

FINAL
ENVIRONMENTAL IMPACT REPORT
AND INITIAL STUDY
FOR SDSU
IMPERIAL VALLEY
MASTER PLAN PROJECT
SCH NO. 200251010



SDSU IMPERIAL VALLEY CAMPUS MASTER PLAN PROJECT (SCH NO. 200251010)

PREFACE

In compliance with Section 15132 of the CEQA Guidelines, this document serves as the Final Environmental Impact Report ("Final EIR") (State Clearinghouse No. 200251010) for the San Diego State University ("SDSU") Imperial Valley Campus Master Plan Project. The Draft EIR was made available for public review and comment for a 45-day period. This review and comment period began on April 9, 2003, and ended on May 23, 2003.

As required the Final EIR includes the agency and public comments to the Draft EIR, as well as written responses to those comments. In addition, a list of persons, organizations and public agencies commenting on the Draft EIR is presented on the following page in the "Draft EIR (April 2003) Comment Letters" section. The University's written responses to the environmental issues raised in the comments on the Draft EIR are presented below that list. The Final EIR also includes revisions to the Draft EIR. These revisions are shown in the Final EIR by striking through text deleted from the Draft EIR and underlining text added to the Draft EIR. The final version of the Mitigation Monitoring Plan for the project is found in the Final EIR, Section 11.

TABLE OF CONTENTS

RESPONSE TO COMMENTS

COMMENT LETTERS

FINAL EIR

Response To Comments

RESPONSES TO PUBLIC COMMENTS ON THE DRAFT EIR (APRIL 2003)

During the 45-day public review period, commencing April 9, 2003, and ending May 23, 2003, one comment letter was received from reviewing agencies in response to the Draft Environmental Impact Report (Draft EIR (April 2003)). The Governor's Office of Planning and Research (State Clearinghouse) letter dated May 27, 2003, states that San Diego State University (SDSU) has complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act (CEQA). A comment letter was received from the Department of Toxic Substances Control (DTSC) and a faxed comment letter was received from the Department of Conservation (DOC), within the review period. The State Clearing House also submitted their acknowledgement of receipt of the documents initiating public review.

Each issue raised in the comment letters has been assigned a number, which corresponds to a response number. The comment letters with respect to the Draft EIR (April 2003) have been reproduced on the pages following the responses.

The Final EIR includes revisions to clarify and correct the Draft EIR, where necessary. All revisions are marked in ~~strikeout~~/underline format. No new significant information has been presented in the Final EIR that would require recirculation of the Draft EIR (April 2003) pursuant to Section 15088.5(a) of the CEQA Guidelines. Specifically, there is no significant new information that (a) a new significant environmental impact would result from the project or from a new mitigation measure proposed for implementation, (b) a substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to below the level of significance, and (c) a feasible project alternative or mitigation measure considerably different from those analyzed in the Draft EIR (April 2003) would clearly lessen the environmental impacts of the project.

DRAFT EIR (APRIL 2003) COMMENT LETTERS

State and Federal Agencies

Governor's Office of Planning and Research (State Clearinghouse)

Department of Toxic Substances Control (DTSC)#1 - #21
Haissam Y. Salloum, Unit Chief, Southern California Cleanup Operations Branch

Department of Conservation (DOC), Division of Land Resource Protection#22-#25
Erik Vink, Assistant Director

Department of Toxic Substances Control (DTSC) - Haissam Y. Salloum, Unit Chief, Southern California Cleanup Operations Branch

1. The DTSC's comments regarding the requirements for content of the hazardous materials section have been addressed in the Draft EIR (April 2003). Specifically, Appendix B of the Draft EIR (April 2003) contains Phase I and Phase II ESAs that identify and investigate all potential hazardous waste/substances either listed or associated with historic uses of the project site. The ESAs are summarized in Chapter 3.3 of the Draft EIR (April 2003) and mitigation measures required to ensure that implementation of the Brawley Campus Project would not have a significant adverse impact related to hazardous materials are identified. In addition, the Calexico Campus Project is an improvement of an existing campus facility and was found to present no potentially significant hazardous materials or public safety impacts (Chapter 3.3, page 3.3-6).
2. See response to comment #1.
3. See response to comment #1.
4. SDSU is not required to prepare ESAs to the standards identified by the DTSC or to obtain the approval of the DTSC. SDSU has noted the comments made by the DTSC, however in this case, the comments are beyond the jurisdiction of the DTSC. No further consideration is required in the Final EIR.
5. See response to comments #1 and #4.
6. See response to comments #1 and #4.
7. See response to comments #1 and #4.
8. See response to comments #1 and #4.
9. See response to comments #1 and #4.
10. The DTSC comments regarding compliance with the Assembly Bill 387 are erroneous in this instance as SDSU is not subject to that bill and does not require DTSC approval. No further consideration is required in the Final EIR.
11. The DTSC assertion that no measures are identified in the Phase I ESA addressing potentially hazardous materials in the existing structures is incorrect. The Phase I ESA (provided in Appendix B of the Draft EIR (April 2003) and Final EIR (June 2003)) identifies that all potentially hazardous waste/substances associated with the existing structures should be removed and the Phase II ESA identified that further testing of the existing buildings area should be undertaken after the materials have been removed. These measures are provided as mitigation measures for hazardous materials/public safety on page 3.3-6 of Chapter 3.3 of the Draft EIR (April 2003) and the Final EIR (June 2003).

12. The DTSC comment that no mitigation measures regarding poly chlorinated biphenyls (PCBs) is correct. No PCBs have been identified on either campus site and the only potential source, an IID transformer on the Brawley Campus site, has been confirmed to be designated as a non-PCB containing transformer per the United States Environmental Protection Agency (USEPA) designations. This issue is discussed in the Draft EIR (April 2003) and the Final EIR (June 2003) on page 3.3-6 of Chapter 3.3.
13. The distance of sites listed on DTSC's CalSites and U.S. Environmental Protection Agency's (EPA) CERCLIS identified in the Phase I ESA are taken from a previous report dated October 13, 1999, which was performed on the entire property owned by Luckey Ranch LLC. Luckey Ranch LLC not only own the existing 226-acre property proposed to receive the Brawley Campus, but also several surrounding parcels. The site assessment maps presented in the Phase I ESA (Appendix B of the Draft EIR (April 2003)) show that the locations of all the listed potential sources of hazardous substances are over 5,000 feet (approximately 1 mile) from the existing 226-acre property. Because the two sites identified in the Phase I ESA that are listed on DTSC's CalSites and U.S. Environmental Protection Agency's CERCLIES are considerably further from the proposed project site than 2,000 feet, the proposed Brawley Campus site is not considered a "Border Zone Property". In addition, no sites listed on DTSC's CalSites or U.S. Environmental Protection Agency's CERCLIES have been identified within the vicinity of the Calexico Campus. No further consideration of this issue is required in the Final EIR.
14. The DTSC comment about disposal of excavated soil is noted by SDSU. Any soil identified as a result of sampling after the removal of hazardous substances from the existing buildings area on the proposed Brawley Campus site to contain hazardous substances will be disposed of in the appropriate manner to the satisfaction of SDSU and in cooperation with the DTSC. Soil excavated or disposed of associated with implementation of the Calexico Campus Project is not anticipated to contain hazardous substances because the site was previously graded for existing development on that site.

In addition, the Draft EIR is a Program EIR and the details of development of the Brawley Campus Project have not been developed. It is not anticipated that soil would be imported to complete either the Brawley Campus or the Calexico Campus projects. However, SDSU will ensure that only suitable soil, free of potentially hazardous materials, will be imported if any is required.

15. The comments made by the DTSC regarding the potential for the proposed project to generate hazardous wastes and the relevant measures to permit such activity is noted by SDSU. However, the projects are not anticipated to produce or store any hazardous substances.
16. See response to comment #15.
17. See response to comment #15.
18. See response to comment #15.

19. The proposed Brawley Campus will be connected to the City of Brawley sewer services and the Calexico Campus will continue to be connected to the City of Calexico sewer services. Chapter 3.11 of the Draft EIR (April 2003) page 3.11-7, identifies that separate storm drains and sanitary sewers facilities shall be constructed by the project sponsor at the proposed Brawley Campus site. It is not anticipated that either campus would discharge treated wastewater to the sewer. Therefore, the DTSC comment regarding the discharge of treated waste to sewers is noted by SDSU, however, no further consideration in the Final EIR is required.
20. The projects proposed in the Draft EIR (April 2003) would not require use of groundwater resources or contribute to the contamination of those resources. In addition, the Phase II ESA pertinent to the Brawley Campus project identified that the levels of potentially hazardous substances present in the soil are less than significant and do not present a risk. No further consideration in the Final EIR is required.
21. The Draft EIR (April 2003) identifies in Chapter 3.11, page 3.11-7 that the Calexico Campus presents no significant impacts water quality due to the existing developed nature of the site. It also identifies that a Storm Water Pollution Control Plan (SWPPP) will be developed in accordance with requirements of the Clean Water Act (CWA) for construction of the Brawley Campus. The SWPPP will contain all best management practices to be implemented during and after project construction to ensure that disturbance and pollution related to soil and water resources are minimized. The State Water Quality Control Board SRWQCB is regulatory agency for the CWA, as discussed in Chapter 3.11, page 3.11-3 of the Draft EIR (April 2003).

***Department of Conservation (DOC), Division of Land Resource Protection - Erik Vink,
Assistant Director***

22. While SDSU concurs with the DOC that consistency with a general plan does not equate automatically to a reduction in impacts associated with the loss of agricultural land, SDSU has applied the City of Brawley's guidelines for the loss of agricultural lands mitigation that specifically address the expected loss of agricultural land necessary to allow the development of facilities that would benefit the area. An SDSU campus would be a facility of benefit to the region and the programs offered at the campus would promote agriculture, ensure that the regions agricultural viability and integrity would be retained and agriculture would remain as the regions principle resource, through research and development of modern farming methods and the education of future generations of agriculturalists. In addition, SDSU is not required to conform to local land use plans and has applied the measures set forth in the City of Brawley's guidelines for the loss of agricultural lands to express SDSU's commitment to minimizing the impact of the loss of agricultural land.
23. SDSU concurs that lands under Williamson Act contract and agricultural preserve may exist within one mile of the proposed campus site. However, during the Notice of Preparation (NOP) process SDSU identified that no impacts to those lands would occur as a result of the proposed campus and no discussion of the issue was warranted in the

Draft EIR (April 2003). The NOP is presented in Appendix A of the Draft EIR (April 2003) along with comment letters on that NOP, for which none were received regarding conclusions related to Williamson Act lands. In addition, the proposed project would not be anticipated to impact cancellation or renewal of any Williamson Act contracts.

24. SDSU appreciates the recommendation made by the DOC. However, conservation easements are considered infeasible by SDSU at this time and the IVC Brawley project is not considered to be growth inducing. Growth in the region is sluggish in contrast to the rapid growth experienced in other regions of California. Subsequently, the 561,477 acres of harvested agricultural land in Imperial County is not under significant pressure to be developed. In addition, the recently approved Luckey Ranch EIR (October 1999) proposes a maximum of 957 single-family dwelling units as well as industrial and commercial uses. It is considered that the Luckey Ranch EIR more than satisfies current growth rates of the Brawley area and would facilitate any growth potentially induced by the proposed project. The likelihood of infill between Luckey Ranch and the proposed project site may be increased by the project but would remain low.
25. The Draft EIR (April 2003) addressed the regional significance by addressing the Imperial County's General Plan Agricultural Policies on page 3.10-6. Imperial County does not perceive any necessity to promote conservation easements for agricultural lands within the county.

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Comment Letters



Gray Davis*
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse



Tal Finney
Interim Director

May 27, 2003

Anthony Fulton
California State University, San Diego
5500 Campanile Drive
San Diego, CA 92182-1624

Subject: San Diego State University Imperial Valley Master Plan Project
SCH#: 2002051010

RECEIVED

MAY 30 2003

Facilities Planning And Management

Dear Anthony Fulton:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on May 23, 2003, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

**Document Details Report
State Clearinghouse Data Base**

SCH# 2002051010
Project Title San Diego State University Imperial Valley Master Plan Project
Lead Agency California State University, San Diego

Type EIR Draft EIR

Description The proposed SDSU Imperial Valley Campus Master Plan project is intended to improve and enhance facilities on the existing Imperial Valley Campus-Calexico ("IVC Calexico") site, and to increase education opportunities by adding a second campus in the northern part of the County. The overarching goal of this plan is to expand the educational offerings in the Imperial Valley. The proposed project would result in the possible addition of new classroom and administrative buildings on the IVC Calexico to increase the full time equivalent enrollment (FTE) from 400 FTE to 850 FTE. The second campus, Imperial Valley Campus-Brawley ("IVC Brawley") would result in the development of new classroom and administrative buildings to provide facilities for up to 850 FTE.

Lead Agency Contact

Name Anthony Fulton
Agency California State University, San Diego
Phone 619-594-5224 **Fax**
email
Address 5500 Campanile Drive
City San Diego **State** CA **Zip** 92182-1624

Project Location

County Imperial
City Brawley, Calexico
Region
Cross Streets State Route 78/Heber Avenue, Sherman St, 7th Street, Blair Avenue
Parcel No. 047-390-01/058-371-01

| Township | Range | Section | Base |
|-----------------|--------------|----------------|-------------|
|-----------------|--------------|----------------|-------------|

Proximity to:

Highways 78 & 111
Airports Brawley Municipal Airport
Railways
Waterways
Schools
Land Use A-2 General Agriculture

Project Issues Agricultural Land; Air Quality; Archaeologic-Historic; Drainage/Absorption; Geologic/Seismic; Noise; Public Services; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Wildlife; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Game, Region 6; Department of Parks and Recreation; California Highway Patrol; Caltrans, District 11; Department of Housing and Community Development; Department of Food and Agriculture; Regional Water Quality Control Board, Region 7; Department of Toxic Substances Control; Native American Heritage Commission

Date Received 04/09/2003 **Start of Review** 04/09/2003 **End of Review** 05/23/2003



Department of Toxic Substances Control



Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Edwin F. Lowry, Director
5796 Corporate Avenue
Cypress, California 90630

Gray Davis
Governor

April 22, 2003.



Mr. M. Anthony Fulton
Director of Facilities Planning and Management
Business and Financial Affairs
5500 Campnile Drive
San Diego, California 92182-1624

NOTICE OF COMPLETION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE SAN DIEGO STATE UNIVERSITY IMPERIAL VALLEY MASTER PLAN (SCH #2002051010)

Dear Mr. Fulton:

The Department of Toxic Substances Control (DTSC) has received your Notice of Completion (NOC) of a draft Environmental Impact Report (EIR) for the above-mentioned project.

Based on the review of the document, DTSC's comments are as follows:

- 1) The draft EIR needs to identify and determine whether current or historic uses at the Project site have resulted in any release of hazardous wastes/substances at the Project area.
- 2) The draft EIR needs to identify any known or potentially contaminated site within the proposed Project area. For all identified sites, the EIR needs to evaluate whether conditions at the site pose a threat to human health or the environment.
- 3) The draft EIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may require remediation, and the government agency to provide appropriate regulatory oversight.
- 4) The Phase I and Phase II Environmental Site Assessments are not adequate enough to make a determination of no further investigation. Unless the sampling plan was approved by a regulatory agency, the number of samples collected from the project site is not adequate to make such a determination. Therefore, an environmental assessment should be conducted at the project area to evaluate whether the site is contaminated with hazardous substances from the

potential past and current uses including storage, transport, generation and disposal of toxic and hazardous waste/materials.

- 5) Additional investigation should be conducted to verify whether the project site was used for storing pesticides. Moreover, the detected concentrations of pesticides is compared with the United States Environmental Protection Agency's Preliminary Remediation Goals (PRGs). PRGs are not site specific and therefore, not acceptable to DTSC. Also, Total Threshold Limit Concentration (TTLC) and Soluble Threshold Limit Concentrations (STLC) are the criteria for used for hazardous waste treatment and disposal purposes. For the site remediation activities, TTLC and STLC are not acceptable for DTSC. DTSC prefers site specific Health Risk Assessment rather than the aforementioned criteria.
- 6) For petroleum hydrocarbons, EPA Method 8260 should be used analyzing samples to evaluate the presence of benzene, toluene, ethyl benzene and xylene (BTEX). In the absence of a BTEX evaluation, a no further action for the sump area is not acceptable for DTSC.
- 7) Any hazardous wastes/materials encountered should be remediated in accordance with local, state, and federal regulations. Prior to initiating any construction activities, an environmental assessment should be conducted to determine if a release of hazardous wastes/substances exists at the site. If so, further studies should be carried out to delineate the nature and extent of the contamination. Also, it is necessary to estimate the potential threat to public health and/or the environment posed by the site. It may be necessary to determine if an expedited response action is required to reduce existing or potential threats to public health or the environment. If no immediate threat exists, the final remedy should be implemented in compliance with state regulations and policies rather than excavation of soil prior to any assessments.
- 8) All environmental investigation and/or remediation should be conducted under a Workplan which is approved by a regulatory agency who has jurisdiction to oversee hazardous waste cleanups. Complete characterization of the soil is needed prior to any excavation or removal action.
- 9) If vegetation or agricultural use occurred on the project site, onsite soils could contain pesticide residues. Proper investigation and remedial actions should be conducted at the site prior to the new development. As long as the proposed project is for the development of a university campus, proper environmental

studies to be conducted to evaluate the health risks associated with these chemicals.

- 10) The EIR indicates that the proposed project has been proposed to improve, enhance and provide new facilities for the Imperial Valley student population. During the school property acquisition and/or construction utilizing state funding, it should be in compliance with the Assembly Bill 387 (Wildman) and Senate Bill 162 (Escutia) which requires a comprehensive environmental review process and that DTSC's approval is required. DTSC's role in the assessment, investigation, and cleanup of proposed school sites is to ensure that the selected properties are free of contamination, and if the property is contaminated, that it is cleaned up to a level that is protective of the students and faculty who will occupy the new school. A study of the site is to be conducted to provide basic information for determining if there has been a release, or if there is a threatened release of a hazardous material including agricultural chemicals or if there maybe a naturally occurring hazardous material present at the site, that may pose a risk to human health or the environment.
- 11) The Phase I Environmental Site Assessment indicates possibility of the presence of lead paints and asbestos containing materials (ACMs) in the currently existing building structures. Instead, the Summary of Table of Project Impacts and Mitigation Measures (Table 1.0.1) do not provide any mitigation measures for the above suspected contaminants. If the presence of lead or ACMs is suspected, proper precautions should be taken during any future demolition activities. Additionally, the contaminants should be remediated in compliance with the California environmental regulations.
- 12) The presence of poly chlorinated byphenyls (PCBs) at the site also should be investigated. The draft EIR does not mention any mitigation measures.
- 13) If the proposed project is within 2,000 feet from a contaminated site, then the proposed development may fall under the "Border Zone of a Contaminated Property." Appropriate precautions should be taken prior to construction if the proposed project is on a "Border Zone Property."
- 14) The project construction may require soil excavation and/or soil filling in certain areas. Appropriate sampling is required prior to disposal of the excavated soil. If the soil is contaminated, properly dispose it rather than placing it in another location. Land Disposal Restrictions (LDRs) may be applicable to these soils. Also, if the project is planning to import soil to backfill the areas excavated,

proper sampling should be conducted to make sure that the imported soil is free of contamination.

- 15) If it is determined that hazardous wastes are, or will be, generated by the proposed project, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5).
- 16) If it is determined that hazardous wastes are or will be generated and the wastes are (a) stored in tanks or containers for more than ninety days, (b) treated onsite, or (c) disposed of onsite, then a permit from DTSC may be required. The facility should contact DTSC at (818) 551-2171 to initiate pre application discussions and determine the permitting process applicable to the facility.
- 17) If it is determined that hazardous wastes will be generated, the facility should obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942.
- 18) Certain hazardous waste treatment processes may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting Ms. Martha Bahia, Riverside County Environmental Health, the CUPA designated agency at (909) 358-5055.
- 19) If the proposed project discharge treated waste water to the sewer, a discharge permit should be obtained from the Regional Water Quality Control Board.
- 20) A groundwater investigation may also be necessary based on the nature of on-site contaminants and the depth to the groundwater.
- 21) If during construction of the project, soil and/or groundwater contamination is suspected, construction in the area should cease and appropriate Health and Safety procedures should be implemented. If it is determined that contaminated soil and/or groundwater exist, the draft EIR should identify how any required investigation and/or remediation will be conducted, and the government agency to provide appropriate regulatory oversight.

DTSC provides guidance for the Preliminary Endangerment Assessment (PEA) preparation and cleanup oversight through the Voluntary Cleanup Program (VCP).

Mr. M. Anthony Fulton
April 22, 2003
Page 5 of 5

For additional information on the VCP, please visit DTSC's web site at www.dtsc.ca.gov.

If you have any questions regarding this letter, please contact Mr. Johnson P. Abraham, Project Manager at (714) 484-5476.

Sincerely,

A handwritten signature in black ink, appearing to read 'H. Salloum', with a stylized flourish at the end.

Haissam Y. Salloum, P.E.
Unit Chief
Southern California Cleanup Operations Branch
Cypress Office

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

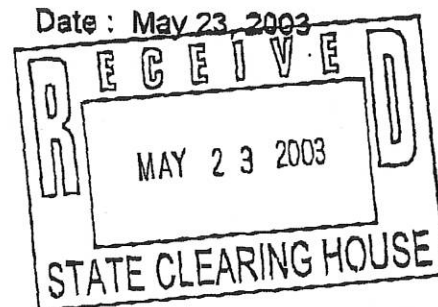
Mr. Guenther W. Moskat, Chief
Planning and Environmental Analysis Section
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

The Trustees of the California State University
400 Golden Shore
Long Beach, California 90802

M e m o r a n d u m

To: Project Coordinator
Resources Agency

W. Anthony Fulton, Director
Facilities Planning and Management
Business and Financial Affairs
5500 Campanile Drive
San Diego, CA 92182-1624



From: Erik Vink, Assistant Director *W*
Department of Conservation – Division of Land Resource Protection

Subject: San Diego State University (SDSU) Imperial Valley Campus Master Plan Project,
Draft Environmental Impact Report (DEIR) and Initial Study SCH# 2002051010

The Department of Conservation's Division of Land Resource Protection (Division) has reviewed the DEIR for the proposed 226-acre Brawley Campus and improvements to the existing 8.38-acre Calexico Campus. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following recommendations for the Final EIR with respect to the project's potential impacts on agricultural land.

Conversion of Agricultural Land

The DEIR notes that the proposed Brawley Campus would result in the loss of 226 acres of statewide important farmland (Farmland of Statewide Importance). The DEIR further notes that upon project approval, an associated General Plan Amendment and Rezone would redesignate the area for non-agricultural uses and, therefore, would avoid direct impacts relating to the loss of farmland associated with the project.

22

The DEIR states, on Page 3.10-7, that the Brawley Campus site is not designated for non-agricultural land uses in either the Brawley General Plan or the Imperial County General Plan. Therefore, the project is not in conformance with either of the General Plans. Implementation of a General Plan Amendment and Rezone for campus uses would result in direct loss of agricultural lands for purposes of the campus. In most cases, with the exception of qualifying projects "tiered" from a master document (General Plan, Master EIR), mere consistency with a general plan does not mean that a project's impacts are insignificant.

Agricultural Preserves and Lands Under Williamson Act Contract

23

The proposed Brawley Campus site is within one mile of lands under Williamson Act contract and agricultural preserves. Therefore, the Final EIR should also provide a discussion of the project's impacts, including indirect and growth-inducing impacts, on lands in agricultural preserves and under Williamson Act contract. For example, would the campus and associated growth promote an increase in contract nonrenewal rates or contract cancellations or a decrease in contract enrollments?

Project Coordinator and W. Anthony Fulton
May 23, 2003
Page 2

Mitigation Measures

24 The DEIR notes that San Diego State University will make best efforts to comply with Brawley and Imperial County regulations for mitigation measures by performing a site analysis as part of the project design. The mitigation measures listed are tied to design features of the project such as setbacks, wall heights, insulation, etc. Although these features may minimize land use conflicts, they do not address the direct loss of agricultural land.

The Division recommends that the University consider the purchase of agricultural conservation easements on land of at least equal quality and size as partial compensation for the direct loss of agricultural land, as well as for the mitigation of growth inducing and cumulative impacts on agricultural land. We highlight this measure because of its growing acceptance and use by lead agencies as mitigation under the California Environmental Quality Act.

25 Mitigation using conservation easements can be implemented by at least two alternative approaches: the outright purchase of conservation easements tied to the project, or via the donation of mitigation fees to a local, regional or statewide organization or agency, including land trusts and conservancies, whose purpose includes the purchase, holding and maintenance of agricultural conservation easements. Whatever the approach, the conversion of agricultural land should be deemed an impact of at least regional significance and the search for mitigation lands conducted regionally, and not limited strictly to lands within the Brawley area.

Information about conservation easements is available on the Department's website, or by contacting the Division at the address and phone number listed below. The Department's website address is:

<http://www.conservation.ca.gov/DLRP/>

Thank you for the opportunity to comment on the DEIR. If you have questions on our comments, or require technical assistance or information on agricultural land conservation, please contact the Division at 801 K Street, MS 13-71, Sacramento, California 95814; or, phone (916) 324-0850.

cc: Imperial Irrigation District RCD
P.O. Box 937, Imperial, CA 92251

bcc: Jason Marshall, Assistant Director, OGER

**FINAL
ENVIRONMENTAL IMPACT REPORT
AND INITIAL STUDY FOR
SDSU IMPERIAL VALLEY CAMPUS MASTER PLAN PROJECT**

Prepared for:
The Trustees of the
California State University
400 Golden Shore
Long Beach, California 90802

Prepared by:
Mooney & Associates
9903 Businesspark Avenue
San Diego, California 92131

In conjunction with:
San Diego State University
Facilities Planning & Management
5500 Campanile Drive
San Diego, California 92182-1624

July 2003



TABLE OF CONTENTS

| | | |
|------|--|--------|
| 1.0 | INTRODUCTION AND EXECUTIVE SUMMARY | 1-1 |
| 1.1 | Purpose..... | 1-1 |
| 1.2 | Introduction..... | 1-1 |
| 1.3 | Project Background..... | 1-1 |
| 1.4 | Project Setting..... | 1-2 |
| 1.5 | Topics of Known Concern | 1-3 |
| 1.6 | Type of EIR, Level of Analysis and Standards for EIR Adequacy | 1-4 |
| 1.7 | EIR Processing..... | 1-5 |
| 1.8 | Impacts, Mitigation Measures and Unavoidable Significant Impacts | 1-6 |
| 1.9 | Alternatives | 1-6 |
| 1.10 | Areas of Controversy/Issues to be Resolved..... | 1-7 |
| 1.11 | Incorporation of Studies, Comments, Responses and Other Documents..... | 1-7 |
| 2.0 | PROJECT DESCRIPTION | 2-1 |
| 2.1 | Purpose..... | 2-1 |
| 2.2 | Project Title..... | 2-1 |
| 2.3 | Lead Agency | 2-1 |
| 2.4 | Project Sponsor | 2-1 |
| 2.5 | Contact Person | 2-1 |
| 2.6 | Project Location | 2-2 |
| 2.7 | Known Responsible Agencies | 2-2 |
| 2.8 | General Plan/Community Plan Designation/Zoning..... | 2-2 |
| 2.9 | Project Objectives | 2-2 |
| 2.10 | Summary of Campus History and Current Campus Conditions | 2-3 |
| 2.11 | Project Description..... | 2-4 |
| 2.12 | SDSU Imperial Valley Campus Master Plan and CSU Requirements | 2-6 |
| 2.13 | Requested Project Approvals..... | 2-18 |
| 3.0 | ENVIRONMENTAL ANALYSIS..... | 3.0-1 |
| 3.1 | Land Use and Planning | 3.1-1 |
| 3.2 | Geology/Soils..... | 3.2-1 |
| 3.3 | Hazardous Materials/Public Safety | 3.3-1 |
| 3.4 | Biological Resources | 3.4-1 |
| 3.5 | Cultural Resources | 3.5-1 |
| 3.6 | Traffic | 3.6-1 |
| 3.7 | Public Services/Utilities..... | 3.7-1 |
| 3.8 | Hydrology/Flood Control..... | 3.8-1 |
| 3.9 | Noise | 3.9-1 |
| 3.10 | Agricultural Lands | 3.10-1 |
| 3.11 | Water Quality..... | 3.11-1 |
| 3.12 | Air Quality | 3.12-1 |

Table of Contents

| | | |
|------|--|------|
| 4.0 | UNAVOIDABLE SIGNIFICANT IMPACTS..... | 4-1 |
| 4.1 | Purpose..... | 4-1 |
| 4.2 | Summary of Significant Unavoidable Impacts | 4-1 |
| 5.0 | ALTERNATIVES | 5-1 |
| 5.1 | Purpose..... | 5-1 |
| 5.2 | Background | 5-1 |
| 5.3 | No Project Alternative | 5-1 |
| 5.4 | Reduced Project Alternative | 5-4 |
| 5.5 | Alternatives Considered But Rejected | 5-8 |
| 6.0 | CUMULATIVE ENVIRONMENTAL ANALYSIS | 6-1 |
| 6.1 | Purpose..... | 6-1 |
| 6.2 | Cumulative Forecasting Methodology | 6-1 |
| 6.3 | List of Related Projects | 6-1 |
| 6.4 | Impacts To Environmental Factors..... | 6-5 |
| 7.0 | GROWTH INDUCEMENT | 7-1 |
| 7.1 | Purpose..... | 7-1 |
| 7.2 | The Project's Growth Inducing Potential..... | 7-1 |
| 8.0 | SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES | 8-1 |
| 8.1 | Purpose..... | 8-1 |
| 8.2 | Introduction..... | 8-1 |
| 8.3 | Irreversible Commitment of Resources | 8-1 |
| 9.0 | SHORT-TERM USES/LONG-TERM PRODUCTIVITY..... | 9-1 |
| 9.1 | Purpose..... | 9-1 |
| 9.2 | Introduction..... | 9-1 |
| 9.3 | Long-Term Effects, Beneficial Uses and Risks | 9-1 |
| 10.0 | EFFECTS FOUND NOT TO BE SIGNIFICANT | 10-1 |
| 10.1 | Purpose..... | 10-1 |
| 10.2 | Introduction..... | 10-1 |
| 10.3 | Energy and Mineral Resources | 10-1 |
| 10.4 | Population and Housing..... | 10-1 |
| 10.5 | Recreation | 10-2 |
| 11.0 | MITIGATION MONITORING PLAN..... | 11-1 |
| 12.0 | LIST OF PREPARERS | 12-1 |
| 13.0 | REFERENCES | 13-1 |

APPENDICES

- A. Notice of Preparation and Responses
- B. Phase I Environmental Site Assessment Update and
Phase II Environmental Site Assessment
- C. Biological Survey and Report
- D. Cultural Resources Technical Report
- E. Traffic Impact Report
- F. Acoustical Report
- G. Air Quality Assessment

LIST OF FIGURES

| | | |
|-------|--|--------|
| 2.1-1 | Existing SDSU IVC Calexico Master Plan | 2-7 |
| 2.1-2 | Proposed SDSU IVC Calexico Master Plan | 2-9 |
| 2.1-3 | Aerial Photo of Proposed SDSU IVC Brawley Campus..... | 2-11 |
| 2.1-4 | IVC Calexico Vicinity Map | 2-13 |
| 2.1-5 | IVC Brawley Vicinity Map | 2-15 |
| 3.1-1 | Existing Airport Land Use Compatibility Map..... | 3.1-3 |
| 3.3-1 | Southwestern Portion of the Brawley Site in Detail | 3.3-3 |
| 3.4-1 | Burrowing Owl Burrow Locations..... | 3.4-3 |
| 3.6-1 | Existing Traffic Volumes AM/PM Peak Hours and ADTs - Brawley..... | 3.6-3 |
| 3.6-2 | Regional Trip Distribution - Brawley | 3.6-7 |
| 3.6-3 | Project Traffic Volumes AM/PM Peak Hours and ADTs - Brawley..... | 3.6-9 |
| 3.6-4 | Existing + Project Traffic Volumes AM/PM Peak Hours and ADTs - Brawley | 3.6-11 |
| 3.6-5 | Existing Conditions Diagram - Calexico | 3.6-17 |
| 3.6-6 | Regional Trip Distribution - Calexico..... | 3.6-19 |
| 3.6-7 | Project Traffic Volumes AM/PM Peak Hours - Calexico..... | 3.6-21 |
| 3.6-8 | Existing + Project Traffic Volumes AM/PM Peak Hours - Calexico | 3.6-23 |
| 6.3-1 | Cumulative Projects Considered | 6-3 |

LIST OF TABLES

| | | |
|--------|--|--------|
| 1.0-1 | Summary Table of Project Impacts and Mitigation Measures | 1-8 |
| 3.1-1 | Brawley General Plan Land Use Goals and Policies | 3.1-10 |
| 3.3-1 | Summary of Environmental Database Search..... | 3.3-8 |
| 3.6-1 | Project Trip Generation - Brawley | 3.6-5 |
| 3.6-2 | Signalized Intersection Operations - Brawley | 3.6-6 |
| 3.6-3 | Unsignalized Intersection Operations - Brawley | 3.6-6 |
| 3.6-4 | Near-Term Street Segment Operations - Brawley | 3.6-14 |
| 3.6-5 | Project Traffic Generation - Calexico | 3.6-14 |
| 3.6-6 | Year 2030 Traffic Volumes - Brawley..... | 3.6-16 |
| 3.6-7 | Existing Plus Project Operations - Calexico | 3.6-25 |
| 3.9-1 | Predicted Construction Noise Levels - Brawley Campus Site | 3.9-4 |
| 3.11-1 | Beneficial Uses of Surface Waters in the Brawley Campus Area | 3.11-2 |
| 3.12-1 | Pollutant Threshold Levels per ICAPCD and U.S. EPA | 3.12-3 |
| 3.12-2 | Ambient Air Quality Standards Matrix..... | 3.12-4 |
| 3.12-3 | State and Federal Airborne Chemical Toxics | 3.12-5 |
| 3.12-4 | Predicted Trip Generated Emissions – Calexico/Brawley Campus Sites | 3.12-6 |
| 3.12-5 | Typical Chemical Toxics (Pesticides) Found in Project Area | 3.12-8 |

1.0 INTRODUCTION AND EXECUTIVE SUMMARY

1.1 PURPOSE

An Environmental Impact Report (“EIR”) must contain a brief summary of the proposed project and its consequences in accordance with the California Environmental Quality Act (“CEQA”) and the State CEQA Guidelines (“CEQA Guidelines”). CEQA Guidelines §15123 requires that the summary identify each significant effect, the recommended mitigation measures and the alternatives that would reduce or avoid the project’s significant effects on the environment. The summary is also required to identify “areas of controversy,” including issues raised by public agencies and the public, and “issues to be resolved,” including the choice among alternatives and whether or how to mitigate the significant effects of the proposed project. This Introduction and Executive Summary is intended to provide a clear and simple description of the proposed project and its potential environmental effects pursuant to CEQA and the CEQA Guidelines.

1.2 INTRODUCTION

This EIR (State Clearinghouse No. 2002051010) has been prepared by Mooney & Associates for San Diego State University (SDSU), Office of Facilities Planning and Management, to address the potential significant environmental effects associated with implementation of the proposed SDSU Imperial Valley Campus Master Plan (hereafter, the “proposed project”). The proposed project site is located at the SDSU Imperial Valley Campus in Calexico and a proposed new campus in Brawley, in the County of Imperial, California.

The proposed project has been proposed to improve, enhance and provide new facilities for the Imperial Valley student population. The proposed project would result in the addition of new classrooms, offices, research, and student facilities. For purposes of this environmental analysis, the proposed project is addressed as two “project components.” The project will be analyzed at a program level, and will also be analyzed on a project level.

For a detailed description of the proposed project, please see Draft EIR, Section 2.0, Project Description. The lead agency for the proposed project is the Board of Trustees of California State University (CSU). The Board of Trustees is vested with full power and responsibility in respect of the construction and development of any CSU campus, and any buildings or other facilities or improvements connected with the CSU system (see, Cal.Educ.Code §66606). The project sponsor is San Diego State University.

1.3 PROJECT BACKGROUND

The proposed SDSU Imperial Valley Master Plan has been conceived in response to growing demands for educational facilities in Imperial Valley. The existing SDSU Imperial Valley Campus in Calexico (IVC Calexico) has been identified as nearing its physical enrollment ceiling capacity and in need of improvements. The proposed SDSU Imperial Valley Master Plan proposes improvements to the IVC Calexico campus involving the replacement of portable buildings with permanent

1.0 Introduction and Executive Summary

buildings and the expansion of the existing campus, which would enhance the facilities for the existing student population and would be capable of accommodating the projected future student population demands.

The central northern portion of Imperial County contains no existing higher education facilities. The proposed SDSU Imperial Valley Master Plan proposes the development of a new SDSU campus (IVC Brawley) east of the City of Brawley, in the central northern portion of Imperial County. The IVC Brawley project was conceived after approximately 220-acres of a 226-acre property, east of the City of Brawley, was offered to SDSU by the current landowner. The remaining 6-acres of that property are anticipated to be utilized for easements. During the process of devising the proposed SDSU Imperial Valley Master Plan, a proposition to independently develop a 5.04-acre portion of the offered property with satellite facilities for SDSU, was created by the private landowner, in an effort to expedite the provision of much needed higher education facilities to this portion of Imperial County. A separate project to provide these facilities is identified as the Phase I of the SDSU Brawley Campus Project. It is envisioned that the Phase I of the SDSU Brawley Campus Project would provide facilities that would be self-contained, operational satellite facilities for SDSU to use in conjunction with the existing IVC Calexico campus and would not encumber the development and operation of a full campus on the property. The County of Imperial Planning/Building Department became the lead agency for the purposes of preparing an EIR for the Phase I of the SDSU Brawley Campus Project (Brawley Phase I EIR). The public review period for that EIR ended on March 17, 2003 and the project will be presented to the Imperial County Board of Supervisors for approval in April 2003. Upon completion of the Phase I of the SDSU Brawley Campus Project, SDSU will become the responsible agency for operation of the facilities intended to serve satellite purposes to the existing IVC Calexico campus.

The 226-acre IVC Brawley campus proposed in the SDSU Imperial Valley Master Plan EIR would represent Phase II of the SDSU Brawley Campus if Phase I of the SDSU Brawley Campus Project is approved and developed. The Phase I of the SDSU Brawley Campus Project has not been approved at the time of writing this EIR. However, the development of the IVC Brawley campus under the proposed SDSU Imperial Valley Master Plan is not dependent on the approval or completion of the Phase I of the SDSU Brawley Campus Project. The SDSU Imperial Valley Master Plan EIR will discuss the proposed IVC Brawley campus site in terms of its existing conditions. The Brawley Phase I EIR includes a general plan amendment, rezone, and a minor subdivision. No new general plan amendment, rezone or minor subdivision applications shall be submitted as a part of the SDSU Imperial Valley Master Plan. Reference will be made to the Brawley Phase I EIR where impacts and/or mitigation associated with the proposed SDSU Imperial Valley Master Plan would be affected by the approval of the Brawley Phase I EIR.

1.4 PROJECT SETTING

The Brawley campus site is located at the southeast corner of the Luckey Ranch property, located in the unincorporated area of Imperial County, outside the City of Brawley. This site is bordered to the west by the Darling Drain and to the east by the Moorhead Canal. The site is comprised of 226 acres of agricultural land used for growing alfalfa, sugar beets, and various other types of agriculture. The southwestern portion of this site is currently developed with a mobile home, a barn, a partially

covered concrete parking area, and a trash and debris pile. Tarp-covered bales of hay are stockpiled along the eastern edge of the storage yard. Unpaved access roads, paralleling either canals or drains, are present around the perimeter of each site and cross the site.

The Calexico campus site is approximately 8.38 acres in size and is bordered by four City of Calexico streets: Heber Avenue on the west; Sherman Street on the north; Blair Avenue on the east; and Seventh Street on the south. The campus is surrounded by single-family residences to the west across Heber Avenue, by single- and multi-family residences to the east, north and southeast across Sherman Street, Blair Avenue and Seventh Street, and by Rockwood Plaza Park to the south across Seventh Street and the City of Calexico City Hall building to the southwest. De Anza Junior High School is also located to the northeast of the Imperial Valley campus across the intersection of Sherman Street and Blair Avenue.

The campus itself is essentially flat with on-site elevations ranging from 102.2 feet above mean sea level (MSL) at the northwest corner of the site to 106.0 feet MSL in the central portion of the site. Existing campus development includes four portable buildings, a portable storage shed, and seven non-portable buildings. The campus has a 102-car parking lot located in its northeast corner. There are also approximately 80 additional curbside parking spaces along the perimeter of the campus on City streets. Most remaining areas not developed with buildings or the parking lot are landscaped with a combination of grass, shrubs and trees.

1.5 TOPICS OF KNOWN CONCERN

To determine the number, scope and extent of the environmental topics to be addressed in this EIR, the University prepared a Notice of Preparation (NOP) and an Initial Study, and circulated the NOP/Initial Study to interested public agencies, organizations, community groups and individuals in order to receive input on the proposed project.

Copies of the NOP/Initial Study, dated May 2002, are presented in Appendix A of this EIR. Copies of all written responses to the NOP/Initial Study process are also presented in Appendix A. Based on the NOP/Initial Study process, this EIR addresses the following topics:

- (a) Land Use
- (b) Geotechnical and Seismicity
- (c) Hazardous Materials
- (d) Biological Resources
- (e) Cultural Resources
- (f) Traffic and Circulation
- (g) Public Services
- (h) Hydrology
- (i) Noise
- (j) Agricultural Lands
- (k) Water Quality
- (l) Air Quality

1.0 Introduction and Executive Summary

In addition to these sections, other important information is incorporated into this EIR. As required by CEQA, this EIR includes: (a) a description of the proposed project, including a description of the existing regional and local project setting; (b) an alternatives section that describes and analyzes alternative plans that could reduce the proposed project's environmental impact potential; and (c) sections that generally summarize the cumulative, long-term, irreversible and growth-inducing effects associated with the proposed project, as well as those effects found to be either not significant or unavoidably significant after implementation of the recommended mitigation measures identified in this EIR.

Based on the NOP/Initial Study process, the following topics are not considered significant and, therefore, are not addressed in detail in this EIR: (a) energy and mineral resources, (b) population and housing; (c) recreation; and (d) utilities and service systems.

1.6 TYPE OF EIR, LEVEL OF ANALYSIS AND STANDARDS FOR EIR ADEQUACY

This EIR is intended as both a "program EIR" and a "project EIR" under CEQA and the CEQA Guidelines. CEQA makes a distinction between an EIR for a program or a plan, and an EIR for a specific construction project. A project EIR is typically prepared for a specific construction-level project. *See*, CEQA Guidelines §15161. Under that section, a project EIR "should focus primarily on the changes in the environment that would result from the development project...[and] examine all phases of the project including planning, construction and operation." In contrast, a "program" or "first-tier" EIR is intended to focus environmental review on the environmental issues that are relevant to the approval being considered. *See*, Public Resources Code §§15152, 15168, 15385. SDSU expressly determined that a "project-level" analysis was appropriate for the construction-level components of the Imperial Valley Campus Master Plan (Calexico) project, whereas it determined that a "program-level" analysis was appropriate for those project components that are at the early planning stages only.

According to CEQA Guidelines Section 21080.09(b-c):

(b) "The selection of a location for a particular campus and the approval of a long range development plan are subject to this division and require the preparation of an environmental impact report. Environmental effects relating to changes in enrollment levels shall be considered for each campus or medical center of public higher education in the environmental impact report prepared for the long range development plan for the campus or medical center."

(c) The approval of a project on a particular campus or medical center of public higher education is subject to this division and may be addressed, subject to the other provisions of this division, in a tiered environmental analysis based upon a long range development plan environmental impact report."

This EIR is an informational document to be used as part of the planning process associated with the proposed project. Given the role of the EIR in this planning and decision-making process, it is

important that the information presented in the EIR be factual, adequate and complete. The standards for adequacy of an EIR, defined in Section 15151 of the CEQA Guidelines, are as follows:

“An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.”

The standards for EIR adequacy were followed by Mooney & Associates and SDSU, Office of Facilities Planning and Management, in preparing this EIR.

1.7 EIR PROCESSING

This EIR will be available for public and agency comment for a 45-day public review period. During this review period, written comments concerning the adequacy of the Draft EIR must be submitted by interested public agencies, organizations, community groups and individuals to W. Anthony Fulton, Director of Facilities Planning and Management, Administration Building Room 130, San Diego State University, 5500 Campanile Drive, San Diego, California 92182-1624. Written comments may also be submitted to Mr. Fulton by facsimile at (619) 594-4500. In addition, this EIR will be made available for public review during the 45-day period at the following locations:

- (a) SDSU Imperial Valley Campus, 720 Heber Avenue, Calexico, California
- (b) Brawley Public Library, 400 Main Street, Brawley, California
- (c) SDSU, Office of Facilities Planning and Management, Administration Building Room 130.

As required by CEQA, written responses to comments submitted by responsible public agencies will be distributed to those agencies for review prior to the Board of Trustees' consideration of the Final EIR.

Prior to making a final decision on the proposed project, the Board of Trustees will consider the Final EIR and associated administrative record, and decide whether or not to certify the adequacy of the Final EIR and approve the proposed project.

SDSU encourages public agencies, organizations, community groups and all other interested persons to provide written comments on the EIR prior to the end of the 45-day public review and comment period. If any agency, organization, group or person wishes to make a legal challenge to the Board of Trustees' final decision on the proposed project, that agency or person may be limited to addressing only those environmental issues that they or someone else have raised during the 45-day public review and comment period for this EIR.

1.8 IMPACTS, MITIGATION MEASURES AND UNAVOIDABLE SIGNIFICANT IMPACTS

This EIR has been prepared to assess the potential significant effects on the environment that could result from implementation of the proposed SDSU Imperial Valley Campus Master Plan. For a detailed discussion regarding potential significant effects, please see Section 3.0 of this EIR.

As required by CEQA, a summary of the proposed project's impacts is provided in Table 1.0-1, Summary Table of Project Impacts and Mitigation Measures, which is presented at the end of this section. Also provided in the table is a list of the proposed mitigation measures that are recommended in response to the potential significant impacts identified in the EIR, as well as a determination of the level of significance of the impacts after implementation of the recommended mitigation measure.

1.9 ALTERNATIVES

Because an EIR must identify ways to mitigate or avoid the significant environmental effects of a proposed project, this EIR identified various alternatives. The alternatives presented exclude potential alterations to the IVC Brawley campus site proposed by the Brawley Phase I EIR.

The **No Project Alternative** proposes to leave the Imperial Valley Campus in its present condition. The current SDSU Campus consists of the Calexico site only and would not involve the development of the Brawley Campus. No improvements or expansion of FTE would occur at the Calexico site and no additional physical campus improvements would be implemented.

The **Reduced Project Alternative** would allow only the construction of the proposed Calexico expanded campus, but would not include development of the 226-acre Brawley Campus site. The IVC Brawley campus site would remain in agriculture, or be allowed to develop under existing County zoning.

In an effort to search for a reasonable range of alternatives, an alternative site location was considered in order to minimize impacts to land use from the reduction in prime agriculture and impacts to public services. A desirable site would be one that would be located within an existing Sphere of Influence with adequate infrastructure, as well as one that did not reduce agricultural lands. One such site was tentatively offered to the Board of Trustees in the City of Calexico. However, there is a great need for educational services in the northern part of the County. This alternative site would not meet all of the project's objectives. This site would also need extension of services from the City of Calexico and therefore was rejected.

No other sites were donated to the Board of Trustees, making the project financially impossible, and therefore infeasible.

1.10 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

Comments were received in response to the NOP/Initial Study process and the public information meeting for the proposed Master Plan. Please see the EIR, Appendix A, for copies of written comments raised by public agencies, organizations and individuals in response to the NOP/Initial Study process and public information meeting.

1.11 INCORPORATION OF STUDIES, COMMENTS, RESPONSES AND OTHER DOCUMENTS

This EIR contains references to studies, reports and other documents, which were used as a basis for, or a source of, information summarized in the body of the EIR. These documents are incorporated by reference in this EIR in accordance with Section 15150 of the CEQA Guidelines. Where a study, report or document is briefly cited or referred to for convenience in the body of this EIR, the reader should consult the "References" section of this document for a full citation.

Table 1.0-1 Summary Table of Project Impacts and Mitigation Measures

| Project Impacts | Mitigation Measures | Residual Impact |
|---|---|------------------|
| 3.1 Land Use | | |
| The proposed IVC Brawley campus site is zoned agricultural, the conversion of which is inconsistent with zoning and general plan policies of both the City of Brawley and Imperial County. While a college campus on state property is exempt from local land use designations, the campus may have potential impacts on the surrounding agricultural community through the incompatibility of adjacent land uses. | <ol style="list-style-type: none"> 1. All development shall be in conformance state land CSU guidelines. 2. SDSU will make best efforts to comply with local government design guidelines, and all construction will comply with Title 24. <u>SDSU will make best efforts to comply with City and County regulations by performing a site analysis as a part of the project design in order to determine what mitigation measures (if any) would be reasonable. Mitigation measures may include setbacks, wall heights, insulation requirements, operating conditions or other design features. SDSU will implement the mitigation recommendations as appropriate.</u> | Not significant. |
| 3.2 Geotechnical | | |
| Although no geotechnical conditions have been identified to preclude development of the IVC Brawley or IVC Calexico projects as planned, geology/soils impacts are significant because of the hazards from seismic activity and expansive soils if proper construction techniques are not observed at the detailed design and construction stages. | <p>In order to mitigate significant geology/soils impacts, the following mitigation measures are required:</p> <ol style="list-style-type: none"> 1. Adverse discontinuities in strength between major structural elements shall be avoided. 2. Prior to detailed site planning, a subsurface geotechnical and soils study shall be conducted to determine the shrink-well potential and to develop design specific measures to ensure structural integrity. Grading and construction plans shall conform to recommendations of the study. | Not significant. |
| 3.3 Hazardous Materials | | |
| The Phase I ESA concluded that the IVC Brawley site does not appear to have been significantly affected by contamination. The Phase II ESA confirmed that no petroleum hydrocarbon constituents are present in the soil samples collected from the subsurface trench. In addition, the Phase II ESA identified that no further investigation or remediation of the agricultural fields or the subsurface trench is warranted. However, following the removal of the hazardous wastes further sampling may be necessary to confirm the absence of elevated concentrations of removed wastes. | <ol style="list-style-type: none"> 1. The Phase I ESA recommends that any identified hazardous materials shall be removed from the site. 2. The Phase II ESA recommends additional soil sampling following removal of the hazardous wastes to confirm the absence of elevated concentrations of removed wastes (e.g. petroleum hydrocarbons in the vicinity of the 55-gallon waste oil storage drum located in the partially covered shed on the southwestern portion of the property). | Not significant. |
| 3.4 Biological Resources | | |
| <p>Based upon the focused survey, it has been determined that burrowing owls are resident on the IVC Brawley site and would be impacted by the proposed project. Impacts associated with development of the site would be considered significant.</p> <p>The IVC Calexico site is already developed and the proposed project does not increase the area of the existing campus, therefore, no biological resources will be impacted by the project.</p> | <ol style="list-style-type: none"> 1. According to the California Department of Fish and Game Staff Report on Burrowing Owl Mitigation (CDFG-1995), mitigation for impacts to burrowing owl foraging and burrowing habitat shall include the acquisition and protection of a minimum of 6.5 acres of foraging habitat per pair or unpaired individual impacted by the proposed project. In addition, the following recommended mitigation protocol, taken from the California Department of Fish and Game (CDFG) Staff Report on Burrowing Owl Mitigation, shall be followed if passive relocation with one-way doors is chosen: "Owls should be excluded from burrows in the immediate impact zone and within a 50-meter (approximately 160 feet) buffer zone by installing one-way doors in burrow entrances. One-way doors (e.g., modified dryer vents) should be left in place 48 hours to insure owls have left the burrow before excavation. Two natural or artificial burrows should be provided for each burrow in the project area that will be rendered | Not significant. |

1.0 Introduction and Executive Summary

| Project Impacts | Mitigation Measures | Residual Impact |
|---|---|---|
| 3.4 Biological Resources (Continued) | | |
| | biologically unsuitable. The project area should be monitored daily for one week to confirm owl use of burrows before excavating burrows in the immediate impact zone. Whenever possible; burrows should be excavated by hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe should be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow." <u>If burrowing owls are encountered, CDFG will be consulted to ensure the appropriate measures are taken.</u> | |
| 3.5 Cultural Resources | | |
| No cultural resources have been identified as occurring within the project area and based on the records and literature research and site survey, it is expected that the proposed IVC Brawley campus and IVC Calexico campus projects would have no effect on historic properties. | <ol style="list-style-type: none"> It is recommended that a condition be adopted in approval of this project to provide for cultural resource monitoring of the initial phases of project construction to include any and all initial and early stage ground disturbing activities. <u>if an initial finding within the project area where no known resources have been recorded is made, appropriate contact with the local Native American group per the Native American Heritage Commission will ensue, in accordance with the SDSU construction contract conditions, which state that:</u> <u>"If the Contractor discovers any artifacts during excavation and/or construction, the Contractor shall stop all affected work and notify the Trustees, who will call in a qualified archaeologist designated by the California Archaeological Inventory to assess the discovery and suggest further mitigation, as necessary.</u> <u>If the Contractor discovers human remains, the Contractor shall notify the Trustees, who will be responsible for contacting the county coroner and a qualified archaeologist. If the remains are determined to be Native American, the Trustees shall contact the appropriate tribal representatives to oversee removal of the remains."</u> If any buried cultural deposits are discovered during construction, development should be suspended and the discovery protected and evaluated for its potential eligibility for listing on the National Register of Historic Places or the California Register of Historical Resources. | Not significant. |
| 3.6 Traffic | | |
| Based on the established significance criteria, no significant direct project impacts were calculated. | <ol style="list-style-type: none"> SDSU will work with the responsible agencies to coordinate the eventual signalization of the SR 78/SR 111 S. intersection. The, including a northbound movement should provide a dedicated northbound left-turn lane with a shared through-right turn lane shall be completed by Caltrans. Annually monitor the project access point on SR 78 for possible signalization. Provide Provision of an eastbound left-turn pocket and a westbound right-turn pocket on SR 78 at the project access point and; Provide provision of dedicated southbound left and right-turn lanes at the intersection of a project driveway to SR 78 shall be completed by Caltrans. Ensure corner sight distance meeting Caltrans shall ensure that County of Imperial standards is provided are applied to corner sight distance at the project-campus access point to SR 78. Dedicate Right of Way (ROW) along the frontage to ultimate SR 78 standards. | Not significant Significant and unmitigable. Because SDSU is not the responsible agency for completion of the mitigation measures identified a statement of overriding considerations will be adopted. |

| Project Impacts | Mitigation Measures | Residual Impact |
|---|---|------------------|
| 3.7 Public Services | | |
| Significant water and sewer service impacts will occur from additional demands on the existing and phased expansion of treatment plants, if development is premature to the City of Brawley's infrastructure upgrades. Significant electrical energy impacts will result from project-related demands, which in turn results in increased peak system requirements. All requests for water and sewer will be coordinated through the City's departments of planning and public works. The project will coordinate with IID and the City to ensure the availability of electric/gas/ telecommunication facilities prior to project approval. Development of the site will not result in adverse impacts to schools or libraries. There are no impacts to police or fire services anticipated. | <ol style="list-style-type: none"> Prior to final approval, SDSU shall provide the IID with the following: <ol style="list-style-type: none"> The project proponent SDSU shall dedicate land <u>an easement</u> for development of an electrical substation in on any on-site location identified by SDSU and satisfactory to the IID. Project design shall provide acceptable <u>adequate access</u> for maintenance roads and corridors with appropriate backsets <u>setbacks</u> between respective transmission and/or distribution lines and future structures or improvements. Relocation and cost of transmission or distribution of power shall be coordinated between IID and SDSU. Landscaping design requirements for all IID substations or facilities are subject to IID review. Landscaping costs shall be the responsibility of SDSU. SDSU will coordinate the responsibility of the easements for the campus with the IID and the CSU Chancellor's Office. The university SDSU shall coordinate with IID on issues such as load increase, City Code requirements, relocations, upgrades, undergrounding, line extensions, conduits, vaults, pads, switches and regulation charges. | Not significant. |
| 3.8 Hydrology | | |
| As development proceeds, existing water supply canals and drains will be underground in coordination with IID requirements so that minor flooding and ponding of surface water will not occur on the flat valley floor where open irrigation canals overflow. Heavy rainfall combined with low percolation rates could cause flooding of the project site's low-lying areas, but the City of Brawley General Plan finds this situation more of an inconvenience than a hazard. Flooding is presently not considered hazardous because little development occurs in the flood channel and the elevation of the flood channel is substantially lower than the valley floor. Farm water supply canals and drainage ditches may be temporarily relocated to provide continuing agricultural usage of existing fields during construction. | <ol style="list-style-type: none"> The drainage patterns will be coordinated with the City of Brawley to ensure that new drainage patterns from the campus will not adversely affect the City drainage system. A site-specific drainage study and detention basin design shall be conducted by a registered hydraulic engineer and submitted for review and approval by <u>provided to the City and IID, concurrent with each phase of development which will be consistent with engineering standards.</u> <u>SDSU will coordinate with IID to ensure</u> Relocation and undergrounding plans for canals and drains shall be <u>designed to maintain existing flow rates and structure capacity to the satisfaction of IID.</u> Any temporary relocation of private or IID canals and drainage ditches shall be approved by <u>coordinated with</u> IID. SDSU will coordinate improvements to detention and drainage facilities with the City's Department of Public Works <u>affected agencies.</u> | Not significant. |
| 3.9 Noise | | |
| Based on the established significance criteria, no significant direct project impacts are anticipated as a result of the proposed project. | No mitigation required. | Not significant. |
| 3.10 Agriculture | | |
| A direct impact will occur when the primary effects of the project result in the direct loss of "important farmland". Buildout of the IVC Brawley project will result in the loss of approximately 200 acres of statewide important farmland. All of the area, except the immediate vicinity of the existing buildings, is located in the irrigated agricultural area of the County and is actively farmed. | <p>The proposed IVC Brawley site is located within an unincorporated area of Imperial County, though is to be serviced primarily by the City of Brawley. As such it is the City's guidelines for loss of agricultural lands mitigation, which shall be addressed as follows:</p> <ol style="list-style-type: none"> <u>SDSU has prepared a conceptual land use plan, which incorporates components that minimizes agricultural impacts and promotes buffers from the surrounding agricultural lands in the form of landscaped and recreational areas. will make best efforts to</u> | Not significant. |

1.0 Introduction and Executive Summary

| Project Impacts | Mitigation Measures | Residual Impact |
|---|--|------------------|
| 3.10 Agriculture (Continued) | | |
| The proposed IVC Brawley project could cause an indirect impact to adjacent agricultural operations; in particular the practice of chemical use might be subsequently restricted. The consequences of the “leapfrogging” effect of the project may include increased likelihood of in fill between the proposed IVC Brawley site and the Luckey Ranch area. | comply with City and County regulations by performing a site analysis as a part of the project design in order to determine what mitigation measures (if any) would be reasonable. Mitigation measures may include setbacks, wall heights, insulation requirements, operating conditions or other design features. SDSU will implement the mitigation recommendations as appropriate. | |
| 3.11 Water Quality | | |
| <p>Surface water quality effects will be significant if water quality standards and effluent limitations are exceeded such that beneficial uses of the receiving waters (e.g., New River, Alamo River, and Salton Sea) are adversely affected. Ground water impacts will be significant if the project created a substantial long-term decline in ground water levels, or if planned or accidental project discharges were to degrade ground water quality such that beneficial uses were adversely affected. Substantial noncompliance with adopted policies for the management of water resources also will be considered a significant impact (Federal Clean Water Act, State and local water quality legislation and CEQA Guidelines, Appendices G and I).</p> <p>The proposed IVC Brawley project will generate substantial amounts of sediment, dust, and other construction pollutants, such as building materials, litter, and debris. Sources of sediment and dust could include graded areas, unpaved construction employee and truck parking areas, and stockpiled building materials and topsoil. Surface runoff during storms could convey these materials to local agricultural drains or the Alamo River. Dewatering during excavation also could be a substantial source of construction pollutants. Construction discharges to surface waters will be spread over the anticipated 20-year construction period. The Construction SWPPP required for project construction under the CWA will assure that construction water quality impacts are insignificant.</p> <p>At an average annual rainfall of about 2.7 inches, the project site will have a significantly higher impervious surface amount. Decreases in infiltration and increases in surface runoff will not have a substantial effect on ground water or surface water quality. Surface flows of fresh water from the site will be lower in salt (TDS) concentrations than the Salton Sea. Since the salt level in the Salton Sea is higher than the desired level, dilution with fresh water would not be a significant impact.</p> <p>Displacement of the existing agricultural uses on the project site by urban uses will reduce the amounts of fertilizer and pesticide residues, salts, and selenium infiltrating into soils and ground water or discharging to the drainage system. Conversion of the project site from agricultural to urban uses will increase surface discharges of total petroleum hydrocarbons and other urban pollutants to local drains. Surface runoff from the project site will be conducted to the Alamo and New Rivers. However, overall changes in the quality of surface runoff from the project site will have an insignificant effect on the Alamo River and Salton Sea because of the relatively small amounts of runoff from the site relative to the volume of agricultural water draining to these water bodies.</p> <p>The existing Calexico Campus is a developed and urban use, and therefore, no increase in impervious surfaces are anticipated. No significant impacts to water quality are expected because the City of Calexico has an established storm drain system.</p> | <ol style="list-style-type: none"> 1. The project sponsorSDSU shall construct coordinate separate storm drains and sanitary sewers for project facilities so that storm runoff from the project will not increase the frequency or volume of wastewater treatment plant overflows. 2. Storm water detention basins, as shown as part of the project design, shall be constructed concurrent with each phase of development consistent with engineering standards at a capacity equal to the flow level now generated plus the increase generated by impervious surfaces created during development. | Not significant. |

| Project Impacts | Mitigation Measures | Residual Impact |
|---|--|---|
| <p>3.12 Air Quality</p> <p>Motor vehicles are the primary source of emissions associated with the proposed project areas. Typically, uses such as the proposed San Diego State University Imperial Valley Campus sites do not directly emit significant amounts of air pollutants from on-site activities. Rather, vehicular trips to and from these land uses are the significant contributor.</p> <p>Proper pesticide application and the elimination of all drift is the sole responsibility of the user. Given proper methods of application including strict adherence to manufacturers label recommendations, and the minimal half-lives of the chemicals used, no significant impacts are expected to the proposed Brawley campus.</p> <p>Therefore, the construction of the proposed projects will not have an adverse significant impact on air quality.</p> | <p>No significant impacts are anticipated at either the Brawley or Calexico site and therefore, no mitigation measures are required.</p> | <p>Not significant.</p> |
| <p>Cumulative Traffic Impacts</p> <p>IVC Brawley: Table 3.6-1 shows that with the addition of cumulative project traffic, the key signalized intersections are calculated to operate at LOS D or better during the morning and afternoon peak periods with one exception. The intersection of SR 78/SR 111 degrades to LOS E for the AM peak hour. The addition of cumulative project traffic would also show that minor street movements at the key unsignalized intersections are calculated to operate at LOS C or better during the morning and afternoon peak periods with two exceptions.</p> <ul style="list-style-type: none"> • SR 78/Shank Road: WB APP (LOS F, both AM and PM peak hours); and • SR 78/SR 111: AWSC (LOS F/E for the AM/PM peak hours). <p>The Luckey Ranch Traffic Study recommends that a traffic signal be installed at the intersection of SR 78/Shank Road for Phase I of the project. LOS C is calculated with the installation of a signal. With the addition of cumulative project traffic, all road segments are calculated to operate at LOS D or better.</p> <p>No significant cumulative impacts are calculated at the signalized intersections since the project adds less than 2 seconds of delay to the intersections that are calculated to degrade to LOS D or worse with cumulative traffic. A significant cumulative impact is calculated at the SR 78/SR 111 unsignalized intersection, since LOS F is calculated with the addition of cumulative traffic and the project adds over 2 seconds of delay. In addition, significant impacts would occur if adequate access was not provided to the site via SR 78.</p> | <p>To mitigate impacts to below a level of significance the following measures would need to be required <u>implemented by the relevant/responsible agency</u> Caltrans as indicated below:</p> <ol style="list-style-type: none"> 1. Eventual signalization of the SR 78/SR 111 S. intersection, including a dedicated northbound left-turn lane with a shared through-right-turn lane <u>shall be completed by Caltrans.</u> 2. Provision of an eastbound left-turn pocket and a westbound right-turn pocket on SR 78 at the access to the proposed campus and provision of dedicated southbound left and right-turn lanes at the intersection of the campus driveway to SR 78 <u>shall be completed by Caltrans.</u> 3. <u>Caltrans shall ensure that</u> County of Imperial standards applied to corner sight distance at the campus access point. | <p>Not significant <u>Significant and unmitigable. Because SDSU is not the responsible agency for completion of the mitigation measures identified a statement of overriding considerations will be adopted.</u></p> |

2.0 PROJECT DESCRIPTION

2.1 PURPOSE

The purpose of the Project Description section is to describe the proposed project for the public, reviewing agencies and decision-makers. For purposes of CEQA, a complete project description must contain the following information: (a) the location and boundaries of the proposed project; (b) a statement of project objectives; (c) a general description of the project's technical, economic and environmental characteristics; and (d) a statement briefly describing the intended uses of the EIR. An adequate project description need not be exhaustive, but should supply the detail necessary for evaluation and review of the project's significant effects on the environment. This section describes the proposed SDSU Imperial Valley Campus Master Plan project, as well as its location and characteristics, and it includes describing the project's objectives and the intended uses of this EIR.

2.2 PROJECT TITLE

SDSU Imperial Valley Campus Master Plan Project

2.3 LEAD AGENCY

The Trustees of the California State University
400 Golden Shore
Long Beach, California 90802
(213) 986-9495

2.4 PROJECT SPONSOR

San Diego State University
Facilities Planning and Management
Business and Financial Affairs
5500 Campanile Drive
San Diego, California 92182-1624

2.5 CONTACT PERSON

W. Anthony Fulton
Director of Facilities Planning and Management
Business and Financial Affairs
5500 Campanile Drive
San Diego, California 92182-1624
(619) 594-5224

2.0 Project Description

2.6 PROJECT LOCATION

San Diego State University Imperial Valley Campus, Brawley, California
San Diego State University Imperial Valley Campus, Calexico, California

2.7 KNOWN RESPONSIBLE AGENCIES

City of Brawley (for improvements to public streets, if any), City of Calexico (for improvements to public streets, if any), County of Imperial, County Air Pollution Control District (for permitting due to air emissions from project components, if needed), Regional Water Quality Control Board (for water quality permitting, if any), Caltrans (for improvements to highways, if any).

2.8 GENERAL PLAN/COMMUNITY PLAN DESIGNATION/ZONING

The Brawley site is currently located within the County of Imperial and is zoned A-2 agriculture. The Calexico site is currently located within the City of Calexico, on an existing campus site zoned open space.

2.9 PROJECT OBJECTIVES

Section 15124(b) of the CEQA Guidelines requires that an EIR include a statement of the objectives sought by a proposed project. Consistent with the objectives described below, the overall mission of SDSU is to provide well-balanced, high-quality education for undergraduate and graduate students as it contributes to knowledge and problem solving through excellent and distinction in teaching, research and service.

The University provides an environment that encourages the intellectual development of students. The University's undergraduate and graduate programs in the liberal arts and sciences are designed to help students learn about themselves, their cultural and social heritage, and their physical environment.

The specific objectives of the proposed SDSU Imperial Valley Campus Master Plan project are as follows:

- Respond to increased Imperial County population growth by providing a northern campus near Brawley with buildings, facilities and other resources that is generally consistent with the existing Imperial Valley Campus Master Plan.
- Respond to increased Imperial County population growth by enhancing academic facilities at the existing Calexico campus and increasing capacity to accommodate growth.
- Utilize campus land resources as efficiently as possible.
- Master plan future building site support and infrastructure requirements for programmatic projects.

2.10 SUMMARY OF CAMPUS HISTORY AND CURRENT CAMPUS CONDITIONS

The SDSU Imperial Valley ("SDSU IVC") Campus has been located in the City of Calexico since 1965. There is currently no existing Brawley campus. A 5.04-acre portion of the proposed IVC Brawley Campus site is currently under consideration for the development of satellite facilities for use by SDSU, under the Phase I of the SDSU Brawley Campus Project. The proposed IVC Brawley campus will be built on land that was previously undeveloped farmland.

The Calexico campus site was originally developed by the Calexico High School District in 1915. In 1927, after a major earthquake, the four remaining permanent buildings were reconstructed. In 1965, San Diego State University moved to the site, and it was subsequently made a gift to the university trustees by the City of Calexico. The Calexico area experienced another earthquake in 1979 that severely damaged several of the original buildings located on the campus. Two of these original buildings had to be demolished at that time. The eleven non-portable buildings and two portable buildings located on the campus at this time are as follows:

- | | |
|--------------|---|
| Building #1 | Building #1 is currently used for arts/science classes. The original building, constructed in 1927, was used for this same purpose. The building suffered slight damage in the 1979 earthquake. The building was rehabilitated, seismically retrofitted and remodeled as a classroom building in 1995. |
| Building #2 | Building #2 was constructed in 1993. Since its construction, it has been used as an administration building. |
| Building #3 | Building #3 is currently used as an auditorium and for music, language and arts classes. The original building, constructed in 1927, was used as an auditorium, for music classes, and as a library. The building suffered some damage during the 1979 earthquake and was partially abandoned. The building was rehabilitated, seismically retrofitted and remodeled for auditorium, music and language arts in 2001. |
| Building #4 | Building #4 was constructed in 1983. Since its construction, it has been used for academic classes. |
| Building #5 | Building #5 was constructed in 1983. Since its construction, it has been used as a library and media center. |
| Building #5A | Building #5A is an addition to the library (building #5). |
| Building #6 | Building #6 was constructed in 1993. Since its construction, it has been used as a physical plant. |
| Building #7 | Building #7 was constructed in 1993. Since its construction, it has been used for computer classes. |

2.0 Project Description

- Building #8 Building #8 is a portable building currently used as the student affairs office.
- Building #9 Building #9 was constructed in 1993. Since its construction, it has been used as the faculty office 'east'.
- Building #10 Building #10 was constructed in 1993. Since its construction, it has been used as the faculty office 'west'.
- Building #20 Building #20 was constructed in the 1960's. Since its construction, it has been used as the student center.
- Building #21 Building #21 is a portable building currently used as an additional classroom building.

2.11 PROJECT DESCRIPTION

The proposed SDSU Imperial Valley Campus Master Plan project is intended to improve and enhance facilities on the existing Imperial Valley Campus - Calexico ("IVC Calexico") site, and to increase education opportunities by adding a second campus in the northern part of the County. The overarching goal of this plan is to expand the educational offerings in the Imperial Valley. The proposed project would result in the possible addition of new classroom and administrative buildings on the IVC Calexico to increase the approved full time equivalent enrollment (FTE) from 400 FTE to 850 FTE. The campus is currently serving 600 FTE. The second campus, Imperial Valley Campus - Brawley ("IVC Brawley") would result in the development of new classroom and administrative buildings to provide facilities for up to 850 FTE.

The existing IVC Calexico campus is the only higher education facility in Imperial County and has a current enrollment ceiling of 400FTE. The enhancement of the IVC Calexico campus would raise that enrollment ceiling to 850 FTE. The IVC Calexico campus is physically restrained to an 8.5-acre site, in downtown Calexico and the proposed enrollment ceiling of 850 FTE will not be capable of accommodating the anticipated demand. According to the CSU the population growth rate in Imperial County was identified as 30.2 % in the 1990's (CSU Communication 2003). In addition, the southern portion of Imperial County, where the IVC Calexico campus is located, currently has a lower population base (25.2% of the County) compared to the northern portion of Imperial County (28.2% of the County). It is apparent that distance is a barrier to providing higher education as the existing IVC Calexico campus currently receives 40.9% of its students from the southern portion of Imperial County and only 12.4% originate from the northern portion of Imperial County. Currently, the more populated northern portion of Imperial County is inadequately served by the existing IVC Calexico campus, which is nearing its physical enrollment capacity, in the southern portion of the County. SDSU has identified the need for a new campus facility in the northern portion of Imperial County, to increase its outreach in the areas high schools, greatly contributing to awareness of, and access to, college education for northern Imperial County high school graduates.

The IVC Brawley campus would be developed on an approximately 226-acre property offered to SDSU by the existing private landowner. In an effort to expedite the provision of education facilities

to the northern region of Imperial County, the private landowner has proposed a project to develop a 5.04-acre portion of that property under the Phase I of the SDSU Brawley Campus Project. The Imperial County Planning/Building Department is the lead agency in the preparation of the Phase I of the SDSU Brawley Campus Project Environmental Impact Report (Brawley Phase I EIR). The public review period for the Brawley Phase I EIR ended on March 17, 2003 and will be presented to the Imperial County Board of Supervisors for approval in April 2003.

Should the Brawley Phase I EIR be approved it would provide satellite facilities for up to 350 FTE, which the IVC Brawley campus development would expand to 850 FTE. The IVC Brawley project would accommodate the Phase I of the SDSU Brawley Campus Project, if approved, and equate to Phase II. However, the IVC Brawley project is not dependent on the approval or completion of the Brawley Phase I EIR. Because the Brawley Phase I EIR has not been approved, the IVC Brawley project will discuss the existing conditions of the approximately 226-acre site for the proposed IVC Brawley project. However, reference will be made to the Brawley Phase I EIR where impacts and/or mitigation associated with the proposed IVC Brawley portion of the SDSU Imperial Valley Master Plan would be affected by the approval of the Brawley Phase I EIR.

Figure 2.1-1 is a land use diagram documenting existing land uses on the IVC Calexico Campus. Figure 2.1-2 shows the proposed Calexico Campus Master Plan. Figure 2.1-3 shows an aerial photograph of the existing Brawley site.

For purposes of this Environmental Impact Report (EIR), the proposed project is addressed in two groups of project components. The Master Plan shall be analyzed at a program level, while the development of each of the Campus Plans shall be analyzed at a project level.

2.11.1 Local and Regional Setting

Imperial Valley is a large, flat, agricultural area located in the southeast corner of California, between the Salton Sea (which lies to its north), the Anza-Borrego Desert State Park which lies to the west, the Chocolate Mountains which lie to the northeast, and the Mexican border which constitutes its most southerly boundary line. The physical valley itself extends south into Mexico where it is called the Mexicali Valley. The typical elevation of the subject area is approximately 50 feet below sea level.

The proposed project sites are located on the campus of the San Diego State University Imperial Valley ("SDSU IVC") Campus, located in the City of Calexico (Figure 2.1-4), and a new site in the northeast portion of the County of Imperial, east of the City of Brawley (Figure 2.1-5). As shown on Figure 2.1-4, *Vicinity Map*, the general boundaries of the Calexico campus are Heber Avenue to the West, 7th Street to the south, Sherman Avenue to the north, and Blair Avenue to the east. The SDSU IVC campus, consisting of approximately 8.3 acres, is located in downtown Calexico. Regional access to the campus is provided by State Route 111 from the north or State Highway 98 from the east and west.

2.0 Project Description

The Brawley campus is bound by State Highway 78 to the south, the Wills Drain to the west and north, and Moorhead Canal to the east. Regional access to this campus is provided by State Route 78 and State Route 111.

SDSU is located on state property, which is not subject to zoning laws, zoning ordinances, or local general plans. However, the campus of IVC Calexico is located within the City of Calexico General Plan area, and IVC Brawley is located within the County of Imperial General Plan area, just east of the City of Brawley.

