway, street, and road network. To accomplish this, Caltrans and local agencies adopt minimum levels of service in an attempt to control congestion that may result as new development occurs. Caltrans, minimum LOS is C, except where the existing LOS is D or below, according to information specified in the Caltrans, *A Guide For Traffic Impact Studies.* Fresno County's minimum LOS standard is LOS C or LOS D depending on certain conditions. In the study area covered under this report LOS D was used as the LOS standard for both Caltrans and Fresno County. Specific actions intended to ensure implementation of these minimum levels of service should include the following:

- enforce LOS standards that are practical and understandable and that meet an affected agency's objective to provide a high level of mobility for residents and high levels of mobility for activity centers. Where adopted levels of service are exceeded, complete all possible improvements and implement measures to reduce additional burden to roadways, such as the synchronization of traffic signals.

Table 1-1
Two Way Stop Controlled Intersections
Level of Service Definitions
(1997 Highway Capacity Manual)

Level of Service	Definition	Average Total Delay (sec/veh)
A	Describes operations with very low delay. This level of service occurs when there is no conflicting traffic for minor street.	≤ 10.0
B	Describes operations with moderately low delay. This level generally occurs with a small amount of conflicting traffic causing higher levels of average delay.	> 10.0 and ≤ 15.0
C	Describes operations with average delays. These higher delays may result from a moderate amount of minor street traffic. Queues begin to get longer.	> 15.0 and ≤ 25.0
D	Describes a crowded operation, with below average delays. At level D, the influence of congestion becomes more noticeable. Longer delays may result from shorter gaps on the mainline and an increase of minor street traffic. The queues of vehicles are increasing.	> 25.0 and ≤ 35.0
E	Describes operations at or near capacity. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor gaps for the minor street to cross and large queues.	> 35.0 and ≤ 50.0
F	Describes operations that are at the failure point. This level, considered to be unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of the intersection. Insufficient gaps of suitable size exist therefore not allowing minor traffic to cross safely.	> 50.0

Table 1-2
Segment Level of Service Definitions
(1997 Highway Capacity Manual)

Level of Service	Definition
A	Represents free flow. Individual vehicles are virtually unaffected by the presence of others in the traffic stream.
B	Is in the range of stable flow, but the presence of other vehicles in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
C	Is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual vehicles becomes significantly affected by interactions with other vehicles in the traffic stream.
D	Is a crowded segment of roadway with a large number of vehicles restricting mobility and a stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
E	Represents operating conditions at or near the level capacity. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
F	Is used to define forced or breakdown flow (stop-and-go gridlock). This condition exists when the amount of traffic approaches a point where the amount of traffic exceeds the amount that can travel to a destination. Operations within the queues are characterized by stop and go waves, and they are extremely unstable.

- all new facilities should be designed to operate at the policy LOS or better for a period of at least 20 years following their construction.

- permit new development projects only when circulation facilities already exist or will be completed as part of, or prior to, completion of a project so that project-related traffic does not cause level of service to deteriorate below acceptable levels.

2.0 EXISTING CONDITIONS

2.1 TRAFFIC COUNTS AND ROADWAY GEOMETRICS

The first step toward assessing project traffic impacts was to assess existing traffic conditions. Existing AM and PM peak hour turning movements at each project area intersection were determined by VRPA. AM and PM peak hour counts were conducted in October 2001 for all three key intersections. Seasonal fluctuations in traffic can vary significantly in certain areas of Fresno County. In order to provide traffic counts that were representative of peak season conditions, the following process was followed:

- Existing AM and PM peak hour turning movement counts were conducted by VRPA in October 2001.
- The turning movement counts conducted by VRPA were compared to the peak hour counts published by Caltrans in the annual Traffic Volumes on State Highways report. These counts are considered to reflect peak hour peak season counts.
- Wherever the turning movement counts would result in roadway segment counts less than shown for the peak hour in the Caltrans report, the turning movement counts were adjusted proportionally to match the peak season counts.

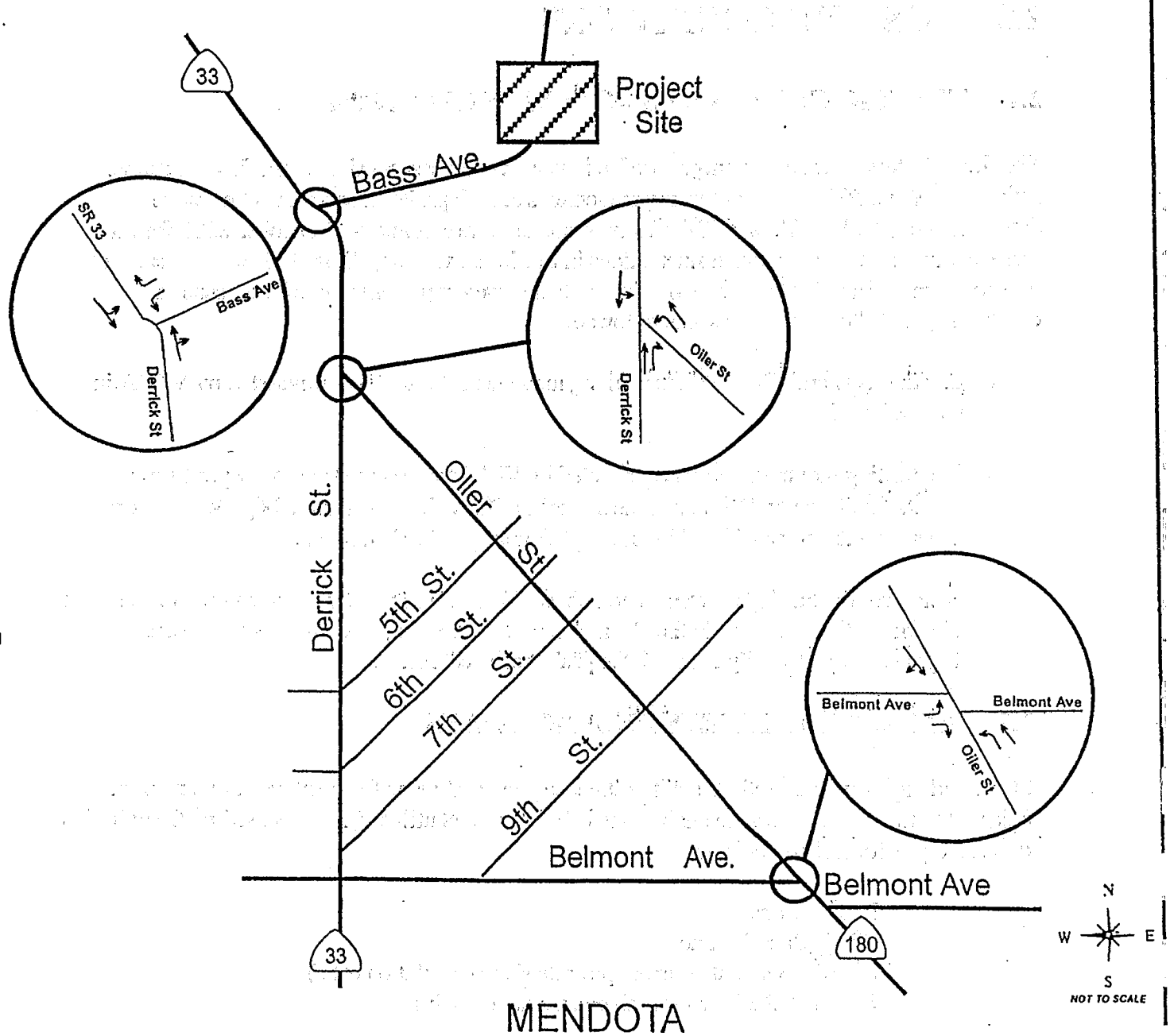
2.2 AFFECTED STREETS AND HIGHWAYS

Street and highway intersections and the street segments between those intersections near and adjacent to the project site were analyzed to determine LOS utilizing HCM-based methodologies described previously, and include:

Intersections:
SR 33/Bass Avenue
SR 180/Belmont Avenue (pro-rate share calculation only)
SR 180/SR 33 (pro-rate share calculation only)

Street Segments:
SR 33, north of Bass Avenue
SR 33/ south of Bass Avenue
Bass Avenue/ north of SR 33

The existing lane geometry at key study area intersections is shown in Figure 2-1. All study area intersections are currently controlled by stop signs, with stop control for the minor street only. A graphical representation of the existing traffic counts is shown in Figures 2-2 and Figure 2-3.



EXISTING LANE GEOMETRY

Figure 2-1

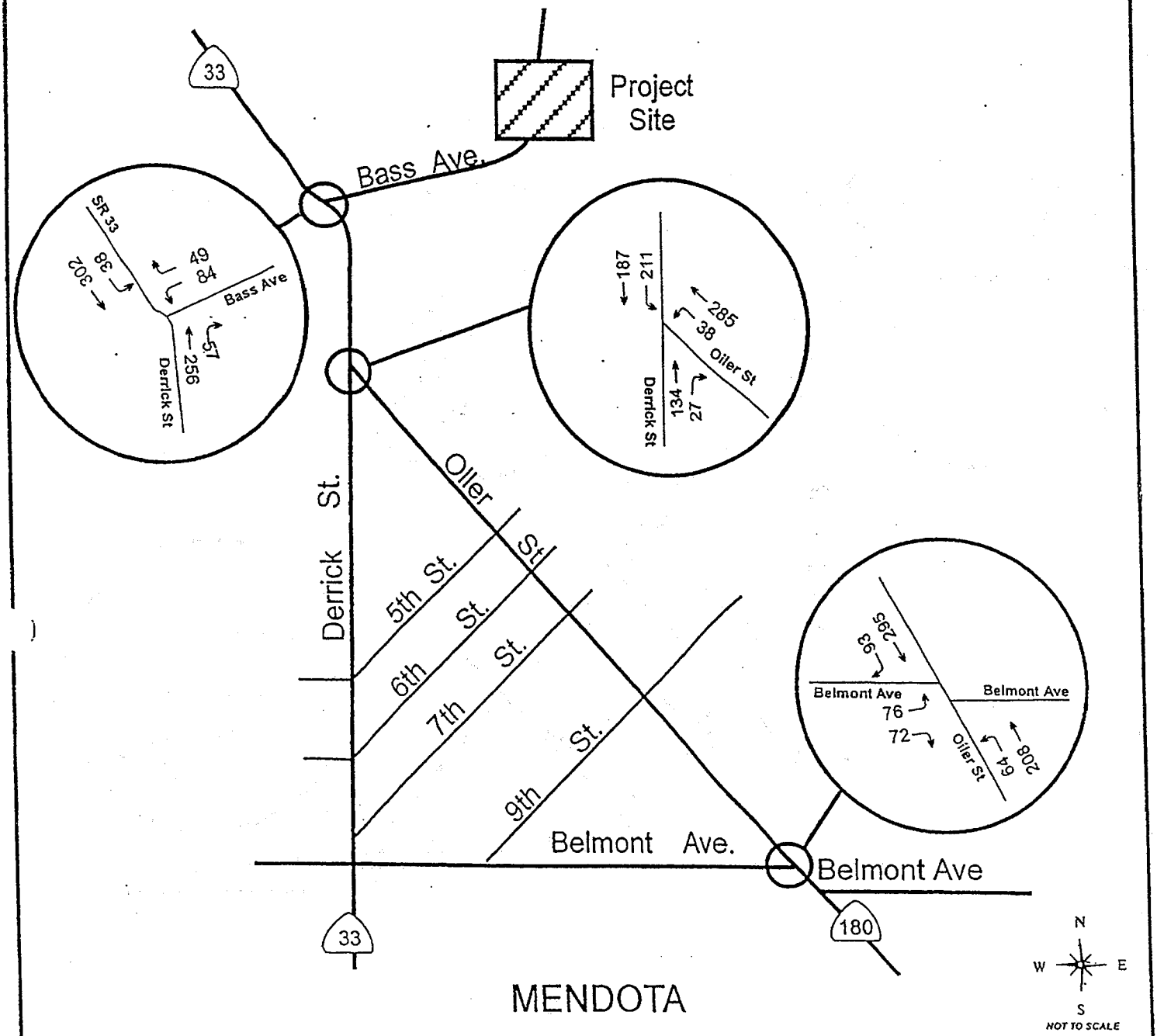
Legend

Project Site

Key Intersection

Existing Lane Designations

VRPA TECHNOLOGIES



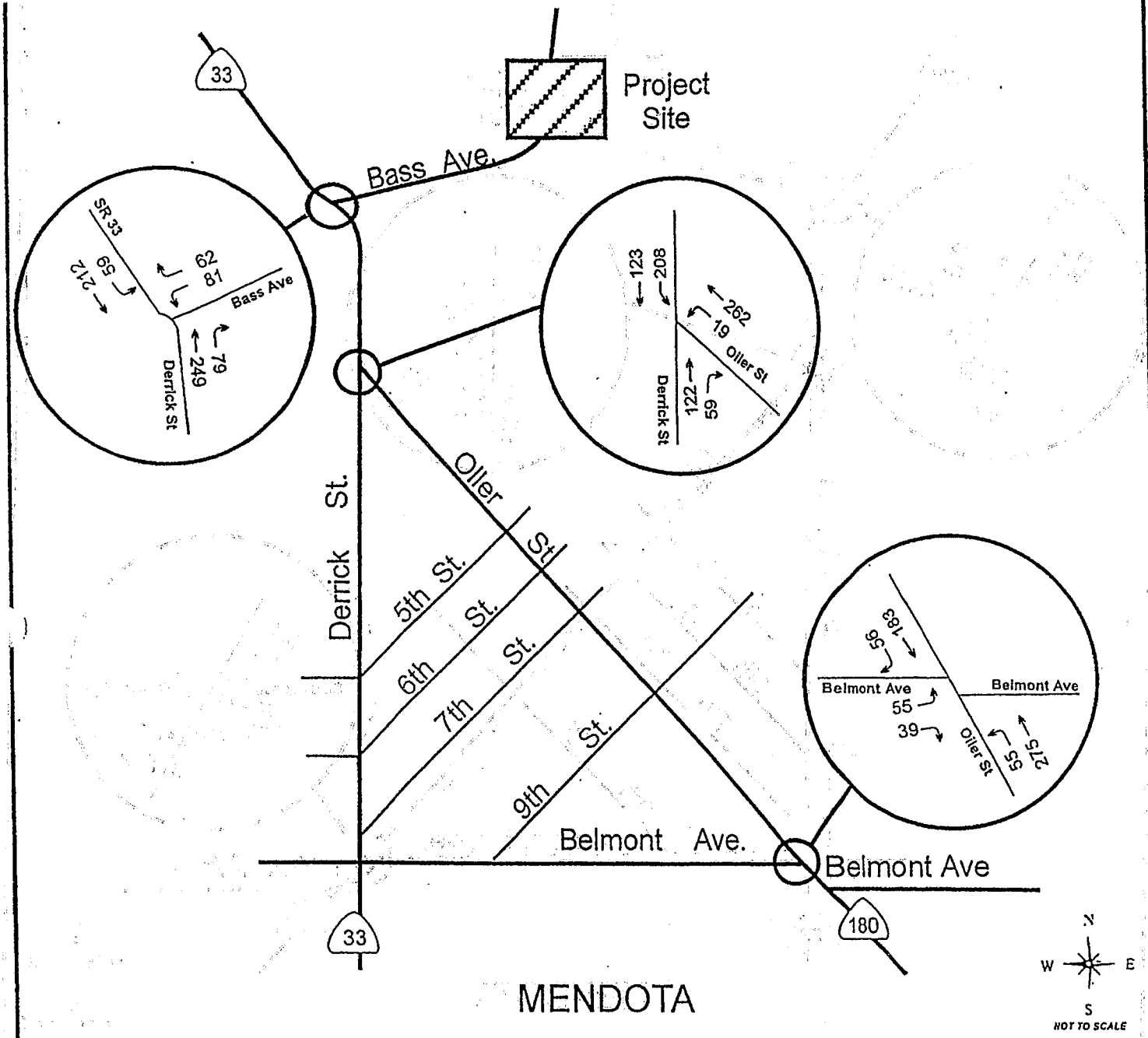
EXISTING AM PEAK HOUR TRAFFIC

Figure 2-2

Legend

Intersection Turning Movements

VRPA TECHNOLOGIES



EXISTING PM PEAK HOUR TRAFFIC

Figure 2-3

Legend

Intersection Turning Movements

VRPA TECHNOLOGIES

2.3 LEVEL OF SERVICE

Segment Capacity Analysis

Results of the LOS segment analysis along the existing street and highway system in the project area are reflected in Table 2-1. Additional detail on street segment capacity analysis is shown in Appendix A. Segment LOS was determined using Arterial LOS Tables (Florida Tables). Table 2-1 provides segment LOS for additional traffic impact scenarios, which are described later.