2.12 SDSU IMPERIAL VALLEY CAMPUS MASTER PLAN AND CSU REQUIREMENTS

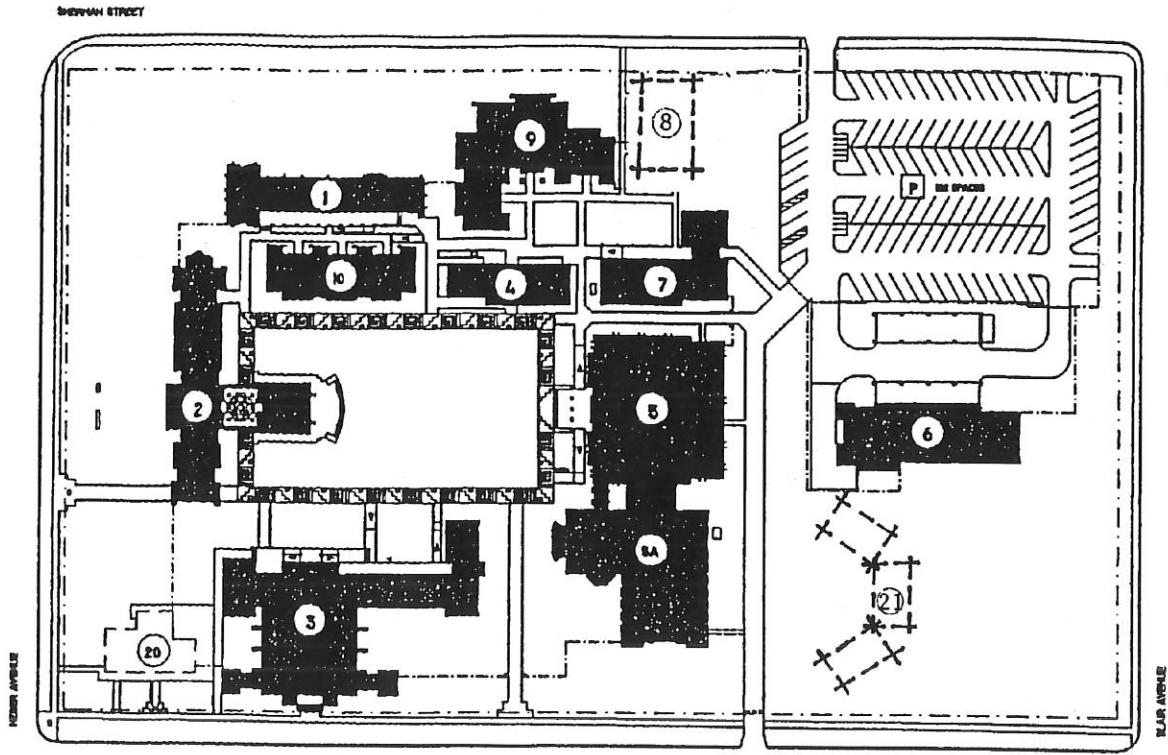
2.12.1 Campus Master Plan Process

The existing SDSU Imperial Valley Campus Master Plan consists of a map recently adopted by the Board of Trustees of California State University (CSU) and approved in 1995. The focus of the Imperial Valley Campus Master Plan is on campus boundaries, parking facilities, buildings and structures. The existing IVC Calexico enrolls approximately 900 students and currently has an approved full time equivalent (FTE) of 400. As part of this project, the University will request that the Board of Trustees amend the current SDSU Imperial Valley Campus Master Plan to reflect the program and project components comprising the IVC Master Plan project.

The proposed project incorporates the academic vision and educational goals of SDSU into physical components located within the campus site. The proposed projects' layout and physical improvements are designed to create a strong and clear sense of identity and place, as well as gathering areas for student and University-sponsored activities. The strengthening of the identity and collegiate atmosphere on the campuses is anticipated to reinforce the academic environment. In addition, the proposed project would construct new buildings and facilities, which would consolidate campus uses and provide students with opportunities not currently available within existing campus buildings and facilities. The proposed project would also accomplish the objectives of maximizing the use of existing campus facilities (Calexico) and resources while providing for the orderly master planning of the campus to meet the needs of the University, and to maintain a high quality of education.

2.12.2 CSU Mitigation Limitations

The Board of Trustees of CSU is vested with full power and responsibility in the construction and development of any state university campus, and any buildings or other facilities or improvements connected with the CSU. *See*, Education Code §66606. However, there are certain legal limitations applicable to the CSU regarding the commitment of funds for off-site improvements to local streets and roadways, which arise from the proposed construction and development of "projects" on a state university campus within the CSU system. These limitations are discussed in further detail below.



SAN DIEGO STATE UNIVERSITY IMPERIAL VALLEY CAMPUS

MASTER PLAN
APPROVED JANUARY, 1996

FACILITY LEGEND:

EXISTING FACILITY, PROPOSED FACILITY

MASTER PLAN ENROLLMENT: 400 FTE

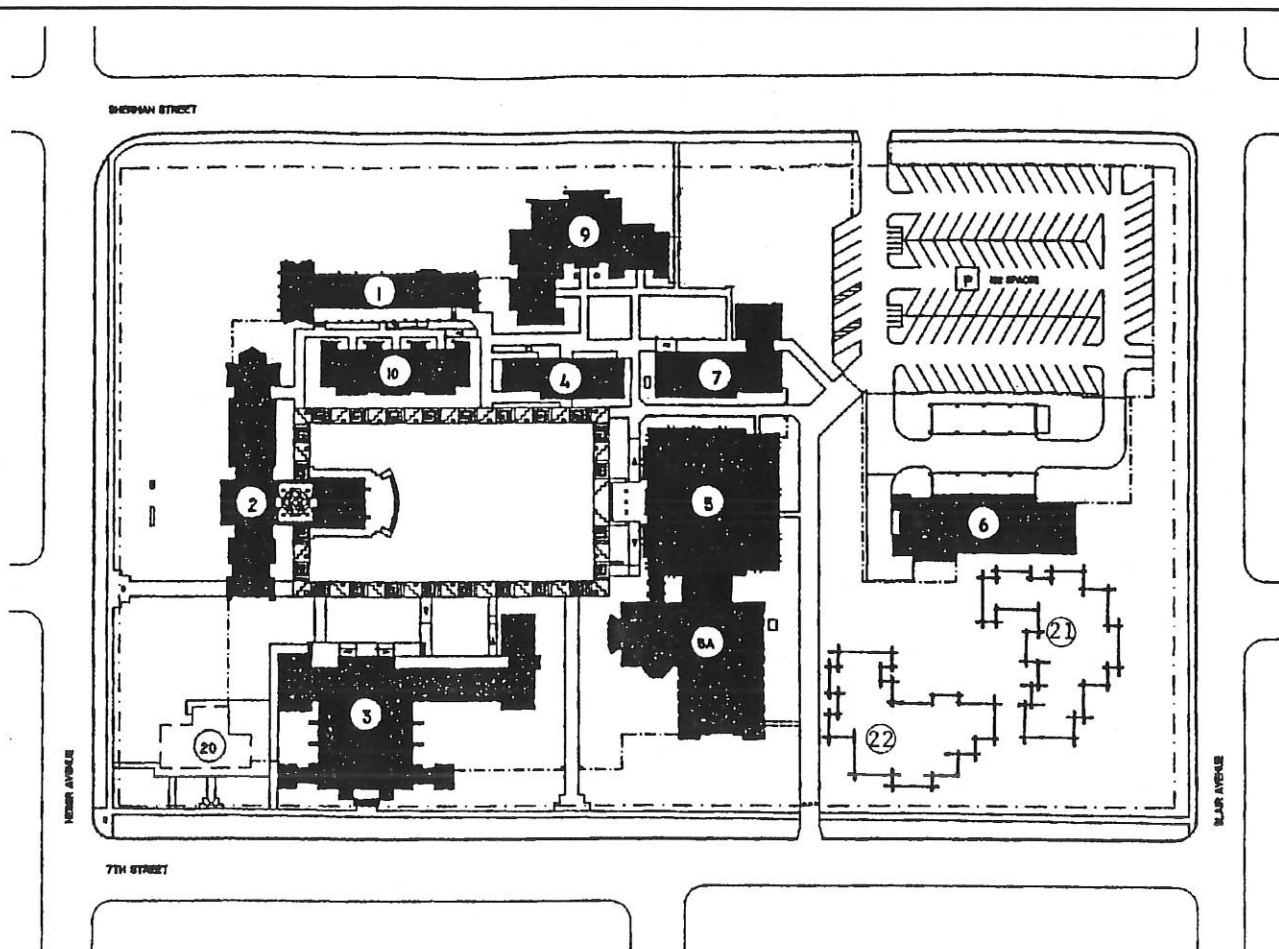
- 1 NORTH CLASSROOM BUILDING
- 2 ADMINISTRATION BUILDING
- 3 AUDITORIUM / CLASSROOMS
- 4 CLASSROOMS BUILDING
- 5 LIBRARY
- 5A LIBRARY ADDITION
- 6 PHYSICAL PLANT
- 7 COMPUTER BUILDING
- 8 Student Affairs Building
- 9 FACULTY OFFICES BUILDING EAST
- 10 FACULTY OFFICES BUILDING WEST
- 20 STUDENT CENTER
- 21 Classroom Building

- EXISTING BUILDING
- FUTURE BUILDING
- TEMPORARY BUILDING
- EXISTING PARKING LOT

CAMPUS ACREAGE 0.38 ACRES
EXISTING PARKING SPACES 102 SPACES

2.0 Project Description

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SAN DIEGO STATE UNIVERSITY IMPERIAL VALLEY CAMPUS

MASTER PLAN
Proposed January 2003

FACILITY LEGEND:

EXISTING FACILITY, PROPOSED FACILITY

MASTER PLAN ENROLLMENT: 400 FTE

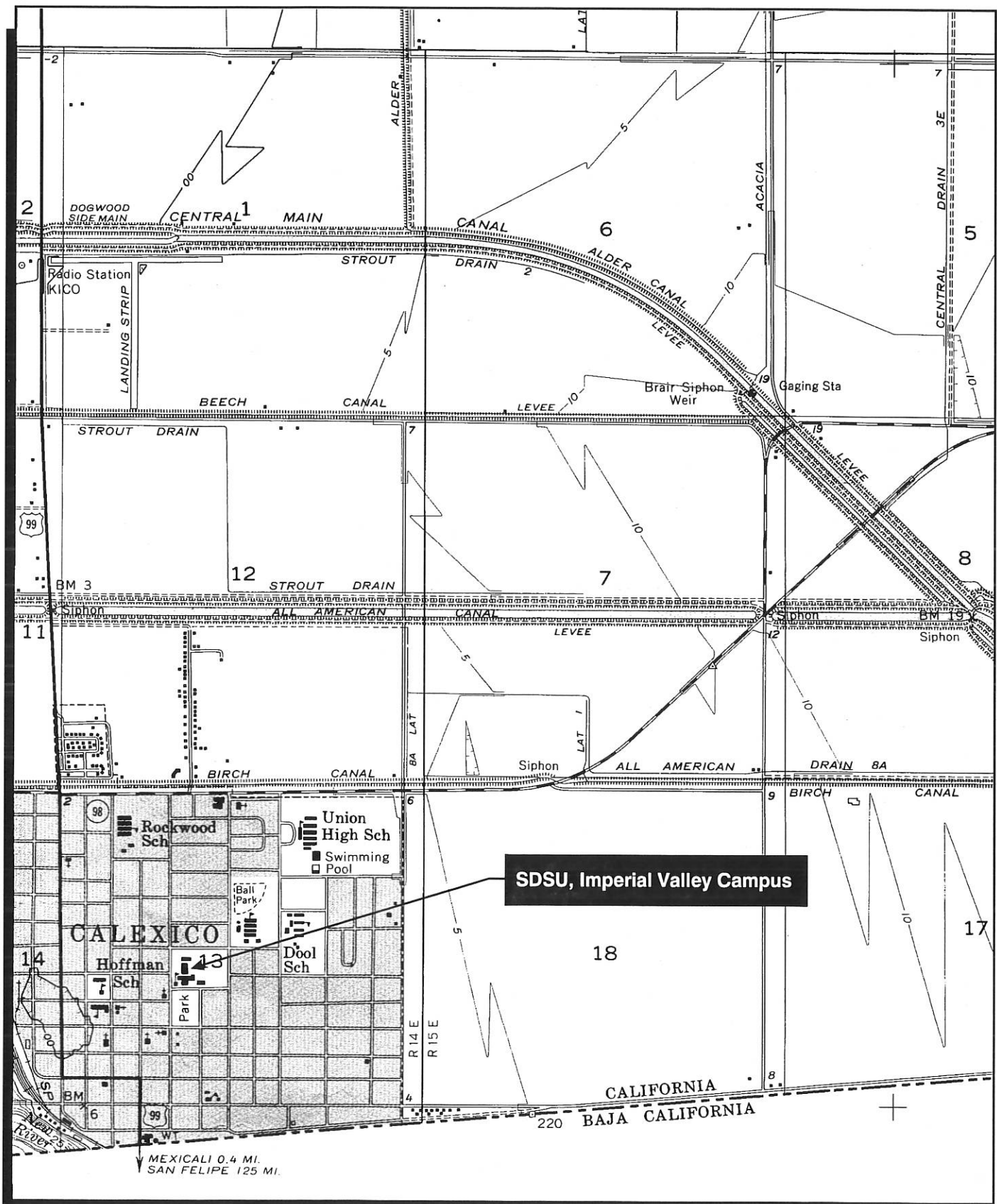
- 1 NORTH CLASSROOM BUILDING
- 2 ADMINISTRATION BUILDING
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- 4 CLASSROOMS BUILDING
- 5 LIBRARY
- 5A LIBRARY ADDITION
- 6 PHYSICAL PLANT
- 7 COMPUTER BUILDING
- 9 FACULTY OFFICES BUILDING EAST
- 10 FACULTY OFFICES BUILDING WEST
- 20 STUDENT CENTER
- 21 Classroom Building East
- 22 Classroom Building South

- EXISTING BUILDING
- FUTURE BUILDING
- TEMPORARY BUILDING
- EXISTING PARKING LOT

CAMPUS ACREAGE 8.38 ACRES
EXISTING PARKING SPACES 102 SPACES

2.0 Project Description

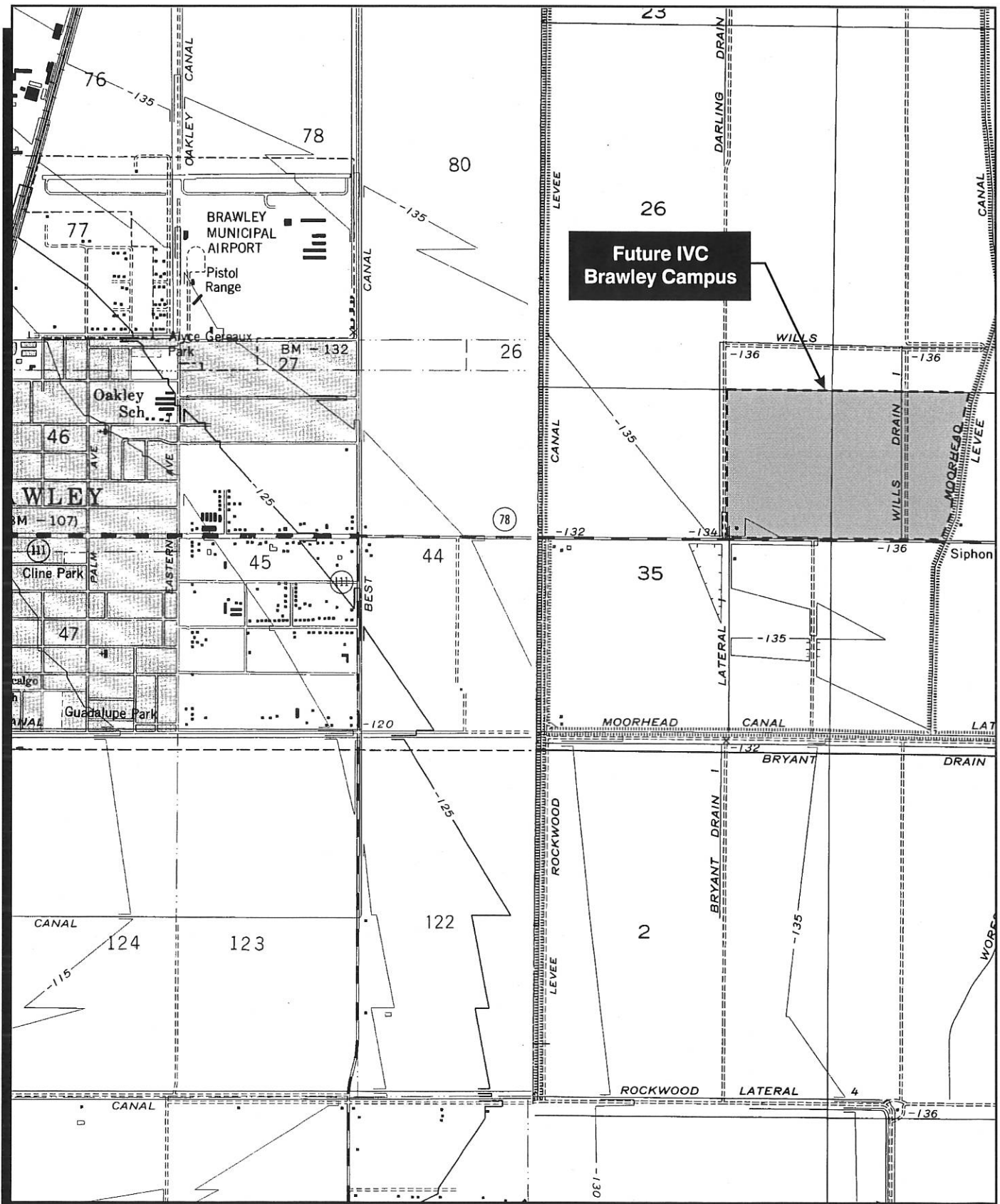
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SOURCE: USGS 7.5' Quad Map - Calexico, CA

2.0 Project Description

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SOURCE: USGS 7.5' Quad Maps - Alamo and Brawley, CA



0 1000' 2000'

IVC Brawley Vicinity Map

Figure 2.1-5

2.0 Project Description

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In mitigating significant environmental effects, public agencies may exercise only those express or implied powers provided by law other than CEQA. *See e.g.*, Pub.Res.Code §21004; CEQA Guidelines §15040(b); *Concerned Citizens of South Central Los Angeles v. Los Angeles Unified School District* (1994) 24 Cal.App.4th 826, 842; and *Kenneth Mebane Ranches v. Superior Court* (1992) 10 Cal.App.4th 276, 291. CEQA, by itself, does not confer independent authority on public agencies, nor does it expand the authority granted by other laws to those agencies. When public agencies adopt measures to mitigate significant environmental effects, agencies may exercise only those express or implied powers provided by law other than CEQA, and the actions of those agencies must be consistent with express or implied limitations on the agencies' authority found in other laws.

Thus, for example, if the California Constitution, a statute or some other law generally confers upon a public agency the authority to levy a fee, or to impose some other type of exaction for public health and welfare purposes, that public agency may, to the extent expressly or impliedly permitted by such other law, choose to impose that fee or exaction for the purpose of mitigating or avoiding a significant effect on the environment which has been identified pursuant to CEQA. However, CEQA makes it clear that it cannot be an independent basis for allowing the public agency to mitigate for significant environmental effects beyond the express or implied powers conferred by other laws or regulations.

The CSU has specific powers to mitigate significant environmental effects that occur within its jurisdiction namely the various campus sites, but limited powers for those effects that occur outside of the various campus sites. Because of these legal limitations, it is not feasible for the CSU to mitigate "off-site" impacts. In addition, the State of California has a clear constitutional and statutory assignment of responsibilities for various public works and methods for allocating revenues to pay for such facilities. This assignment also places legal limitations upon the CSU to adopt mitigation to avoid or otherwise minimize "off-site" impacts.

Given these limitations, the CSU system recognizes that a campus presence may impose certain burdens upon surrounding communities. At the same time, however, the CSU system, and the individual campus locations, provide innumerable benefits, such as educational opportunities, jobs, technical assistance and support for economic development, provision of highly trained students for employment in a growing public and private sector, cultural activities, entertainment, sports and other related activities, and libraries, to name a few. The CSU system believes that the framers of the California Constitution took these benefits and burdens into account, and sorted out the equities long ago.

Consequently, California law provides that, in the absence of express legislative authority, State property is exempt from property taxation and special assessments for street and other local improvements. *See, e.g., Cal.Const., Art. XIII, §3(d); San Marcos Water Dist. V. San Marcos Unified School Dist.* (1986) 42 Cal.3d 154, 161. According to the California Supreme Court in the *San Marcos* decision, the rationale behind this exemption is "to prevent one tax-supported entity from siphoning tax money from another such entity; the end result of such a process could be unnecessary administrative costs and no actual gain in tax revenues." *Id.*

2.0 Project Description

The only express legislative authority for assessments against State property is found in Government Code §§54999, *et seq.* However, this authority is limited to specific purposes, and street and other related off-site improvements are not among them. In keeping with the CSU's statutory and constitutional mission of public education, and consistent with the principles articulated in the *San Marcos* decision and other cases, the CSU has a long history of dedicating its limited State and non-State capital outlay resources to the development and maintenance of educational facilities, and not to local and regional infrastructure.

Moreover, the CSU's educational mission does not include responsibility for, nor jurisdiction over, the construction of off-site improvements (including appropriation of student fee income). The CSU does not receive funding from the Legislature for off-site improvements. For example, unlike cities and counties, the CSU does not directly receive income from sales, transient occupancy, real estate or gasoline taxes. Nor is it allocated federal highway funds. Since gasoline and sales taxes are important sources of road and highway funding, the CSU believes it is appropriate that off-site street and road improvements be funded by local government. In addition to local funding for street improvements, of course, the State separately funds State highway through its State Transportation Commission and Caltrans. However, the CSU has no direct access to such funding.

CEQA recognizes the differentiation of responsibility and authority among various public agencies. (See, e.g., *Goleta Union School District v. Regents of the University of California* (1995) 37 Cal.app.4th 1025.) Consistent with CEQA Guidelines, the CSU may approve campus projects even with significant environmental effects in circumstances where applicable mitigation measures are "within the responsibility and jurisdiction of another public agency and have been, or should be, adopted by that other agency." (Pub.Res.Code §21081(a)(2); CEQA Guidelines §15091(a)(2)). The Board of Trustees for CSU, as lead agency, must adopt "Overriding Considerations" where project benefits outweigh significant impacts that remain unmitigated due to project implementation. (CEQA Guidelines §15093). The CSU cannot guarantee implementation of mitigation measures that are under the jurisdiction and responsibility of another agency, but may address them with "Overriding Considerations" supported by substantial evidence in the record of a project approval.

2.13 REQUESTED PROJECT APPROVALS

The following requested approvals are required for implementation of the proposed SDSU Imperial Valley Campus Master Plan project by the Board of Trustees:

- (a) Amendment of the SDSU Imperial Valley Campus Master Plan (Calexico Campus) to reflect the new campus buildings and facilities;
- (b) Acceptance of the Brawley Campus Project.
- (c) Approval of Development at the Calexico Campus and of the Brawley site.

3.0 ENVIRONMENTAL ANALYSIS

PURPOSE

As required by CEQA, this section describes the Proposed Project's existing conditions and setting, discusses potential significant environmental effects and identifies feasible mitigation measures to avoid, substantially lessen or otherwise mitigate the project's impact potential. The technical topics addressed in Sections 3.1 through 3.12 of the EIR were identified by SDSU and Office of Facilities Planning and Management, through the NOP/Initial Study process. Technical studies supporting some or all of the information presented in the section are found in the EIR, Volume II Appendices.

Each environmental topic addressed in this section is addressed by using the following organizational format, where appropriate:

- (a) **Existing Conditions and Setting:** This subsection discusses the Proposed Project's existing conditions and setting;
- (b) **Potential Impacts:** This subsection discusses the impacts of the Proposed Project, including, where appropriate, a description of the significance criteria utilized in assessing impacts;
- (c) **Mitigation Measures:** This subsection identifies the mitigation measures recommended in the EIR to avoid, substantially lessen or otherwise mitigate the identified potential significant effects of the Proposed Project; and
- (d) **Unavoidable Significant Impacts:** This subsection discusses the significant project impacts that would occur after mitigation measures have been applied.

The environmental topics discussed in the section are as follows: 3.1 Land Use; 3.2 Geology; 3.3 Hazardous Materials; 3.4 Biological Resources; 3.5 Cultural Resources; 3.6 Traffic; 3.7 Public Services; 3.8 Hydrology; 3.9 Noise; 3.10 Agricultural; 3.11 Water Quality; and 3.12 Air Quality.

CALEXICO/BRAWLEY PROJECT COMPARISON

This Master Plan EIR for SDSU analyzes two projects, IVC Brawley and IVC Calexico. The two project sites are distinct in both location and circumstance. The issues for each project are subsequently, equally distinct.

Brawley

The Brawley project is to construct a new campus on agricultural land in a rural area beyond the sphere of influence of the City of Brawley. Numerous issues of importance have been identified relative to the Brawley site, these include; distance from required services, hazardous materials, agriculture and the incompatibility of land use, all of which are related to the remoteness and existing

Chapter 3.0 Environmental Analysis

use of the area. However, many of the issues associated with the development of the Brawley site would be resolved under the Phase I of the SDSU Brawley Campus Project EIR (Brawley Phase I EIR), if approved by the Imperial County Board of Supervisors in April 2003. Approval of the Brawley Phase I EIR would result in a rezone of the property to G-S Government/Special Public Zone, a General Plan Amendment, and concurrence that all utilities, except for sewer services, would be provided to the site.

Without the approval of the Brawley Phase I EIR issues of importance identified would remain as stated. The potential resolution of issues associated with the Brawley Phase I EIR are disregarded for the purposes of the discussion of those issues identified as important in this document, because the Brawley Phase I EIR has not been approved at the time of preparation of this document. It should be noted that implementation of the proposed IVC Brawley Campus is neither dependent on approval of the Brawley Phase I EIR nor would it be encumbered by approval.

Calexico

The Calexico project proposes the replenishment and expansion of an existing campus, which is located in a developed urban area within the city limits of the City of Calexico. The issues of importance relative to the Calexico site are limited to potential noise and traffic increases that may disrupt the residents of the area.

The two projects are separated by geography but connected by purpose under this EIR. The analysis within the following section addresses the issues identified as important for the Brawley project, which involves the construction and development of a new campus. The same level of analysis is applied to the Calexico project, which involves the replacement of portable buildings with permanent buildings and the expansion of the existing campus. However, because of this contrast in project scale the complexity of results and discussion is considerably less for the Calexico project.

3.1 LAND USE AND PLANNING

3.1.1 Introduction

The purpose of this section of the EIR is to determine the impact and compatibility of the proposed project on the existing and planned land uses in the area. The information presented and examined in this section has been taken from the City of Brawley General Plan, the County of Imperial General Plan and other documents from the jurisdictional agencies, as well as EIRs prepared for other projects in the area, all of which are listed in the reference section.

3.1.2 Existing Conditions and Setting

Brawley

The SDSU Imperial Valley Campus Brawley (“IVC Brawley”) is located just outside of the City of Brawley’s Sphere of Influence. The outmost Brawley planning area boundary defines the limits of the City’s Sphere of Influence as approved by the Local Agency Formation Commission (LAFCO). However, it is prudent that the City of Brawley General Plan be addressed as the proposed IVC Brawley campus site is in the vicinity of Brawley and may ultimately be annexed into the City. The proposed IVC Brawley site is located in the County of Imperial and is designated as agriculture in the Imperial County General Plan (1996).

The site is presently occupied by a small cluster of structures and predominantly by actively farmed agricultural land. The site is not strictly bounded to the north, but is bounded to the east by Moorhead Canal and four residences adjacent to an agricultural machinery rental and storage business, to the south by SR-78 and to the west by Wills Road/Darling Drain.

The IVC Brawley site has been actively farmed and is located in the irrigated portion of the County of Imperial. The project site has been utilized for agricultural production since the early 1900’s. Irrigation waters are delivered via the Best, Rockwood and Moorhead Canals. The California Department of Conservation, Division of Oil, Gas, and Geothermal Resources has indicated that a number of temperature gradient well sites on, or in the vicinity of the project site, have been abandoned and capped.

Land uses to the west of the project site vary in both intensity and type of development. Nearly all existing development is located west of the project area within the existing city limits. The City of Brawley Municipal Airport and Union Pacific Railroad line are located to the northwest of the proposed site. Existing uses surrounding the property are almost exclusively agricultural with scattered rural residential development and an industrial area (outdoor storage and agricultural machinery rental) on the eastern border of the property.

In 2000, the Luckey Ranch Specific Plan Rezone Area was approved, which included a 740-acre project area. The approved rezone allows for commercial uses, schools, parks and aviation support services, and 207 acres of residential use. The Luckey Ranch Specific Plan Rezone Area allows

Chapter 3.1 Land Use and Planning

infill development on the majority of land between the proposed IVC Brawley site and the City of Brawley. No infill development of the Luckey Ranch SPA has occurred to date.

The Imperial County Land Use Ordinance (1998) identifies the proposed IVC Brawley site as A-2 Agriculture. The A-2 zoning allows only agricultural related development or construction of Public Agency structures.

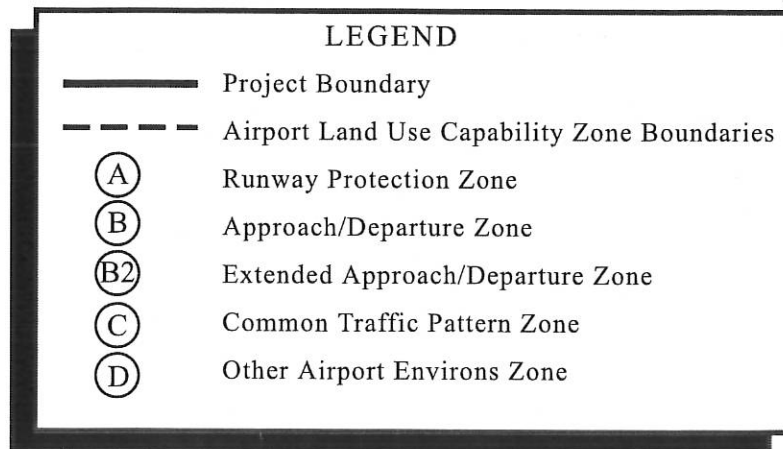
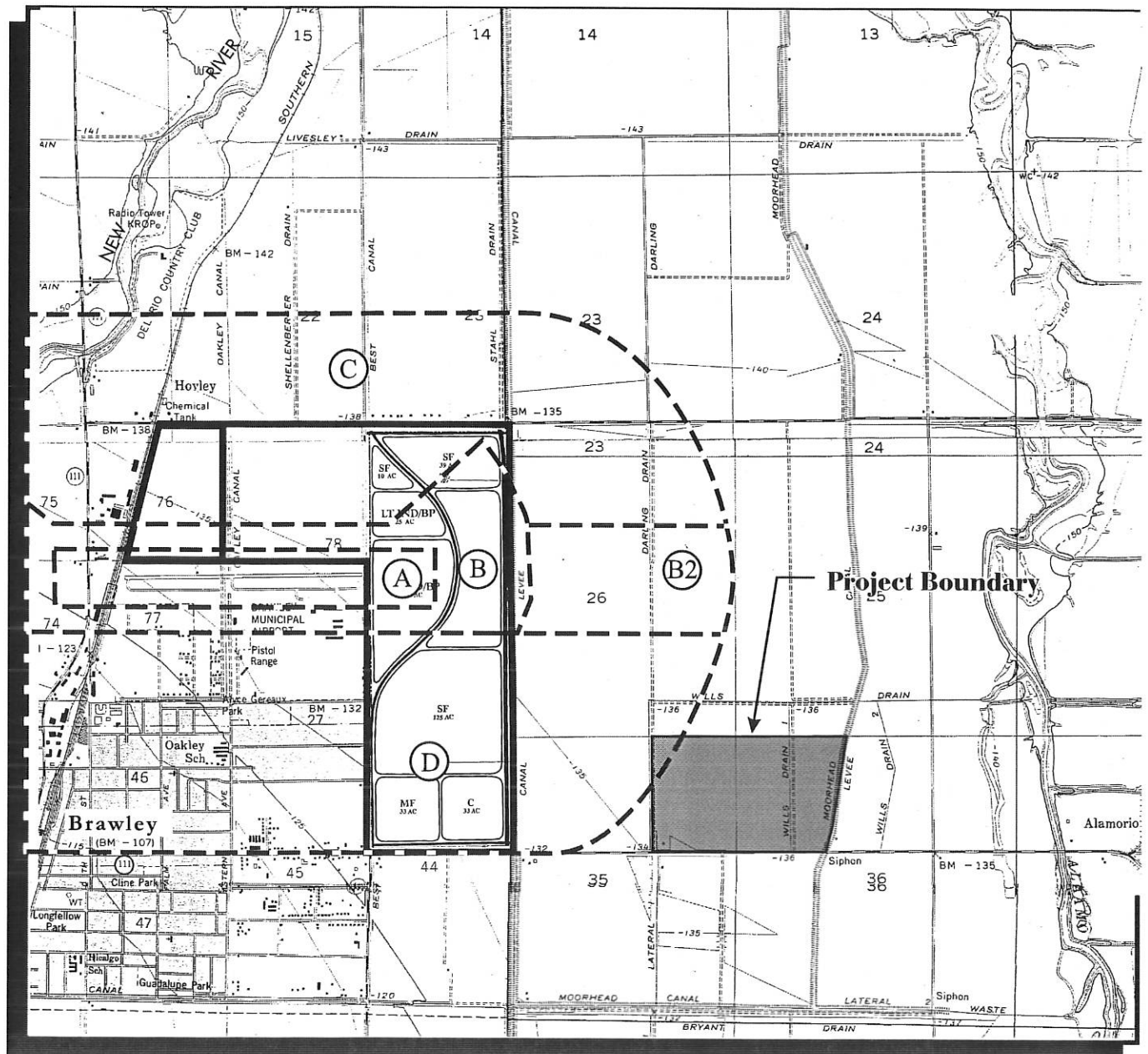
Airport Land Use Compatibility Plan

The Imperial County Airport Land Use Commission (ALUC) adopted an Airport Land Use Compatibility Plan (ALUCP, June 1996). The Land Use Compatibility Plan sets forth the criteria and policies which the Imperial County Airport Land Use Commission uses in assessing compatibility between principal Imperial County airports and proposed land use development in the areas surrounding them. California State Aeronautics Law requires local jurisdictions to make their general plans and specific plans consistent with the existing airport land use plans or otherwise to override the Commission (Imperial County Airport Land Use Commission 1991). While it is recognized that Airport Land Use Commission does not have authority over existing incompatible land uses or the operation of the airport, the purpose of the Commission is to help ensure that proposed new development in the vicinity of airports will be compatible with airport activities. The plan is a document that provides policies, maps, and tables to identify areas where future land use controls are appropriate due to potential noise, public safety, overflight, and airspace concerns. Table 3-1 (Compatibility Criteria) and Figure 3.1-1 (Existing Airport Land Use Compatibility Map) depicts the airport compatibility criteria table and map for those areas where specific land use development restrictions are appropriate. Each letter (A-D) represents a compatibility zone with an associated risk, recommended land use development density, and other development conditions.

Policies

The Airport Land Use Commission is concerned with potential impacts related to aircraft noise, land use safety, air space protection, and aircraft overflights in areas subject to Commission review. As a result, the Commission:

- Reviews General Plans and Specific Plans for consistency with the *Airport Land Use Compatibility Plan* (Section 21676.5 (a));
- Is required by State law to review the following types of actions for determination of consistency with the Commission's plan in the area of the Brawley Municipal Airport *prior to their approval by the local jurisdiction*:
 - Adoption or approval of any amendment to a General or Specific Plan in the area of the Brawley Municipal Airport (Section 21676.5 (b));



0 1500' 3000'

Existing Airport
Land Use Compatibility Map

Figure 3.1-1

SOURCE: Airport Land Use Compatibility Plan, Imperial County Airports

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- Adoption or approval of a Zoning Ordinance or Building Regulation which (1) affects the Commission's geographic area of concern surrounding the Airport and (2) involves potential impacts related to aircraft noise, land use safety (with regard to both people on the ground and the occupants of aircraft), airspace protection, and aircraft overflights (Section 21676.6 (b));
- Adoption of modification of the Master Plan for the existing public-use Airport (Section 21676.5 (c));
- Is empowered by State law to review additional type of land use "actions, regulations, and permits" for airport/land use compatibility if the local agency agrees or if the Commission finds that a local agency has not revised its General or Specific Plan or the agency has overruled the Commission and the Commission requires that individual projects be submitted for review (Section 21676.5(a)). The Commission has the choice of either of two actions: (1) find the project consistent with the Airport Land Use Compatibility Plan; or, (2) find the project inconsistent with the Plan. In making a finding of inconsistency, the Commission may note the conditions under which the project would be consistent with the Plan. While the Airport Land Use Commission can find that the airport is inconsistent with the Plan, the state law finds that the local government can override certain of the Commission's decision, by a two-thirds vote of its governing body. A public hearing on the matter must also be held to determine specific findings that the proposed action is consistent with the purposes of the state law. The following is a partial list of future actions which the Commission is empowered to review:
 - Proposals for five or more dwelling units within a residential planned unit development in the airport's planning area;
 - Requests for height limitation ordinance variance;
 - Any major capital improvements (e.g., water, sewer, or roads) that would promote urban development.
 - Proposed land acquisition by a government entity (especially for a school site);
 - Building permit applications for projects having a valuation greater than \$500,000.00.

Calexico

The SDSU Imperial Valley Campus Calexico ("IVC Calexico") is located within the City of Calexico on an 8.38-acre campus. The campus is bordered by four City of Calexico Streets: Heber Avenue on the west; Sherman Street on the north; Blair Avenue on the east; and Seventh Street on the south.

3.1.3 Potential Impacts

Criteria For Significance Determination

The project will result in significant impacts if it meets any of the following parameters, based on questions in the CEQA checklist.

- Incompatible with existing land use in the vicinity per CEQA Checklist, section IX Land Use and Planning, questions a) through c) Appendix B;
- Inconsistency/conflict with the goals, objectives or guidelines to create a well-balanced community as defined in the City of Brawley adopted General Plan and certified General Plan EIR, Zoning Ordinance and implementing CEQA Guidelines;
- Inappropriate conversion of agricultural or open space to a more intensive land use in conflict with the County of Imperial General Plan and City of Brawley General Plan; and
- Incompatible uses in an aircraft accident potential area as defined in the County of Imperial Airport Land Use Compatibility Plan for the Brawley Airport.

Issue Analysis and Zoning Consistency

Brawley

Conformance with the CEQA Checklist

The CEQA Checklist presents three questions that are used to identify the significance of impacts to land use incompatibility.

- (a) Would the project physically divide the physical arrangement of an established community (including a low-income or minority community)?

The proposed IVC Brawley site is located on the periphery of Brawley. The site is currently zoned agricultural and is within a sparsely settled agricultural area. Therefore, development of the site will not physically divide any established communities.

- (b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan. Specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed IVC Brawley campus site is zoned agricultural, the conversion of which is inconsistent with zoning and general plan policies of both the City of Brawley and Imperial County. While a college campus on state property is exempt from local land use designations, the campus may have potential impacts on the surrounding agricultural community through the incompatibility of adjacent

land uses. In addition, if the Brawley Phase I EIR, currently pending approval, is approved, a General Plan Amendment and rezone will be implemented that would change the site's zone to G-S Government/Special Public Zone and ensure compatibility with the Imperial County General Plan.

- (c) Would the project conflict with an applicable habitat conservation plan or natural community conservation plan?

Development of the proposed IVC Brawley campus site would not conflict with any habitat conservation plan or community conservation plan, as the site is actively farmed at present and is not covered by an HCP or NCCP.

County of Imperial Airport Land Use Compatibility Plan for the Brawley Airport

At the northwestern extremity of the proposed IVC Brawley campus site, a small portion of the site is identified as within "Zone D" of the ALUCP. Normally most uses are acceptable within Zone D; except those that present a hazard to aircraft. The construction and operation of a university campus is not considered to be hazardous to aircraft. Therefore, the proposed IVC Brawley campus does not conflict with ALUCP. A communication from Richard Cabanilla of the ALUC concurs with this conclusion. However, the ALUC will ultimately decide the compatibility of the project once they have been endowed with a copy of the Draft EIR. However, the proposed project will be reviewed by the Imperial County ALUC. The ALUC will make a find of either conformance or non-conformance with the plan.

Conformance with Imperial County's General Plan Land Use Related Policies

The Imperial County General Plan, adopted in 1993, indicates that "Urban" designated areas were reduced from the approximate 122,026 acres included in the 1973 General Plan to 78,240 acres. The reduction of acreage was not regarded as an adverse impact due to the fact that the County retained "a very large pool of developable land in the periphery of existing developed areas in the County" (County of Imperial General Plan Final EIR 1993). Furthermore, the reduction in the overall area allocated Countywide for urban uses reflects community concerns over the need to retain agricultural land, preserve the existing rural character of desert communities, and restrict urban land uses to the periphery of existing urbanized areas. Several specific plan areas were designated to identify portions of the unincorporated area where more urban uses should be directed.

Given the fact that agriculture is the County's largest source of income and employment, the County of Imperial has:

- Adopted a land use plan which allows the conversion of approximately 28,000 acres of "Important Farmland" (five percent of the 560,000 acres in production in 1993), placed a moratorium on additional conversion, and concluded that although "Important Farmland in Agriculture areas may be converted to non-agricultural uses after termination of a designated moratorium/protection period, any such conversion of an area that exceeds 100 acres would constitute a significant impact to the preservation of Important Farmland.";

Chapter 3.1 Land Use and Planning

- Stress the need to control the conversion of agricultural lands to urban use in order to preserve remaining Important Farmland and reduce future land use conflicts;
- Determined that "any increase in the size of Urban Areas ... would result in significant impacts ... except for non-agricultural uses identified in ... previously adopted City General Plans" or unless "a clear and immediate need can be demonstrated, such as requirements for urban housing, commercial facilities, or employment opportunities." (County of Imperial General Plan EIR).

The following goals and objectives from the County of Imperial General Plan Land-use element are of relevance in the assessment of the IVC Brawley project:

- Goal 1: Preserve commercial agriculture as a prime economic resource. The objectives within this goal favor compatible agriculture related land-use.

The proposed IVC Brawley project will reduce the area available for commercial agriculture and is not consistent with this goal.

- Goal 2: Diversify employment and economic opportunities in the County while preserving agricultural activity. The objectives within this goal emphasize diversification though not at the cost of agriculture, which is to remain the core of the area's economy.

The proposed IVC Brawley project will generate diversity for the area by providing employment and educational opportunities previously unavailable. However, the project is not consistent with this goal as there will be a loss of agricultural land.

- Goal 8: Coordinate local land use planning activities among all local jurisdictions and state and federal agencies. Of greatest relevance within this goal is Objectives 8.3 and 8.4:

Objective 8.3; Ensure that school facilities are adequate to meet the existing and projected needs of the population.

The proposed IVC Brawley project would provide education facilities presently unavailable in the area; therefore, the project is in conformance with this objective.

Objective 8.4; Ensure that all future proposed private and public facilities are adequate to meet expected population growth and the needed additional services around local cities.

The proposed IVC Brawley site is a parcel of land large enough to accommodate adequate facilities and provide room for future growth; therefore, the project is in conformance with this objective.

To develop the proposed IVC Brawley site successfully, coordination and cooperation of jurisdictional agencies is necessary. The project is supported by all the agencies that have a jurisdictional interest in the project area and as such is in conformance with Goal 8.

- Goal 9: Identify and preserve significant natural, cultural, and community character resources and the County's air and water quality.

The proposed IVC Brawley project will cause the loss of statewide important farmland, a resource that can be identified as a community character resource due to the importance of agriculture in the region. However, agricultural resources are addressed in a separate section and objectives within this goal do not specifically discuss its importance. No cultural resources have been identified at the site or within the vicinity. A pair of burrowing owls, a sensitive species of concern, has been seen on the site. The project is not anticipated to generate significant air pollution in terms of noise or chemicals. An insignificant amount of increased runoff will be generated by the proposal. Wastewater from the project will be sufficiently treated to prevent any adverse impact to the water quality of the irrigation canals and all potential water resources. Therefore, the project is in conformance with goal 9.

The IVC Brawley project is consistent with the County General Plan by providing educational facilities of social and economical benefit to the area and utilizing existing state roads. However, unless the Brawley Phase I EIR and associated General Plan Amendment and rezone is approved, the project would result in countywide reduction of important farmland, contrary to County General Plan goals and policies.

Conformance with the City of Brawley General Plan Land Use Related Policies

Although the proposed IVC Brawley site is not within Brawley, it is in the vicinity and may ultimately be annexed into the city. As a result, Table 3.1-1 summarizes the Brawley General Plan Land Use Goals and Policies that have been considered in the evaluation of the proposed IVC Brawley project.

Calexico

Conformance with the CEQA Checklist

The CEQA Checklist presents three questions that are used to identify the significance of impacts to land use incompatibility.

- (a) Would the project physically divide the physical arrangement of an established community (including a low-income or minority community)?

The proposed IVC Calexico project will not physically divide an established community, as the site is an existing established campus integrated with the surrounding community.

- (b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan. Specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Table 3.1-1 Brawley General Plan Land Use Goals and Policies

| Section | Goal | Discussion/analysis |
|--|--|---|
| Balanced Development | 1. Provide balanced land use for present and future needs for a healthy and diverse economy. | The proposed IVC Brawley campus presents an opportunity to provide the City of Brawley with higher education opportunities, increased community facilities and the potential for a more diverse economy, through direct employment and academic-commercial relationships. |
| | 2. Ensure that future land use decisions are the result of sound and comprehensive planning. | Multi-jurisdictional cooperation is an integral part to the development of the proposed IVC Brawley site, as it is City of Brawley related but County of Imperial controlled. Subsequently the planning process must be thorough enough to satisfy both agencies. The project will also have connotations for future planning and growth of the City of Brawley, which will be considered in the project's development. |
| | 3. Coordinate with federal, state, local agencies and community organizations to ensure public services are provided. | The lead agency is California State University. Agencies consulted to ensure public services are provided include City of Brawley, Imperial County, IID, ICAPCD, SCAG, and Airport Land Use Commission. |
| Compatible and Complementary Development | 4. Ensure new land uses are compatible with old and with the circulation network, public facilities and unique resources/characteristics of the City of Brawley. | Adequate public services are available to the proposed IVC Brawley campus site and the state road SR-78 runs along the southwestern edge of the site. The proposed IVC Brawley campus is incompatible with existing agricultural land uses. |
| | 5. Assure a safe, healthy and aesthetically pleasing community for residents and business. | The proposed IVC Brawley is not located within the city limits, however, adequate buffers will be part of the development to minimize visual impact and assure a secure environment within the campus. |
| | 6. Ensure development in the County-designated urban area that surrounds the city is compatible with existing and planned city land uses. | The proposed IVC Brawley site is not within a County-designated urban area, though it is in County lands surrounding the city. The project does conform to development strategies in terms of the opportunities it will provide and use of state transportation routes. However, the project does conflict with existing planned land uses. |
| Revitalization of Older Commercial and Residential Uses and Properties | 7. Revitalize older commercial, industrial and residential uses and properties. | The proposed project will not directly contribute toward the achievement of Goal 7. Faculty and students will require accommodation, which could include areas considered undesirable by the demographics currently represented in Brawley. This could lead to the revitalization of the older commercial, industrial and residential uses and properties. |
| Improved City-Wide Urban Design | 8. Improve urban design in Brawley to ensure development that is both architecturally and functionally compatible. | The proposed IVC Brawley project is designed to be an aesthetically pleasing campus, both as part of a vista and as a campus to be on. The presence of a campus such as this, with associated facilities, will provide a greater opportunity for community activities and the promotion of a community identity. |
| Economic Expansion and Diversification | 9. Promote expansion of Brawley's economic base and diversification of economic activity. | The project will have some immediate benefits and will generate a relationship with the area's primary industry, agriculture, which will continue to assure the region's importance, competitiveness and longevity in the agricultural sector. |
| | 10. Provide an adequate amount of land use to ensure appropriate industrial presence to serve the residents of Brawley. | The proposed IVC Brawley project does not propose any industrial or commercial land uses. |
| Development coordinated with Public Facilities and Services | 11. Ensure that necessary public facilities and services are available to accommodate development proposed on the Land Use Policy Map. | The City of Brawley advocated the siting of the SDSU campus at the site with the assurance that the city would provide public facilities and services. The IVC Brawley campus will be constructed complementary to the ongoing expansion of public services. |
| Conservation of Agricultural lands and Open Space | 12. Identify and encourage conservation of prime agricultural lands adjacent to the City of Brawley. | The project does present a significant impact in conflict with Goal 12, as it proposes the conversion of important farmland to a non-agricultural use. However, if the Brawley Phase I EIR is approved and the associated General Plan Amendment and rezone are implemented, the IVC Brawley project would not occur on land designated for agriculture. |
| | 13. Designate appropriate locations and acreage for non-agricultural open spaces. | The proposed IVC Brawley campus development does include non-agricultural open space, which will be maintained by the University though available for public use. |

The IVC Calexico site is an existing campus; subsequently the proposed project will not conflict with any land use policy, plan or regulation as no change of use is proposed.

- (c) Would the project conflict with an applicable habitat conservation plan or natural community conservation plan?

The proposed IVC Calexico project will not conflict with a habitat conservation plan or natural community conservation plan, because the project proposes to replace temporary structures with permanent buildings within the developed grounds of the existing IVC Calexico campus.

The proposed expansion at the IVC Calexico site does not conflict with any general plan policies or goals due to the fact that the site is within an urban area and currently used for the proposed purpose.

Conformance with the City of Calexico General Plan Land Use Related Policies

The proposed IVC Calexico project is an expansion of an existing campus site, within an urban area and does not propose a change in use. Therefore, the proposed IVC Calexico project does not conflict with any general plan policies or goals.

3.1.4 Recommended Mitigation Measures

Brawley

1. All development shall be in conformance state land CSU guidelines.
2. SDSU will make best efforts to comply with local government design guidelines, and all construction will comply with Title 24.~~SDSU will make best efforts to comply with City and County regulations by performing a site analysis as a part of the project design in order to determine what mitigation measures (if any) would be reasonable. Mitigation measures may include setbacks, wall heights, insulation requirements, operating conditions or other design features. San Diego State University will implement the mitigation recommendations as appropriate.~~

With application of CSU design guidelines and a site analysis, SDSU will do the utmost to ensure that the conversion of farmland to urban uses within the IVC Brawley development will occur in conformance with the parameters set forth for such development within the Sphere of Influence. However, if the General Plan Amendment and rezone associated with the Brawley Phase I EIR, which is pending approval, are implemented then the IVC Brawley project would not result in the loss of designated farmland or conflict with the Imperial County or City of Brawley general plans.

3.1.5 Unavoidable Significant Impacts

The proposed IVC Brawley project will not result in unavoidable significant impacts because it complies with CSU development standards and is not required to comply with local land use regulations.

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3.2 GEOLOGY/SOILS

3.2.1 Introduction

This section is based on a series of documents from the City of Brawley, County of Imperial and California Division of Mines and Geology prepared to analyze geotechnical/soils and seismic conditions at the Brawley and Calexico campus sites. The geotechnical conditions evaluated include geologic hazards and soil engineering properties. This section focuses on components of the proposed project with a potential to impact existing geotechnical conditions at the project site upon implementation. The geotechnical conditions evaluated include geologic hazards and soil engineering properties.

3.2.2 Existing Conditions and Setting

Geologic Setting

The proposed IVC Brawley and IVC Calexico sites lay within the Salton Trough, the dominant landform within Imperial County. The Salton Trough encompasses the Coachella, Imperial and Mexicali Valleys and extends north from the Gulf of California. The lowest part of the basin is the bed of the prehistoric Lake Cahuilla with its ancient beach line at about 35 feet above mean sea level (AMSL). The deepest portion is covered by the Salton Sea with a water surface level measured at 226 feet below mean sea level (BMSL) at its highest level in April 1986. The geologic structure of the trough is a result of an evolving "rift" in the earth's crustal plates. As the crust thins due to the "spreading" of the trough, magma rises closer to the surface, heating deep groundwater. Nonmarine and alluvium sediments cover large portions of the area. An unexposed succession of Tertiary- and Quaternary-age sedimentary rocks lies below the alluvial and lake bottom sediments, ranging in depth from 11,000 or greater feet at the margins to over 20,000 feet in the central portions of the Salton Trough. The valley is drained by an 8,360 square mile watershed, which eventually empties into the Salton Sea.

The Imperial Valley area is subjected to frequent seismic events with related concerns of ground shaking, liquefaction and landslides. Subsidence, a phenomenon associated with groundwater withdrawal can occur as a result of geothermal operations; however, the potential is considered low to moderate on the valley floor under the current hydrological conditions. Although landslides are a potential hazard, particularly in the western portions of the County, bluff failure and mudslides in the Imperial Valley generally occur along slopes and embankments of the rivers and canals.

The most noteworthy of the numerous active faults traversing the Salton Trough is the San Andreas. The other two major northwest-trending fault zones bounding the Trough are the San Jacinto on the northwest and the Elsinore on the southwest. More small to moderate earthquakes have occurred in the Imperial Valley area than along any other section of the San Andreas Fault system. Earthquakes of magnitude 6.0 or greater on the Richter scale happen periodically.

Brawley

The Brawley area is particularly susceptible to strong ground shaking and significant earthquake damage from liquefaction, landslide and ground lurching. The Imperial and Brawley Faults, which have shown surface rupture or displacement recently, are the closest to the proposed IVC Brawley campus site. Recent studies have shown that the two faults are interrelated. These faults together are estimated to be capable of producing a maximum credible earthquake of 7.1 surface magnitude. The associated Alquist - Priolo Special Studies Zones extend only slightly further north toward the proposed IVC Brawley campus site. The Brawley Seismic Zone is thought to extend northward from the termination of the mapped Imperial and Brawley Faults to the San Andreas Fault zone near Bombay Beach as a series of sub-parallel, staggered fault strands. Currently, there is no information known that suggests that this seismic zone could generate a large earthquake unless associated with other regional seismic activity (Leighton and Associates, 1993).

Soils in the proposed IVC Brawley campus area are underlain by Late Pleistocene to Holocene lacustrine deposits associated with the ancient Lake Cahuilla. These sediments are typically unconsolidated to poorly consolidated and porous, consisting generally of clay, silt and sand. Clay and silt soils are expected to exhibit a medium to high expansion potential. Near surface soils are generally soft and or loose due to recent agricultural processing. Between one half and two thirds of the project site is covered by soils generally identified as Imperial, described as nearly level, moderately well drained silty clay in lacustrine basin. Imperial-Glenbar occurs over the remainder of the site. This soil type refers to nearly level, moderately slow draining silty clay loams in the lacustrine basin. Some of the soils in Brawley area have a high expansion or shrink-swell potential. These are generally found where fine-grained clayey sediments occur. The buildings for the proposed IVC Brawley campus are located outside areas identified as having a high potential for liquefaction and moderate to high potential for landslides and slope stability problems.

Thermal water of sufficient temperature for direct heat application underlay the Salton Trough at shallow depths. Distributed throughout the Trough are areas of hotter fluids suitable for electrical generation. The United States Geological Survey (USGS) has designated nine Known Geothermal Resources Areas (KGRA) throughout Imperial County. The County has established four Geothermal Overlay ("G") Zones. The areas vary in temperature, pressure and chemical composition.

Both the KGRA and "G" Zone geothermal designations for the North Brawley resource area cover the proposed IVC Brawley site. There are no permitted geothermal wells in the North Brawley unit where resources are typically at a 7000-foot depth and in a temperature range of around 500 degrees Fahrenheit. An estimated 100 megawatts of electricity could be harnessed from these geothermal resources.

During the late 1970s the Brawley Geothermal Field was developed, but subsequently abandoned and the plant facilities removed. The California Department of Conservation, Division of Oil, Gas, and Geothermal Resources has indicated that a number of temperature gradient well sites have been abandoned on, or in the vicinity of the proposed IVC Brawley campus site. All have been capped at a depth of six feet below the soil surface but the Department recommends that well sites be included on any future project maps and their location disclosed to future owners (Hunter 1996).

Groundwater quality is subsequently poor and little use is made of this resource. This condition, plus irrigation practices employing imported water in the Imperial Valley, results in groundwater basin recharge exceeding extraction and creates rising, not falling, groundwater levels. This condition in turn reduces the risk of subsidence.

Soils are discussed in this section in terms of the overall soils regime in the geologic setting of the Salton Trough. Since soils have an agricultural importance, further discussion is provided in Section 3.10.

Ancient lakebed sediments, alluvial channels and dune sands occur in the Salton Trough. Clay and silt deposits of the lakebed cover the central portion basin with shoreline deposits predominantly of unconsolidated sand and gravel grading into the clays and silts around the prehistoric lake edge. Lake beds are generally less than 100 feet thick. East and west of the central portion of the Trough dissected, flat-lying alluvium is found. These poorly consolidated silts, sands and gravels form thin veneers of desert pavement between washes. Sand dunes up to 200 feet thick occur on mesa areas to the east and west sides of Imperial Valley.

Calexico

The Calexico campus has essentially the same geologic make up as that described above for the Brawley campus.

3.2.3 Potential Impacts

Criteria for Significant Impact

The project will result in significant impacts if it meets any of the following parameters, based on questions in the CEQA checklist.

- Development of any portion of the project site will be in violation of Alquist - Priolo restrictions for designated zones;
- Proposed uses will result in unacceptable risks of injury, loss of life, destruction of property and disruption of services due to seismic activity;
- Development will occur in the vicinity of geothermal extraction/injection activities and be subject to elevational changes;
- Areas of construction are underlain by expansive soils (high shrink-swell potential); and
- The project site is subject to landsliding or liquefaction in areas proposed for development.

Issue Analysis and Significance

Brawley

Earthquakes in the Imperial Valley are unavoidable, and the primary seismic danger in Brawley results from ground shaking. Building plans for residential, commercial and industrial structures need to be designed in conformance with the City's Safe Critical Facilities policy in order to reduce bodily injury and property damage during earthquakes. The proposed IVC Brawley campus property is outside the limits of the Alquist - Priolo Special Studies Zones of the Imperial and Brawley Faults.

Soil constraints may require special consideration during the construction stage. Construction on expansive soils, if standard compensating grading and construction measures are not used, can result in damage from differential ground movement. Therefore, all site preparation and construction shall comply with the current seismic design provision for Seismic Zone 4 of the Uniform Building Code. Stairways and elevators will be adequately strengthened. Commercial/industrial pre-cast tilt-up construction will be designed to incorporate adequate horizontal bracing systems that transmit horizontal forces to vertical resisting components and adequate tie-ins or connections between structural components for protection against roof collapse.

Hazards due to liquefaction, mudsliding or subsidence are not anticipated, as groundwater levels are rising. Subsidence in the project area due to thermal production or groundwater extraction is not anticipated, as there are no extraction operations or geothermal plants in the project area. Development of the IVC Brawley site will constrain the development of geothermal energy operations in and immediately adjacent to this area; however, the land uses to be established will not conflict with geothermal and transmission policies and programs of the City of Brawley or Imperial County.

Calexico

Through the Calexico site is located within a previously disturbed area, the same geotechnical hazards are anticipated as with the Brawley Campus.

Summary of Impacts

Although no geotechnical conditions have been identified to preclude development of the IVC Brawley or IVC Calexico projects as planned, geology/soils impacts are significant because of the hazards from seismic activity and expansive soils if proper construction techniques are not observed at the detailed design and construction stages.

3.2.4 Recommended Mitigation Measures

In order to mitigate significant geology/soils impacts, the following mitigation measures are required:

1. Adverse discontinuities in strength between major structural elements shall be avoided.

2. Prior to detailed site planning, a subsurface geotechnical and soils study shall be conducted to determine the shrink-well potential and to develop design specific measures to ensure structural integrity. Grading and construction plans shall conform to recommendations of the study.

Geology/soils impacts will be reduced to a level below significance by application of the mitigation measures because the risks of injury, loss of life, destruction of property and disruption of services from seismic activity and expansive soils are abated to an acceptable level by structural design and building foundation construction specific to the soil characteristics of both project sites.

3.2.5 Unavoidable Significant Impacts

The potential for significant seismic events cannot be reduced. However, it is anticipated that the project will fully mitigate all impacts through appropriate structural design and building foundation construction. None of the proposed structures would be exposed to greater risks than existing buildings in the region; therefore, no unavoidable significant impacts are expected.

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3.3 HAZARDOUS MATERIALS/PUBLIC SAFETY

3.3.1 Introduction

This assessment is based on a Phase I Environmental Site Assessment (ESA) Update prepared by Ninyo and Moore in April 2002 and a Phase II ESA prepared by MAZ Environmental in August 2002. The Phase I ESA evaluates the possibility that hazardous materials or other adverse environmental conditions are present at the proposed Brawley campus site due to past or present use and/or properties in the vicinity. The report updates a previous Phase I ESA prepared by Ninyo and Moore in November 1999. The Phase II ESA analyzes concentrations of hydrocarbons and pesticide substances in soil samples taken from the proposed Brawley campus site, in response to questions raised by the Phase I ESA. The Phase I ESA and Phase II ESA reports are provided in full in Appendix B and they are summarized below.

3.3.2 Existing Conditions and Setting

Site Description and Current Site Uses

Brawley

The proposed Brawley campus site is currently developed as agricultural land consisting of fields planted with Bermuda Grass. Unpaved agricultural roads, paralleling the on-site irrigation canals or drainage ditches, trend east to west through the central portion of the site, and north to south through the eastern portion of the site. The southwestern portion of the site is developed with a mobile home, a red painted barn, a partially covered shed area, and a municipal waste debris pile (Figure 3.3-1).

Calexico

The proposed IVC Calexico project is to replace temporary structures with permanent buildings to accommodate 850 FTE students within the grounds of the existing IVC Calexico campus. The campus is located within the central area of the City of Calexico. The site is surrounded by residential dwellings and adjacent to City Hall.

Methodology

Brawley

A visual site reconnaissance was performed to identify areas of possibly contaminated surficial soil or surface water, improperly stored hazardous material, aboveground storage tanks, underground storage tanks, possible sources of polychlorinated biphenyls, potential asbestos containing materials, and other risks of contamination from activities at the site.

Interviews with readily available site representatives and/or other individuals familiar with the Brawley campus site were conducted.

Chapter 3.3 Hazardous Materials/Public Safety

A site vicinity reconnaissance was also performed to evaluate characteristics of adjacent or nearby properties for possible environmental influences on the site.

A review of available regulatory agency databases for the site and for properties located within the vicinity of the site was conducted. The purpose of this review was to evaluate the possible environmental impact of these properties to the Brawley campus site.

To identify concentrations of potential hazardous materials, associated with the historical use of pesticides, five surficial soil samples were taken from selected locations of the proposed Brawley campus site. In addition, to identify concentrations of potential petroleum hydrocarbons three soil samples were taken from the subsurface trench. These samples were then delivered to HP Laboratories, Escondido for analysis, in accordance with Environmental Protection Agency (EPA) guidelines. HP Laboratories performed analysis to detect petroleum hydrocarbons, while CalScience Environmental Laboratories were subcontracted to perform analysis to detect pesticides.

Calexico

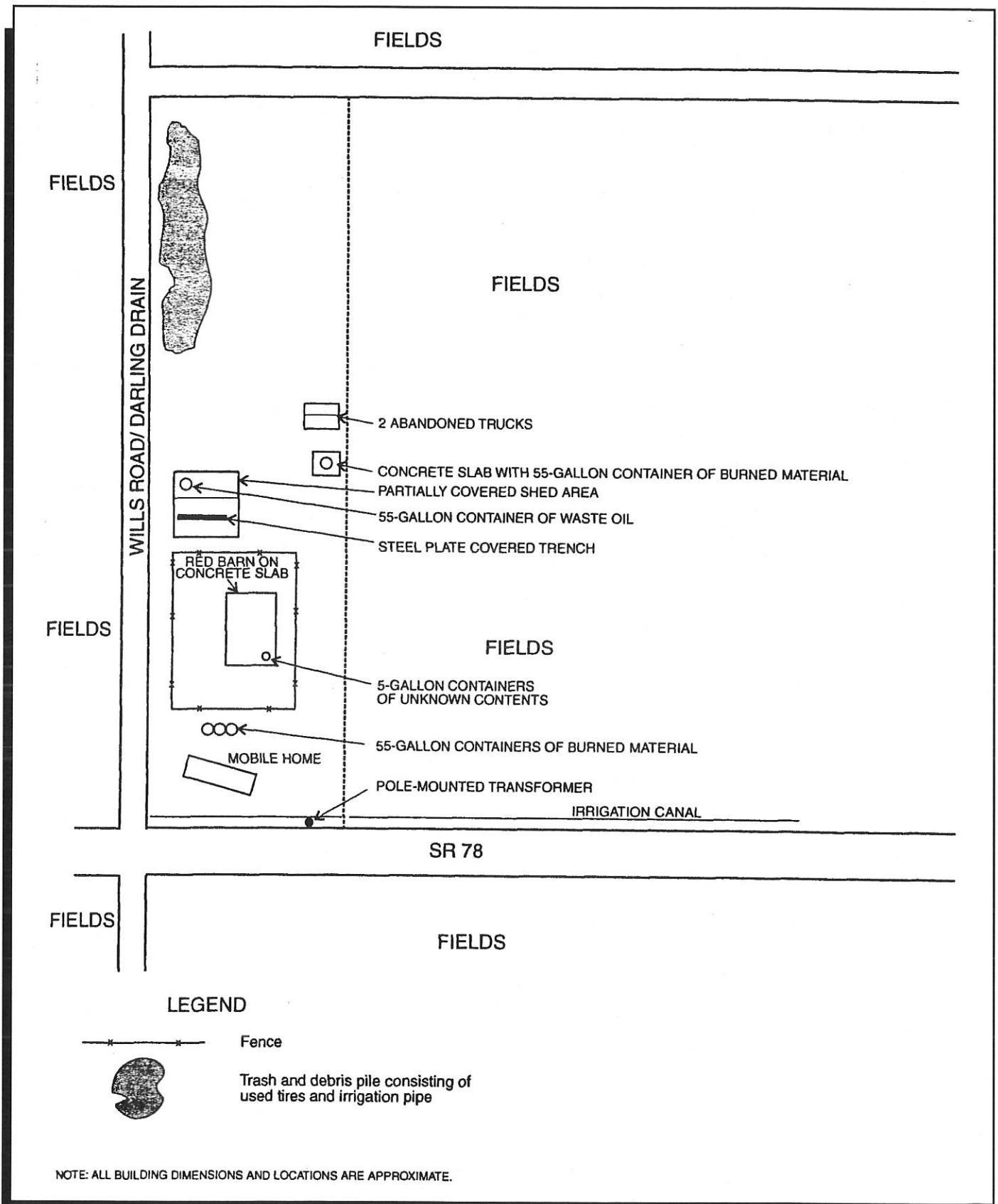
The proposed IVC Calexico project has not been subject to an analysis for hazardous substances, because the site is already developed and used as a campus.

3.3.3 Potential Impacts

Criteria for Significant Impact

Based on the relevant questions in the CEQA checklist, the proposed project will result in significant impacts if it:

- Creates a significant hazard to the public or the environment through the routine transportation, use, or disposal of hazardous materials.
- Creates a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emits hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Is located on a site that 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.



SOURCE: Ninyo & Moore



Not to Scale

Southwestern Portion of the Brawley Site in Detail

Figure 3.3-1

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Issue Analysis and Significance**Brawley**

Aerial photographs were reviewed to establish that the site was first developed for agriculture prior to 1937. Reports indicate that cultivation included spraying with crop dusters and the use of dichlorodiphenyltrichloroethane (DDT) as a pesticide. In a previous ESA I by Ninyo & Moore for this site, Ninyo & Moore stated that the use of the subject site as agricultural land may have exposed the site's soils to pesticides such as DDT. It was further stated that, in general, many pesticides applied to soil tend to persist in the upper one to two feet of topsoil, are immobile and do not readily leach downward to groundwater. Because of the long-term agricultural use, evaporation, evapotranspiration, and potential leakage from unlined drainage canals, Ninyo & Moore stated that there is a moderate potential that pesticides such as DDT or its degradation products remain in the soil at the site. However, the Phase II ESA tested samples of soil from the site and concluded that pesticides are not present at levels that would be considered a risk to the uses or development proposed.

The present day buildings, including a covered shed area, a fenced area with a red barn, and a mobile home, were erected sometime between 1984 and 1992.

Hazardous substances identified in the covered shed area included a 5-gallon container of solvent, a 55-gallon container of waste oil, two 5-gallon containers of waste oil and one 1-gallon container of waste oil. A subsurface trench, approximately 1.5-feet-wide by 15-feet-long, and covered with steel plates, was observed within the concrete slab of the partially covered shed area, to the north of the red barn. Dark staining appeared on the soil beneath the plates and it is assumed to be petroleum hydrocarbon in nature. The level of soil present in the trench was about 1 inch below the top of the concrete slab. The purpose of this trench was not ascertained at the time of the site reconnaissance. Analysis performed in the Phase II ESA discovered no petroleum hydrocarbons in the subsurface trench. Evidence of other substructures, such as underground utilities, sewer lines, and waterlines was also observed on the subject site.

A pile of solid waste in the proximity of the red barn comprised of abandoned agricultural machinery, tires, used oil-filters, plastic piping, appliances and scrap lumber. Inside the red barn approximately five 5-gallon containers of unknown contents were observed through a window.

An approximately 30-gallon capacity propane tank was observed in the southwestern portion of the site, chained to a tree, which appeared to serve the mobile home. Also observed in the vicinity of the mobile home were several 55-gallon containers, apparently used to burn unknown materials. The content of the barrels was not discernible at the time of site reconnaissance.

In addition, to the northeast of the buildings a 55-gallon container of burned material and two abandoned trucks were observed. The roof of the red barn and the roof of the partially covered shed area may be finished with suspect asbestos containing materials (ACMs).

Electrical transformers can be a source of polychlorinated biphenyls (PCBs). One pole-mounted electrical transformer was observed at the southwestern driveway entrance to the site

(Figure 3.3-1). The transformer is owned and operated by the Imperial Irrigation District (IID). According to a telephone discussion with Mr. Kenneth Barnes, an IID representative, the transformer was installed in 1973. Mr. Barnes further stated that the transformer dielectric fluids contain PCBs at a concentration of 0.0210 parts per million (ppm). This dielectric fluid concentration falls under the United States Environmental Protection Agency (USEPA) designation as a “non-PCB” containing transformer because its content is less than 50ppm.

No other sources of hazardous substances were observed and the site does not appear on any regulatory agency’s list or database. However, a few nearby sites did appear on certain regulatory agency databases, though they are not considered to present a significant impact on the proposed Brawley campus site. The regulatory agency database search results are summarized in Table 3.3-1 and the identified sites are listed in the Phase I ESA report contained in Appendix B. Analysis performed in the Phase II ESA discovered that concentrations of pesticides in surficial soils were such that they would not present a potential environmental hazard.

Calexico

The IVC Calexico site is an existing campus surrounded by development within the central area of the City of Calexico. The proposed project will not increase the campus area. The project replaces temporary structures with new buildings within the grounds of the campus. Subsequently, the proposed IVC Calexico project will not introduce hazardous substances. No sensitive receptors will be exposed to hazardous substances as a result of the proposed IVC Calexico project. Therefore, the proposed IVC Calexico project does not present any potentially significant hazardous materials or public safety impacts.

Summary of Impacts

The Phase I ESA concluded that the IVC Brawley site does not appear to have been significantly affected by contamination. The Phase II ESA concluded that pesticides are not present in the soil samples collected in the agricultural fields at concentrations that would pose an environmental hazard to the proposed use of the property. The Phase II ESA confirmed that no petroleum hydrocarbon constituents are present in the soil samples collected from the subsurface trench. In addition the Phase II ESA identified that no further investigation or remediation of the agricultural fields or the subsurface trench is warranted. However, following the removal of the hazardous wastes further sampling may be necessary to confirm the absence of elevated concentrations of removed wastes.

3.3.4 Recommended Mitigation Measures

Brawley

1. The Phase I ESA recommends that any identified hazardous materials shall be removed from the site.
2. The Phase II ESA recommends additional soil sampling following removal of the hazardous wastes to confirm the absence of elevated concentrations of removed wastes (e.g. petroleum

hydrocarbons in the vicinity of the 55-gallon waste oil storage drum located in the partially covered shed on the southwestern portion of the property).

3.3.5 Unavoidable Significant Impacts

The mitigation measures identified for the IVC Brawley project will ensure that hazardous materials impacts will be less than significant; therefore, no unavoidable significant impacts are expected.

No significant hazardous material impacts are associated with the IVC Calexico project.

Table 3.3-1 Summary of Environmental Database Search

| Database Name | Agency | Date* | Search Radius (mile) | Sites** |
|---|---------|--------|----------------------|---------|
| National Priority List (NPL) | USEPA | Jun-99 | 1 | 0 |
| RCRA Corrective Action Sites List (CORRACTS) | USEPA | May-99 | 1 | 0 |
| Cal-Sites Annual Work Plan (SPL) | Cal EPA | Apr-99 | 1 | 0 |
| Cal-Sites Abandoned Site Program Information System (SCL) | Cal EPA | Apr-99 | 0.5 | 3 |
| Comprehensive Environmental Response, Compensation, and Liability Information System List (CERCLIS/NFRAP) | USEPA | Mar-99 | 0.5 | 2 |
| RCRA Facilities List (TSD) | USEPA | May-99 | 0.5 | 0 |
| Leaking Underground Storage Tank (LUST) Lists | SWRCB/ | Oct-98 | 0.5 | 10 |
| | RWQCB/ | Dec-98 | | |
| | DEH | Apr-99 | | |
| Solid Waste Information System (SWIS/SWLF/WMUDS) Lists (landfills) | CIWMB/ | Apr-99 | 0.5 | 1 |
| | SWRCB | Feb-99 | | |
| State of California Deed Restrictions List (DEED RSTR) | DHS | Apr-94 | 0.5 | 0 |
| Hazardous Waste and Substances Sites List (CORTESE) | Cal EPA | Apr-98 | 0.5 | 0 |
| Toxic Pits Cleanup Facilities (TOXIC PITS) | SWRCB | Feb-95 | 0.5 | 0 |
| USGS Water Wells Groundwater Site Inventory (GWSI) | USGS | Mar-98 | 0.5 | 0 |
| RCRA Violators List (RCRA VIOL) | USEPA | May-99 | 0.25 | 0 |
| SARA Title III-Toxic Release Inventory System (TRIS) | USEPA | Jan-98 | 0.25 | 0 |
| Registered UST and AST Lists | | Jan-94 | 0.25 | 8 |
| | SWRCB/ | Apr-99 | | |
| | DEH | Dec-98 | | |
| Emergency Response Notification System (ERNS) List | USEPA | Dec-98 | 0.125 | 0 |
| RCRA Generators List (GNRTR) | USEPA | May-99 | 0.125 | 3 |

Notes:

Cal EPA = California Environmental Protection Agency
 CIWMB = California Integrated Waste Management Board
 RCRA = Resource Conservation and Recovery Act
 RWQCB = Regional Water Quality Control Board
 SARA = Superfund Amendment and Reauthorization Act
 SWRCB = California State Water Resources Control Board
 USEPA = United States Environmental Protection Agency
 USGS = United States Geological Survey

* Agency database release date.

** The number of sites includes some sites, which are listed more than once because there are more than one business(s) or occupant(s) listed for the address.

Source: Ninyo & Moore Phase I ESA November 1999

3.4 BIOLOGICAL RESOURCES

3.4.1 Introduction

This section is based on a biological survey and report for the proposed project prepared by Mooney & Associates (June 2002). The report is presented in its entirety in Appendix C of this EIR.

3.4.2 Existing Conditions and Setting

Sensitive Species and Habitats

Brawley

The IVC Brawley site is currently used for agriculture. No native habitat remains on the site due to its long use for agriculture. In addition to the crops planted, plants dominated by nonnative species were observed along the canals and drains including lambsquarters, common sowthistle, bermuda grass, and tamarisk. Because of the absence of native habitat, the diversity of wildlife seen across the study area was low. Birds observed include cattle egret, black-necked stilt, killdeer, mourning dove, western burrowing owl, kingbird, northern rough-winged swallow, red-winged blackbird and common grackle. California ground squirrel and cottontail rabbit were also observed. No amphibians or reptiles were evident during the field survey.

No sensitive plant species were observed during the survey, but one sensitive species has been reported in the area (CDFG 1994). Thurber's pilostyles are a former Federal 3c species. Due to the lack of suitable habitat and the absence of white dalea (for which Thurber's pilostyles are a parasite), Thurber's pilostyles are not expected to occur on the project site.

Burrowing owls were observed both on and directly off site during focused surveys on May 22, 2002 from 1:30 p.m. to 4:00 p.m. Burrowing owl surveys were conducted by walking transects through the entire project site, which were spaced to allow for 100 percent coverage of the project area. In addition, all areas of suitable habitat within 500 feet of the project site that could be legally accessed were also surveyed. The location of each occupied burrow observed during the field survey, which consists of 13 on site and an additional five off site, is depicted in Figure 3.4-1. In addition to active burrows, approximately five owl sightings were also recorded. Occupied burrows were observed along the periphery of the property boundary, which is lined with canals and concrete irrigation channels. Burrows depicted in Figure 3.4-1 were observed to be occupied by burrowing owls or were determined to be occupied due to the presence of feathers, pellets or scat, and/or tracks.

The Yuma clapper rail is a Federal-listed Endangered species and a State-listed Threatened species. The rail is not expected on site due to the absence of preferred habitat, which are freshwater/saltwater marshes.

No reptile species were seen during the field survey, however, one sensitive reptile species is reported to occur in the vicinity of the project. The flat-tailed horned lizard is a State Species of

Chapter 3.4 Biological Resources

Special Concern that is not expected to occur on the project site due to the absence of appropriate habitat and substrate.

No sensitive native habitats occur on the property, although the study area occurs in Imperial County, which is located along one of the most important flyway corridors for migrant waterfowl, shorebirds, and songbirds. Agricultural fields and ditches/canals provide burrowing sites for owls and local and migratory birds.

No wetland areas were detected within the fields during the survey. Additionally, most of the wildlife observed are resident species that are not dependent on agricultural fields for foraging.

Calexico

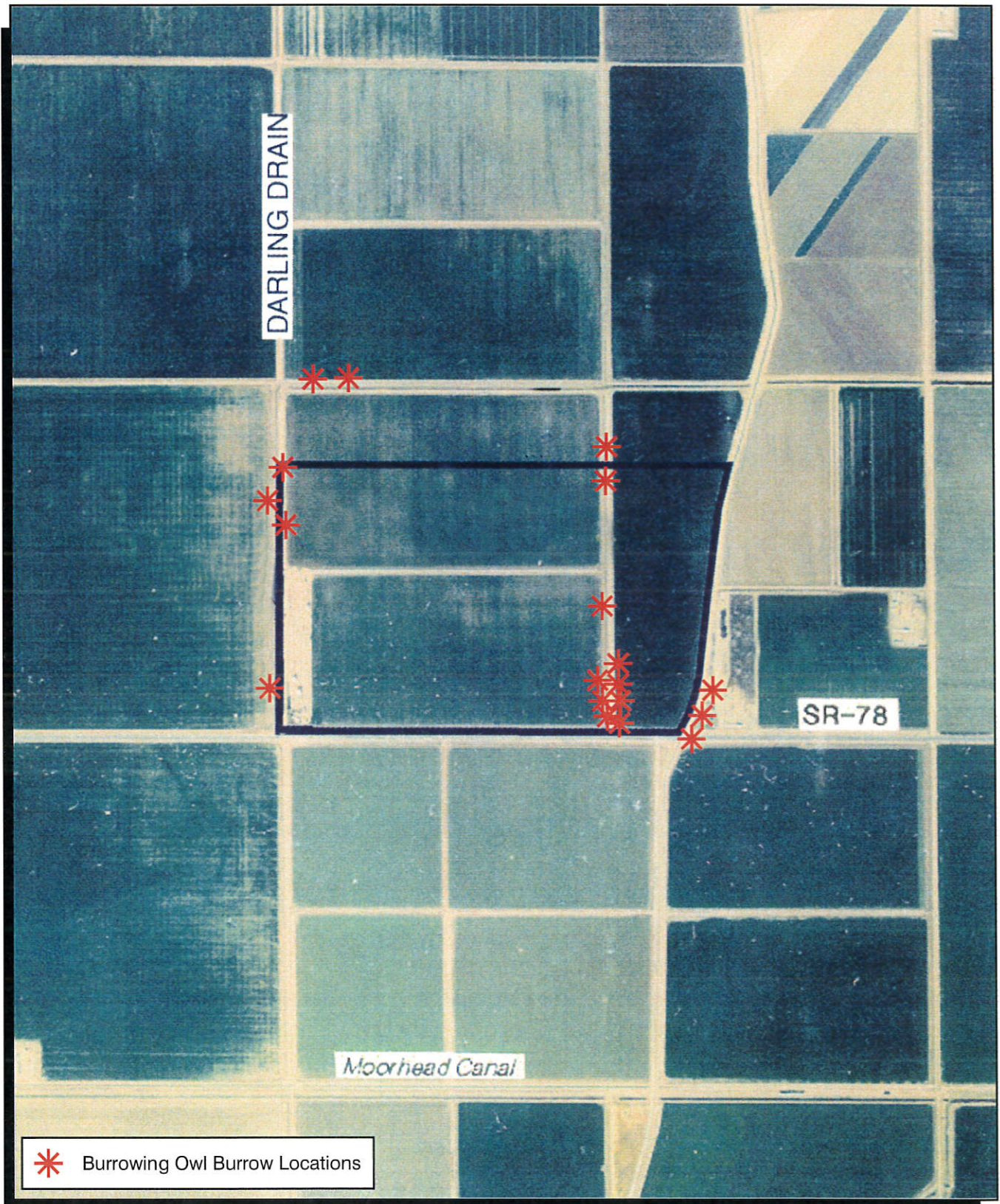
The IVC Calexico site is an existing campus site within the city limits of Calexico. The project replaces temporary structures with permanent buildings. The proposed project area is located within a built-out urbanized area; therefore, there are no sensitive habitats or species located on the IVC Calexico Campus site.

3.4.3 Potential Impacts

Criteria for Significant impact

The projects will have a significant impact on the environment per criteria established by federal and state law, CEQA Guidelines, the City of Brawley General Plan and General Plan EIR, the City of Calexico General Plan, and the Imperial County General Plan if it will have:

- Impacts that substantially affect a rare or endangered species of plant or animal or habitat of the species. Rare or endangered species include federal or state-listed species or sensitive species recognized as threatened, rare or endangered by private conservation groups (e.g., California Native Plant Society) or other scientific sources (e.g., Tate 1986, "Blue List" of sensitive bird species) CEQA Guidelines;
- Impacts that substantially affect sensitive habitats, including (a) habitats that are restricted on a regional basis, (b) habitats that serve as concentrated breeding, feeding, nesting or migrating grounds and are limited in availability, and (c) habitats that support a high concentration of one or more sensitive species (CEQA Guidelines);
- Impacts to regional or important local wildlife movement corridors (CEQA Guidelines);
- Impacts to an ecosystem that serves as core habitat to regional plant and wildlife populations even if these habitats are not biologically significant on a regional basis (e.g., a functioning ecosystem that is isolated and the surrounding area is depleted of biological value; these impacts will be locally but not regionally significant) CEQA Guidelines, County of Imperial General Plan EIR, local wildlife management plans (e.g., Burrowing Owl Survey Protocol and Mitigation Guidelines as provided by CDFG); or



- Impacts to biological resources that are of scientific interest because they are at an extreme in physical or geographic limits or represent an unusual variation in a population or community (CEQA Guidelines)

Issue Analysis and Significance

The IVC Brawley Campus site is an undeveloped agricultural property, devoid of natural vegetation or sensitive habitat and is not apart of a wildlife corridor. However, burrowing owls have been identified on and immediately adjacent to the site and qualified biologists performed a focused survey for this species. Based upon the focused survey, it has been determined that burrowing owls are resident on the IVC Brawley site and would be impacted by the proposed project. Impacts associated with development of the site would be considered significant.

The IVC Calexico site is already developed and the proposed project does not increase the area of the existing campus; therefore, no biological resources will be impacted by the project.

3.4.4 Recommended Mitigation Measures

Brawley

~~According to the California Department of Fish and Game Staff Report on Burrowing Owl Mitigation (CDFG 1995), mitigation for impacts to burrowing owl foraging and burrowing habitat shall include the acquisition and protection of a minimum of 6.5 acres of foraging habitat per pair or unpaired individual impacted by the proposed project. In addition, the~~ The following recommended mitigation protocol, taken from the CDFG Staff Report on Burrowing Owl Mitigation, shall be followed if passive relocation with one-way doors is chosen: "Owls should be excluded from burrows in the immediate impact zone and within a 50-meter (approximately 160 feet) buffer zone by installing one-way doors in burrow entrances. One-way doors (e.g., modified dryer vents) should be left in place 48 hours to insure owls have left the burrow before excavation. Two natural or artificial burrows should be provided for each burrow in the project area that will be rendered biologically unsuitable. The project should be monitored daily for one week to confirm owl use of burrows before excavating burrows in the immediate impact zone. Whenever possible; burrows should be excavated by hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe should be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow." If burrowing owls are encountered, CDFG will be consulted to ensure the appropriate measures are taken.

Calexico

No sensitive biological resources were found on the previously developed Calexico campus site; therefore, no mitigation measures are required.

3.4.5 Unavoidable Significant Impacts

With the above mitigation measures, no unavoidable significant impacts are a result of the proposed project.

3.5 CULTURAL RESOURCES

3.5.1 Introduction

This section is based on a previous cultural resources impact report for the proposed site area prepared by Mooney & Associates (June 2002). The letter report is presented in Appendix D of this EIR.

3.5.2 Existing Conditions and Setting

Brawley

With the important exceptions of areas immediately along the New and Alamo Rivers, few highly sensitive resources exist within the irrigated agricultural or major populated and developed portions of Imperial County. The river areas were used by the Kamia, a desert subgroup of the Kumeyaay (Digueno), as late as the mid-1800s. The Brawley site falls within the region between the two rivers designed zero to rare sensitivity for cultural resources. Historically, the Brawley area was an important trading and shipping center along the railroad once irrigation was introduced into the Imperial Valley. Although there is no a survey of historic properties for Brawley, remaining structures and the subsurface features represent important information about Brawley's heritage. No National Register Historic Sites have been identified.

A cultural resource identification study was completed for the proposed project, in compliance with CEQA of 1970, as amended (Public Resources Code 21000 et seq), and the National Historic Preservation Act of 1966, as amended (16 USC 470 et seq.). This study was conducted in satisfaction of the Guidelines for Implementation of CEQA (14 CCR Ch 3 15000 et seq.), and NHPA implementing regulations, Protection of Historic Properties (36 CFR 800). Identification methods included: (1) records search and literature review of information archived with the California Historical Research Information System, Southeast Information Center, (2) a request for review of the Sacred Lands File with the California Native American Heritage Commission; and (3) a reconnaissance and limited field survey of the proposed project area of effect (APE).

Results of the records and literature search were negative; no historic or prehistoric cultural resources have been previously identified with the project APE. Previous cultural resource studies and surveys within a one-mile radius of the project APE have also proven negative for the presence of historic or prehistoric cultural resources. Reconnaissance and limited field survey of the current project APE resulted in no cultural resource discoveries.

The California Native American Heritage Commission has indicated that the sacred lands file fails to indicate the presence of Native American cultural resources in the immediate project area. The Commission provided a list of individuals and organizations in the Native American community who may have knowledge of cultural resources in the project area, and inquiries to these named individuals and organizations were made through correspondence. Mr. Leroy Elliott, Chairperson of the Manzanita Band of Mission Indians, responded to the correspondence by telephone. In

Chapter 3.5 Cultural Resources

conversation, Mr. Elliott expressed his concern that areas along the Alamo River were known to his elders and others as places for rest, food, and water in their traverses across the desert in prehistoric times. Mr. Elliott has asked that the early phases of construction development (e.g., debrising, rough grading) be monitored by Native and American and archaeological monitors for the purpose of ensuring that no sensitive cultural materials are unnecessarily damaged or exposed through development.

Calexico

The proposed IVC Calexico project will replace existing temporary structure with permanent buildings adding to the integrity of the area. The proposed IVC Calexico campus project does not propose expansion the existing campus and will not impact surrounding properties. Therefore, there will be no significant impacts to cultural resources as a result of the proposed IVC Calexico campus project.

3.5.3 Potential Impacts

Criteria for Significant Impact

The criteria used to determine significant impacts are:

- Disrupt or adversely affect a prehistoric or historical archaeological site or a property of historical or cultural significance to a community or ethnic or social group; or
- Conflict with established recreational, educational, religious, or scientific uses of the area;
- Conflict with the following SCAG policy: Conflict with the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.

Issue Analysis and Significance

No cultural resources have been identified as occurring within the project area and based on the records and literature research and site survey, it is expected that the proposed IVC Brawley campus and IVC Calexico campus projects would have no effect on historic properties. However, in response to a communication from Mr. Elliot precautionary mitigation is recommended.

3.5.4 Recommended Mitigation Measures

It is recommended that if an initial finding within the project area where no known resources have been recorded is made, appropriate contact with the local Native American group per the Native American Heritage Commission will ensue, in accordance with the SDSU construction contract conditions, which state that a condition be adopted in approval of this project to provide for cultural resource monitoring of the initial phases of project construction to include any and all initial and early stage ground disturbing activities.

"If the Contractor discovers any artifacts during excavation and/or construction, the Contractor shall stop all affected work and notify the Trustees, who will call in a qualified archaeologist designated by the California Archaeological Inventory to assess the discovery and suggest further mitigation, as necessary."

If the Contractor discovers human remains, the Contractor shall notify the Trustees, who will be responsible for contacting the county coroner and a qualified archaeologist. If the remains are determined to be Native American, the Trustees shall contact the appropriate tribal representatives to oversee removal of the remains."

If any buried cultural deposits are discovered during construction, development should be suspended and the discovery protected and evaluated for its potential eligibility for listing on the National Register of Historic Places or the California Register of Historical Resources.

3.5.5 Unavoidable Significant Impacts

No significant impacts to cultural resources are anticipated; however, if cultural resources are discovered, the above mitigation measures should fully mitigate those impacts.

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3.6 TRAFFIC

3.6.1 Introduction

This section is based on the following traffic impact reports prepared by Linscott Law & Greenspan Engineers; Traffic Impact Assessment SDSU Imperial Valley Campus Calexico, California (June 2002) and Traffic Impact Analysis San Diego State University Imperial Valley Master Plan Off-Campus Center Brawley, California (March 2003). The reports are presented in their entirety in Appendix E of this EIR.

This section focuses on the potential for implementation of the proposed project to impact project area traffic. The impacts of the proposed project are analyzed in terms of the effects of the proposed project to traffic. This section also considers access-related and parking impacts.

3.6.2 Existing Conditions and Setting

Brawley

Existing Street System - Brawley

According to County of Imperial Public Road Standards, Primary Arterials should be 106 feet wide in 126 feet of Right-of-Way (R/W), providing four thru lanes, and a raised or painted median. Major roads should be 82 feet wide in 102 feet of R/W, providing four undivided thru lanes, and curbside parking. Collectors should be 64 feet wide in 84 feet of R/W providing two-thru undivided lanes.

The following is a general description of the roadways in the project area. Figure 3.6-1 depicts the existing conditions including the lane geometrics of the key intersections in the study area.

State Route 78 (SR 78) is classified as a State Highway on the Imperial County Circulation Element and is an east/west route within the project area. State Route 78 is constructed as a four-lane conventional highway (two travel lanes in each direction) from SR 86 to SR 111 through the incorporated City of Brawley. This portion of SR78 provides no bike lanes, but does provide bus stops and has a posted speed limit of 30 mph. A portion of SR 78 between SR 111 N. and SR 111 S. is constructed as a 4-lane undivided roadway with a Two Way Left turn lane (TWLTL) median. East of SR 111, SR 78 is constructed as a two-lane undivided roadway providing no bike lanes or bus stops. This portion of SR 78 has a posted speed limit of 65 mph.

State Route 111 (SR 111) is classified as a State Highway on the Imperial County Circulation Element and is a north/south route within the project area. SR 111 is constructed as a 2-lane undivided roadway providing no bike lanes or bus stops, and a posted speed limit of 50 mph. SR 111 N. is currently offset to the west from the southern portion of SR 111, which runs from SR 78 south to Interstate 8 (I-8).

Chapter 3.6 Traffic

State Route 86 (SR 86) is classified as a State Highway on the Imperial County Circulation Element and is a north/south route within the project area. This facility parallels the western side of the Salton Sea, joining with SR 78 south of Salton City, and continues through Westmorland to Brawley and terminates at SR 111. SR 86 is constructed as a four-lane roadway within the project vicinity providing no bike lanes or bus stops. Parking is prohibited along both sides of the roadway.

Hovley Road is a Major Collector, 2-lane roadway within the County of Imperial providing no bike lanes or bus stops. Parking is permitted along both sides of the roadway.

Best Road is an unclassified 2-lane undivided roadway within the City of Brawley providing no bike lanes or bus stops. Parking is prohibited along both sides of the roadway.

McConnell Road is classified as a Major Collector in the Imperial County Circulation Element. It is currently constructed as a two-lane undivided roadway with no posted speed limit or bike lanes within the project area.

Shank Road is classified as a Major Collector in the Imperial County Circulation Element. It is currently constructed as a two-lane undivided roadway with no posted speed limit or bike lanes within the project area.

Seybert Road is an unclassified 2-lane undivided roadway within the City of Brawley providing no bike lanes or bus stops. Parking is prohibited along both sides of the roadway.

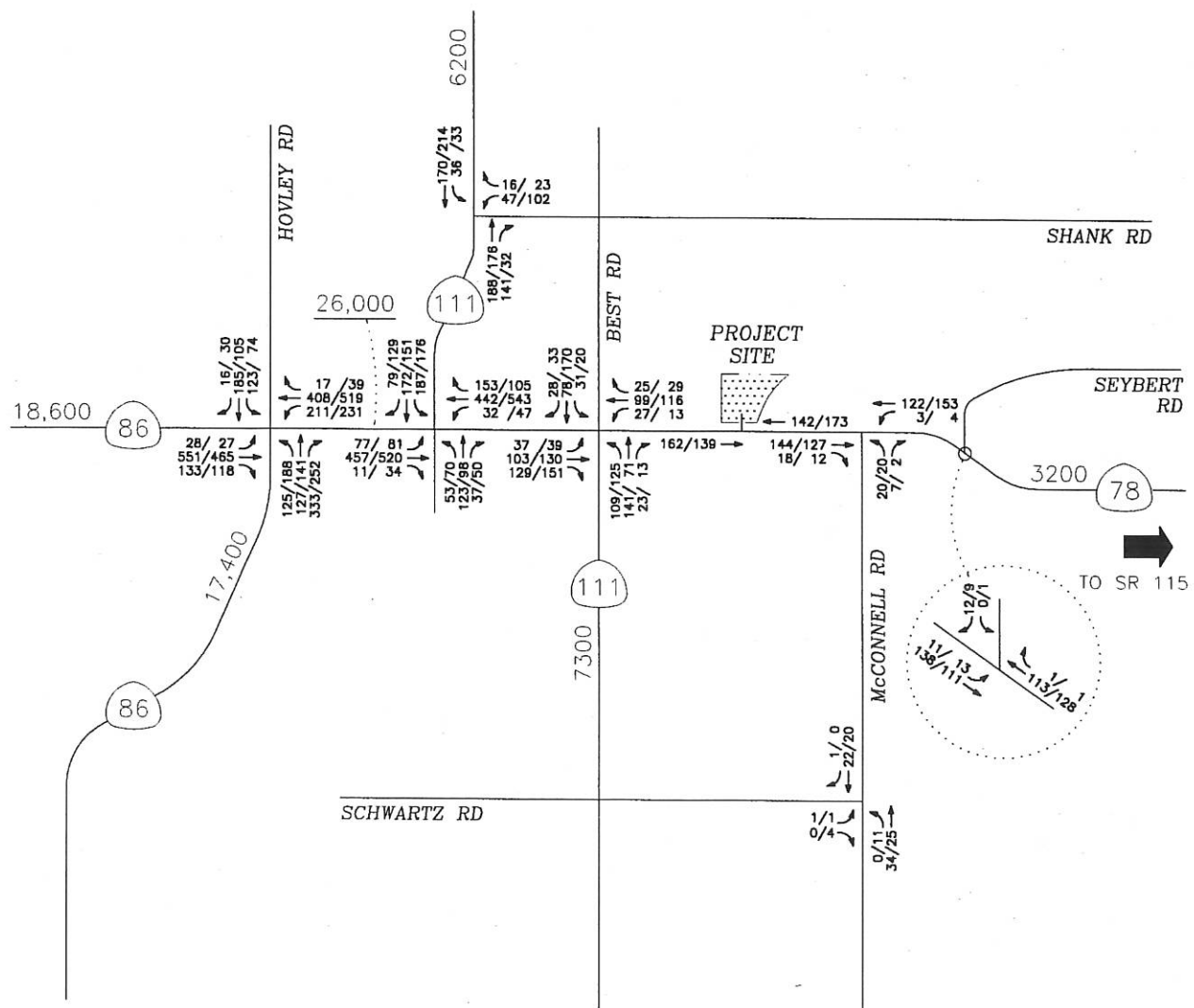
Schwartz Road is an unclassified 2-lane undivided roadway within the City of Brawley providing no bike lanes or bus stops. Parking is prohibited along both sides of the roadway.

Project Traffic Generation - Brawley

Trip generation estimates for the proposed development were calculated based on Institute of Transportation Engineers (ITE) rates for a College Campus. The amount of students (850) used to formulate a trip generation were based on the *Enrollment Needs Study for Imperial County* prepared by the California State University Chancellor's office in July 2001. Table 3.6-1 tabulates the project traffic generation. The project is calculated to generate approximately 2,000 ADT with 130 inbound/40 outbound trips during the AM peak hour and 60 inbound/140 outbound trips during the PM peak hour.

Project Traffic Distribution/Assignment - Brawley

The project-generated traffic was distributed and assigned to the street system based on roadway system characteristics (i.e., project's proximity to SR 78, SR 86, and SR 111), and Table 6A from the *Enrollment Needs Study for Imperial County* depicting Imperial County Regional Populations and Imperial Valley Campus enrollments. It is assumed that 80% of project traffic will utilize the main parking area accessed via a roadway connecting to SR 78, with 20% accessing the smaller parking area connecting to McConnell Road. These assumptions were used to prepare a distribution analysis, however, the actual access points will be determined once final site plans are completed.



NOTE: — ADTs are shown midblock
 — AM/PM Peak hour volumes are shown at the intersections
 — Project constructed roadway

REV. 12/06/02



SOURCE: Linscott Law & Greenspan



Not to Scale

**Existing Traffic Volumes
 AM/PM Peak Hours & ADTs - Brawley**

Figure 3.6-1

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Table 3.6-1 Project Trip Generation - Brawley

| Use | Amount | Daily Trip Ends | | AM Peak Hour | | | | PM Peak Hour | | | |
|----------------|---------------------------|-------------------|-------|--------------|--------|--------------|---------------|--------------|--------|--------------|---------------|
| | | Rate | ADT | Peak% | In:Out | Volume In | Volume Out | Peak% | In:Out | Volume In | Volume Out |
| College Campus | 850 ¹ Students | 2.38 ² | 2,000 | 9% | 75:25 | 130 | 40 | 10% | 30:70 | 60 | 140 |

¹ 850 (FTE) students based on findings concluded from *Enrollment Needs Study for Imperial County*.
Source: Institute of Transportation Engineers Manual 5th Ed., Code 550.

Figure 3.6-1 shows the existing traffic volumes, AM/PM peak hours and average daily trips (ADTs). Figure 3.6-2 shows the distribution of trips in the region of the project. Figure 3.6-3 shows the project traffic volumes, AM/PM peak hours and average daily trips (ADTs). Figure 3.6-4 shows the existing plus project traffic volumes, AM/PM peak hours and ADTs.

Traffic Analysis Methodology

Level of Service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure of the effect of a number of factors including roadway geometries, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level of service designation is reported differently for signalized and unsignalized intersections, as well as for roadway segments as described below.

Signalized Intersections - Brawley

Signalized intersections were analyzed under weekday morning and afternoon peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 9 of the *2000 Highway Capacity Manual (HCM)*, with the assistance of the *Traffix* (version 7.5) computer software. The delay values (represented in seconds) were qualified with a corresponding intersection LOS. Signalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in Appendix E of the Traffic Impact Analysis (Appendix B). Table 3.6-2 reports signalized intersections operations during peak hour conditions.

Unsignalized Intersections - Brawley

Unsignalized intersections were analyzed under weekday morning and afternoon peak hour conditions. Average vehicle delay and Levels of Service (LOS) were determined based upon the procedures found in Chapter 10 of the *2000 Highway Capacity Manual (HCM)*, with the assistance of the *Traffix* (Version 7.5) computer software. Unsignalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in Appendix F of the Traffic Impact Analysis. Table 3.6-3 reports unsignalized intersection operations during peak hour conditions.

Table 3.6-2 Signalized Intersection Operations - Brawley

| Intersection | Peak Hour | Existing | | Existing + Project | | Delay Increase Due to Project | Sig ³ | Existing + Project + Cumulative Projects | |
|-----------------|-----------|--------------------|------------------|--------------------|------------------|-------------------------------|------------------|--|------------------|
| | | Delay ¹ | LOS ² | Delay ¹ | LOS ² | | | Delay ¹ | LOS ² |
| SR 78/SR 86 | AM | 29.7 | C | 29.9 | C | 0.2 | NO | 35.3 | D |
| | PM | 27.4 | C | 28.2 | C | 0.8 | NO | 30.3 | C |
| SR 78/SR 111 N. | AM | 24.6 | C | 24.9 | C | 0.3 | NO | 55.3 | E |
| | PM | 24.4 | C | 24.9 | C | 0.5 | NO | 40.1 | D |

¹ Average delay expressed in seconds per vehicle.² Level of Service. See Appendix in Traffic Impact Analysis for delay thresholds.³ Significant project impacts based on Significance Criteria.

Source: Linscott Law & Greenspan

Table 3.6-3 Unsignalized Intersection Operations - Brawley

| Intersection | Control Type | Peak Hour | Existing | | Existing + Total Project | | Delay Increase Due to Project | Sig ³ | Existing + Project + Cumulative Projects | |
|--------------------------|--------------|-----------|--------------------|------------------|--------------------------|------------------|-------------------------------|------------------|--|------------------|
| | | | Delay ¹ | LOS ² | Delay ¹ | LOS ² | | | Delay ¹ | LOS ² |
| SR 78/Shank Road | TWSC | AM | 12.9 | B | 13.1 | B | 0.2 | NO | >50.1 27.5 | F C* |
| | | PM | 13.9 | B | 14.1 | B | 0.2 | NO | >50.1 27.6 | F C* |
| SR 78/SR 111 S. | AWSC | AM | 11.3 | B | 13.0 | B | 1.7 | NO | >50.1 26.9 | F C** |
| | | PM | 11.7 | B | 14.6 | B | 2.9 | NO | 28.8 | D |
| SR 78/McConnell | TWSC | AM | 10.2 | B | 10.6 | B | 0.4 | NO | 12.4 | B |
| | | PM | 10.6 | B | 10.8 | B | 0.3 | NO | 13.1 | B |
| SR 78/Project Access D/W | TWSC | AM | - | - | 9.9 | A | - | NO | 11.8 | B |
| | | PM | - | - | 10.3 | B | - | NO | 7.7 | A |
| SR 78/Schwartz Rd | TWSC | AM | 8.8 | A | 8.9 | A | 0.1 | NO | 8.9 | A |
| | | PM | 8.5 | A | 8.9 | A | 0.4 | NO | 8.9 | A |
| SR 78/Seybert Road | TWSC | AM | 9.0 | A | 9.0 | A | 0.0 | NO | 10.0 | A |
| | | PM | 9.2 | A | | A | 0.0 | NO | 9.6 | A |

- Not applicable.

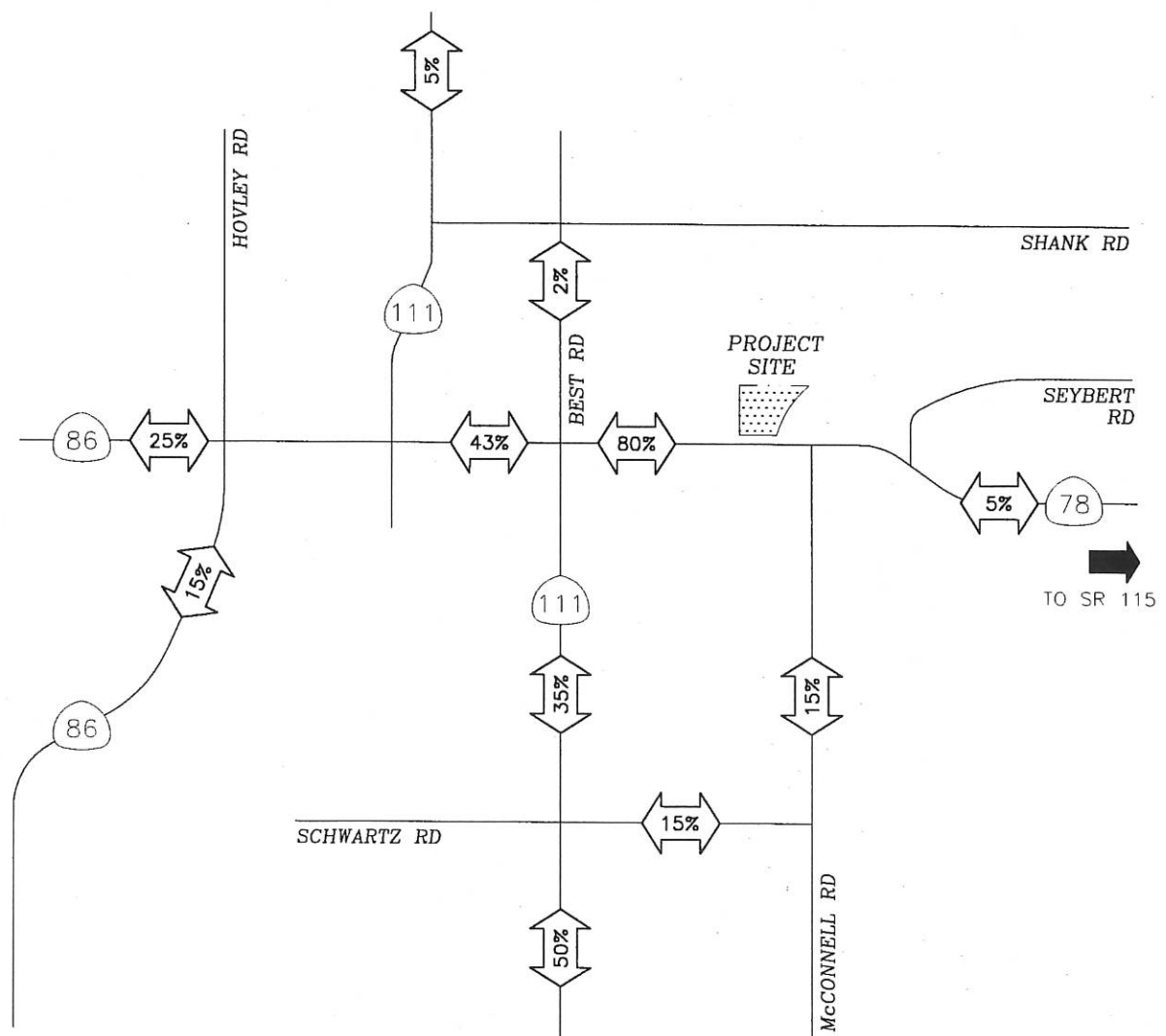
¹ Average delay expressed in seconds per vehicle and represents worst case minor street movement.² Level of Service. See Appendix in Traffic Impact Analysis for delay thresholds.³ Significant project impacts based on Significance Criteria.

SHADING presents a significant impact.

* LOS with traffic signal mitigation recommended in the Luckey Ranch Traffic Study.

**LOS with traffic signal.

Source: Linscott Law & Greenspan



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SOURCE: Linscott Law & Greenspan

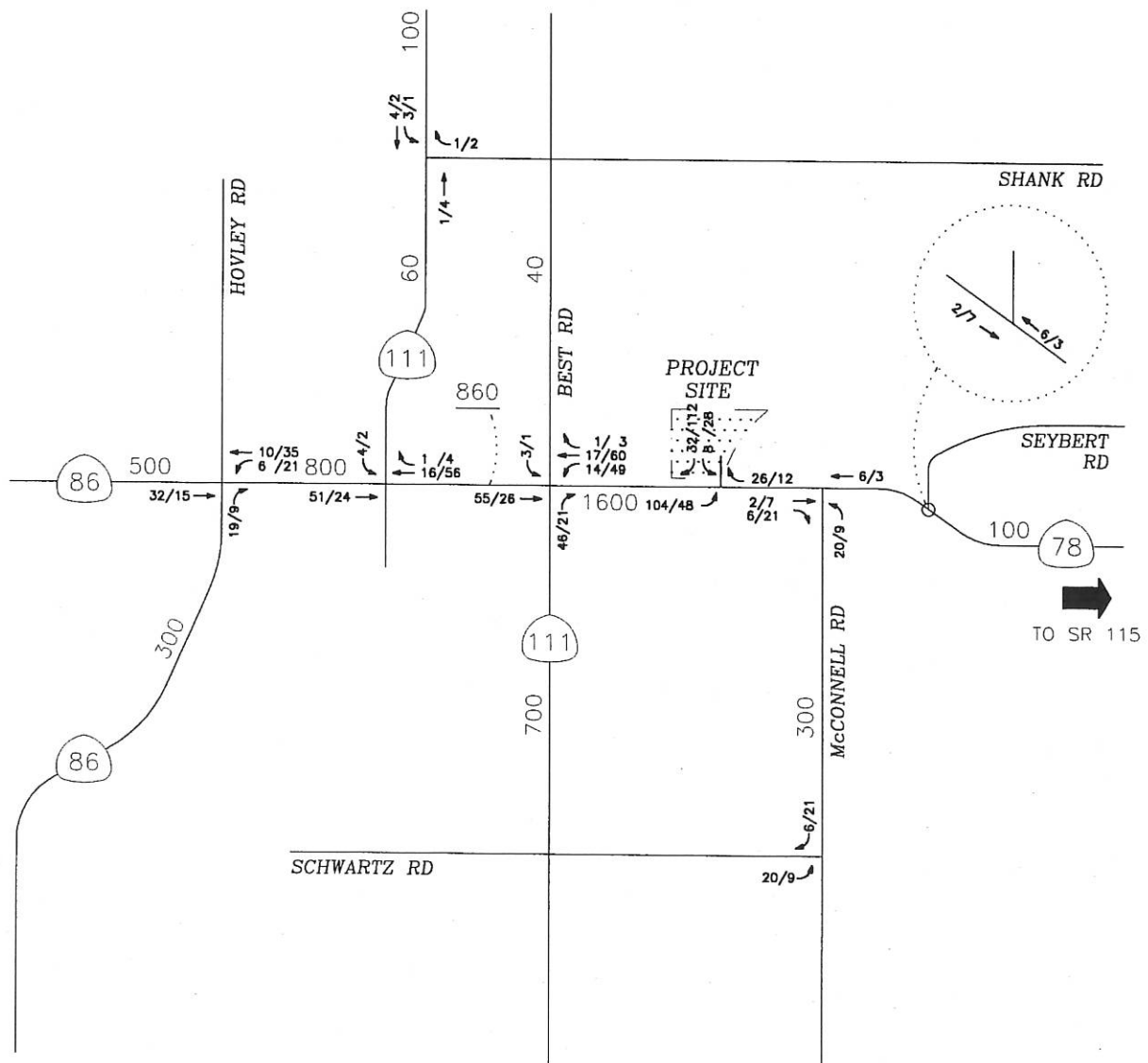


Not to Scale

Regional Trip Distribution - Brawley

Figure 3.6-2

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NOTE: - ADTs are shown midblock
 - AM/PM Peak hour volumes are shown at the intersections

REV. 12/06/02



SOURCE: Linscott Law & Greenspan

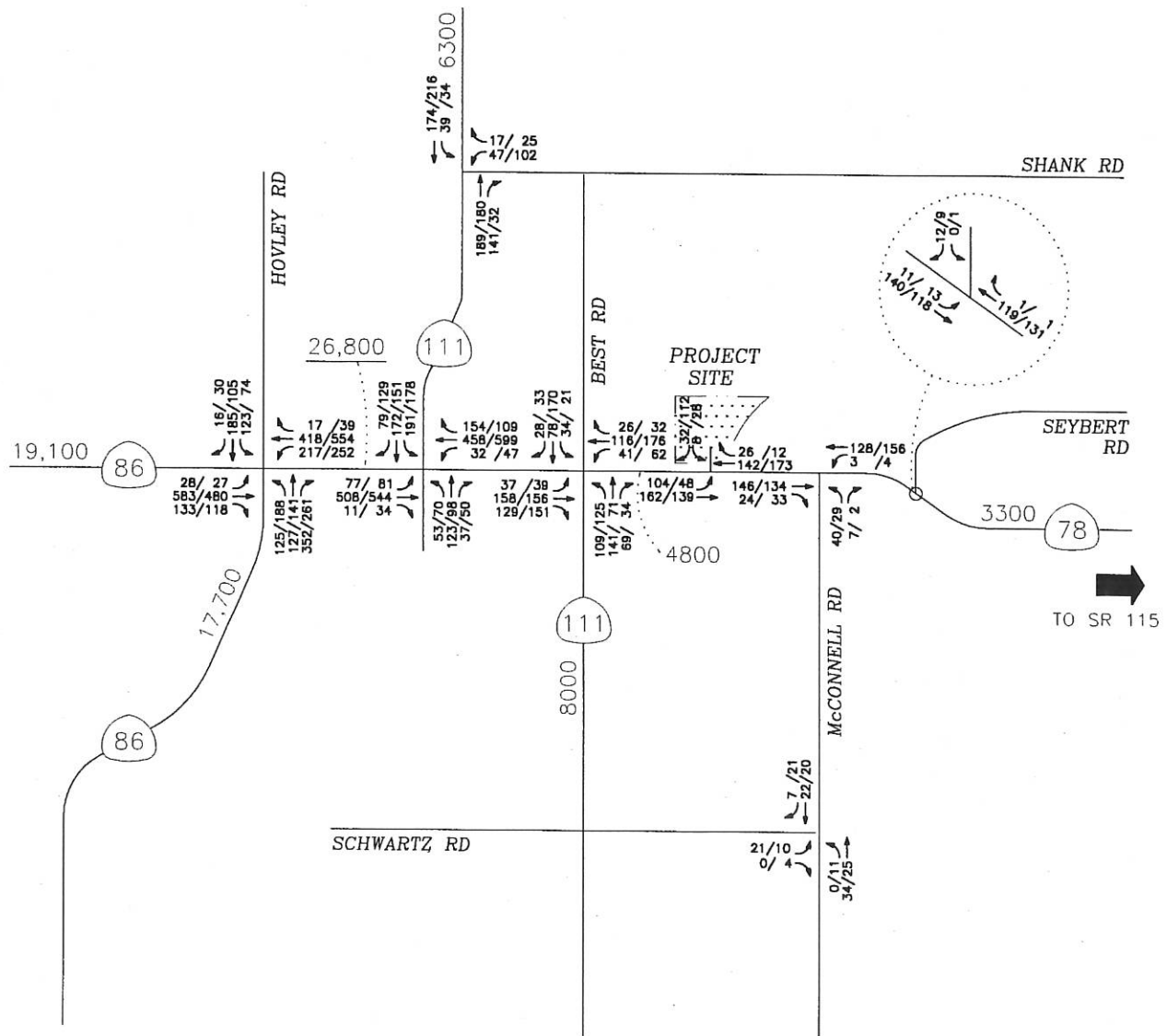


Not to Scale

Project Traffic Volumes AM/PM Peak Hours & ADTs - Brawley

Figure 3.6-3

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NOTE: - ADTs are shown midblock
 - AM/PM Peak hour volumes are shown at the intersections

REV. 12/06/02



SOURCE: Linscott Law & Greenspan



Not to Scale

Existing + Project Traffic Volumes
 AM/PM Peak Hours & ADTs - Brawley

Figure 3.6-4

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Street Segments - Brawley

Street segment analysis is based upon the comparison of ADTs to the Roadway capacities on the City of Brawley General Plan roadway classifications as shown in Appendix G of the Traffic Impact Analysis. Table 3.6-4 outlines the near-term street segment analysis results with Table 3.6-6 outlining Year 2030 street segment analysis results both with and without the proposed Brawley Bypass alignment of SR 78/SR 111.

Calexico

Existing Street System – Calexico

According to County of Imperial Public Road Standards, Primary Arterials should be 106 feet wide in 126 feet of Right-of-Way (R/W), providing four through lanes, and a raised or painted median. Major Roads should be 82 feet wide in 102 feet of R/W, providing four undivided through lanes, and curbside parking. Collectors should be 64 feet wide in 84 feet of R/W providing two-through undivided lanes.

The following is a general description of the roadways in the project area. Figure 3.6-5 depicts the existing conditions including the lane geometrics of the key intersections in the study area.

Heber Avenue is an unclassified roadway within the City of Calexico. Heber Avenue is currently constructed as a two lane undivided roadway. It has a posted speed limit of 25 miles per hour (mph) with curbside parking is generally permitted.

Sherman Street is an unclassified roadway within the City of Calexico. Sherman Street is currently constructed as a two lane undivided roadway. Sherman Street has a posted speed limit of 25 mph with curbside parking generally permitted.

7th Street is an unclassified roadway within the City of Calexico. 7th Street is currently constructed as a two lane undivided roadway. 7th Street has a posted speed limit of 25 mph with curbside parking generally permitted.

Blair Avenue is an unclassified roadway within the City of Calexico. Blair Avenue is currently constructed as a two lane undivided roadway. Blair Avenue has a posted speed limit of 25 mph with curbside parking generally permitted.

Project Traffic Generation – Calexico

Trip generation estimates for the proposed development were calculated based on Institute of Transportation Engineers (ITE) rates for a College Campus. The amount of students (250) used to formulate a trip generation was based on the net increase from the current enrollment (600 FTE) to the projected enrollment (850 FTE). Table 3.6-5 tabulates the project traffic generation. The project is calculated to generate approximately 830 ADT with 55 inbound/15 outbound trips during the AM peak hour and 20 inbound/55 outbound trips during the PM peak hours.

Table 3.6-4 Near-Term Street Segment Operations - Brawley

| Street Segment | Classification | Existing Capacity (LOS E) ¹ | Existing | | | Existing + Project | | | Project V/C Increase | Sig ⁵ | Existing + Project + Cumulative | | |
|-----------------------------|----------------|--|------------------|------------------|------------------|--------------------|------|-----|----------------------|------------------|---------------------------------|------|-----|
| | | | ADT ² | V/C ³ | LOS ⁴ | ADT | V/C | LOS | | | ADT | V/C | LOS |
| SR 78 | | | | | | | | | | | | | |
| West of SR 86 S. | State Highway | 37,000 | 18,600 | 0.50 | B | 19,100 | .52 | B | 0.02 | NO | 19,700 | 0.53 | B |
| SR 86 S. to SR 111 N. | State Highway | 37,000 | 26,000 | 0.70 | C | 26,800 | .72 | C | 0.02 | NO | 29,800 | 0.81 | D |
| SR 111 S. to McConnell Road | State Highway | 16,200 | 3,200 | 0.20 | B | 4,800 | .30 | C | 0.10 | NO | 5,600 | 0.35 | C |
| McConnell Road to SR 115 | State Highway | 16,200 | 3,200 | 0.20 | B | 3,300 | .20 | B | 0.00 | NO | 4,100 | 0.25 | B |
| SR 86 | | | | | | | | | | | | | |
| South of SR 78 | State Highway | 37,000 | 17,400 | 0.47 | B | 17,700 | .48 | B | 0.01 | NO | 20,100 | 0.54 | B |
| SR 111 | | | | | | | | | | | | | |
| North of Shank Road | State Highway | 16,200 | 6,200 | 0.38 | C | 6,300 | 0.39 | C | 0.01 | NO | 7,000 | 0.38 | B |
| South of SR 78 | State Highway | 16,200 | 7,300 | 0.45 | D | 8,000 | 0.49 | D | 0.04 | NO | 10,300 | 0.64 | D |

¹ Capacity based on County of Imperial roadway classification.² Average Daily Traffic.³ Volume to Capacity.⁴ Level of Service.⁵ Significant project impacts based on Significance Criteria.

Source: Linscott Law & Greenspan

Table 3.6-5 Project Traffic Generation - Calexico

| Use | Amount | Daily trip ends | | | AM Peak Hour | | | | PM Peak Hour | | | |
|----------------|--------------|-----------------|-----|-------|--------------|--------|-----|-------|--------------|--------|-----|-----|
| | | Rate | ADT | Peak% | In:Out | Volume | | Peak% | In:Out | Volume | | Out |
| | | | | | | In | Out | | | In | Out | |
| College Campus | 350 Students | 2.38 | 830 | 8.4% | 75:25 | 55 | 15 | 9% | 30:70 | 20 | 55 | |

Source: Institute of Transportation Engineers Manual 5th Ed., Code 550.

Project Traffic Distribution/Assignment - Calexico

The project-generated traffic was distributed and assigned to the street system based on the site access, roadway system characteristics (i.e., project's proximity to SR 98 and SR 111), existing traffic turning movement counts, and the location of potential students.

Figure 3.6-6 shows the distribution of trips in the region of the project. The primary access point is via Sherman Street and access is also available via 7th Street. Figure 3.6-7 shows the project traffic volumes AM/PM peak hours. Figure 3.6-8 shows the existing plus project traffic volumes AM/PM peak hours.

Existing Operations – Calexico

Table 3.6-7 shows under existing conditions, the minor street movements at the key unsignalized intersections are calculated to operate at LOS C or better during the morning and afternoon peak periods. The All-Way Stop Control (AWSC) intersection currently operates at LOS A.

3.6.3 Potential Impacts**Criteria for Significance Determination****Brawley**

A project traffic impact is considered significant if the addition of project traffic causes an intersection or street segment to operate at worse than LOS C, based on language contained in the Imperial County General Plan. If an intersection or street segment is calculated to currently operate at LOS D or worse, an impact is considered significant if the project causes intersection delays to increase by more than 2 seconds or the volume to capacity ratio (V/C) to degrade by more than 0.02.

Calexico

A project traffic impact was considered significant if the addition of project traffic caused an intersection or street segment to operate at worse than LOS C, based on language contained in the Imperial County General Plan. If an intersection or street segment is calculated to operate at a pre-project LOS D or worse, an impact is considered significant if the project caused the LOS to degrade from LOS D to LOS E or F, or from LOS E to LOS F.

Issue Analysis and Significance**Brawley**

As shown in Table 3.6-2, with the addition of project traffic, the key signalized intersections are calculated to continue to operate at LOS C during the morning and afternoon peak periods. The delays increases are very minimal (0.8 second maximum increase).

Chapter 3.6 Traffic

Table 3.6-3 shows that with the addition of project traffic, the minor street movements at the key unsignalized intersections are calculated to operate at LOS B or better during the morning and afternoon peak periods. The delays increase slightly (3.0 second maximum increase.)

Table 3.6-4 shows that with the addition of project traffic, all key segments are calculated to continue to operate at LOS D or better. Therefore, there are no significant traffic impacts.

Year 2030 Operations – Brawley

Year 2030 traffic volumes were taken from Table 1-1 of the *SR 78/SR 111 Brawley Bypass* (DEIR) study. This table depicts the Year 2030 ADTs both with and without the proposed SR 78/SR 111 alignments. Table 1-1 is included in Appendix H of the Traffic Impact Analysis. These volumes were increased by 20% (2% per year over 10 years) to represent year 2030 Volumes

Table 3.6-6 shows the addition of project traffic to the Year 2030 traffic volumes taken from Table 3.6-1. Table 3.6-6 shows that with the proposed SR 78/SR 111 Brawley Bypass alignment, all key segments are calculated to operate at LOS C or better. Without the proposed SR 78/ SR 111 alignment, all key segments are calculated to operate poorly, at LOS E or F.

Table 3.6-6 Year 2030 Traffic Volumes - Brawley

| Street Segment | Classification | Capacity (LOS E) ¹ | Year 2030* + Project (w/bypass) | | | Year 2030* + Project (w/o Bypass) | | |
|-----------------------|----------------|----------------------------------|------------------------------------|------------------|------------------|--------------------------------------|------------------|------------------|
| | | | ADT ² | V/C ³ | LOS ⁴ | ADT ² | V/C ³ | LOS ⁴ |
| SR 78 | | | | | | | | |
| SR 86 S. to SR 111 | State Highway | 37,000 | 27,360 | 0.74 | C | 48,960 | 1.32 | F |
| SR 111 to SR 111 S. | State Highway | 34,200 | 27,430 | 0.80 | D | 49,030 | 1.43 | F |
| SR 111 | | | | | | | | |
| SR 78 to Adler Street | State Highway | 57,000 | 18,070 | 0.32 | A | 24,070 | 1.49 | F |
| SR 78 to Malan Street | State Highway | 57,000 | 6,840 | 0.125 | A | 18,840 | 1.16 | E |

¹ Capacity based on County of Imperial roadway classifications.

² Average Daily Traffic.

³ Volume to Capacity.

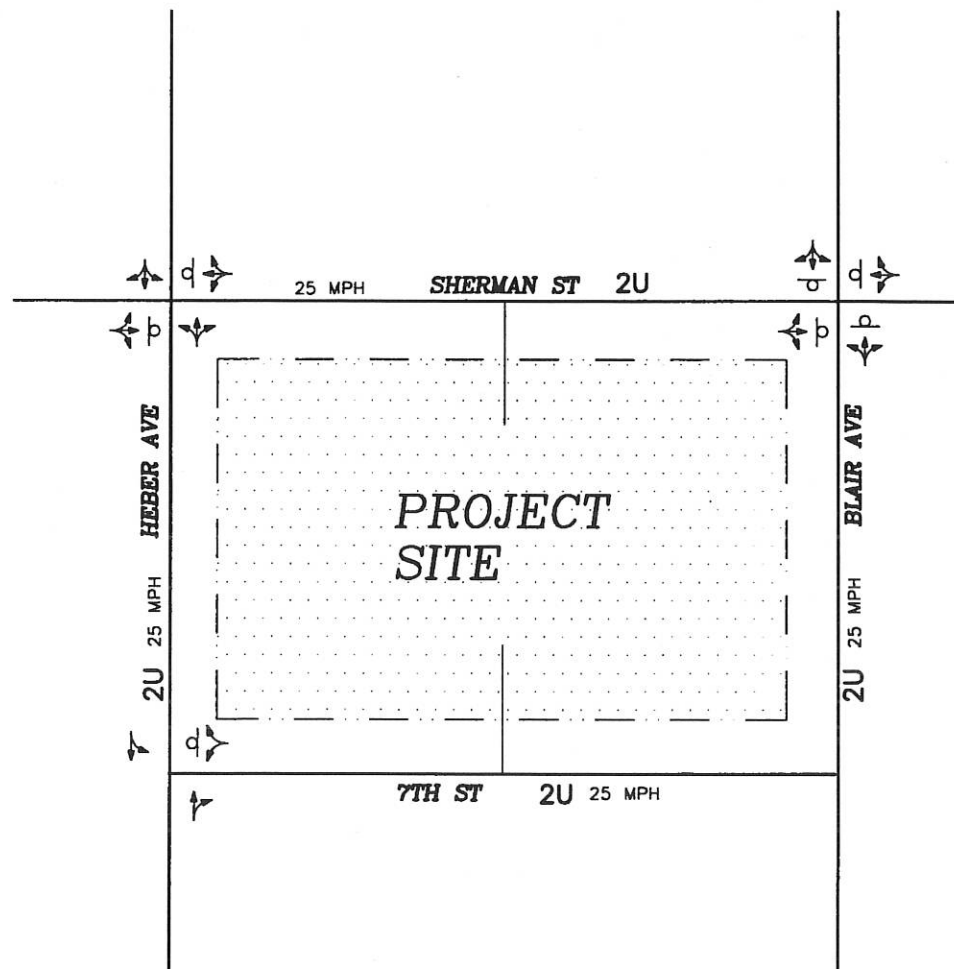
⁴ Level of Service.

⁵ Significant project impacts based on Significance Criteria.




* Includes project traffic.

Source: Table 1-1 from the CALTRANS SR 78/111 Bypass report (May 2001)

Based on the established significance criteria, no significant direct project impacts were calculated. However, a significant cumulative impact is calculated at the SR 78/SR 111 unsignalized intersection. In addition, significant impacts would occur if adequate access to the site was not provided via SR 78.



LEGEND

-  - STOP Sign
-  - No Parking
-  - Two lane undivided roadway

SOURCE: Linscott Law & Greenspan

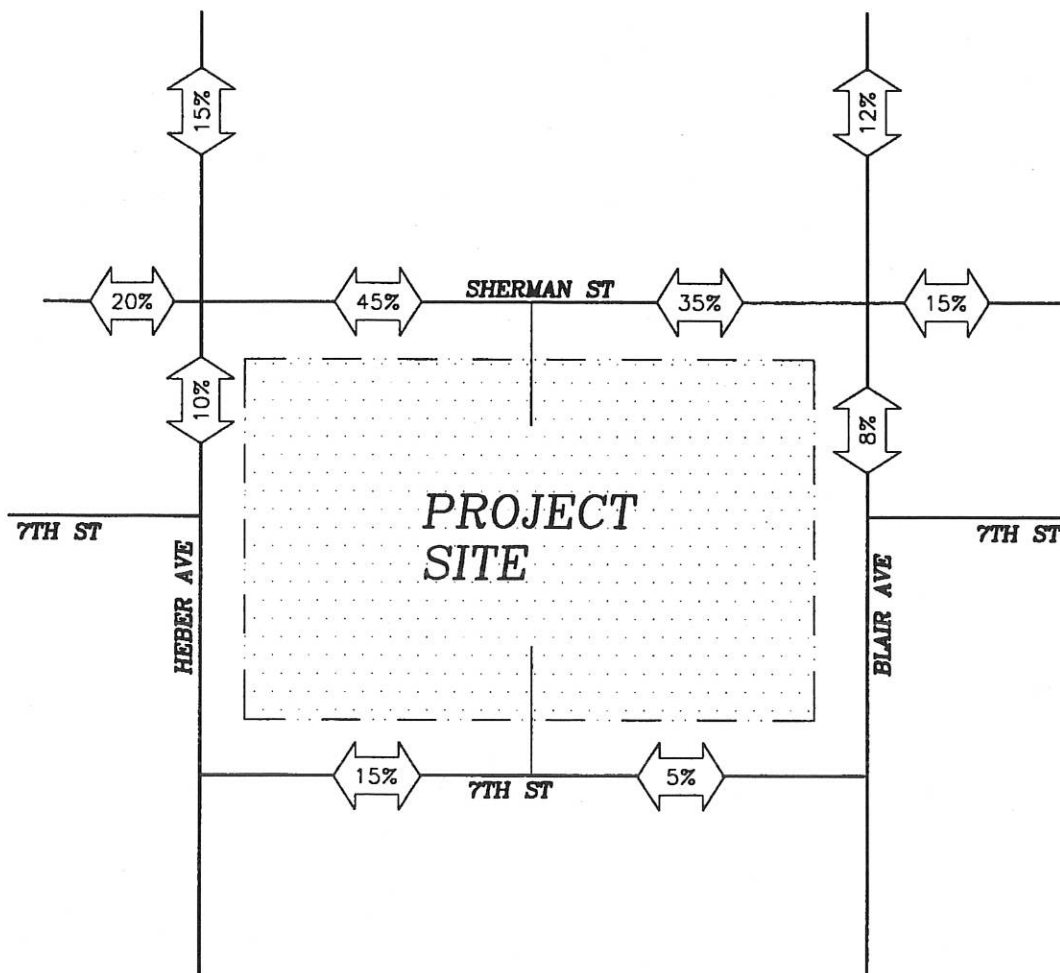


Not to Scale

Existing Traffic Conditions Diagram - Calexico

Figure 3.6-5

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NOTE:

- AM/PM Peak hour volumes are shown at the intersections

SOURCE: Linscott Law & Greenspan

Mooney
Associates

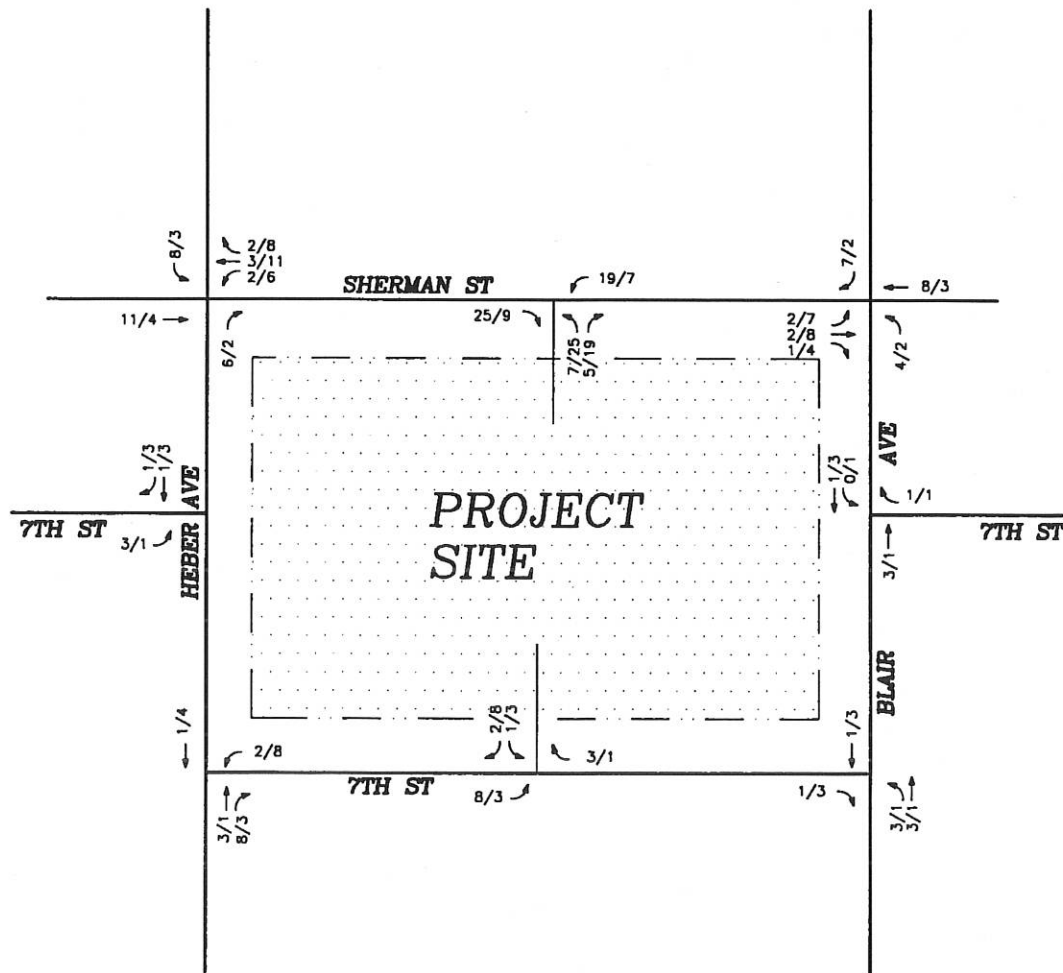


Not to Scale

Regional Trip Distribution - Calexico

Figure 3.6-6

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NOTE:

- AM/PM Peak hour volumes are shown at the intersections

SOURCE: Linscott Law & Greenspan

Mooney
Associates

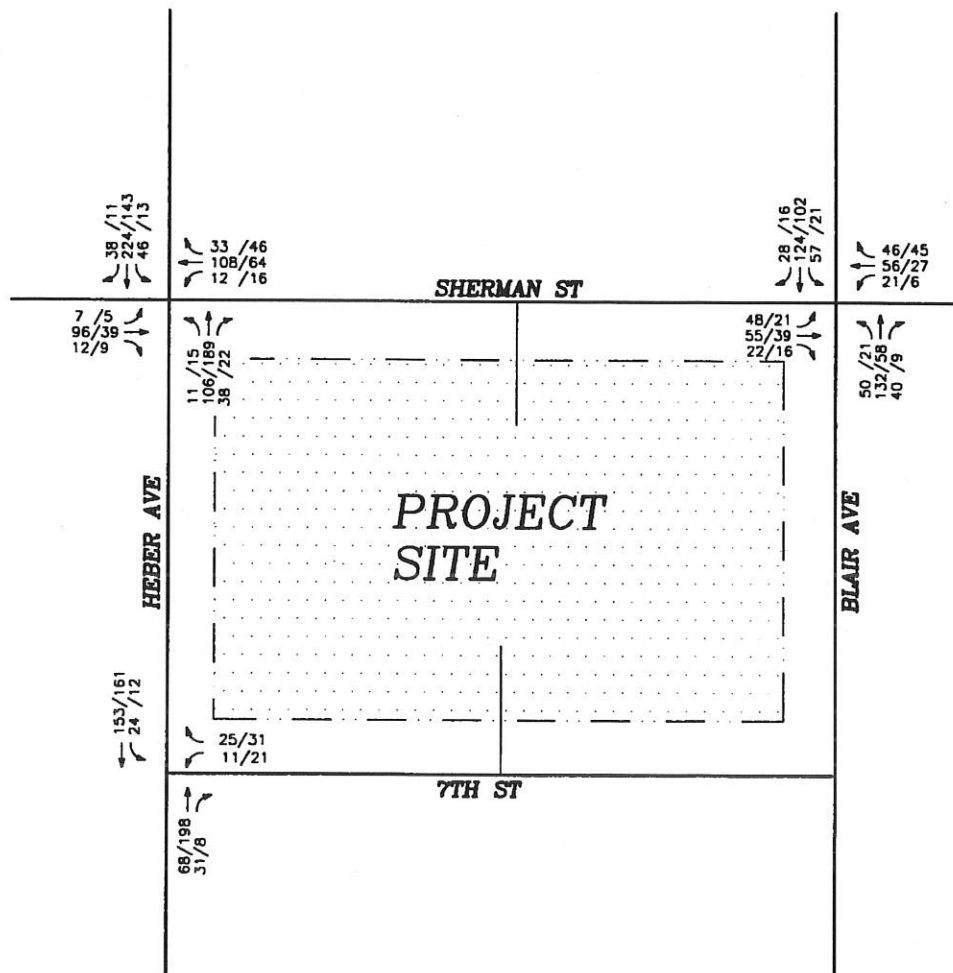


Not to Scale

Project Traffic Volumes
AM/PM Peak Hours - Calexico

Figure 3.6-7

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NOTE:

- AM/PM Peak hour volumes are shown at the intersections

SOURCE: Linscott Law & Greenspan

Mooney
Associates



Not to Scale

Existing + Project Traffic Volumes
AM/PM Peak Hours - Calexico

Figure 3.6-8

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Calexico**Existing Plus Project Operations - Calexico**

Table 3.6-7 shows that with the addition of project traffic, the minor street movements at all key unsignalized intersections are calculated to continue to operate at LOS C or better during the morning and afternoon peak periods. Therefore, the project does not present a significant impact to traffic.

Table 3.6-7 Existing Plus Project Operations - Calexico

| Intersection | Peak Hour | Turning Movement (lane or approach) | Existing | | Existing + Project | | Delay Increase due to Project | Significant? ³ |
|---|-----------|-------------------------------------|--------------------|------------------|--------------------|------------------|-------------------------------|---------------------------|
| | | | Delay ¹ | LOS ² | Delay ¹ | LOS ² | | |
| Heber Avenue/ 7 th Street | AM | WB LTR | 9.2 | A | 9.4 | A | 0.2 | NO |
| | PM | WB LTR | 10.3 | B | 10.5 | B | 0.2 | NO |
| Heber Avenue/ Sherman Street | AM | WB LTR | 15.9 | C | 16.7 | C | 0.8 | NO |
| | PM | EB LTR | 15.5 | C | 16.5 | C | 1.0 | NO |
| | | WB LTR | 12.5 | B | 13.2 | B | 0.7 | NO |
| | | EB LTR | 12.5 | B | 12.7 | B | 0.2 | NO |
| Sherman Street/ Blair Avenue | AM | AWSC | 9.6 | A | 9.7 | A | 0.1 | NO |
| | PM | AWSC | 7.9 | A | 8.0 | A | 0.1 | NO |

¹ Average delay expressed in seconds per vehicle.

² Level of Service. See Appendix for delay thresholds.

³ Significant project impacts determined based on Significance Criteria.

⁴ WB LTR – Westbound shared Left –Thru–Right turn lane.

⁵ AWSC – All-Way Stop Controlled intersection.

Source: Linscott Law & Greenspan

The Proposed Project is calculated to generate at 830 ADT with 55 inbound trips and 15 outbound trips during the AM peak hour and 20 inbound/55 outbound trips during the PM peak hour. Based on the established significance criteria, no significant impacts were calculated.

3.6.4 Recommended Mitigation Measures**Brawley**

To mitigate cumulative traffic impacts to below a level of significance the following measures would need to be implemented by the California Department of Transportation (Caltrans) as indicated below:
~~The following measures are recommended to mitigate impacts to below a level of significance, however SDSU will work with the applicable agencies to ensure compliance.~~

- ~~SDSU will work with the responsible agencies to coordinate the e~~Eventual signalization of the SR 78/SR 111 S. intersection. The, including northbound movement should provide a dedicated northbound left-turn lane with a shared through-right turn lane shall be completed by Caltrans.

Chapter 3.6 Traffic

~~2. Annually monitor the project access point on SR 78 for possible signalization.~~

~~3.2. Provide Provision of an eastbound left-turn pocket and a westbound right-turn pocket on SR 78 at the project access point. Provide and provision of dedicated southbound left and right-turn lanes at the intersection of a project driveway to SR 78 shall be completed by Caltrans.~~

~~4.3. Ensure Caltrans shall ensure that County of Imperial standards are applied to corner sight distance meeting County of Imperial standards is provided at the project campus access point to SR 78.~~

~~5. Dedicate Right of Way (ROW) along the frontage to ultimate SR 78 standards.~~

Calexico

There are no recommended mitigation measures, as there is no significant direct project impacts to area roadways associated with either the Brawley or Calexico campuses.

3.6.5 Unavoidable Significant Impacts

The project will not have any unavoidable significant impacts to traffic with the implementation of mitigation measures identified. If the Brawley Phase I EIR is approved, the mitigation measures 3 through 5 would be implemented under that project and would become superfluous to requirements for IVC Brawley project proposed in the SDSU Imperial ~~valley~~ Valley Master Plan EIR. However, unavoidable significant impacts would result if the mitigation measures are not implemented. Because SDSU is not the responsible agency for completion of the mitigation measures identified SDSU will adopt a statement of overriding considerations.

3.7 PUBLIC SERVICES/UTILITIES

3.7.1 Introduction

The purpose of this section of the EIR is to determine the impact of the proposed project on local public services. This section provides an analysis of the project's effect on the provision of water service and availability, sewage treatment capacity, electric/gas/telecommunications, library services and schools.

3.7.2 Existing Conditions and Setting

Brawley

City of Brawley Department of Public Works (DPW)

The City DPW provides potable water and sewage treatment services to users within the incorporated city limits. The project site is currently outside the city limits and outside the designated Sphere of Influence. However, the DPW has agreed to provide services to the proposed IVC Brawley campus site.

Water

The existing project site is not supplied with potable water. Untreated irrigation water is delivered for agricultural purposes via the IID canal system. There is an agricultural related machinery storage and rental business, as well as a small cluster of four residences, adjacent to the project site at the eastern boundary next to SR-78. These are likely to have alternative potable water sources from a provider approved by the California Department of Health Services (CDHS).

The City of Brawley DPW treats and distributes water supplied by the IID to users in the incorporated City limits. The IID obtains raw water from the Colorado River via the All American Canal where it is then transported to Brawley via the Mansfield and Central Main Canals. The DPW is responsible for the subsequent treatment and distribution to users. All customers are charged a flat rate regardless of use since metering has not been implemented. As a result, the system is highly inefficient (City of Brawley General Plan Final EIR 1994).

The City of Brawley, through the Border Environmental Cooperation Commission (BECC), has updated their Water Master Plan. The Water Master Plan details the capacity of the existing system and recommends infrastructure upgrades and planning to handle the future population through the year 2016. The City of Brawley completed the construction of a Water Treatment Plant, which began operation in June 2000. Existing facilities have a treatment capacity of 15 million gallons per day (mgd), expandable to 30 mgd. Improvements can be accomplished in stages, providing additional capacity in 5 mgd increments as needed. The projected demand for the Brawley area is 12 mgd and will be approximately 13 mgd by 2005, according to a representative of the DPW (Arellano 2002).

Sewer

The existing sewer collection and treatment system for areas within the incorporated City limits is described in the City of Brawley General Plan (1995). Sewer services are not currently available at the IVC Brawley project site. The City is currently upgrading existing headworks facilities to increase sewage treatment plant capacity from an existing 5.9 mgd maximum to 12.0 mgd maximum by 2020. Phase I of the wastewater treatment plant (WWTP) has been completed and brought treatment capacity up to 5.9 mgd from 4.2 mgd. By 2010 Phase II of the WWTP is to be completed bringing capacity to 8.0 mgd. Phase III, which will increase capacity to 12.0 mgd, is to be completed by 2020 (Arellano 2002). The City is operating at approximately 70% of peak available capacity, treating an average of 4.2 mgd to secondary treatment standards prior to releasing effluent to the New River. During storm events, the system may be required to handle flows of 10 mgd due to the fact that the City's sanitary sewer and storm water drainage system combines flows. As a consequence, sewage flows during these periods may only receive primary treatment prior to discharge to the New River.

With ongoing sewer improvements, involving replacing old sewer mains with new larger mains, existing City requirements are within capacity, except during storm events. The General Plan recommends that the City study the feasibility of separating the combined sewer and drainage systems. New development will be required to utilize separate systems. The DPW is confident that adequate sewer collection and treatment can be provided for the proposed IVC Brawley campus.

Solid Waste

Identified for imminent closure in the 1995 Brawley General Plan, use of the Brawley Landfill has been extended by serving only schools and City solid waste in the Brawley area. Solid waste from businesses and other sources is diverted to either the Imperial or Niland landfill sites. The County Department of Public Works operates each of these sites. The proposed IVC Brawley campus would be served by the Brawley landfill site.

Electric

The City coordinates the provision of electricity and other services for new development to ensure that adequate right-of-ways, easements, and improvements are provided. The IID serves approximately 83,000 customers. The primary source of this electrical energy is provided by fossil fuels; approximately 63% is purchased from outside the region and 37% is produced locally. Peak demand was estimated at just under 600 megawatts system-wide in 1993 (City of Brawley 1994). The IID estimates that the average residential consumer uses approximately 13,000 KWH per year. Residential customers generally consume more energy than the national average of 9,000 KWH per year, due to the need for summer air conditioning. The average commercial customer consumes approximately 100,000 KWH per year. Commercial consumption is estimated at approximately 10 watts per square foot. The IID has implemented energy conservation measures to reduce consumption by anticipated growth in the region, which is likely to require new facilities in the foreseeable future (McElroy 1995).

According to the General Plan FEIR (1994), the City's four electric substations are scheduled for extensive rebuilding by the year 2000. Existing usage within the Brawley Planning Area was estimated at more than 580,000-kilowatt hours per day in 1994. IID electrical service facilities include a 161 kV transmission line, which runs north to south through the Luckey Ranch area, and a 92 kV transmission line, which runs along Shank Road. All transmission lines are required to be located above ground. However, future undergrounding of distribution lines is allowed.

Gas/Telecommunication Service

Natural gas supply and infrastructure are well established in Brawley. There is no gas provision east of Best Road or in the vicinity of the project site (Rodriguez 2002). The Telephone Company is a publicly regulated utility and is obligated to serve the community and improve facilities as needed to serve the community. The business and residences adjacent to the eastern boundary of the project are provided with telephone service.

Schools

The Brawley area, including the entire project site, is served by two school districts: the Brawley Elementary School District and the Brawley Union High School District. The Brawley Elementary School District serves elementary school age children in both the incorporated and unincorporated areas of the Brawley Planning Area by providing kindergarten through 8th grade. The Brawley Elementary School District operates one pre-school, four elementary, and one junior high school. Total enrollment exceeds capacity and was estimated at 3,807 students in 1994. The Brawley Elementary School District utilizes a student generation rate of 0.6 (grades K-6) and 0.14 (grades 7-8) students per household or a total of 0.74 students overall (Sullivan 1996). Development impact fees are \$1.14 per square foot for residential projects and \$0.19 per square foot for commercial projects. In addition, private elementary school facilities are available to serve a small number of pre-school through eighth grade students.

Education for grade 9-12 students within the project area is provided by the Brawley Union High School District. Existing enrollment of 1,800+ students at the high school and continuing education school is at or just under capacity. The District estimates that, for the purposes of future planning, 0.2 students per household will attend grades 9-12 (Casas 1996). School impact fees for residential development are \$0.51 per square foot. Commercial rates are set at \$0.08 per square foot.

There are no higher education institutions in the Brawley area.

Libraries

The City of Brawley owns and operates a City library in Plaza Park near City Hall. The General Fund finances Library services with a supplement from user fees.

Police, Fire & Emergency Medical

The project site is not currently within the City of Brawley's fire service boundary. The City fire service provides fire suppression and paramedic services to its constituents. The City provides

service within its incorporated boundary and is contracted by the County to provide staff for fire suppression in the unincorporated portion of the planning area, where the site is located. The City Fire Department consists of a single fire station located at 815 Main Street.

Mutual aid agreements have been established with all cities in the County to address incidents requiring equipment/personnel beyond the City Fire Department's capacity to respond. These agreements result in dispatch of the closest unit available to respond upon request for services. The primary agency providing assistance is the City of Calipatria station, which is 10 miles north with an estimated response time of 15 minutes. Additional assistance is provided by the County and City of El Centro.

The City Fire Department has indicated that there have been discussions regarding the placement of a second fire station in eastern Brawley along Best Road. Budget constraints have prevented the Department from pursuing a formal plan for the relocation of the Main Street fire station to the western portion of the City.

A full range of law enforcement services is provided by the City of Brawley Police Department. The existing police station is located on Main Street, near the intersection of Main and 3rd Streets, approximately 2 miles west of the project site. Mutual aid agreements exist with other Imperial Valley municipalities and which can provide assistance during an emergency. The project site is not currently within the service boundary, however, SDSU shall provide campus security, which shall act in law enforcement capacity, but shall work with local law enforcement to ensure consistency.

Calexico

City of Calexico Department of Public Works (DPW)

The City DPW provides potable water and sewage treatment services to users within the incorporated city limits, which includes the proposed IVC Calexico campus project.

Water

The IID distribute raw water from the Colorado River to the City of Calexico. Raw water is pumped through a 42-inch pipeline to the City's 25 million-gallon reservoir. The DPW operates a wastewater treatment plant with a capacity of 16 mgd (BRG Consulting, 2001). The maximum day demand in 1998 was 7.48 mgd and peak demand was 13.60 mgd (City of Calexico Service Area Plan, 1998). The current operating IVC Calexico campus is serviced with potable water. The combined treated water storage capacity is 8 million gallons (MG), with a proposal to add an addition 6 MG in approximately 2 years.

Sewer

The DPW presently operate a wastewater treatment plant with a capacity of 4.30 mgd, demand is not expected to be equal 4.30 mgd capacity until 2007 mgd (City of Calexico Service Area Plan, 1998). The existing IVC Calexico campus is receives sewer treatment from the DPW.

Solid Waste

The Imperial County Department of Public Works is responsible for operation of landfill sites in the Calexico area. The IVC Calexico campus does dispose of solid waste to the Calexico Solid Waste Dump Site (landfill), located 3 miles west of Calexico. In 2000 this landfill received 15 tons per day and is anticipated to reach capacity in the year 2020 (County of Imperial, 2001).

Electric

Electricity is provided to the IVC Calexico campus and the City of Calexico by the IID. A variety of methods to generate electricity are employed by the IID including hydroelectric, natural gas and oil, in addition some electricity is purchased from outside sources.

Gas/Telecommunications

The Southern California Gas Company (SDGC) provides natural gas to the City of Calexico including the IVC Calexico campus. The IVC Calexico campus currently demands minimal natural gas (Rodriguez 2002). The Telephone Company is a publicly regulated utility and is obligated to serve the community and improve facilities as needed to serve the community. The IVC Calexico campus is currently served with adequate telecommunications.

Schools

The Calexico Unified School District currently operates 10 facilities, six of which are elementary schools. The IVC Calexico campus is the only example of higher education facilities in the area.

Libraries

The City of Calexico maintains a public library, staffed by 3 full time staff as well as part time and volunteer staff. The library is located at 850 Ecinas Avenue. The public library has 45,000 volumes though this is decreased as a result of the links with other Imperial Valley libraries (City of Calexico, 1992).

Police, Fire and Emergency Medical

Fire protection services for the City are provided by the City of Calexico Fire Department. The City currently maintains two fire stations: a main station and substation. The City has a mutual aid agreement with Imperial County and surrounding cities, including Mexicali, to provide additional fire protection services when needed.

Law enforcement services for the City are provided by the City of Calexico Police Department, which operates out of the station at 420 East Fifth Street. Police officers operate on a "beat" system, which gives each officer a particular portion of the City to patrol.

3.7.3 Potential Impacts

Criteria for Significance Determination

The project will result in significant impacts if it meets any of the following parameters, based on questions in the CEQA checklist.