Results of the segment analysis indicate that street and highway segments adjacent to, or near the Project site, are currently operating at acceptable levels of service.

Intersection Capacity Analysis

All intersection LOS analyses were estimated using Highway Capacity Software (HCS), based on the 1997 Highway Capacity Manual. For reference, HCS LOS worksheets are provided in Technical Appendix B. Reference Table 2-1 for the intersection LOS for other traffic impact scenarios. Results of the intersection capacity analysis indicate that all intersections studied are operating at adequate levels of service.

3.0 TRAFFIC IMPACTS

3.1 TRIP GENERATION

To assess the impacts that the Project may have on the surrounding streets, the first step was to determine Project trip generation. Based on the project site plan shown in Figure 1-2, project trip generation was estimated as shown in Table 3-1. The trip generation was based on the ITE Trip Generation Manual, 6th Edition, using the following methodology:

3.2 TRIP DISTRIBUTION

Trip distribution for existing conditions is shown in Figure 3-1. This information was based on prevailing traffic patterns in the area of the project site.

3.3 PROJECT TRAFFIC

Project traffic as calculated in Table 3-1 was distributed to the roadway system using the trip distribution percentages shown in Figure 3-1. Daily project traffic is shown in Figures 3-2. AM and PM peak hour traffic for the project is shown in Figures 3-3 and 3-4.

3.4 EXISTING PLUS CUMULATIVE PROJECTS PLUS PROJECT TRAFFIC CONDITIONS

Traffic impact analysis typically requires the analysis of a scenario that includes existing traffic, traffic generated at approved developments (i.e. cumulative traffic), and traffic generated by the project. In this case, there was one cumulative project that would have a significant impact on traffic. It is located at the intersection of SR 33 and Bass Avenue and includes development of a motel and convenience store. Project trips from this development were taken from a traffic impact study conducted for the project (Traffic Impact Study, Peters Engineering, September 27, 2001). Existing traffic was added to traffic generated at this cumulative development and traffic generated by the proposed project. The resulting traffic is shown in Figures 3-5 and 3-6.

3.5 FUTURE NO PROJECT TRAFFIC CONDITIONS

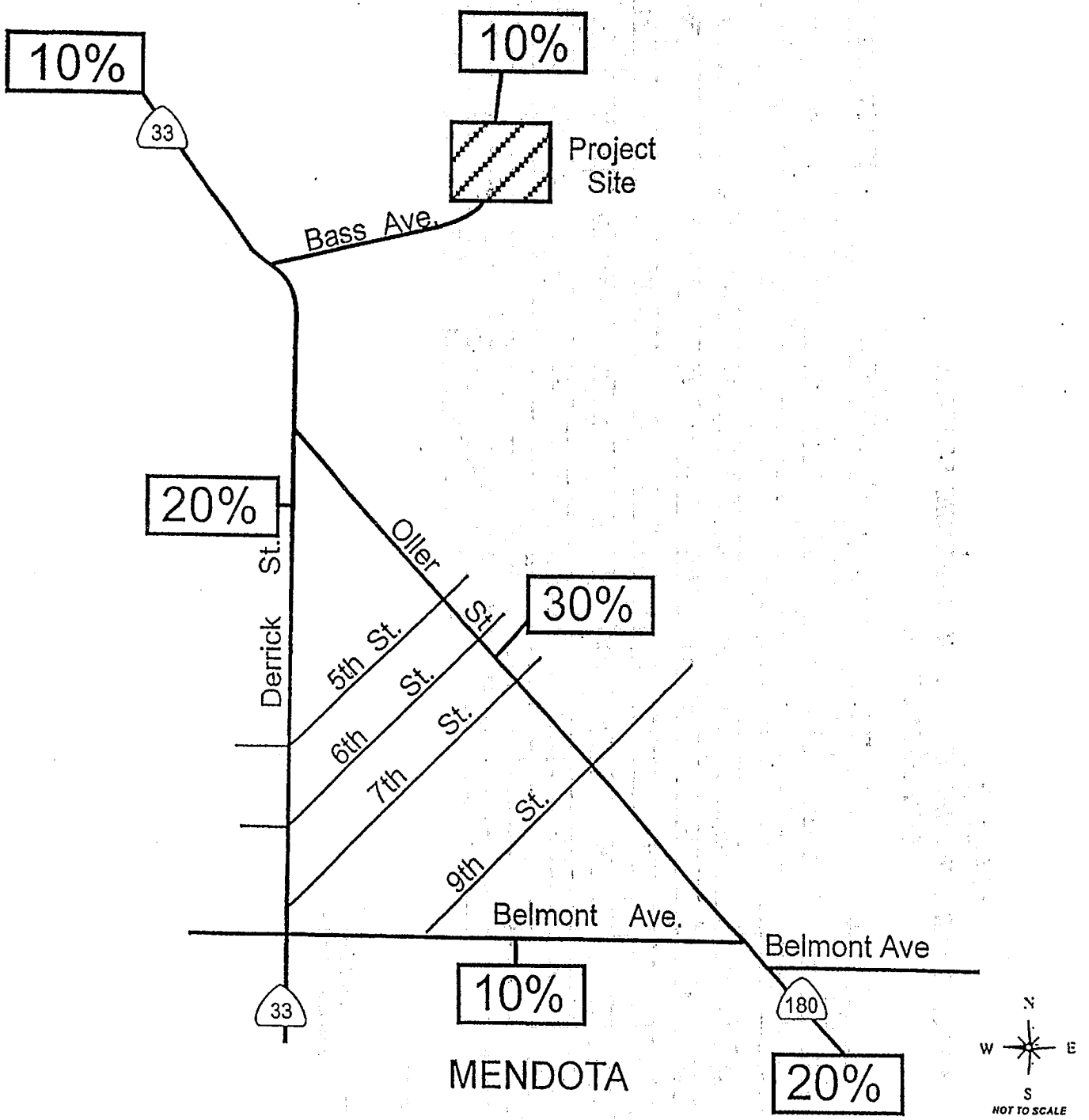
The impacts of the project were analyzed on future traffic conditions, corresponding to the Year 2020. Year 2020 traffic was forecast using existing traffic as a base and increasing this traffic by a growth factor of 2% per year. The traffic conditions resulting from this scenario are shown in Figures 3-7 and 3-8.

TABLE 3-1
I-5 SOCIAL SERVICE CORPORATION SITE TRIP GENERATION
CITY OF MENDOTA

									AM Peak Hour Trips				PM Peak Hour Trips	
Land Use	Size	Units	ITE Code	Daily Trip Rate	Captured Trips	Daily Trips	% AM Peak	% AM Inbound	In	Out	% PM Peak	% PM Inbound	In	Out
Multi-family Residential	400	d.u.	210	6.6	10%	2,376	7.8%	25%	46	139	10.6%	65%	164	88
Single-family Residential	64	d.u.	220	10.0	10%	576	7.7%	15%	7	38	9.4%	65%	35	19
Retail (1)	8.0	acres	820	675.0	15%	4,590	2.4%	50%	55	55	8.7%	50%	200	200
Commercial Office (1)	2.4	acres	710	173.0	5%	394	14.2%	88%	49	7	13.5%	17%	9	44
Government Office (1)	6.0	acres	710	173.0	5%	986	14.2%	88%	123	17	13.5%	17%	23	110
Day Care	3.4	acres	565	690.0	20%	1,877	16.0%	50%	150	150	16.6%	50%	156	156
Neighborhood Park	20.9	acres	(2)	5.0	20%	84	4.0%	50%	2	2	8.0%	50%	3	3
					Total	10,883		Subtotal	432	407		Subtotal	589	621
								Total trips	840			Total trips	1,210	

1) A floor area ratio of 20% was used to calculate trip generation rates expressed in acers.

2) Trip generation rates were estimated based on information provided by the San Diego Association of Governments because reliable ITE rates were unavailable for this land use.