- Use fuel, water, or energy in a wasteful manner;
- Encourage activities that result in the use of large amounts of fuel, water, or energy;
- Contaminate a public water supply;
- Generate demands for services that exceed the capacity of existing water supply and infrastructure;
- Extend a sewer trunk line with capacity to serve new development;
- Exceed the City's capacity to collect and treat wastewater;
- Exceed the capacity or lack infrastructure for electric gas and telecommunications providers to serve the project site; or
- Cause the response time for police protection to increase.
- Cause the response time for fire protection services to increase.
- Conflict with established recreational, educational, religious or scientific uses of the area.

Analysis and Significance

Brawley

Water

The General Plan indicates that adequate water service infrastructure is required for continued growth and development in Brawley.

General Plan Infrastructure Element

Goal 10: Provide adequate water service and infrastructure for existing development while planning and implementing improvements to accommodate planned growth in Brawley.

Goal 11: Promote citywide water conservation to reduce the projected demand for water service and associated treatment.

Implementation of the proposed project would require the expansion of water facilities to the project site from existing and proposed adjacent facilities. The recent annexation of the Luckey Ranch project into the City of Brawley sphere of influence ensures it will be serviced with all utilities including potable water. The Luckey Ranch annexation extends the Brawley planning boundaries

east to within 3000ft of the proposed IVC Brawley site. The City of Brawley has agreed to provide the extension of water services, as needed for the IVC Brawley site. If the Brawley Phase I EIR is approved and implemented, then water services would be extended to the IVC Brawley site and would be available for the IVC Brawley project.

The proposed IVC Brawley, as a public facility, has a generation factor of 3,500 gpd/ac. Buildout of the proposed project (200 acres) has the potential for requiring 700,000 gallons/day. Projected water capacity requirements will not exceed planned maximum treatment plant capacity. The City of Brawley DPW is confident adequate water facilities will be available to serve the proposed IVC Brawley campus.

Due to changes in the state and federal Safe Drinking Water Acts (SDWA), there are constraints on IID non-agricultural water uses. Since IID is a regional supplier of raw water, its canal water is not suitable for drinking or cooking. If there are less than 25 water users within a project to receive canal water service for domestic purposes other than human consumption, all applicants will be required to submit proof that an alternative supply of water has been obtained from a CDHS approved provider. For more than 25 water users, canal water will be made available only upon installation and certification of a water treatment system that fulfills the requirements of a nontransient, noncommunity public water system as outlined in the state and federal SDWA.

Sewer

Municipal sewer service is required for wastewater collection and treatment in the urbanized portions of the Planning Area. Sewer facilities shall be extended for new development projects that are located outside of the current sewer services area. The City of Brawley has agreed to provide the extension of sewer services, including sewer lines and capacity for the IVC Brawley Campus.

General Plan Infrastructure Element

Goal 12: Provide adequate sewer collection infrastructure and treatment facilities for existing development while planning and implementing improvements to accommodate planned growth in Brawley.

Goal 13: Minimize impacts associated with the combined sewage and drainage collection system.

Phase I of the WWTP expansion has been completed to provide a treatment capacity of 5.9 mgd. Existing treatment requirements are estimated at 4.2 mgd, leaving a maximum remaining capacity of 1.7 mgd. The proposed IVC Brawley has a generation factor of 3,000 g/d/acre. At buildout (200 acres) the proposed project has the potential of producing 0.6 mgd. The combined project and existing treatment requirements total 4.8 mgd, which exceeds the desired average daily capacity of 80 percent or less. To maintain a desired average daily capacity of 80 percent or less, Phase II of the WWTP upgrades would need to be completed in coincidence with, or prior to, the completion of the proposed IVC Brawley campus. Allowing for reserve capacity the DPW suggest that future plant facilities should provide a minimum capacity of 8 mgd, which is consistent with the capacity of Phase II of the WWTP expansion. The WWTP upgrades will ultimately provide the City with a treatment capacity of 12.0 mgd.

Because project requirements exceed desired capacity, the project anticipates the need for additional infrastructure. While the project assumes that the City will provide the necessary infrastructure upgrades to off-site treatment plant facilities, pump stations, force mains, trunk lines and collection lines, costs associated with the provision of infrastructure on the project site, which directly benefits the IVC Brawley project will be borne by SDSU. This may include sewer laterals, collection mains, pump stations, force mains and dual water distribution lines. Although plant capacity will not be exceeded, because daily capacity will exceed the desired 80 percent the impact to service levels will be significant.

Solid Waste

The Brawley landfill site would adequately provide disposal service for the projected volume of solid waste produced by the normal operation of the proposed IVC Brawley project. There would be minimal impacts to air quality and circulation due to transport to the landfill. Pre-construction and construction waste would be diverted to either the Imperial landfill site, approximately 15 miles away from the project site, or the Niland landfill site, approximately 18 miles from the project. Minimal impacts to air quality and circulation would result from the transportation of pre-construction and construction waste to either landfill site.

Electric

Adequate power infrastructure is required for continued growth and development in Brawley. As planned development proceeds in Brawley, power infrastructure must be simultaneously constructed.

General Plan Infrastructure Element

Goal 14: Ensure the provision of adequate power and communication service and transmission infrastructure to serve existing and planned development.

Goal 15: Promote citywide energy conservation to reduce the projected demand for electricity and gas.

The district anticipates the need for additional production facilities to meet the projected demand. Each required megawatt of additional capacity has a potential cost to the district of \$1,200.00 in direct generation cost.

However, the IVC Brawley campus is intended to be energy self-sufficient once constructed. The project is to use and research alternative renewable sources. 20-50 acres of land are to be allocated for photovoltaic cells promoting greater use of solar energy and meeting the Governor's mandate that all University of California and California State University campuses must become "energy self-sufficient." Other sources of renewable energy, including geothermal, wind, and biomass may also be developed.

To adequately serve construction of the proposed development, IID planners have identified a need for at least one substation to be located within the project boundaries. The substation will require an area of approximately 300 X 300 feet square or 2 acres (McElroy 1996). New 92KV transmissions

lines will be required to serve the substation site. Substation location has not yet been determined but will be shown on the detailed site plans.

Significant impacts will result from any project-related increase which in turn results in increased peak system demand which requires additional substation, transmission, and distribution facilities. In addition, electrical energy demand impacts to surrounding areas would be likely during the course of construction and location of facilities.

Gas/Telecommunication

To provide gas service to the proposed IVC Brawley connection to the high pressure pipeline running north south along 111/Best Road. Connection would involve construction of a regulator station at a cost of approximately \$20,000 to \$30,000 (Rodriguez 2002). The regulator station would be required to reduce the high-pressure conditions of the existing pipeline to medium pressure, which would be appropriate to serve a campus facility. In addition, a pipeline would have to be laid from the Best Road pipeline to the IVC Brawley site, which would require additional cost, permitting and processing. The required works to provide gas to the IVC Brawley site does present a potential significant impact. However, a gas company representative suggested that gas might not be required for the IVC Brawley campus based on the limited amount of gas used by the SDSU Callexico campus. In addition, the IVC Brawley campus is to be a pilot project designed to be self sufficient in terms of energy. Subsequently, there will be no impact to gas service.

The exact need for telephone lines has not been determined at this time. The Telephone Company, being a publicly regulated utility, is obligated to serve the community and improve facilities as needed to serve increased demand for services. No impacts to telephone services have been identified.

Schools

The proposed IVC Brawley project will enhance educational opportunities for the area. The level of education the project proposes to provide is not at present provided in the Brawley area, the nearest comparable service is the SDSU campus at Callexico.

Library

The proposed IVC Brawley project will not result in an increase demand for service from the existing library services as the project includes a library facility. The library facilities required in association with the IVC Brawley project may include limited access/use for the public.

Police, Fire & Emergency Medical

The proposed IVC Brawley project is not anticipated to significantly increase the demand for police or fire services. The campus is expected to provide campus security and emergency services. However, the site is currently outside of the City service area, and therefore, SDSU shall enter into a mutual aid agreements with the City of Brawley Police and Fire Departments to ensure that adequate services are provided.

Summary

Significant water and sewer service impacts will occur from additional demands on the existing and phased expansion of treatment plants, if development is premature to the City's infrastructure upgrades. Significant electrical energy impacts will result from project-related demands, which in turn results in increased peak system requirements. All requests for water and sewer will be coordinated through the City's departments of planning and public works. The project will coordinate with IID and the City to ensure the availability of electric/gas/telecommunication facilities prior to project approval. Development of the site will not result in adverse impacts to schools or libraries. There are no impacts to police or fire services anticipated.

Calexico

Water

IVC Calexico was Master Planned to serve 400 FTE students, but has been serving 600 FTE students, therefore, the proposed IVC Calexico campus project proposes an additional 250 full time equivalent enrollment (FTE), which is not anticipated to present a substantial increase in demand. Therefore, the existing system is adequate to service the increased demand.

Sewer

The existing IVC Calexico is currently serviced by the DPW sewer system and the present demand on the wastewater treatment plant is below capacity. The additional 250 FTE proposed by the IVC Calexico campus will not generate a substantial increase in demand that would result in a significant impact.

Solid Waste

The proposed expansion of the IVC Calexico campus is not anticipated to generate a substantial increase in solid waste under normal operation. The construction of the project will cause a short-term increase in solid waste. However, this is not considered significant due to the capacity of the landfill and the short-term nature of the increase.

Electric

The additional 250 FTE proposed by the IVC Calexico campus project will increase the demand on electricity. However, because the proposal replaces existing structures the increase in demand will not be substantial and it will not have a significant impact on the IID's ability to provide electricity to the area.

Gas/Telecommunications

The IVC Calexico currently requires minimal gas and the proposed project will not incur a substantial increase in demand. Therefore, there will not be a significant impact to gas services.

The IVC Calexico campus is also currently serviced with adequate telecommunications and additional services required by the proposed project would not require substantial works or expansion of utilities.

Schools

The proposed IVC Calexico campus project will increase the City of Calexico's higher education opportunities. The proposed IVC Calexico project will not have an adverse effect on existing schools as it would not involve an increase in population or generate an increase in school student enrollment.

Libraries

The IVC Calexico campus provides library and reference resources for enrolled students and the addition of students would not place a substantial increase in demand on the public library.

Police, Fire & Emergency Medical

The proposed IVC Calexico campus expansion is not expected to significantly increase demand for police or fire services. The City has adequate capacity to serve the existing campus.

Summary

The proposed IVC Calexico campus project is not anticipated to have any significant impacts on public services, because a campus already operates at the project site and the proposal is an expansion that includes replacing temporary structures with permanent buildings.

3.7.4 Recommended Mitigation Measures

Brawley

1. Prior to final approval, SDSU shall provide the IID with the following:
 - (a) ~~The project proponent~~ SDSU shall dedicate ~~land and an easement~~ for development of an electrical substation ~~in any on an~~ on-site location identified by SDSU and ~~satisfactory to the IID.~~
 - (b) Project design shall provide ~~acceptable adequate~~ access easements for maintenance roads and corridors with appropriate ~~backsets~~ setbacks between respective transmission and/or distribution lines and future structures or improvements.
 - (c) Relocation and cost of transmission or distribution of power shall be coordinated between IID and SDSU.

Chapter 3.7 Public Services/Utilities

~~(d) Landscaping design requirements for all IID substations or facilities are subject to IID review. Landscaping costs shall be the responsibility of SDSU.~~

~~(e)(d)~~ SDSU will coordinate responsibility for the easements for the campus with the IID and the CSU Chancellor's Office.

~~(f)(e)~~ ~~The university~~ SDSU shall coordinate with IID on issues such as load increase, City Code requirements, relocations, upgrades, undergrounding, line extensions, conduits, vaults, pads, switches and regulation charges.

With mitigation, phased implementation of improvements will be concurrent with project demand. The project will coordinate with the IID to ensure that future development areas are supplied with electrical transmission lines capable of serving the project. Since development cannot occur without providing the necessary infrastructure to serve a project, significant water, sewer, and electric impacts are reduced to a level below significance.

Calexico

No impacts are anticipated, as the project site is an existing campus site; the expansion is not expected to affect services.

3.7.5 Unavoidable Significant Impacts

The proposed IVC Brawley campus presents no unavoidable significant impacts related to public services.

3.8 HYDROLOGY/FLOOD CONTROL

3.8.1 Introduction

The following section provides general flooding information for the Imperial Valley, specifically focusing on the Brawley Campus site and is based on documents from the City of Brawley, County of Imperial, and the Imperial Irrigation District.

3.8.2 Existing Conditions and Setting

Water used to irrigate virtually the entire Imperial Valley originates from the Colorado River. Local drainage patterns within the valley have been altered through agricultural activities. The IID maintains around 1,600 miles of irrigation drainage structures, which collect surface water runoff and subsurface drainage from some 32,200 miles of agriculture (tile) drains and channel the flow into the New and Alamo Rivers, which ultimately drain to the Salton Sea. The canals and laterals are often open and unprotected.

Brawley

Flooding occurs in varying degrees throughout Imperial County. Floodwaters rise either from sudden downpours or as a result of slow heavy precipitation. Hazardous flooding in the Brawley vicinity is more likely to occur in areas adjacent to floodplains located along the New and Alamo Rivers, which flow in a northerly direction through the center of the Imperial Valley toward the Salton Sea. Surface levels of the Salton Sea fluctuate yearly but recent rising surface elevations are causing serious drainage problems in the adjacent cultivated areas. In addition to the Ocotillo area in western Imperial County, the Salton Sea community of Bombay Beach is known to experience significant flooding.

Most of the flat irrigated valley, with its low-lying canal/drain systems, is subject to minor, shallow flooding and ponding due to the lack of local topographic relief, occasional intense storm events, and low soil infiltration rates that produce rapid runoff flows. Development in the valley increases the amount of impervious surfaces and adds to the runoff that can result in major downriver flooding. The IID limits the outfall capacity of its drainage system in order to reduce downstream flooding potential from combined agricultural and storm runoff until the District can complete the process of preparing a Preliminary Master Drainage Plan. However, the drainage system was designed and built entirely for the purposes of normal agricultural irrigation surface and subsurface drainage. The Master Drainage Plan will address the issues of regional storm water management.

Although the Brawley region has an arid climate and the IVC Brawley Campus site is located outside the flood areas of both the New and Alamo Rivers, new development will increase the amount of impervious surface, resulting in greater surface water runoff and the need for an adequate flood control system. With a slight northeasterly drainage generally toward the Alamo River, the project site ranges in elevation from approximately 127 to 142 feet below mean sea level (BMSL). The average crossfall is 0.1 percent. Brawley typically receives between three and four inches of rainfall

per year. Storm flooding can occur in the low-lying areas where storm water collects adjacent to irrigation canals, drains, or other sources of flowing water such as river floodways.

Calexico

The IVC Calexico campus is located within the developed urban area of the City of Calexico and served by the drainage system of Calexico. The site itself is within the grounds of the existing campus and developed with temporary structures.

3.8.3 Potential Impacts

Criteria for Significant Impact

A project will normally be considered to result in a significant impact if it will:

- Cause substantial flooding, erosion, or siltation (CEQA Guidelines) or intensify the potential for property damage and risk to lives from flooding (Brawley's Public Safety/Noise Element).
- Fail to comply with adopted City and IID standards to provide needed improvements to drainage infrastructure depositing runoff into the New River or Alamo River.

Issue Analysis and Significance

Brawley

The existing drainage system in the project area and throughout the irrigated portion of the valley relies on gravity flow. Because the project is located in the central portion of the irrigated area, the potential for development to affect off-site flows that must traverse the project site is particularly important. Canals and drains existing within the Brawley project area will need to be undergrounded for reasons of public safety. Undergrounding portions of the systems may alter (1) the efficient transport of flows by changing elevation or (2) the system's ability to handle flows by limiting capacity. This could result in upstream backups or increased flooding due to more restrictive conditions. Covering portions of the drainage system, however, may incrementally improve water quality in the drains by limiting opportunities for the introduction of contaminants.

Since the IID drainage system is primarily designed for agricultural drainage, both the quantity and quality of industrial waste effluent and runoff may be restricted by the IID to prevent overloading and/or drainage to the drains and drainage structures. The project must provide retention for drain flows greater than historical agriculture drain flows. Pipelining of drains reduces available storage during storm flooding conditions while causing the water level upstream of the pipeline to be higher for the same flow rate. Plans to mitigate the additional flooding created by the projects are to be submitted for IID approval.

IID Regulation No. 36 Use of Drains

- (B) **For Disposal of sewage effluent of industrial waste.** District's open drains may be used for disposal of sewage or industrial waste effluent only in conformance with laws and regulations of Imperial County.

IID Regulation No. 47 Encroachment Permits

- (A) **Encroachment Permits are required to install drain or canal crossings.** A need exists to minimize, to the extent possible, public access from urban and commercial development adjoining and in the vicinity of IID right-of-way and facilities.

Phased development will increase runoff volume as impervious surfaces are increased. In order to provide storm runoff protection for downstream properties, drainage improvements shall be required to retain projected 100-year event storm runoff and release it at existing rates as allowed by IID.

As development proceeds, existing water supply canals and drains will be undergrounded in coordination with IID requirements so that minor flooding and ponding of surface water will not occur on the flat valley floor where open irrigation canals overflow. Heavy rainfall combined with low percolation rates could cause flooding of the project site's low-lying areas, but the City of Brawley General Plan finds this situation more of an inconvenience than a hazard. Flooding is presently not considered hazardous because little development occurs in the flood channel and the elevation of the flood channel is substantially lower than the valley floor. Farm water supply canals and drainage ditches may be temporarily relocated to provide continuing agricultural usage of existing fields during construction.

Calexico

The proposed IVC Calexico campus project involves the replacement of temporary structures with permanent buildings on an existing campus area, within the urban area of Calexico. The majority of the proposed IVC Calexico campus site consists of impervious surfaces and is surrounded by urban development. No increase in impervious surfaces will occur as a result of this project. Subsequently, the proposed IVC Calexico campus will not have a significant adverse impact on the hydrology of the site or the surrounding area.

3.8.4 Recommended Mitigation Measures**Brawley**

1. The drainage patterns will be coordinated with the City of Brawley to ensure that new drainage patterns from the campus will not adversely affect the City drainage system. A site specific drainage study and detention basin design shall be conducted by a registered hydraulic engineer and ~~submitted for review and approval by~~ provided to the City and IID, which will be consistent with engineering standards.

Chapter 3.8 Hydrology/Flood Control

2. SDSU will coordinate with IID to ensure Rrelocation and undergrounding plans for canals and drains ~~shall be~~are designed to maintain existing flow rates and structure capacity ~~to the satisfaction of IID.~~
3. Any temporary relocation of private or IID canals and drainage ditches shall be ~~approved~~ by~~coordinated with IID~~the affected agencies.
4. ~~SDSU will coordinate improvements to detention and drainage facilities with the City's Department of Public Works.~~

Calexico

No significant hydrology/flood control impacts are anticipated, as no new impervious surfaces will result from the project; therefore, no mitigation is required.

3.8.5 Unavoidable Significant Impacts

If the above mitigation measures are implemented, and site-specific hydraulic engineering is completed, no unavoidable significant impacts are expected to occur.

3.9 NOISE

3.9.1 Introduction

This section is based on an acoustical report for the proposed project prepared by Investigative Science and Engineering, Inc. (ISE) (June 2002). The report is presented in its entirety in Appendix F of this EIR.

3.9.2 Existing Conditions and Setting

Acoustical Definitions

Sound waves are linear mechanical waves. They can be propagated in solids, liquids, and gases. The material transmitting such a wave oscillates in the direction of propagation of the wave itself. Sound waves originate from sort of vibrating surface. Whether this surface is the vibrating string of a violin or a person's vocal chords, a vibrating column of air from an organ or clarinet, or a vibrating panel from a loudspeaker, drum, or aircraft, the sound waves generated are all similar. All of these vibrating elements alternatively compress the surrounding air on a forward movement and expand it on a backward movement.

There is a large range of frequencies within which linear waves can be generated, sound waves being confined to the frequency range that can stimulate the auditory organs to the sensation of hearing. For humans this range is from about 20 Hertz (Hz or cycles per second) to about 20,000 Hz. The air transmits these frequency disturbances outward from the source of the wave. Sound waves, if unimpeded, will spread out in all directions from a source. Upon entering the auditory organs, these waves produce the sensation of sound. Waveforms that are approximately periodic or consist of a small number of periodic components can give rise to a pleasant sensation (assuming the intensity is not too high), for example, as in a musical composition. Noise, on the other hand, can be represented as a superposition of periodic waves with a large number of components.

Noise is generally defined as unwanted or annoying sound that is typically associated with human activity and which interferes with or disrupts normal activities. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, the perceived importance of the noise and its appropriateness in the setting, the time of day, and the sensitivity of the individual hearing the sound.

Airborne sound is a rapid fluctuation of air pressure above and below atmospheric levels. The loudest sounds the human ear can hear comfortably are approximately one trillion times the acoustic energy that the ear can barely detect. Because of this vast range, any attempt to represent the acoustic intensity of a particular sound on a linear scale becomes unwieldy. As a result, a logarithmic ratio originally conceived for radio work known as the decibel (dB) is commonly employed. A sound level of zero "0" dB is scaled such that it is defined as the threshold of human hearing and would be barely audible to a human of normal hearing under extremely quiet listening

conditions. Such conditions can only be generated in anechoic or “dead rooms”. Typically, the quietest environmental conditions (extreme rural areas with extensive shielding) yield sound levels of approximately 20 decibels. Normal speech has a sound level of approximately 60 dB. Sound levels above 120 dB roughly correspond to the threshold of pain.

The minimum change in sound level that the human ear can detect is approximately 3 dB. A change in sound level of 10 dB is usually perceived by the average person as a doubling (or halving) of the sounds loudness. A change in sound level of 10 dB actually represents an approximately 90 percent change in the sound intensity, but only about a 50 percent change in the perceived loudness. This is due to the nonlinear response of the human ear to sound.

As mentioned above, most of the sounds we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies differing in sound level. The intensities of each frequency add to generate the sound we hear. The method commonly used to quantify environmental sounds consists of determining all of the frequencies of a sound according to a weighting system that reflects the nonlinear response characteristics of the human ear. This is called “A” weighting, and the decibel level measured is called the A-weighted sound level (or dBA). In practice, the level of a noise source is conveniently measured using a sound level meter that includes a filter corresponding to the dBA curve.

Although the A-weighted sound level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of sounds from distant sources that create a relatively steady background noise in which no particular source is identifiable. For this type of noise, a single descriptor called the *Leq* (or equivalent sound level) is used. *Leq* is the energy-mean A-weighted sound level during a measured time interval. It is the ‘equivalent’ constant sound level that would have to be produced by a given source to equal the average of the fluctuating level measured. For most acoustical studies, the monitoring interval is generally taken as one-hour and is abbreviated *Leq-h*.

To describe the time-varying character of environmental noise, the statistical noise descriptors L10, L50, and L90 are commonly used. They are the noise levels equaled or exceeded during 10 percent, 50 percent, and 90 percent of a stated time. Sound levels associated with the L10 typically describe transient or short-term events, while levels associated with the L50 typically describe transient or short-term events, while levels associated with the L90 describe the steady state (or most prevalent) noise conditions. In addition, it is often desirable to know the acoustic range of the noise source being measured. This is accomplished through the maximum and minimum measured sound level (max and Lmin) indicators. The Lmin value for a particular monitoring location is often called the *acoustic floor* for that location.

Finally, a sound measure employed by the State of California (and adopted by the CSU trustees) is known as the Community Noise Equivalence Level (or CNEL). CNEL is defined as the “A” weighted average sound level for a 24-hour day. It is calculated by adding a 5-decibel penalty to sound levels in the evening (7:00 p.m. to 10:00 p.m.), and a 10-decibel penalty to sound levels in the night (10:00 p.m. to 7:00 a.m.) to compensate for the increased sensitivity to noise during the quieter evening and nighttime hours.

Existing Ambient Noise Conditions

Testing conditions during the monitoring period were sunny with an average barometric pressure reading of 29.8 in-Hg, an average southwesterly wind speed of 2 to 5 miles per hour (MPH), and an approximate mean temperature of 117 degrees Fahrenheit. The results of the sound level monitoring are shown below in Table 3.9-1. The values for the equivalent sound level (Leq), the maximum and minimum measured sound levels (Lmax and Lmin), and the statistical indicators (L10, L50, and L90), are given for each monitoring location. The observed existing dominant noise sources were clearly from the traffic along SR-78 (Brawley) and Heber Street (Calexico).

Noise levels on the two sites were found to be consistent with the observed setting and local site topography. Currently, traffic noise at both project sites was found to be the major noise generator within the project study area. The values for the equivalent sound level (Leq-h) for both monitoring locations equated approximately 60 dBA. These levels were currently found to be below the exterior standards presented earlier in this report, and would be considered compatible with new development (*Source: State of California Office of Noise Control, Land Use Compatibility Matrix for Noise Environments, 1981*).

Background noise levels (i.e., L90 levels) were found to be much lower than their energy equivalent counterparts (e.g., Leq-h) indicating the relative dominance of the intermittent traffic noise. The acoustic floor for the sites was 36 dBA (Brawley) and 47.0 dBA (Calexico).

3.9.3 Potential Impacts

Criteria for Significance Determination

Exterior Noise Standards

Noise impact significance for the San Diego State University Imperial Valley Projects would fall under guidelines established by the California Department of Health Services, Office of Noise Control; Land Use Compatibility Guidelines dated 1987. This standard, which is based upon an earlier 1974 EPA document entitled, "*Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*", sets a maximum noise threshold of 70 dBA CNEL.

State of California CCR Title 24

The California Code of Regulations (CCR), Title 24, Noise Insulation Standards, states that single- and multi-family dwellings, hotels and motels located where the CNEL exceeds 60 dBA, must obtain an acoustical analysis showing that the proposed design will limit interior noise to less than 45 dBA CNEL. An interior standard of 50 dBA CNEL is applied to schools and educational uses. Worst-case noise levels, either existing or future, must be used for this determination.

Construction Noise Emission Levels

Construction at the project sites would typically occur between the hours of 7 a.m. and 3 p.m. Monday through Saturday in accordance with normal construction conventions. Construction activities would include grading, general site development, and finishing features such as landscaping for the Brawley campus site and a lesser degree of construction for the Calexico expansion.

Several residences exist approximately 300 feet or greater from the edge of main construction activities associated with the Brawley site. No construction is proposed to occur within 300 feet of the residences on the eastern boundary. In addition, future construction will be restricted by agricultural setbacks preventing construction within 50 feet of nearby residences. The average point-source propagation loss between these receptors and the closest possible construction equipment associated with the project would be approximately 16 dBA. Therefore, although the aggregate sum at 50 feet is above the threshold for significance, the distance between construction equipment and the nearest sensitive receptors will be such that those receptors will be exposed to noise levels below the level of significance.

Table 3.9-1 identifies typical major equipment identified by ISE as being used during construction of similar-type projects within the San Diego/Imperial Valley area. The table identifies the expected equipment type, the duty cycle of each of the equipment components, and the expected 8-hour energy average noise level (over a given workday). Due to the operational nature of the equipment and the rural nature of the Brawley project site, no excessive noise levels are indicated. Therefore, no impacts are expected.

Table 3.9-1 Predicted Construction Noise Levels – Brawley Campus Site

| Equipment Type | Qty. Used | Duty Cycle (hrs./day) | Source Level @ 50 feet (dBA) | Cumulative Effect @ 50 Feet (dBA Leq-8h) |
|-----------------------|-----------|-----------------------|--------------------------------------|--|
| Fork Lift – 175 HP | 2 | 4 | 75 | 75.0 |
| Off Highway Trucks | 9 | 4 | 75 | 81.5 |
| Tracked Loader | 1 | 4 | 70 | 67.0 |
| Tracked Tractor/Dozer | 2 | 4 | 75 | 75.0 |
| Scraper | 1 | 4 | 80 | 77.0 |
| Roller | 1 | 4 | 70 | 67.0 |
| Grader/Paver | 1 | 4 | 75 | 72.0 |
| | | | Aggregate Sum @ 50 Ft. (Σ): | 84.8 |
| | | | Sum @ Receptor (Σ): | 68.8 |

Duty cycle day is taken to be 8 hours.

Source: EPA PB 206717, Environmental Protection Agency, 12/31/71, "Noise from Construction Equipment and Operations".

Predicted Vehicular Noise Levels Along Adjacent Roadways

The project sites are expected to have a total trip generation level of 830 ADT (Calexico) and 2,000 ADT (Brawley). The Calexico site currently has a full-time enrollment (FTE) of 600 students, which would generate an additional starting ADT level of 1,190. Thus the cumulative ADT would be 2,020, which is consistent with the expected utilization of the new Brawley campus. Thus, for the purposes of analysis, a cumulative ADT of 2,000 will be applied to both project campuses.

Existing traffic volumes in the vicinity of the Brawley project site are approximately 3,200 ADT. The noise level produced by this traffic volume would be 66.3 dBA CNEL for an assumed average travel speed of 55 mph. The addition of the proposed Brawley project would increase noise levels to 68.3 dBA CNEL for a net increase of 2.0 dBA. This increase is below the accepted level of human detectability and would not produce noise levels in excess of the applicable significance criteria of 70.0 dBA for the development of the proposed campus.

Similarly, the Calexico site would produce an additional 830 ADT to the existing traffic volumes observed (which approached an estimated 5,000 ADT based upon field observations performed by ISE). The project-related increase would range between 0.5 to 1.0 dBA CNEL based upon the predicted and observed volumes and would not constitute an impact. Aggregate levels would still fall below 65 dBA CNEL that is compatible for the proposed expansion use without acoustical mitigation.

3.9.4 Recommended Mitigation Measures

No construction-related noise impacts were found, or nor were any project-related exceedances or excessive noise levels identified as part of the proposed project, and therefore no mitigation is required as part of this project.

3.9.5 Unavoidable Significant Impacts

No significant unavoidable impacts are expected as a result of the proposed project.

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3.10 AGRICULTURAL LANDS

3.10.1 Introduction

The purpose of this section of the EIR is to determine the impact of the proposed project on the agricultural resources of the area. Information provided and examined in this section is available in the City of Brawley General Plan, the County of Imperial General Plan and the United States Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS, formerly Soil Conservation Service or SCS) soil surveys of Imperial County. Information has been attained from other EIRs for projects in the area and personal communications.

3.10.2 Existing Conditions and Setting

Brawley

Background

The soils found at the project site and through much of the Imperial Valley were created as a result of historic flooding of the Colorado River and contain deep, rich silts, deposited over thousands of years. These soils provide a basis for the agricultural operations located throughout the area. Highly productive soils, climate and a reliable water source have combined to make agriculture the single most important economic activity of Imperial County, a position held for most of the 20th Century. Agriculture's importance was assured once a reliable irrigation and transportation network was established. Productivity levels have allowed the area to grow quickly. According to the County Agricultural Commissioner, agricultural production currently contributes more than one billion dollars annually to the region's economy. Over 120 types of crops are grown in Imperial County, including field crops (such as alfalfa and sudan grass) and row crops (such as lettuce, carrots, and melons). Related operations ensure employment for a large segment of the population.

Urban growth in the region has traditionally been concentrated around the County's regional agricultural centers and shipping stations. Brawley is the third largest urban area in the County and largest in the northern half. This pattern has facilitated the continued economic viability of the region and is expected to play a major economic role in the future.

Climate

The climate for the project vicinity is typical of the climate found throughout much of Imperial County. The County is arid with hot, dry summers and mild winters. The daily temperatures and seasonal variations can be extreme. The clear skies and rapid heating and cooling of the desert soils create high temperatures by day and quick cooling by night. The average annual rainfall is about three inches and the average annual air temperature is about 72 degrees Fahrenheit. The average frost-free season is about 300 days per year.

Productive Soils and Soil Classifications

A critical factor in determining whether a particular property is suitable for agriculture is its soil composition. The agricultural soils found in Imperial County are considered to be among the finest in the world. Information on the adequacy and importance of soils in Imperial County, is available from two main sources: the USDA {tc "United States Department of Agriculture's (USDA) " \f D } NRCS, and the California State Department of Conservation's Farmland Mapping and Monitoring Program (FMMP). {tc "Farmland Mapping and Monitoring Program (FMMP). " \f D }

USDA {tc "United States Department of Agriculture's (USDA) " \f D } Natural Resources Conservation Service (NRCS)

The NRCS encourages the preservation of prime farmland for agriculture. The service utilizes two systems to rate soils. Soil rating systems include Soil Capability Grouping and Storie Index.

Soil Capability Grouping. The NRCS has mapped and rated County soils to provide a rating system used by farmers, agricultural districts, and public agencies to determine a given soil's productive capacity and to provide a tool in making future land use decisions. The NRCS rates soils for their suitability for most field crop production. This grouping uses Roman numerals I through VIII to indicate progressively greater limitations and narrower choices for practical use. The higher the capability number rating of the soil, the lower the productive capability, which could result from either lesser quality or otherwise restricted physical or chemical conditions.

Storie Index. The second rating system utilized by the NRCS provides an additional index showing the relative degree of suitability, or value, of a soil for general intensive agriculture. The rating is based on soil characteristics only. It does not take into account other factors, such as the availability of water for irrigation, the climate, and the distance from markets, which might determine the desirability of growing specific crops in a given locality.

California State Department of Conservation - Farmland Mapping and Monitoring Program (FMMP) {tc "Farmland Mapping and Monitoring Program (FMMP) " \f D }

The FMMP was implemented in 1982 to monitor conversion of the State's agricultural land. The program provides information using the Soil Capability Grouping rating system and presents it in the form of Important Farmland Series Maps. The Important Farmland Series Maps use eight classification categories, of which the top four; "prime farmland", "farmland of statewide importance", "unique farmland", and "farmland of local importance" are all regarded, for mapping purposes, as "important farmland". "Prime farmland" contains soils with the best combination of physical and chemical characteristics of all types. Farmland with a good combination of physical and chemical characteristics for the production of crops is identified as "farmland of statewide importance".

Imperial County - Soil Rating Policy

Imperial County is consistently ranked in the top ten of agricultural producing counties in the State of California (County of Imperial Agricultural Commissioner, 1995). Although only Class I and II soils

are normally considered "prime agricultural land" by the State of California (Government Code Section 51201(c)), climate, soil and other conditions specific to the irrigated portion of the County, have resulted in the classification of all soils with a Capability Grouping of I, II, or III as prime agricultural soils.

IVC Brawley Soils

The proposed IVC Brawley site is identified by the USDA NRCS General Soil Map as being located on "farmland of statewide importance". The site attains this status as it consists of the following two soil types:

1. 114 Imperial silty clay, wet with a Storie Index of 22 and Soil Capability Grouping of IIIw-6; and
2. 115 Imperial-Glenbar silty clay loams, wet with a Storie Index of 34 and Soil Capability Grouping of IIIw-6.

A larger scale map provided the following broader two soil types;

1. Imperial - Nearly level, moderately well drained silty clay, silty clay loam and clay loam in the lacustrine basin; and
2. Meloland-Vinto-Indio - Nearly level, well drained fine sand, loamy very fine sand, fine sandy loam, very fine sandy loam, loam and silt loam in the lacustrine basin.

Agricultural Production at the IVC Brawley Site

The Brawley area has benefited from a reliable irrigation system since shortly after the turn of the 20th century. Crops such as alfalfa, wheat, cotton, sugar beets, onion (for seed), bermunda grass and sudan grass have been grown in the last six to seven years.

Regulations Governing the Conversion of Farmland to Educational Facilities

Because the project proposes development of existing agricultural lands outside, but in the proximity, of the city boundary, the following City and County agricultural goals and policies must be considered prior to project approval. Agricultural lands outside Brawley's urban limits are considered prime farmland or farmland of statewide importance. Goals and policies that relate to the preservation of agricultural lands within the Brawley Planning Area are listed in the City General Plan. The Agricultural Element of the County General Plan provides additional policies that may relate to the conversion of agriculturally designated lands outside the city sphere.

The City of Brawley has maintained steady growth over the past five years. A detailed discussion of growth trends is provided in Section N. The City, in its recently adopted General Plan, anticipates that future development of reserved agricultural lands within the Sphere of Influence will be necessary to meet long-term development needs of the community. The 1995 General Plan allows for the conversion of more than 4,500 acres, or approximately 41 percent, of the existing farmland

Chapter 3.10 Agricultural Lands

within the existing Sphere of Influence to accommodate anticipated growth through the year 2015. Out of close to 15,470 acres, approximately 6,590 acres (43 percent) have been designated for continuing agricultural uses within the sphere of influence.

All of the designated agricultural land is outside existing city boundaries. The City General Plan includes numerous policies that must be considered prior to allowing conversion of any additional agricultural lands for urban uses.

The relaxation of trade barriers following approval of the North American Free Trade Agreement (NAFTA) has brought increasing numbers of new residents, business and leisure travelers to the County. It is also expected to greatly increase agricultural import and export opportunities. The region already accommodates large numbers of seasonal agricultural workers who will continue to travel to the Imperial Valley and often choose to remain as permanent residents. To accommodate population growth and take advantage of NAFTA-related economic opportunities, both the City and the County have determined that it may be necessary to convert existing "important farmland" to more urban uses. To offset the expected net loss of "prime farmland" or "farmland of statewide importance" and provide necessary housing and support facilities, both the County and the City General Plans have designated areas where growth should be directed.

City of Brawley General Plan Goals and Policies

The City of Brawley General Plan addresses issues (including the preservation of important farmland) pertinent to the development of the 24.7 square mile Brawley Planning Area. The area includes all the land contained within the City's incorporated boundaries in addition to the City's existing Sphere of Influence. The Sphere of Influence was approved by LAFCO in 1994 (Brawley General Plan 1995).

Conversion of farmland outside the existing Sphere of Influence and under the jurisdiction of the County is not specifically addressed in the City General Plan.

The City of Brawley identifies several goals and policies that are intended to conserve designated agricultural lands. The section below contains text by Element those portions of the General Plan with specific policies that may affect the conversion of agricultural lands to urban uses. The Land Use, Resource Management, Open Space/Recreation and Public Safety/ Noise Elements, specifically address issues that may affect the development of existing agriculturally designated lands for more urban uses. These goals and policies are intended to prevent the premature development of productive agricultural lands and to ensure that future development corresponds to the scale and character of the existing community. Resource Management Element goals included in the General Plan further emphasize the need to conserve and protect designated agricultural lands and plan for their continued use. This Element's policies were established by the City to balance requests for development of new urban uses with conservation of agricultural soils and important farmlands in order to allow expansion of the local economy, conserve prime agricultural soils for continued production, and maintain the City's rural character.

County of Imperial Implementation Policies and Programs

All agricultural land in the County is considered Important Farmland, as defined by Federal and State agencies. Preservation of agricultural lands within the unincorporated areas of the County is presumed through implementation of the Agricultural Element of the adopted County General Plan. This element preserves agricultural land and disallows conversion unless there is a clear and immediate need that can be demonstrated. This may include requirements to provide for urban housing, commercial facilities, or employment opportunities. The Land Use Element also prohibits the removal of land from the Agriculture land use designation for two years after adoption of the General Plan (adopted November 1993) or until amended by the County Board of Supervisors except where needed for use by a public agency, for geothermal purposes, or again, where a clear long term economic benefit to the County can be demonstrated through the planning and environmental review process.

The County reviews proposed development projects to: assess their impact on the movement of agricultural equipment and products on roads located in the Agriculture category and for conditions which might subject the project to agricultural-related noise, dust or odors; assure that development will be adjoined on at least one entire property line to an area of existing urban uses; and evaluate proposed new urban uses which could significantly impact the ability of adjacent agricultural lands to economically and conveniently farm. The County has implemented the following Ordinance to assure the continued favorable status of agricultural operations within its jurisdiction:

Right-to-Farm Ordinance. To ensure the continued viability of agricultural production and the preservation of agricultural land, the County Board of Supervisors approved the "Right-to-Farm" Ordinance in 1990. All owners of property located within 1/4 mile of agricultural land are advised that their property's proximity to farm operations may subject them to discomfort or inconveniences associated with noise, odors, light, fumes, dust, smoke, insects, chemicals, operation of machinery, etc. The notification further advises the owner that living in an active agricultural area requires acceptance of farm related annoyances as long as the operations are in conformance with existing laws and regulations and accepted customs and standards.

The County has attempted to balance the need to allow for growth by pre-designating Specific Plan Areas. Specific Plan Areas provide a planning tool for suitable development areas. Eight Specific Plan Areas, encompassing more than 23,000 acres, have been designated on the Land Use Element of the General Plan. These areas encompass a variety of soil types of varying agricultural importance. None of Luckey Ranch's 1,362 acres located east of the Rockwood Canal was considered for future development at the time Specific Plan Areas were designated and the Plan was approved. This area extends the Brawley Sphere of Influence east to within approximately 2500 ft of the proposed IVC Brawley site.

3.10.3 Potential Impacts

Criteria for Determining Impact Significance

The project will result in significant impacts if it meets any of the following parameters, based on questions in the CEQA checklist.

- Conflict with adopted environmental plans and goals of the community where it is located; and
- Convert prime agricultural land to non-agricultural use or impair the agricultural productivity of prime agricultural land.

Issue Analysis and Significance

The proposed project will convert productive "farmland of statewide importance" to urban uses by developing a public facility outside of the City of Brawley Sphere of Influence, in an unincorporated area of Imperial County.

Conformance with Brawley's General Plan Agriculture Related Policies

It is recognized that the City could not substantially grow without removing some agricultural land from production. The 1995 General Plan allows the conversion of approximately 41 percent of the existing agricultural lands within the Brawley Planning Area to be converted to residential and non-residential uses at build-out. The General Plan anticipates the future loss of the 200 acres outside the City boundary from agricultural production.

Goal 13: Conserve and protect designated agricultural lands and plan for their continued use. The IVC Brawley project conflicts with this goal by replacing designated farmland with a non-agricultural land use in an area outside the City's Sphere of Influence.

Goal 14: Manage the production of economically valuable agricultural resources to achieve a balance between current market forces and long-term community values. The IVC Brawley project may cause conflict with this goal by potentially restricting the use of chemicals for agricultural purposes in the immediate vicinity, which is also in contradiction to the County's right to farm ordinance supported by this goal.

Development of the site will bypass parcels already pre-zoned, and therefore would create a "leapfrog" effect. The conversion of important farmland beyond the City's Sphere of Influence is also in conflict with the General Plan.

Conformance with Imperial County's General Plan Agriculture Related Policies

All lands east of the designated City Sphere of Influence boundary and west of the Alamo River are under County jurisdiction and designated as agriculture in the 1994 County General Plan Land Use

Element. According to the Imperial County General Plan, for the foreseeable future, the County's economy will be dependent upon agricultural production and the permanent conversion of substantial amounts of "important farmland" to non-agricultural uses will negatively affect the local economy and the County's ability to provide important agricultural products to the nation and elsewhere. Under the General Plan agricultural goals:

Goal 1: All important farmland, including the categories of prime farmland, farmland of statewide importance, unique farmland, and farmland of local importance, as defined by Federal and State agencies, should be preserved for agricultural uses.

The proposed IVC Brawley project would convert farmland of statewide importance, contrary to Goal 1. However, within Goal 1, Objective 1.8 states:

Objective 1.8: Allow conversion of agricultural land to non-agricultural uses only where a clear and immediate need can be demonstrated, based on population predictions and lack of other available land (including land within incorporated cities) for such non-agricultural uses. Such conversion shall also be allowed only where such uses have been identified for non-agricultural use in a city general plan or the County General Plan, and are supported by a study to show a lack of alternative sites.

The IVC Brawley project will not be in conformance with objective 1.8 as the area is not identified for non-agricultural use in either the City of Brawley General Plan or the Imperial County General Plan.

Goal 2: Adopt policies that prohibit "leapfrogging" or "checkerboard" patterns of non-agricultural development in agricultural areas and confine future urbanization to adopted sphere of influence areas.

Development of the site will bypass parcels already pre-zoned. Therefore, the proposed IVC Brawley project would create a leapfrog effect contrary to Goal 2.

Goal 3: Limit the introduction of conflicting uses into farming areas, including residential development of existing parcels that may create the potential for conflict with continued agricultural use of adjacent property.

The proposed IVC Brawley project would introduce an educational campus into an agricultural area with consequences that would include potentially restricting particular agricultural practices, specifically the use of chemicals.

The proposed development would, therefore, be contrary to Goal 3.

Goal 4: Maximize the inherent productivity of Imperial County's agricultural resources by ensuring future availability of adequate and affordable irrigation water by managing water such that it is used effectively and not wasted.

It is anticipated that adequate water for agricultural uses will continue to be available to the surrounding agricultural properties based on analysis discussed in Section C.

Chapter 3.10 Agricultural Lands

Goal 7: Establish positive relations with the general public and inform the general public that the County's entire economy is intricately dependent upon agricultural production.

The proposed IVC Brawley project would include programs in agriculture and would promote greater public awareness/understanding of the intrinsic importance of the industry to Imperial County. Therefore, the proposed project would conform to Goal 7.

Goal 8: Improve the financial viability of the agricultural sector of Imperial County's economy through actions that have the potential to improve yields and reduce costs.

The proposed IVC Brawley project would expose people from outside the area to the agricultural produce available. The proposed project would also provide opportunities for studies and potentially generate innovations beneficial to the financial viability of the agricultural sector. The proposed project would therefore be in conformance with Goal 8.

The proposed IVC Brawley project will convert important farmland to non-agricultural use and presents some conflict with goals of the County's General Plan. However, the proposal will not negatively affect the local economy. Indeed, the proposal will provide opportunities for education and generate a greater diversity and longevity for the prosperity of the Brawley area.

Direct Impacts to Agriculture

A direct impact will occur when the primary effects of the project result in the direct loss of "important farmland".

Buildout of the project will result in the loss of approximately 226 acres of statewide important farmland. All of the area, except the immediate vicinity of the existing buildings, is located in the irrigated agricultural area of the County and is actively farmed. However, if the Brawley Phase I EIR is approved an associated General Plan Amendment and rezone of the 226-acre site would result in the IVC Brawley project no longer being designated for agriculture and would avoid direct impacts regarding the loss of farmland associated with the IVC Brawley project.

Indirect Impacts to Agriculture

The proposed IVC Brawley project could cause an indirect impact to adjacent agricultural operations; in particular the practice of chemical use might be subsequently restricted. The consequences of the "leapfrogging" effect of the project may include increased likelihood of in-fill between the proposed IVC Brawley site and the Luckey Ranch area.

3.10.4 Recommended Mitigation Measures

The proposed IVC Brawley site is located within an unincorporated area of Imperial County, though is to be serviced primarily by the City of Brawley. As such it is the City's guidelines for loss of agricultural lands mitigation, which shall be addressed as follows:

1. SDSU has prepared a conceptual land use plan, which incorporates components that minimizes agricultural impacts and promotes buffers from the surrounding agricultural lands in the form of landscaped and recreational areas.~~SDSU will make best efforts to comply with City and County regulations by performing a site analysis as a part of the project design in order to determine what mitigation measures (if any) would be reasonable. Mitigation measures may include setbacks, wall heights, insulation requirements, operating conditions or other design features. SDSU will implement the mitigation recommendations as appropriate.~~

With application of CSU design guidelines and ~~a site analysis~~the conceptual land use plan, SDSU will do the utmost to ensure that the conversion of farmland to urban uses within the IVC Brawley development will occur in conformance with the parameters set forth for such development within the Sphere of Influence.

3.10.5 Unavoidable Significant Impacts

Brawley

The proposed IVC Brawley project will result in no unavoidable significant impacts contradictory to the goals of both the City of Brawley and the County of Imperial General Plans.

Calexico

The IVC Calexico project site is not located on or near any agricultural lands and will have no impact on agricultural lands.

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3.11 WATER QUALITY

3.11.1 Introduction

This section focuses on the components that have the potential for impacting water, water resources and water quality upon implementation.

3.11.2 Existing Conditions and Setting

The IVC Calexico and IVC Brawley campus sites are located in the Colorado River Basin (Basin), under jurisdiction of the California Regional Water Quality Control Board, Colorado Region (RWQCB). The Basin encompasses the eastern portions of San Bernardino, Riverside, and San Diego Counties and all of Imperial County. The Imperial Valley Planning Area is comprised of 2,500 square miles in the southern portion of the Region. The West Basin (the portion of the Basin that does not drain to Colorado River) contains the Alamo River, New River, and some Imperial Valley agricultural drains – these surface water features are among the most contaminated and poorest quality water resources in the State.

Surface Waters - Brawley

The New River, one of the few natural surface drainage features in the region, is subject to very poor water quality. With a total dissolved solids (TDS) concentration between 2,000 and 4,000 parts per million, it is classified as brackish rather than fresh water (County of Imperial 1993). The New River flows into Imperial Valley from Mexico with very high loads of sewage and industrial waste.

Average annual precipitation ranges from less than three inches over most of the planning area to about eight inches in the Coyote Mountains on the western border. Colorado River water, imported via the All American Canal, is the predominant water supply and is used for irrigation, industrial, and domestic purposes.

As the New River flows through Imperial Valley, drainage from agricultural operations dramatically increases its flows. The New River is considered to be unsuitable for either domestic or agricultural uses. RWQCB has classified the New River as an agricultural drain, and designated it for the beneficial uses of contact water recreation, warm water fisheries, and wildlife. The Alamo River has generally better water quality than the New River, but its water still is unsuitable for domestic or agricultural use.

The New River and Alamo River both flow north from Mexico and empty into the Salton Sea, which is in a closed basin and has no outlet. With continual inflows of highly saline, heavily polluted water and a high evaporation rate – about 5.8 feet per year (U.S. Department of Agriculture 1923) – both the salinity and the pollution levels of the Salton Sea are rapidly rising. The Salton Sea is now saltier than the Pacific Ocean, and experiences unhealthy levels of selenium. Salton Sea's sport fishing and water recreation industries, as well as the health of migratory waterfowl stopping over at the Salton

Chapter 3.11 Water Quality

Sea, are at serious risk from these conditions. Table 3.11-1 lists beneficial uses of surface waters in the Brawley Campus area.

Table 3.11-1 Beneficial Uses of Surface Waters in the Brawley Campus Area

| Water Body | M | A | Q | F | I | G | R1 | R2 | WA | C | WI | P | RA |
|------------------------|---|---|---|---|---|---|----------------|----------------|----|---|----|---|----|
| New River | | | | X | P | | X ¹ | X | X | | X | P | X |
| Alamo River | | | | X | | | X | X | X | | X | P | X |
| Imperial Valley Drains | | | | X | | | X ² | X ² | X | | X | | X |
| Salton Sea | | | X | | P | | X | X | X | | X | | X |

X=existing uses, P=potential uses, M=municipal, A=agriculture, Q=aquaculture, F=freshwater, I=industrial, G=groundwater recharge, R1=non-contact water recreation, R2=contact water recreation, WA=warm water fisheries, C=cold water fisheries, WI-wildlife, P=power generation, and RA=rare and endangered species.

¹ Although some fishing occurs in the downstream reaches, the presently contaminated water in the river makes it unfit for any recreational use. An advisory has been issued by the Imperial County Health Department warning against the consumption of any fish caught from the river and the river has been posted with advisories against any body contact with the water.

² Unauthorized use.

Source: California Regional Water Quality Control Board, Colorado River Basin Region, Table 2-3 of Basin Plan 2002

Ground Water - Brawley

The project site is located in the Imperial Valley Planning Area of the West Colorado River Basin in the Imperial Hydrologic Subunit (HSU). Isolated aquifers of good quality ground water existing in Imperial HSU, but ground water quality is generally poor. Ground water resources generally are unsuitable for domestic consumption under federal and State drinking water standards.

Groundwater is stored in the Pleistocene sediments of the Imperial Valley floor. These fine-grained lake sediments inhibit ground water movement, and tile-drain systems are utilized to dewater the sediments to a depth below the root zone of crops and to prevent the accumulation of saline water on the surface.

Few wells have been drilled in these lake sediments because the yield is poor and the water is generally saline. The few wells in the Valley are for domestic use only. Factors that diminish ground water reserves are consumptive use, evapotranspiration, evaporation from soils where ground water is near the surface, and losses through outflow and export. In addition, ground water quality is considered to result from infiltration of agricultural runoff and pre-existing subsurface salt deposits. RWQCB has designed ground waters in Imperial HSU for the beneficial uses of municipal and industrial supply.

Potable Water System - Brawley

The Brawley Campus site is located outside of the Service Area of the City of Brawley, however, a Memorandum of Understanding has been prepared to ensure adequate levels of service for the Campus. The City of Brawley operates a municipal water treatment system that supplies domestic

water to approximately 20,000 people. The treatment plant's capacity is about 11.5 mgd. Average domestic water demand in the City is about 6.2 mgd, but peak demand is about 10.0 mgd. The City has initiated a water metering system to ensure water use efficiency.

Water Supply and Consumption

Ground water in the project area is not suitable for either potable or irrigation use. Potable water and irrigation water are supplied to the City of Brawley by the IID. IID obtains 100% of its water – currently about 3.2 million acre-feet per year – from Colorado River water is approximately 5.2 million acre-feet per year. Most parties with rights to Colorado River water are not now using their full allocation, and surplus water is sold to other parties.

According to the *Water Requirements and Availability Study* (IID 1996), municipal demand within IID's service area was about 42,500 acre-feet per year in 1994. Expansion of municipal areas predicted in Imperial County's 1993 *General Plan* is expected to create a demand for an additional approximately 132,000 acre-feet per year by the year 2045, for a total municipal demand of about 174,500 acre-feet per year. During this same period, industrial demand outside of municipal service areas is expected to increase from about 17,200 acre-feet per year to about 70,300 acre-feet per year. These non-agricultural uses currently account for about 1.9% of IID deliveries and will increase to about 7.6% of IID deliveries over the next approximately 50 years. Urban uses generally need less water than agricultural uses and urban uses are expected to gradually displace agricultural uses over the next 50 years, so overall water consumption in IID's service area is expected to decline. This decline, coupled with water conservation measures, is expected to generate a surplus of about 400,000 acre-feet per year that IID intends to sell to other agencies.

Water use of agricultural lands in Imperial Valley averages about 5.3 acre-feet per acre per year (IID 1996). Based on this estimate, existing water consumption for agricultural uses on the IVC Brawley site is about 1,000 acre-feet per year.

Regulatory Framework

Federal Clean Water Act

The basic federal water quality law is the *Water Pollution Control Act of 1972*, amended as the *Clean Water Act of 1977* (CWA) [33 USC 1251 *et seq.*]. This legislation was intended to establish a comprehensive nationwide program to maintain and enhance the quality of surface water. Section 402 of the CWA established the National Pollutant Discharge Elimination System (NPDES) permit process to regulate point source discharges to surface waters (i.e., discharges from industrial facilities). The 1987 amendments to the CWA added Section 402(p), which required the United States Environmental Protection Agency (USEPA) to develop regulations for the control of nonpoint source discharges, such as runoff accumulated from surface areas. In 1990, USEPA published final regulations for storm water discharges to implement Section 402(p) of the CWA.

California's State Water Resources Control Board (SWRCB) issued a *General Industrial Activities Storm Water Permit (General Permit)* in accordance with the federal regulations. Industries can take advantage of the *General Permit* by sending SWRCB a Notice of Intent (NOI) to comply with the

Chapter 3.11 Water Quality

General Permit, and by complying with provisions. The *General Permit* requires industrial facilities to prepare and implement a *Storm Water Pollution Prevention Plan (SWPPP)* to control the water quality of storm runoff discharging off site. The SWPPP outlines Best Management Practices (BMPs) to reduce or control urban storm water runoff pollutants on site. The NPDES regulations also require the elimination of nonstorm water discharges to the storm drain system and establish minimum monitoring requirements.

In addition to the *General Permit*, the State issued a *General Construction Activities Storm Water Permit (Construction Permit)* to comply with the federal storm water regulations. These regulations require any construction project involving the disturbance of five acres or more of land to implement a SWPPP to control sediment and other construction pollutants and limit their discharge to the storm drain system. The *Construction Permit* prohibits nonstorm water discharges to the storm drain system. Individuals can take advantage of the *Construction Permit* by sending SWRCB a NOI and complying with the *Construction Permits* provisions.

State Porter-Cologne Water Quality Control Act

The *Porter-Cologne Water Quality Control Act of 1969* established the principal California program for water quality control. The *Act* authorizes SWRCB to implement the provisions of the CWA. The CWA divided California into nine Regional Water Quality Control Board (RWQCB) Regions. The Region 7 (Colorado River) RWQCB implements and enforces provisions of the CWA within the Colorado River Basin, subject to policy guidance and review by SWRCB. CWA required California to develop comprehensive drainage basin plans as a prerequisite to receiving federal funding for the construction of municipal waste water treatment plants. The Basin Plans guide conservation and enhancement of water resources, and establish water quality objectives for and beneficial uses of surface waters and ground water basins.

County of Imperial General Plan

The County of Imperial's *General Plan (1996)* contains many goals and objectives in the Water Element that are developed as broad statements reflecting the County's values, aims, and aspirations for management of this vital resource. These goals address the physical development of the County, as well as the wise use and preservation of the County's important water resources.

Goal 2: Long-term viability of the Salton Sea, Colorado River, and other surface waters in the County will be protected for sustaining wildlife and a broad range of ecological communities.

Objective 2.1: The continued viability of the agricultural sector as an important source of surface for the maintenance of valuable wildlife and recreational resources in the County.

Goal 3: The County will secure the provision of safe and healthful sources and supplies of agricultural irrigation water adequate to assure the continuation of agricultural land uses as established by the County General Plan and the long-term continued availability of this essential resources.

Objective 3.1: The efficient and cost-effective utilization of local and imported water resources through the development and implementation of innovative agricultural use patterns.

Goal 4: The County will adopt and implement ordinances, policies, and guidelines that assure the safety of County ground and surface waters from toxic or hazardous materials and wastes.

Objective 4.1: The development and implementation of infrastructure and regulatory policies in the Republic of Mexico, which reduce contamination of the New River, Alamo, and the Salton Sea.

Objective 4.2: The provision of safe and efficient community waste water treatment facilities, which adequately service the present and future needs of residential, commercial, and industrial development within the Imperial Irrigation District service area.

Goal 5: Water Resources shall be managed effectively and efficiently through inter-agency and inter-jurisdictional coordination and cooperation.

Objective 5.1: Encourage and provide for the management and wise use of water resources for contact and non-contact recreation, groundwater recharge, hydroelectric energy production, and wildlife habitat as well as for domestic and irrigation use.

Objective 5.2: Aid in the protection and enhancement of limited water resources so as to provide for the indefinite use and maximum enjoyment.

City of Brawley General Plan

Brawley recognizes that water conservation is necessary to avoid the adverse effects of potential water shortages and that maintaining the quality of surface and ground waters is important. The *Resources Management Element* of the City's *General Plan* (1994) contains the following pertinent water-related goal and policies:

Goal 8: Protect groundwater resources from depletion and sources of pollution.

Policy 8.1: Protect groundwater resources from depletion and sources of pollution.

Policy 8.3: Support the expansion of reclaimed water production and use wherever possible and economically feasible.

Southern California Association of Governments (SCAG)

The Water Quality Chapter core recommendations and policy options relate to the two water quality goals: to restore and maintain the chemical, physical and biological integrity of the nation's water; and to achieve and maintain water quality objectives that are necessary to protect all beneficial uses of all waters.

11.02 Encourage "watershed management" programs and strategies, recognizing the primary role of local government in such efforts.

- 11.03 *Coordinate watershed management planning at the subregional level by (1) providing consistent regional data; (2) serving as a liaison between affected local, state, and federal watershed management agencies; and (2) ensuring that watershed planning is consistent with other planning objectives (e.g., transportation, air quality, water supply).*
- 11.05 *Support regional efforts to identify and cooperatively plan for wetlands to facilitate both sustaining the amount and quality of wetlands in the region and expediting the process for obtaining wetlands permits.*
- 11.06 *Clean up the contamination in the region's major groundwater aquifers since its water supply is critical to the long-term economic and environmental health of the region. The financing of such cleanups should leverage state and federal resources and minimize significant impacts on the local economy.*
- 11.07 *Encourage water reclamation throughout the region where it is cost-effective, feasible, and appropriate to reduce reliance on imported water and waste water discharges. Current administrative impediments to increased use of waste water should be addressed.*
- 11.08 *Ensure waste water treatment agency facility planning and facility development be consistent with population projection contained in the RCPG, while taking into account the need to build waste water treatment facilities in cost-effective increments of capacity, the need to build well enough in advance to reliably meet unanticipated service and storm water demands, and the need to provide standby capacity for public safety and environmental protection objectives.*

3.11.3 Potential Impacts

Criteria for Significant Impact

Surface water quality effects will be significant if water quality standards and effluent limitations are exceeded such that beneficial uses of the receiving waters (e.g., New River, Alamo River, and Salton Sea) are adversely affected. Ground water impacts will be significant if the project created a substantial long-term decline in ground water levels, or if planned or accidental project discharges were to degrade ground water quality such that beneficial uses were adversely affected. Substantial noncompliance with adopted policies for the management of water resources also will be considered a significant impact (Federal Clean Water Act, State and local water quality legislation and CEQA Guidelines, Appendices G and I).

Issue Analysis and Significance

Brawley

Construction

The proposed project will generate substantial amounts of sediment, dust, and other construction pollutants, such as building materials, litter, and debris. Sources of sediment and dust could include graded areas, unpaved construction employee and truck parking areas, and stockpiled building materials and topsoil. Surface runoff during storms could convey these materials to local agricultural drains or the Alamo River. Dewatering during excavation also could be a substantial source of construction pollutants. Construction discharges to surface waters will be spread over the anticipated 20-year construction period. The Construction SWPPP required for project construction under the CWA will assure that construction water quality impacts are insignificant.

Operations

At an average annual rainfall of about 2.7 inches, the project site will have a significantly higher impervious surface amount. Decreases in infiltration and increases in surface runoff will not have a substantial effect on ground water or surface water quality. Surface flows of fresh water from the site will be lower in salt (TDS) concentrations than the Salton Sea. Since the salt level in the Salton Sea is higher than the desired level, dilution with fresh water would not be a significant impact.

Displacement of the existing agricultural uses on the project site by urban uses will reduce the amounts of fertilizer and pesticide residues, salts, and selenium infiltrating into soils and ground water or discharging to the drainage system. Conversion of the project site from agricultural to urban uses will increase surface discharges of total petroleum hydrocarbons and other urban pollutants to local drains. Surface runoff from the project site will be conducted to the Alamo and New Rivers. However, overall changes in the quality of surface runoff from the project site will have an insignificant effect on the Alamo River and Salton Sea because of the relatively small amounts of runoff from the site relative to the volume of agricultural water draining to these water bodies.

Calexico

The existing Calexico Campus is a developed and urban use, and therefore, no increase in impervious surfaces are anticipated. No significant impacts to water quality are expected because the City of Calexico has an established storm drain system.

3.11.4 Recommended Mitigation Measures

Brawley

1. ~~The project sponsor~~SDSU shall ~~construct~~coordinate separate storm drains and sanitary sewers for project facilities so that storm runoff from the project will not increase the frequency or volume of waste water treatment plant overflows.

Chapter 3.11 Water Quality

2. Storm water detention basins, as shown as part of the project design, shall be constructed ~~concurrent with each phase of development~~ consistent with engineering standards at a capacity equal to the flow level now generated plus the increase generated by impervious surfaces created during development.

Calexico

No significant water quality impacts are associated with the IVC Calexico project. Therefore, no mitigation is required.

3.11.5 Unavoidable Significant Impacts

There are no unavoidable significant impacts to water quality derived from the proposed project.

3.12 AIR QUALITY

3.12.1 Introduction

This section is based on an air quality assessment for the proposed project prepared by Investigative Science and Engineering (June 2002). The report is presented in its entirety in Appendix G of this EIR.

3.12.2 Existing Conditions and Setting

Air Quality Definitions

Air quality is defined by ambient air concentrations of specific pollutants determined by the Environmental Protection Agency (EPA) to be of concern with respect to the health and welfare of the public. The subject pollutants, which are monitored by the EPA, are Carbon Monoxide (CO), Sulfur Dioxide (SO₂), Nitrogen Dioxide (NO₂), respirable 10-micron particulate matter (PM₁₀), sulfates, lead, Hydrogen Sulfide (H₂S), Volatile Organic Compounds (e.g., vinyl chloride, etc.), and visibility reducing particles. Examples of sources and effects of these pollutants are identified below:

Carbon Monoxide (CO): Carbon monoxide is a colorless, odorless, tasteless and toxic gas resulting from the incomplete combustion of fossil fuels. CO interferes with the blood's ability to carry oxygen to the body's tissues and results in numerous adverse health effects. CO is a criteria air pollutant.

Oxides of Sulfur (SO_x): Typically strong smelling colorless gases that are formed by the combustion of fossil fuels. SO₂ and other sulfur oxides contribute to the problem of acid deposition. SO₂ is a criteria pollutant.

Nitrogen Oxides (Oxides of Nitrogen, or NO_x): Nitrogen oxides (NO_x) consist of nitric oxides (NO), nitrogen (NO₂) and nitrous oxide (N₂O) and are formed when nitrogen (N₂) combines with oxygen (O₂). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO₂ is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility.

Ozone (O₃): A strong smelling, pale blue, reactive toxic chemical gas consisting of three oxygen atoms. It is a product of the photochemical process involving the sun's energy. Ozone exists in the upper atmosphere ozone layer as well as at the earth's surface. Ozone at the earth's surface causes numerous adverse health effects and is a criteria air pollutant. It is a major component of smog.

PM₁₀ (Particulate Matter less than 10 microns): A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be

deposited, resulting in adverse health effects. PM₁₀ also causes visibility reduction and is a criteria air pollutant.

Volatile Organic Compounds (VOCs, Reactive Organic Gases, ROG): Hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog and/or may themselves be toxic. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints.

The EPA (under the Federal Clean Air Act of 1970, and amended in 1977) established ambient air quality standards for these pollutants. This standard is called the National Ambient Air Quality Standards (NAAQS). The California Air Resources Board (CARB) subsequently established the more stringent California Ambient Air Quality Standards (CAAQS). Both sets of standards are shown in Table 3.12-1 below. Areas in California where ambient air concentrations of pollutants are higher than the state standard are considered to be in “non-attainment” status for that pollutant.

Existing Climate Conditions

The climate of Imperial County is characterized by hot, dry summers and mild, wet winters and is dominated by a semi-permanent high-pressure cell located over the Pacific Ocean. This high-pressure cell maintains clear skies for much of the year. It also drives the dominated onshore circulation and helps to create two types of temperature inversions, subsidence and radiation, that contribute to local air quality degradation.

Subsidence inversions occur during the wetter months, as descending air associated with the Pacific high-pressure cell comes into contact with cool marine air. The boundary between the two layers of air represents a temperature inversion that traps pollutants below it. Radiation inversion typically develops on winter nights, when air near the ground cools by radiation, and the air aloft remains warm. A shallow inversion layer that can trap pollutants is formed between the two layers.

Within the project basin, the minimum and maximum average monthly temperatures range between 39 degrees and 108 degrees Fahrenheit, respectively, based upon National Weather Service records from 1927 to the present. Daily summer temperatures can reach over 120 degrees and daily winter temperatures can drop below the freezing point. Precipitation in the area averages roughly 2.5 to 3.0 inches annually, 90 percent of which falls between August to March. The prevailing wind direction is typically from the west-southwest, with an annual mean speed of 8 to 12 miles per hour (NOAA 2002). Sunshine is usually plentiful in the proposed project area but night and morning cloudiness is common during the spring and summer. Fog can occur occasionally during the winter.

Existing Air Quality Levels

The project site is located in the south-central portion of the Salton Sea Air Basin. The Basin has a “transitional” nonattainment of federal standards designation for Ozone (O₃) and a “moderate” nonattainment status for PM₁₀. The Basin is in attainment of federal standards for CO, SO₂, and NO₂. Monitoring for lead was discontinued entirely in 1998. Tables 3.12-1 and 3.12-2 below provides a summary of the highest pollutant levels recorded at the closest identified monitoring

station for the last year available (2000-2001) based upon the latest data from the Imperial County Air Pollution Control District (ICAPCD).

Table 3.12-1 Pollutant Threshold levels per ICAPCD and U.S. EPA

| Pollutant | ICAPCD Thresholds (Pounds per Day) | Clean Air Act <i>de minimis</i> Levels (Tons per Year) |
|--|---------------------------------------|---|
| Carbon Monoxide (CO) | 550 | 100 |
| Oxides of Sulfur (SO _x) | 250 | 100 |
| Volatile Organic Compounds (VOC's) | 250 | 50 |
| Oxides of Nitrogen (NO _x) | 250 | 50 |
| Particulate Matter (PM ₁₀) | 100 | 100 |

Source: ICAPCD/CARB 1988; EPA 40 CFR 93, 1993

3.12.3 Potential Impacts

Criteria for Significant Impact

Significance criteria for stationary and mobile source air quality impacts are based upon the approach recommended by the California Air Resources Board (CARB) and the ICAPCD. The ICAPCD establishes emission thresholds for determining the potential significance of a proposed action.

The applicable standards for mobile sources are shown quantitatively in Table 3.12-3. The existing ambient conditions are compared for the with-and without project cases. If emissions exceed the allowable thresholds, additional analysis is conducted to determine whether the emissions would exceed an ambient air quality standard (i.e., the CAAQS values shown in Table 3.12-2).

Under the General Conformity Rule, the EPA has developed a set of thresholds for all proposed federal actions in a non-attainment area for evaluating the significance of air quality impacts (shown for comparison as the last column in Table 3.12-4). It should be noted that the State (i.e., ICAPCD) standards are equal to, or more stringent than, the Federal Clean Air standards. Development of the proposed SDSU Imperial Valley campus master plan projects would therefore fall under the stricter ICAPCD (state) guidelines.

In addition, existing (as of 9/7/93) and proposed fixed emission sources within the proposed project area are regulated according to *ICAPCD Rule 207, C.2.a, 1999*, which allows a maximum of 137 pounds per day of the criteria pollutants identified in Table 3.12-4. Exceedances would result in a significant impact requiring mitigation using Best Available Control Technology (BACT).

Table 3.12-2. Ambient Air Quality Standards Matrix

| Pollutant | Averaging Time | California Standards | | Federal Standards | | |
|---|-------------------------------------|---|--|---------------------------------------|---|--|
| | | Concentration | Method | Primary | Secondary | Method |
| Ozone (O ₃) | 1 hour | 0.09 ppm (180 µg/m ³) | Ultraviolet Photometry | 0.12 ppm (235 µg/m ³) | 0.12 ppm (235 µg/m ³) ⁽⁸⁾ | Ethylene Chemiluminescence |
| | 8 hour | — | | 0.08 ppm (157 µg/m ³) | 0.08 ppm (157 µg/m ³) | |
| Respirable Particulate Matter (PM ₁₀) | Annual Geometric Mean | 30 µg/m ³ | Size Selective Inlet Sampler ARB Method P (8/33/85) | — | — | Inertial Separation and Gravimetric Analysis |
| | 24 hour | 50 µg/m ³ | | 150 µg/m ³ | 150 µg/m ³ | |
| | Annual Arithmetic Mean | — | | 50 µg/m ³ | 50 µg/m ³ | |
| Fine Particulate Matter (PM _{2.5}) | 24 hour | No Separate State Standard | | 65 µg/m ³ | 65 µg/m ³ | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | | | 15 µg/m ³ | 15 µg/m ³ | |
| Carbon Monoxide (CO) | 8 hour | 9.0 ppm (10 mg/m ³) | Non-dispersive Infrared Photometry (NDIR) | 9.0 ppm (10 mg/m ³) | None | Non-dispersive Infrared Photometry (NDIR) |
| | 1 hour | 20 ppm (23 mg/m ³) | | 35 ppm (40 mg/m ³) | | |
| | 8 hour (Lake Tahoe) | 6 ppm (7 mg/m ³) | | — | | |
| Nitrogen Dioxide (NO ₂) | Annual Arithmetic Mean | — | Gas Phase Chemiluminescence | 0.053 ppm (100 µg/m ³) | 0.053 ppm (100 µg/m ³) | Gas Phase Chemiluminescence |
| | 1 hour | 0.25 ppm (470 µg/m ³) | | — | — | |
| Lead | 30 days average | 1.5 µg/m ³ | AIHL Method 54 (12/74) Atomic Absorption | — | — | High Volume Sampler and Atomic Absorption |
| | Calendar Quarter | — | | 1.5 µg/m ³ | 1.5 µg/m ³ | |
| Sulfur Dioxide (SO ₂) | Annual Arithmetic Mean | — | Fluorescence | 0.030 ppm (80 µg/m ³) | — | Pararosaniline |
| | 24 hour | 0.04 ppm (105 µg/m ³) | | 0.14 ppm (365 µg/m ³) | — | |
| | 3 hour | — | | — | 0.5 ppm (1300 µg/m ³) | |
| | 1 our | 0.25 ppm (655 µg/m ³) | | — | — | |
| Visibility Reducing Particles | 8 hours (10 a.m. to 6 p.m., PST) | In sufficient amount to produce an extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 - 30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70 percent. Method: ARB Method V (8/18/89). | | No Federal Standards | | |
| Sulfates | 24 hours | 25 µg/m ³ | Turbidimetric Barium Sulfate - AIHL Method 61 (2/76) | | | |
| Hydrogen Sulfide | 1 hour | 0.03 ppm (42 µg/m ³) | Cadmium Hydroxide Stractan | | | |

Source: CARB/EPA updated 1997

Finally, the related state and federal identified airborne chemical toxics are identified in Table 3.12-3 below. These chemicals are commonly found in some pesticides used within the project vicinity.

Table 3.12-3 State and Federal Airborne Chemical Toxics

| Compound | Benchmark Concentration (g/m ³) | Cancer Classification | Data Source |
|----------------------|---|-----------------------|----------------|
| 1,3-Butadiene | 0.0036 | Class B | U.S. EPA |
| Formaldehyde | 0.077 | Class B | U.S. EPA |
| Benzene | 0.13-0.34 | Class A | U.S. EPA |
| Perchloroethylene | 0.17 | Class B/C | California EPA |
| 1,4-Dichlorobenzene | 0.091 | Class C | California EPA |
| Carbon Tetrachloride | 0.067 | Class B | U.S. EPA |
| Chloroform | 0.043 | Class B | U.S. EPA |
| Chromium VI | 0.000083 | Class A | U.S. EPA |
| Methylene Chloride | 2.1 | Class B | U.S. EPA |
| Trichloroethylene | 0.5 | Class B/C | California EPA |

Sources: EPA, Integrated Risk Information System (1999)

EPA, Draft Air Toxic Hotspot Program Risk Assessment Guidelines (1997)

Issue Analysis and Significance

Construction Air Quality Emission Levels

The estimated construction equipment exhaust emissions are provided in Table 3.12-2 for the typical worst day construction activities associated with a school campus construction project similar to the proposed project (*Source: ISE 1999-2002*). Based upon these values, no significant air quality impacts are expected since levels would not rise above ICAPCD thresholds. No significant VOC emissions are expected. Additionally, these levels would fall below Federal impact thresholds for all criteria pollutant categories since the product of these levels times 365/2000 (to convert to tons per year) would still fall below the values shown in Table 3.12-4. Therefore, the construction of the proposed projects will not have an adverse significant impact on air quality.

Surface Grading Fugitive Dust Levels (PM₁₀)

Construction activities are also a source of fugitive dust emissions that may have a substantial, but temporary, impact on local air quality. These emissions are typically associated with land clearing, excavating, and construction of a proposed action. Substantial dust emissions also occur when vehicles travel on paved and unpaved surfaces and haul trucks lose material. Dust emissions and impacts vary substantially from day to day, depending on the level of activity, the specific operation being conducted, and the prevailing meteorological conditions. Wet dust suppression techniques, such as watering and/or applying chemical stabilization, would be used during construction to

Chapter 3.12 Air Quality

suppress the fine dust particulates from leaving the ground surface and becoming airborne through the action of mechanical disturbance or wind motion.

Table 3.12-4 Predicted Trip Generated Emissions – Calexico/Brawley Campus Sites

| | ADT | CO | NO _x | SO _x | PM ₁₀ | VOC |
|--|--------------|--------------|-----------------|-----------------|------------------|-------------|
| EMFAC Emission Rates (lbs/mile) | | | | | | |
| Automobiles | | 0.02680 | 0.00371 | 0.00001 | 0.00002 | 0.00164 |
| Trucks | | 0.04909 | 0.00692 | 0.00003 | 0.00004 | 0.00248 |
| Condition Examined (2,000 ADT per site) | | | | | | |
| Automobiles | 1960 | 525.3 | 72.7 | 0.2 | 0.5 | 32.2 |
| Trucks | 40 | 19.6 | 2.8 | 0.0 | 0.0 | 1.0 |
| TOTAL | 2,000 | 544.9 | 75.5 | 0.2 | 0.5 | 33.2 |
| Significance Threshold (SDAPCD) | | 550 | 250 | 250 | 100 | 250 |

Based upon EMFAC 2001 emission factors (ICAPCD, Scenario Year 2002). Autos and trucks = 6,000 pounds or less.

Wintertime conditions (50 F factors)

Assumed average trip of 10 miles. Median speed = 55 mph.

Results rounded to nearest 1/10 of whole value.

Source: ISE 1992-2002

The proposed San Diego State University Imperial Valley Campus sites would have an unknown earthwork quantity since the final form of the expansion (Calexico) and campus construction (Brawley) is also not known. It is expected that the Brawley site would have the greatest amount of earthwork since final building pad elevations have not yet been established.

For the purposes of analysis, a worst-case 10,000 cubic yards of earthwork will be assumed to occur over a typical grading period of 30 days. This level would be fairly consistent with construction projects of this type. Actual grading levels either above or below this amount can subsequently be scaled to the aforementioned assumed values to yield actual levels should they differ greatly from the levels utilized in this report.

Given a total earthwork rate of 10,000 cubic yards of material (i.e., sand, dirt, and rock) per 30 day period equates to a total of 26,000 tons of material moved over the 30- day period, or 866 tons per day. Approximately 60 percent of the material (by weight) would be capable of generating PM₁₀. Thus, for the purposes of analysis, the working weight per day will be taken as 0.6 x 866 tons or 520 tons. It is assumed that surface wetting will be utilized during all phases of earthwork.

Aggregate Vehicular Emission Levels

Motor vehicles are the primary source of emissions associated with the proposed project areas. Typically, uses such as the proposed San Diego State University Imperial Valley Campus sites do not directly emit significant amounts of air pollutants from on-site activities. Rather, vehicular trips to and from these land uses are the significant contributor.

The project sites are expected to have a total trip generation level of 830 ADT (Calexico) and 2,000 ADT (Brawley). Currently the Brawley site is unused and has an effective starting ADT of zero.

The Calexico site currently has a full-time enrollment (FTE) of 600 students, which would generate an additional starting ADT level of 1,190. Thus the cumulative ADT would be 2,020, which is consistent with the expected utilization of the new Brawley campus. Thus, for the purposes of analysis, a cumulative ADT of 2,000 will be applied to both project campuses.

The calculated emission levels are shown below in Table 3.12-4. An average trip distance of 10 miles was assumed based upon the proposed service area that the new and expanded campuses would yield (i.e., service areas within the Calexico and Brawley communities). A median speed of 55 mph was used consistent with observed average speed levels. A two-percent medium duty truck (MDT) vehicle mix was used.

Based upon the findings, the project was found to be below ICAPCD threshold levels for all criteria pollutants. No dispersion analysis would be required for the proposed project sites considered. We note that the project sites would also fall below Federal standards for these pollutants as well. Therefore, air quality impacts will not be significant.

Chemical Toxics Screening Findings

This section only pertains to the proposed IVC Brawley campus site as it is located in an agricultural area and surrounded by lands that are actively farmed. Indeed, the Imperial Valley has a farming ordinance that allows farming practices to continue regardless of development. Subsequently, the practice of applying chemical pesticides to the farmlands surrounding the proposed IVC Brawley campus will continue whether or not the campus is completed.

Pesticides (herbicides, insecticides, fungicides) can leave a target application site in two forms: vapor (gas phase) and droplets (liquid phase). Vapor deposition is specific to each pesticide and accounts for the characteristic odor detectable at application sites. Spray droplets can move to off-target sites with wind or as the result of a temperature inversion or over-spraying into non-target areas. Typical issues associated with pesticide drift are:

- **Droplet size:** All spray application equipment will produce some small droplets that are able to drift. Spray nozzles that deliver a larger droplet size generally produce a lower proportion of small droplets. Some nozzle types are designed to produce more uniform droplets with less production of smaller droplets. The larger the droplet size, the smaller the buffer zone (separation between application area and sensitive receptor) requirement. Applying pesticides with the water volumes recommended on product labels ensures product performance. Using reduced water volumes and compensating by using a smaller droplet size can present a drift hazard with less reliable product performance.
- **Wind:** In general, pesticide applications using boom application equipment (ground or air) should be terminated when wind speeds are above 10 mph. Some labels will specify lower wind speed limits. Spraying when winds are blowing away from a protected area can offer additional protection – droplets to not drift upward.
- **Boom Height:** The height of nozzles above the ground determines how much time droplets are exposed to air currents and to forces that will reduce droplet size. By lowering boom height, droplet drift can be reduced without further increasing droplet size or buffer distance.

Chapter 3.12 Air Quality

- Other Factors: Higher temperatures (above 80 degrees Fahrenheit) and lower relative humidity can increase the risk of pesticide drift because of their effect on reducing droplet size through increased evaporation. This is especially important in the subject area where summertime temperatures routinely exceed 100 degrees. Large droplets will be less affected by temperature and humidity changes.

Typical pesticide compounds used within the project area are identified below in Table 3.12-5. Each identified pesticide must be used in accordance with strict EPA guidelines and can only be purchased and applied by certified (licensed) applicators.

Table 3.12-5 Typical Chemical Toxics (Pesticides) Found in Project Area

| Pesticide | Trade Name | Typical Half Life | Hazard if Used Properly |
|--------------------|------------|--|-------------------------|
| Carbaryl | Bugmaster | 7 to 28 days – soil 10 days – water 14 days – vegetation | No |
| Chlorobenzilate | Acaraben | 10 to 35 days – soil Insoluble – water 60 to 160 days – vegetation | No |
| Chloropicrin | Netapicrin | 8 to 24 hours – soil 20 days – air | No |
| Methomyl | Agrinate | 14 days – soil 7 days – water 3 to 5 days – vegetation | No |
| Methyl Bromide | Brom-O-Gas | 30 to 60 days – soil 20 days – water | No |
| Aluminum Phosphide | Fastphos | 1 day – soil 1 day – water | No |
| Strychnine | Certox | N/a | No |
| Metam Sodium | N/A | N/a | No |
| Endosulfan | Afidan | 50 days – soil 4 weeks – water 3 to 7 days – vegetation | No |
| Azinphos-methyl | Azimil | 5 to 20 days – soil 2 days – water 14 days – vegetation | No |
| Paraquat | Crisquat | 1,000 days – soil 30 days – water | No |
| Lannate | Kipsin | N/a | No |
| Chlorothanil | Bravocarb | N/a | No |
| Myclobutanil | Sasthyne | N/a | No |

Source: ISE 1992-2002

Proper pesticide application and the elimination of all drift is the sole responsibility of the user. Given proper methods of application including strict adherence to manufacturers label recommendations, and the minimal half-lives of the chemicals used, no significant impacts are expected to the proposed Brawley campus.

3.12.4 Recommended Mitigation Measures

No significant impacts are anticipated at either the Brawley or Calexico site and therefore, no mitigation measures are required.

3.12.5 Unavoidable Significant Impacts

Based upon the analysis, no construction related air quality impacts, or project-related exceedances or excessive concentrations of any criteria pollutants were identified.

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4.0 UNAVOIDABLE SIGNIFICANT IMPACTS

4.1 PURPOSE

Section 15126(b) of the CEQA Guidelines requires that an EIR identify a significant impact, which cannot be avoided with implementation of feasible mitigation measures. This section fulfills that CEQA requirement.

4.2 SUMMARY OF SIGNIFICANT UNAVOIDABLE IMPACTS

The proposed project, if implemented, would not result in any significant unavoidable impacts.

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5.0 ALTERNATIVES

5.1 PURPOSE

Section 15126(f) of the CEQA Guidelines states that the purpose of the Project Alternatives section of an EIR is to assess a range of reasonable alternatives to the project which would feasibly attain most of the basic objectives of the project, but which would avoid or substantially lessen any of the significant effects of the project.

The purpose of this section is also to evaluate the comparative merits of each alternative. According to the CEQA Guidelines, discussion of each alternative should be sufficient “to allow meaningful evaluation, analysis and comparison with the proposed project.” Therefore, the significant effects of each alternative are discussed in less detail than those of the project, but in enough detail to provide decision-makers perspective and a reasoned choice among alternatives to the proposed project.

5.2 BACKGROUND

Several project alternatives were developed during the conceptual planning phase of the Imperial Valley Campus Master Plan project. Those alternatives include a No Project Alternative and a Reduced Project Alternative. A third section reviews Alternatives Considered But Rejected.

5.3 NO PROJECT ALTERNATIVE

The No Project Alternative proposes to leave the Imperial Valley Campus in its present condition and assumes no alteration of the IVC Brawley site, associated with the Brawley Phase I EIR, would occur. The current SDSU Campus consists of the Calexico site only, and would not involve the development of a campus at the IVC Brawley site. No improvements or expansion of FTE would occur at the Calexico site and no additional physical campus improvements would be implemented.

Land Use

If the No Project Alternative is selected, the approximately 226-acre Brawley site will remain in agricultural production and in conformance with the County’s adopted General Plan Land Use Element. Ultimately, should an expanded sphere of influence or annexation occur, development may proceed as designated and controlled by the policies and standards contained in the Brawley General Plan. Mitigation measures have been identified in the General Plan EIR to reduce impacts associated with the conversion of agricultural lands adjacent to the existing City.

There will be no land use change to the Calexico campus site, as it is currently being utilized as a college campus.

Geology

If only agricultural buildings or single family homes and accessory structures that can be built by right under the County's Land Use Ordinance are constructed at the Brawley campus site, a limited number of new structures will be subject to the seismic and soils constraints of the Brawley area. This also does not represent a substantial increase in population and not be a significant geology/soils impact. Incrementally increasing population and work force that may be subject to seismic events may have a significant impact. Application of mitigation measures in the 1995 General Plan EIR will reduce impacts below the significance level.

Any future construction on the Calexico site would be required to follow geotechnical site-specific recommendations. No significant impacts are anticipated.

Hazardous Materials

Selection of the No Project Alternative will avoid impacts associated with hazardous materials of the existing agricultural uses continue on the parcel. However, development of the site under allowable uses would need to mitigate the potentially hazardous materials found on the existing site in the same manner as that of the proposed Brawley campus site.

No hazardous materials have been found on the Calexico site; therefore, the No Project Alternative would not have any significant impacts.

Biology

If this No Project Alternative is selected, neither disruption of the foraging habitat nor elimination of the burrowing owl population from the site will occur. However, agricultural operations or associated construction could impact occupied burrows of breeding pairs. Impacts to burrowing owls will occur to those individuals breeding and/or foraging on lands when development begins. The same mitigation measures as identified for the proposed project apply in this case.

The Calexico Campus expansion area is already completely disturbed; therefore, no potential future impacts to burrowing owl are expected.

Cultural Resources

This alternative will not affect areas near the New or Alamo Rivers, which are the only areas in the project vicinity that are known to include sensitive resources.

Traffic

At buildout of the Brawley General Plan land uses and Circulation Plan roads, there will not be significant traffic/circulation impacts. SR-78 will operate at LOS C or better through the Brawley area. All other roads will have LOS A. The No Project Alternative will not have any impacts to traffic or circulation.

If this alternative is selected, no additional students will be allowed at the Calexico campus; therefore, no increased traffic is anticipated at that campus.

Public Services

Selection of the No Project Alternative will avoid public service impacts associated with both the Brawley and Calexico projects. If the existing agricultural uses continue on the Brawley campus, no impacts are anticipated. The Calexico Campus is currently served by the City of Calexico and no new impacts would be created to public services.

Hydrology

Under this alternative for the Brawley Campus, only agricultural or single family homes and accessory structures that can be built by right under the County's Land Use Ordinance will be developed. This will result in some increase of impervious surfaces and runoff to downstream areas subject to flooding. It will be minimal for an individual home and isolated agricultural structures, but could be somewhat more for an agricultural processing operation. Additional development approvals as permitted under the County's or City's General Plans will increase impervious surfaces and associated flooding impacts but to a substantially lesser degree than the proposed project. Mitigation measures similar to those for the proposed project will reduce impacts below the level of significance.

Because the Calexico Campus is already within an urbanized area with an established storm drain system, no impacts to hydrology are anticipated.

Noise

Noise levels will increase along roadways with greater traffic volumes, which will be generated to the area regardless of the land uses on any portion of the proposed Brawley Campus site. If the existing land uses are retained over the next 20 years, the noise levels will be some factor less along major roads because the higher traffic generation rates from the proposed project's uses. However, lower project generated contributed to noise may be offset by increased noise generated by greater congestion on area roads which may not be improved without adjacent property owners' participation.

If the No Project Alternative is selected, no temporary construction noise will occur, and no other impacts are anticipate.

Agriculture

No change of existing land use designation will result at the Brawley Campus if the No Project Alternative is selected. The approximately 226-acre site will remain in agricultural production and no additional impacts will result. Removal of 226 acres from agriculture will be an agricultural

impact as identified in the County and City's General Plan, though would be mitigated through measures identified in their respective EIRs.

There are no agricultural uses at the Calexico site; therefore, no impacts are anticipated.

Water Quality

With continued agricultural uses at the Brawley site, runoff will contain contaminants associated with crop production and animal raising and processing of farm goods for market. No mechanism to require the property owner to improve runoff will be activated. The level of drainage flow will remain stable. With development, impervious surfaces will increase runoff and change the composition of contaminants discharged into the irrigation system by introduction of urban by-products while reducing agricultural discharge materials. However, mitigation measures are identified to reduce surface water quality impacts from urban development.

The Calexico campus is located on an already disturbed site. If the No Project Alternative is selected, no impacts to water quality are expected.

Air Quality

Ozone levels in Imperial County presently exceed State and Federal standards with the County classified as a nonattainment area. With retention of agricultural uses on the entire Brawley site, there will be a reduction in the level of additional ozone that is anticipated to be generated by traffic from General Plan buildout. However, lower project generated emissions may be offset by increased levels generated by greater congestion on area roads that may not be improved without adjacent property owner participation. No significant air quality impacts are expected as a result of the selection of this Alternative from the Calexico site.

Summary

The No Project Alternative would not meet the purpose and objectives as identified by the Board of Trustees. This alternative would not respond to increased Imperial County population growth by providing a northern campus near Brawley with buildings, facilities and other resources that is generally consistent with the existing Imperial Valley Campus Master Plan. Nor would it respond to increased Imperial County population growth by enhancing academic facilities at the existing Calexico campus and increasing capacity to accommodate growth. This alternative would also not allow for the master planning of support and infrastructure requirements for programmatic projects.

5.4 REDUCED PROJECT ALTERNATIVE

The Reduced Project Alternative would allow only the construction of the proposed Calexico expanded campus, but would not include development of the 226-acre Brawley Campus site. The site would remain in agriculture, or be allowed to develop under existing County zoning. Discussion

of the Reduced Project Alternative assumes that no alteration of the IVC Brawley project site associated with the Brawley Phase I EIR would occur.

Land Use

This alternative would limit the amount of development to the Calexico Campus expansion, and would not include a Brawley campus. This alternative is more in conformance with the Land Use policies of the County, as it would leave the entire 226-acre Brawley site as agricultural land. This alternative would reduce any land use compatibility conflicts as the Calexico Campus is an existing school and surrounded by compatible land uses. No impacts are anticipated as a result of selection of this alternative.

Geology

This alternative would have similar impacts as the No Project Alternative, in that if only agriculture or single family homes are allowed at the proposed Brawley Campus site, a limited number of new structures will be subject to the seismic and soils constraints of the Brawley area. It would also not represent a substantial increase in population and not be a significant geology/soils impact. Incrementally increasing population and work force that may be subject to seismic events may have a significant impact. Application of mitigation measures in the 1995 *General Plan* EIR will reduce impacts below the significance level.

This alternative would allow expansion development at the Calexico campus; however, any future construction would be required to follow geotechnical site-specific recommendations. No significant impacts are anticipated.

Hazardous Materials

The Reduced Project Alternative would not involve development of a campus on the Brawley site; therefore, selection of the Reduced Project Alternative will avoid impacts to hazardous materials

No hazardous materials have been found on the Calexico site; therefore, the expansion development would not have any significant impacts.

Biology

With selection of the Reduced Project Alternative, no development would occur at the Brawley site and neither disruption of the foraging habitat nor elimination of the burrowing owl population from the site will occur.

The Calexico Campus expansion area is already completely disturbed; therefore, no potential future impacts to burrowing owl are expected.

Cultural Resources

Selection of this alternative will not involve development in the Brawley area or affect areas near the New or Alamo Rivers, which are the only areas in the project vicinity that are known to include sensitive resources.

The Calexico site is not known to have any significant cultural resources; therefore, development of this campus would have any significant impacts.

Traffic

If the Reduced Project Alternative is selected, only minimal increased traffic will occur, and all roadways in the Brawley area should operate at LOS C or better, with the majority operating at LOS A, as no development would occur.

Development of the Calexico site would generate at 830 ADT with 55 inbound trips and 15 outbound trips during the AM peak hour and 20 inbound/55 outbound trips during the PM peak hour. Based on the established significance criteria, no significant impacts were calculated and therefore no mitigation measures would be required.

Public Services

If the existing agricultural uses continue on the Brawley campus, no impacts are anticipated. The proposed IVC Calexico campus project is not anticipated to have any significant impacts on public services, because a campus already operates at the project site and the proposal is an expansion that includes replacing temporary structures with permanent buildings.

Hydrology

Under the Reduced Project Alternative, no development would occur on the Brawley site and no increase in impervious surfaces would result; therefore, impacts to hydrology would be avoided with selection of the Reduced Project Alternative.

Because the Calexico Campus is already within an urbanized area with an established storm drain system, no impacts to hydrology are anticipated.

Noise

Under this Reduced Project Alternative, no development of the Brawley site would occur; therefore, no new noise generators would be introduced to the area and no noise impacts would occur.

Temporary construction noise at the Calexico site may occur, as described in the analysis section for the Proposed Project. With mitigation measures and adherence to local noise ordinances, no significant impacts are expected to occur.

Agriculture

No change of existing land use designation will result at the Brawley Campus if the Reduced Project Alternative is selected. The entire 226-acre site will remain in agricultural production and no additional impacts will result.

There are no agricultural uses at the Calexico site; therefore, no impacts are anticipated.

Water Quality

With selection of the Reduced Project Alternative, there would be continued agricultural uses at the Brawley site, and runoff will contain contaminants associated with crop production and animal raising and processing of farm goods for market. No mechanism to require the property owner to improve runoff will be activated. The level of drainage flow will remain stable.

The Calexico campus is located on an already disturbed site. If the this Alternative is selected, no impacts to water quality are expected.

Air Quality

Selection of this alternative would have similar impacts as the No Project Alternative. However, since ozone levels in Imperial County presently exceed State and Federal standards with the County classified as a nonattainment area, there is an existing significant impact that would occur even with no development of the Brawley site. With retention of agricultural uses on the entire Brawley site, there will be a reduction in the level of additional ozone that is anticipated to be generated by traffic from General Plan buildout. However, lower project generated emissions may be offset by increased levels generated by greater congestion on area roads that may not be improved without adjacent property owner participation.

Only temporary construction-related air quality impacts are expected as a result of the selection of this alternative from the Calexico site, but can be mitigated to a less than significant level.

Summary

The Reduced Project Alternative would not meet all of the objectives as identified by the Board of Trustees. This alternative would not respond to increased Imperial County population growth by providing a northern campus near Brawley with buildings, facilities and other resources that are generally consistent with the existing Imperial Valley Campus Master Plan. However, this alternative would respond to increased Imperial County population growth by enhancing academic facilities at the existing Calexico campus and increasing capacity to accommodate growth. This alternative has similar impacts to the No Project Alternative, while meeting many of the goals of the Board of Trustees.

5.5 ALTERNATIVES CONSIDERED BUT REJECTED

In an effort to search for a reasonable range of alternatives, an alternative site location was considered in order to minimize impacts to land use from the reduction in prime agriculture and to public services. A desirable site would be one that would be located within an existing Sphere of Influence with adequate infrastructure, as well as one that did not reduce agricultural lands. One such site was tentatively offered to the Board of Trustees in the City of Calexico. However, there is a great need for educational services in the northern part of the County. This alternative site would also not meet all of the project's objectives. This site would also need extension of services from the City of Calexico and therefore was rejected.

No other sites were donated to the Board of Trustees, making the project financially impossible, and therefore infeasible.

The construction of a multi-story campus to provide for up to 1,000 FTE was considered at the Calexico site. However, impacts to traffic, parking, land use and air quality, were anticipated to be too great. This element would not have met the project objective of providing up to 1,000 FTE with minimal infrastructure costs, or the project objective to provide greater service to the northern reaches of Imperial County. This alternative was not considered feasible or consistent with project objectives.

6.0 CUMULATIVE ENVIRONMENTAL ANALYSIS

6.1 PURPOSE

The purpose of this section is to explain the methodology for the cumulative project analysis presented in this EIR. This section is important because, in many cases, the impact of a single project may not be significant, but when combined with other projects, the “cumulative” impact may be significant. Section 15355 of the CEQA Guidelines defines “cumulative impacts” as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” CEQA Guidelines Section 15130(b) states that “the discussion [of cumulative impacts] need not provide as great detail as is provided of the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness.”

Cumulative impacts can occur from the interactive effects of a single project. For example, the combination of noise and dust generated during construction activities can be additive and can have a greater impact than either noise or dust alone. However, substantial cumulative impacts more often result from the combined effect of past, present and future projects that are located in proximity to the project under review. For example, the water demand generated by a proposed project may not be significant when analyzed alone; however, when analyzed in combination with the water demand of other approved or proposed projects, the water demand may exceed the resource capabilities of the water agency, resulting in a significant cumulative impact. Therefore, it is important for a cumulative impacts analysis to be viewed over time and in conjunction with other related past, present and reasonably foreseeable future developments, which may have impacts that might compound or interrelate with those of the project under review.

6.2 CUMULATIVE FORECASTING METHODOLOGY

Section 15130 of the CEQA Guidelines allows for the preparation of a list of past, present, and reasonably anticipated future projects as a viable method of determining cumulative impacts. Section 15130 also states that a summary of projects contained in an adopted general plan or related planning document which is designed to evaluate regional or areawide conditions may be used in a cumulative impact analysis. This discussion includes both methods; an initial list of all related projects, followed by a discussion of the effects that the proposed project may have on each environmental category of concern, such as traffic, noise, etc. Consistent with CEQA, this discussion is guided by the standards of practicality and reasonableness.

6.3 LIST OF RELATED PROJECTS

This section of the analysis provides a list of past, present, and reasonably foreseeable future projects and corresponding descriptions of those projects. Figure 6.3-1 illustrates the location of each project considered to contribute to the cumulative impacts of the proposed SDSU Imperial Valley Campus Master Plan project.

Phase I of the SDSU Brawley Campus Project

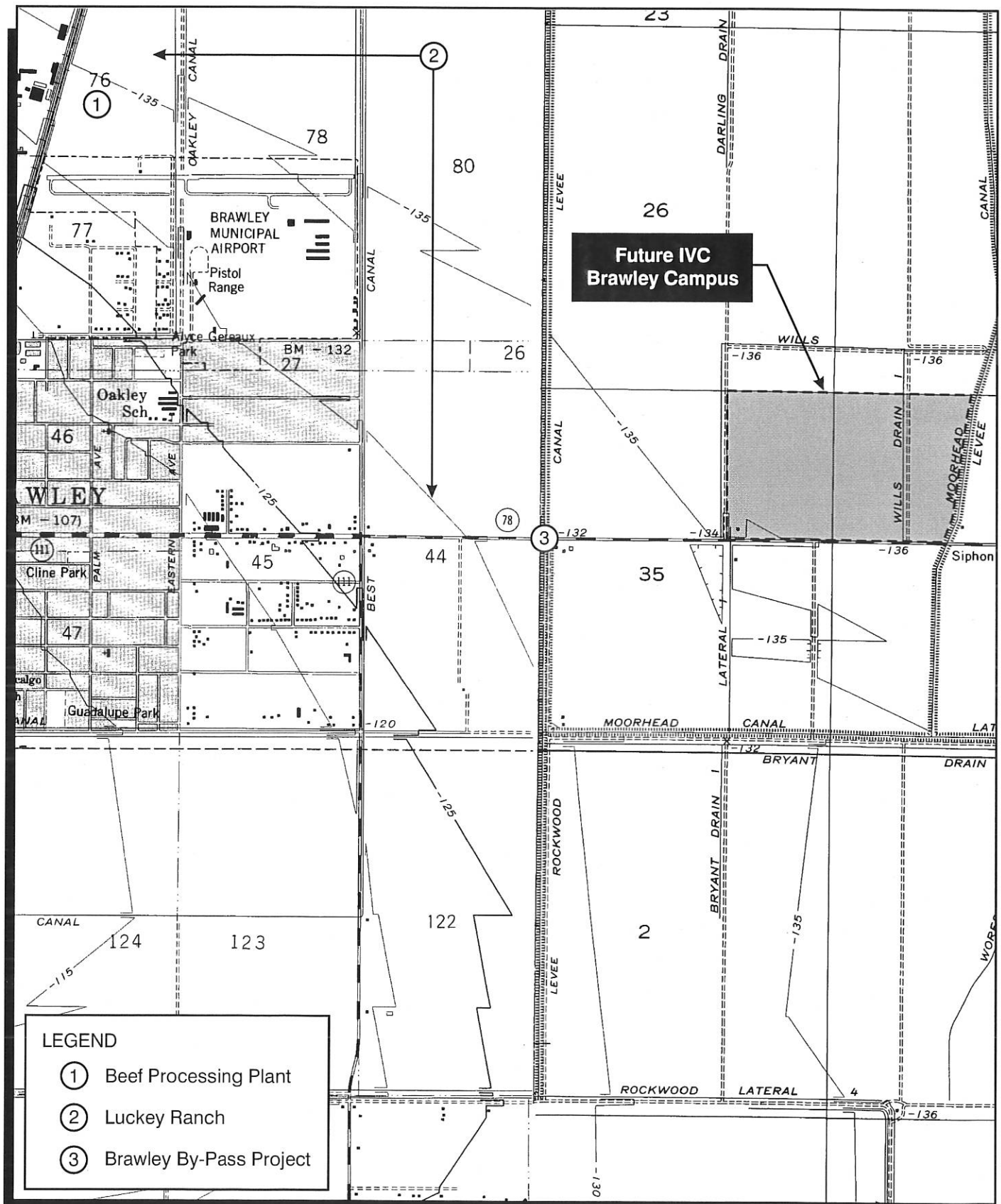
This project would expand the educational offerings in the Imperial Valley. The project would involve the provision of a classroom and administrative building with the potential to accommodate a FTE of up to 350. The project would occupy an approximately 5.04 acre portion of the approximately 226-acre site to be developed by the proposed IVC Brawley project of the SDSU Master Plan. The Phase I of the SDSU Brawley Campus Project would also include adequate parking spaces and on-site septic tanks. In addition, the proposed project would involve improvements to SR-78 to provide safe access to the facility. The Imperial County Planning/Building Department is the lead agency for preparation of an EIR for this project. The public review period for the EIR ended on March 17, 2003 and is to be presented for approval by the Imperial County Board of Supervisors in April 2003. This project also includes a minor-subdivision, a General Plan Amendment and a rezone from A-2 Agriculture to G-S Government/Special Public Zone. The approval of this project would resolve some of the issues through mitigation and avoid direct significant impacts to Agriculture and Land Use, and reduce impacts to Public Services currently associated with development of the IVC Brawley project set out in this document. Therefore, implementation of this project would not be anticipated to contribute cumulative impacts and would reduce impacts associated with the SDSU IVC Master Plan.

Brawley Beef Processing Plant

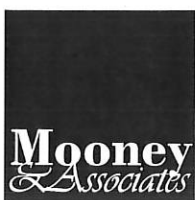
This recent project involved the construction and implementation of a 230,000 square foot beef processing facility located on a 100-acre project site in Brawley, California. The facility accommodates over 520 full time employees and parking space for over 520 autos. The facility processes 1,200 head of high quality, grain fed, fat cattle per day. The facility harvests and processes a variety of high quality value added beef products such as fresh and frozen variety meats, fresh boneless beef, sub-primal and steak cuts, hides, and tallow and meat meal bi-products. Site development consisted of site grading, building pad preparation, underground utility installation, parking lot construction, and sidewalk placement. The project consists of a single-story indoor processing facility, trailer staging area, concrete truck ramp and apron, holding pens built on concrete, parking lot, two site entrances (one for truck traffic, second for employees), a wastewater pretreatment facility, security fencing, and landscape buffering.

Luckey Ranch

The Luckey Ranch project consisted of an annexation of 740-acres to the City of Brawley. The project also proposed rezoning of the entire Luckey Ranch prior to phased development. Project building will provide 77 acres of industrial property, 103 acres of light industrial/businesspark 33 acres of commercial, 27 acres for public facilities such as schools and parks, 99 acres of Airport Planning Area and 207 acres with low to medium density housing. A total of 34 acres will be used for roadways. The Specific Plan provides an area for eastward expansion of the Brawley Municipal Airport and a north/south roadway corridor for SR 78/SR 111. Industrial and aviation support use areas are focused around the Airport, in close proximity to the railroad, and on both sides of SR 78/SR 111. Single family housing is for the most part limited to the northern and southernmost



SOURCE: USGS 7.5' Quad Maps - Alamo and Brawley, CA



0 1000' 2000'

Cumulative Projects Considered

Figure 6.3-1

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portions of the project. Multi-family is generally concentrated closer to the major commercial areas in the southwestern portion of the project. The commercial center is located near the major thoroughfare of the SR 78/SR 111. Development of Luckey Ranch is proposed to proceed in four phases over a 15-20 year time frame.

Brawley By-Pass Project

The proposed State Route 78/111 Brawley Bypass would be a four-lane divided expressway from State Route 86 (SR-86) north of the City of Brawley to 2.4 km (1.5 miles) south of the eastern junction of State Route 111 (SR-111) and State Route 78 in Imperial County. The alternatives under study in the Draft Environmental Document, the "Fredricks", "Del Rio" and "Del Rio North" alternatives, all bypass the City of Brawley to the north. Major project features of the alternatives include structures at the New River and Union Pacific Railroad crossings, accommodation for future Brawley Airport expansion, and access to the expressway at approximate intervals of 1.6 kilometers (1 mile) at signalized and unsignalized intersections. The Fredricks alternative includes two variations at the intersection with existing SR-111: Variation 1 proposes a signalized intersection and Variation 2 proposes an interchange.

Caltrans completed a Project Study Report examining alternatives for an expressway bypass of the City of Brawley in March 1993. The study was requested by the California Transportation Commission and the City of Brawley. Improvements are planned or underway for SR-111 to the southeast of the City of Brawley and have been completed for SR-86 to the northwest of the City of Brawley. Four-lane expressways are proposed along SR-111 and constructed along SR-86 as outlined in the Imperial Valley Transportation Plan. The Brawley Bypass would provide continuity between these routes, which extend from the US/Mexico border to Riverside County.

The Draft Environmental Document was approved on May 11, 2001, and was available for public review and comment until August 27, 2001. A Public Hearing was held on July 18, 2001. The Fredricks Variation 2 (interchange) Alternative was identified as the preferred alternative on November 19, 2001. Construction will be completed in three stages. Stage 1 (Mead Road to SR-78); Stage 2 (SR-78 to Hovley Road) and Stage 3 (Hovley Road to SR-86). The Project Report and Final Environmental Document approval is anticipated in fall 2002. Construction is anticipated to begin in 2004 and end in 2007.

6.4 IMPACTS TO ENVIRONMENTAL FACTORS

Land Use

Except for Countywide agricultural land use impacts as addressed below, there are no anticipated cumulative land use impacts that have not been addressed by evaluating the existing Land Use Element of the Brawley General Plan with the addition of the proposed project.

Geology

Increases in population or new construction will cumulatively elevate the risks of injury, loss of life, destruction of property and disruption of services from seismic activity and expansive soils in the Imperial Valley. Although geology impacts will be cumulatively significant, the same mitigation measures, as identified to lessen the impacts from the proposed project, have general application to other projects and will reduce cumulative impacts to a level below significance.

Hazardous Materials

There are no anticipated hazardous materials impacts that have not been addressed at a project level.

Biology

Burrowing owls have also been observed on related parcels in the vicinity. Burrowing owls forage in the agricultural fields throughout the region. Although collectively these projects will have a slightly greater direct impact on the burrowing owls, which is significant and needs to be mitigated on a project-by-project basis, rural areas surrounding the Brawley area will continue to provide suitable habitat for this species.

Cultural Resources

No significant cultural resources have been identified during direct analysis and no cumulative impacts are anticipated to occur upon completion of the proposed project.

Traffic

Three specific projects were included as outlined below, based on discussions with County staff. The projects and their potential impacts are described below.

The Brawley Beef Processing Plant is a recently completed beef processing facility located north of Shank Road and east of SR 111. The project is calculated to generate 918 ADT, with 365 inbound/65 outbound trips during the AM peak hour and 65 inbound/365 outbound trips during the PM peak hour. Traffic data was taken from traffic study prepared by Darnell & Associates (July 2000).

Luckey Ranch is a proposed mixed-use development within the City of Brawley and extending into the County of Imperial. The project consists of single and multi-family housing, commercial and industrial usage, as well as community and neighborhood parks. For the purpose of this report, Phase I (0-5 years) project traffic was utilized for near-term cumulative traffic data. The entire project is included in the 2020 analysis as a long-term cumulative project. Phase I of the project is estimated to generate 6,047 ADT with 615 inbound/134 outbound trips during the AM peak hour and 131 inbound/493 outbound trips during the PM peak hour. Appendix D contains the trip generation table calculated by LLG. Traffic data was taken from traffic study prepared by Darnell & Associates (July 1999).

The Brawley Bypass Project proposes to adopt a new alignment and construct a four-lane expressway in Imperial County from SR 86 northeast of the city of Brawley, to SR 111, southeast of the city of Brawley. Three alignment alternatives are proposed. For the purpose of this report, this project was only included in the long-term cumulative analysis (2020), utilizing Table 1-1 (Traffic Projections) of the Brawley Bypass Draft Environmental Impact Report (DEIR), prepared by CALTRANS in May 2001 (see Appendix D).

Table 3.6-1 shows that with the addition of cumulative project traffic, the key signalized intersections are calculated to operate at LOS D or better during the morning and afternoon peak periods with one exception. The intersection of SR 78/SR 111 degrades to LOS E for the AM peak hour. The addition of cumulative project traffic would also show that minor street movements at the key unsignalized intersections are calculated to operate at LOS C or better during the morning and afternoon peak periods with two exceptions.

- SR 78/Shank Road: WB APP (LOS F, both AM and PM peak hours); and
- SR 78/SR 111: AWSC (LOS F/E for the AM/PM peak hours).

The Luckey Ranch Traffic Study recommends that a traffic signal be installed at the intersection of SR 78/Shank Road for Phase I of the project. LOS C is calculated with the installation of a signal.

With the addition of cumulative project traffic, all road segments are calculated to operate at LOS D or better.

No significant cumulative impacts are calculated at the signalized intersections since the project adds less than 2 seconds of delay to the intersections that are calculated to degrade to LOS D or worse with cumulative traffic. A significant cumulative impact is calculated at the SR 78/SR 111 unsignalized intersection, since LOS F is calculated with the addition of cumulative traffic and the project adds over 2 seconds of delay. In addition, significant impacts would occur if adequate access was not provided to the site via SR 78.

To mitigate impacts to below a level of significance the following measures would be required by the ~~relevant/responsible agency~~ Caltrans as indicated below:

- Eventual signalization of the SR 78/SR 111 S. intersection including a dedicated northbound left-turn lane with a shared through-right-turn lane shall be completed by Caltrans.
- Provision of an eastbound left-turn pocket and a westbound right-turn pocket on SR 78 at the access to the proposed campus and provision of dedicated southbound left and right-turn lanes at the intersection of the campus driveway to SR 78 shall be completed by Caltrans.
- Caltrans shall ensure that County of Imperial standards are applied to corner sight distance at the campus access point.

Chapter 6.0 Cumulative Environmental Analysis

SDSU is not responsible for any mitigation measures, which are located off the proposed project/campus site. Because SDSU is not the responsible agency for completion of the mitigation measures identified a statement of overriding considerations will be adopted.

Public Services

There are no anticipated public services and utilities impacts that have not been addressed by evaluating each individual project, as they will all mitigate on a project-by-project basis.

Hydrology

Increases in runoff volumes will cumulatively elevate the risks of injury, loss of life, destruction of property and disruption of services from flooding along the New and Alamo Rivers downstream as the City of Brawley grows. A Preliminary Master Drainage Plan, has been prepared by the IID to address the regional solutions to the cumulative impacts. Cumulative runoff is significant but can be reduced to a level below significance by the regional implementation of storm water runoff management infrastructure and project site drainage improvements to control flows' exiting improved properties.

No cumulative impacts are expected in Calexico.

Noise

Motor vehicle traffic from planned development in Brawley will substantially increase levels along major thoroughfares and on local segments of the three State Route through the City. The overall change in the ambient noise level is expected to be discernible. Caltrans applies the reasonable/feasible analysis to evaluate noise barriers for specific sites where unacceptable increases in noise are anticipated for existing or future adjacent uses to new and expanded highways.

Agriculture

The projected loss of land designated as prime agricultural soils on site is considered under CEQA to be an incremental impact, which will contribute to the cumulative reduction of prime agricultural land in the region. The development of the proposed project and others in the area would gradually convert land from existing agricultural production to urban uses. The entire project site contains "prime and important farmland" soils. The County needs to retain its agricultural economic base while accommodating growth, which is being directed to this area of the State by a number of internal and external factors. The County has adopted policies and programs to provide a balance between these needs. Focusing new development around existing urban centers, close to transportation facilities and other public services and providing for adequate buffers will allow a continued integrity for regional agriculture.

Water Quality

Future municipal and industrial development in Imperial County is expected to be about 62,000 acres over the next 50 years. This development would increase the extent of impervious surfaces, decreasing infiltration of precipitation into the ground water basin; increasing the amount of urban pollutants, such as oil and grease, conveyed to surface waters; increasing the demand for potable water; and increasing discharges of treated wastewater to the New River and Alamo River. The *Imperial County General Plan* (1993) provides several area-wide measures to mitigate cumulative negative effects on the regional water supply and water quality impacts. This project would add incrementally to these adverse effects.

Adoption of the water conservation and water quality mitigation measures identified in this EIR will substantially mitigate individual project contributions to cumulatively significant impacts on water resources. Construction of detention basins within development projects to facilitate infiltration of storm runoff will reduce the contribution to the rise in the water level of Salton Sea. Recent upgrades to the Brawley wastewater plant capacity to discharge treated wastewater to the New River also will help to mitigate regional water quality impacts.

Air Quality

Regional air quality is the responsibility of the Imperial County APCD – the City of Brawley and City of Calexico have no ability to control air pollution sources beyond the City limits. By assuring that development within the project area generally adheres to Imperial County APCD policies and by minimizing the air pollutant emissions from this new development to the extent feasible, the City would slightly reduce its contribution to cumulative air quality impacts.

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7.0 GROWTH INDUCEMENT

7.1 PURPOSE

Section 15126(d) of the CEQA Guidelines requires that an EIR discuss the ways in which a project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this discussion are projects that would remove obstacles to population growth and projects that may encourage and facilitate other activities that, either individually or cumulatively, could significantly affect the environment. Increases in the population may further tax existing community service facilities so consideration must be given to this impact in the EIR. It must not be assumed, however, that growth in any area is necessarily beneficial, detrimental or of little significance to the environment. The purpose of this section is to evaluate the growth inducing potential of the proposed project.

7.2 THE PROJECT'S GROWTH INDUCING POTENTIAL

The causes of growth typically involve a complex and varied relationship among several factors including economic setting, employment opportunities, natural population increase, public policies, and local environment. All of these can influence the rate and extent of growth, although economic and employment opportunities (and to a lesser extent local birthrates) are generally considered the most important factors. Regardless of the environmental amenities or favorable local attitudes toward growth in a specific area, significant sustained population growth will normally not occur without adequate employment opportunities.

The proposed expansion of the Calexico campus is not expected to have any growth inducing impacts, as the increased student and employee population is expected to come from the surrounding area. The campus is located within an urban area of Calexico and utilizes existing infrastructure, campus facilities, etc. Student services are already being provided within the surrounding area.

The 1995 City of Brawley General Plan provides a comprehensive, long-term plan to guide the physical development of the incorporated City and any land outside of the City boundaries, which bears a relationship to its planning activities. The General Plan includes an optional element, which discusses Economic Development in addition to Land Use, Infrastructure, Resource Management, Open Space, Public Safety/Noise, and Housing, which are mandated by the State. The City has identified a need to address economic development in order to reduce its high 27.4% unemployment rate, increase median household income (1990 Census - \$22,365) which is significantly less than the statewide median of \$35,798, and boost retail sales which have been declining at a faster rate than the rest of the county or state. In other words, the City has a need to expand and diversify its economic base and to generate more tax revenue to provide necessary services, leading to increased long-term fiscal stability.

Future regional growth may be greatly influenced by opportunities resulting from approval of the NAFTA between the U.S., Mexico, and Canada and by construction of an additional Mexico/USA border crossing. Locally, the City is updating the Brawley Municipal Airport Master Plan and

Chapter 7.0 Growth Inducement

anticipates future construction of the SR-78/111 Bypass. The City intends to capitalize on development opportunities by positioning itself to intercept consumer and business trade, thus providing an economic stimulus resulting in greater demand for housing and other goods and services. In fact, the City has identified three major objectives in the Economic Development Element:

- 1) Expand and attract businesses and industries that create jobs and new physical development.
- 2) Become a major commercial retail center for the northern half of Imperial County as this portion of the County grows; and
- 3) Exploit the opportunities for economic development created by construction of SR-78/111 Bypass near the Municipal Airport.

The IVC Brawley campus is considered growth inducing as it involves the development of new facilities within a currently undeveloped area. The entire project area is outside of the existing City limits. Implementation of the SDSU Imperial Valley Campus Master Plan would allow the expansion of facilities in order to accommodate the planned enrollment of 1,700 FTE students between the two campuses. Provision of up-to-date academic and campus support facilities for existing students, faculty and staff, as well as serving the northern county population would indicate some increase in enrollment, consistent with the California State University Chancellor's Master Enrollment Plan.

In terms of economic growth, the proposed project would create some new temporary and permanent employment opportunities during the construction period. However, the construction employment opportunities are relatively minimal and would not be expected to induce people to move into communities surrounding the University. Brawley is interested in promoting businesses that will create new jobs, new physical development and increased revenues to support urban services. However, since the site is not located within the City of Brawley, revenues generated will go to the County of Imperial. The project will require extension of water and sewer lines with capacity to serve new development into an area where these services were previously inaccessible. The lines will be sized to be minimally acceptable for operation and maintenance according to specifications provided by the City of Brawley Public Works Department. Services will not be extended beyond the project perimeter into adjacent agricultural areas since the City provides these utilities only to areas within the incorporated limits of the City. Though the Luckey Ranch Specific Plan is near the proposed Brawley site, there will be several hundred acres of property between the existing City limits and the site. No development is currently proposed, however, should it be proposed, the land would need to be annexed to the City of Brawley prior to infrastructure being provided.

The proposed project is consistent with many elements of the City of Brawley General Plan. The project provides opportunities for economic development in close proximity to both the Airport and realigned SR-111, an area targeted as suitable for economic growth to meet a growing need for local employment opportunities. The project may result in unplanned regional growth but is expected to provide local employment and business opportunities. The approved adjacent Luckey Ranch is expected to provide a range of housing alternatives that may serve the SDSU Brawley campus employees.

Growth inducing impacts can be both beneficial and detrimental. Negative effects from growth induction will result in impacts to prime farmlands and the agricultural economy and will tax some existing community service facilities. However, as described in Land Use (Chapter 3.1), mitigation measures shall be implemented to minimize impacts from conversion of prime agricultural lands to urban uses.

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8.0 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

8.1 PURPOSE

A proposed project's impacts to non-renewable resources may be irreversible if the commitment of the resources makes their subsequent removal or use unlikely. Section 15126(c) of the CEQA Guidelines requires that an EIR evaluate the permanent commitment of such resources to assure that their current consumption in connection with a proposed project is justified.

8.2 INTRODUCTION

This section focuses on the component of the Master Plan that proposes the construction of the IVC Brawley campus. The IVC Brawley campus project is expected to result in the greatest potential to cause substantial change in land use and, therefore, have the potential for causing significant irreversible environmental impacts upon completion. The site of the IVC Calexico project already supports development similar in scope and intensity to that proposed and, therefore, the project will not result in significantly different land uses at those sites. Nonetheless, both projects have a potential to impact non-renewable resources.

8.3 IRREVERSIBLE COMMITMENT OF RESOURCES

With regard to non-renewable resources, the proposed IVC Brawley campus project's primary impact would be the Commitment to develop agricultural lands to a more intensive land use. Conversion of the agricultural lands to more intensive campus facility use would require a substantial investment and would present a long-term commitment to non-agricultural uses of the site.

Construction of both projects would result in the use of non-renewable resources and energy sources, including fossil fuels, electricity and natural gas. Fossil fuels would be used to power construction equipment, as well as delivery and employee vehicles. Construction equipment would also use electricity and natural gas. Use of these energy sources would be considered a permanent commitment of resources. In addition to energy sources, a variety of materials would be used during the construction process, including steel, wood, concrete and fabricated materials. Once these materials and fuels are used for purposes of construction, the commitment of such materials and fuels would be considered irreversible.

Once operational the IVC Brawley campus project would consume more energy on a daily basis than the No Project Alternative. However, the IVC Brawley campus project is promoted as the "sustainable campus" with the intention of providing enough energy to run itself and possibly surplus to sell. Implementation of the IVC Calexico expansion project would result in a slight increase in energy consumption compared to the No Project Alternative.

Financial resources committed to the projects cannot be recovered and, therefore, commitment of these resources would be considered irreversible. Human resources expended to design, construct and operate either the proposed projects or No Project Alternative would not be recoverable. Upon

Chapter 8.0 Significant Irreversible Environmental Changes

implementation land resources committed under the proposed projects would be unavailable for other uses.

The proposed projects are not expected to result in any significant irreversible environmental impacts, or significant permanent commitments of non-renewable resources other than the conversion and loss of important farmland. However, because the conversion or loss of important farmland associated with the IVC Brawley site is addressed in the Brawley Phase I EIR and resolved with an associated General Plan Amendment and rezone in that EIR, these impacts would be avoided for the IVC Brawley project if the Brawley Phase I EIR is approved.

9.0 SHORT-TERM USES/LONG-TERM PRODUCTIVITY

9.1 PURPOSE

This section evaluates the proposed project from the standpoint of cumulative and long-term environmental effects. This analysis is not required pursuant to CEQA, and is provided for informational purposes only. This analysis focused on impacts that narrow the range of beneficial environmental uses of the proposed project or impacts that pose long-term risks to public health and safety. The analysis also discusses reasons for proceeding with the proposed project at this time, rather than reserving an option for other alternatives.

9.2 INTRODUCTION

This section focuses on the Brawley component of the Imperial Valley Campus Master Plan that proposes construction of a new campus. The Calexico Campus component currently supports development similar in scope and intensity to that proposed and, therefore, that project component will not result in significantly different land uses at that site.

9.3 LONG-TERM EFFECTS, BENEFICIAL USES AND RISKS

The primary long-term effect of the proposed project would be the commitment of the 200-acre Brawley Campus site for a more intensive land use. If implemented, the proposed project would result in physical construction of campus facilities, as well as academic office facilities, parking lots and student activity areas.

Development of the existing project site as outlined in this EIR would enhance the Imperial Valley academic environment by providing a campus in the northern part of the valley, as well as increased capacity for student enrollment. Implementation of the project would provide students with opportunities not currently available in the existing campus facilities while providing for master planning of the campuses to meet the needs of the University and maintain a quality educational environment.

Given the scope of the proposed project, it is expected that the project component sites would remain in a developed condition for their intended purposes as long as necessary to serve campus needs. Any significant long-term effects of the proposed project, as discussed in the EIR, would occur over the life of the project.

The project, if implemented, is not expected to result in impacts that would narrow the range of beneficial uses of the existing project site as a whole. However, the Brawley site has been beneficially used for agricultural production for many uses. The new project will replace those agricultural uses with a variety of other beneficial purposes supporting the mission of SDSU. The new educationally –related uses on the Brawley & Calexico campuses would implement the Master Plan and support the SDSU educational mission. Uses to be eliminated from the Brawley campus site would continue to occur on adjacent lands with adequate buffer systems, and so the previous and

Chapter 9.0 Short-Term Uses/Long-Term Productivity

new uses would combine in a balanced plan that does not sacrifice long-term productivity for short-term use.

In terms of long-term risk, no unique hazards are found on the Calexico or Brawley campus sites, which would constitute risks to public health and safety. All of the proposed structures would be in compliance with the Uniform Building Code, and site-specific geotechnical investigations would provide remedial measures, as necessary, to preclude seismic hazards. During both the construction and operation of the proposed campus facilities, SDSU would be required to comply with all chemical storage regulations. These measures would reduce any adverse hazards to less than significant levels.

10.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

10.1 PURPOSE

Section 15128 of the CEQA Guidelines requires that an EIR briefly describe any potential environmental effects that were determined not to be significant during the Initial Study scoping process and, therefore, were not discussed in detail in the EIR.

10.2 INTRODUCTION

This section contains a brief discussion on the rationale for the determination that certain environmental effects identified at the Initial Study/Notice of Preparation phase of the proposed project would not be significant. The Initial Study for the Draft EIR, prepared by the SDSU Office of Facilities Planning and Management, concluded that the proposed projects would not result in significant impacts in the following environmental categories. Therefore, those issues received no further consideration in the EIR.

10.3 ENERGY AND MINERAL RESOURCES

The construction of the proposed IVC Brawley campus project would not involve the disruption of existing mineral extraction activities or preclude access to known mineral resources. The proposed IVC Brawley campus project would require energy resources for its operation. However, the proposed IVC Brawley campus project is intended to operate as a “sustainable campus” and would be self sufficient in terms of energy generation and consumption, more than satisfying adopted energy conservation plans. The IVC Calexico project site is within the grounds of an existing campus, which does not contain any valuable mineral or energy resources. Implementation of the IVC Calexico expansion project would result in an unsubstantial increase in energy consumption. Therefore, the IVC Calexico project will have no impact on mineral or energy resources.

10.4 POPULATION AND HOUSING

The proposed IVC Brawley campus project may provide future campus housing to serve the needs of the anticipated 850 FTE students and faculty, in combination with the housing stock within the City of Brawley. While the number of students would increase as a result of the proposed IVC Brawley campus project, the number of students would not exceed the established goals of the Master Plan. The proposed IVC Brawley campus project is not anticipated to induce substantial population growth, either directly or indirectly. The project would not result in the displacement of substantial numbers of people; therefore, the construction of replacement housing would not be required.

The IVC Calexico campus will result in an expected increase of 250 FTE students, which would not exceed the established goals of the Master Plan. No campus housing is proposed under this project as the IVC Calexico campus is located central to the City of Calexico, which is considered to have adequate housing stock.

10.5 RECREATION

The proposed IVC Brawley campus project would allow provision for the joint use of its facilities, to sufficiently accommodate the needs of the student population of the surrounding area. Therefore, there would be no increase in the demand for new recreational facilities or use of existing facilities spurred by the construction of the two proposed campuses. Therefore, there would be no impact.

The proposed IVC Calexico project would involve construction of additional classroom and would not eliminate any existing recreation areas, as there are no recreational facilities on site. The proposed IVC Calexico extension project would not generate an increase in users of existing neighborhood parks. Therefore, there would be no impact.

11.0 MITIGATION MONITORING PLAN

IVC Brawley – Mitigation Monitoring Plan

| | |
|---------------------|--|
| Introduction | The Mitigation Monitoring Plan describes the procedures SDSU and others will use to implement the mitigation measures adopted in connection with approval of the IVC Brawley project, and the methods of monitoring such measures. A Monitoring Plan is necessary only for impacts that would be significant if not mitigated. The following consists of a table noting the mitigation measures, the mitigation phases, the responsible person/agencies, the frequency of monitoring and compliance with the Mitigation Plan. Mitigation measures are presented ignorant to alterations potentially associated with the Brawley Phase I EIR and maybe superceded by measures identified and implemented under that project, if approved. |
| Purpose | The Mitigation Monitoring Plan (MMP) has been prepared in conformance with Section 21081.6 of the California Environmental Quality Act. It is the intent of this program to (1) verify satisfaction of the required mitigation measures of the EIR (2); provide a methodology to document implementation of the required mitigation; (3) provide a record of the monitoring; (4) identify monitoring responsibility; (5) establish administrative procedures for the clearance of mitigation measures; (6) establish the frequency and duration of monitoring and (7) utilize existing review processes wherever feasible. |

| Mitigation Measure | Mitigation Phase | Responsible Person/Agency | Frequency of Monitoring | Compliance |
|--|--|-------------------------------|---|------------|
| 3.1 Land Use and Planning | | | | |
| 1. All development shall be in conformance state land CSU guidelines. | Plan Development Design Pre-construction | Architect Engineer SDSU | Not applicable Prior to issuance of a building permit | |
| 2. SDSU will make best efforts to comply with <u>local government design guidelines, and all construction will comply with Title 24, City and County regulations by performing a site analysis as a part of the project design in order to determine what mitigation measures (if any) would be reasonable. Mitigation measures may include setbacks, wall heights, insulation requirements, operating conditions or other design features. SDSU will implement the mitigation recommendations as appropriate.</u> | Plan Development Design Pre-construction | Architect Engineer SDSU | Not applicable Prior to issuance of a building permit | |
| 3.2 Geology /Soils | | | | |
| 1. Adverse discontinuities in strength between major structural elements shall be avoided. | Design | Architect Engineer SDSU | Not applicable Prior to issuance of a building permit | |
| 2. Prior to detailed site planning, a subsurface geotechnical and soils study shall be conducted to determine the shrink-swell potential and to develop design specific measures to ensure structural integrity. Grading and construction plans shall conform to recommendations of the study. | Design | Architect Engineer SDSU | Not applicable Prior to development of preliminary plans | |

Chapter 11.0 Mitigation Monitoring Plan

| Mitigation Measure | Mitigation Phase | Responsible Person/Agency | Frequency of Monitoring | Compliance |
|--|--|-------------------------------|---|------------|
| 3.3 Hazardous Materials/Public Safety | | | | |
| 1. The Phase I ESA recommends that any identified hazardous materials shall be removed from the site. | Pre-construction | Engineer SDSU | <u>Once Prior to construction</u> | |
| 2. The Phase II ESA recommends additional soil sampling following removal of the hazardous wastes to confirm the absence of elevated concentrations of removed wastes (e.g. petroleum hydrocarbons in the vicinity of the 55-gallon waste oil storage drum located in the partially covered shed on the southwestern portion of the property). | Pre-construction | Engineer SDSU | <u>Once Prior to construction</u> | |
| 3.4 Biological Resources | | | | |
| 1. According to the California Department of Fish and Game Staff Report on Burrowing Owl Mitigation (CDFG 1995), mitigation for impacts to burrowing owl foraging and burrowing habitat shall include the acquisition and protection of a minimum of 6.5 acres of foraging habitat per pair or unpaired individual impacted by the proposed project. In addition, the following recommended mitigation protocol, taken from the CDFG Staff Report on Burrowing Owl Mitigation, shall be followed if passive relocation with one-way doors is chosen: "Owls should be excluded from burrows in the immediate impact zone and within a 50-meter (approximately 160 feet) buffer zone by installing one-way doors in burrow entrances. One-way doors (e.g., modified dryer vents) should be left in place 48 hours to insure owls have left the burrow before excavation. Two natural or artificial burrows should be provided for each burrow in the project area that will be rendered biologically unsuitable. The project area should be monitored daily for one week to confirm owl use of burrows before excavating burrows in the immediate impact zone. Whenever possible; burrows should be excavated by hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe should be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow." <u>If burrowing owls are encountered, CDFG will be consulted to ensure the appropriate measures are taken.</u> | Plan Development Design Pre-construction | Architect Engineer SDSU | <u>Not applicable Prior to construction</u> | |
| 3.5 Cultural Resources | | | | |
| 1. It is recommended that a condition be adopted in approval of this project to provide for cultural resource monitoring of the initial phases of project construction to include any and all initial and early stage ground disturbing activities, if an initial finding within the project area where no known resources have been recorded is made, appropriate contact with the local Native American group per the Native American Heritage Commission will ensue, in accordance with the SDSU construction contract conditions, which state that: <u>"If the Contractor discovers any artifacts during excavation and/or construction, the Contractor shall stop all affected work and notify the Trustees, who will call in a qualified archaeologist designated by the California Archaeological Inventory to assess the discovery and suggest further mitigation, as necessary."</u> | Construction Pre-construction | Engineer SDSU | Through construction phase | |

Chapter 11.0 Mitigation Monitoring Plan

| Mitigation Measure | Mitigation Phase | Responsible Person/Agency | Frequency of Monitoring | Compliance |
|--|---|---|--|------------|
| 3.5 Cultural Resources (Continued) | | | | |
| <p>If the Contractor discovers human remains, the Contractor shall notify the Trustees, who will be responsible for contacting the county corner and a qualified archaeologist. If the remains are determined to be Native American, the Trustees shall contact the appropriate tribal representatives to oversee removal of the remains.”</p> <p>If any buried cultural deposits are discovered during construction, development should be suspended and the discovery protected and evaluated for its potential eligibility for listing on the National Register of Historic Places or the California Register of Historical Resources.</p> | | | | |
| 3.6 Traffic | | | | |
| <p>1. SDSU will work with the responsible agencies to coordinate the eEventual signalization of the SR 78/SR 111 S. intersection. The, including northbound movement should provide a dedicated northbound left-turn lane with a shared through-right turn lane shall be completed by Caltrans.</p> <p>2. Annually monitor the project access point on SR 78 for possible signalization.</p> <p>3. Provisionede of an eastbound left-turn pocket and a westbound right-turn pocket on SR 78 at the project access point. And provision of Provide a dedicated southbound left and right-turn lanes at the intersection of a project driveway to SR 78 shall be completed by Caltrans.</p> <p>4. Ensure corner sight distance meetingCaltrans shall ensure that County of Imperial standards is provided-are applied to the corner sight distance at the project-campus access point-to SR 78.</p> <p>5. Dedicate Right of Way (ROW) along the frontage to ultimate SR 78 standards.</p> | <p>Construction</p> <p>Construction Pre-construction</p> <p>Construction Pre-construction</p> <p>Construction Pre-construction</p> | <p>Caltrans</p> <p>Engineer SDSU Caltrans</p> <p>Engineer SDSU Caltrans</p> <p>Engineer SDSU</p> | <p><u>Upon completion of construction</u></p> <p><u>Upon completion of construction Not applicable</u></p> <p><u>Upon completion of construction Not applicable</u></p> <p>Not applicable</p> | |
| 3.7 Public Services/Utilities | | | | |
| <p>1. Prior to final approval, SDSU shall provide the IID with the following:</p> <ul style="list-style-type: none"> a) The project proponentSDSU shall dedicate land and an easement for development of an electrical substation <u>on in any</u> on-site location identified by SDSU and satisfactory to the IID. b) Project design shall provide acceptable adequate access for maintenance roads and corridors with appropriate backsets setbacks between respective transmission and/or distribution lines and/or distribution lines and future structures or improvements. c) Relocation and cost of transmission or distribution lines shall be coordinated between the IID and SDSU. d)Landscaping design requirements for all IID substations of facilities are subject to IID review. Landscaping costs shall be the responsibility of SDSU. e) SDSU will coordinate responsibility of the easements for the campus with the IID <u>and the CSU Chancellor's Office.</u> | Prior to final approval | Architect Engineer SDSU | Not applicable <u>Prior to submittal of schematic plans</u> | |

Chapter 11.0 Mitigation Monitoring Plan

| Mitigation Measure | Mitigation Phase | Responsible Person/Agency | Frequency of Monitoring | Compliance |
|---|--|-------------------------------|--|------------|
| <i>3.7 Public Services/Utilities (Continued)</i> | | | | |
| e) SDSU shall be coordinated with IID on issues such as; load increase, City Code requirements, relocations, upgrades, undergrounding, line extensions, conduits, vaults, pads, switches and regulation charges. | | | | |
| 3.8 Hydrology | | | | |
| 1. The drainage patterns will be coordinated with the City of Brawley to ensure that new drainage patterns from the campus will not adversely affect the City drainage system. A site-specific drainage study and detention basin design shall be conducted by a registered hydraulic engineer and submitted for review provided to and approval by the City and IID, concurrent with each phase of development which will be consistent with engineering standards. | Plan Development Design Pre-construction | Architect Engineer SDSU | Not applicable Prior to construction | |
| 2. SDSU will coordinate with IID to ensure Relocation and undergrounding plans for canals and drains shall be designed to maintain existing flow rates and structure capacity to the satisfaction of IID. | Pre-construction | SDSU | Prior to construction | |
| 3. Any temporary relocation of private or IID canals and drainage ditches shall be approved by coordinated with IID. | Pre-construction | SDSU | Prior to construction | |
| 4. SDSU will coordinate improvements to detention and drainage facilities with the City's Department of Public Works affected agencies. | Pre-construction | SDSU | Prior to construction | |
| 3.10 Agricultural Lands | | | | |
| 1. SDSU has prepared a conceptual land use plan, which incorporates components that minimizes agricultural impacts and promotes buffers from the surrounding agricultural lands in the form of landscaped and recreational areas. will make best efforts to comply with City and County regulations by performing a site analysis as a part of the project design in order to determine what mitigation measures (if any) would be reasonable. Mitigation measures may include setbacks, wall heights, insulation requirements, operating conditions or other design features. SDSU will implement the mitigation recommendations as appropriate. | Plan Development Design Pre-construction | Architect Engineer SDSU | Not applicable Prior to construction | |
| 3.11 Water Quality | | | | |
| 1. The project sponsor shall construct coordinate separate storm drains and sanitary sewers for project facilities so that storm runoff from the project will not increase the frequency or volume of wastewater treatment plant overflows. | Design Construction | Engineer SDSU | Through construction phase | |
| 2. Storm water detention basins, as shown as part of the project design, shall be constructed concurrent with each phase of development at a capacity equal to the flow level now generated plus the increase generated by impervious surfaces created during development. | Construction Pre-construction | Engineer SDSU | Through construction phase | |

12.0 LIST OF PREPARERS

This EIR was prepared by and through San Diego State University, Office of Facilities Planning and Management and their consultant, Mooney & Associates. The persons participating in the preparation of the EIR include: W. Anthony Fulton, Director of Facilities Planning and Management and Lauren Cooper, Project Architect.

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Appendix A
Notice of Preparation and Responses

**NOTICE OF PREPARATION OF DRAFT
ENVIRONMENTAL IMPACT REPORT
AND INITIAL STUDY FOR
SDSU IMPERIAL VALLEY CAMPUS MASTER PLAN PROJECT**

Prepared for:
**The Trustees of the
California State University**
400 Golden Shore
Long Beach, California 90802

Prepared by:
Mooney & Associates
9903 Businesspark Avenue
San Diego, California 92131

In conjunction with:
**San Diego State University,
Facilities Planning & Management**
5500 Campanile Drive
San Diego, CA 92182-1624

May 1, 2002

**NOTICE OF PREPARATION OF A
DRAFT ENVIRONMENTAL IMPACT REPORT**

To: State of California
Office of Planning Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

From: W. Anthony Fulton, Director
Facilities Planning & Management
Business and Financial Affairs
San Diego State University
5500 Campanile Drive
San Diego, California 92182-1624

Notice: The Board of Trustees of the California State University will be the Lead Agency with respect to preparation of a draft Environmental Impact Report ("EIR") for the proposed project identified below. We need to know the views of your agency regarding the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering permits of other project approvals. The failure of an agency to respond to this notice, or otherwise object to the conclusions made in the accompanying Initial Study, may prevent that agency from later asserting that issues excluded by the Initial Study should have been included in the Draft EIR.

The project description, location and the probable environmental effects are contained in the attached Initial Study.

Due to time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice. Please send your written response to: W. Anthony Fulton, Director, Facilities Planning and Management, San Diego State University, 5500 Campanile Drive, San Diego, California 92182-1624. We will also need the name of the contact person in your agency.

Project Title: SDSU Imperial Valley Campus Master Plan

Location: San Diego State University Imperial Valley Campus, Calexico, California
San Diego State University Imperial Valley Campus, Brawley, California

INITIAL STUDY

1.0 INTRODUCTION

As discussed in more detail below, this Initial Study has been prepared by Mooney & Associates, in conjunction with San Diego State University, Facilities Planning and Management, to address the potential environmental effects associated with the proposed Imperial Valley Campus Master Plan project ("proposed project"), located on the existing campus at San Diego State University Imperial Valley Campus ("SDSU") in Calexico, California, as well as a new 200-acre site located in the County of Imperial, east of the City of Brawley, California. The Lead Agency for the proposed project is the Board of Trustees of the California State University.

The purpose of this Initial Study is to provide SDSU with information to use as the basis for determining whether to prepare an Environmental Impact Report ("EIR") or a negative declaration in compliance with the California Environmental Quality Act ("CEQA") and the CEQA Guidelines. If an EIR is determined to be required, this Initial Study will assist in preparing the EIR by, among other things: (a) focusing the EIR on the environmental effects determined to be significant; (b) identifying the effects determined not to be significant; and (c) explaining the reasons for determining that potentially significant effects would not be significant. This Initial Study has been prepared in accordance with the provisions of CEQA and the CEQA Guidelines. Specifically, this Initial Study is intended to satisfy the "content" requirements of Section 15063(d)(1)-(6) of the CEQA Guidelines.

1.1 PROJECT TITLE

SDSU Imperial Valley Campus Master Plan

1.2 LEAD AGENCY NAME AND ADDRESS

The California State University
401 Golden Shore
Long Beach, California 90802-4210
(562) 951-4020

1.3 CONTACT PERSON AND PHONE NUMBER

W. Anthony Fulton
Director of Facilities Planning and Management
Business and Financial Affairs
San Diego State University
5500 Campanile Drive
San Diego, California 92182-1624
(619) 594-5224

1.4 PROJECT LOCATION

San Diego State University Imperial Valley Campus
Calexico and Brawley, California

1.5 PROJECT SPONSOR'S NAME AND ADDRESS

San Diego State University
Facilities Planning and Management
Business and Financial Affairs
5500 Campanile Drive
San Diego, California 92182-1624

1.6 GENERAL PLAN/COMMUNITY PLAN DESIGNATION/ZONING

Calexico Campus, Open Space
Brawley Campus, Agriculture

1.7 PROJECT DESCRIPTION

1.7.1 LOCAL AND REGIONAL SETTING

The proposed project sites are located on the campus of the San Diego State University Imperial Valley Campus ("SDSU"), located in the City of Calexico (Figure 2), and a new site in the northeast portion of the County of Imperial, east of the City of Brawley (Figure 1). As shown on Figure 2, *Vicinity Map*, the general boundaries of the Calexico campus are Heber Avenue to the West, 7th Street to the south, Sherman Avenue to the north, and Blair Avenue to the east. The SDSU Imperial Valley Calexico campus, consisting of approximately 8.3 acres, is located in downtown Calexico. Regional access to the campus is provided by State Route 111 from the north or State Highway 98 from the east and west.

The Brawley campus is bound by State Highway 78 to the south, the Wills Drain to the west and north, and Moorhead Canal to the east. Regional access to this campus is provided by State Route 78 and State Route 111.

SDSU is located on state property, which is not subject to zoning laws, zoning ordinances, or local general plans. However, the campus of SDSU Calexico is located within the City of Calexico General Plan area, and the SDSU Brawley Campus is located within the County of Imperial General Plan area, just east of the City of Brawley.

1.7.2 PROJECT DESCRIPTION

The proposed SDSU Imperial Valley Campus Master Plan project is intended to improve and enhance facilities on the existing Imperial Valley Campus - Calexico ("IVC Calexico") site, and to increase education opportunities by adding a second campus in the northern part of the County. The overarching goal of this plan is to expand the educational offerings in the Imperial Valley. The proposed project would result in the possible addition of new classroom and administrative buildings on the IVC Calexico to increase the full time equivalent enrollment (FTE) from 400 FTE to 850 FTE.

4.0 DETERMINATION

On the basis on this evaluation:

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

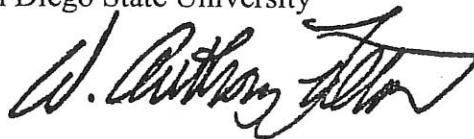
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on the attached sheet have been added to the project. A NEGATIVE DECLARATION will be prepared.

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

I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards; and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.

San Diego State University



By: _____

W. Anthony Fulton, Director of
Facilities Planning and Management

The second campus, Imperial Valley Campus – Brawley (“IVC Brawley”) would result in the development of new classroom and administrative buildings to provide facilities for up to 850 FTE.

Figure 3 is a land use diagram documenting existing land uses on the IVC Calexico Campus. Figure 4 shows the proposed Calexico Campus Master Plan. Figure 5 shows an aerial photograph of the existing Brawley site, and Figure 6 shows the proposed Brawley Campus Master Land Use Plan.

For purposes of this Notice of Preparation and Initial Study, the proposed project is addressed in two groups of project components. The Master Plan shall be analyzed at a program level, while the development of each of the Campus Plans shall be analyzed at a project level.

2.0 OTHER AGENCIES WHOSE APPROVAL MAY BE REQUIRED

The Board of Trustees of the California State University is the Lead Agency for the proposed SDSU Imperial Valley Campus Master Plan project. Other known public agencies whose approval may be required as a prerequisite to construction and implementation of the proposed project include: The City of Brawley (for proposed improvements/modifications to public streets and utilities, if any); the City of Calexico (for proposed improvements/modifications of public streets and utilities, if any); the Imperial County Air Pollution Control District (for permitting due to air emissions from certain project components, if any); the Regional Water Quality Control Board (for water quality permitting, if any); and the Imperial Irrigation District (for proposed improvements to drainage or utilities, if any).

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

| | | |
|------------------------------|---------------------------------|------------------------------------|
| Aesthetics/Visual Quality | X Agricultural Resources | X Air Quality |
| X Biological Resources | X Cultural Resources | Energy and Mineral Resources |
| X Geology/Soils | X Hazards | X Land Use and Planning |
| X Noise | Parking | Population and Housing |
| X Public Services | Recreation | Significance and Mandator Findings |
| X Transportation/Circulation | X Utilities and Service Systems | X Water Quality/Hydrology |

5.0 INITIAL STUDY/ENVIRONMENTAL CHECKLIST FORM

The following is a brief explanation of each environmental topic addressed in the Initial Study Checklist. As described in the project description section above, the project would entail modifications to one campus facility and construction and development of a new Brawley campus. In accordance with Section 15063(d) of the CEQA Guidelines, the following checklist was prepared to identify the potential environmental effects of the proposed project. After each environmental topic is assessed, a brief discussion of the basis for the assessment is also provided below:

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------------|--|------------------------------------|--------------------------|
| I. AGRICULTURE RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project: | | | | |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | √ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Conflicts with existing zoning for agricultural uses, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |

DISCUSSION: There are no agricultural resources located on the proposed SDSU campus expansion in Calexico which would be impacted by the implementation of the proposed project. However the Brawley campus is located within agricultural lands designated on the FMMP list as Prime Farmland and/or Farmland of Statewide Importance. Additional farming operations exist in the surrounding area of the proposed Brawley Project, that may be affected due to the conversion of the land to an educational use. While the Brawley campus site will focus on agribusiness and reserve space onsite for agricultural development, potential impacts may occur due to the elimination of agricultural lands.

II. AESTHETICS. Would the project:

| | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| c) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |

DISCUSSION: The proposed Calexico campus expansion will involve building structures consistent with the existing campus character. Construction of the Brawley site will alter the existing visual character of the surrounding area due to the size of the campus buildings and the placement of lighted recreational athletic fields as the proposed site is currently vacant. Development of the Brawley site would therefore create new light sources from fields, parking lots, and buildings. However the field would be placed away from residential housing areas. The proposed project would include lighting standards in compliance with the County of Imperial and City of Calexico General Plans. The incorporation of the listed artificial lighting mitigation measures into the project design would reduce the potential impacts to a less than significant level.

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

| | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | √ | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including | | | | |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------------|--|------------------------------------|--------------------------|
| releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | √ | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutants concentrates? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |

DISCUSSION: An air quality assessment will be prepared in conjunction with the Draft EIR for both sites, which will analyze the potential of significant air quality impacts. The proposed campuses are both located within the San Diego Air Basin which is regulated by the Imperial County Air Pollution Control District (APCD). Ozone (O₂) is the principal air quality problem in Imperial County. In addition, Carbon monoxide (CO) is also increasing due to vehicle emissions. The additions at IVC Calexico and the additional campuses may increase traffic and may consequently increase air emissions. Therefore, potentially significant air quality impacts may occur as a result of the proposed projects.

IV. BIOLOGICAL RESOURCES. Would the project:

| | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife? | <input type="checkbox"/> | √ | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| d) Interfere substantially with movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| e) Conflict with an local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |

DISCUSSION: A biological technical report will be prepared as a part of the Draft EIR. The two projects are in compliance with existing policies and ordinances regarding preservation of wetlands and other conservation plans. Construction of the Brawley campus may effect sensitive habitat within the proposed project area due to the site's construction in undeveloped regions and near drainage areas. No sensitive habitat impacts are anticipated during the construction of the Calexico campus. The technical report will evaluate the potential direct and indirect impacts to sensitive habitat as a result of the projects. Potentially significant biological resource impacts may occur as a result of the proposed projects.

V. CULTURAL RESOURCES. Would the project:

| | | | | |
|--|--------------------------|--------------------------|--------------------------|---|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| b) Cause a substantial adverse change in the | | | | |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------------|--|------------------------------------|--------------------------|
| significance of an archaeological resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |

DISCUSSION: A cultural resources technical report will be prepared in conjunction with the Draft EIR. This analysis will take inventory of existing facilities for each project component in order to determine if existing historical buildings or resources have the potential to be altered or damaged by implementation of the proposed project. It is not anticipated that project reports during project design and engineering phases would delineate the location of any resources. It is further anticipated that the proposed project would not involve the disruption of human remains buried outside of formal burial grounds; there are no such known areas located within the campus boundaries. However, the proposed Brawley site is located in an area where archaeological resources could be discovered. The potential impacts will be analyzed in the Draft EIR and mitigation measures will be provided if required.

VI. GEOLOGIC PROBLEMS. Would the project:

| | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of known fault (refer to Division of Mines and Geology Special Publication 42)? | <input type="checkbox"/> | √ | <input type="checkbox"/> | <input type="checkbox"/> |
| ii) Strong seismic ground shaking? | √ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| b) Result in substantial soil erosion or loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |

DISCUSSION: While no geotechnical conditions have been identified which would preclude the development of the two campuses, potential geology and soil impacts exist due to seismic hazards within the project areas. The seismicity of the project is influenced by both local and regional fault systems. This would make the campuses subject to severe ground shaking during an active earthquake. Design parameters will be implemented in order to reduce the significance of the impact. However a geotechnical study will be prepared in conjunction with the Draft EIR in order to evaluate the potential geology and soils impacts associated with the proposed project.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|--------------------------|
| VII. HAZARDS AND HAZARDOUS MATERIALS. Would the project: | | | | |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous material? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| c) Emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | √ | <input type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for the people residing or working in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| g) Impair implementation of or physically interference with an emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| h) 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |

DISCUSSION: Neither project site will involve the routine transport, use, or disposal of hazardous materials onsite or within the surrounding project area. The handling of chemicals in the science and research departments will be in compliance with all health and safety requirements and will not pose a significant impact. In addition, neither site is located within two miles of a nearby airport or airstrip. The proposed Brawley campus site has been historically used for agricultural operations. Pesticides or other hazardous materials may be present and pose a health threat to future students and staff. Onsite contamination may have resulted during agricultural operations, fuel tank leakage, fuel spills, contaminated imported soils, fertilizers, and other site operations. The potential impacts will be analyzed in a Phase I Environmental Site Assessment, in conjunction with the Draft EIR. The Calexico campus site is not located on a site contained on a hazardous materials list.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|--------------|
|--|--------------------------------------|--|------------------------------------|--------------|

VIII. HYDROLOGY AND WATER QUALITY. Would the project:

| | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| a) Violate any water quality standard or waste discharge requirement? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | √ | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| e) 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? | <input type="checkbox"/> | √ | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| i) 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| j) Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |

DISCUSSION: Neither of the two proposed campuses will violate any existing water quality standards or place structures within a 100-year floodplain. The proposed Brawley project may require alterations to the existing Wills drainage channel, however such drainage changes will be implemented as a part of the overall project design. The widening of existing drainage channels at the Brawley campus may affect runoff and siltation within the adjacent Moorhead Canal and Mills Drain. A hydrology and water quality technical report will be prepared as a part of the Draft EIR. The potential impacts associated with the proposed project will be analyzed and if required, mitigation measures will be implemented to reduce impacts.