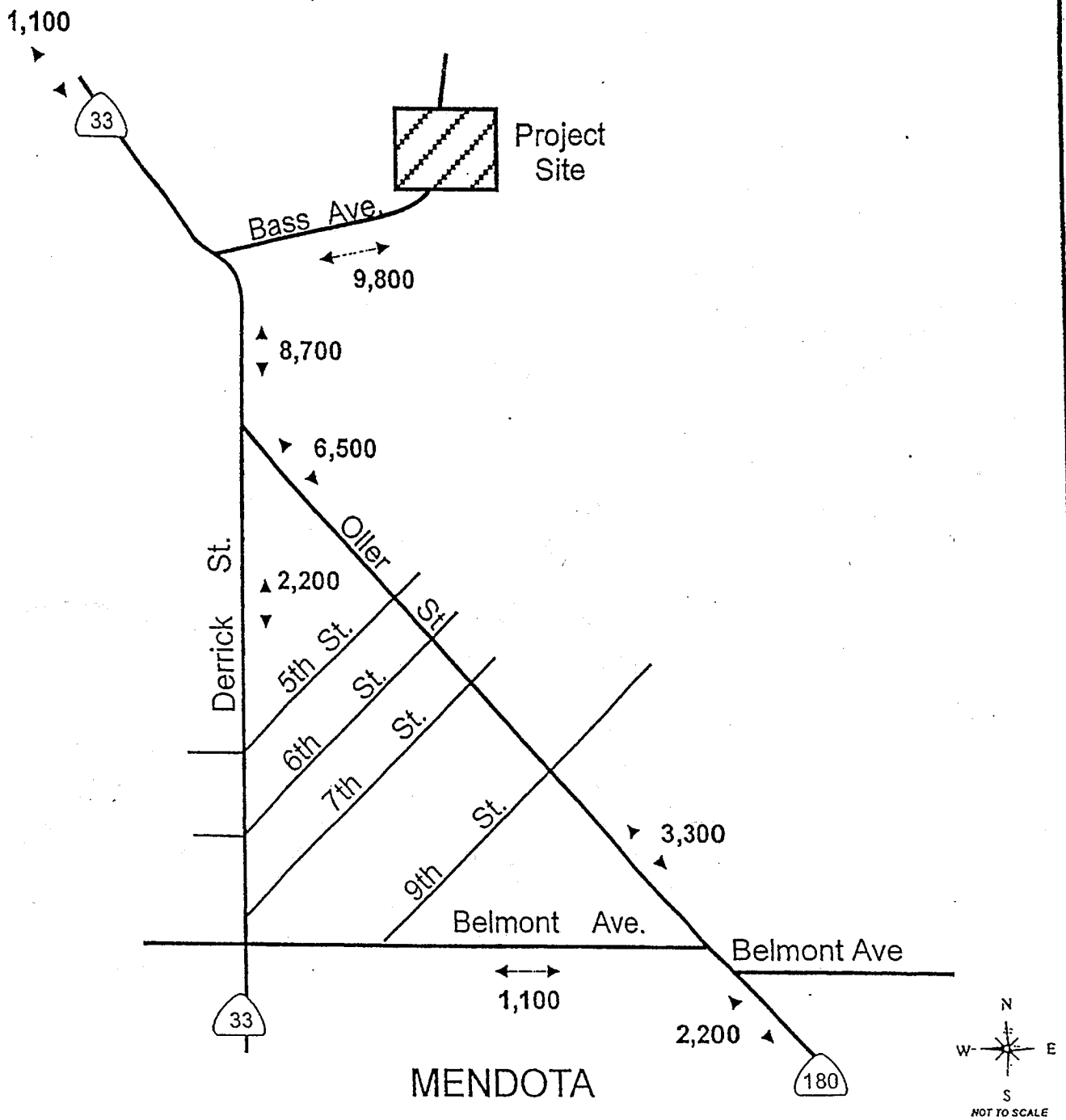
TRIP DISTRIBUTION

Figure 3-1

Legend

XX% Trip Distribution Percentage

VRPA TECHNOLOGIES



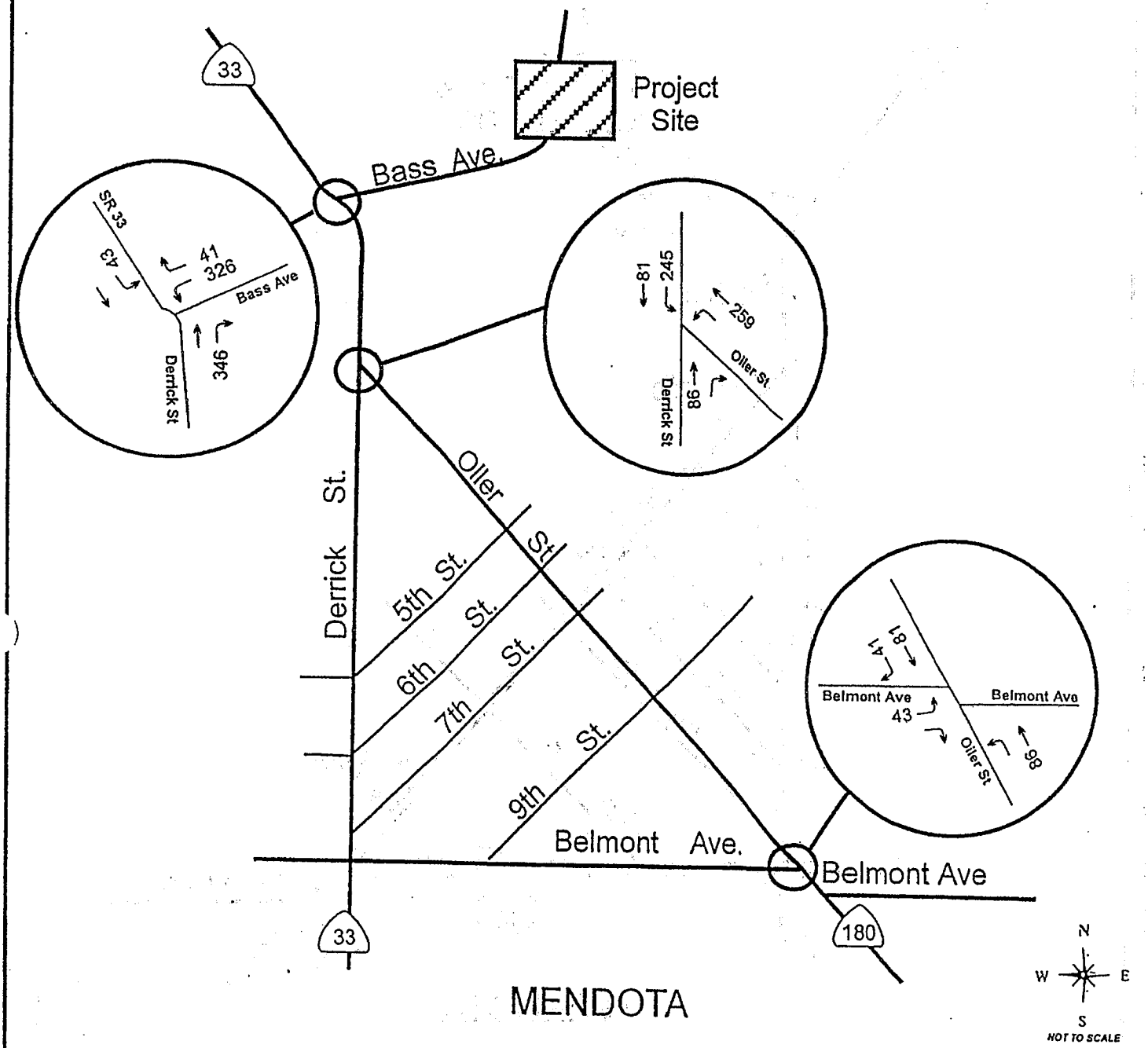
PROJECT TRIPS AVERAGE DAILY TRAFFIC

Figure 3-2

Legend

XX% Trip Distribution Percentage

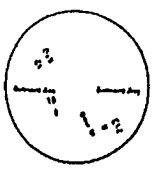
VRPA TECHNOLOGIES



PROJECT TRIPS AM PEAK HOUR

Figure 3-3

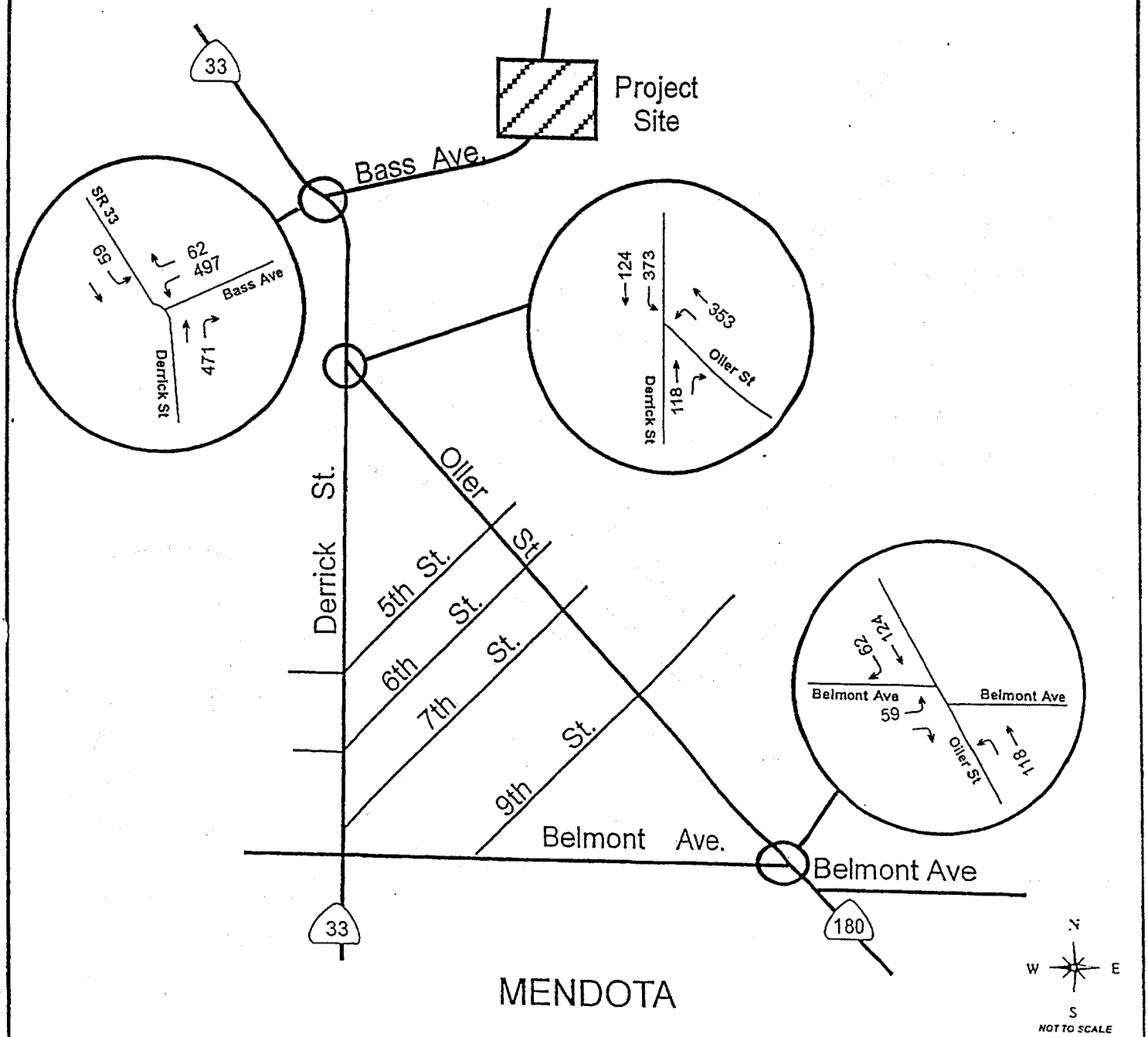
Legend



Intersection Turning Movements (Project Trips)

VRPA TECHNOLOGIES

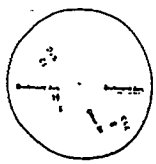
tripdst2.cdr



PROJECT TRIPS PM PEAK HOUR

Figure 3-4

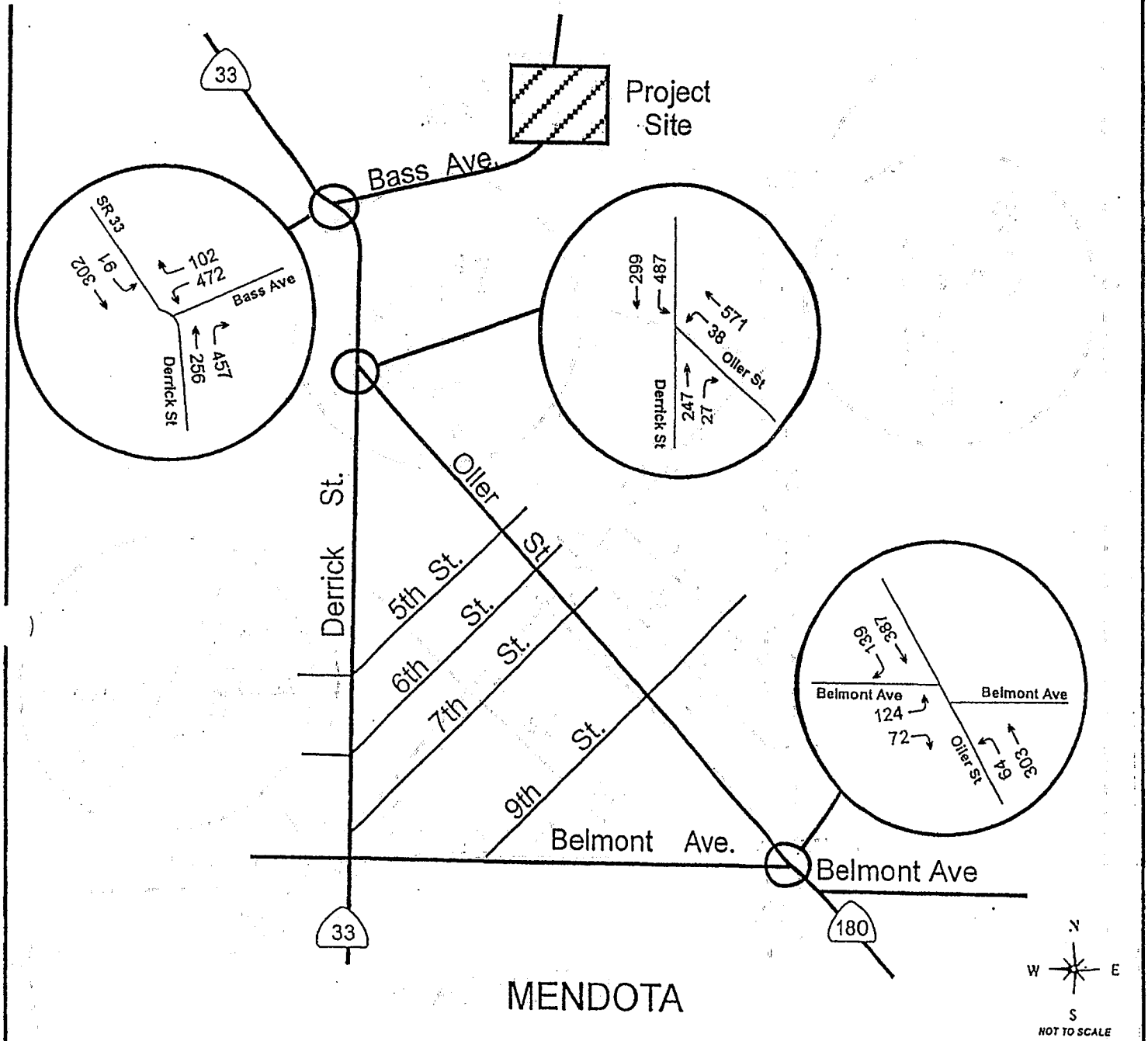
Legend



Intersection Turning Movements (Project Trips)