IX. LAND USE AND PLANNING. Would the project:

| | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| a) Physically divide the physical arrangement of an established community (including a low-income or minority community)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | √ | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Conflict with applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |

DISCUSSION: The construction of both campuses will not effect a conservation plan or an established residential community. The Calxico campus will be compatible with existing land use plans. The land is currently in an open space zone, which is consistent with the existing campus. However, the Brawley campus site is currently zoned agricultural. While a college campus on State property is exempt from local land use designations, the campus may have potential

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|--------------|
|--|--------------------------------------|--|------------------------------------|--------------|

impacts on the surrounding agricultural community. The potential impacts will be analyzed, and if required mitigation measures will be provided to lessen impacts.

X. MINERAL RESOURCES. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|---|
| a) Result in the loss of availability of a known mineral resource that would be of future value to the region and residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |

DISCUSSION: The construction of the proposed project would not involve the disruption of existing mineral extraction activities. In addition, it is not anticipated that the proposed project will involve construction of buildings or facilities which could preclude access to known mineral resources. The proposed project would require energy resources for its operation. However the Brawley site will operate as a site for energy research, and therefore will be in compliance with adopted energy conservation plans. Therefore, there would be no impact.

XI. NOISE. Will the proposal result in:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| b) Exposure of persons to or generation of excessive groundborne vibrations or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | √ | <input type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |

DISCUSSION: An acoustical assessment will be prepared in conjunction with the Draft EIR. Possible temporary and permanent increases in noise levels would be associated with construction of the sites, operation of the sites, and the traffic impacts associated with the projects. The acoustical assessment will evaluate the effects of the project or sensitive nearby receptors as well as surrounding noise impacts on the site. The study will document any substantial increases to existing ambient or community noise equivalent levels (CNEL) that may occur. Therefore, potentially significant noise impacts may occur as a result of the proposed projects, and if required, mitigation measures will be proposed to lessen the impacts.

XII. POPULATION AND HOUSING. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| a) Induce substantial population growth in an area either directly or indirectly (for example, by proposing new homes and businesses) or indirectly (for example through extension of roads or other infrastructure? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |

DISCUSSION: The proposed Brawley campus may provide campus housing in order to serve the needs of the anticipated 850 students and faculty. The proposed Calexico campus will increase the expected student population by approximately 350 students, but will provide no housing onsite. While student populations at both sites would increase as a result of the project, the number of students would not exceed the established goals of their respective master plans.

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|--------------|
|--|--------------------------------------|--|------------------------------------|--------------|

Therefore, the proposed project is not anticipated to induce substantial population growth, either directly or indirectly. The project would not result in the displacement of substantial numbers of people, therefore, the construction of replacement of housing would not be required.

XIII. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision or new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- | | | | | |
|---------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Fire protection? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Police protection? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Other public services? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION: The proposed Brawley campus would require additional police and fire facilities/apparatus in order to service the needs of the new campus community and remain in compliance with the County's General Plan. The proposed site's relatively rural location and population increase could potentially result in increased response times and staffing issues for both the fire and police department. It is anticipated that a security officer would patrol the campus to provide first response services to the Campus. The project site in Brawley would provide school property and parkland according to the design plan. Therefore, the implementation would actually increase the number of public school and park services available. However, the increased demand for police and fire services particularly at the Brawley campus will be analyzed as a potential significant impact in the Draft EIR. No significant impacts in Calexico are expected.

XIV. RECREATION.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION: The construction of the proposed Calexico campus extension would involve the construction of additional classrooms and would not eliminate any existing recreation areas, as there are no recreational facilities on-site. The proposed Brawley campus would include its own recreational facilities, to sufficiently accommodate the recreational needs of the student population of surrounding area. Therefore, there would be no increase in the demand for new recreational facilities or use of existing recreational facilities spurred by the construction of the two proposed campuses. Therefore, there would be no impact.

XV. TRANSPORTATION/CIRCULATION. Would the proposal result in:

- | | | | | |
|--|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections? (30) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------------|--|------------------------------------|--------------------------|
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| d) Substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| f) Result in inadequate parking capacity? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| g) Conflicts with adopted policies, plans, or programs supporting alternative transportation(e.g., bus turnouts, bicycle racks)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| h) Result in rail, waterborne, or air traffic impacts? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |

DISCUSSION: A traffic assessment will be prepared for the project in conjunction with the Draft EIR. The traffic analysis will determine how much new traffic will be generated due to the project components. The traffic analysis will also determine the potential shift in traffic volumes and patterns that would occur with implementation of the proposed projects. In addition the traffic analysis will determine the project's potential impacts on key intersections and any recommended mitigation. Adequate parking and emergency access will be provided under the project design plan in Brawley. Due to the increase in students and faculty at both sites, potentially significant traffic impacts may occur as a result of the two campus projects.

XVI. UTILITIES AND SERVICE SYSTEMS. Would the project;

| | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | √ | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Require or result in construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | √ | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal need? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |

DISCUSSION: Both of the campuses require access to public utilities such as electricity, natural gas, communications systems, water, sewer and stormwater drainage. The construction of the Brawley campus may require expansion of existing drainage and stormwater facilities due to the relatively rural location of the proposed project site. While there may be anticipated capacity available at the existing Imperial Irrigation District Treatment Facilities, there may be deficiencies in the connection between the site and the treatment plant. In addition, the runoff created from the additional hard surfaces on the proposed site could create stormwater levels that may exceed existing capacity levels. Therefore, this issue could result in a potentially significant impact.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE.

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history

| | Potentially Significant Impact | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|--------------------------|
| or prehistory? | <input type="checkbox"/> | <input type="checkbox"/> | √ | <input type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | √ |

DISCUSSION: The proposed development areas are not anticipated to contain rare endangered fish, wildlife, or plant habitat. Therefore the project would not significantly reduce the populations of such species. In addition, the known cultural resources within the project areas are below the level of significance and will not be directly impacted by the project. Cumulative impacts may occur as a result of the proposed projects and will be analyzed in the EIR and are not anticipated to have a significant impact. Technical reports prepared in conjunction with the EIR will analyze the direct and cumulative impacts caused by the program. However, no substantial environmental impacts are anticipated to adversely affect human beings as a result of the project.

6.0 DISTRIBUTION LIST

The initial study and Notice of Preparation of the Draft EIR for the proposed SDSU Imperial Valley Campus Master Plan project was distributed to the following agencies, organizations and other interested parties:

STATE AGENCIES

Terry Roberts, Senior Planner
Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
P.O. Box 3044 (95812-3044)
Sacramento, California 95814
Telephone: (916) 322-3170
(15 copies)

Bill Figge
State of California, Dept. of Transportation
Caltrans – District 11, San Diego
2829 Juan Street, MS 65
San Diego, California 92110
Telephone: (619) 688-3140

LOCAL AGENCIES

Jurg Heuberger, Planning Director
County of Imperial
939 Main Street
El Centro, California 92243
Telephone: (760) 339-4236

Richardo Hinojosa, Planning Director
City of Calexico
608 Heber Avenue
Calexico, California 92231
Telephone: (760) 768-2118

Jerry Santillan, City Manager
City of Brawley
400 Main Street
Brawley, California 92227
Telephone: (760) 344-9111

REGIONAL AGENCIES

Jim Gosnell

Imperial Valley Association of Governments
818 W. Seventh Street, 12th
Los Angeles, California 90017
Telephone: (213) 236-1800

Brad Poirez

County of Imperial Air Pollution Control Department
150 South Ninth Street
El Centro, California

COMMUNITY GROUPS/ORGANIZATIONS/OTHERS

Dr. Khosrow Fatemi, Dean of the Campus

SDSU Imperial Valley Campus
720 Heber Avenue
Calexico, California 92231
Telephone: (760) 768-5520

7.0 LIST OF PERSON(S) WHO PREPARED INITIAL STUDY

This Initial Study was prepared by Mooney & Associates in association with San Diego State University, Facilities Planning and Management. The persons participating in the Initial Study include: (a) W. Anthony Fulton, Director of Facilities Planning and Management, (b) Lauren Cooper, Facilities Planning and Management, (c) Carey J. Fernandes, Project Manager, Mooney & Associates, (d) Jose Bodipo-Memba, Environmental Planner, Mooney & Associates.



CITY OF BRAWLEY


PLANNING DEPARTMENT
400 MAIN ST. - PLAZA PARK
BRAWLEY, CALIFORNIA 92227
PHONE: (760) 344-8822
FAX: (760) 344-0907

May 31, 2002

W. Anthony Fulton, Director
Facilities Planning & Management
Business and Financial Affairs
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1624

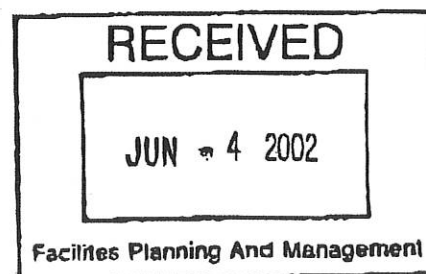
SUBJECT: Comments of the "Notice of Determination" for a Draft EIR for
the proposed SDSU "Imperial Valley Campus Master Plan"

Dear Mr. Fulton:

The City of Brawley Planning Department received on May 3, 2002, the "Notice of Preparation (NOP)" and "Initial Study" for the preparation of a Draft Environmental Impact Report that was dated May 1, 2002, from San Diego State University (SDSU). According to the cover letter, the responses must be sent not later than 30 days after receipt, i.e. **June 2, 2002**.

The "Notice of Preparation" was addressed to the State Office of Planning and Research for their review. The Board of Trustees of the California State University is identified as the California Environmental Quality Act (CEQA) "lead agency" for the "... preparation of a draft Environmental Impact Report (EIR) for the proposed project ...". According to the NOP, the proposed project is to be addressed in two groups of project components, the "... Master Plan shall be analyzed at a program level, while the development of each of the Campus Plans shall be analyzed at a project level.

The Planning Department has several comments on the Notice of Preparation and Initial Study submitted for review on the following two pages:



Comments:

1. The Notice of Preparation and California Environmental Quality Act (CEQA) Initial Study was prepared pursuant to Section 15063(d)(1)-(6) of the CEQA Guidelines. However, the statement indicating the purpose of the Initial Study is to determine "... whether to prepare an Environmental Impact Report (EIR) or a negative declaration ..." conflicts with the remainder of the NOP that indicates a Draft Environmental Impact Report will be prepared and not for the preparation of a negative declaration. Please clarify this in the Draft EIR to be submitted for review.
2. The Draft EIR should provide sufficient details to fully mitigate all cumulative transportation impacts that the new Brawley campus and other proposed activities would have on State Highway 78 and adjacent County and City Roads.
3. The NOP does not indicate whether or not there will be public transportation provided to and from the SDSU Brawley campus, where parking will be located for the projected 850 students, and any necessary improvements to State Highway 78 for acceleration and deceleration lanes for ingress and egress to the campus. The Draft EIR section regarding cumulative transportation impacts to the area should reference the traffic study prepared as part of the Final EIR for the Luckey Ranch project since this area is just east of the Luckey Ranch Specific Plan area and the proposed SR78/111 Brawley Bypass.
4. The Draft EIR should fully address the proposed potable water, sewer system, and drainage system and how they will comply to the City of Brawley's standards for development.
5. The Initial Study does not appear to discuss any physical mitigation measures to create a separation of the existing agricultural fields on the west, north and east and the proposed new school site. Considering the wind patterns, aerial applications of pesticide and/or other airborne pollutants from the adjacent agricultural fields may drift onto the proposed campus, thus creating potential complaints from future employees, students, and/or visitors.
6. The Draft EIR should specify how the necessary infrastructure for all the proposed facilities would be financed and, if done in a phased manner, the phases should be identified, and who will be responsible for completion of the necessary services and future maintenance.
7. The Public Services section (XII) of the NOP Initial Study does not contain a "design plan" identifying where "parkland will be provided. This should be provided in the Draft EIR.

8. The Utilities and Service Systems section (XVI) is not specific when referring to treatment facilities. The Draft EIR should specifically identify what treatment facilities are being referred to in the NOP.
9. The Draft EIR should include a fiscal analysis in order to determine the assumptions and risks involved and the potential financial impacts the City of Brawley and County of Imperial may face when constructing and maintaining this proposed development.


Conclusion:

The City of Brawley reserves the right to submit further comments on the project when the Draft EIR has been received.

We look forward to working with San Diego State University, future developers and other affected agencies in the review and approval of the new SDSU campus in Brawley.

If you have any questions, please contact me at 760-344-8822.

Sincerely,


Gordon R. Gaste
City Planner

STATE OF CALIFORNIA

Gray Davis, Governor

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364

SACRAMENTO, CA 95814

(916) 653-4082

(916) 657-5390 - Fax



Levine

May 24, 2002

W. Anthony Fulton
California State University, San Diego
5500 Campanile Drive
San Diego, CA 92182

RE: SCH# 2002051010 - SDSU Imperial Valley Campus Master Plan Project, San Diego County

Dear Mr. Fulton:

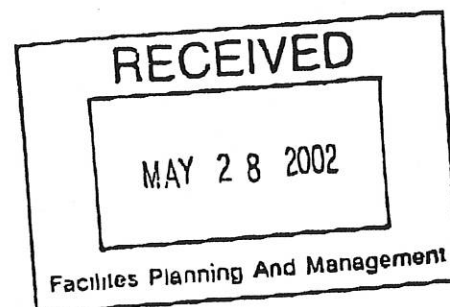
The Native American Heritage Commission has reviewed your letter regarding the above project. To adequately assess and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required:

- ✓ Contact the appropriate Information Center for a record search. The record search will determine:
 - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
 - If any known cultural resources have already been recorded on or adjacent to the APE.
 - If the probability is low, moderate, or high that cultural resources are located in the APE.
 - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure.
 - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
 - A Sacred Lands File Check.
 - A list of appropriate Native American Contacts for consultation concerning the project site and to assist in the mitigation measures.
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
 - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
 - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
 - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5 (e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,

Rob Wood
Environmental Specialist III
(916) 653-4040

CC: State Clearinghouse





PLANNING/BUILDING DEPARTMENT

IMPERIAL COUNTY

PLANNING / BUILDING INSPECTION / PLANNING COMMISSION / A.L.U.C.

JURG HEUBERGER, AICP, CEP
PLANNING/BUILDING DIRECTOR

May 13, 2002

W. Anthony Fulton, Director
Facilities Planning & Management
Business and Financial Affairs
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-1624

RECEIVED

MAY 16 2002

Facilities Planning And Management

SUBJECT: Comments on the "Notice of Determination" for a Draft EIR for the Proposed SDSU's "Imperial Valley Campus Master Plan"

Dear Mr. Fulton:

The Planning/Building Department has received on May 3rd, the "Notice of Preparation (NOP)" and "Initial Study" for the preparation of a Draft Environmental Impact Report that was dated May 1, 2002, from San Diego State University (SDSU). According to the cover letter, the deadline for comments is "...not later than 30 days after receipt of this notice..." i.e. June 2, 2002.

The "Notice of Preparation" was addressed to the State Office of Planning and Research for their review. The Board of Trustees of the California State University is identified as the California Environmental Quality Act (CEQA) "lead agency" for the "...preparation of a draft Environmental Impact Report ("EIR") for the proposed project..." According to the NOP, the proposed project is to be addressed in two groups of project components, the "...Master Plan shall be analyzed at a program level, while the development of each of the Campus Plans shall be analyzed at a project level.

The Planning/Building Department has a number of comments on the "Notice of Preparation" and "Initial Study" submitted for review as follows:

(1) The "Notice of Preparation" and California Environmental Quality Act (CEQA) "Initial Study" was prepared pursuant to Section 15063(d)(1)-(6) of the CEQA Guidelines. In the "INITIAL STUDY", 1.0 INTRODUCTION, second paragraph, states that "...The purpose of this Initial Study is to provide SDSU with information to use as the basis for determining whether to prepare an Environmental Impact Report ("EIR") or a **negative declaration** in compliance with the California Environmental Quality Act ("CEQA") and the CEQA Guidelines..." (emphasis added).

W. Anthony Fulton
May 13, 2002
Page 2 of 5

This statement conflicts with the remainder of the NOP document that indicates that a "Draft Environmental Impact Report" will be prepared and not for the preparation of a CEQA "negative declaration". Please clarify this in the Draft Environmental Impact Report to be submitted for the County's review.

(2) On Figure 6, "Proposed Concept Master Plan IVC - Brawley", the proposed concept for the new 200-acre Brawley Campus identifies various areas as the PARTNER CAMPUS, FUTURE R&D, AGRICULTURE RESEARCH, DESERT FARMING INSTITUTE, POSSIBLE FARMERS' MARKET, and ENERGY "FARM". However, in none of the responses to the CEQA "Initial Study" are any these proposed areas specifically described, e.g. types of activities, number of employees, daily vehicle trips to and from the campus, to name a few. The Draft EIR should provide more details as to what these proposed areas are and the potential cumulative environmental impacts for each activity on the entire Master Plan for the Brawley campus.

The "Initial Study", 1.7 PROJECT DESCRIPTION, section 1.7.2 PROJECT DESCRIPTION, states that the "...second campus, Imperial Valley Campus - Brawley (IVC Brawley)" would result in the development of new classroom and administrative buildings to provide facilities for up to 850 FTE..." How many students are envisioned for the two "PARTNER CAMPUS" areas? How many employees are envisioned for the "AGRICULTURE RESEARCH" and "DESERT FARMING INSTITUTE" areas?

In order to determine what traffic and circulation impacts the new Brawley campus and other proposed activities will have on State Highway 78 and adjacent County roads, the Draft EIR should provide sufficient details to fully mitigate all cumulative transportation impacts.

(3) The "200-acre" parcel mentioned in the "Notice of Preparation" has been identified by SDSU's consultant as #047-390-01-01, that is "235.29 acres" in size, based on the latest Assessor's office plat map. In the event that the entire 235-acre parcel is not donated to SDSU, then it is possible that a "minor subdivision" of this parcel would be required under the State Subdivision Map Act. The consultant has informed the County that negotiations are still underway with the landowner. The Draft EIR should clarify the discrepancy in parcel size when the draft document is submitted for public review.

(4) The parcel is partially within the "D Zone" of the Brawley Municipal Airport and will require a review by the Airport Land Use Commission (Commission) for consistency with the Airport Land Use Compatibility Plan. The SDSU consultant has indicated that the submittal to the Commission for review will occur once the Draft EIR has been completed and submitted for public review. The need for the Airport Land Use Commission's review should be clarified in the Draft EIR.

W. Anthony Fulton
May 13, 2002
Page 3 of 5

(5) Within the NOP, Section 2.0 OTHER AGENCIES WHOSE APPROVAL MAY BE REQUIRED, Imperial County Public Works Department should be considered as a "...known public agencies whose approval may be required as a prerequisite to construction and implementation of the proposed project..." for review of the Brawley campus traffic study on impacts to local County roads, for review of the proposed traffic mitigation measures and their adequacy.

(6) The proposed SDSU Brawley campus location is just east of the Luckey Ranch, Specific Plan area, and east of the proposed SR 78/111 Brawley Bypass, and the Draft EIR section regarding cumulative transportation impacts to the area should reference the traffic study prepared as part of the Final EIR for the Luckey Ranch project. There is no indication in the NOP as to whether or not there will be public transportation, i.e. a bus route, provided to and from the SDSU Brawley campus, where parking will be located for the 850 students as well as the necessary improvements to State Highway 78 for acceleration and deceleration lanes in and out of the Brawley campus.

(7) The NOP's "Initial Study" does not indicate the number of on-site retention basins throughout the proposed development, nor does it state when they will be constructed, whether or not they will be constructed on a phased basis or all at once, nor when the construction of this drainage system will be done. The proposed potable water, sewer system, and drainage system for the new Brawley campus should be fully addressed in the Draft EIR.

Please provide a proposed schedule of when the drainage system will be developed and what mechanisms will be instituted to prevent flooding of adjacent properties and ensure the proper discharge into adjacent Imperial Irrigation District drains if any.

(8) The "Initial Study" does not appear to discuss any physical mitigation measures, e.g. berms, landscaping, or site setbacks to create a separation of the existing agricultural fields on the west, north and east and the proposed new school site. With the County's wind patterns a factor, it could only be a matter of time before pesticide and/or other airborne pollutants from the adjacent agricultural fields with aerial applications drifting onto the proposed Brawley campus, thus creating potential complaints from future employees, students and/or visitors.

Has the local crop-dusting community been advised through the "NOP" process of the new Brawley campus for their input on this proposal? The Draft EIR should address the potential for wind-borne emissions of pesticides, herbicides, and insecticides onto the proposed school site.

(9) The new Brawley campus site is located within the "Agriculture" land use designation in the Land Use Element, Land Use Plan Map and is zoned as "A-2 (General Agriculture)" on Map #2 for the Brawley area. The continuing conversion

W. Anthony Fulton
May 13, 2002
Page 4 of 5

of agriculture-designated lands in Imperial County outside the "URBAN" areas that is listed as "Prime Farmland" and "Farmland of Statewide Importance" is a concern. The Draft EIR should specify how the necessary infrastructure for all of the proposed facilities would be financed and if done in a phased manner, the various phases should be identified, and who will be responsible for completion of the necessary services and future maintenance.

(10) The Air Quality section, III AIR QUALITY, states, "...The proposed campuses are both located within the San Diego Air Basin..." Please clarify that both of the campuses, in Calexico and Brawley, are both located in the "Salton Sea Air Basin" and not the "San Diego Air Basin".

(11) The Biological section, IV BIOLOGICAL RESOURCES, states, "...A biological technical report will be prepared as part of the Draft EIR...Potentially significant biological resource impacts may occur as a result of the proposed projects..." The Burrowing Owl is a state-sensitive species that may be impacted by the proposed development.

(12) The Public Services section, XIII PUBLIC SERVICES, states, "...The project site in Brawley would provide school property and parkland according to the design plan..." However in Figure 6 that identifies various uses only talks about "Community Use/Node" and "Recreation" and depicts two basketball courts. The "parkland" that is being proposed is not identified and there is no "design plan" submitted as part of the NOP's "Initial Study" to review for consistency purposes. The Draft EIR should identify where "parkland" will be provided.

(13) The Utilities and Services System section, XVI UTILITIES AND SERVICE SYSTEMS, states, "...While there may be anticipated capacity available at the existing Imperial Irrigation District Treatment Facilities, there may be deficiencies in the connection between the site and the treatment plant..." It is unclear as to what "Treatment Facilities" the NOP is referring to? The nearest water treatment facility is the Brawley Wastewater Treatment Plant to the northwest of the proposed development. The Draft EIR should be specific in what treatment facilities that are being referred to in the NOP.

(14) The Draft EIR should include a fiscal analysis in order to determine the assumptions and risks involved and potential financial impacts that may face the City of Brawley and County of Imperial when constructing and maintaining this proposed development.

(15) The NOP, last page, identifies the "REGIONAL AGENCIES" and identifies Jim Gosnell as being a member of the "...Imperial Valley Association of Governments..." However, the address for Mr. Gosnell is for the Southern California Association of Governments (SCAG) in Los Angeles.

W. Anthony Fulton
May 13, 2002
Page 5 of 5

Also, the title of the County of Imperial Air Pollution Control "Department" should read "District" and should be clarified in any future documents submitted for review.

Conclusion:

When the Draft EIR has been received, the County Planning/Building Department reserves the right to submit further comments on the project.

We look forward to working with the City of Brawley, the San Diego State University, future developers and other affected agencies in the review and approval of the new SDSU campus in Brawley.

If you have any questions, please contact me at (760) 482-4236, extension 4310.

Sincerely,



JURG HEUBERGER, AICP, CEP
Planning Director

cc: Ann K. Capela, County Executive Officer
Ralph Cordova, County Counsel
Joanne L. Yeager, Asst. County Counsel
Jerry Santillan, Brawley City Manager
Ricardo Hinojosa, Calexico Planning Director
Tim Jones, Public Works Director
Steve Birdsall, Agricultural Comm/APCO
Bill Figge, CALTRANS, District 11
Jesse Silva, IID General Manager
SDSU "Notice of Preparation" File
Files: 10.105, 10.138, 50.000

JH/rc:g:jurg gen corr/SDSUNOPBrawleyCampusRevised

Appendix B
Phase I Environmental Site Assessment Update, and
Phase II Environmental Site Assessment



**PHASE I
ENVIRONMENTAL SITE ASSESSMENT UPDATE
LUCKEY RANCH
APN 047-390-01
BRAWLEY, CALIFORNIA**

PREPARED FOR:
Mooney & Associates
9903-B Business Park Avenue
San Diego, California 92131-1120

PREPARED BY:
Ninyo & Moore Geotechnical and Environmental Sciences Consultants
5710 Ruffin Road
San Diego, California 92123

April 26, 2002
Project No. 104646001

April 26, 2002
Project No. 104646001

Ms. Carey Fernandes
Mooney & Associates
9903-B Business Park Avenue
San Diego, California 92131-1120

Subject: Phase I Environmental Site Assessment Update
Luckey Ranch
APN 047-390-01
Brawley, California

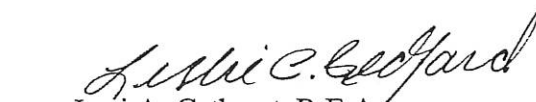
Dear Ms. Fernandes:

In accordance with your authorization to proceed and our proposal No. P-4605B, dated February 27, 2002, Ninyo & Moore has performed a Phase I Environmental Site Assessment Update for the above-referenced property. The attached report presents our methodology, findings, conclusions and recommendations regarding the environmental conditions at the site.

We appreciate the opportunity to be of service to you on this project. Should you have any questions, please contact the undersigned at your convenience.

Sincerely,
NINYO & MOORE


Travis L. Stravasnik
Senior Staff Environmental Scientist


for Lori A. Cathcart, R.E.A.
Operations Manager, Environmental Sciences Division

DMS/TLS/LAC/kmf

Distribution: (3) Addressee

TABLE OF CONTENTS

| | <u>Page</u> |
|--|-------------|
| EXECUTIVE SUMMARY | 1 |
| 1. INTRODUCTION | 4 |
| 1.1. Purpose | 4 |
| 1.2. Involved Parties | 4 |
| 1.3. Scope of Work | 4 |
| 2. GENERAL SITE AND VICINITY CHARACTERISTICS | 5 |
| 2.1. Location and Legal Description..... | 5 |
| 2.2. Adjacent Properties..... | 5 |
| 2.3. Site Description and Current Site Uses/Operations..... | 6 |
| 2.4. Zoning/Land Use | 6 |
| 2.5. Recorded Land Title Records | 6 |
| 2.6. Review of Previous Investigations | 6 |
| 2.7. Interviews | 8 |
| 3. SITE OBSERVATIONS | 8 |
| 3.1. Physical Limitations | 8 |
| 3.2. Use and Storage of Hazardous Substances and Petroleum Products..... | 9 |
| 3.3. Storage and Disposal of Hazardous Wastes | 9 |
| 3.4. Unidentified Substance Containers..... | 10 |
| 3.5. Aboveground and Underground Storage Tanks | 10 |
| 3.6. Evidence of Releases | 10 |
| 3.7. Polychlorinated Biphenyls (PCBs) | 11 |
| 3.8. Wastewater Systems | 11 |
| 3.9. Storm Water Systems | 11 |
| 3.10. Groundwater Wells..... | 11 |
| 3.11. Asbestos..... | 12 |
| 4. ENVIRONMENTAL DATABASE SEARCH..... | 12 |
| 5. ENVIRONMENTAL REGULATORY AGENCY INQUIRIES | 12 |
| 6. FINDINGS, OPINIONS, AND CONCLUSIONS | 13 |
| 6.1. Findings and Opinions..... | 13 |
| 6.2. Conclusions..... | 15 |
| 7. LIMITATIONS..... | 16 |
| 8. REFERENCES | 17 |

Illustrations

Figure 1 – Site Location Map

Figure 2 – Site Plan

Figure 3 – Site Detail Map

Appendices

- Appendix A – Previous Phase I Environmental Site Assessment Report
- Appendix B – Photographic Documentation
- Appendix C – Environmental Database Search Report

EXECUTIVE SUMMARY

Ninyo & Moore was retained by Mooney & Associates to perform a Phase I Environmental Site Assessment (ESA) Update of the property identified as APN 047-390-010, located on the north-east corner of Wills Road and State Route (SR) 78, to the east of the community of Brawley, California. Document review, agency inquiries, and site assessment activities were conducted between March 28 and April 25, 2002.

In summary, the following items are noted:

- The subject site is currently developed as agricultural land consisting of fields planted with Bermuda Grass. Unpaved agricultural access roads, paralleling the on-site irrigation canals or drainage ditches, trend east to west through the central portion of the site, and north to south through the eastern portion of the site. The southwestern portion of the site is developed with a mobile home, a red-painted barn, a partially covered shed area, and a municipal waste and debris pile. Significant changes to the site have not occurred since the date of the previous Phase I ESA.
- Based on the aerial photographs reviewed, the subject site was developed with row crops, eight small buildings, and three ponds sometime prior to 1937. Five of the eight agricultural buildings were removed from the site, sometime between 1965 and 1972. The present day buildings, including a mobile home, a fenced area with a barn, and a covered shed area, were constructed sometime between 1984 and 1992.
- Our review of Ninyo & Moore's previous Phase I ESA for the site indicated that the site was utilized for the cultivation of sugar, beets, corn, grains, and alfalfa for at least 50 years prior to the date of the report. It was reported that the site had been historically sprayed with crop dusters, and that dichlorodiphenyltrichloroethane (DDT) was commonly used as a pesticide. Ninyo & Moore stated that the use of the subject site as agricultural land may have exposed the subject site's soils to pesticides such as DDT. It was further stated that, in general, many pesticides applied to soil tend to persist in the upper on to two feet of topsoil, are immobile, and do not readily leach downward to groundwater. Because of the long-term agricultural use, evaporation, evapotranspiration, and potential leakage from unlined drainage canals, Ninyo & Moore stated that there is a moderate potential that pesticides such as DDT or its degradation products remain in the soil at the site.
- Apparent hazardous wastes were observed in the partially covered shed area, and included one, 5-gallon container of unknown liquid, two, 5-gallon containers of waste oil, one, 55-gallon drum of waste oil, and one, 1-gallon container of waste oil. The concrete surface in the vicinity of these materials was observed to be moderately stained with a dark, oily substance at the time of the site reconnaissance.
- A metal, 55-gallon container of burned material was observed on a concrete pad, near the abandoned trucks in the southwestern portion of the site. Several empty plastic 1-quart oil

containers, oil filters, aluminum cans, glass, and automobile parts were present inside the container, and on the concrete pad that surrounds the container.

- Approximately five, 5-gallon containers of unknown contents were observed through a window, in a room in the southeastern portion of the of the red barn. As noted above, this room was inaccessible at the time of the site reconnaissance. The contents of these containers should be identified and properly disposed of.
- Evidence of on-site underground storage tanks (e.g., pumps, dispensers, fill pipes, vents pipes, and emergency power generators) was not observed during our site reconnaissance.
- A subsurface trench, approximately 1.5-feet-wide by 15-feet-long, and covered with steel plates, was observed within the concrete slab of the partially covered shed area, to the north of the red barn. Dark staining appeared on the soil beneath the plates, and is assumed to be petroleum hydrocarbon in nature. The level of soil present in the trench was about one inch below the top of the concrete slab. The purpose of this trench was not ascertained at the time of the site reconnaissance.
- An automobile was being repaired in the partially covered shed area at the time of the site reconnaissance. What appeared to be engine coolant was spilled onto the concrete slab in this area. The partially covered shed area should be secured, in order to discourage unauthorized automobile repair activities and associated chemical releases.
- One pole-mounted electrical transformer, owned and operated by the Imperial County Irrigation District (ICID), was observed at the southwestern driveway entrance to the site. The transformer was reportedly installed in 1973. The transformer dielectric fluid was reported to contain 0.0210 ppm of polychlorinated biphenyls (PCBs). This dielectric fluid concentration falls under the USEPA designation as a "non-PCB" containing transformer because its content is less than 50 ppm.
- The roof of the red barn and the roof of the partially covered shed were inaccessible at the time of the site reconnaissance, and may be finished with suspect asbestos-containing materials (ACMs). Other suspect ACMs were not observed on site at the time of the site reconnaissance.
- The subject site was not listed in the environmental database search. The database search did not identify any surrounding properties of potential environmental concern on various databases. Several non-geocoded properties were included in the *FirstSearch*™ report. Based on our reconnaissance of the site vicinity, these non-geocoded properties are not located within 1/2 mile of the site. Based on this fact, there is low likelihood that these properties have adversely affected the environmental integrity of the subject site.

We have performed a Phase I Environmental Site Assessment Update, in conformance with the scope and limitations of the American Society for Testing and Materials Practice E 1527-00, of the property identified as APN 047-390-010, located on the northeast corner of Wills Road and State Route (SR) 78, to the east of the community of Brawley, the property. Any exceptions to, or deletions from, this practice are described in Section 3.1 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property, except for the following:

- The above findings have revealed no evidence of new RECs at the site since the issuance of our previous Phase I ESA report dated November 3, 1999. As previously recommended, because of our observations and the historical agricultural usage, we recommend that additional evaluation be performed at the site to assess if residual pesticides are present in the soil, and the purpose of the soil filled trench. Additionally, Ninyo & Moore recommends a subsurface evaluation in the areas of waste oil storage and staining in the partially covered shed area, and the area of the 55-gallon container of burned materials, located on the concrete pad to the northeast of the red barn.

1. INTRODUCTION

Mooney & Associates has authorized Ninyo & Moore to perform a Phase I Environmental Site Assessment (ESA) Update of the property that has been assigned Assessor's Parcel Number (APN) 047-390-01, located on the northeast corner of Wills Road and State Route (SR) 78, to the east of the community of Brawley, county of Imperial, California (site). The following sections outline the purpose, parties involved and the scope of work of the Phase I ESA Update.

1.1. Purpose

The objective of this Phase I ESA Update was to evaluate specific existing, potential, or suspect conditions that may impose an environmental liability with respect to hazardous substances on the owners or operators of the subject site which were not present at the site at the time of completion of the previous Phase I ESA prepared by Ninyo & Moore, dated November 3, 1999. This Phase I ESA Update was performed to evaluate the possibility that hazardous materials or other adverse environmental conditions are present at the site due to past or present use and/or properties in the vicinity. Ninyo & Moore has performed this Phase I ESA Update in accordance with American Society For Testing And Materials (ASTM), "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, E 1527-00" guidelines.

1.2. Involved Parties

This Phase I ESA Update was performed by Ninyo & Moore for Mooney & Associates, in general accordance with our proposal P-4605B, dated February 27, 2002. Ms. Dawn Stauffer and Mr. Travis Stravasnik of Ninyo & Moore conducted the site reconnaissance on April 4, 2002, gathered and compiled data for the site, and wrote this report. Ms. Leslie Redford of Ninyo & Moore completed a final review of this report.

1.3. Scope of Work

Ninyo & Moore's scope of work for this Phase I ESA Update included the following:

- A review of our previous Phase I ESA report.

- Performance of a visual site reconnaissance to identify areas of possibly contaminated surficial soil or surface water, improperly stored hazardous materials, aboveground storage tanks, underground storage tanks, possible sources of polychlorinated biphenyls, potential asbestos-containing materials (ACMs), and other risks of contamination from activities at the site. Color photographs of the site and noted conditions were taken and included in this report.
- Interviews with readily available site representatives and/or other individuals familiar with the site regarding current activities at the subject site.
- Performance of a site vicinity reconnaissance to evaluate characteristics of adjacent or nearby properties for possible environmental influences on the site.
- A review of available regulatory agency databases for the site and for properties located within the vicinity of the site. The purpose of this review was to evaluate the possible environmental impact of these properties to the subject site.
- Preparation of this Phase I ESA Update report documenting findings and providing opinions, conclusions, and recommendations regarding environmental conditions at the site.

2. GENERAL SITE AND VICINITY CHARACTERISTICS

The following sections provide descriptions of the location and current uses of the site, and the uses of adjacent properties.

2.1. Location and Legal Description

The site is located approximately one mile east of the community of Brawley, California, in the central portion of the Imperial Valley (Figure 1), and consists of one, approximately 235-acre parcel (Figure 2). The site is located on the northeast corner of SR 78 and Wills Road (Wills Road is unpaved and parallels the Darling Drain). The Moorhead Canal borders the site to the east. The site has not been assigned a street address, but is identified as APN 047-390-010. A legal description of the site was not available from the client at the time of the site assessment.

2.2. Adjacent Properties

The site is adjoined to the north by a continuation of agricultural fields, and to the south by SR 78, followed by agricultural fields. Residences and a farm equipment rental business,

Ralling R. Enterprises, are located on SR 78 to east of the site, beyond the Moorhead Canal. Darling Drain and Wills Road adjoin the site to the west, followed by agricultural fields. A network of irrigation canals and drainage ditches are present throughout the site and site vicinity.

2.3. Site Description and Current Site Uses/Operations

The subject site is currently developed as agricultural land consisting of fields planted with Bermuda Grass. Unpaved agricultural access roads, paralleling the on-site irrigation canals or drainage ditches, trend east to west through the central portion of the site, and north to south through the eastern portion of the site. The southwestern portion of the site is developed with a mobile home, a red-painted barn, a partially covered shed area, and a municipal waste and debris pile (Figure 3). Significant changes to the site have not occurred since the date of the previous Phase I ESA.

2.4. Zoning/Land Use

According to a representative of the County of Imperial Zoning Department, the site is zoned "A2G," which allows for agricultural uses with a geothermal overlay.

2.5. Recorded Land Title Records

Title records were requested from the client in order to identify environmental liens or activity and use limitations. These records were not available for review.

2.6. Review of Previous Investigations

Ninyo & Moore previously prepared an environmental report regarding the site. This report is summarized below.

Phase I Environmental Site Assessment, Luckey Ranch, APN 47-090-01, 47-390-01, and a Portion of 47-020-03, Brawley, California, prepared by Ninyo & Moore, dated November 3, 1999.

The study area for this Phase I ESA report consisted of the subject site and two, non-contiguous parcels of agricultural land. At the time of the previous report, the site was used for the same purpose at present. In summary, the following items were noted.

- Based on the aerial photographs reviewed, the subject site was developed with row crops, eight small buildings, and three ponds sometime prior to 1937. Five of the eight agricultural buildings were removed from the site, sometime between 1965 and 1972. The present day buildings, including a mobile home, a fenced area with a barn, and a covered shed area, were constructed sometime between 1984 and 1992.
- Reportedly, the site was utilized for the cultivation of sugar, beets, corn, grains, and alfalfa for at least 50 years prior to the date of the report. It was reported that the site had been historically sprayed with crop dusters, and that dichlorodiphenyltrichloroethane (DDT) was commonly used as a pesticide. Ninyo & Moore stated that the use of the subject site as agricultural land may have exposed the subject site's soils to pesticides such as DDT. It was further stated that, in general, many pesticides applied to soil tend to persist in the upper on to two feet of topsoil, are immobile, and do not readily leach downward to groundwater. Because of the long-term agricultural use, evaporation, evapotranspiration, and potential leakage from unlined drainage canals, Ninyo & Moore stated that there is a moderate potential that pesticides such as DDT or its degradation products remain in the soil at the site.
- Hazardous substances or wastes observed at the time of the previous reconnaissance activities were located in the red barn area. The hazardous substances included a 5-gallon container of solvent and a 55-gallon container of waste oil. In addition, a solid waste pile was reported to the north of the barn area. The solid waste included truck tires, irrigation pipe, scrap farm equipment and lumber, several used oil filters, and tow trucks.
- Minor surface staining was observed in the vicinity of a subsurface trench, located within the concrete slab of the partially covered shed area. The trench was reported to be filled with soil. The purpose of this trench was not ascertained at the time of the previous report.
- No evidence of aboveground storage tanks (ASTs) or underground storage tanks (USTs) were reported at the site, except for seven portable tankers which were used to transport liquids. No evidence of staining was reported in the vicinity of these tankers.

Based on the findings of the Phase I ESA, Ninyo & Moore concluded that no evidence was revealed that would indicate that the site had been significantly affected by contamination.

However, based on the historical agricultural site usage and observations made during the site reconnaissance, Ninyo & Moore recommended that additional evaluation be performed at the site to assess if residual pesticides are present in the soil, and the purpose of the soil-filled trench. A copy of this report has been included as Appendix A.

2.7. Interviews

Ninyo & Moore interviewed Mr. Ted Broedlow, project manager for the La Plastia Land Company (La Plastia), regarding the past uses of the site and the site's environmental status. According to Mr. Broedlow, the site is owned by Los Alamitos, which is a real estate investment entity. La Plastia reportedly manages the site for Los Alamitos. Mr. Broedlow indicated that he was unaware of any development at the site since the last environmental report, issued in November 1999. Mr. Broedlow stated that, to the best of his knowledge, there have never been any ASTs or USTs at the site, and that no environmental issues are associated with the site.

According to Mr. Broedlow, the site is currently leased to Mr. Alex Abatti, a grower who has utilized the site primarily for agricultural purposes since 2000. Ninyo & Moore attempted to contact Mr. Abatti regarding the current agricultural operations at the subject site. A response has not been received as of the date of this report. Pertinent information will be forwarded, under separate cover, as it is received.

3. SITE OBSERVATIONS

On April 1, 2002, Ms. Dawn Stauffer and Mr. Travis Stravasnik of Ninyo & Moore conducted a reconnaissance of the subject site. The reconnaissance involved a driving and walking tour of the site and visual observations of adjoining properties (Figure 2). Color photographs taken during our site reconnaissance are presented in Appendix B.

3.1. Physical Limitations

Because most of the site was covered with dense row crops, and because access to the row crop areas was limited by irrigation channels and drainage ditches, observations of these

portions of the site were limited to those made from vantage points on the unpaved roadways that traverse the site. Also, the mobile home located on the southwestern portion of the site was not accessible at the time of the site reconnaissance. Additionally, a room located in the southeastern portion of the red barn was locked and not accessible at the time of the site reconnaissance. Two interior windows provided for visual observation, however, disturbed wildlife sporadically flying from this area inhibited a complete visual assessment. No other physical limitations (e.g., locked rooms, fenced areas) were encountered during the site reconnaissance. At the time of the site reconnaissance the weather was clear, with a temperature of approximately 80 degrees Fahrenheit.

3.2. Use and Storage of Hazardous Substances and Petroleum Products

Two abandoned trucks and a solid waste debris pile were observed to the north of the red barn. The debris pile comprised numerous tractor and truck tires, plastic irrigation pipe, appliances, scrap lumber, abandoned farm machinery, and used oil filters. No staining was noted near the abandoned trucks or debris pile.

One, approximately 30-gallon capacity propane tank was observed on the exterior of the mobile home in the southwestern portion of the site. The propane tank was observed to be chained to a tree, and appeared to serve the mobile home.

3.3. Storage and Disposal of Hazardous Wastes

Apparent hazardous wastes were observed in the partially covered shed area, and included one, 5-gallon container of unknown liquid, two 5-gallon containers of waste oil, one, 55-gallon drum of waste oil, and one, 1-gallon container of waste oil. The concrete surface in the vicinity of these materials was observed to be moderately stained with a dark, oily substance at the time of the site reconnaissance.

A metal, 55-gallon container of burned material was observed on a concrete pad, near the abandoned trucks in the southwestern portion of the site. Several empty plastic 1-quart oil containers, oil filters, aluminum cans, glass, and automobile parts were present inside the container, and on the concrete pad that surrounds the container. Three additional containers,

apparently used to burn unknown materials, were observed in the unpaved yard area to the north of the mobile home. The contents of the barrels was not discernible at the time of the site reconnaissance. Surface staining was not observed in the vicinity of these containers.

3.4. Unidentified Substance Containers

Approximately five, 5-gallon containers of unknown contents were observed through a window, in a room in the southeastern portion of the red barn. As noted above, this room was inaccessible at the time of the site reconnaissance.

3.5. Aboveground and Underground Storage Tanks

No visual evidence indicating the past or present existence of ASTs or USTs was noted during our site reconnaissance.

3.6. Evidence of Releases

A subsurface trench, approximately 1.5-feet-wide by 15-feet-long, and covered with steel plates, was observed within the concrete slab of the partially covered shed area, to the north of the red barn. Dark staining appeared on the soil beneath the plates, and is assumed to be petroleum hydrocarbon in nature. The level of soil present in the trench was about one inch below the top of the concrete slab. The purpose of this trench was not ascertained at the time of the site reconnaissance. Evidence of other substructures, such as underground utilities, sewer lines, and waterlines was also observed on the subject site.

Ninyo & Moore inspected the subject site for surface staining and unauthorized dumping locations. As previously mentioned, solid waste disposal was noted on the western perimeter of the site, to the north of the red barn. In addition, an automobile was being repaired in the partially covered shed area at the time of the site reconnaissance. What appeared to be engine coolant was spilled onto the concrete slab in this area.

3.7. Polychlorinated Biphenyls (PCBs)

Electrical transformers can be a source of PCBs. One pole-mounted electrical transformer was observed at the southwestern driveway entrance to the site (Figure 3). The transformer is owned and operated by the Imperial County Irrigation District (ICID). According to a telephone discussion with Mr. Kenneth Barnes, an ICID representative, the transformer was installed in 1973. Mr. Barnes further stated that the transformer dielectric fluids contain PCBs at a concentration of 0.0210 parts per million (ppm). This dielectric fluid concentration falls under the United States Environmental Protection Agency (USEPA) designation as a "non-PCB" containing transformer because its content is less than 50 ppm.

3.8. Wastewater Systems

Wastewater systems, such as clarifiers, pits, grease traps, and floor drains, were not observed on the site at the time of the reconnaissance.

3.9. Storm Water Systems

Storm drains were not observed on the subject site. As the subject site is developed as agricultural land, surface drainage occurs via drainage ditches and by infiltration. Several cistern-like structures or sumps were observed adjacent to the canals. These structures appeared to contain pumps for irrigation water. According to the previous Phase I ESA, drain tiles are present beneath the site to facilitate drainage of excess irrigation water to the nearby drainage ditches. No surface staining or noxious odors were noted in the vicinity of the sumps, ditches, or drains.

3.10. Groundwater Wells

Groundwater wells were not observed on site during our site reconnaissance nor were they suggested by our review of other references.

3.11. Asbestos

At the time of the site reconnaissance, the subject site was visually inspected for the presence of suspect ACMs. The roof of the red barn and the roof of the partially covered shed were inaccessible at the time of the site reconnaissance, and may be finished with suspect ACMs. Other suspect ACMs were not observed on site at the time of the site reconnaissance.

4. ENVIRONMENTAL DATABASE SEARCH

A computerized, environmental information database search was performed by *Environmental FirstSearch™* (FirstSearch™) on April 1, 2002. The *FirstSearch™* search included federal, state, and local databases. A summary of the environmental databases searched, their corresponding search radii, and number of noted sites of environmental concern, is presented in Appendix C. In addition, a complete description of the assumptions and approach to the database search is provided in Appendix C. The review was conducted to evaluate whether the site or properties within the vicinity of the site have been identified as having experienced significant unauthorized releases of hazardous substances or other events with potentially adverse environmental effects.

The subject site was not listed on any databases. The database search did not identify any surrounding properties of potential environmental concern on various databases. Several non-geocoded properties were included in the *FirstSearch™* report. Based on our reconnaissance of the site vicinity, these non-geocoded properties are not within 1/2 mile of the site. For this reason, there is a low likelihood that these properties have adversely affected the environmental integrity of the subject site.

5. ENVIRONMENTAL REGULATORY AGENCY INQUIRIES

At the time of the previous Phase I ESA Update, records requests were submitted to applicable regulatory agencies for the three parcels assessed. Because the subject site had no current or historical address, records requests were made to agencies based on the site location and or parcel number. Information regarding the larger site was requested from the Imperial County Depart-

ment of Environmental Health Services (ICDEHS) and the Imperial County Planning and Building Department (ICPBD).

As stated in the Previous Phase I ESA, the ICDEHS requires an address in order to search for information regarding a site; however, based on the name, Lucky Ranch, it does not appear that there were any records regarding permits or environmental problems (e.g., spills or releases of hazardous substances) at the subject site.

Ninyo & Moore contacted the ICPBD regarding the presence of ASTs or USTs, and the environmental status of the subject site. According to Mr. Jerry Stillwell, of the Planning Department records are not maintained for the site.

6. FINDINGS, OPINIONS, AND CONCLUSIONS

Based upon the results of this ESA Update, the following findings, opinions, and conclusions are provided.

6.1. Findings and Opinions

The following presents a summary of findings and opinions associated with the ESA Update performed for the subject site, including known or suspect recognized environmental conditions (RECs), historical RECs, and de minimus environmental conditions (i.e., conditions that generally do not present a material risk of harm to public health or the environment).

- The subject site is currently developed as agricultural land consisting of fields planted with Bermuda Grass. Unpaved agricultural access roads, paralleling the on-site irrigation canals or drainage ditches, trend east to west through the central portion of the site, and north to south through the eastern portion of the site. The southwestern portion of the site is developed with a mobile home, a red-painted barn, a partially covered shed area, and a municipal waste and debris pile. Significant changes to the site have not occurred since the date of the previous Phase I ESA.
- Based on the aerial photographs reviewed, the subject site was developed with row crops, eight small buildings, and three ponds sometime prior to 1937. Five of the eight agricultural buildings were removed from the site, sometime between 1965 and 1972.

The present day buildings, including a mobile home, a fenced area with a barn, and a covered shed area, were constructed sometime between 1984 and 1992.

- Our review of Ninyo & Moore's previous Phase I ESA for the site indicated that the site was utilized for the cultivation of sugar, beets, corn, grains, and alfalfa for at least 50 years prior to the date of the report. It was reported that the site had been historically sprayed with crop dusters, and that DDT was commonly used as a pesticide. Ninyo & Moore stated that the use of the subject site as agricultural land may have exposed the subject site's soils to pesticides such as DDT. It was further stated that, in general, many pesticides applied to soil tend to persist in the upper on to two feet of topsoil, are immobile, and do not readily leach downward to groundwater. Because of the long-term agricultural use, evaporation, evapotranspiration, and potential leakage from unlined drainage canals, Ninyo & Moore stated that there is a moderate potential that pesticides such as DDT or its degradation products remain in the soil at the site.
- Apparent hazardous wastes were observed in the partially covered shed area, and included one, 5-gallon container of unknown liquid, two, 5-gallon containers of waste oil, one, 55-gallon drum of waste oil, and one, 1-gallon container of waste oil. The concrete surface in the vicinity of these materials was observed to be moderately stained with a dark, oily substance at the time of the site reconnaissance.
- A metal, 55-gallon container of burned material was observed on a concrete pad, near the abandoned trucks in the southwestern portion of the site. Several empty plastic 1-quart oil containers, oil filters, aluminum cans, glass, and automobile parts were present inside the container, and on the concrete pad that surrounds the container.
- Approximately five, 5-gallon containers of unknown contents were observed through a window, in a room in the southeastern portion of the of the red barn. As noted above, this room was inaccessible at the time of the site reconnaissance. The contents of these containers should be identified and properly disposed of.
- Evidence of on-site underground storage tanks (e.g., pumps, dispensers, fill pipes, vents pipes, and emergency power generators) was not observed during our site reconnaissance.
- A subsurface trench, approximately 1.5-feet-wide by 15-feet-long, and covered with steel plates, was observed within the concrete slab of the partially covered shed area, to the north of the red barn. Dark staining appeared on the soil beneath the plates, and is assumed to be petroleum hydrocarbon in nature. The level of soil present in the trench was about one inch below the top of the concrete slab. The purpose of this trench was not ascertained at the time of the site reconnaissance.
- An automobile was being repaired in the partially covered shed area at the time of the site reconnaissance. What appeared to be engine coolant was spilled onto the concrete

slab in this area. The partially covered shed area should be secured, in order to discourage unauthorized automobile repair activities and associated chemical releases.

- One pole-mounted electrical transformer, owned and operated by the ICID, was observed at the southwestern driveway entrance to the site. The transformer was reportedly installed in 1973. The transformer dielectric fluid was reported to contain 0.0210 ppm of PCBs. This dielectric fluid concentration falls under the USEPA designation as a "non-PCB" containing transformer because its content is less than 50 ppm.
- The roof of the red barn and the roof of the partially covered shed were inaccessible at the time of the site reconnaissance, and may be finished with suspect ACMs. Other suspect ACMs were not observed on site at the time of the site reconnaissance.
- The subject site was not listed in the environmental database search. The database search did not identify any surrounding properties of potential environmental concern on various databases. Several non-geocoded properties were included in the *FirstSearch*™ report. Based on our reconnaissance of the site vicinity, these non-geocoded properties are not located within 1/2 mile of the site. Based on this fact, there is low likelihood that these properties have adversely affected the environmental integrity of the subject site.

6.2. Conclusions

We have performed a Phase I Environmental Site Assessment Update, in conformance with the scope and limitations of the American Society for Testing and Materials Practice E 1527-00, of the property identified as APN 047-390-010, located on the northeast corner of Wills Road and State Route (SR) 78, to the east of the community of Brawley, the property. Any exceptions to, or deletions from, this practice are described in Section 3.1 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property, except for the following:

- The above findings have revealed no evidence of new RECs at the site since the issuance of our previous Phase I ESA report dated November 3, 1999. As previously recommended, because of our observations and the historical agricultural usage, we recommend that additional evaluation be performed at the site to assess if residual pesticides are present in the soil, and the purpose of the soil filled trench. Additionally, Ninyo & Moore recommends a subsurface evaluation in the areas of waste oil storage and staining in the partially covered shed area, and the area of the 55-gallon container of burned materials, located on the concrete pad to the northeast of the red barn.

7. LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Please note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

Our conclusions, recommendations and opinions are based on an analysis of the observed site conditions and the referenced literature. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

8. REFERENCES

Environmental FirstSearch™, Inc., 2002, Environmental Radius Report: dated April 1.

Ninyo & Moore, 1999, Phase I Environmental Site Assessment, Luckey Ranch, APN 47-090-01, 47-390-01 and 47-020-03, Brawley, California: dated November 3.

United States Geological Survey, 1956, Alamoio Quadrangle, California: 7.5-minute series (topographic), Scale 1:24,000: Photorevised 1979.



4 0 4 8

Approximate Scale in Miles



REFERENCE: 1999 AAA MAP FOR IMPERIAL COUNTY.

SITE LOCATION MAP

LUCKEY RANCH
APN 047-390-010
BRAWLEY, CALIFORNIA

Ninyo & Moore

PROJECT NO.
104646001

DATE
4/02

FIGURE
1



REFERENCE: MOONEY & ASSOCIATES, 1999, DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE LUCKEY RANCH ANNEXATION TO THE CITY OF BRAWLEY.

0 2000 2000
Approximate Scale in Feet



4646PHOTO

Ninyo & Moore

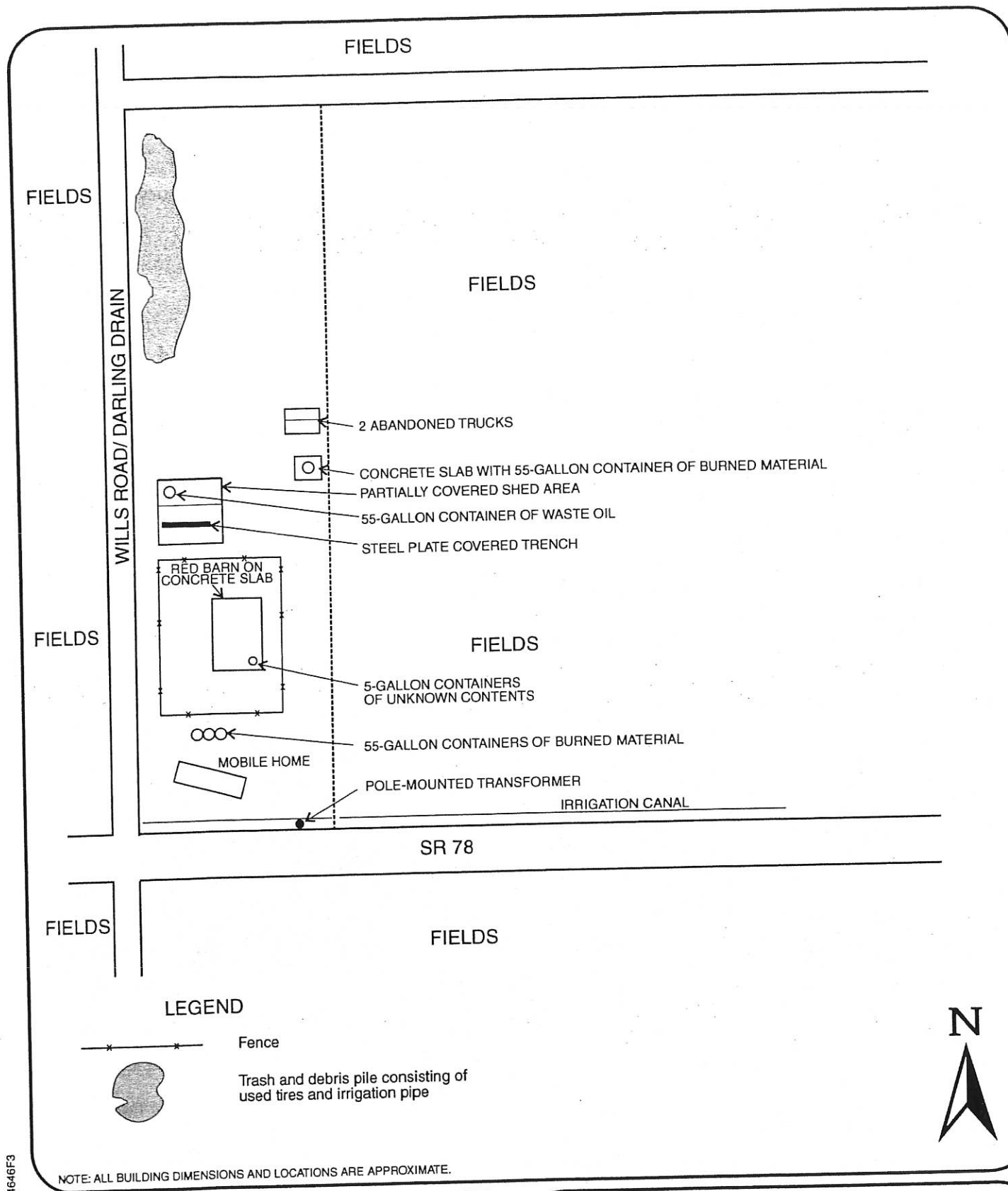
SITE PLAN

LUCKEY RANCH
APN 047-390-010
BRAWLEY, CALIFORNIA

PROJECT NO.
104646001

DATE
4/02

FIGURE
2



4646F3

Ninyo & Moore

SITE DETAIL MAP

LUCKEY RANCH
SOUTHWESTERN PORTION OF APN 047-390-010
BRAWLEY, CALIFORNIA

PROJECT NO.
104646001

DATE
4/02

FIGURE
3

Phase II Environmental Site Assessment

August 12, 2002

Ms. Laurie Cooper
San Diego State University
Facilities Planning and Management
5500 Campanile Drive
San Diego, CA 92182-1624

**PHASE II ENVIRONMENTAL SITE ASSESSMENT
LUCKEY RANCH – APN 47-390-01
BRAWLEY, CALIFORNIA**

Dear Ms. Cooper:

San Diego State University (SDSU) Facilities Planning and Management retained MAZ Environmental to conduct a Phase II Environmental Site Assessment (ESA) of APN 47-390-01, the Property, known as Luckey Ranch, located in Brawley, California. This Phase II ESA was performed in accordance with SDSU Service Agreement No. 40020319, dated May 6, 2002.

BACKGROUND

The Property is located approximately 2 miles east of the town of Brawley, north of State Highway 78, east of the intersection of Darling Drain, in Imperial County, California (Figure 1). According to Ms. Laurie Cooper of SDSU, the Property has been gifted to SDSU and SDSU is interested in possibly developing the approximately 200-acre site as a new campus. Ninyo & Moore Consultants conducted an initial Phase I ESA for the Property in November 1999 and an ESA Update dated April 26, 2002. Based on the Phase I ESA reports prepared by Ninyo & Moore Geotechnical and Environmental Sciences Consultants (Ninyo & Moore) and our conversations with Ms. Cooper, we understand that the site has a history of agricultural usage, including the application of various agricultural chemicals. In addition, the southwestern portion of the site is being used for storage and maintenance activities, including a concrete-lined sump (referred to as a trench by Ninyo & Moore) apparently containing soil residue from truck washing.

MAZ Environmental was contacted to conduct Phase II sampling and analyses based on the original Phase I ESA findings and recommendations for further evaluation to assess the possible presence of residual pesticides in the agricultural field soils and the possible presence of petroleum hydrocarbon constituents in soil located in the sump.

SCOPE OF SERVICES

The purpose of the proposed scope of services is to obtain quantitative laboratory data to develop a screening-level assessment of the potential for the presence of certain pollutants

Ms. Laurie Cooper
San Diego State University
Facilities Planning and Management
August 12, 2002
Page 2

(fuel/oil contaminated soil and organic pesticides/herbicides) on specified agricultural lands and auxiliary facilities on the Property.

The scope of work included three tasks:

- 1) Develop a sampling plan to determine the locations of five surficial agricultural and (up to) three soil samples from the sump;
- 2) Collect soil samples from each of the locations and submit the samples for laboratory analyses in accordance with EPA guidelines; and
- 3) Prepare and submit a report of results of the soil sampling and laboratory analyses.

SAMPLING PLAN

A sampling plan for the agricultural fields and the sump was developed after reviewing figures and maps included in the previous ESA reports and historical aerial photographs of the Property maintained by the Imperial County Irrigation District, as well as conducting a site reconnaissance prior to sampling.

Based on review of the Phase I ESA reports and the historical aerial photographs, agricultural use of the Property began as early as the mid-1930s, or possibly earlier. The Property consists of three fields; two rectangular fields located on the western portion of the Property, and one triangular field located on the eastern portion of the site (Figure 2). The configuration of the fields remains generally unchanged with the exception of a strip of land along the western edge of the southern rectangular field that appears to be used as a staging area and equipment storage. Prior to 1972 the strip appeared to be twice as wide as it is now. Various structures have been located on the southern portion of the strip, while the northern portion appeared to be used as a crop storing area. An area of activity, possibly associated with planting, agricultural chemical application or irrigation, was apparent in the southwest corner of the triangular field in a 1984 photograph (Figure 2).

Agricultural Fields

We determined that the agricultural field area would be divided into five relatively distinct subareas for sampling purposes. It was also determined that two soil samples from each of these five subareas would be sufficient to give a screening-level assessment of the potential for the presence of the chemicals of concern. The southwest corner of the triangular field was selected because aerial photographs indicated a potential for unloading and handling agricultural chemicals in this area.

Ms. Laurie Cooper
San Diego State University
Facilities Planning and Management
August 12, 2002
Page 3

Wash-Bay Sump

Prior to sampling, a site visit was conducted to observe current site conditions. A steel plate-covered concrete-lined sump, located in the floor of a two-sided partially covered shed on the southern portion of the strip, was observed during the ESA site reconnaissance. A water pump and tank, and hose-bib are located west of the shed (Photograph 1). Based on the proximity of a water pump and tank, hose-bib to the steel plate-covered sump in the partially covered shed, it is presumed that this feature is a collection/sedimentation sump for a truck/equipment wash bay. The sump was measured to be 1.5 feet wide by 15 feet long by 1.5 feet deep (Photograph 2). The depth of the sump, and the fact that the sump had a concrete bottom, was determined by probing with the sampler prior to collecting the soil samples. We concluded that two samples from the soil within the sump would be sufficient to give a screening-level assessment of the potential for the presence of the analytes of concern.

SOIL SAMPLING

On July 16, 2002, Mr. Gary D. Clossin, P.E. of I³, a subconsultant to MAZ Environmental, was onsite to conduct the soil sampling. The precise sample locations for each of the five selected agricultural subareas and the wash-bay sump were determined in the field.

Upon extraction, each sample was transferred to a 4-ounce glass jar; the jars were capped, labeled and placed in an ice chest with ice-substitute. Sampling equipment was washed using Alconox and rinsed twice prior to and between sampling locations.

Agricultural Fields

Agricultural sample locations were selected based on topography, apparent drainage patterns and vegetative conditions (Figure 2). All of the agricultural areas on the Property were covered in short Bermuda grass being grown for seed or hay. The western fields had been recently flood-irrigated making accessibility difficult; standing water covered many areas and clayey mud was prevalent in all areas. However, sample locations meeting the coverage criteria were accessed. Sample locations "A" and "B" were located near the center of the field in low spots. Sample locations "C" and "D" were located at the edge of the field where runoff drainage was flowing into the runoff-collection drains. The eastern field, where location "E" was sited, had not been recently flood-irrigated and the soil was very dry.

The ten soil samples were collected from the agricultural land using a stainless steel manually powered, hand-auger sampler to collect relatively undisturbed samples. Two samples were collected at each of the five locations, one from a depth of one foot below ground surface (bgs) and the second from a depth of 2 feet bgs. Visual inspection of the samples "A", "B", "C" and "D" showed that the soil material in each of the samples was consistent: very moist, sticky, light brown/gray clay, with some organic material in the form of grass. Since the

Ms. Laurie Cooper
San Diego State University
Facilities Planning and Management
August 12, 2002
Page 4

eastern field had not been recently irrigated, the two samples collected from location "E" were dry, light brown/gray clay.

Wash-Bay Sump

The two wash-bay sump soil samples were collected using a stainless steel manually powered, hand-auger sampler to collect relatively undisturbed samples. Visual inspection of the samples showed that the soil material in each of the samples was consistent: very moist, light brown clay, with little discernible organic material; the soil was very similar to the native soil in the surrounding fields. Very slight light-gray staining and a slight musty odor were observed in sample MTE; no apparent hydrocarbon odors were observed in sample MTW.

ANALYTICAL RESULTS

On July 18, 2002, the samples were delivered to the state-certified laboratory of HP Laboratories in Escondido, California. The petroleum hydrocarbon analyses were conducted in-house, while HP Labs subcontracted the pesticide analyses to CalScience Environmental Laboratories.

Agricultural Fields

The agricultural samples were analyzed for pesticides using EPA Method 8081A. The specific pesticides analyzed are listed below:

| | | |
|--------------------|-----------------|--------------------|
| Alpha-BHC | Endosulfan I | 4,4'-DDT |
| Gamma-BHC | Dieldrin | Endosulfan Sulfate |
| Beta-BHC | 4,4'-DDE | Methoxychlor |
| Heptachlor | Endrin | Chlordane |
| Delta-BHC | Endrin Aldehyde | Toxaphene |
| Aldrin | 4,4'-DDD | Endrin Ketone |
| Heptachlor Epoxide | Endosulfan II | |

Except for 4,4'-DDE (4,4-dichlorodiphenyldichloroethene) and Dieldrin, none of the other analytes were detected at concentrations within laboratory reporting limits. The results of those analyses where either of these two pesticides were detected are presented in the following table along with two regulatory criteria for comparison. All concentrations are reported in micrograms per kilogram ($\mu\text{g/kg}$) except the "TTLC" which is listed in milligrams per kilogram (mg/kg).

Ms. Laurie Cooper
San Diego State University
Facilities Planning and Management
August 12, 2002
Page 5

| ANALYTE | TTLC (mg/kg) | PRG (µg/kg) | Sample B2 | Sample C1 | Sample D2 | Sample E1 | Sample E2 |
|----------|-----------------|----------------|--------------|--------------|--------------|--------------|--------------|
| 4,4'-DDE | N/A | 1700 | 5.9 | 5.5 | 5.6 | 50 | 28 |
| Dieldrin | 800 | 30 | <5.0 | <5.0 | <5.0 | 5.9 | <5.0 |

The first column in the table lists the two pesticides that were present in concentrations above the laboratory detection limit. In the second column, "TTLC" indicates the total threshold limit concentration for each analyte. This is the California-established concentration at which a solid waste is considered a hazardous waste. The third column lists the "Preliminary Remediation Goals" (PRG) for residential soils suggested by US EPA that is the maximum concentration for each analyte that, under standard exposure and dosage scenarios, would represent a one-in-a-million health risk. The concentration of each analyte detected during laboratory analyses is listed in the five columns under the sample identification numbers. The "less than" symbol (<) indicates that the analyte was not detected; the EPA method laboratory detection limit concentration follows the symbol. The laboratory reports and chain-of-custody forms are included in the Appendix.

Wash-Bay Sump

In accordance with US EPA guidelines for required analyses, the two wash-bay sump soil samples were analyzed for the extended range of total petroleum hydrocarbons (TPH_{ext}) by the "CA DHS LUFT" method including gasoline, motor and oil diesel. The laboratory reports and chain-of-custody forms are included in the Appendix.

The laboratory reports for the wash-bay sump samples show that the Reporting Limit (indicated as RL on the laboratory reports) TPH_{ext} is 10 mg/kg. TPH_{ext} in gasoline, diesel and motor oil was not present in concentrations above the laboratory reporting limit.

DISCUSSION

The Property has a history of agricultural use that predates the mid-1930s, including the reported use of DDT. Of the 20 pesticides analyzed, only two types (4,4'-DDE and Dieldrin) were found to be present in five of the ten samples collected. All detected pesticide concentrations are well below their respective TTLCs and PRG concentration limits.

Field activities revealed that the sump located in the partially covered shed is cement-lined. TPH_{ext} concentrations of the soil samples collected from the sump for analysis were below laboratory detection limits for gasoline-, motor oil- and diesel-range hydrocarbons.

Ms. Laurie Cooper
San Diego State University
Facilities Planning and Management
August 12, 2002
Page 6

Based on the use of this portion of the site for equipment maintenance and repair activities, hidden areas of impacted soil may be present on the southwestern portion of the Property that may be encountered during demolition or development. Specific locations, if any, cannot be identified due to limited information regarding the use of this portion of the Property. In our opinion, such hidden areas of impacted soil, if any, are not likely to have a significant environmental impact on the Property; however, the user should be aware that minor disposal costs might be incurred during demolition.

CONCLUSIONS

On the basis of the laboratory results of soil samples collected, we conclude the following:

- Pesticides are not present in the soil samples collected in the agricultural fields at concentrations that would pose an environmental hazard to the proposed use of the Property. No further investigation or remediation of the agricultural field soils is warranted.
- Petroleum hydrocarbon constituents are not present in the soil samples collected from the sump. No further investigation or remediation of the sump soils is warranted.

RECOMMENDATIONS

If SDSU decides to accept the gifted Property, we recommend that SDSU proceed with disposal of the hazardous wastes identified by Ninyo & Moore in the Phase I ESA reports. Additional soil sampling may be necessary following removal of the hazardous wastes to confirm the absence of elevated concentrations of removed wastes (e.g. petroleum hydrocarbons in the vicinity of the 55-gallon waste oil storage drum located in the partially covered shed on the southwestern portion of the Property).

LIMITATIONS

There is no investigation that is thorough enough to preclude the presence of materials on the Property that presently, or in the future, may be considered subject to regulatory action. Because regulatory evaluation criteria are constantly changing, concentrations of contaminants present and considered to be acceptable may, in the future, become subject to different regulatory standards and require remediation.

In order to avoid undertaking duplicative assessment procedures, the Phase II activities described herein rely upon the completeness and accuracy of the previous ESA, specifically in regard to identifying those areas requiring sampling and laboratory analyses.

Ms. Laurie Cooper
San Diego State University
Facilities Planning and Management
August 12, 2002
Page 7

Opinions and judgments expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal opinions. This document and the information contained herein have been prepared solely for the use of SDSU. Any reliance on this report by third parties shall be at such party's sole risk.

MAZ Environmental is pleased to have assisted SDSU with this project. Following your review of our findings, if you require additional information we can perform a more comprehensive investigation of the subject property. Mr. Gary Clossin and the undersigned prepared this report.

Very truly yours,

MAZ Environmental



Merle A. Ziman
Principal

Attachments: Figures
Photographs
Appendix



SITE VICINITY MAP

LUCKEY RANCH - BRAWLEY, CALIFORNIA

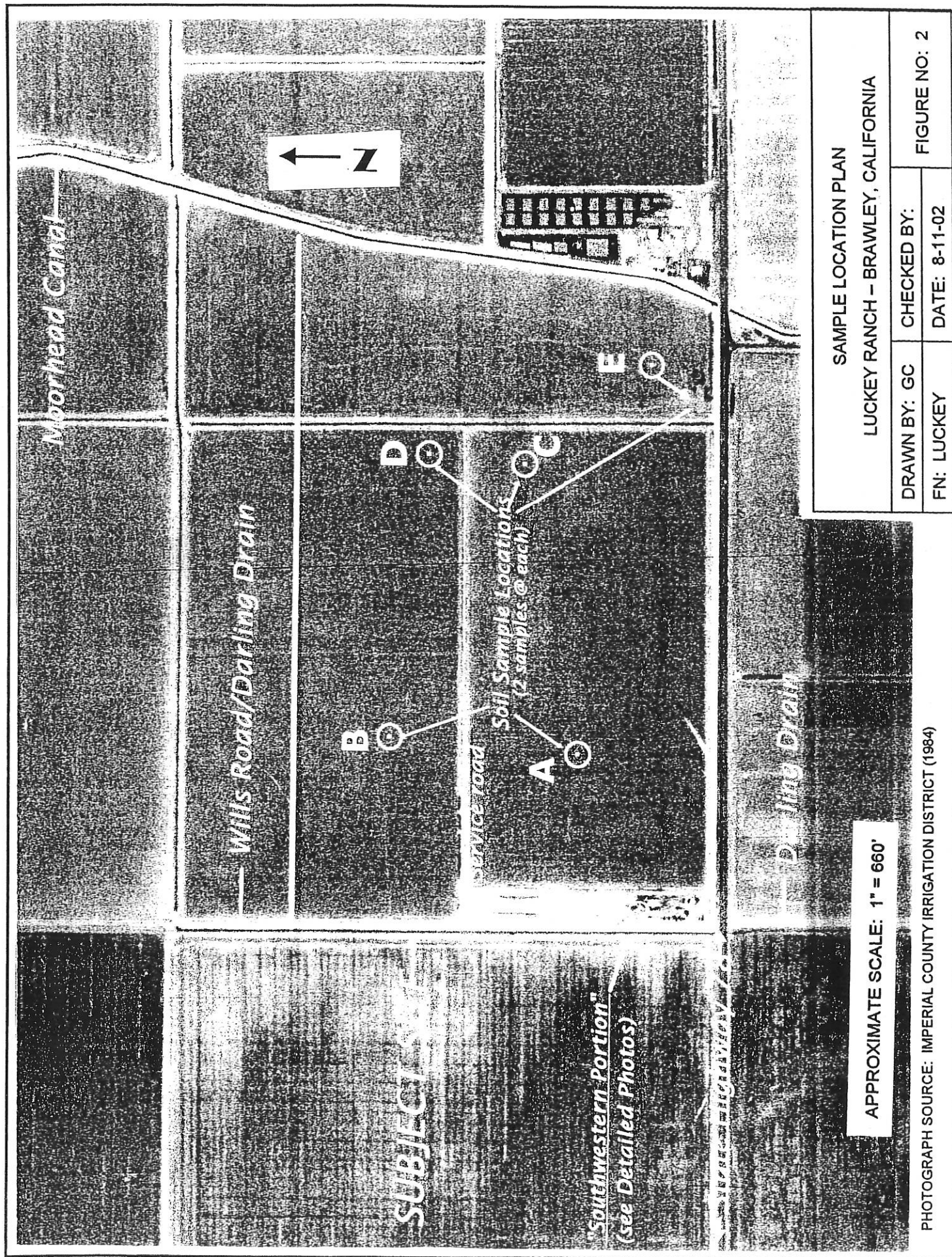
DRAWN BY: GC

CHECKED BY:

FIGURE NO: 1

DATE: 8-11-02

FN: LUCKEY



SAMPLE LOCATION PLAN

LUCKEY RANCH - BRAWLEY, CALIFORNIA

DRAWN BY: GC

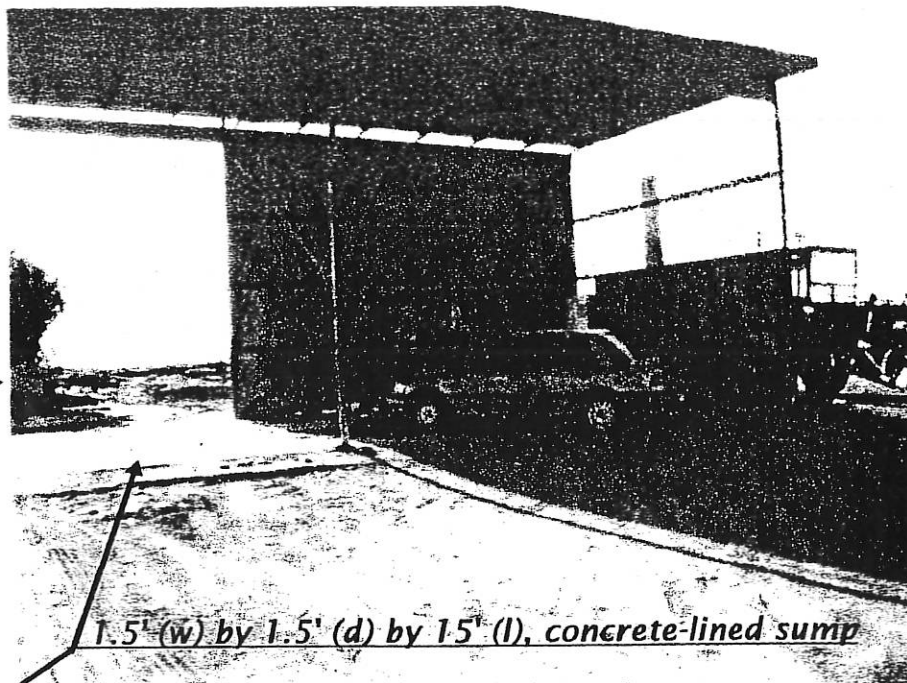
CHECKED BY:

FIGURE NO: 2

FN: LUCKEY

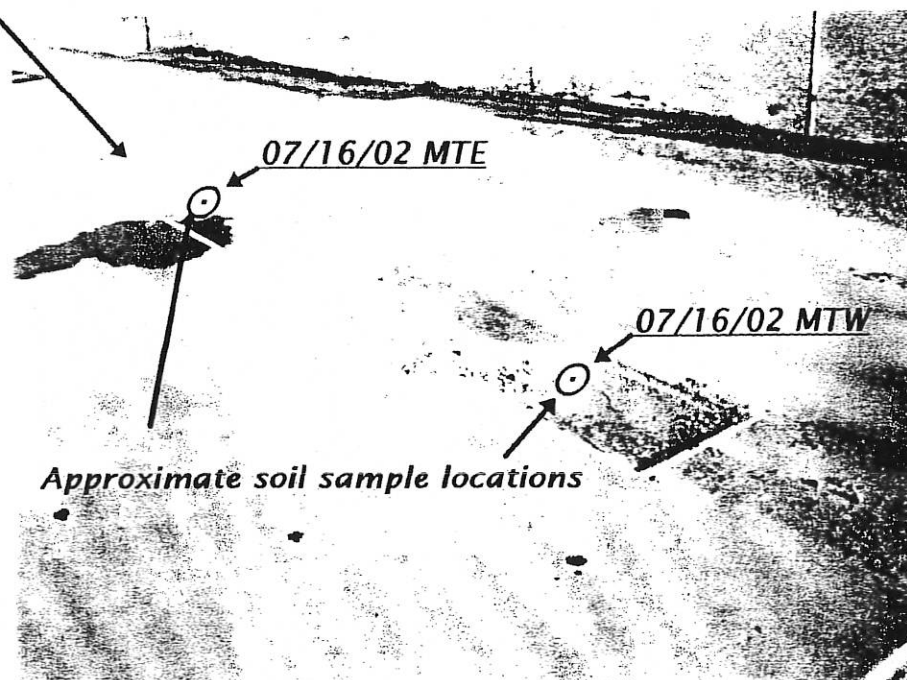
DATE: 8-11-02

Pump and tank
(with hose-bib, for
water from canal)



1.5' (w) by 1.5' (d) by 1.5' (l), concrete-lined sump

Photo #1: View of "partially covered shed", looking west.



Approximate soil sample locations

Photo #2: View of wash-bay sump, looking southeast.

Source of Photos: "Phase I Environmental Site
Assessment, Lucky Ranch" by
Ninyo & Moore dated November 3, 1999.

RECONNAISSANCE PHOTOS

LUCKEY RANCH – BRAWLEY, CALIFORNIA

DRAWN BY: GC

CHECKED BY:

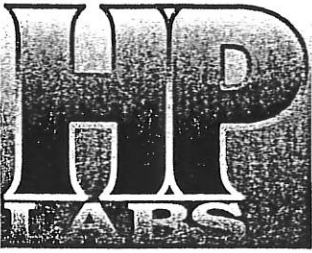
FIGURE NO: 3

FN: LUCKEY

DATE: 8-11-02

APPENDIX

**LABORATORY REPORTS
AND
CHAIN-OF-CUSTODY FORMS**



23 July 2002

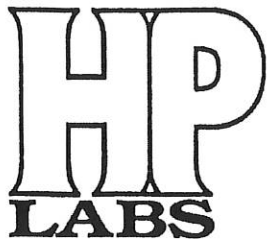
Mr. Gary Clossin
I-Cubed Consulting
13860 Paseo Aldabra
San Diego, CA 92129
RE: IQ071802-32

Enclosed are the results of analyses for samples received by the laboratory on 18-Jul-02. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read 'T. Johnson for', written in dark ink.

Tamara Davis
Laboratory Manager



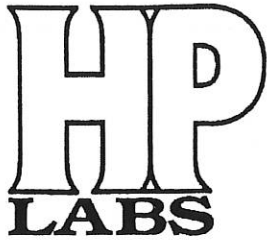
I-Cubed Consulting
13860 Paseo Aldabra
San Diego CA, 92129

Project: IQ071802-32
Project Number: 02-06, Luckey Ranch
Project Manager: Mr. Gary Clossin

Reported:
23-Jul-02

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-------------|---------------|--------|--------------|---------------|
| 7/16/02-MTE | E207035-01 | Soil | 16-Jul-02 | 18-Jul-02 |
| 7/16/02-MTW | E207035-02 | Soil | 16-Jul-02 | 18-Jul-02 |



I-Cubed Consulting
13860 Paseo Aldabra
San Diego CA, 92129

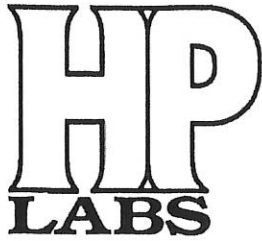
Project: IQ071802-32
Project Number: 02-06, Luckey Ranch
Project Manager: Mr. Gary Clossin

Reported:
23-Jul-02

TPH by GC FID

HP Labs L3

| Analyte | Result | Reporting Limit | Units | Dilution Factor | Batch | Prepared | Analyzed | Method | Notes |
|---|--------|--------------------|-------|--------------------|---------|-----------|-----------|-------------|-------|
| 7/16/02-MTE (E207035-01) Soil Sampled: 16-Jul-02 Received: 18-Jul-02 | | | | | | | | | |
| Diesel | ND | 10 | mg/kg | 1 | 3G22201 | 19-Jul-02 | 19-Jul-02 | CA DHS LUFT | |
| Motor Oil | ND | 10 | " | " | " | " | " | " | |
| Gasoline | ND | 10 | " | " | " | " | " | " | |
| 7/16/02-MTW (E207035-02) Soil Sampled: 16-Jul-02 Received: 18-Jul-02 | | | | | | | | | |
| Diesel | ND | 10 | mg/kg | 1 | 3G22201 | 19-Jul-02 | 19-Jul-02 | CA DHS LUFT | |
| Motor Oil | ND | 10 | " | " | " | " | " | " | |
| Gasoline | ND | 10 | " | " | " | " | " | " | |



I-Cubed Consulting
13860 Paseo Aldabra
San Diego CA, 92129

Project: IQ071802-32
Project Number: 02-06, Luckey Ranch
Project Manager: Mr. Gary Clossin

Reported:
23-Jul-02

TPH by GC FID - Quality Control
HP Labs L3

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 3G22201 - EPA 5030 Soil GC

Blank (3G22201-BLK1)

Prepared & Analyzed: 19-Jul-02

| | | | | | | | | | | |
|-----------|----|----|-------|--|--|--|--|--|--|--|
| Diesel | ND | 10 | mg/kg | | | | | | | |
| Gasoline | ND | 10 | " | | | | | | | |
| Motor Oil | ND | 10 | " | | | | | | | |

Matrix Spike (3G22201-MS1)

Source: 3207031-01

Prepared & Analyzed: 19-Jul-02

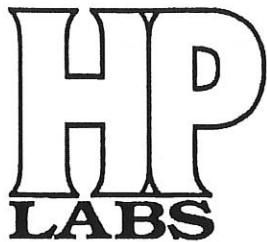
| | | | | | | | | | | |
|----------|-----|----|-------|-----|----|------|--------|--|--|--|
| Diesel | 235 | 10 | mg/kg | 251 | ND | 93.6 | 67-125 | | | |
| Gasoline | 168 | 10 | " | 151 | ND | 111 | 67-125 | | | |

Matrix Spike Dup (3G22201-MSD1)

Source: 3207031-01

Prepared & Analyzed: 19-Jul-02

| | | | | | | | | | | |
|----------|-----|----|-------|-----|----|------|--------|------|----|--|
| Diesel | 244 | 10 | mg/kg | 251 | ND | 97.2 | 67-125 | 3.76 | 30 | |
| Gasoline | 150 | 10 | " | 151 | ND | 99.3 | 67-125 | 11.3 | 30 | |



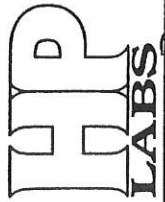
I-Cubed Consulting
13860 Paseo Aldabra
San Diego CA, 92129

Project: IQ071802-32
Project Number: 02-06, Luckey Ranch
Project Manager: Mr. Gary Clossin

Reported:
23-Jul-02

Notes and Definitions

| | |
|-----|--|
| DET | Analyte DETECTED |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |



Chain of Custody Record

- ☐ 148 S. Vinewood St., Escondido, CA 92029 • ph 760.735.3208 • fax 760.735.2469
- ☐ 432 N. Cedros Ave., Solana Beach, CA 92075 • ph 858.793.0401 • fax 858.793.0404
- ☐ 2373 208th Street Unit F-1, Torrance, CA 90501 • ph 310.782.2929 • fax 310.782.2798

Client: I3 Consulting

Address: 13860 Paseo Aldabra
San Diego CA 92129-2106

Phone: 858-538-6067 Fax: Call 1st

Collector: Sheryl Clark

Client Project # 02-06

Location: Cuckey Ranch - Brawley

Turn around time: Normal

Page: 1 Of 1

Project Manager G. Clossin

Date: 07/18/2002

HPL Project # DD071802-33

Outside Lab: _____

| Sample | Depth | Time | Date | Sample Type | Container Type | TPH gasoline / diesel | TPH extended | 8021 for BTEX/MTBE | 8021 for Halogenated compounds | 418.1 TRPH | BTEX / Oxygenates | VOCs | VOCs and Oxygenates | Methane | Fixed Gases | Sample Receipt | |
|--|-------|------|------|-------------|----------------|--|--------------|--------------------|--------------------------------|------------|-------------------|--|---------------------|---------|-------------|--|--|
| 7/16/02-MTE | 1' | 1900 | 7/16 | Soil | 4oz Glass | X | | | | | | | | | | Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Seal Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Cold: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No N/A (Received on Site) | |
| 7/16/02-MTW | 1' | 1910 | 7/16 | Soil | 4oz Glass | X | | | | | | | | | | | |
| 7/16/02-A1 | 6" | 1920 | | | | | | | | | | | | | | | |
| -A2 | 12" | 1930 | | | | | | | | | | | | | | | |
| -B1 | 6" | 1935 | | | | | | | | | | | | | | | |
| -B2 | 12" | 1945 | | | | | | | | | | | | | | | |
| -C1 | 6" | 1950 | | | | | | | | | | | | | | | |
| -C2 | 12" | 2000 | | | | | | | | | | | | | | | |
| -D1 | 6" | 2005 | | | | | | | | | | | | | | | |
| -D2 | 12" | 2015 | | | | | | | | | | | | | | | |
| -E1 | 6" | 2025 | | | | | | | | | | | | | | | |
| -E2 | 12" | 2030 | 7/16 | Soil | 4oz Glass | | | | | | | | | | | | |
| Relinquished by: (Signature) <u>Sheryl Clark</u> | | | | | | Received by: (Signature) <u>Sheryl Clark</u> | | | | | | Date: <u>7/18/02</u> Time: <u>1:05</u> | | | | | |
| Relinquished by: (Signature) _____ | | | | | | Received by: (Signature) _____ | | | | | | Date: _____ Time: _____ | | | | | |
| Relinquished by: (Signature) _____ | | | | | | Received by: (Signature) _____ | | | | | | Date: _____ Time: _____ | | | | | |



Date: 07/18/2002
HPL Project # JD071802-
Outside Lab: _____

Collector: Edward C. Hall Page: 1 Of 1

Client Project # 02-06 Project Manager G. Clossin

Turn around time: Normal

Intact: ☒ Yes ☐ No

Report to I-Centrad

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|------------------------|--|--|--|--|--|--|--|--|--|
| Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | Cold: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | N/A (Received on Site) | | | | | | | | | |
| Field Notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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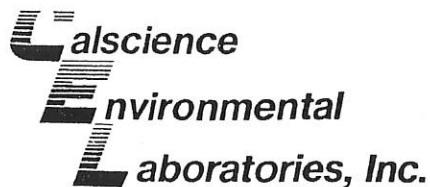
• Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction:

Disposal @ \$2.00 each

☐ *Return to client*

Pickup



July 26, 2002

Gary Clossin
I-Cubed Consulting
13860 Paseo Aldabra
San Diego, CA 92129-2106

Subject: **Calscience Work Order No.:** 02-07-0814
Client Reference: 02-06 / Luckey Ranch - Brawley

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/19/02 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in dark ink, appearing to read "Rm Stearns", written over a horizontal line.

Calscience Environmental
Laboratories, Inc.
Robert Stearns
Project Manager

A handwritten signature in dark ink, appearing to read "M J Crisostomo", written over a horizontal line.

Michael J. Crisostomo
Quality Assurance Manager

ANALYTICAL REPORT

I-Cubed Consulting
13860 Paseo Aldabra
San Diego, CA 92129-2106

Date Received: 07/19/02
Work Order No: 02-07-0814
Preparation: EPA 3545
Method: EPA 8081A

Project: 02-06 / Luckey Ranch - Brawley

Page 1 of 6

| Client Sample Number | Lab Sample Number | Date Collected | Matrix | Date Prepared | Date Analyzed | QC Batch ID |
|----------------------|-------------------|----------------|--------|---------------|---------------|-------------|
| 7/16/02 - A1 | 02-07-0814-1 | 07/16/02 | Solid | 07/22/02 | 07/23/02 | 020722L02 |

| Parameter | Result | RL | DF | Qual | Units | Parameter | Result | RL | DF | Qual | Units |
|--------------------|---------|----------------|----|------|-------|------------------------------|---------|----------------|----|------|-------|
| Alpha-BHC | ND | 5.0 | 1 | | ug/kg | Endrin | ND | 5.0 | 1 | | ug/kg |
| Gamma-BHC | ND | 5.0 | 1 | | ug/kg | Endrin Aldehyde | ND | 5.0 | 1 | | ug/kg |
| Beta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDD | ND | 5.0 | 1 | | ug/kg |
| Heptachlor | ND | 5.0 | 1 | | ug/kg | Endosulfan II | ND | 5.0 | 1 | | ug/kg |
| Delta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDT | ND | 5.0 | 1 | | ug/kg |
| Aldrin | ND | 5.0 | 1 | | ug/kg | Endosulfan Sulfate | ND | 5.0 | 1 | | ug/kg |
| Heptachlor Epoxide | ND | 5.0 | 1 | | ug/kg | Methoxychlor | ND | 5.0 | 1 | | ug/kg |
| Endosulfan I | ND | 5.0 | 1 | | ug/kg | Chlordane | ND | 50 | 1 | | ug/kg |
| Dieldrin | ND | 5.0 | 1 | | ug/kg | Toxaphene | ND | 100 | 1 | | ug/kg |
| 4,4'-DDE | ND | 5.0 | 1 | | ug/kg | Endrin Ketone | ND | 5.0 | 1 | | ug/kg |
| Surrogates: | REC (%) | Control Limits | | Qual | | Surrogates: | REC (%) | Control Limits | | Qual | |
| Decachlorobiphenyl | 95 | 50-130 | | | | 2,4,5,6-Tetrachloro-m-Xylene | 64 | 50-130 | | | |

| | | | | | | |
|--------------|--------------|----------|-------|----------|----------|-----------|
| 7/16/02 - A2 | 02-07-0814-2 | 07/16/02 | Solid | 07/22/02 | 07/23/02 | 020722L02 |
|--------------|--------------|----------|-------|----------|----------|-----------|

| Parameter | Result | RL | DF | Qual | Units | Parameter | Result | RL | DF | Qual | Units |
|--------------------|---------|----------------|----|------|-------|------------------------------|---------|----------------|----|------|-------|
| Alpha-BHC | ND | 5.0 | 1 | | ug/kg | Endrin | ND | 5.0 | 1 | | ug/kg |
| Gamma-BHC | ND | 5.0 | 1 | | ug/kg | Endrin Aldehyde | ND | 5.0 | 1 | | ug/kg |
| Beta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDD | ND | 5.0 | 1 | | ug/kg |
| Heptachlor | ND | 5.0 | 1 | | ug/kg | Endosulfan II | ND | 5.0 | 1 | | ug/kg |
| Delta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDT | ND | 5.0 | 1 | | ug/kg |
| Aldrin | ND | 5.0 | 1 | | ug/kg | Endosulfan Sulfate | ND | 5.0 | 1 | | ug/kg |
| Heptachlor Epoxide | ND | 5.0 | 1 | | ug/kg | Methoxychlor | ND | 5.0 | 1 | | ug/kg |
| Endosulfan I | ND | 5.0 | 1 | | ug/kg | Chlordane | ND | 50 | 1 | | ug/kg |
| Dieldrin | ND | 5.0 | 1 | | ug/kg | Toxaphene | ND | 100 | 1 | | ug/kg |
| 4,4'-DDE | ND | 5.0 | 1 | | ug/kg | Endrin Ketone | ND | 5.0 | 1 | | ug/kg |
| Surrogates: | REC (%) | Control Limits | | Qual | | Surrogates: | REC (%) | Control Limits | | Qual | |
| Decachlorobiphenyl | 95 | 50-130 | | | | 2,4,5,6-Tetrachloro-m-Xylene | 61 | 50-130 | | | |

ANALYTICAL REPORT

I-Cubed Consulting
13860 Paseo Aldabra
San Diego, CA 92129-2106

Date Received: 07/19/02
Work Order No: 02-07-0814
Preparation: EPA 3545
Method: EPA 8081A

Project: 02-06 / Luckey Ranch - Brawley

Page 2 of 6

| Client Sample Number | Lab Sample Number | Date Collected | Matrix | Date Prepared | Date Analyzed | QC Batch ID |
|----------------------|-------------------|----------------|--------|---------------|---------------|-------------|
| 7/16/02 - B1 | 02-07-0814-3 | 07/16/02 | Solid | 07/22/02 | 07/23/02 | 020722L02 |

| Parameter | Result | RL | DF | Qual | Units | Parameter | Result | RL | DF | Qual | Units |
|--------------------|---------|----------------|----|------|-------|------------------------------|---------|----------------|----|------|-------|
| Alpha-BHC | ND | 5.0 | 1 | | ug/kg | Endrin | ND | 5.0 | 1 | | ug/kg |
| Gamma-BHC | ND | 5.0 | 1 | | ug/kg | Endrin Aldehyde | ND | 5.0 | 1 | | ug/kg |
| Beta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDD | ND | 5.0 | 1 | | ug/kg |
| Heptachlor | ND | 5.0 | 1 | | ug/kg | Endosulfan II | ND | 5.0 | 1 | | ug/kg |
| Delta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDT | ND | 5.0 | 1 | | ug/kg |
| Aldrin | ND | 5.0 | 1 | | ug/kg | Endosulfan Sulfate | ND | 5.0 | 1 | | ug/kg |
| Heptachlor Epoxide | ND | 5.0 | 1 | | ug/kg | Methoxychlor | ND | 5.0 | 1 | | ug/kg |
| Endosulfan I | ND | 5.0 | 1 | | ug/kg | Chlordane | ND | 50 | 1 | | ug/kg |
| Dieldrin | ND | 5.0 | 1 | | ug/kg | Toxaphene | ND | 100 | 1 | | ug/kg |
| 4,4'-DDE | ND | 5.0 | 1 | | ug/kg | Endrin Ketone | ND | 5.0 | 1 | | ug/kg |
| Surrogates: | REC (%) | Control Limits | | Qual | | Surrogates: | REC (%) | Control Limits | | Qual | |
| Decachlorobiphenyl | 100 | 50-130 | | | | 2,4,5,6-Tetrachloro-m-Xylene | 57 | 50-130 | | | |

| | | | | | | |
|--------------|--------------|----------|-------|----------|----------|-----------|
| 7/16/02 - B2 | 02-07-0814-4 | 07/16/02 | Solid | 07/22/02 | 07/23/02 | 020722L02 |
|--------------|--------------|----------|-------|----------|----------|-----------|

| Parameter | Result | RL | DF | Qual | Units | Parameter | Result | RL | DF | Qual | Units |
|--------------------|---------|----------------|----|------|-------|------------------------------|---------|----------------|----|------|-------|
| Alpha-BHC | ND | 5.0 | 1 | | ug/kg | Endrin | ND | 5.0 | 1 | | ug/kg |
| Gamma-BHC | ND | 5.0 | 1 | | ug/kg | Endrin Aldehyde | ND | 5.0 | 1 | | ug/kg |
| Beta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDD | ND | 5.0 | 1 | | ug/kg |
| Heptachlor | ND | 5.0 | 1 | | ug/kg | Endosulfan II | ND | 5.0 | 1 | | ug/kg |
| Delta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDT | ND | 5.0 | 1 | | ug/kg |
| Aldrin | ND | 5.0 | 1 | | ug/kg | Endosulfan Sulfate | ND | 5.0 | 1 | | ug/kg |
| Heptachlor Epoxide | ND | 5.0 | 1 | | ug/kg | Methoxychlor | ND | 5.0 | 1 | | ug/kg |
| Endosulfan I | ND | 5.0 | 1 | | ug/kg | Chlordane | ND | 50 | 1 | | ug/kg |
| Dieldrin | ND | 5.0 | 1 | | ug/kg | Toxaphene | ND | 100 | 1 | | ug/kg |
| 4,4'-DDE | 5.9 | 5.0 | 1 | | ug/kg | Endrin Ketone | ND | 5.0 | 1 | | ug/kg |
| Surrogates: | REC (%) | Control Limits | | Qual | | Surrogates: | REC (%) | Control Limits | | Qual | |
| Decachlorobiphenyl | 102 | 50-130 | | | | 2,4,5,6-Tetrachloro-m-Xylene | 62 | 50-130 | | | |

ANALYTICAL REPORT

I-Cubed Consulting
13860 Paseo Aldabra
San Diego, CA 92129-2106

Date Received: 07/19/02
Work Order No: 02-07-0814
Preparation: EPA 3545
Method: EPA 8081A

Project: 02-06 / Luckey Ranch - Brawley

Page 3 of 6

| Client Sample Number | Lab Sample Number | Date Collected | Matrix | Date Prepared | Date Analyzed | QC Batch ID |
|----------------------|-------------------|----------------|--------|---------------|---------------|-------------|
| 7/16/02 - C1 | 02-07-0814-5 | 07/16/02 | Solid | 07/22/02 | 07/23/02 | 020722L02 |

| Parameter | Result | RL | DF | Qual | Units | Parameter | Result | RL | DF | Qual | Units |
|--------------------|---------|----------------|----|------|-------|------------------------------|---------|----------------|----|------|-------|
| Alpha-BHC | ND | 5.0 | 1 | | ug/kg | Endrin | ND | 5.0 | 1 | | ug/kg |
| Gamma-BHC | ND | 5.0 | 1 | | ug/kg | Endrin Aldehyde | ND | 5.0 | 1 | | ug/kg |
| Beta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDD | ND | 5.0 | 1 | | ug/kg |
| Heptachlor | ND | 5.0 | 1 | | ug/kg | Endosulfan II | ND | 5.0 | 1 | | ug/kg |
| Delta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDT | ND | 5.0 | 1 | | ug/kg |
| Aldrin | ND | 5.0 | 1 | | ug/kg | Endosulfan Sulfate | ND | 5.0 | 1 | | ug/kg |
| Heptachlor Epoxide | ND | 5.0 | 1 | | ug/kg | Methoxychlor | ND | 5.0 | 1 | | ug/kg |
| Endosulfan I | ND | 5.0 | 1 | | ug/kg | Chlordane | ND | 50 | 1 | | ug/kg |
| Dieldrin | ND | 5.0 | 1 | | ug/kg | Toxaphene | ND | 100 | 1 | | ug/kg |
| 4,4'-DDE | 5.5 | 5.0 | 1 | | ug/kg | Endrin Ketone | ND | 5.0 | 1 | | ug/kg |
| Surrogates: | REC (%) | Control Limits | | Qual | | Surrogates: | REC (%) | Control Limits | | Qual | |
| Decachlorobiphenyl | 91 | 50-130 | | | | 2,4,5,6-Tetrachloro-m-Xylene | 57 | 50-130 | | | |

| | | | | | | |
|--------------|--------------|----------|-------|----------|----------|-----------|
| 7/16/02 - C2 | 02-07-0814-6 | 07/16/02 | Solid | 07/22/02 | 07/24/02 | 020722L02 |
|--------------|--------------|----------|-------|----------|----------|-----------|

| Parameter | Result | RL | DF | Qual | Units | Parameter | Result | RL | DF | Qual | Units |
|--------------------|---------|----------------|----|------|-------|------------------------------|---------|----------------|----|------|-------|
| Alpha-BHC | ND | 5.0 | 1 | | ug/kg | Endrin | ND | 5.0 | 1 | | ug/kg |
| Gamma-BHC | ND | 5.0 | 1 | | ug/kg | Endrin Aldehyde | ND | 5.0 | 1 | | ug/kg |
| Beta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDD | ND | 5.0 | 1 | | ug/kg |
| Heptachlor | ND | 5.0 | 1 | | ug/kg | Endosulfan II | ND | 5.0 | 1 | | ug/kg |
| Delta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDT | ND | 5.0 | 1 | | ug/kg |
| Aldrin | ND | 5.0 | 1 | | ug/kg | Endosulfan Sulfate | ND | 5.0 | 1 | | ug/kg |
| Heptachlor Epoxide | ND | 5.0 | 1 | | ug/kg | Methoxychlor | ND | 5.0 | 1 | | ug/kg |
| Endosulfan I | ND | 5.0 | 1 | | ug/kg | Chlordane | ND | 50 | 1 | | ug/kg |
| Dieldrin | ND | 5.0 | 1 | | ug/kg | Toxaphene | ND | 100 | 1 | | ug/kg |
| 4,4'-DDE | ND | 5.0 | 1 | | ug/kg | Endrin Ketone | ND | 5.0 | 1 | | ug/kg |
| Surrogates: | REC (%) | Control Limits | | Qual | | Surrogates: | REC (%) | Control Limits | | Qual | |
| Decachlorobiphenyl | 105 | 50-130 | | | | 2,4,5,6-Tetrachloro-m-Xylene | 71 | 50-130 | | | |

ANALYTICAL REPORT

I-Cubed Consulting
13860 Paseo Aldabra
San Diego, CA 92129-2106

Date Received: 07/19/02
Work Order No: 02-07-0814
Preparation: EPA 3545
Method: EPA 8081A

Project: 02-06 / Luckey Ranch - Brawley

Page 4 of 6

| Client Sample Number | Lab Sample Number | Date Collected | Matrix | Date Prepared | Date Analyzed | QC Batch ID |
|----------------------|-------------------|----------------|--------|---------------|---------------|-------------|
| 7/16/02 - D1 | 02-07-0814-7 | 07/16/02 | Solid | 07/22/02 | 07/24/02 | 020722L02 |

| Parameter | Result | RL | DF | Qual | Units | Parameter | Result | RL | DF | Qual | Units |
|--------------------|---------|----------------|----|------|-------|------------------------------|---------|----------------|----|------|-------|
| Alpha-BHC | ND | 5.0 | 1 | | ug/kg | Endrin | ND | 5.0 | 1 | | ug/kg |
| Gamma-BHC | ND | 5.0 | 1 | | ug/kg | Endrin Aldehyde | ND | 5.0 | 1 | | ug/kg |
| Beta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDD | ND | 5.0 | 1 | | ug/kg |
| Heptachlor | ND | 5.0 | 1 | | ug/kg | Endosulfan II | ND | 5.0 | 1 | | ug/kg |
| Delta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDT | ND | 5.0 | 1 | | ug/kg |
| Aldrin | ND | 5.0 | 1 | | ug/kg | Endosulfan Sulfate | ND | 5.0 | 1 | | ug/kg |
| Heptachlor Epoxide | ND | 5.0 | 1 | | ug/kg | Methoxychlor | ND | 5.0 | 1 | | ug/kg |
| Endosulfan I | ND | 5.0 | 1 | | ug/kg | Chlordane | ND | 50 | 1 | | ug/kg |
| Dieldrin | ND | 5.0 | 1 | | ug/kg | Toxaphene | ND | 100 | 1 | | ug/kg |
| 4,4'-DDE | ND | 5.0 | 1 | | ug/kg | Endrin Ketone | ND | 5.0 | 1 | | ug/kg |
| Surrogates: | REC (%) | Control Limits | | Qual | | Surrogates: | REC (%) | Control Limits | | Qual | |
| Decachlorobiphenyl | 101 | 50-130 | | | | 2,4,5,6-Tetrachloro-m-Xylene | 66 | 50-130 | | | |

| | | | | | | |
|--------------|--------------|----------|-------|----------|----------|-----------|
| 7/16/02 - D2 | 02-07-0814-8 | 07/16/02 | Solid | 07/22/02 | 07/23/02 | 020722L02 |
|--------------|--------------|----------|-------|----------|----------|-----------|

| Parameter | Result | RL | DF | Qual | Units | Parameter | Result | RL | DF | Qual | Units |
|--------------------|---------|----------------|----|------|-------|------------------------------|---------|----------------|----|------|-------|
| Alpha-BHC | ND | 5.0 | 1 | | ug/kg | Endrin | ND | 5.0 | 1 | | ug/kg |
| Gamma-BHC | ND | 5.0 | 1 | | ug/kg | Endrin Aldehyde | ND | 5.0 | 1 | | ug/kg |
| Beta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDD | ND | 5.0 | 1 | | ug/kg |
| Heptachlor | ND | 5.0 | 1 | | ug/kg | Endosulfan II | ND | 5.0 | 1 | | ug/kg |
| Delta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDT | ND | 5.0 | 1 | | ug/kg |
| Aldrin | ND | 5.0 | 1 | | ug/kg | Endosulfan Sulfate | ND | 5.0 | 1 | | ug/kg |
| Heptachlor Epoxide | ND | 5.0 | 1 | | ug/kg | Methoxychlor | ND | 5.0 | 1 | | ug/kg |
| Endosulfan I | ND | 5.0 | 1 | | ug/kg | Chlordane | ND | 50 | 1 | | ug/kg |
| Dieldrin | ND | 5.0 | 1 | | ug/kg | Toxaphene | ND | 100 | 1 | | ug/kg |
| 4,4'-DDE | 5.6 | 5.0 | 1 | | ug/kg | Endrin Ketone | ND | 5.0 | 1 | | ug/kg |
| Surrogates: | REC (%) | Control Limits | | Qual | | Surrogates: | REC (%) | Control Limits | | Qual | |
| Decachlorobiphenyl | 89 | 50-130 | | | | 2,4,5,6-Tetrachloro-m-Xylene | 52 | 50-130 | | | |

ANALYTICAL REPORT

I-Cubed Consulting
13860 Paseo Aldabra
San Diego, CA 92129-2106

Date Received: 07/19/02
Work Order No: 02-07-0814
Preparation: EPA 3545
Method: EPA 8081A

Project: 02-06 / Luckey Ranch - Brawley

Page 5 of 6

| Client Sample Number | Lab Sample Number | Date Collected | Matrix | Date Prepared | Date Analyzed | QC Batch ID |
|----------------------|-------------------|----------------|--------|---------------|---------------|-------------|
| 7/16/02 - E1 | 02-07-0814-9 | 07/16/02 | Solid | 07/22/02 | 07/23/02 | 020722L02 |

| Parameter | Result | RL | DF | Qual | Units | Parameter | Result | RL | DF | Qual | Units |
|--------------------|---------|----------------|----|------|-------|------------------------------|---------|----------------|----|------|-------|
| Alpha-BHC | ND | 5.0 | 1 | | ug/kg | Endrin | ND | 5.0 | 1 | | ug/kg |
| Gamma-BHC | ND | 5.0 | 1 | | ug/kg | Endrin Aldehyde | ND | 5.0 | 1 | | ug/kg |
| Beta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDD | ND | 5.0 | 1 | | ug/kg |
| Heptachlor | ND | 5.0 | 1 | | ug/kg | Endosulfan II | ND | 5.0 | 1 | | ug/kg |
| Delta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDT | ND | 5.0 | 1 | | ug/kg |
| Aldrin | ND | 5.0 | 1 | | ug/kg | Endosulfan Sulfate | ND | 5.0 | 1 | | ug/kg |
| Heptachlor Epoxide | ND | 5.0 | 1 | | ug/kg | Methoxychlor | ND | 5.0 | 1 | | ug/kg |
| Endosulfan I | ND | 5.0 | 1 | | ug/kg | Chlordane | ND | 50 | 1 | | ug/kg |
| Dieldrin | 5.9 | 5.0 | 1 | | ug/kg | Toxaphene | ND | 100 | 1 | | ug/kg |
| 4,4'-DDE | 50 | 25 | 5 | D | ug/kg | Endrin Ketone | ND | 5.0 | 1 | | ug/kg |
| Surrogates: | REC (%) | Control Limits | | Qual | | Surrogates: | REC (%) | Control Limits | | Qual | |
| Decachlorobiphenyl | 86 | 50-130 | | | | 2,4,5,6-Tetrachloro-m-Xylene | 54 | 50-130 | | | |

| | | | | | | |
|--------------|---------------|----------|-------|----------|----------|-----------|
| 7/16/02 - E2 | 02-07-0814-10 | 07/16/02 | Solid | 07/22/02 | 07/23/02 | 020722L02 |
|--------------|---------------|----------|-------|----------|----------|-----------|

| Parameter | Result | RL | DF | Qual | Units | Parameter | Result | RL | DF | Qual | Units |
|--------------------|---------|----------------|----|------|-------|------------------------------|---------|----------------|----|------|-------|
| Alpha-BHC | ND | 5.0 | 1 | | ug/kg | Endrin | ND | 5.0 | 1 | | ug/kg |
| Gamma-BHC | ND | 5.0 | 1 | | ug/kg | Endrin Aldehyde | ND | 5.0 | 1 | | ug/kg |
| Beta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDD | ND | 5.0 | 1 | | ug/kg |
| Heptachlor | ND | 5.0 | 1 | | ug/kg | Endosulfan II | ND | 5.0 | 1 | | ug/kg |
| Delta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDT | ND | 5.0 | 1 | | ug/kg |
| Aldrin | ND | 5.0 | 1 | | ug/kg | Endosulfan Sulfate | ND | 5.0 | 1 | | ug/kg |
| Heptachlor Epoxide | ND | 5.0 | 1 | | ug/kg | Methoxychlor | ND | 5.0 | 1 | | ug/kg |
| Endosulfan I | ND | 5.0 | 1 | | ug/kg | Chlordane | ND | 50 | 1 | | ug/kg |
| Dieldrin | ND | 5.0 | 1 | | ug/kg | Toxaphene | ND | 100 | 1 | | ug/kg |
| 4,4'-DDE | 28 | 5 | 1 | | ug/kg | Endrin Ketone | ND | 5.0 | 1 | | ug/kg |
| Surrogates: | REC (%) | Control Limits | | Qual | | Surrogates: | REC (%) | Control Limits | | Qual | |
| Decachlorobiphenyl | 100 | 50-130 | | | | 2,4,5,6-Tetrachloro-m-Xylene | 54 | 50-130 | | | |

ANALYTICAL REPORT

I-Cubed Consulting
13860 Paseo Aldabra
San Diego, CA 92129-2106

Date Received: 07/19/02
Work Order No: 02-07-0814
Preparation: EPA 3545
Method: EPA 8081A

Project: 02-06 / Luckey Ranch - Brawley

Page 6 of 6

| Client Sample Number | Lab Sample Number | Date Collected | Matrix | Date Prepared | Date Analyzed | QC Batch ID |
|----------------------|-------------------|----------------|--------|---------------|---------------|-------------|
| Method Blank | 099-07-011-83 | N/A | Solid | 07/22/02 | 07/22/02 | 020722L02 |

| Parameter | Result | RL | DF | Qual | Units | Parameter | Result | RL | DF | Qual | Units |
|--------------------|---------|----------------|----|------|-------|------------------------------|---------|----------------|----|------|-------|
| Alpha-BHC | ND | 5.0 | 1 | | ug/kg | Endrin | ND | 5.0 | 1 | | ug/kg |
| Gamma-BHC | ND | 5.0 | 1 | | ug/kg | Endrin Aldehyde | ND | 5.0 | 1 | | ug/kg |
| Beta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDD | ND | 5.0 | 1 | | ug/kg |
| Heptachlor | ND | 5.0 | 1 | | ug/kg | Endosulfan II | ND | 5.0 | 1 | | ug/kg |
| Delta-BHC | ND | 5.0 | 1 | | ug/kg | 4,4'-DDT | ND | 5.0 | 1 | | ug/kg |
| Aldrin | ND | 5.0 | 1 | | ug/kg | Endosulfan Sulfate | ND | 5.0 | 1 | | ug/kg |
| Heptachlor Epoxide | ND | 5.0 | 1 | | ug/kg | Methoxychlor | ND | 5.0 | 1 | | ug/kg |
| Endosulfan I | ND | 5.0 | 1 | | ug/kg | Chlordane | ND | 50 | 1 | | ug/kg |
| Dieldrin | ND | 5.0 | 1 | | ug/kg | Toxaphene | ND | 100 | 1 | | ug/kg |
| 4,4'-DDE | ND | 5.0 | 1 | | ug/kg | Endrin Ketone | ND | 5.0 | 1 | | ug/kg |
| Surrogates: | REC (%) | Control Limits | | Qual | | Surrogates: | REC (%) | Control Limits | | Qual | |
| Decachlorobiphenyl | 104 | 50-130 | | | | 2,4,5,6-Tetrachloro-m-Xylene | 78 | 50-130 | | | |

Quality Control - Spike/Spike Duplicate

I-Cubed Consulting
 13860 Paseo Aldabra
 San Diego, CA 92129-2106

Date Received: 07/19/02
 Work Order No: 02-07-0814
 Preparation: EPA 3545
 Method: EPA 8081A

Project: 02-06 / Luckey Ranch - Brawley

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---------------------------|--------|------------|---------------|---------------|---------------------|
| 7/16/02 - D2 | Solid | GC 16 | 07/22/02 | 07/22/02 | 020722S02 |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|--------------|---------|----------|---------|-----|--------|------------|
| Gamma-BHC | 88 | 91 | 50-135 | 4 | 0-25 | |
| Heptachlor | 67 | 69 | 50-135 | 3 | 0-25 | |
| Endosulfan I | 75 | 79 | 50-135 | 5 | 0-25 | |
| Dieldrin | 83 | 83 | 50-135 | 1 | 0-25 | |
| Endrin | 78 | 84 | 50-135 | 7 | 0-25 | |
| 4,4'-DDT | 68 | 71 | 50-135 | 3 | 0-25 | |

Quality Control - LCS/LCS Duplicate

I-Cubed Consulting
 13860 Paseo Aldabra
 San Diego, CA 92129-2106

Date Received: 07/19/02
 Work Order No: 02-07-0814
 Preparation: EPA 3545
 Method: EPA 8081A

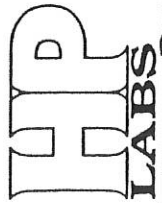
Project: 02-06 / Luckey Ranch - Brawley

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---------------------------|--------|------------|---------------|---------------|-----------------------|
| 099-07-011-83 | Solid | GC 16 | 07/22/02 | 07/22/02 | 020722L02 |

| Parameter | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|--------------|----------|-----------|---------|-----|--------|------------|
| Gamma-BHC | 100 | 97 | 50-135 | 4 | 0-25 | |
| Heptachlor | 95 | 92 | 50-135 | 3 | 0-25 | |
| Endosulfan I | 115 | 110 | 50-135 | 4 | 0-25 | |
| Dieldrin | 100 | 97 | 50-135 | 3 | 0-25 | |
| Endrin | 98 | 93 | 50-135 | 6 | 0-25 | |
| 4,4'-DDT | 91 | 95 | 50-135 | 3 | 0-25 | |

Work Order Number: 02-07-0814

| <u>Qualifier</u> | <u>Definition</u> |
|------------------|---|
| D | The sample data was reported from a diluted analysis. |
| ND | Not detected at indicated reporting limit. |



Chain of Custody Record

- ☐ 148 S. Vinewood St., Escondido, CA 92029 • ph 760.735.3208 • fax 760.735.2469
☐ 432 N. Cedros Ave., Solana Beach, CA 92075 • ph 858.793.0401 • fax 858.793.0404
☐ 2373 208th Street Unit F-1, Torrance, CA 90501 • ph 310.782.2929 • fax 310.782.2798

Date: 07/18/2002

HPL Project # ID071802-33

Outside Lab:

Client: I3 Consulting
Address: 13860 Paseo Aldabra
San Diego CA 92129-2106
Phone: 858-538-6067 Fax: Call 1st
Collector: Sheryl Clark Page: 1 of 1
Client Project # 02-06 Project Manager G. Clossin
Location: Lucky Ranch - Brawley
Turn around time: Normal

Notes: Bill HPLabs Esc.
Report to I-Cubed

| Sample | Depth | Time | Date | Sample Type | Container Type | TPH gasoline / diesel | TPH extended | 8021 for BTEX/MTBE | 8021 for Halogenated compounds | 418.1 TRPH | BTEX / Oxygenates | Oxygenates | VOCs | VOCs and Oxygenates | Methane | Fixed Gases | Field Notes | Sample Receipt |
|---|-------|------|------|-------------|----------------|-----------------------|--------------|--------------------|--------------------------------|------------|-------------------|------------|------|---------------------|---------|-------------|-------------|----------------|
| 7/16/02-MTE | 1' | 1900 | 7/16 | Soil | 402 Glass | | X | | | | | | | | | | | |
| 7/16/02-MTW | 1' | 1910 | 7/16 | Soil | 402 Glass | | X | | | | | | | | | | | |
| 7/16/02-A1 | 6" | 1920 | | | | | | | | | | | | | | | | |
| -A2 | 12" | 1930 | | | | | | | | | | | | | | | | |
| -B1 | 6" | 1935 | | | | | | | | | | | | | | | | |
| -B2 | 12" | 1945 | | | | | | | | | | | | | | | | |
| -C1 | 6" | 1950 | | | | | | | | | | | | | | | | |
| -C2 | 12" | 2000 | | | | | | | | | | | | | | | | |
| -D1 | 6" | 2005 | | | | | | | | | | | | | | | | |
| -D2 | 12" | 2015 | | | | | | | | | | | | | | | | |
| -E1 | 6" | 2025 | | | | | | | | | | | | | | | | |
| -E2 | 12" | 2030 | 7/16 | Soil | 402 Glass | | | | | | | | | | | | | |
| Received by: (Signature) <u>Sheryl Clark</u> (company) <u>I3</u> Date: 7/18/02 Time: 11:05 | | | | | | | | | | | | | | | | | | |
| Received by: (Signature) <u>Sheryl Clark</u> (company) <u>HP Labs</u> Date: 07-19-02 Time: 11:00 | | | | | | | | | | | | | | | | | | |
| Received by: (Signature) <u>Sheryl Clark</u> (company) <u>Calscience</u> Date: 07-19-02 Time: 16:30 | | | | | | | | | | | | | | | | | | |
| Signature constitutes authorization to proceed with analysis and acceptance of condition on back. <input type="checkbox"/> Return to client <input type="checkbox"/> Disposal \$8.00 each | | | | | | | | | | | | | | | | | | |

WORK ORDER #: 02-07-0814

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: H.P. LAB ESCONDIDO

DATE: 07-19-02

TEMPERATURE - SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

☐ Chilled, cooler with temperature blank provided.

☐ Chilled, cooler without temperature blank.

☒ Chilled and placed in cooler with wet ice.

☐ Ambient and placed in cooler with wet ice.

☐ Ambient temperature.

☒ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

☐ °C Temperature blank.

☐ °C IR thermometer.

☐ Ambient temperature.

Initial: BA

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Applicable (N/A): ☒

Initial: BA

SAMPLE CONDITION:

| | Yes | No | N/A |
|---|-------------------------------------|--------------------------|-------------------------------------|
| Chain-Of-Custody document(s) received with samples..... | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Sample container label(s) consistent with custody papers..... | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Sample container(s) intact and good condition..... | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Correct containers for analyses requested..... | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Proper preservation noted on sample label(s)..... | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| VOA vial(s) free of headspace. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Tedlar bag(s) free of condensation..... | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Initial: BA

COMMENTS:

Appendix C

Biological Survey and Report

**TRAFFIC IMPACT ASSESSMENT
SDSU IMPERIAL VALLEY CAMPUS
CALEXICO, CALIFORNIA**

Prepared by:



1565 Hotel Circle South, Suite 310
San Diego, CA 92108
(619) 299-3090

June 03, 2002
JB/JN/jn
3-02-1166clx

TABLE OF CONTENTS

| DESCRIPTION | PAGE NO. |
|---|-------------|
| 1.0 INTRODUCTION | 1 |
| 1.1 Study Methodology..... | 1 |
| 1.2 Study Area..... | 4 |
| 2.0 SITE CONTEXT | 5 |
| 2.1 Project Description | 5 |
| 2.2 Existing Street System | 5 |
| 3.0 TRAFFIC FORECASTS..... | 8 |
| 3.1 Existing Traffic Volumes..... | 8 |
| 3.2 Project Traffic Generation | 8 |
| 3.3 Project Traffic Distribution / Assignment | 8 |
| 4.0 TRAFFIC OPERATIONS ANALYSIS | 13 |
| 4.1 Significance Criteria | 13 |
| 4.2 Traffic Analysis Methodology | 13 |
| 4.3 Existing Operations | 13 |
| 4.4 Existing + Project Operations..... | 14 |
| 5.0 SIGNIFICANCE OF IMPACTS / MITIGATION MEASURES | 15 |

APPENDICES

- A Traffic Counts
- B Unsignalized Intersection Calculation Sheets

LIST OF TABLES

| TABLE NO. | DESCRIPTION | PAGE NO. |
|--------------|---|-------------|
| 1. | Project Traffic Generation | 8 |
| 2. | Unsignalized Intersection Operations..... | 14 |

FIGURES

| FIGURE NO. | DESCRIPTION | PAGE NO. |
|---------------|---|-------------|
| 1. | Vicinity Map..... | 2 |
| 2. | Project Area Map | 3 |
| 3. | Site Plan..... | 6 |
| 4. | Existing Conditions Diagram | 7 |
| 5. | Existing Traffic Volumes | 9 |
| 6. | Regional Traffic Distribution..... | 10 |
| 7. | Project Traffic Volumes..... | 11 |
| 8. | Existing + Project Traffic Volumes..... | 12 |

TABLE OF CONTENTS

| DESCRIPTION | PAGE NO. |
|--|-------------|
| 1.0 INTRODUCTION | 1 |
| 1.1 Study Methodology..... | 1 |
| 1.2 Study Area..... | 3 |
| 2.0 SITE CONTEXT..... | 4 |
| 2.1 Project Description | 4 |
| 2.2 Existing Street System | 4 |
| 3.0 TRAFFIC FORECASTS..... | 7 |
| 3.1 Existing Traffic Volumes..... | 7 |
| 3.2 Project Traffic Generation | 8 |
| 3.3 Project Traffic Distribution / Assignment | 10 |
| 3.4 Cumulative Projects | 10 |
| 4.0 TRAFFIC OPERATIONS ANALYSIS | 19 |
| 4.1 Significance Criteria | 19 |
| 4.2 Traffic Analysis Methodology | 19 |
| 4.3 Existing Operations | 20 |
| 4.4 Existing + Project Phase I Operations..... | 20 |
| 4.5 Existing + Total Project Operations..... | 21 |
| 4.6 Existing + Total Project + Cumulative Projects Operations..... | 21 |
| 5.0 YEAR 2030 OPERATIONS | 26 |
| 6.0 SIGNIFICANCE OF IMPACTS / MITIGATION MEASURES | 27 |

APPENDICES

- A Conceptual Site Plan
- B Manual Count Sheets
- C Table 6A – Enrollment Study Report
- D Cumulative Traffic Data
- E Signalized intersection Calculation Sheets
- F Unsignalized Intersection Calculation Sheets
- G County of Imperial Roadway Classification table
- H Table 1-1 - Brawley Bypass Report

LIST OF TABLES

| TABLE NO. | DESCRIPTION | PAGE NO. |
|--------------|--|-------------|
| 1. | Existing Daily Traffic Volumes..... | 8 |
| 2. | Project Trip Generation | 8 |
| 3a. | Signalized Intersection Operations..... | 22 |
| 3b. | Signalized Intersection Operations (ILV Methodology) | 23 |
| 4. | Unsignalized Intersection Operations..... | 24 |
| 5. | Near-Term Street Segment Operations | 25 |
| 6. | Year 2030 Street Segment Operations | 26 |

FIGURES

| FIGURE NO. | DESCRIPTION | PAGE NO. |
|---------------|--|-------------|
| 1. | Vicinity Map..... | 2 |
| 2. | Existing Conditions Diagram..... | 5 |
| 3. | Existing Traffic Volumes | 9 |
| 4. | Regional Trip Distribution..... | 11 |
| 5. | Project Phase I Traffic Volumes | 12 |
| 5a. | Total Project Traffic Volumes..... | 13 |
| 6. | Existing + Project Phase I Traffic Volumes..... | 14 |
| 6a. | Existing + Total Project Traffic Volumes | 15 |
| 7. | Cumulative Project Traffic Volumes..... | 17 |
| 8. | Existing + Total Project + Cumulative Project Traffic Volumes..... | 18 |

**TRAFFIC IMPACT ANALYSIS
SAN DIEGO STATE UNIVERSITY IMPERIAL VALLEY MASTER PLAN
OFF-CAMPUS CENTER
BRAWLEY, CALIFORNIA**

1.0 INTRODUCTION

Linscott, Law & Greenspan Engineers (LLG) has been retained to assess the traffic implications due to the construction of an off-campus center, operated by San Diego State University in the City of Brawley. The campus would be constructed in two phases. The first phase of the project would be limited to 350 full time enrolled equivalent students (FTE) and the second phase would increase the equivalent enrollment to 850 (FTE).

Figure 1 sets out the site vicinity.

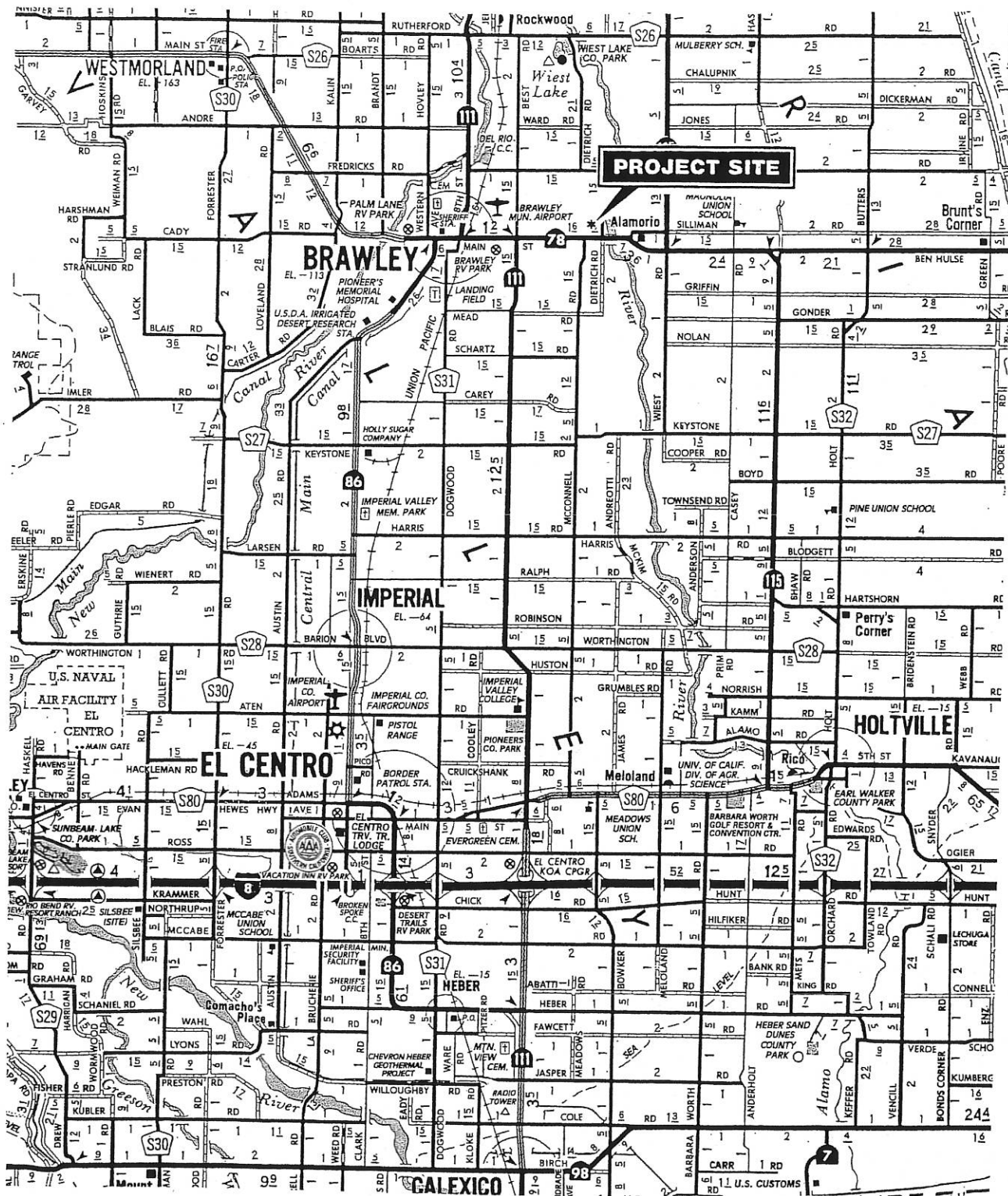
The subject site is located in the eastern portion of the City of Brawley, approximately one quarter-mile west of McConnell Road and one and a-quarter-miles east of Best Road on the north side of State Route 78 (SR 78). Access will be provided via one driveway to SR 78.

1.1 Study Methodology

The following study methodology was adopted for the traffic study, and can be broken into three distinct steps. The first step involved the assessment of the existing traffic conditions in the study area, and includes an inventory of roadway geometries, observations of traffic flow, and the collection of peak period traffic counts.

In the second step of the study, future traffic conditions were forecasted building on the collected existing data. Traffic forecasts reflect traffic generation and the distribution of project traffic.

The third step involved intersection and street segment performance analysis and identification of operational issues. Significant impacts, within the study area were identified, and mitigation measures recommended as appropriate.



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**LINSCOTT
LAW &
GREENSPAN**
ENGINEERS

Figure 1
VICINITY MAP

1.2 Study Area

The study area for this project encompasses areas of anticipated impact related to the project. Intersections where the project is anticipated to add over 50 peak hour trips were analyzed.

Included in this traffic study are the following chapters:

- Site Context;
- Traffic Forecasts;
- Traffic Operational Analysis;
- Year 2030 Operations; and
- Significance of impacts/Mitigation measures.

2.0 SITE CONTEXT

2.1 Project Description

The project proposes to construct an off-campus center, which would be operated by San Diego State University (SDSU). The project includes the development of new classrooms and administrative buildings to provide facilities for up to 850 full time enrolled-equivalent students (FTE). The campus will be constructed in two phases, with the first phase of the project accommodating 350 FTE and the second phase accommodating the ultimate number of students at 850 FTE, an increase of 500 FTE. The campus is located in the eastern portion of the City of Brawley, approximately one quarter-mile west of McConnell Road and one and a-quarter-miles east of Best Road on the north side of State Highway 78.

Access to campus parking will be via one driveway to SR 78 and serve two main parking areas on the eastern side of the campus. **Appendix A** contains the conceptual site plan.

2.2 Existing Street System

According to County of Imperial Public Road Standards, Primary Arterials should be 106 feet wide in 126 feet of Right-of-Way (R/W), providing four thru lanes, and a raised or painted median. Major Roads should be 82 feet wide in 102 feet of R/W, providing four undivided thru lanes, and curbside parking. Collectors should be 64 feet wide in 84 feet of R/W providing two-thru undivided lanes.

The following is a general description of the roadways in the project area. **Figure 2** depicts the existing conditions including the lane geometrics of the key intersections in the study area.

State Route 78 is classified as a State Highway on the Imperial County Circulation Element and is an east/west route within the project area. State Route 78 is constructed as a four-lane conventional highway (two travel lanes in each direction) from SR 86 to SR 111 through the incorporated City of Brawley. This portion of SR 78 provides no bike lanes, but does provide bus stops and has a posted speed limit of 30 mph. A portion of SR 78 between SR 111 W. and SR 111 S. is constructed as a 4-lane undivided roadway with a Two Way Left turn lane (TWLTL) median. East of SR 111, SR 78 is constructed as a two-lane undivided roadway providing no bike lanes or bus stops. This portion of SR 78 has a posted speed limit of 65 mph.

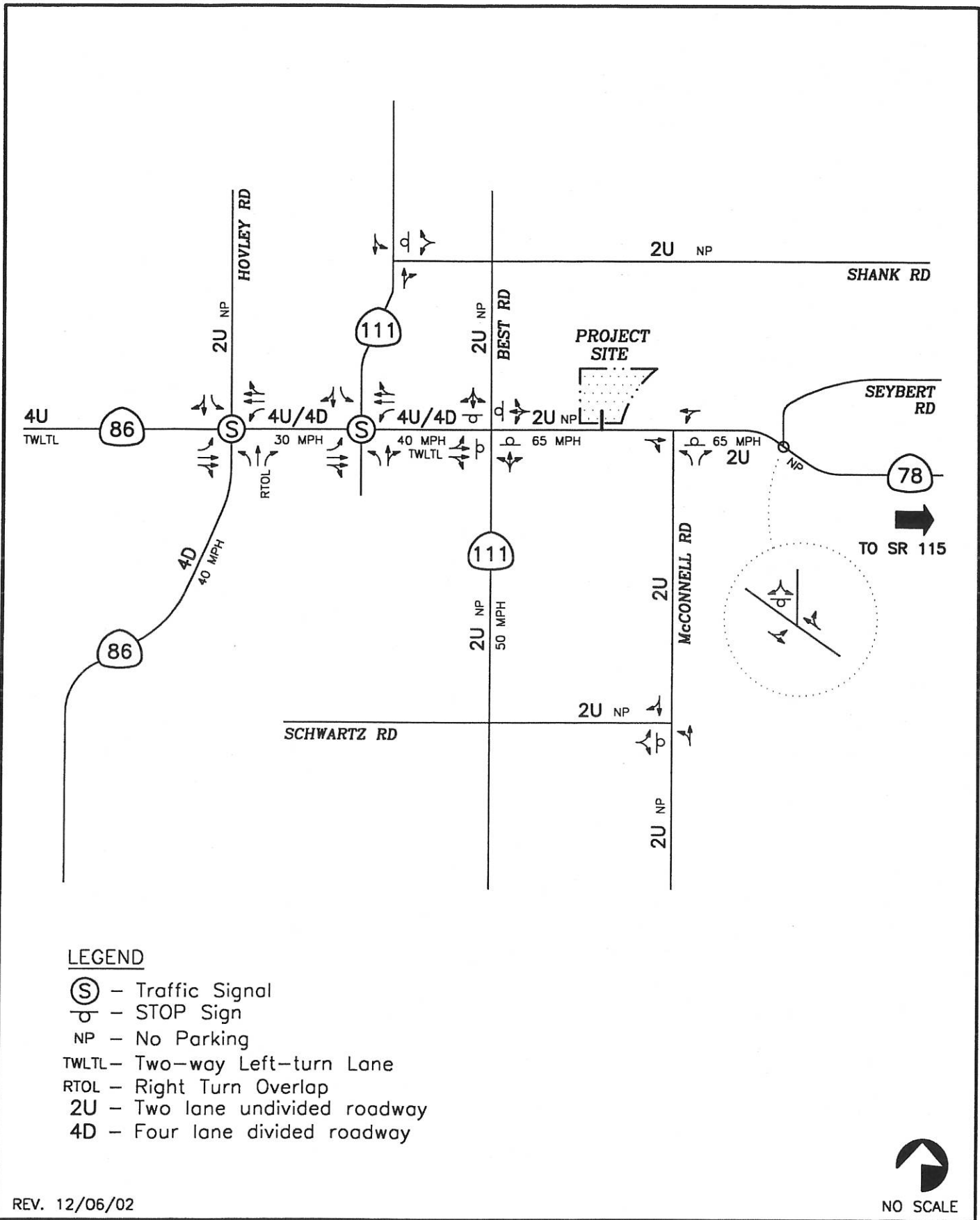


Figure 2

EXISTING CONDITIONS DIAGRAM

State Route 111 is classified as a State Highway on the Imperial County Circulation Element and is a north/south route within the project area. SR 111 is constructed as a 2-lane undivided roadway providing no bike lanes or bus stops, and a posted speed limit of 50 mph. SR 111 W. is currently offset to the west from the southern portion of SR 111, which runs from SR 78 south to I-8.

State Route 86 (SR 86) is classified as a State Highway on the Imperial County Circulation Element and is a north/south route within the project area. This facility parallels the western side of the Salton Sea, joining with SR 78 south of Salton City, and continues through Westmorland to Brawley and terminates at SR 111. SR 86 is constructed as a four-lane roadway within the project vicinity providing no bike lanes or bus stops. Parking is prohibited along both sides of the roadway.

Hovley Road is classified as a Major Collector in the Imperial County Circulation Element. It is currently constructed as a 2-lane roadway within the County of Imperial providing no bike lanes or Bus stops. Parking is permitted along both sides of the roadway.

Best Road is an unclassified 2-lane undivided roadway within the City of Brawley providing no bike lanes or Bus stops. Parking is prohibited along both sides of the roadway.

McConnell Road is classified as a Major Collector in the Imperial County Circulation Element. It is currently constructed as a two-lane undivided roadway with no posted speed limit or bike lanes within the project area.

Shank Road is classified as a Major Collector in the Imperial County Circulation Element. It is currently constructed as a two-lane undivided roadway with no posted speed limit or bike lanes within the project area.

Seybert Road is an unclassified 2-lane undivided roadway within the City of Brawley providing no bike lanes or Bus stops. Parking is prohibited along both sides of the roadway.

Schwartz Road is an unclassified 2-lane undivided roadway within the City of Brawley providing no bike lanes or Bus stops. Parking is prohibited along both sides of the roadway.

3.0 TRAFFIC FORECASTS

3.1 Existing Traffic Volumes

Existing weekday morning and afternoon traffic volumes were established at key area intersections to capture peak commuter activity. Existing AM and PM counts were conducted by LLG in March 2002 at the key intersections selected for analysis. Existing Average Daily Traffic (ADT) volumes were obtained from the *Caltrans State Highway Traffic Volumes Book* (Year 2000). **Table 1** displays the existing ADTs. **Figure 3** depicts the existing AM / PM peak hour turning movement counts and ADTs within the study area. **Appendix B** contains copies of the intersection manual and ADT volumes sheets. The key signalized and unsignalized intersections within the project area are listed below:

Signalized Intersections

- SR 78 / SR 86; and
- SR 78 / SR 111 (West).

Unsignalized Intersections

- SR 78 / SR 111 (South);
- SR 78 / Project Access Driveway;
- SR 78/ McConnell Road;
- SR 78/ Seybert Road;
- SR 111/ Shank Road; and
- McConnell Road/Schwartz Road.

**Table 1
Existing Daily Traffic Volumes**

| SEGMENT | YEAR | ADT |
|--------------------------|------|--------|
| SR 78 | | |
| West of SR 86 | 2000 | 18,600 |
| SR 86 to SR 111 (West) | 2000 | 26,000 |
| SR 111 (South) to SR 115 | 2000 | 3,200 |
| SR 86 | | |
| South of SR 78 | 2000 | 17,400 |
| SR 111 | | |
| North of Shank Road | 2000 | 6,200 |
| South of SR 78 | 2000 | 7,300 |

Source: Caltrans Highway Traffic Volumes, 2000

1) ADT – Average Daily Traffic Volume

3.2 Project Traffic Generation

Trip generation estimates for the proposed development were calculated based on Institute of Transportation Engineers (ITE) rates for a College Campus. The amount of enrolled equivalent students (850) used to formulate a trip generation were based on the *Enrollment Needs Study for Imperial County* prepared by the California State University Chancellor's office in July 2001. **Table 2** tabulates the project traffic generation for phases I and II. The project is calculated to ultimately generate approximately 2,000 ADT with 130 inbound / 40 outbound trips during the AM peak hour and 60 inbound / 140 outbound trips during the PM peak hour.

**Table 2
Project Trip Generation**

| PHASE | LAND USE | AMOUNT | DAILY TRIP ENDS | | AM PEAK HOUR | | | | PM PEAK HOUR | | | |
|-------|----------------|---------------------------|-------------------|-------|--------------|--------|-----------|------------|--------------|--------|-----------|------------|
| | | | RATE | ADT | PEAK % | IN:OUT | VOLUME IN | VOLUME OUT | PEAK % | IN:OUT | VOLUME IN | VOLUME OUT |
| I | College Campus | 350 Students | 2.38 ² | 830 | 9% | 75:25 | 50 | 20 | 10% | 30:70 | 25 | 60 |
| II | | 850 ¹ Students | 2.38 ² | 2,000 | 9% | 75:25 | 130 | 40 | 10% | 30:70 | 60 | 140 |

NOTES:

1 850 (FTE) students based on findings concluded from *Enrollment Needs Study for Imperial County*.

2 Source: Institute of Transportation Engineers Manual, 5th Ed., Code 550.

ADTs rounded to nearest 100 and peak hour volumes rounded to nearest 5.

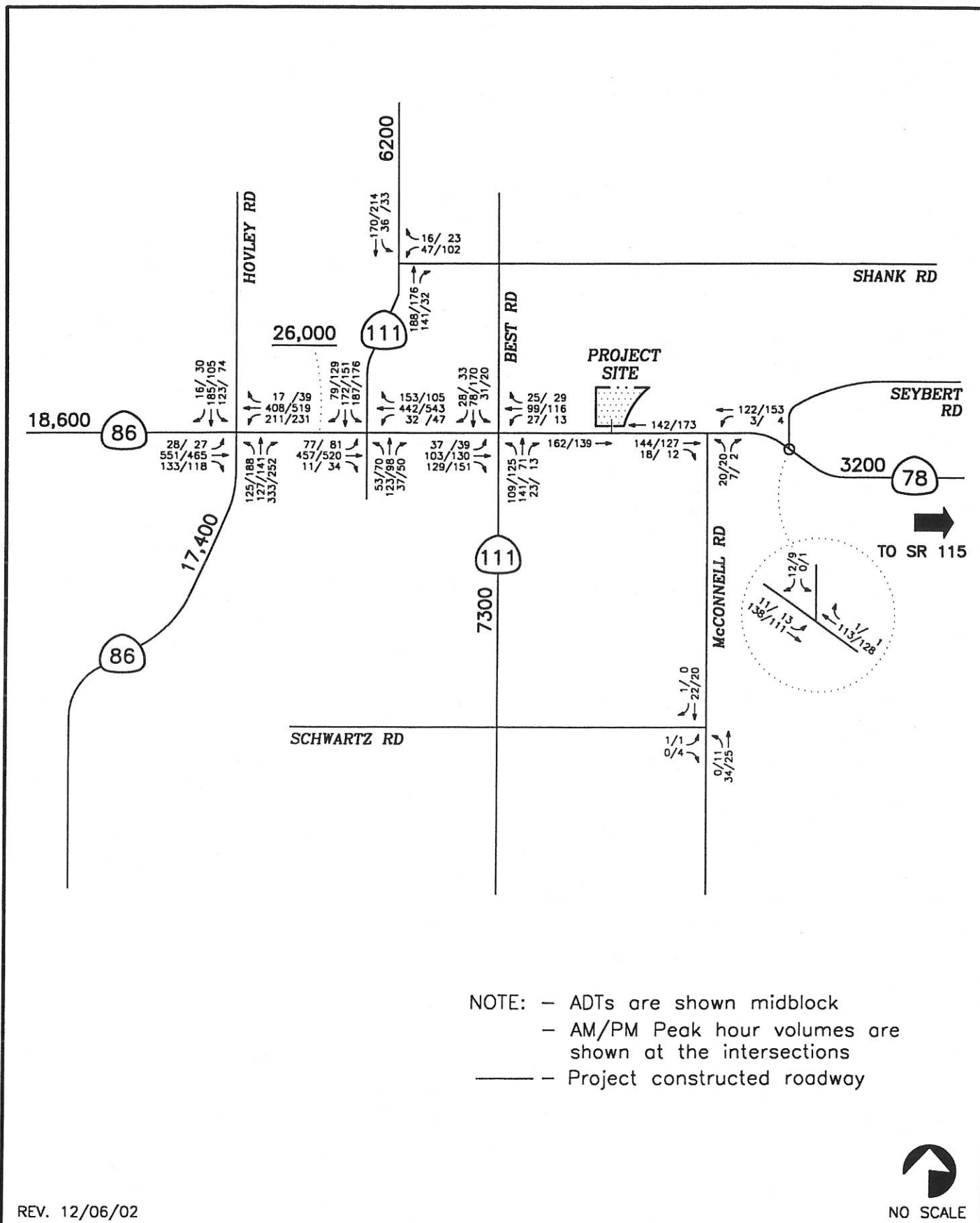


Figure 3

EXISTING TRAFFIC VOLUMES
 AM/PM PEAK HOURS & ADTs

3.3 Project Traffic Distribution / Assignment

The project-generated traffic was distributed and assigned to the street system based on roadway system characteristics (i.e. project's proximity to SR 78, SR 86, and SR 111), and Table 6A from the *Enrollment Needs Study for Imperial County* depicting Imperial County Regional Populations and Imperial Valley Campus (IVC) Enrollments. This table is included in **Appendix C**. Project traffic will access parking via SR 78 only. Appendix A contains the conceptual site plan.

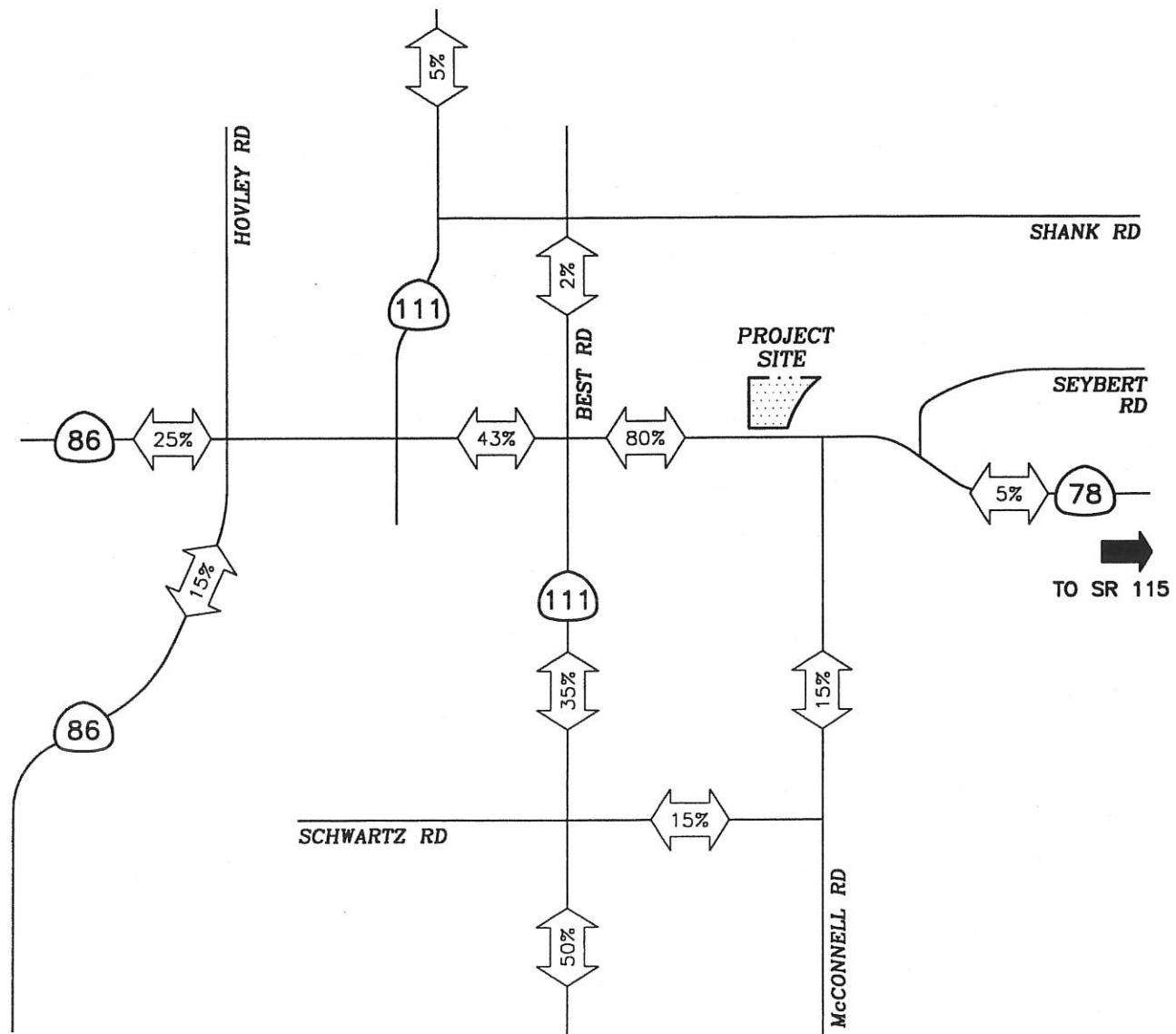
Figure 4 shows the project trip distribution percentages. **Figure 5** shows the assignment of project phase I traffic and **Figure 5a** show the assignment of the ultimate total project traffic. **Figure 6** shows the existing + project phase I traffic and **Figure 6a** shows the existing + total project traffic.

3.4 Cumulative Projects

Since there are other potential projects in the area which could generate traffic in the near term, additional cumulative traffic was added to the existing + project traffic volumes. Three specific projects were included as outlined below, based on discussions with County staff. **Appendix D** contains the cumulative traffic data utilized for this report.

Brawley Beef Processing Plant is a proposed beef processing facility located north of Shank Road and east of SR 111. The project is calculated to generate 918 ADT, with 365 inbound/65 outbound trips during the AM peak hour and 65 inbound/365 outbound trips during the PM peak hour. Traffic data was taken from traffic study prepared by Darnell & Associates (July 2000). It should be noted that the beef processing plant is now open and operational.

Luckey Ranch is a proposed mixed-use development within the City of Brawley. The project consists of single and multi-family housing, commercial and industrial usage, as well as community and neighborhood parks. For the purpose of this report, Phase I (0-5 years) project traffic was utilized for near-term cumulative traffic data. The entire project is included in the 2030 analysis as a long-term cumulative project. Phase I of the project is estimated to generate 6,047 ADT with 615 inbound/134 outbound trips during the AM peak hour and 131 inbound/493 outbound trips during the PM peak hour. Appendix D contains the trip generation table calculated by LLG. Traffic data was taken from traffic study prepared by Darnell & Associates (July 1999).