VRPA TECHNOLOGIES

tripdst2.cdr



EXISTING PLUS PROJECT AM PEAK HOUR TRAFFIC

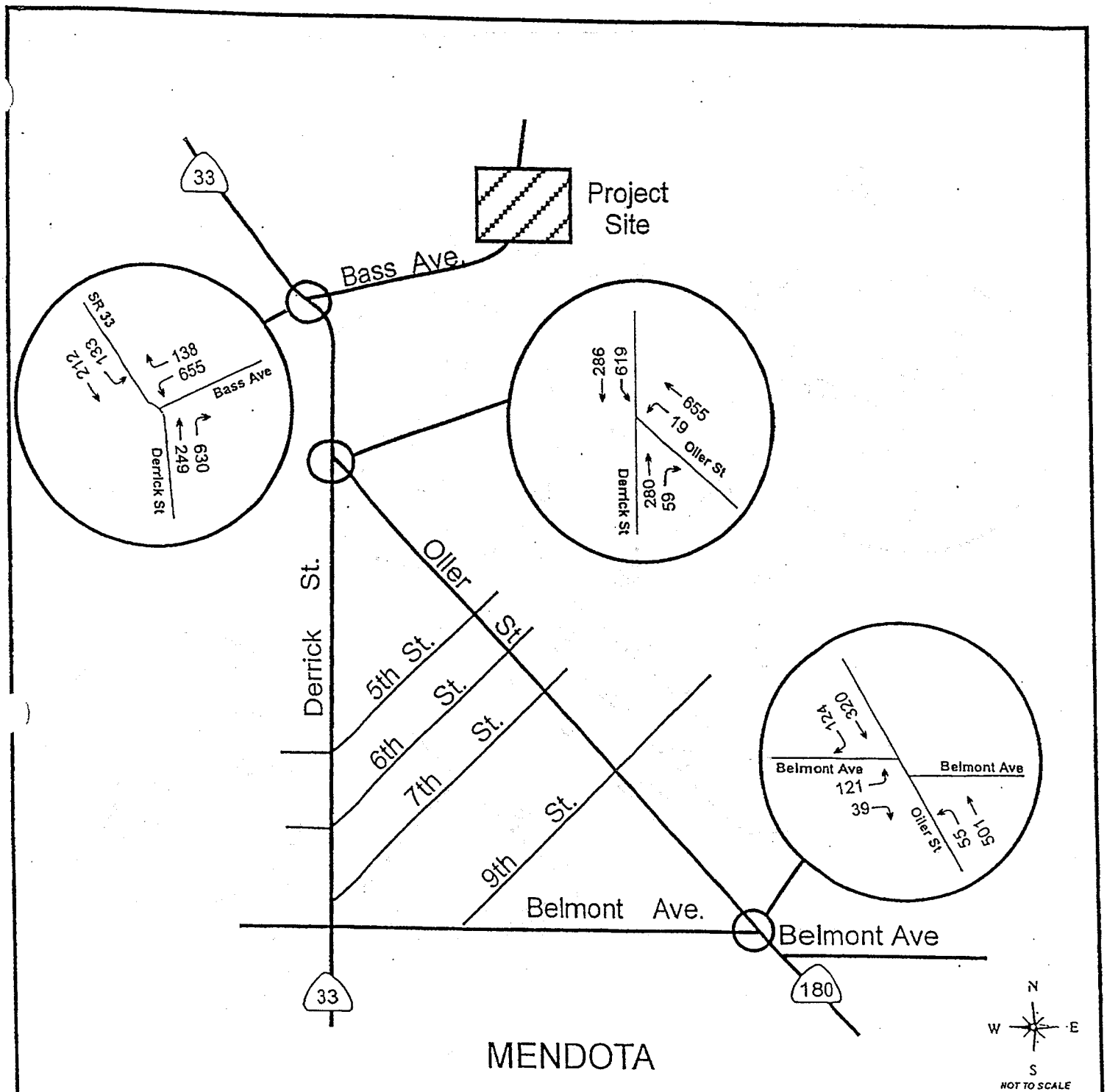
Figure 3-5

Legend

Intersection Turning Movements

VRPA TECHNOLOGIES

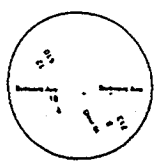
tripdst2.cdr



EXISTING PLUS PROJECT PM PEAK HOUR TRAFFIC

Figure 3-6

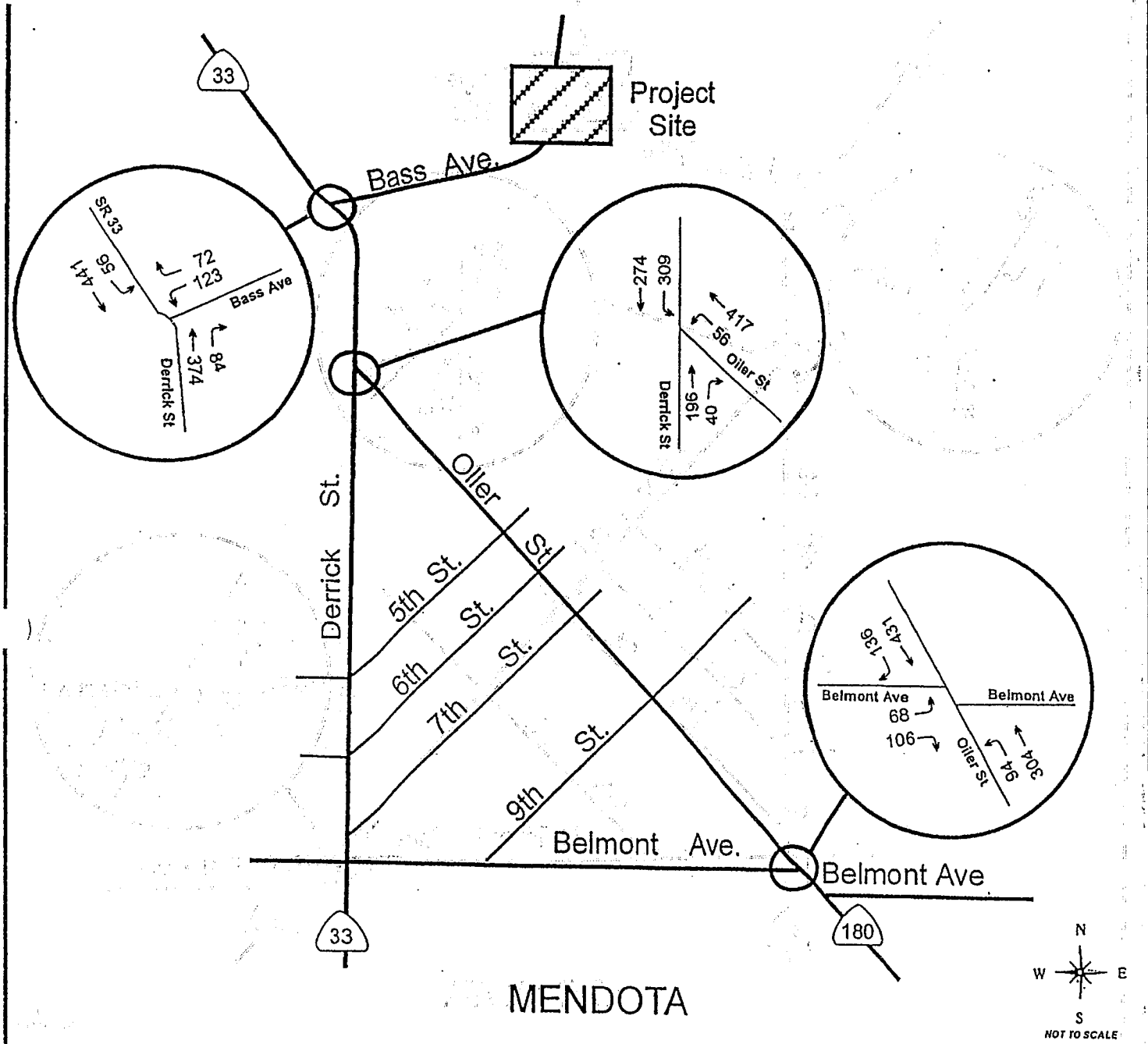
Legend



Intersection Turning Movements

VRPA TECHNOLOGIES

tripdst2.cdr



FUTURE NO PROJECT AM PEAK HOUR TRAFFIC

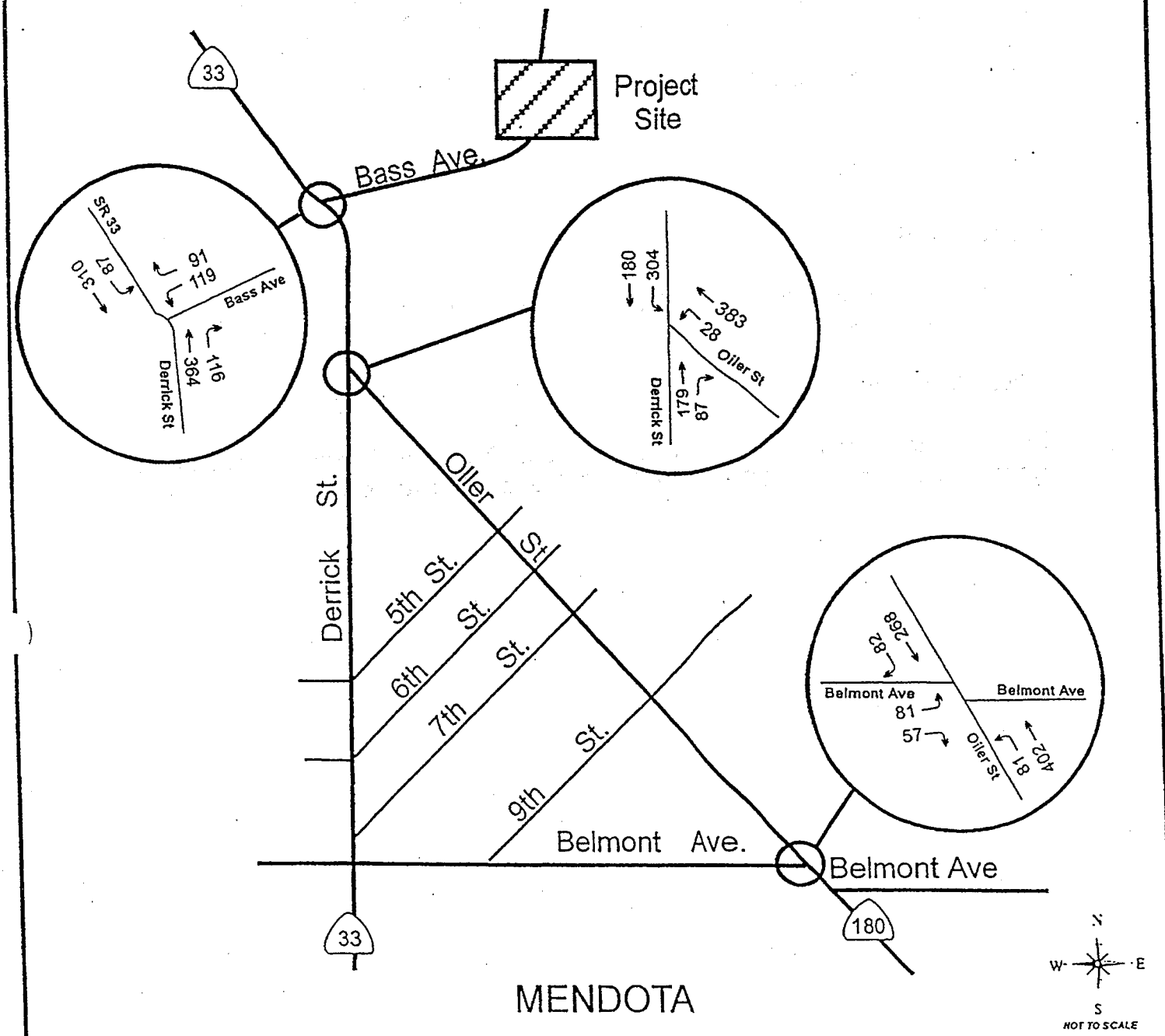
Figure 3-7

Legend

Intersection Turning Movements

VRPA TECHNOLOGIES

trjodsl2.cdr



FUTURE NO PROJECT PM PEAK HOUR TRAFFIC

Figure 3-8

Legend

Intersection Turning Movements

VRPA TECHNOLOGIES

trindsl2.cdr

3.6 FUTURE WITH PROJECT TRAFFIC CONDITIONS

The addition of project trips to future Year 2020 traffic conditions leads to the results shown in figures 3-9 and 3-10.

3.7 IMPACTS

Segment LOS

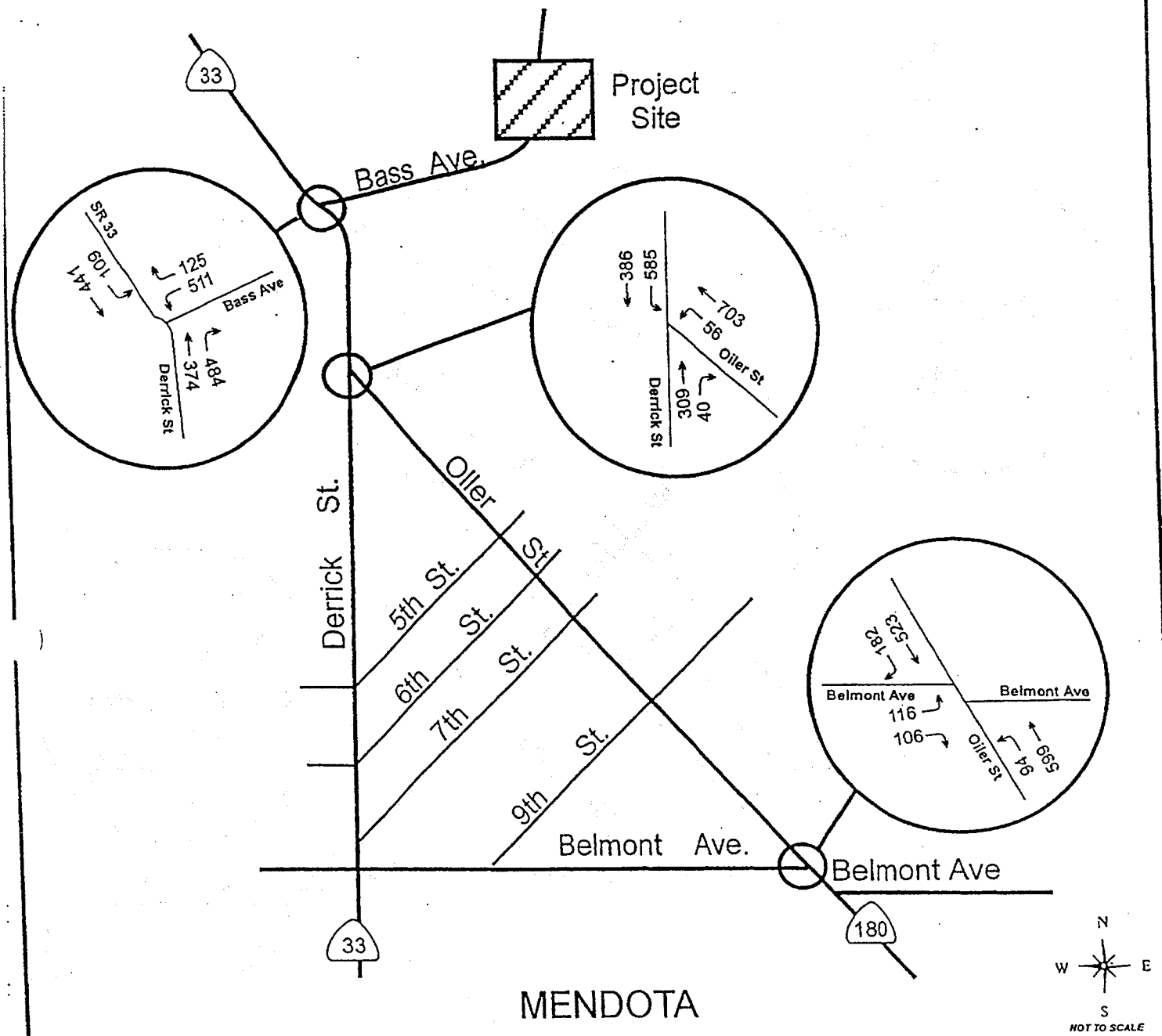
Table 2-1 shows levels of service for all scenarios identified above. Potential improvements are described in Chapter 4

Intersection LOS

Table 2-1 shows levels of service for all scenarios identified above. The need for intersection improvements is indicated at the intersection of SR 33 and Bass Avenue.

Table 2-1
Segment and Intersection LOS for Each TIA Scenario
AM Peak Hour / PM Peak Hour

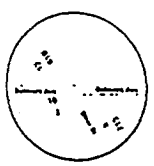
	Existing	Existing Plus Project	Future No Project	Future Plus Project
Segments:				
SR 33, North of Bass Avenue	B/B	C/C	B/C	C/C
SR 33, South of Bass Avenue	C/B	D/F	C/C	F/F
Bass Avenue, North of SR 33	B/B	C/E	B/B	C/E
Intersections :				
SR 33/Bass Avenue	C/B	F/F	D/D	F/F



FUTURE PLUS PROJECT AM PEAK HOUR TRAFFIC

Figure 3-9

Legend



Intersection Turning Movements

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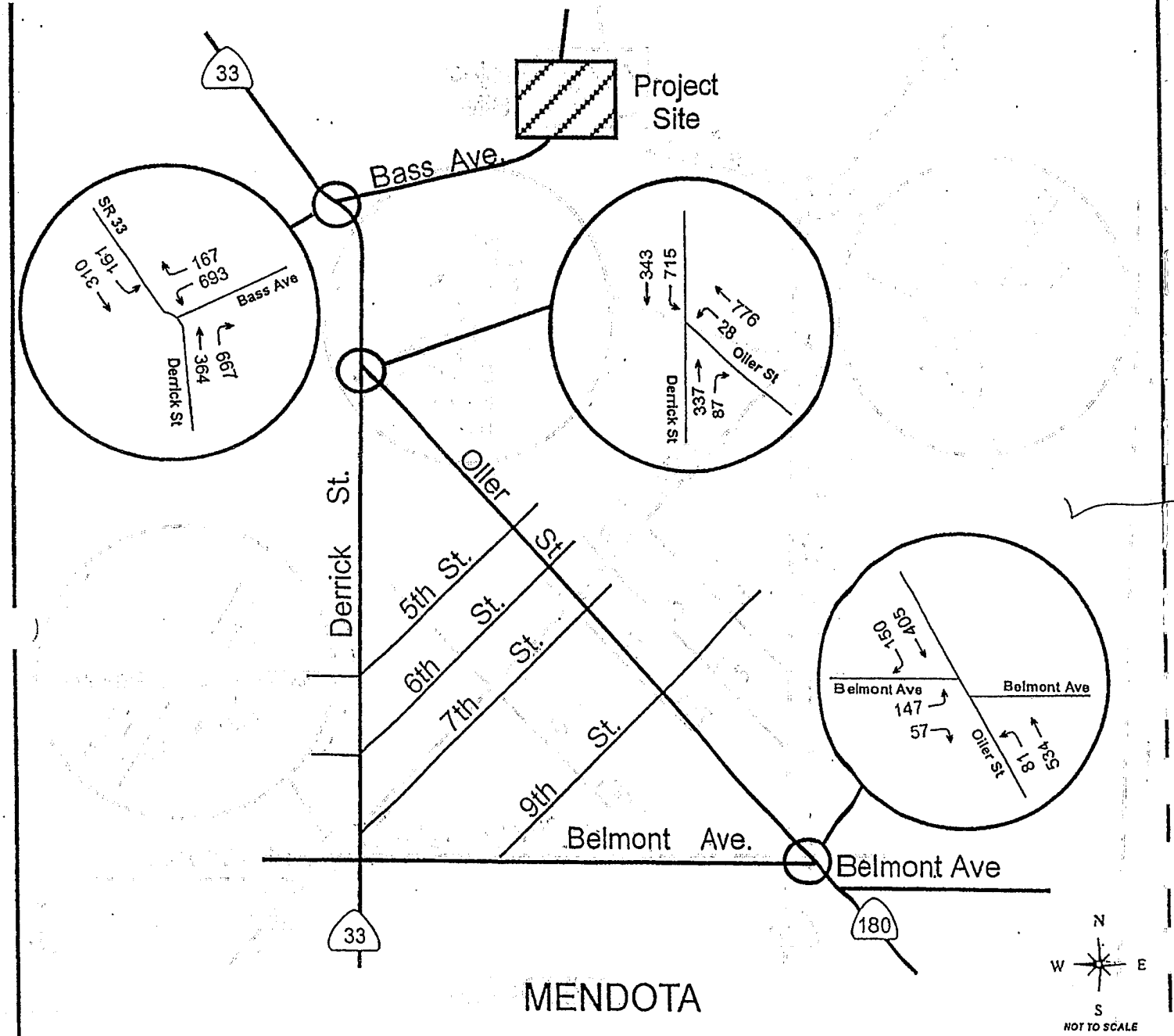
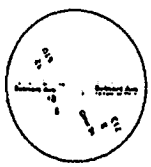
tripdst2.cdr



FUTURE PLUS PROJECT PM PEAK HOUR TRAFFIC

Figure 3-10

Legend



Intersection Turning Movements

VRPA TECHNOLOGIES

4.0 MITIGATION MEASURES

This chapter documents recommended mitigation measures. The sections below describe recommended off-site roadway mitigation measures and recommended mitigation measures that apply specifically to the project.

RECOMMENDED OFF-SITE MITIGATION MEASURES

In order to relieve expected traffic congestion at the intersection of SR 33 and Bass Avenue, the following improvements are recommended:

- Install a traffic signal
- Provide a separate left turn lane for southbound traffic on SR 33
- Provide a separate right turn lane for northbound traffic on SR 33

The resulting levels of service with the recommended improvements are shown in Table 4-1. It should be noted that roadway segment level of service deficiencies are identified in Table 4-1, but the more detailed intersection analysis indicates that there will be no operation problems if the recommended intersection improvements are implemented.

Table 4-1
Segment and Intersection LOS for Each TIA Scenario, with Mitigation
AM Peak Hour / PM Peak Hour

	Existing	Existing Plus Project	Future No Project	Future Plus Project
Segments:				
SR 33, North of Bass Avenue	B/B	C/C	B/C	C/C
SR 33, South of Bass Avenue	C/B	D/F	C/C	F/F
Bass Avenue, North of SR 33	B/B	C/E	B/B	C/E
Intersections :				
SR 33/Bass Avenue	C/B	C/C	D/D	C/D

TECHNICAL APPENDICES

Appendix H – Fresno County Airports Land Use Policy Plan

Fresno Count Airport Land Use Commission. *Fresno County Airports Land Use Policy Plan*. January 1983

FRESNO COUNTY AIRPORTS
LAND USE POLICY PLAN

Fresno County
Airport Land Use Commission
January 1983

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FRESNO COUNTY AIRPORTS
LAND USE POLICY PLAN

INTRODUCTION

This policy Plan sets forth the criteria which the Fresno County Airport Land Use Commission will use in evaluating general and specific plans, zoning ordinances, building regulations, and airport master plans proposed for adoption or amendment in the vicinity of four public-use general aviation airports in the County of Fresno. These airports are:

Firebaugh Municipal Airport
Mendota Municipal Airport
Reedley Municipal Airport
Selma Aerodrome

Additionally, the adopted Policy Plan is intended to give public agencies and the general public an indication of the nature and extent of the Commission's involvement in airport land use planning.

The statutory authority for establishment of the Fresno County Airport Land Use Commission and its adoption of procedures and policies is provided by the California Public Utilities Code, Sections 21670-21678 (Chapter 4, Article 3.5).

The Commission functions primarily in a review capacity. Proposals for the adoption or amendment of general and specific plans, zoning ordinances, building regulations, and airport master plans are to be referred to the Commission prior to final action being taken by the appropriate governing body.

The following section presents policies addressing land use compatibility with airports' noise, airspace protection, safety, and general nuisance impacts. The final section indicates the specific types of projects which are subject to Commission review and establishes the geographic limits of the area within which projects are to be referred to the Commission for review.

Noise

1. Airport/land use noise compatibility shall be evaluated in terms of the Community Noise Equivalent Level (CNEL), as defined in Title 21 of the California Administrative Code.

2. The maximum noise exposure which shall be considered normally acceptable for residential areas is 60 dBA CNEL. The residential area criterion established the baseline from which noise compatibility for other land uses shall be evaluated.

3. The relative acceptability or unacceptability of particular land uses with respect to the noise levels to which they would be exposed is indicated in the "Airport/Land Use Noise Compatibility Criteria" matrix, Table 1. These criteria shall be the principal determinants of whether a proposed land use is compatible with the noise impact from nearby airport, but special circumstances which would affect the specific proposal's noise sensitivity (e.g., the extent or lack of outdoor activity) also shall be taken into account.

4. One of the conditions for approval of a land use which is "marginally acceptable" or "normally unacceptable" for the given noise environment is that the building must provide a satisfactory degree of noise attenuation. Table 2 sets forth the maximum acceptable Interior noise levels for commonly occurring noises from exterior sources. If the structure can reduce the noise exposure to the indicated level, the use may be acceptable. (Note that the interior noise criteria are measured in terms of maximum nose levels of individual events and not average noise levels as represented by CNEL values Since maximum exterior individual event noise levels are greater than the CNEL value at a given location, the required noise reduction of the structure thus will be greater than the difference between the interior noise level criterion and the CNEL value).

5. In addition to the interior noise level criteria for individual exterior noises, the Interior Community Noise Equivalent Level attributable to exterior sources shall not exceed 45 dBA, with windows closed, in any habitable room of a residential dwelling.

6. In applying the interior noise level criteria listed in Table 2, engine run-up noise shall be considered as a source of commonly occurring exterior nose.

7. When a proposed project will involve a land use which is "marginally acceptable" or "normally unacceptable" within a noise environment in excess of 60 dBA CNEL,

an acoustical analysis shall be required in order to show that the structure has been designed to limit intruding noise to the prescribed allowable levels. Such analysis shall be done in a manner indicated in the California Noise Insulation Standards (California Administrative Code, Title 25, Chapter 1, Subchapter 1, Article 4, Section 28).

8. When applying the noise compatibility criteria to a given location, the basis for evaluation shall be the maximum Community Noise Equivalent Level to which the location is or is forecast to be exposed. For all four Fresno County public-use airports covered by this Policy Plan, the year-2000 contours shall be used. Year-2000 CNEL contours of 55 dBA above are depicted in the four Noise Impact Area maps included herein.

9. If a noise analysis, including noise monitoring, is conducted for a particular location and the results indicate that the maximum CNEL will be less than shown herein, the loser exposure level may be used for land use evaluation at the discretion of the Airport Land Use Commission.

TABLE 1

AIRPORT/LAND USE NOISE COMPATIBILITY CRITERIA

LAND USE CATEGORY[2]	CNEL OR LdN, (DbA)[1] 50-55	55-60	60-65	65-70	70-75
Residential					
Single-family detached and duplexes	+	0	-	--	--
Multi-family and transient lodging	++	+	0	-	--
Mobile homes	+	-	-	--	--
Public					
Schools, libraries, hospitals, nursing homes	+	0	-	-	--
Churches, auditoriums, concert halls	+	0	0	-	--
Transportation, parking, cemeteries	++	++	++	+	0
Commercial and Industrial					
Offices, retail trade	++	+	0	0	-
Service commercial, wholesale trade, warehousing, light industrial	++	++	+	0	0
General manufacturing, utilities, extractive industry	++	++	++	+	+
Agricultural and Recreational					
Cropland	++	++	++	++	+
Livestock breeding	++	+	0	0	-
Parks, playgrounds, zoos	++	+	+	0	-
Golf courses, riding stables, water recreation	++	++	+	0	0
Outdoor spectator sports	++	+	+	0	-
Amphitheaters	+	0	-	-	--

Notes: [1]. See Policy Plan Map for the location of the noise contours.
[2]. See explanation of land use acceptability symbols on following page.

LAND USE ACCEPTABILITY	INTERPRETATION/CONDITIONS
++ Clearly Acceptable	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+ Normally Acceptable	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
0 Marginal	*Acceptable only by ALUC determination* The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. Uses that fall within this category must be reviewed on a case by case basis by the Commission. The Commission may determine the land use to be acceptable under conditions where outdoor activities are minimal and normal construction features provide sufficient noise attenuation (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged. New construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features included in the design.
- Normally Unacceptable	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
-- Clearly Unacceptable	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors

TABLE 2

INTERIOR NOISE LEVEL CRITERIA
Maximum Acceptable Interior Noise Levels for
Commonly Occurring Individual Noise Events
from Exterior Sources

GENERALIZED LAND USE	ACCEPTABLE NOISE LEVEL (dBA)[1]	BASIS FOR CRITERION
RESIDENTIAL: SINGLE- AND MULTI-FAMILY DWELLINGS		
1. Living Area		
a. Daytime	60	Conversation - 5 feet - normal voice
b. Nighttime	55	Conversation - 10 feet - normal voice
2. Sleeping Areas	50	Sleeping
EDUCATIONAL FACILITIES, ETC.		
1. Concert Hall	25	Intrusion of noise may spoil artistic effect
2. Legitimate Theater	30	Intrusion of noise may spoil artistic effect
3. School Auditorium	35	Minimize intrusion into artistic performance
4. School Classroom	55	Speech communication - 20 feet - raised voice
5. School Laboratory	60	Speech communication - 50 feet - normal voice
6 Church Sanctuaries	45	Speech communication - 50 feet - raised voice
7. Library	55	Speech communication - 3 feet - normal voice
RECREATIONAL FACILITIES		
1. Motion Picture Theater	45	Minimize intrusion into artistic performance
2. Sports Arena	75	Conversation - 2 feet - raised voice
3. Bowling Alley	75	Conversation - 2 feet - raised voice
COMMERCIAL, MISCELLANEOUS		
1. Hotel, Motel Sleeping	50	Sleeping
2. Hospital Sleeping	50	Sleeping
3. Executive Offices, Conference Rooms	55	Speech communication - 12 feet - normal voice
4. Staff Offices	60	Speech communication - 6 feet - normal voice
5. Sales, Secretarial	65	Satisfactory telephone use
6. Restaurants	65	Speech communication - 4 feet - normal voice
7. Markets, Retail Stores	65	Speech communication - 4 feet - normal voice

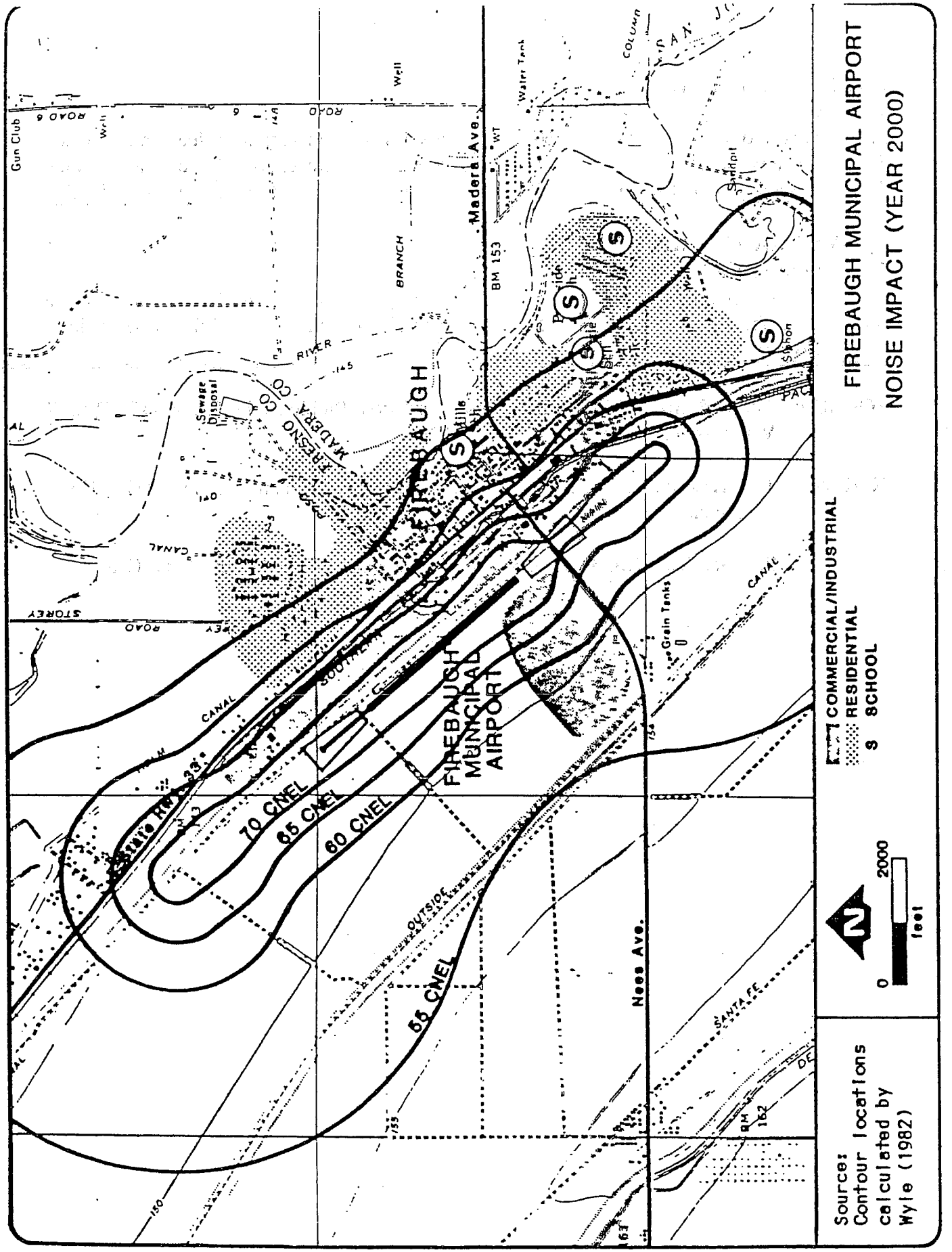
LIGHT INDUSTRIAL			
1.	Office Areas	[2]	[2]
2.	Laboratory	60	Speech communication - 6 feet - raised voice
3.	Machine Shop	75	Speech communication - 3 feet - raised voice
4.	Assembly, Construction	75	Speech communication - 2 feet - raised voice
HEAVY INDUSTRIAL			
1.	Office Areas	[2]	[2]
2.	Machine Shop	75	Speech communication - 3 feet - raised voice
3.	Assembly, Construction	75	Speech communication - 2 feet raised voice

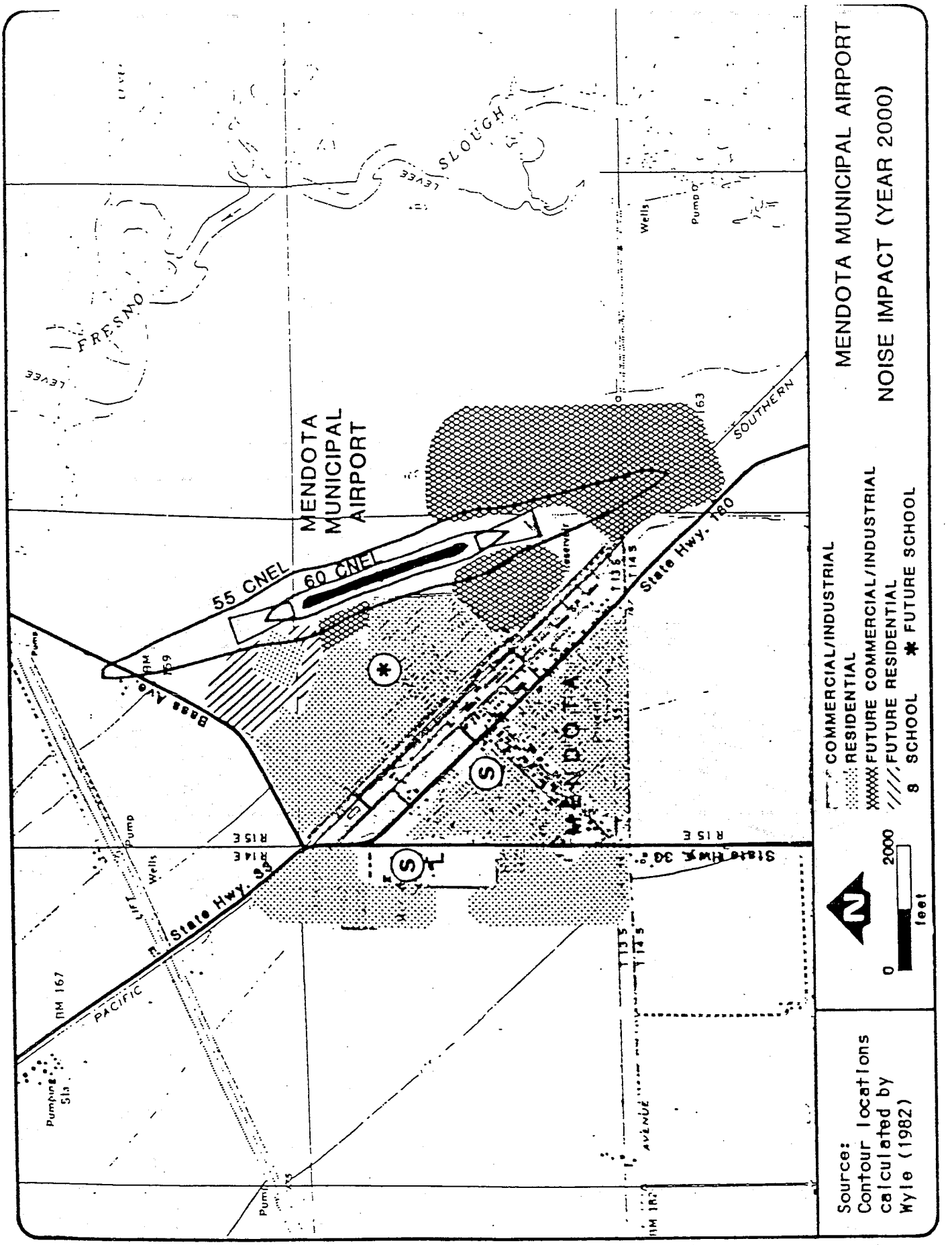
SOURCE: Adapted from Table 2 in "Noise Insulation Problems in Buildings", Paul S. Veneklasen & Associates, January 1973.

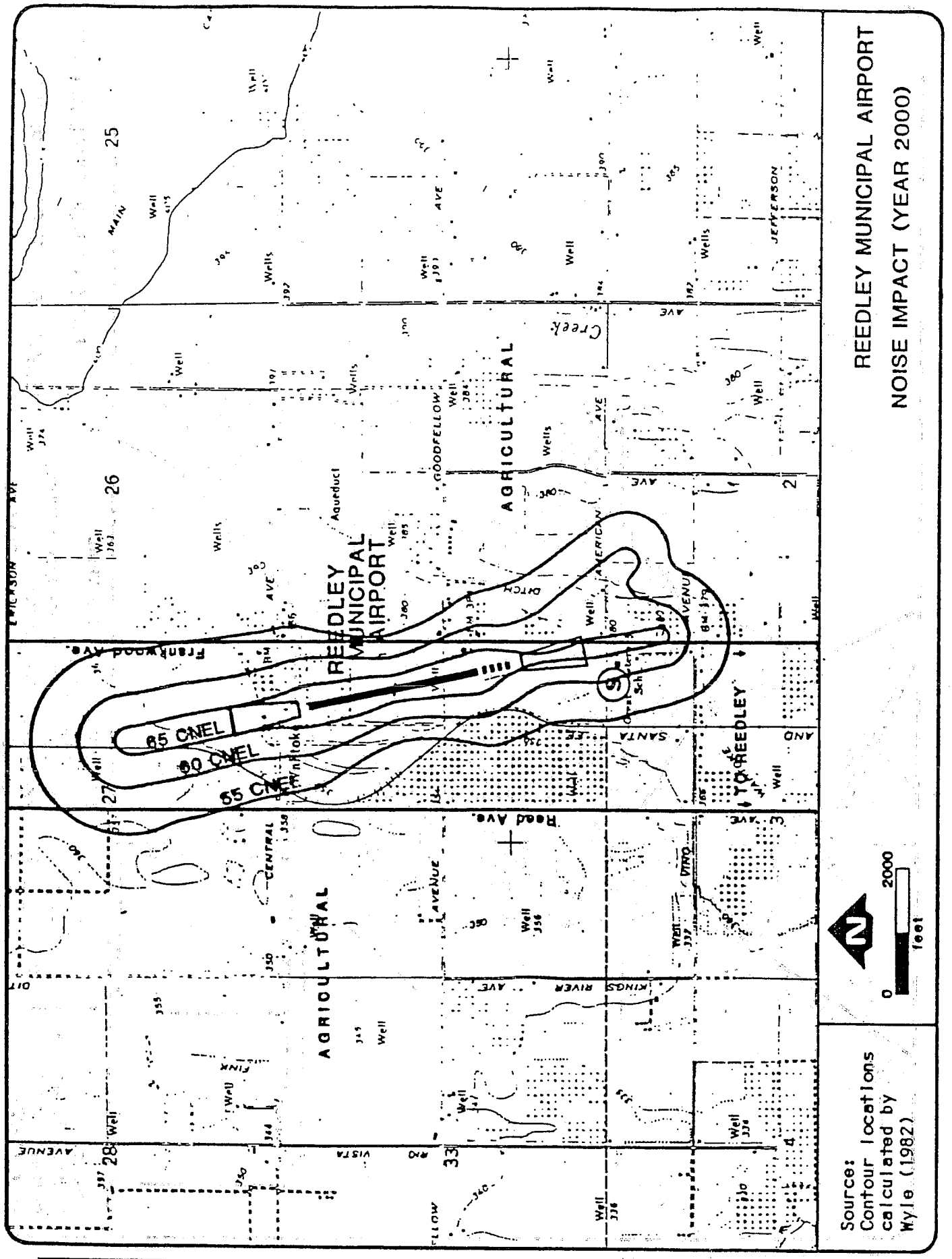
NOTES:

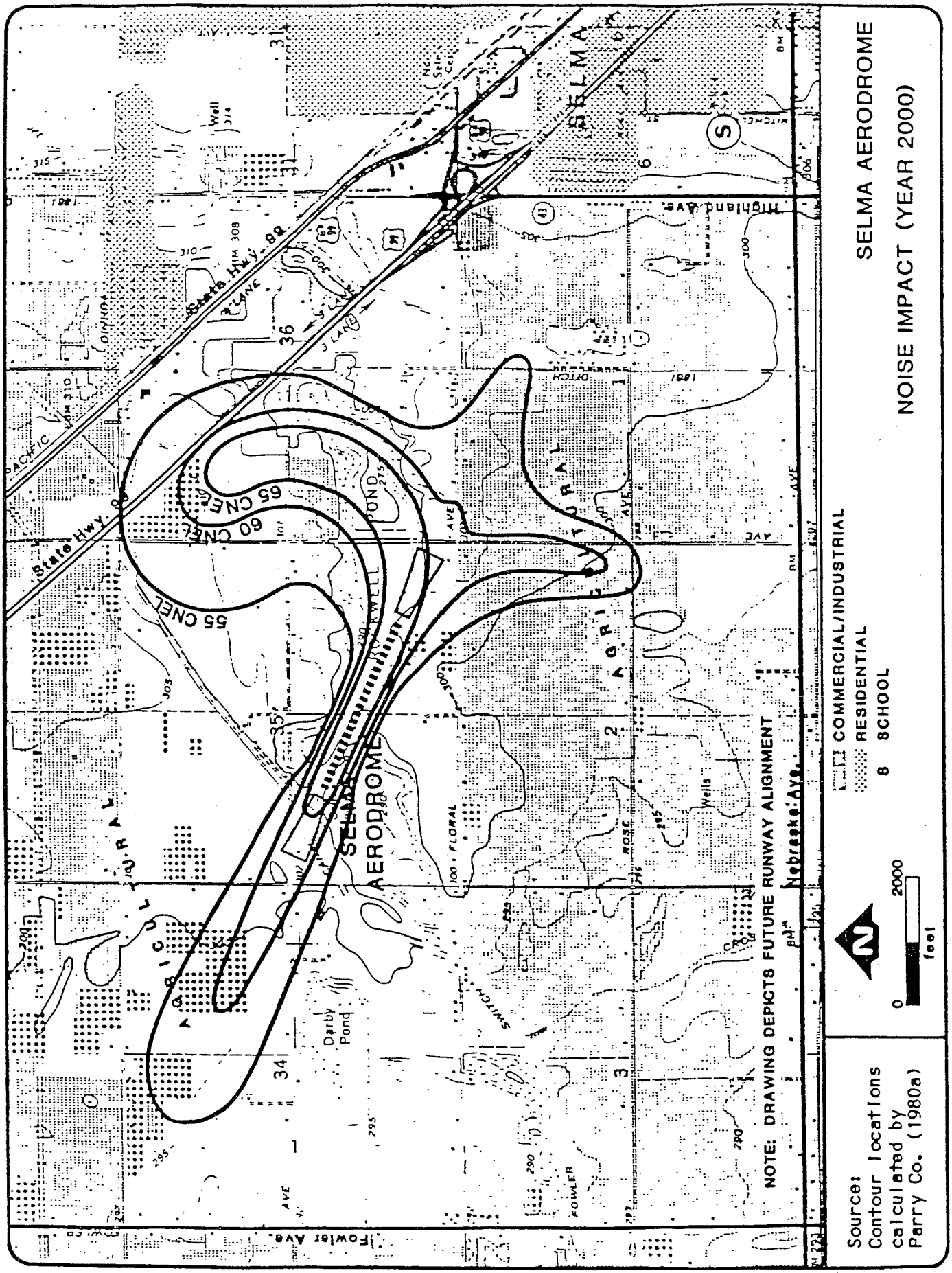
1. These are maximum levels for individual events and are not measured in CNEL values.

2. See Basis No. 3, 4 and 5 under Commercial, Miscellaneous Land Use


FIREBAUGH MUNICIPAL AIRPORT
NOISE IMPACT (YEAR 2000)
COMMERCIAL/INDUSTRIAL
RESIDENTIAL
SCHOOL
0
2000
feet
Source:
Contour locations
calculated by
Wyle (1982)
70 CNEL
65 CNEL
60 CNEL
55 CNEL
FIREBAUGH
MUNICIPAL
AIRPORT
FIREBAUGH
Madera Ave.
Ness Ave.
Gun Club
Sewage Disposal
Grain Tanks
Water Tank
Sandpit
Well
CANAL
RIVER
BRANCH
MADERA CO
FRESNO CO
STOREY ROAD
ROAD 6
SANTA FE
PACIFIC
BM 153
BM 162
OUTSIDE
MAIN


MENDOTA MUNICIPAL AIRPORT
NOISE IMPACT (YEAR 2000)
55 CNEL
60 CNEL
MENDOTA MUNICIPAL AIRPORT
FRESNO SLOUGH
LEVEE
SOUTHERN PACIFIC
State Hwy. 180
State Hwy. 33
State Hwy. 30
Bass Ave.
R 15 E
R 14 E
T 13 S
T 14 S
COMMERCIAL/INDUSTRIAL
RESIDENTIAL
FUTURE COMMERCIAL/INDUSTRIAL
FUTURE RESIDENTIAL
SCHOOL
FUTURE SCHOOL
0
2000
feet
Source:
Contour locations
calculated by
Wyle (1982)


REEDLEY MUNICIPAL AIRPORT
NOISE IMPACT (YEAR 2000)
REEDLEY MUNICIPAL AIRPORT
AGRICULTURAL
AGRICULTURAL
65 CNEL
60 CNEL
55 CNEL
TO REEDLEY
Road Ave.
Franklwood Ave.
Aqueduct
Creek
0
2000
feet
Source:
Contour locations
calculated by
Wyle (1982)


SELMA AERODROME
NOISE IMPACT (YEAR 2000)
55 CNEL
60 CNEL
65 CNEL
COMMERCIAL/INDUSTRIAL
RESIDENTIAL
SCHOOL
0
2000
feet
NOTE: DRAWING DEPICTS FUTURE RUNWAY ALIGNMENT
Source:
Contour locations
calculated by
Parry Co. (1980a)
State Hwy. 99
Highland Ave.
Nebraska Ave.
Fowler Ave.
SELMA
AGRICULTURAL
Darby Pond
Wells

Airspace Protection

1. No structure, tree, or other object shall be permitted to exceed the height limits established in accordance with Part 77, Subpart C, of the Federal Aviation Regulations (FAR). This criterion applies unless, in the case of a proposed object or growing tree, one or more of the following apply:

   a. The object would be substantially shielded by existing permanent structures of terrain in a manner such that it clearly would not affect the safety of air navigation;

   b. The FAA has conducted an aeronautical study and either determined that the object would not result in a hazard to air navigation or made recommendations for the object's proper marking and lighting as an obstruction;

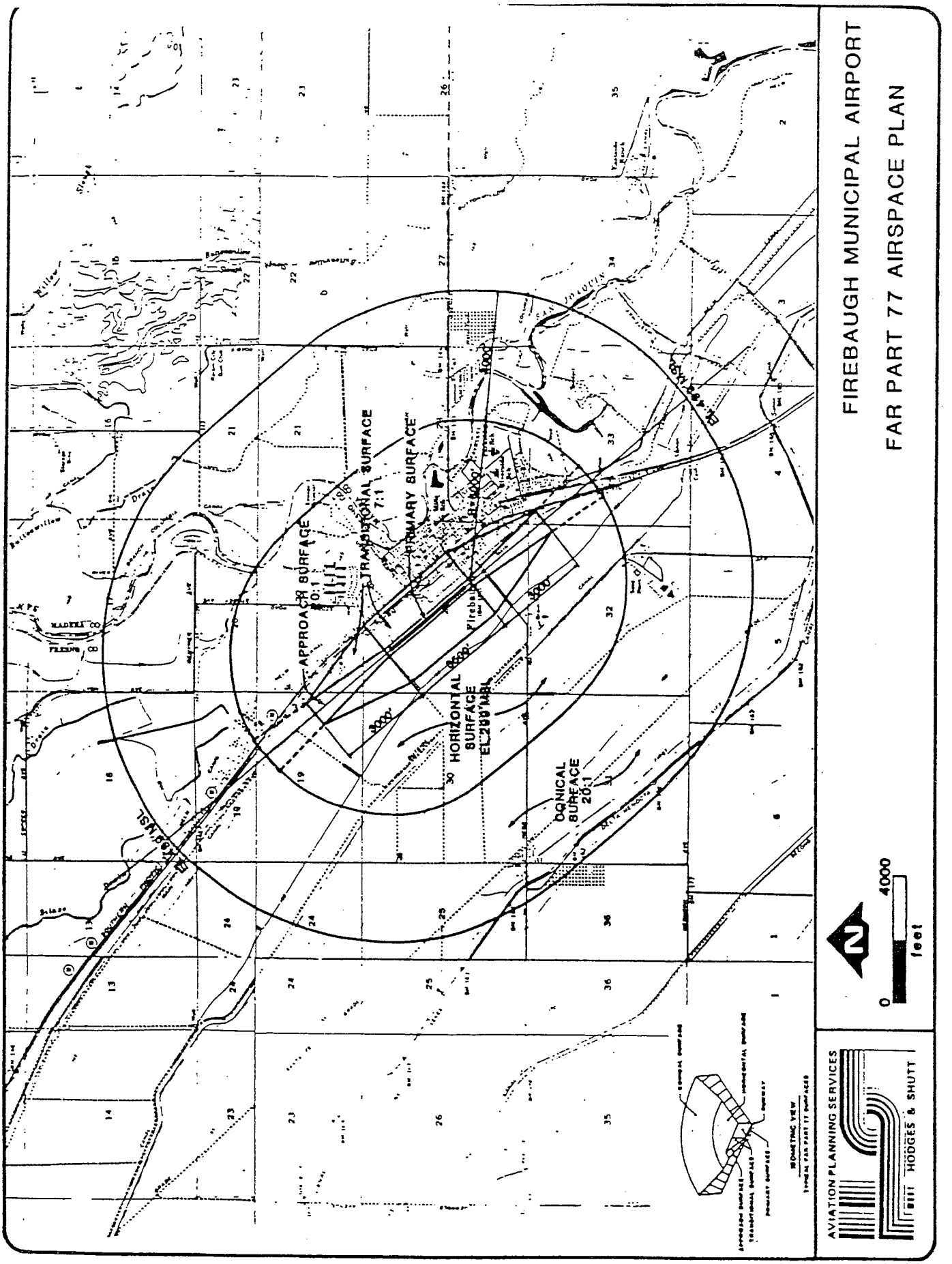
   c. The object is otherwise exempted from the requirements of FAR Part 77;

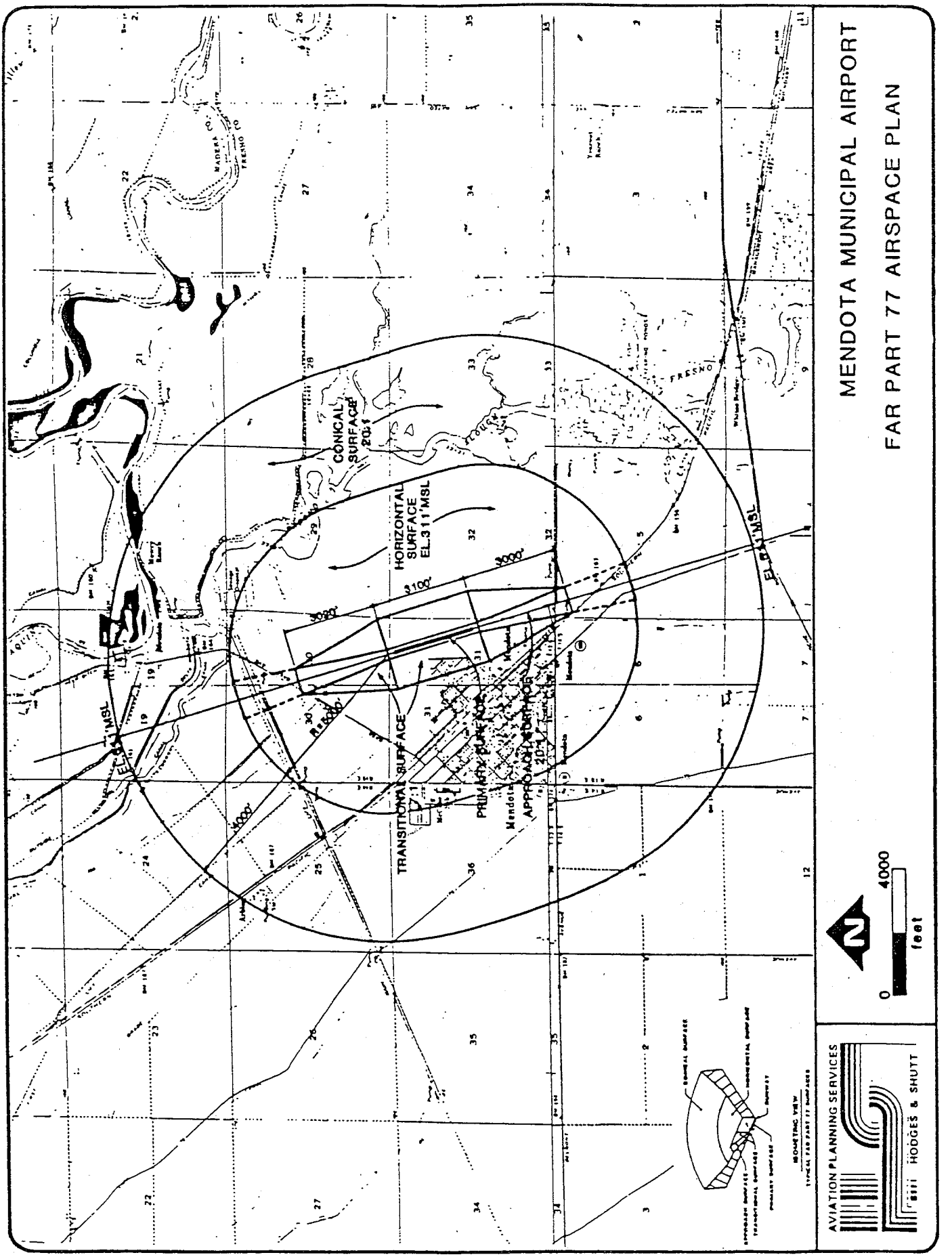
   Or, in the case of an existing object, it exceeds the prescribed height limits at the time the ordinance is adopted, in which case marking and lighting may still be required.

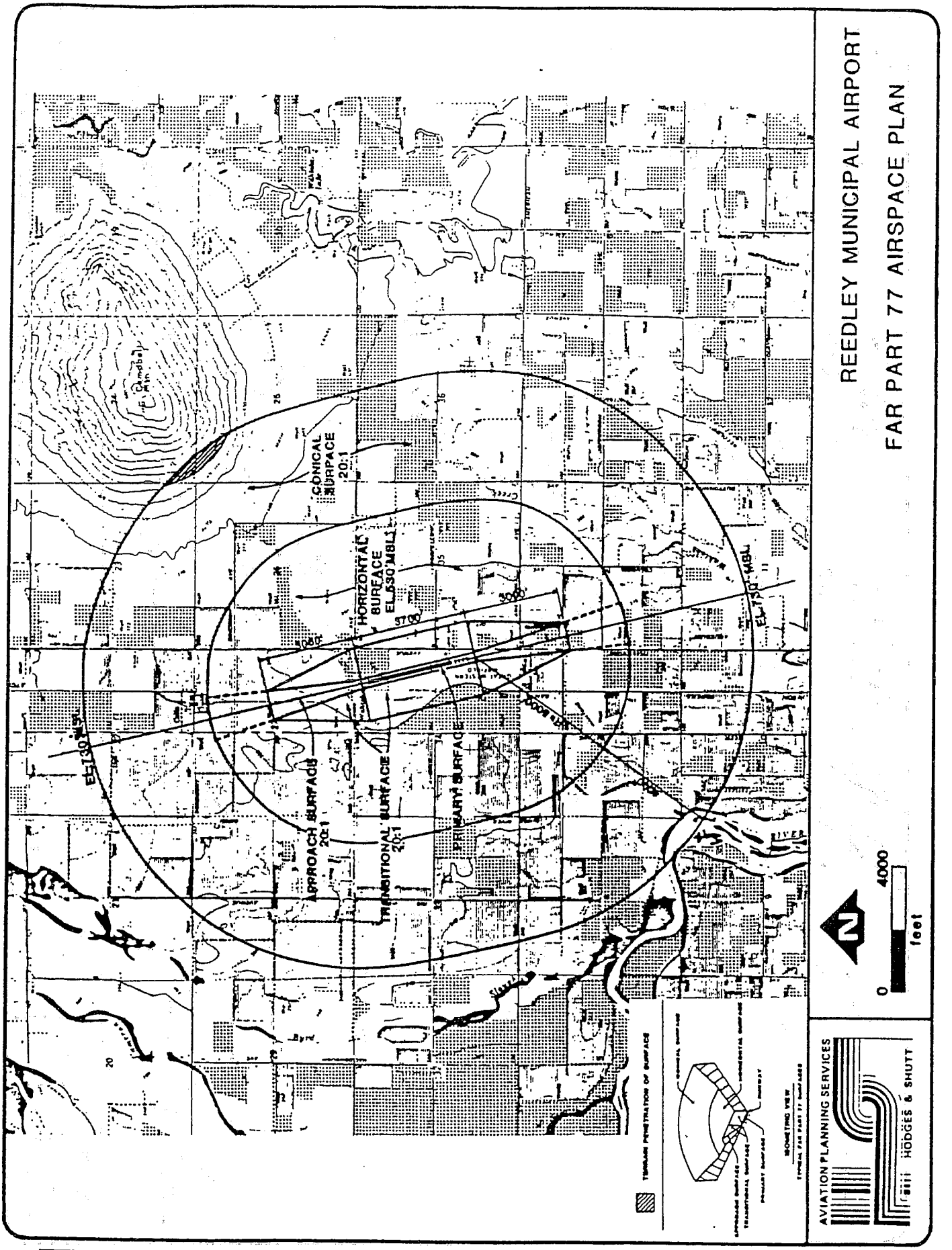
2. No object shall be permitted to be erected which because of height or other factors would result in an increase in the minimum ceiling or visibility criteria for an existing or proposed instrument approach procedure.

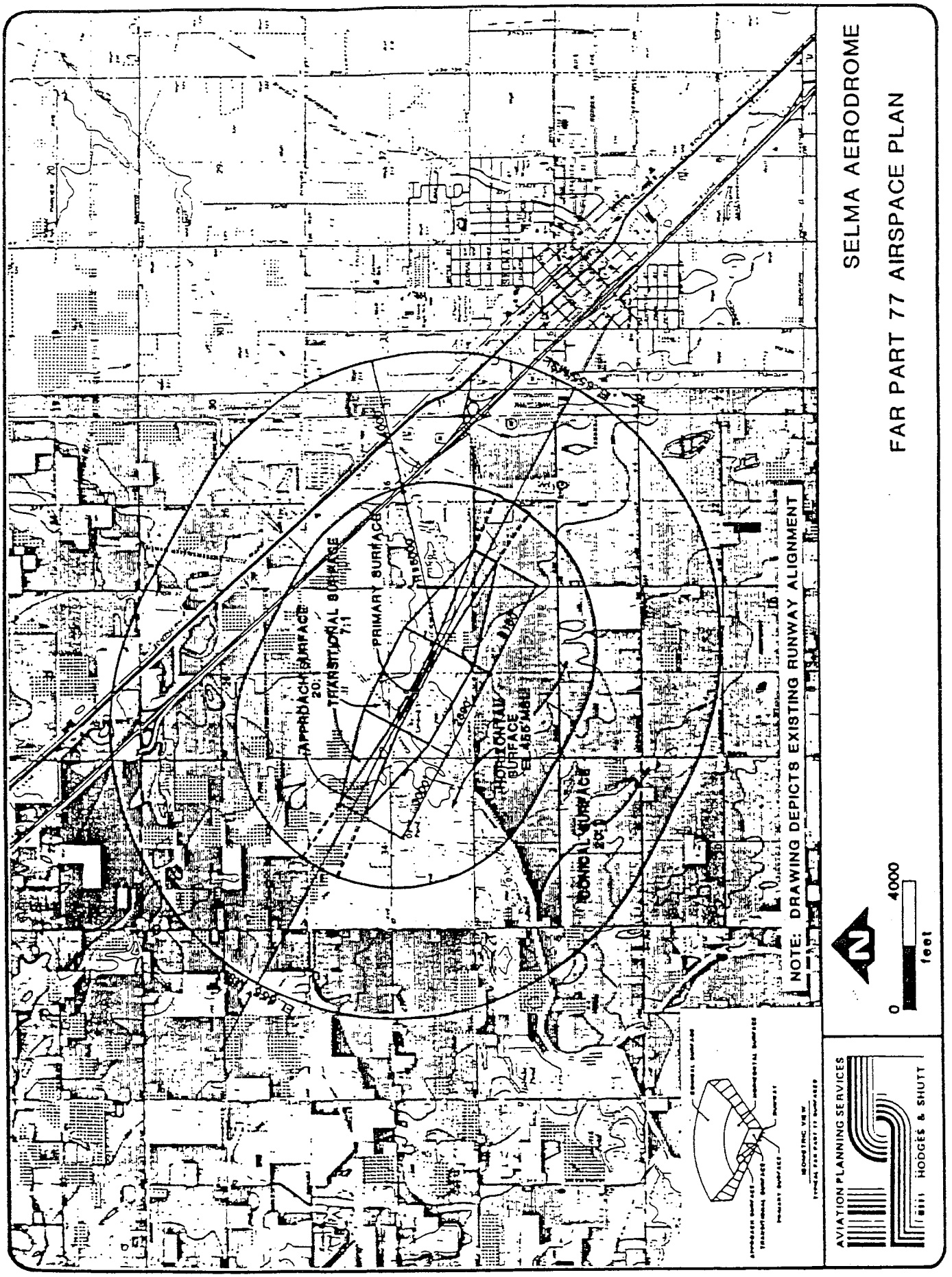
3. An object which would be located within a horizontal or conical zone as defined in FAR Part 77, Subpart C, and would be 35 feet or less in height above the ground (i.e., is within the height limits prescribed for most Fresno County land use zoning classifications) shall be considered conditionally acceptable even if it exceeds the prescribed FAR Part 77 height limit due to its geographical location. Marking and lighting may be conditions for acceptability.

4. The FAR Part 77, surfaces depicted herein shall be used in conjunction with the above airspace policies to determine whether the height of an object is acceptable.


FIREBAUGH MUNICIPAL AIRPORT
FAR PART 77 AIRSPACE PLAN
APPROACH SURFACE 20:1
TRANSITIONAL SURFACE 7:1
PRIMARY SURFACE
HORIZONTAL SURFACE EL 289' MSL
CONICAL SURFACE 20:1
0
4000
feet
AVIATION PLANNING SERVICES
HODGES & SHUTT


MENDOTA MUNICIPAL AIRPORT
FAR PART 77 AIRSPACE PLAN
CONICAL SURFACE 20:1
HORIZONTAL SURFACE EL.311'MSL
TRANSITIONAL SURFACE
PRIMARY SURFACE
APPROACH SURFACE 20:1
EL.311'MSL
EL.311'MSL
EL.311'MSL
3000'
3100'
3000'
4000'
R=5000'
FRESNO
MADERA
FRESNO
0
4000
feet
AVIATION PLANNING SERVICES
HODGES & SHUTT


REEDLEY MUNICIPAL AIRPORT
FAR PART 77 AIRSPACE PLAN
CONICAL SURFACE 20:1
HORIZONTAL SURFACE EL.530' MSL
APPROACH SURFACE 20:1
TRANSITIONAL SURFACE 20:1
PRIMARY SURFACE
EL.730' MSL
EL.730' MSL
0
4000
feet
AVIATION PLANNING SERVICES
HODGES & SHUTT


SELMA AERODROME
FAR PART 77 AIRSPACE PLAN
NOTE: DRAWING DEPICTS EXISTING RUNWAY ALIGNMENT
0
4000
feet
AVIATION PLANNING SERVICES
HODGES & SHUTT
APPROACH SURFACE
20:1
TRANSITIONAL SURFACE
7:1
PRIMARY SURFACE
HORIZONTAL SURFACE
CONICAL SURFACE
20:1

Safety

1. Land uses or land use characteristics which may affect safe air navigation or which, because of their nature and proximity to an airport, may pose high risks to the land users shall be avoided in the vicinity of an airport.

2. The criteria which shall be used to evaluate whether a land use is acceptable with respect to its airport proximity are set forth in Table 3. The indicated safety zones shall be used in conjunction with the Review Area maps Presented herein.

3. Land uses which attract concentrations of birds are a special concern in Fresno County because of the agricultural uses near many of the airports. In applying the Safety Compatibility Criteria to agricultural areas, attention should be given to whether a particular type of agricultural use commonly attracts birds.

TABLE 3

AIRPORT/LAND USE SAFETY
COMPATIBILITY CRITERIA

LAND USE CHARACTERISTICS	SAFETY ZONES[1] Clear & Runway Zones	Inner Approach Zones[2]	Outer Approach Zones & Traffic Pattern Zone	Horizontal & Conical Zones
Residential Uses	-	(A,F)	(B,F)	+
Other Uses in Structures	-	(C,E,F)	(E,F)	+
Other Uses Not in Structures	(C,G)	(D)	+	+
Special Characteristics				
1. Distracting Light or Glare	-	-	-	(G)
2. Sources of Smoke	-	-	-	(G)
3. Electronic Interference	-	-	-	(G)
4. Attractor of Birds	-	-	-	+

NOTES: 1. See the Policy Plan maps for the location of the zones at each airport.
2. The inner approach zone extends to the point below where the approach surface intersects the horizontal surface.

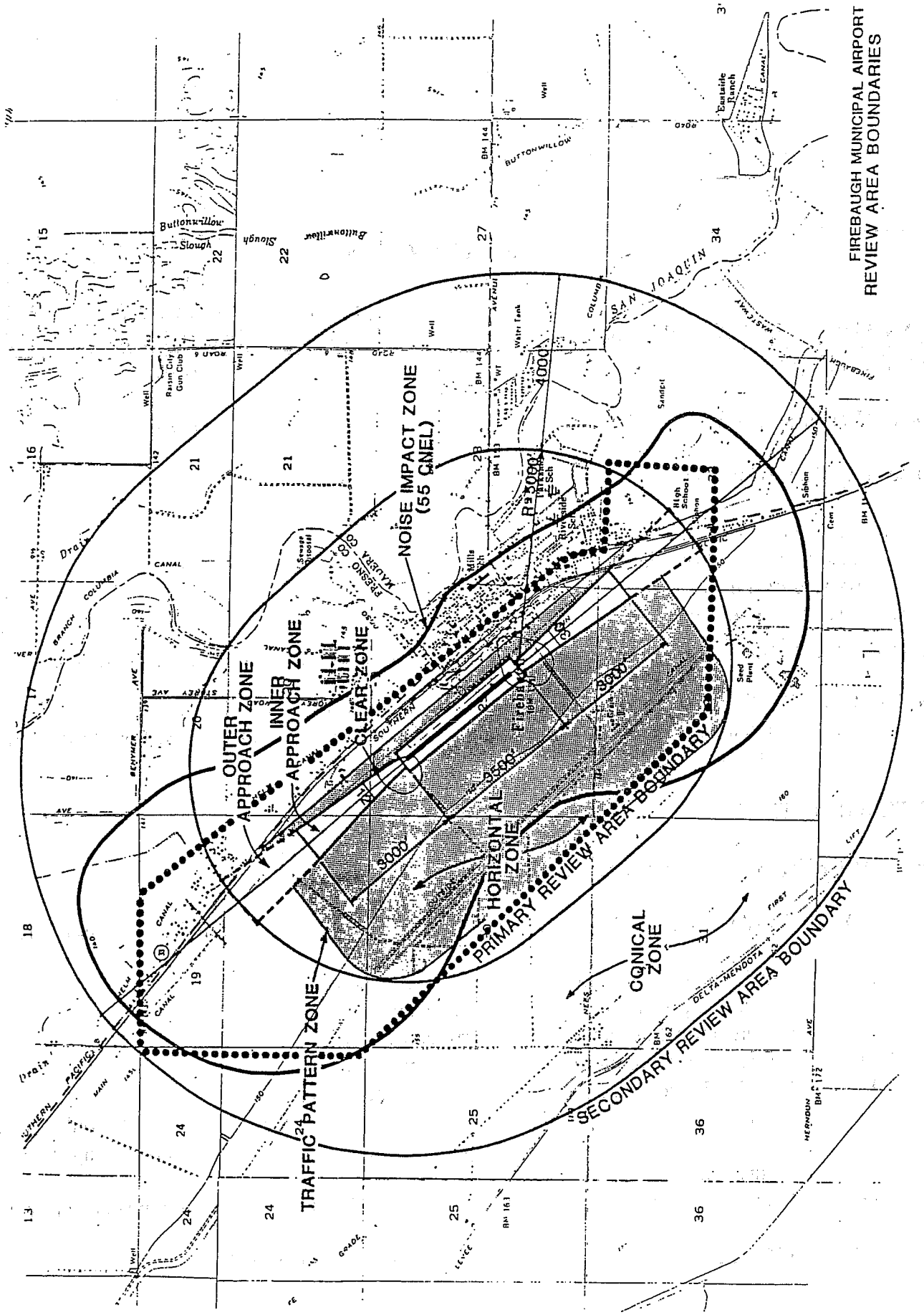
INTERPRETATION

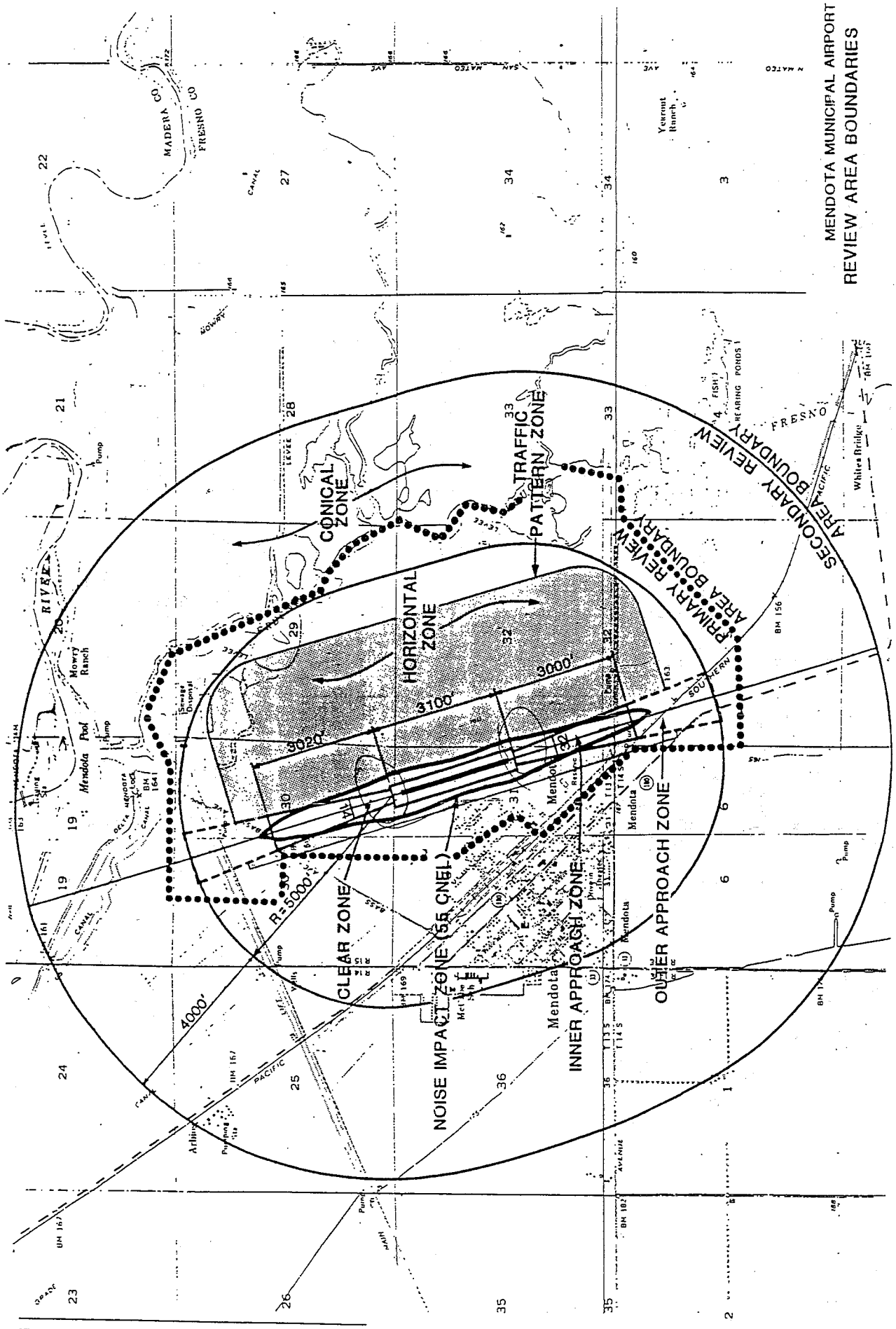
+ ACCEPTABLE: Use is acceptable with little or no risks

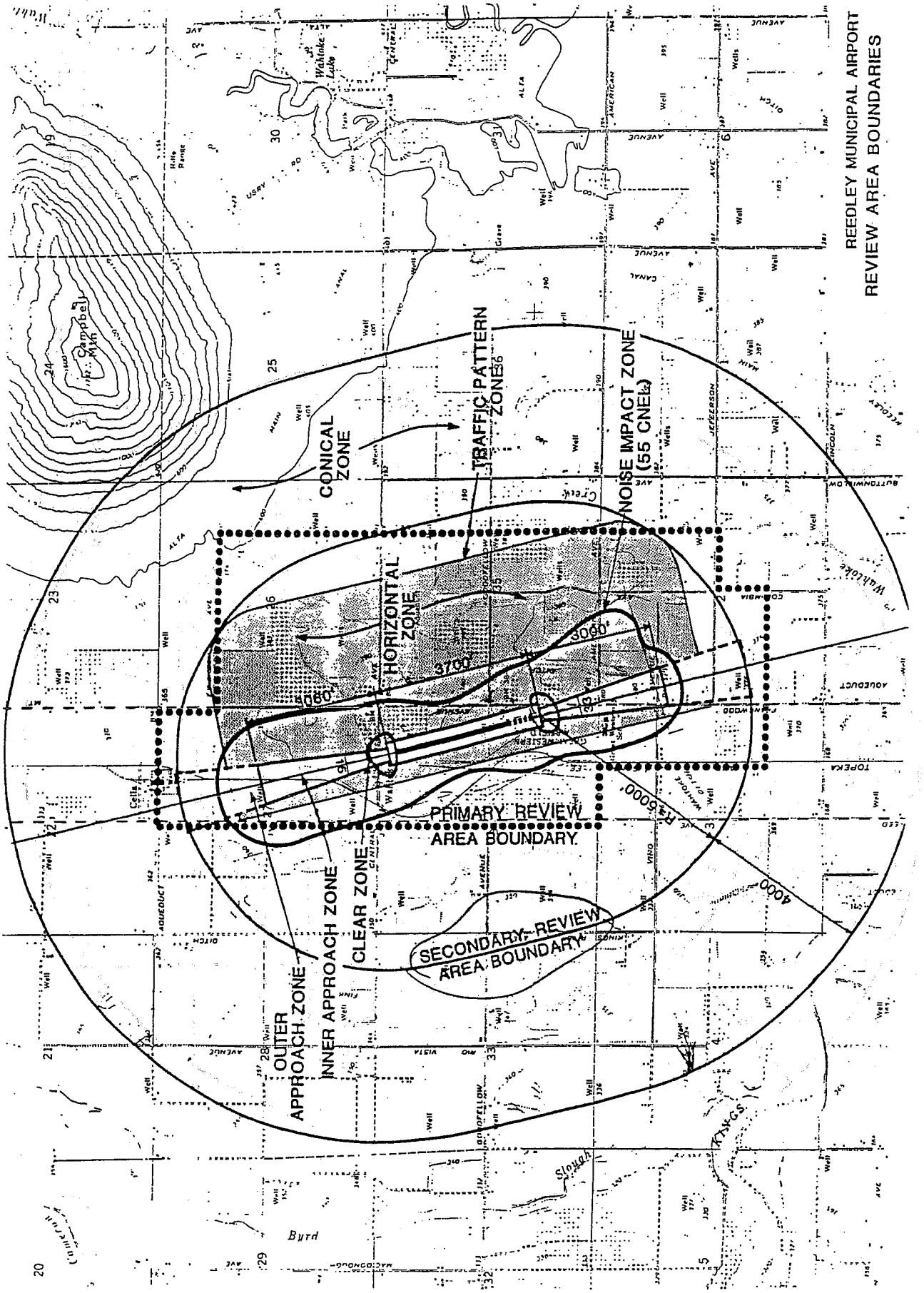
( ) CONDITIONALLY ACCEPTABLE: Risk exist, but use is acceptable under conditions cited below.

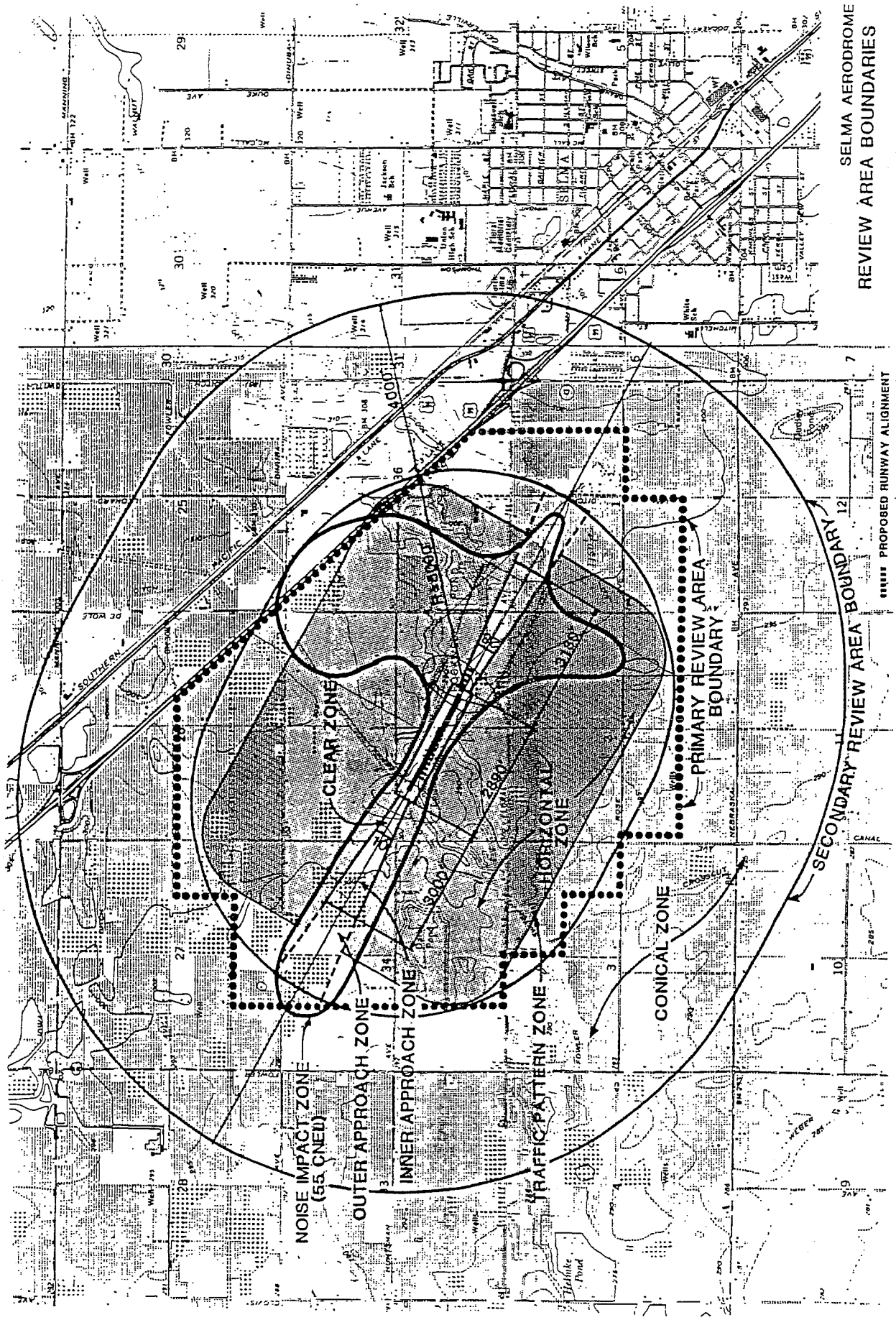
A Density no greater than 1 dwelling unit per 3 acres.
B Density no greater than 4 dwelling units per acre.
C No uses attracting more than 10 persons per acre.
D No uses attracting more than 25 persons per acre.
E No schools, hospitals, nursing homes, or similar uses.
F At least 20% of area open (having a size and shape such that a small aircraft could conceivably make an emergency landing without damage to buildings or serious injury to aircraft occupants).
G Characteristic cannot reasonably be avoided or located outside the indicated safety zone.

- UNACCEPTABLE: Use is unacceptable due to associated high risks.


FIREBAUGH MUNICIPAL AIRPORT
REVIEW AREA BOUNDARIES
NOISE IMPACT ZONE
(55 CNEL)
OUTER
APPROACH ZONE
INNER
APPROACH ZONE
CLEAR ZONE
HORIZONTAL
ZONE
CONICAL
ZONE
TRAFFIC PATTERN ZONE
PRIMARY REVIEW AREA BOUNDARY
SECONDARY REVIEW AREA BOUNDARY
5000
8000
4000


MENDOTA MUNICIPAL AIRPORT
REVIEW AREA BOUNDARIES
CONICAL ZONE
TRAFFIC PATTERN ZONE
HORIZONTAL ZONE
SECONDARY REVIEW AREA BOUNDARY
PRIMARY REVIEW AREA BOUNDARY
3020'
3100'
3000'
R=5000'
4000'
CLEAR ZONE
NOISE IMPACT ZONE (55 CNEL)
INNER APPROACH ZONE
OUTER APPROACH ZONE
Mendota Pool
Mowry Ranch
Mendota
Arlinda
Whites Bridge
Yeamut Ranch
FRESNO
MADERA
SOUTHERN
PACIFIC


REEDLEY MUNICIPAL AIRPORT
REVIEW AREA BOUNDARIES
CONICAL ZONE
TRAFFIC PATTERN ZONE
NOISE IMPACT ZONE (55 CNEL)
HORIZONTAL ZONE
3060'
3700'
5060'
R 6000'
4000'
PRIMARY REVIEW AREA BOUNDARY
SECONDARY REVIEW AREA BOUNDARY
CLEAR ZONE
INNER APPROACH ZONE
OUTER APPROACH ZONE
Campbell Mtn
Wahnke Lake
Byrd
Slough


SELMA AERODROME
REVIEW AREA BOUNDARIES
PROPOSED RUNWAY ALIGNMENT
CLEAR ZONE
PRIMARY REVIEW AREA BOUNDARY
SECONDARY REVIEW AREA BOUNDARY
HORIZONTAL ZONE
CONICAL ZONE
NOISE IMPACT ZONE (55 CNEL)
OUTER APPROACH ZONE
INNER APPROACH ZONE
TRAFFIC PATTERN ZONE
SOUTHERN PACIFIC
SELMA

General Nuisance

1. Avigation Easement

a. Except when overriding circumstances exist, a condition for approval of any residential subdivision or zoning change within an airport's Primary Review Area, as subsequently defined herein, shall be the dedication of an avigation easement to the airport owner or the local jurisdiction in which the proposed subdivision is located (city, if area is incorporated; Fresno County, if area is unincorporated). The avigation easement shall contain the following property rights:

1) Right-of-flight at any altitude above acquired easement surfaces.

2) Right to cause noise, vibrations, fumes, dust, and fuel particle emissions.

3.) Right-of-entry to remove, mark, or light any structures or growths above easement surfaces.

4) Right to prohibit creation of electrical interference, unusual light sources, and other hazards to aircraft flight.

The easement surfaces acquired shall be based on Part 77 of the Federal Aviation Regulations except that no easement surface less than 35 feet above ground shall be acquired.

b. As a further condition for approval of a residential subdivision or zoning change within an airports's Primary Review Area, the local jurisdiction shall, except where overriding circumstances exist, require the property owners to agree to the following:

1) That it is understood by the owners and owners' successors in interest that the real property in question lies close to an operating airport and that the operation of the airport and the landing and take-off of aircraft may generate high noise levels.

2) That the owners shall not initiate or support any action in any court or before any governmental agency if the purpose of the action is to interfere with, restrict, or reduce the operation of the airport or the use of an airport by any aircraft.

3) That the owners shall not protest or object to the operation of the airport or the landing or take-off of aircraft before any court or agency of government.

2. Buyer Notification

The Commission encourages local governments to establish a "buyer notification statement" as a requirement for the transfer of title of any property located within an airport's Primary Review Area.

This statement should indicate that the buyer is aware of the proximity of an airport, the characteristics of the airport's current and projected activity, and the likelihood of aircraft overflights of the affected property.

Policy Regarding Scope of Commission Review

a. For the purposes of referral to the Airport Land Use Commission, a "proposed project" is defined as the adoption of and the amendment to general and specific plans, zoning ordinances, building regulations, and airport master plans. Projects shall be referred to the Commission prior to an action taken by local advisory and governing bodies.

b. Evaluation of projects shall primarily be based on the land use compatibility policies set forth above. Where an overlap occurs among noise, airspace protection, safety, and general nuisance zones, all policies applicable to the particular location shall be considered.

c. All proposed projects involving land lying within the geographic boundaries of the Primary Review Area for the Firebaugh Municipal, Mendota Municipal, Reedley Municipal, or Selma Aerodrome airports shall be referred to the Fresno County Airport Land Use Commission for review and evaluation as to their consistency with this plan.

d. Within the Secondary Review Area of an airport, only those projects involving a structure or other object the height of which would exceed that permitted under the adopted land use zoning need be referred to the Commission for review.

e. The Review Area boundaries for each airport are as depicted in Map Set C.

f. The Commission may, at its own discretion, request information and review any project occurring within an airport's Secondary Referral Area for factors other than excessive height. Such projects, however, need not be routinely submitted to the Commission for review.

g. A copy of any Notice of Construction or Alteration submitted to the Federal Aviation Administration in accordance with FAR Part 77, Subpart B, shall concurrently be submitted to the Airport Land Use Commission for review regardless of where in the County the object involved is proposed to be located.

RAK:kk
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7-10-95

FRESNO COUNTY AIRPORT LAND USE COMMISSION
RESOLUTION NO. 42

WHEREAS, Section 21675 of the California Public Utilities Code requires the Airport Land Use Commission to formulate a comprehensive land use plan that will provide for the orderly growth of each public use airport and the area surrounding the airport and will safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general; and

WHEREAS, said plan is to anticipate growth of the airport for at least the next twenty years and may specify the use of land, height restrictions of objects, and soundproofing standards within the planning area; and

WHEREAS, the Commission, with the cooperation of the Council of Fresno County Governments, contracted with the consulting firms Hodges and Shutt and Wyle Laboratories to prepare said plan for the Coalinga, Firebaugh, Mendota, and Reedley Municipal Airports, the Sierra Sky Park Airport and the Selma Aerodrome Airport; and,

WHEREAS, the proposed plan is based upon the Master Plan data and projections, for each of the airports, contained in the Council of Fresno County Governments (1981) Fresno Regional Airport System Plan; and

WHEREAS, the proposed plan was presented to the advisory and legislative bodies of the Cities of Coalinga, Firebaugh, Fresno, Mendota, Reedley and Selma and to the Fresno County Board of Supervisors; and,

WHEREAS, said Plan is exempt from the provisions of the California Environmental Quality Act under Section 15108 (Class 8 - Actions by a Regulatory Agency for the Protection of the Environment); and,

WHEREAS, in the form and manner provided by law, this Commission at its meeting of January 10, 1983, heard and received all oral and written evidence and objections which were made, presented, or filed, and all persons present were given an opportunity to hear and be heard; and,

WHEREAS, staff representatives from the Cities of Coalinga and Fresno expressed concern over the impacts of the policies on land surrounding Coalinga Municipal Airport and Sierra Sky Park Airport and requested that further studies be made; and,

WHEREAS, Commission staff recommended changes and corrections (Exhibit A) to the plan document based upon the passage of Assembly Bill 2920 (Chapter 1041, 1982) and for editorial purposes.

NOW, THEREFORE, BE IT RESOLVED that this Commission adopts the land use policy plan, with the changes shown in Exhibit A, and the respective planning boundaries for the following airports:

1. Firebaugh Municipal Airport
2. Mendota Municipal Airport
3. Reedley Municipal Airport
4. Selma Aerodrome Airport

ADOPTED, the 10th day of January, 1983, upon motion by Commissioner Scrivner, second by Commissioner Kilpatrick, and by the following vote:

Ayes: Commissioners Kilpatrick, Loyd, Scrivner, Feasel

Noes: Commissioners Conrad, Koligian

Absent: Commissioner Bolt

John R. Feasel, Chairman
Airport Land Use Commission

DWG:RAK:as
24A-11
2/3/83

CERTIFICATE

I, Donald W. Gouge, Secretary of the Fresno County Airport Land Use Commission, California, do hereby certify that the foregoing is a full, true, and correct copy of the original Resolution adopted at the special meeting of the Fresno County Airport Land Use Commission held on the 10th day of January, 1983, now of record in may office. IN WITNESS THEREOF, I have set my hand this _____ day of _____, 1983.

DONALD W. GOUGE, Secretary
Airport Land Use Commission

FRESNO COUNTY AIRPORTS
LAND USE POLICY PLAN

Fresno County
Airport Land Use Commission
January 1983