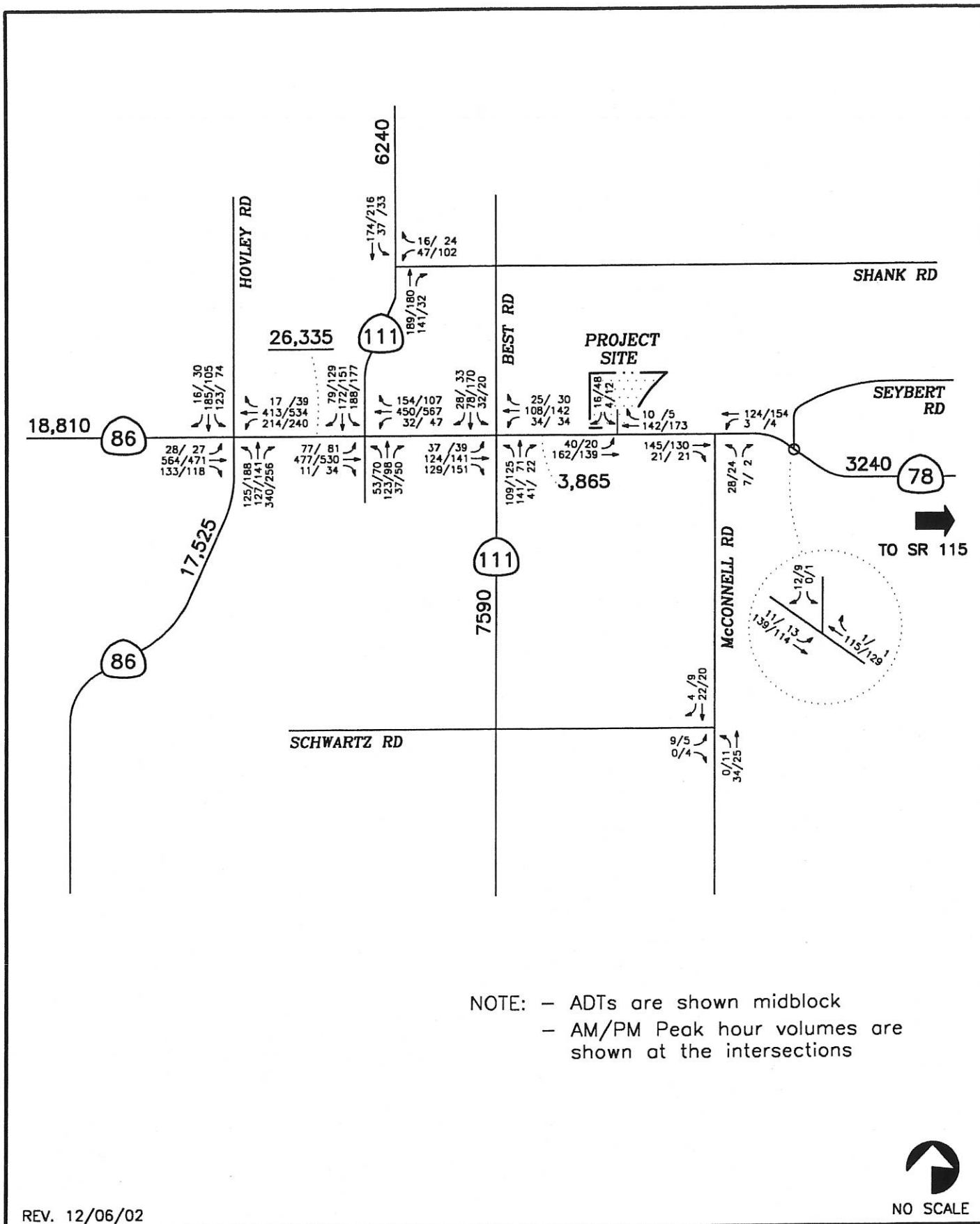


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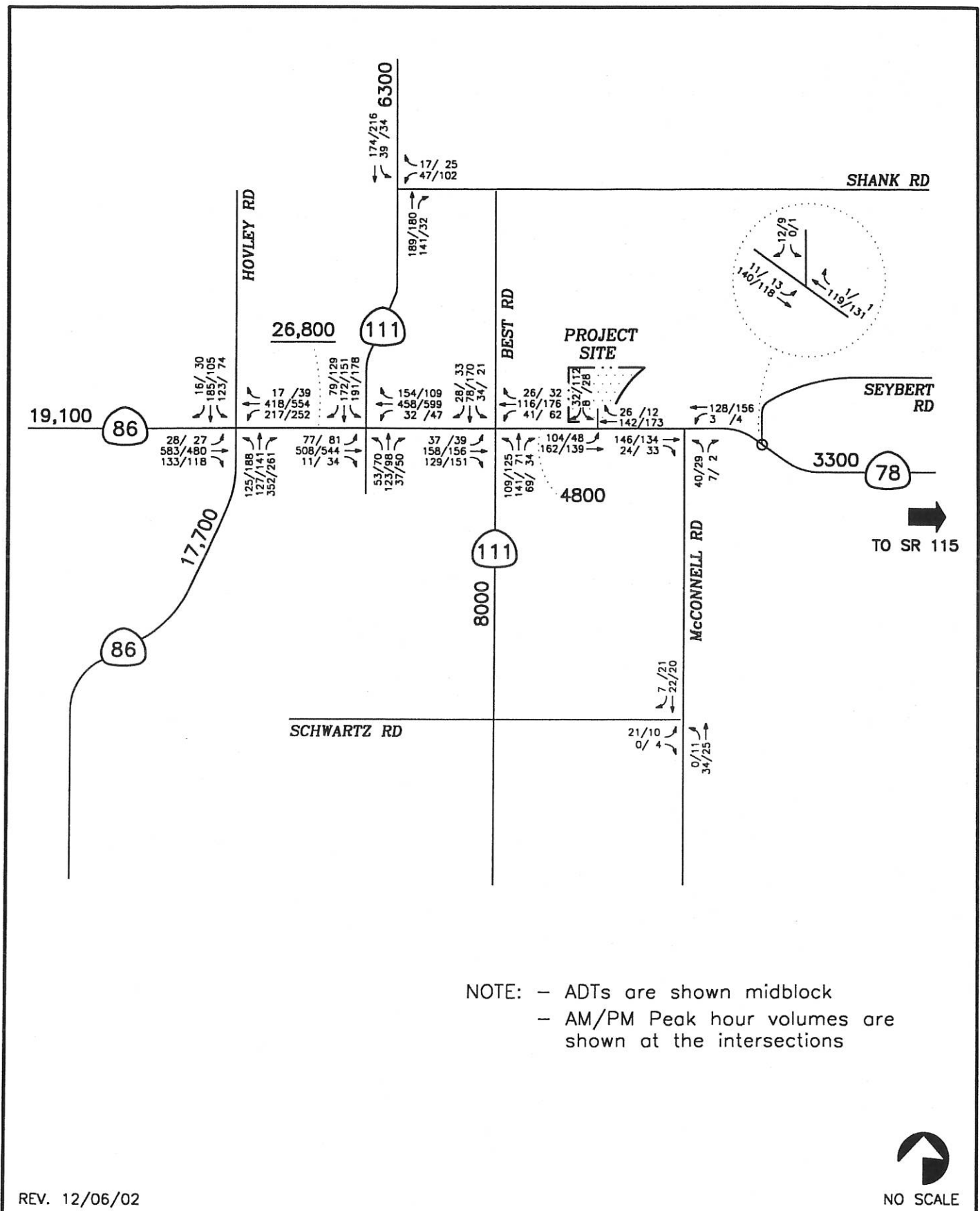
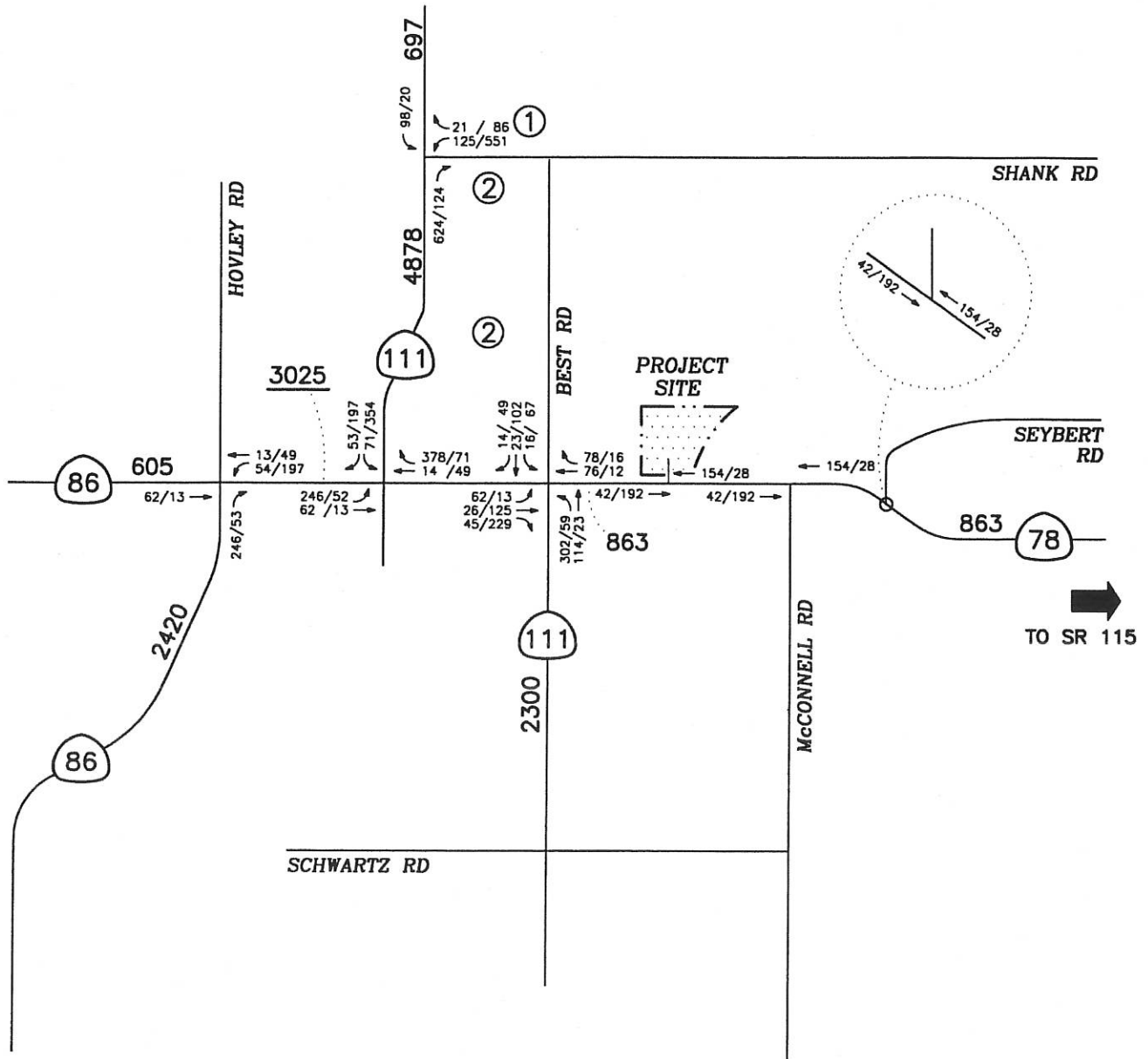


Figure 6a

EXISTING + TOTAL PROJECT TRAFFIC VOLUMES
AM/PM PEAK HOURS & ADTs

The Brawley Bypass Project proposes to adopt a new alignment and construct a four-lane expressway in Imperial County from SR 86 northeast of the city of Brawley, to SR 111, southeast of the city of Brawley. Three alignment alternatives are proposed. For the purpose of this report, this project was only included in the long-term cumulative analysis (2030), utilizing Table 1-1 (Traffic Projections) of the *Brawley Bypass* Draft Environmental Impact Report (DEIR), prepared by CALTRANS in May 2001 (see Appendix D).

Figure 7 shows the total cumulative projects traffic volumes. The resultant near-term future traffic volumes (existing + total project + cumulative projects) are set out in **Figure 8**.



CUMULATIVE PROJECT LOCATIONS

- ① - Brawley Beef Processing Facility
- ② - Luckey Ranch

NOTE: - ADTs are shown midblock
 - AM/PM Peak hour volumes are shown at the intersections

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Figure 7
 CUMULATIVE PROJECTS TRAFFIC VOLUMES
 AM/PM PEAK HOURS & ADTs

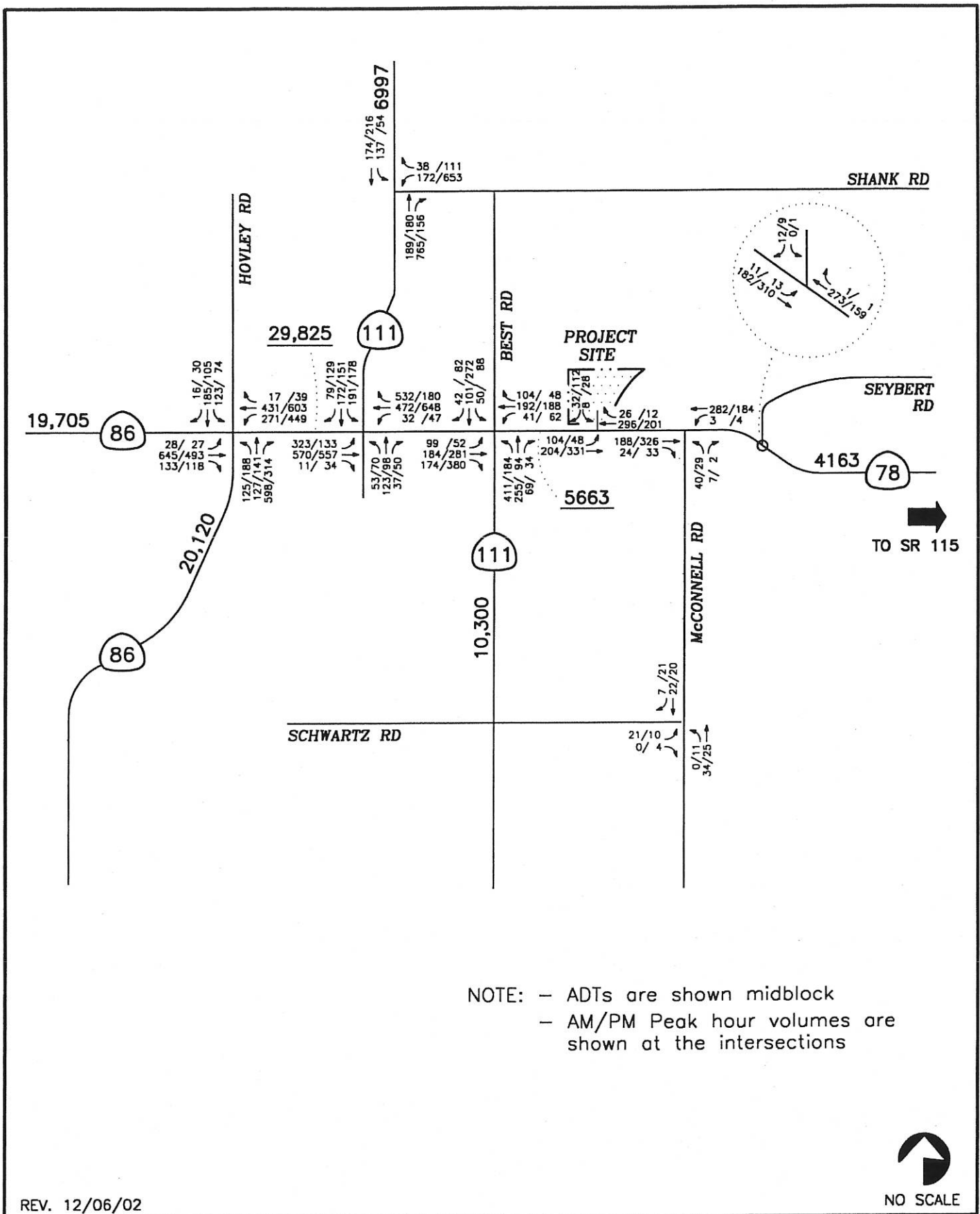


Figure 8
EXISTING + TOTAL PROJECT + CUMULATIVE PROJECTS TRAFFIC VOLUMES
AM/PM PEAK HOURS & ADTs

4.0 TRAFFIC OPERATIONS ANALYSIS

4.1 Significance Criteria

A project traffic impact was considered significant if the addition of project traffic caused an intersection or street segment to operate at worse than LOS C, based on language contained in the Imperial County General Plan. If an intersection or street segment is calculated to currently operate at LOS D or worse, an impact is considered significant if the project causes intersection delays to increase by more than 2 seconds or the V/C ratio to degrade by more than 0.02.

4.2 Traffic Analysis Methodology

Level of Service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure of the effect of a number of factors including roadway geometries, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level of service designation is reported differently for signalized and unsignalized intersections, as well as for roadway segments as described below.

Signalized intersections were analyzed under weekday morning and afternoon peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 16 of the *2000 Highway Capacity Manual (HCM)*, with the assistance of the *Traffix* (version 7.5) computer software. The delay values (represented in seconds) were qualified with a corresponding intersection LOS. Signalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in **Appendix E**. **Table 3a** reports signalized intersection operations during peak hour conditions. **Table 3b** shows the Intersecting Lane Volume (ILV) analysis for the signalized intersections. The ILV analysis sheets are attached in Appendix E.

Unsignalized intersections were analyzed under weekday morning and afternoon peak hour conditions. Average vehicle delay and Levels of Service (LOS) was determined based upon the procedures found in Chapter 17 of the *2000 Highway Capacity Manual (HCM)*, with the assistance of the *Traffix* (version 7.5) computer software. Unsignalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in **Appendix F**. **Table 4** reports unsignalized intersection operations during peak hour conditions.

Street segment analysis is based upon the comparison of daily traffic volumes (ADTs) to the Roadway capacities on the City of Brawley General Plan roadway classifications as shown in **Appendix G**. This table provides segment capacities for different street classifications, based on traffic volumes and roadway characteristics. **Table 5** outlines the near-term street segment analysis results with **Table 6** outlining Year 2030 street segment analysis results both with and without the proposed Brawley Bypass alignment of SR 78/SR 111.

4.3 Existing Operations

Table 3a shows under existing conditions, the key signalized intersections are calculated to operate at LOS C during both the morning and afternoon peak periods.

Table 3b shows under existing conditions, the key signalized intersections are calculated to operate at under capacity during both the morning and afternoon peak periods.

Table 4 shows under existing conditions, the minor street movements at each key unsignalized intersection are calculated to operate at LOS B or better during both the morning and afternoon peak periods.

Table 5 shows under existing conditions, all key segments are calculated to currently operate at LOS C or better.

4.4 Existing + Project Phase I Operations

Table 3a shows that with the addition of project phase I traffic, the key signalized intersections are calculated to continue to operate at LOS C during the morning and afternoon peak periods. The delays increases are very minimal (0.7 second maximum increase).

Table 3b shows with the addition of project - phase I traffic, the key signalized intersections are calculated to continue to operate at under capacity during both the morning and afternoon peak periods.

Table 4 shows that with the addition of project phase I traffic, the minor street movements at the key unsignalized intersections are calculated to continue to operate at LOS B or better during the morning and afternoon peak periods. The delays increase only slightly (0.8 second maximum increase).

Table 5 shows that with the addition of project traffic, all key segments are calculated to continue to operate at LOS D or better.

4.5 Existing + Total Project Operations

Table 3a shows that with the addition of total project traffic, the key signalized intersections are calculated to continue to operate at LOS C during the morning and afternoon peak periods. The delays increases are very minimal (0.8 second maximum increase).

Table 3b shows with the addition of total project, the key signalized intersections are calculated to continue to operate at under capacity during both the morning and afternoon peak periods.

Table 4 shows that with the addition of the total project traffic, the minor street movements at the key unsignalized intersections are calculated to continue to operate at LOS B or better during the morning and afternoon peak periods. The delays increase only slightly (2.9 second maximum increase).

Table 5 shows that with the addition of total project traffic, all key segments are calculated to continue to operate at LOS D or better.

4.6 Existing + Total Project + Cumulative Projects Operations

Table 3a shows that with the addition of cumulative project traffic, the key signalized intersections are calculated to operate at LOS D or better during the morning and afternoon peak periods.

Table 3b shows with the addition of cumulative project traffic, the key signalized intersections are calculated to operate at under capacity for the SR 78/SR 86 and the SR 78/SR 111 W. during both the morning peak period and the afternoon peak period.

Table 4 shows that with the addition of cumulative project traffic, the minor street movements at the key unsignalized intersections are calculated to continue to operate at LOS B or better during the morning and afternoon peak periods with two exceptions.

- SR 78/Shank Road: (LOS F, both AM and PM peak hours); and
- SR 78/SR 111 S.: (LOS F / D for the AM / PM peak hours).

The Luckey Ranch Traffic Study recommends that a traffic signal be installed at the intersection of SR 78/Shank Road for Phase I of the project. LOS C is calculated with the installation of a traffic signal.

Table 5 shows that with the addition of cumulative project traffic, all segments are calculated to operate at LOS D or better.

Table 3a
Signalized Intersection Operations

| Intersection | Peak Hour | Existing | | Existing + Project Phase I | | Existing + Total Project | | Delay Increase Due to Total Project | Sig ³ | Existing + Total Project + Cumulative Projects | |
|-----------------|-----------|--------------------|------------------|----------------------------|-----|--------------------------|-----|-------------------------------------|------------------|--|-----|
| | | Delay ¹ | LOS ² | Delay | LOS | Delay | LOS | | | Delay | LOS |
| SR 78/SR 86 | AM | 29.7 | C | 29.8 | C | 29.9 | C | 0.2 | NO | 35.7 | D |
| | PM | 27.4 | C | 28.1 | C | 28.2 | C | 0.8 | NO | 30.3 | C |
| SR 78/SR 111 W. | AM | 24.6 | C | 24.7 | C | 24.9 | C | 0.3 | NO | 38.4 | D |
| | PM | 24.4 | C | 24.6 | C | 24.9 | C | 0.5 | NO | 26.3 | C |

Notes:

1. Average delay expressed in seconds per vehicle.
2. Level of Service. See Appendix for delay thresholds.
3. Sig - Significant project impacts based on Significance Criteria.

**Table 3b
Signalized Intersection Operations
ILV Methodology**

| Intersection | Peak Hour | Existing | | Existing + Project Phase I | | Existing + Total Project | | Existing + Total Project + Cumulative Projects | |
|-----------------|-----------|------------------|--------|----------------------------|--------|--------------------------|--------|--|--------|
| | | ILV ¹ | STATUS | ILV | STATUS | ILV | STATUS | ILV | STATUS |
| SR 78/SR 86 | AM | 786 | UNDER | 888 | UNDER | 901 | UNDER | 1,110 | UNDER |
| | PM | 846 | UNDER | 858 | UNDER | 874 | UNDER | 1,143 | UNDER |
| SR 78/SR 111 W. | AM | 722 | UNDER | 727 | UNDER | 734 | UNDER | 1,176 | UNDER |
| | PM | 755 | UNDER | 768 | UNDER | 785 | UNDER | 897 | UNDER |

Notes:

1. ILV – Intersection Lane Volume

STATUS

| | |
|----------------------------------|----------------|
| $\leq 1,200$ ILV/HR | UNDER CAPACITY |
| $>1,200$ but $\leq 1,500$ ILV/HR | NEAR CAPACITY |
| $> 1,500$ ILV/HR | OVER CAPACITY |

TABLE 4
Unsignalized Intersection Operations

| INTERSECTIONS | CONTROL TYPE | PEAK HOUR | EXISTING | | EXISTING + PROJECT PHASE I | | EXISTING + TOTAL PROJECT | | Delay Increase Due to Project | Sig ³ | EXISTING + TOTAL PROJECT + CUMULATIVE PROJECTS | |
|----------------------------|--------------|-----------|--------------------|------------------|----------------------------|-----|--------------------------|-----|-------------------------------|------------------|--|-----|
| | | | DELAY ¹ | LOS ² | DELAY | LOS | DELAY | LOS | | | DELAY | LOS |
| SR 78 / Shank Road | TWSC | AM | 12.9 | B | 13.0 | B | 13.1 | B | 0.2 | NO | > 50.1 | F |
| | | PM | 13.9 | B | 14.0 | B | 14.1 | B | 0.2 | NO | 27.2 | C* |
| SR 78 / SR 111 S. | AWSC | AM | 11.3 | B | 11.9 | B | 13.0 | B | 1.7 | NO | > 50.1 | F |
| | | PM | 11.7 | B | 12.5 | B | 14.6 | B | 2.9 | NO | 29.7 | C** |
| SR 78 / Project Access D/W | TWSC | AM | DNE | DNE | 9.5 | A | 9.9 | A | N/A | NO | 28.8 | D |
| | | PM | DNE | DNE | 9.8 | A | 10.3 | B | N/A | NO | 11.3 | B |
| SR 78 / McConnell Road | TWSC | AM | 10.2 | B | 10.4 | B | 10.6 | B | 0.4 | NO | 12.4 | B |
| | | PM | 10.5 | B | 10.6 | B | 10.8 | B | 0.3 | NO | 13.1 | B |
| SR 78 / Schwartz Road | TWSC | AM | 8.8 | A | 8.9 | A | 8.9 | A | 0.1 | NO | 8.9 | A |
| | | PM | 8.5 | A | 8.7 | A | 8.9 | A | 0.4 | NO | 8.9 | A |
| SR 78 / Seybert Road | TWSC | AM | 9.0 | A | 9.0 | A | 9.0 | A | 0.0 | NO | 10.0 | A |
| | | PM | 9.2 | A | 9.2 | A | 9.2 | A | 0.0 | NO | 9.5 | A |

NOTES:

1. Average delay expressed in seconds per vehicle and represents worst case minor street movement.

2. Level of Service

3. Significant project impacts based on Significance Criteria.

DNE - Does not exist

N/A - Not applicable since Driveway does not exist today.

AWSC - All Way Stop Controlled Intersection.

TWSC - Two Way Stop Controlled Intersection.

SHADING represents a significant impact.

* - LOS with traffic signal mitigation recommended in the Lucky Ranch Traffic Study.

**UNSIGNALIZED
DELAY / LOS THRESHOLDS**

| DELAY | LOS |
|--------------|-----|
| 0.0 < 10.0 | A |
| 10.1 to 15.0 | B |
| 15.1 to 25.0 | C |
| 25.1 to 35.0 | D |
| 35.1 to 50.0 | E |
| > 50.1 | F |

**Table 5
Near-Term Street Segment Operations**

| Street Segment | Classification | Existing Capacity (LOS E) ¹ | Existing | | | Existing + Project Phase I | | | Existing + Total Project | | | Existing + Total Project + Cumulative Projects | | |
|---|----------------|--|------------------|------------------|------------------|----------------------------|------|-----|--------------------------|------|-----|--|------|-----|
| | | | ADT ² | V/C ³ | LOS ⁴ | ADT | V/C | LOS | ADT | V/C | LOS | ADT | V/C | LOS |
| SR 78 West of SR 86 S. SR 86 S. to SR 111 W. SR 111 S. to McConnell Road McConnell Road to SR 115 | State Highway | 37,000 | 18,600 | 0.50 | B | 18,810 | 0.51 | B | 19,100 | 0.52 | B | 19,705 | 0.53 | B |
| | State Highway | 37,000 | 26,000 | 0.70 | C | 26,335 | 0.71 | C | 26,800 | 0.72 | C | 29,825 | 0.81 | D |
| | State Highway | 16,200 | 3,200 | 0.20 | B | 3,865 | 0.24 | B | 4,800 | 0.30 | C | 5,663 | 0.35 | C |
| | State Highway | 16,200 | 3,200 | 0.20 | B | 3,240 | 0.20 | B | 3,300 | 0.20 | B | 4,163 | 0.26 | C |
| SR 86 South of SR 78 | State Highway | 37,000 | 17,400 | 0.47 | B | 17,525 | 0.47 | B | 17,700 | 0.48 | B | 20,120 | 0.54 | B |
| | State Highway | 16,200 | 6,200 | 0.38 | C | 6,240 | 0.39 | C | 6,300 | 0.39 | C | 6,997 | 0.43 | B |
| SR 111 North of Shank Road South of SR 78 | State Highway | 16,200 | 7,300 | 0.45 | D | 7,590 | 0.47 | D | 8,000 | 0.49 | D | 10,300 | 0.64 | D |

NOTES:

1. Capacity based on County of Imperial roadway classification.
2. Average Daily Traffic.
3. Volume to Capacity ratio.
4. Level of Service.
5. Significant project impacts based on Significance Criteria.

5.0 YEAR 2030 OPERATIONS

Year 2020 traffic volumes were taken from Table 1-1 of the *SR 78/SR 111 Brawley Bypass (DEIR)* study. This table depicts the Year 2020 ADTs both with and without the proposed SR 78/SR 111 alignment. Table 1-1 is included in **Appendix H**. These volumes were increased by 20% (2% per year over 10 years) to represent Year 2030 volumes.

Table 6 shows the addition of project traffic to the Year 2030 traffic volumes taken from Table 1-1. Table 6 shows that with the proposed SR 78/SR 111 Brawley Bypass alignment, all key segments are calculated to operate at LOS D or better. Table 6a shows that without the proposed SR 78/SR 111 alignment, all key segments are calculated to operate at LOS F.

Table 6
Year 2030 Street Segment Operations

| | | | YEAR 2030* (With Bypass) | | | YEAR 2030* (Without Bypass) | | |
|-----------------------|----------------|----------------------------------|-----------------------------|------------------|------------------|--------------------------------|------------------|------------------|
| Street Segment | Classification | Capacity (LOS E) ¹ | YEAR 2030 + PROJECT | | | YEAR 2030 + PROJECT | | |
| | | | ADT ² | V/C ³ | LOS ⁴ | ADT ² | V/C ³ | LOS ⁴ |
| SR 78 | | | | | | | | |
| SR 86 S. to SR 111 | State Highway | 37,000 | 27,360 | 0.74 | C | 48,960 | 1.32 | F |
| SR 111 to SR 111 S. | State Highway | 34,200 | 27,430 | 0.80 | D | 49,030 | 1.43 | F |
| SR 111 | | | | | | | | |
| SR 78 to Adler Street | State Highway | 57,000 | 18,070 | 0.32 | A | 24,070 | 1.49 | F |
| SR 78 to Malan Street | State Highway | 57,000 | 6,840 | 0.12 | A | 18,840 | 1.16 | F |

SOURCE: Table 1-1 from the CALTRANS SR 78/SR 111 Bypass report (May 2001).

NOTES:

1. Capacity based on County of Imperial roadway classifications.
 2. Average Daily Traffic.
 3. Volume to Capacity.
 4. Level of Service.
 5. Significant project impacts based on Significance Criteria.
- * Includes project traffic.

6.0 SIGNIFICANCE OF IMPACTS / MITIGATION MEASURES

Based on the established significance criteria, no significant direct project impacts were calculated.

No significant cumulative impacts are calculated at the signalized intersections since the project adds less than 2 seconds of delay to the intersections, which are calculated to degrade to LOS D or worse with cumulative traffic. A significant cumulative impact is calculated at the SR 78/SR 111 S. unsignalized intersection, since LOS F is calculated with the addition of cumulative traffic and the project adds over 2 seconds of delay. In addition, significant impacts would occur if adequate access were not provided to the site via SR 78.

The following measures are recommended to mitigate impacts (by phase) to below a level of significance. SDSU will work with applicable agencies to ensure compliance.

Project Phase I Mitigation:

- 1) Provide an eastbound left-turn pocket and a westbound right turn pocket on SR 78 at the project access point. In addition, provide a dedicated southbound left turn lane and right turn lane at the project driveway approaching SR 78.
- 2) Ensure corner sight distance meets Caltrans standards at the project driveway to SR 78.
- 3) Dedicate Right-of-Way (ROW) along the project frontage to ultimate SR 78 standards.

Total Project Mitigation:

- 4) Contribute a fair share towards the eventual signalization of the SR 78/SR 111 S. intersection. The northbound approach should provide a dedicated northbound left-turn lane with a shared through-right turn lane; and
- 5) Annually monitor the SR 78/project driveway intersection for possible future signalization.

**TRAFFIC IMPACT ASSESSMENT
SDSU IMPERIAL VALLEY CAMPUS
CALEXICO, CALIFORNIA**

1.0 INTRODUCTION

Linscott, Law & Greenspan Engineers (LLG) has been retained to assess the traffic implications of expanding the San Diego State University Imperial Valley Campus in the City of Calexico. **Figure 1** sets out the overall site vicinity.

The subject site is located east of SR 111, bounded by Sherman Street to the north and 7th Street to the south, Heber Avenue to the west, and Blair Avenue to the east within the City of Calexico. **Figure 2** illustrates, in more detail, the site location.

1.1 Study Methodology

The following study methodology was adopted for the traffic study, and can be broken into three distinct steps. The first step involved the assessment of the existing traffic conditions in the study area, and includes an inventory of roadway geometries, observations of traffic flow, and the collection of peak period traffic counts.

In the second step of the study, future traffic conditions were forecasted building on the collected existing data. Traffic forecasts reflect traffic generation and the distribution of project traffic.

The third step involves intersection performance analysis and identification of operational issues. Significant impacts, within the study area were identified, and mitigation measures recommended as appropriate.





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NO SCALE

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LAW &
GREENSPAN**
ENGINEERS

Figure 2
PROJECT AREA MAP

1.2 Study Area

The study area for this project encompasses areas of anticipated impact related to the project. The scope of the study area was developed per conversations with client. The specific study area includes three intersections as described below:

- Heber Street / 7th Street;
- Heber Street / Sherman Street; and
- Sherman Street / Blair Avenue.

Included in this traffic assessment are the following chapters:

- Site Context;
- Traffic Forecasts;
- Traffic Operational Analysis; and
- Significance of Impacts/Mitigation Measures.

2.0 SITE CONTEXT

2.1 Project Description

The project proposes the addition of new classroom and administrative buildings to the existing campus, which would increase the full time enrollment (FTE) from 500 FTE to 850 FTE. Access to the campus would be provided via the two existing access points, at Sherman Avenue and 7th Street to one main parking lot. **Figure 3** shows the site plan.

2.2 Existing Street System

According to County of Imperial Public Road Standards, Primary Arterials should be 80 feet wide in 100 feet of Right-of-Way (R/W), providing four thru lanes, and a raised or painted median. Major Roads should be 60 feet wide in 80 feet of R/W, providing four undivided thru lanes, and curbside parking. Collectors should be 40 feet wide in 60 feet of R/W providing two-thru undivided lanes.

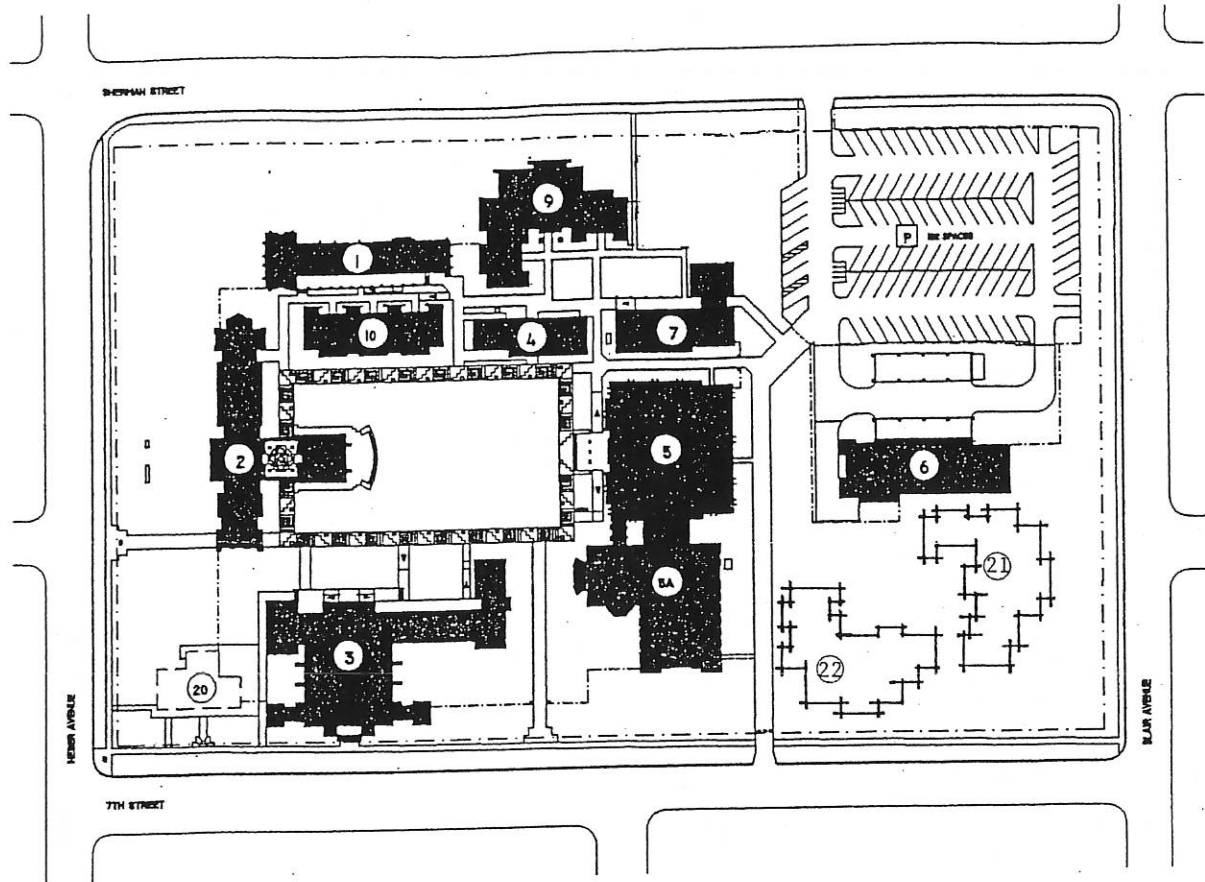
The following is a general description of the roadways in the project area. **Figure 4** depicts the existing conditions including the lane geometrics of the key intersections in the study area.

Heber Avenue is an unclassified roadway within the City of Calexico. Heber Avenue is currently constructed as a two lane undivided roadway. It has a posted speed limit of 25 mph with curbside parking is generally permitted.

Sherman Street is an unclassified roadway within the City of Calexico. Sherman Street is currently constructed as a two lane undivided roadway. Sherman Street has a posted speed limit of 25 mph with curbside parking generally permitted.

7th Street is an unclassified roadway within the City of Calexico. 7th Street is currently constructed as a two lane undivided roadway. 7th Street has a posted speed limit of 25 mph with curbside parking generally permitted.

Blair Avenue is an unclassified roadway within the City of Calexico. Blair Avenue is currently constructed as a two lane undivided roadway. Blair Avenue has a posted speed limit of 25 mph with curbside parking generally permitted.



SAN DIEGO STATE UNIVERSITY
IMPERIAL VALLEY CAMPUS

MASTER PLAN
Proposed January 2003

FACILITY LEGEND:

EXISTING FACILITY, PROPOSED FACILITY

MASTER PLAN ENROLLMENT: 400 FTE

- 1 NORTH CLASSROOM BUILDING
- 2 ADMINISTRATION BUILDING
- 3 AUDITORIUM / CLASSROOMS
- 4 CLASSROOMS BUILDING
- 5 LIBRARY
- 5A LIBRARY ADDITION
- 6 PHYSICAL PLANT
- 7 COMPUTER BUILDING
- 9 FACULTY OFFICES BUILDING EAST
- 10 FACULTY OFFICES BUILDING WEST
- 20 STUDENT CENTER
- 21 Classroom Building East
- 22 Classroom Building South

- EXISTING BUILDING
- FUTURE BUILDING
- TEMPORARY BUILDING
- EXISTING PARKING LOT

CAMPUS ACREAGE 8.38 ACRES
EXISTING PARKING SPACES 102 SPACES



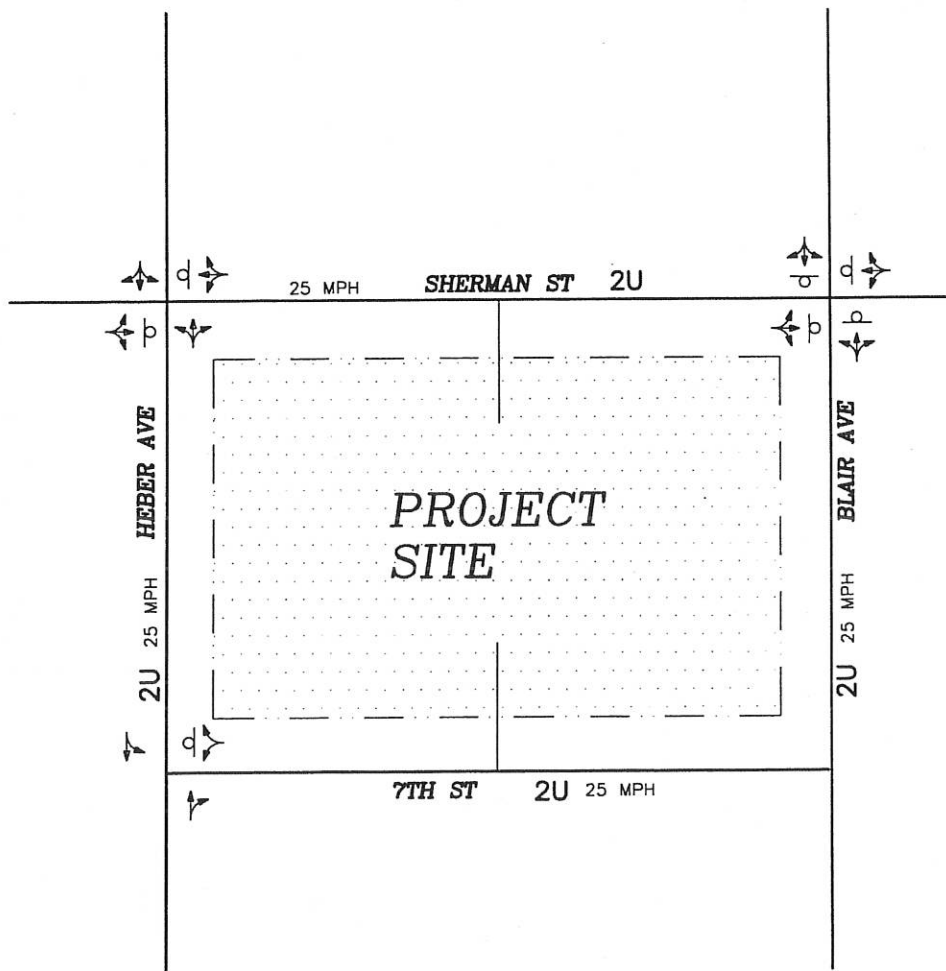
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ENGINEERS

Figure 3
SITE PLAN



LEGEND

- ⊕ - STOP Sign
- NP - No Parking
- 2U - Two lane undivided roadway



NO SCALE

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ENGINEERS

Figure 4
EXISTING CONDITIONS DIAGRAM

SDSU IMPERIAL VALLEY CAMPUS

3.0 TRAFFIC FORECASTS

3.1 Existing Traffic Volumes

Existing morning and afternoon traffic volumes were counted at the key area intersections to capture peak commuter activity. Existing AM and PM counts were conducted by LLG in May 2002 at the key intersections. **Figure 5** shows the existing AM / PM peak hour turning movement counts. **Appendix A** contains copies of the intersection manual count sheets.

3.2 Project Traffic Generation

Trip generation estimates for the proposed development were calculated based on Institute of Transportation Engineers (ITE) rates for a College Campus. The amount of students (350) used to formulate a trip generation was based on the net increase from the current enrollment (500 FTE) to the projected enrollment (850 FTE). **Table 1** tabulates the project traffic generation. The project is calculated to generate approximately 830 ADT with 55 inbound / 15 outbound trips during the AM peak hour and 20 inbound / 55 outbound trips during the PM peak hour.

Table 1
Project Trip Generation Summary

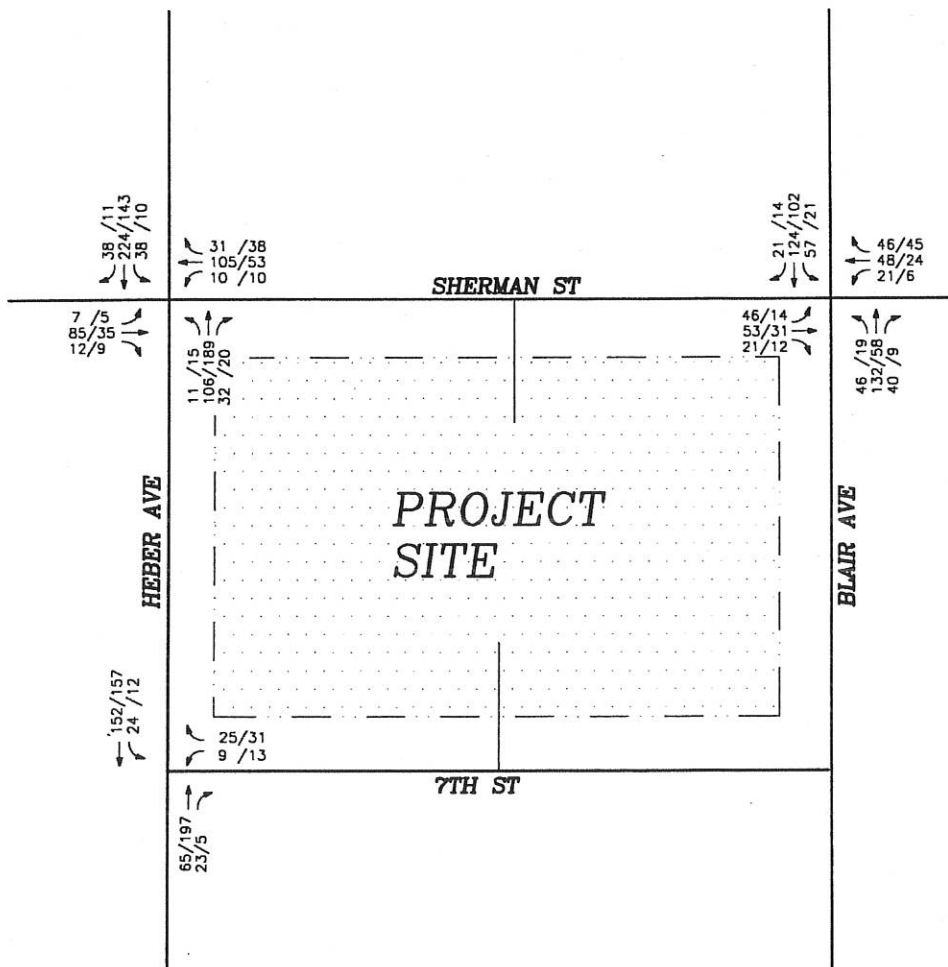
| USE | AMOUNT | DAILY TRIP ENDS | | AM PEAK HOUR | | | | PM PEAK HOUR | | | |
|----------------|--------------|-----------------|-----|--------------|--------|-----------|------------|--------------|--------|-----------|------------|
| | | RATE | ADT | PEAK % | IN:OUT | VOLUME IN | VOLUME OUT | PEAK % | IN:OUT | VOLUME IN | VOLUME OUT |
| College Campus | 350 Students | 2.38 | 830 | 8.4% | 75:25 | 55 | 15 | 9.0% | 30:70 | 20 | 55 |

SOURCE: Institute of Transportation Engineers (ITE) Generation Rates (5th Ed.)

3.4 Project Traffic Distribution / Assignment

The project-generated traffic was distributed and assigned to the street system based on the site access, roadway system characteristics (i.e. project's proximity to SR 98 and SR 111), existing traffic turning movement counts, and the location of potential students.

Figure 6 shows the project trip distribution percentages. **Figure 7** shows the assignment of project traffic based on **Figure 6**. The primary access point is via Sherman Street and access is also available via 7th Street. **Figure 8** shows the existing + project traffic volumes.



NOTE:

- AM/PM Peak hour volumes are shown at the intersections



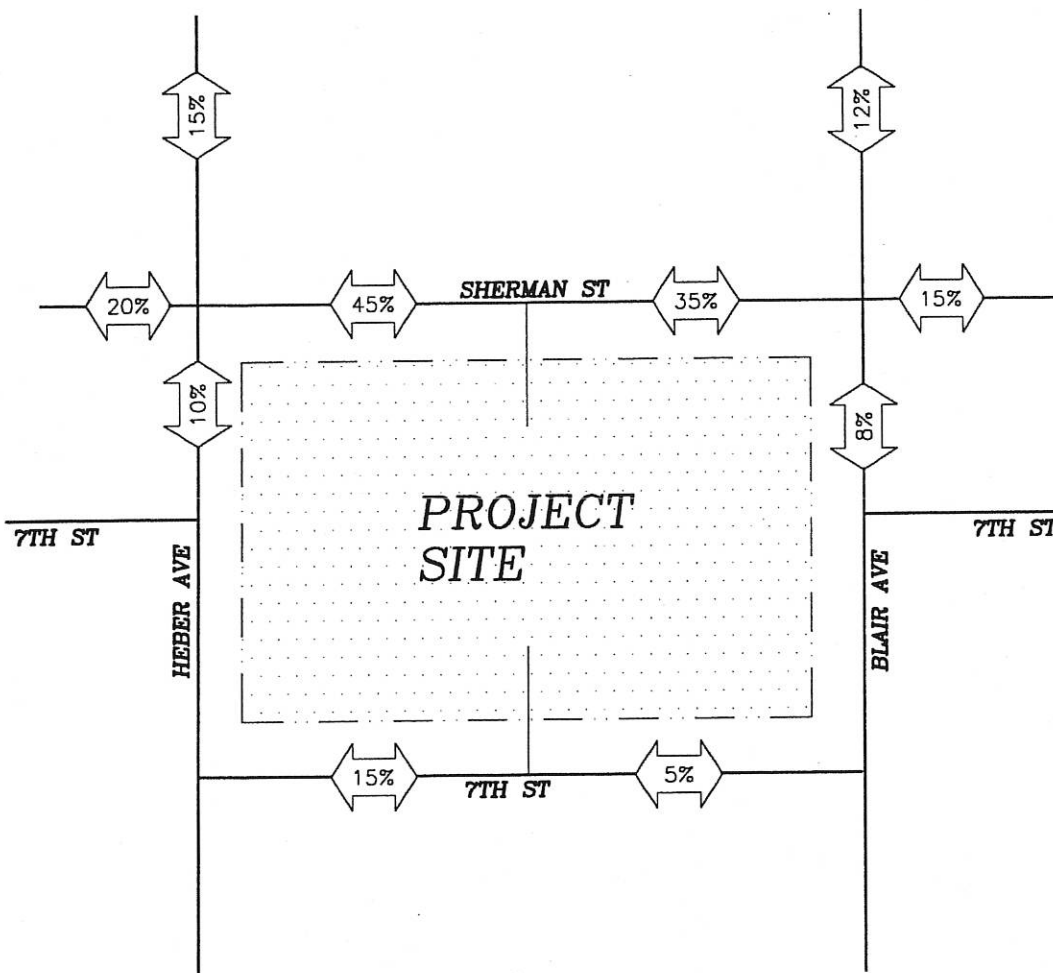
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Figure 5
EXISTING TRAFFIC VOLUMES
AM/PM PEAK HOURS
SDSU IMPERIAL VALLEY CAMPUS



NOTE:

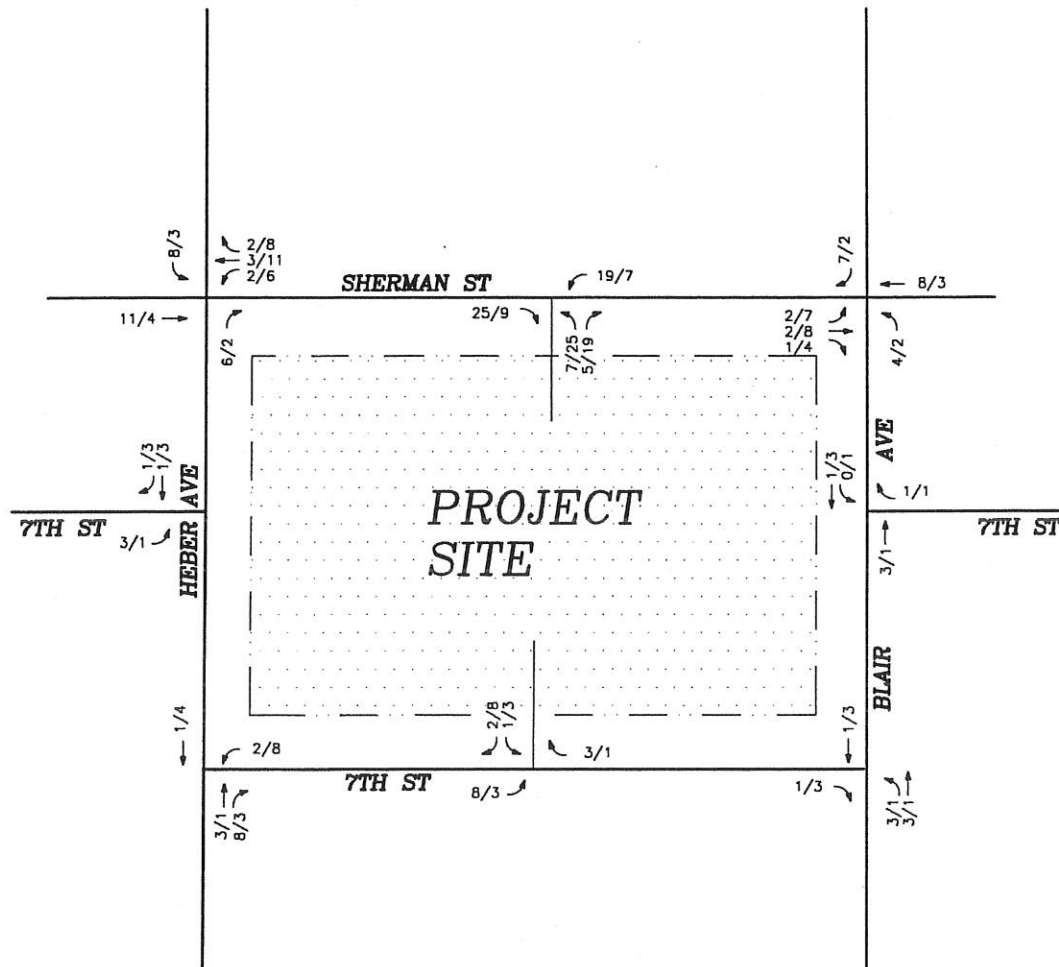
- AM/PM Peak hour volumes are shown at the intersections

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NOTE:

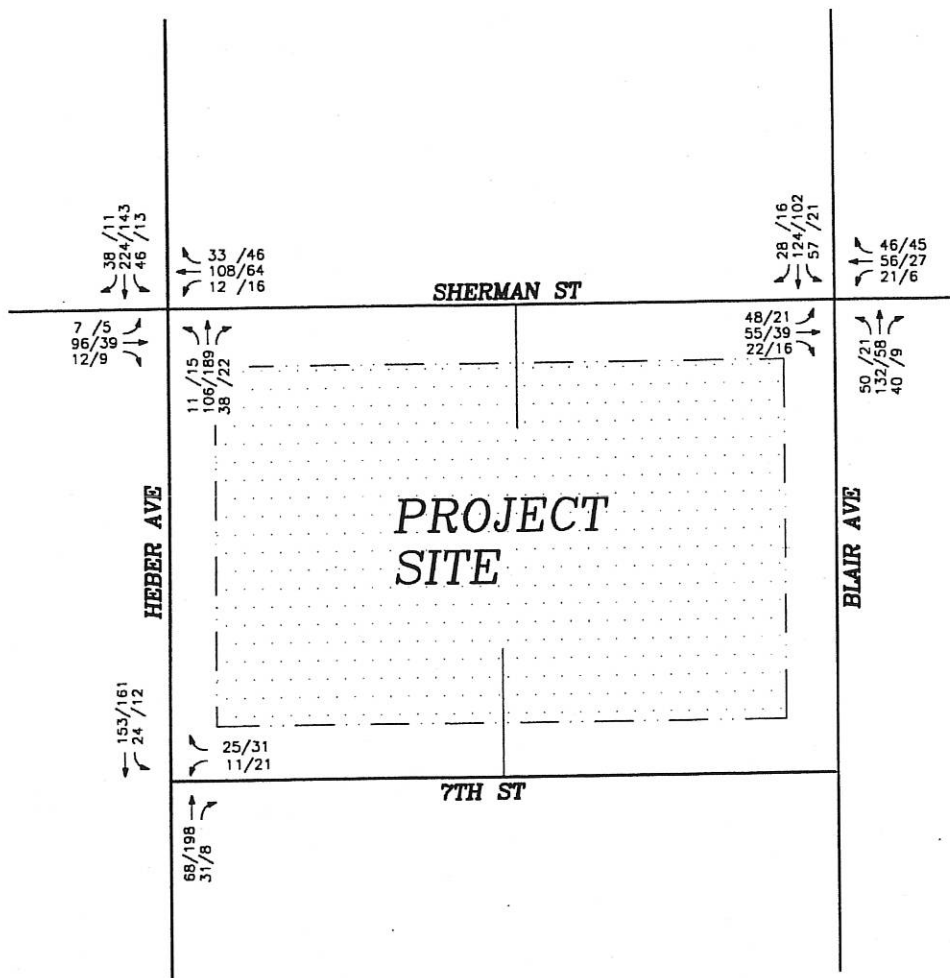
- AM/PM Peak hour volumes are shown at the intersections

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NO SCALE



NOTE:

- AM/PM Peak hour volumes are shown at the intersections



NO SCALE

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GREENSPAN**
ENGINEERS

Figure 8
EXISTING + PROJECT TRAFFIC VOLUMES
AM/PM PEAK HOURS
SDSU IMPERIAL VALLEY CAMPUS

4.0 TRAFFIC OPERATIONS ANALYSIS

4.1 Significance Criteria

A project traffic impact was considered significant if the addition of project traffic caused an intersection or street segment to operate at worse than LOS C, based on language contained in the Imperial County General Plan. If an intersection or street segment is calculated to operate at a pre-project LOS D or worse, an impact is considered significant if the project causes the LOS to degrade from LOS D to LOS E or F, or from LOS E to LOS F.

4.2 Traffic Analysis Methodology

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure of the effect of a number of factors including roadway geometries, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.

All of the key intersections are unsignalized. Unsignalized intersections were analyzed under morning and afternoon peak hour conditions. Average vehicle delay and Levels of Service (LOS) was determined based upon the procedures found in Chapter 10 of the *2000 Highway Capacity Manual (HCM)*, with the assistance of the *Traffix* (version 7.5) computer software. Unsignalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in **Appendix B**.

Table 2 reports unsignalized intersection operations during peak hour conditions.

4.3 Existing Operations

Table 2 shows under existing conditions, the minor street movements at the key unsignalized intersections are calculated to operate at LOS C or better during the morning and afternoon peak periods. The All-Way Stop Control (AWSC) intersection currently operates at LOS A.

4.4 Existing + Project Operations

Table 2 shows that with the addition of project traffic, the minor street movements at all key unsignalized intersections are calculated to continue to operate at LOS C or better during the morning and afternoon peak periods.

Table 2
Unsignalized Intersection Operations

| Intersection | Peak Hour | Turning Movement (Lane or Approach) | Existing | | Existing + Project | | Delay Increase Due to Project | Significant ³ |
|-------------------------------------|-----------|-------------------------------------|--------------------|------------------|--------------------|-----|-------------------------------|--------------------------|
| | | | Delay ¹ | LOS ² | Delay | LOS | | |
| Heber Avenue/7 th Street | AM | WB LTR | 9.2 | A | 9.4 | A | 0.2 | NO |
| | PM | WB LTR | 10.3 | B | 10.5 | B | 0.2 | NO |
| Heber Avenue/ Sherman Street | AM | WB LTR | 15.9 | C | 16.7 | C | 0.8 | NO |
| | | EB LTR | 15.5 | C | 16.5 | C | 1.0 | NO |
| | PM | WB LTR | 12.5 | B | 13.2 | B | 0.7 | NO |
| | | EB LTR | 12.5 | B | 12.7 | B | 0.2 | NO |
| Sherman Street/ Blair Avenue | AM | AWSC | 9.6 | A | 9.7 | A | 0.1 | NO |
| | PM | AWSC | 7.9 | A | 8.0 | A | 0.1 | NO |

Notes:

1. Average delay expressed in seconds per vehicle.
2. Level of Service. See Appendix for delay thresholds.
3. Significant project impacts determined based on Significance Criteria.
4. WB LTR – Westbound shared Left-Thru-Right turn lane.
5. AWSC – All-Way Stop Controlled intersection.

5.0 SIGNIFICANCE OF IMPACTS / MITIGATION MEASURES

The proposed project is calculated to generate at 830 ADT with 55 inbound trips and 15 outbound trips during the AM peak hour and 20 inbound/55 outbound trips during the PM peak hour. Based on the established significance criteria, no significant impacts were calculated. Therefore, mitigation measures are not necessary.

Appendix D

Cultural Resources Technical Report

Table 1. Survey Dates and Conditions

| | |
|-------------------|--------------------------|
| Date | 5-22-02 |
| Times (Begin/End) | 1:30 p.m. to 4:00 p.m. |
| Temperature | mid 80s |
| Wind | 0-3 mph |
| Surveyors | Erin Robbins and Ted Lee |

Figure 3 were observed to be occupied by burrowing owls or were determined to be occupied due to the presence of feathers, pellets or scat, and/or tracks.

Conclusions

Based on the survey, it has been determined that burrowing owls are resident on the project site and would be impacted by the proposed project. Mitigation, such as avoidance or passive relocation with one-way doors, should be incorporated to avoid impacts to this species. According to the California Department of Fish and Game Staff Report on Burrowing Owl Mitigation (CDFG 1995), mitigation for impacts to burrowing owl foraging and burrowing habitat shall include the acquisition and protection of a minimum of 6.5 acres of foraging habitat per pair or unpaired individual impacted by the proposed project. In addition, the following mitigation protocol, taken from the CDFG Staff Report on Burrowing Owl Mitigation, shall be followed if passive relocation with one-way doors is chosen: "Owls should be excluded from burrows in the immediate impact zone and within a 50-meter (approx. 160 ft.) buffer zone by installing one-way doors in burrow entrances. One-way doors (e.g., modified dryer vents) should be left in place 48 hours to insure owls have left the burrow before excavation. Two natural or artificial burrows should be provided for each burrow in the project area that will be rendered biologically unsuitable. The project area should be monitored daily for one week to confirm owl use of burrows before excavating burrows in the immediate impact zone. Whenever possible; burrows should be excavated by hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe should be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow."

Please feel free to call Ted Lee or myself at 858-578-8964 if you have any questions.

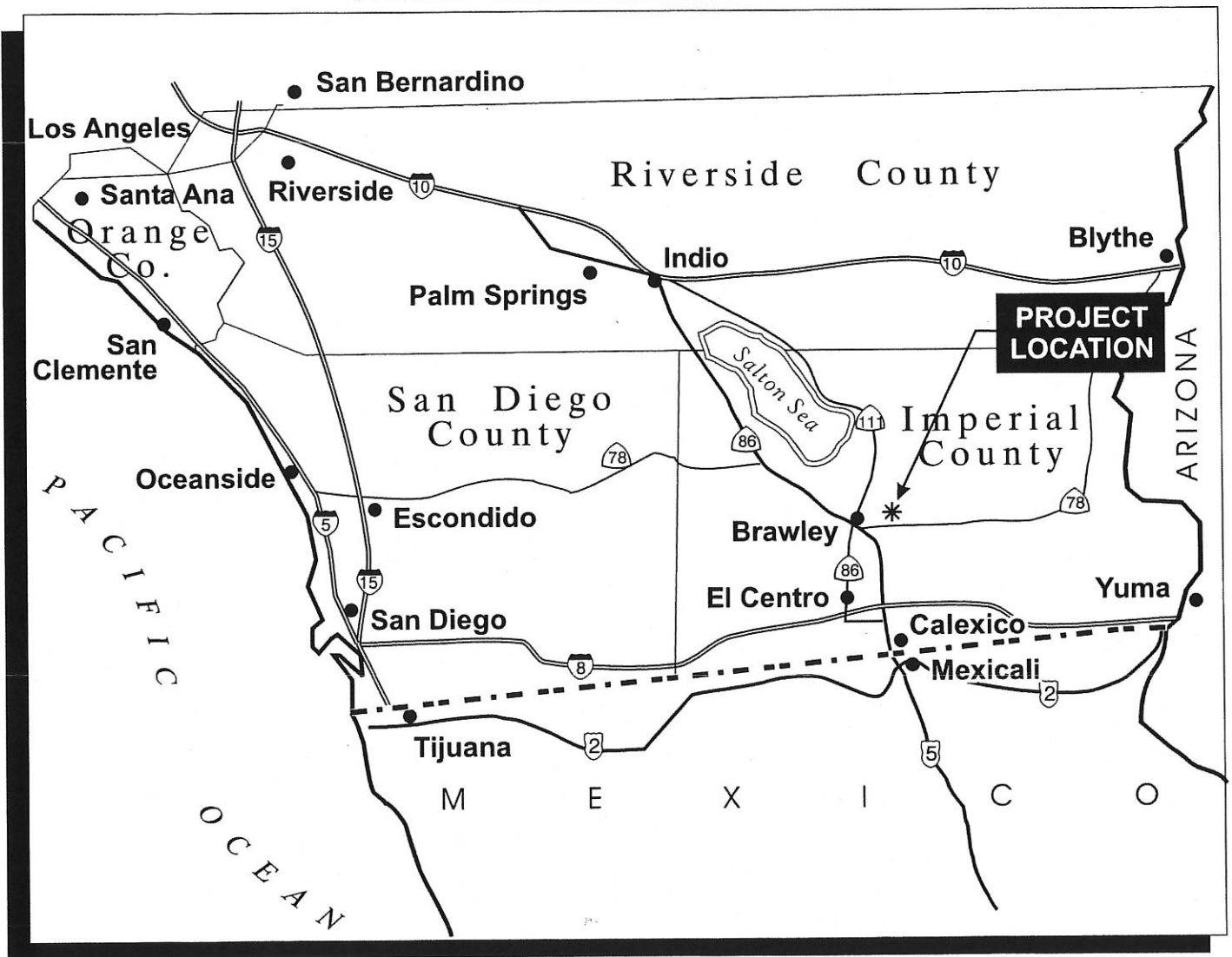
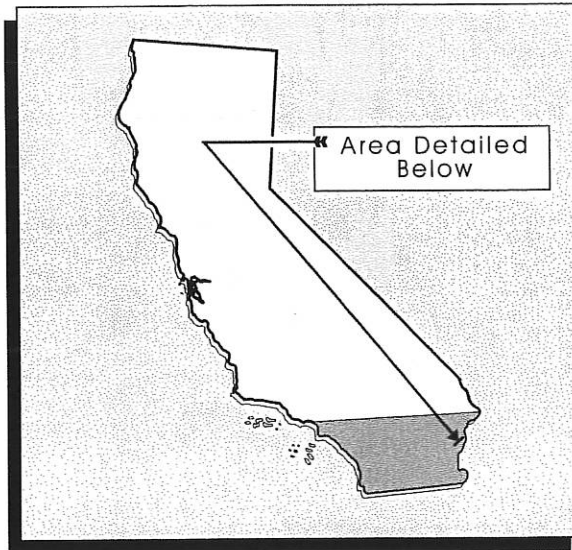
Erin Robbins
Associate Biologist

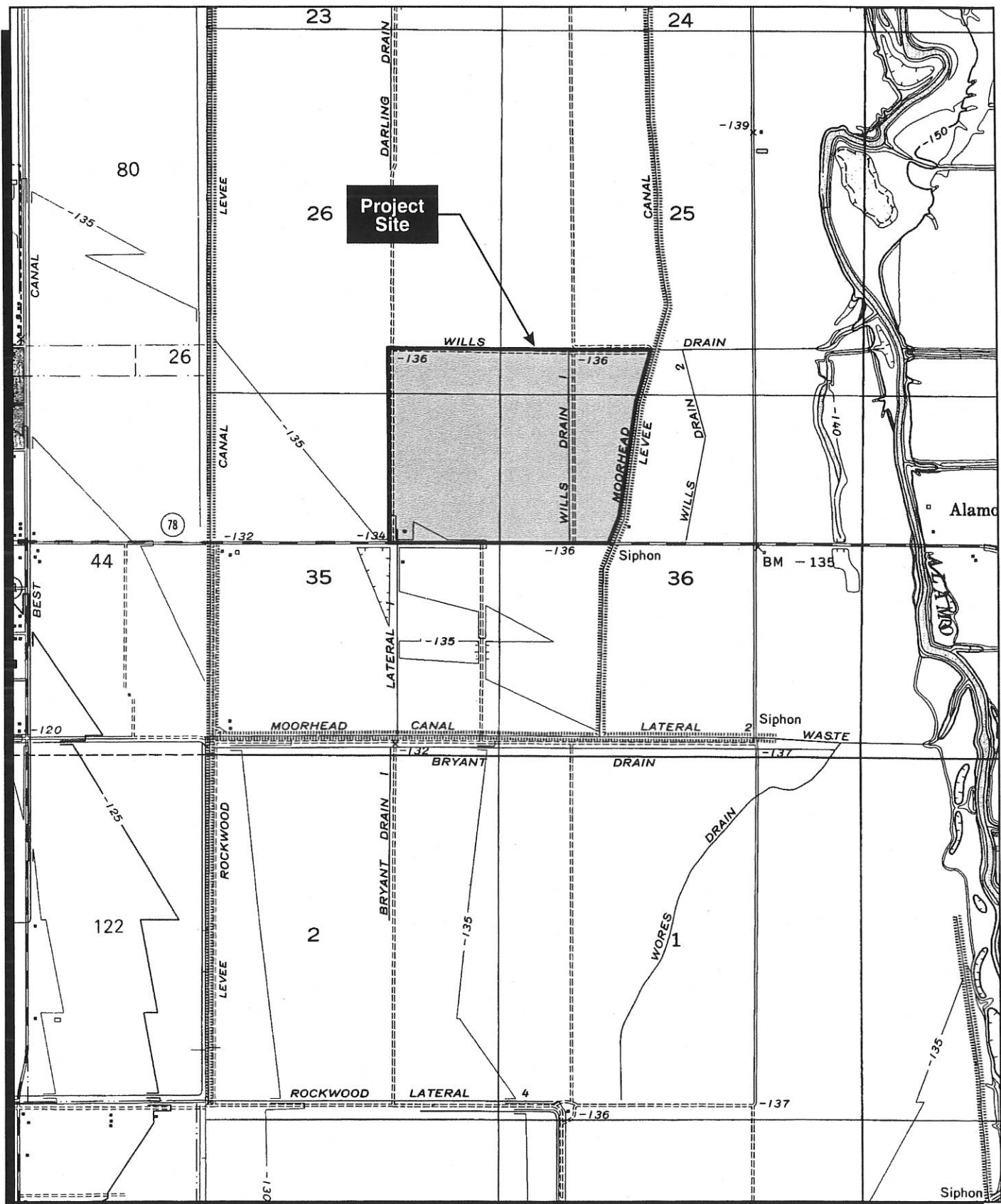


Attachments

**List of Wildlife Species Observed or Detected
on the SDSU Brawley Site**

| Common Name | Scientific Name | Status |
|---|---|--------|
| Birds (Nomenclature from American Ornithologists' Union) | | |
| Cattle egret | <i>Egretta ibis ibis</i> | |
| Black-necked stilt | <i>Himantopus (himantopus) mexicanus mexicanus</i> | |
| Killdeer | <i>Charadrius vociferus vociferus</i> | |
| Mourning dove | <i>Zenaida macroura marginella</i> | |
| Western burrowing owl | <i>Speotyto cunicularia hypugaea</i> | CSC |
| Kingbird | <i>Tyrannus sp.</i> | |
| Northern rough-winged swallow | <i>Stelgidopteryx serripennis</i> | |
| Red-winged blackbird | <i>Agelaius phoeniceus</i> | |
| Common grackle | <i>Quiscalus quiscula versicolor</i> | |
| Mammals (Nomenclature from Jones et al. 1982) | | |
| California ground squirrel | <i>Spermophilus beecheyi</i> | |
| Cottontail rabbit | <i>Sylvilagus audubonii</i> | |
| Status | | |
| CSC | California Department of Fish and Game species of special concern | |



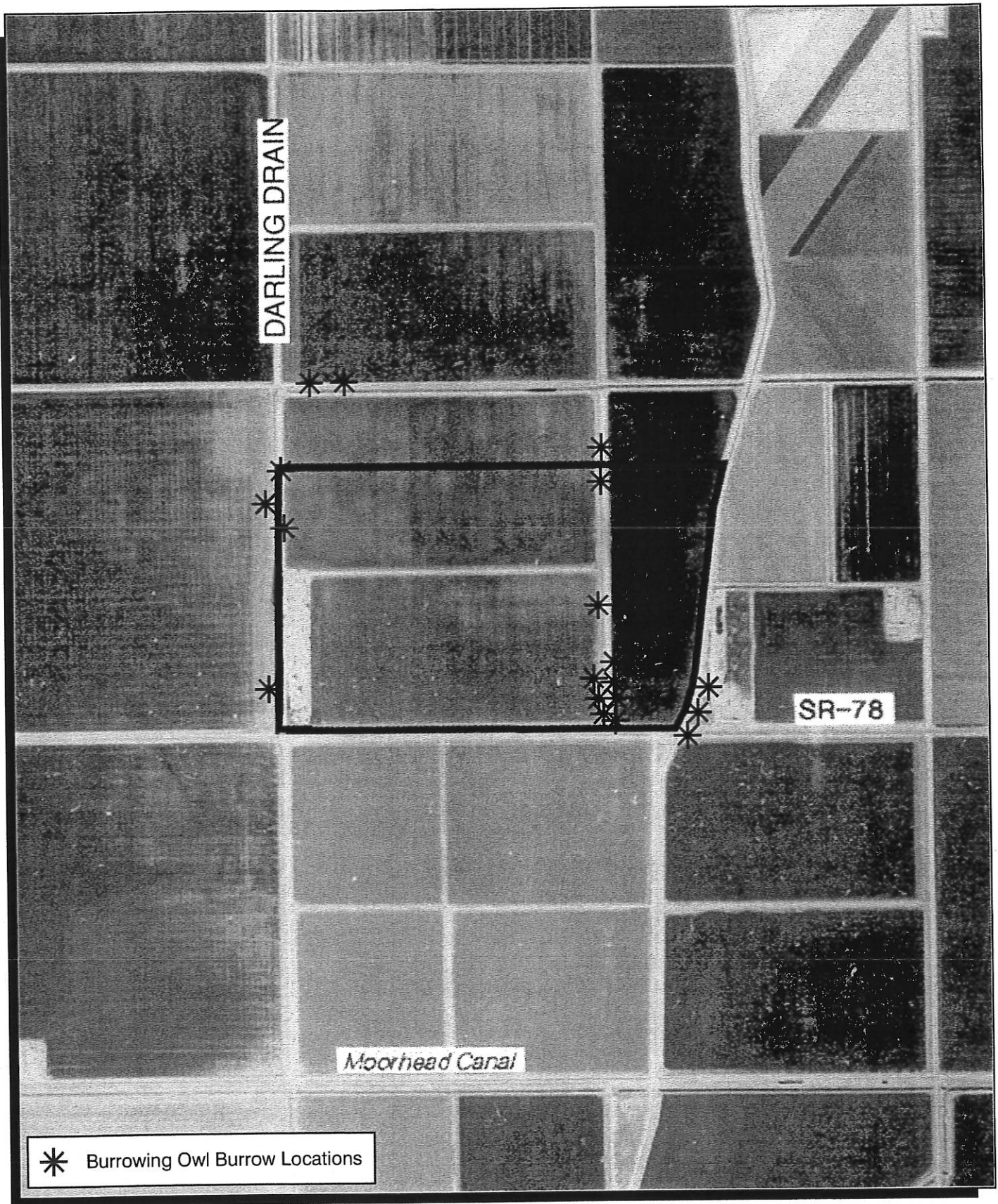


SOURCE: USGS 7.5' Quad Maps - Alamo and Brawley, CA



0 1000' 2000'

Vicinity Map
Figure 2



Appendix E

Traffic Impact Report

**TRAFFIC IMPACT ANALYSIS
SAN DIEGO STATE UNIVERSITY IMPERIAL VALLEY MASTER PLAN
OFF-CAMPUS CENTER
BRAWLEY, CALIFORNIA**

March 19, 2003

Prepared by:

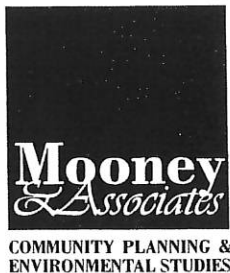


E N G I N E E R S

1565 Hotel Circle South, Suite 310
San Diego, CA 92108
(619) 299-3090

JB/JN/jn
3-02-1166

MEMORANDUM



Date: 22 November 2002

From: William T. Eckhardt

Subject: Cultural Resource Identification Study for San Diego State
University Imperial Valley Campus, Brawley, California

Introduction

A cultural resource identification study was recently completed for the Brawley, California portion of the proposed San Diego State University Imperial Valley Campus Master Plan project, in compliance with the California Environmental Quality Act (CEQA) of 1970, as amended (Public Resources Code §210000 et seq.), and the National Environmental Policy Act (NEPA) of 1966, as amended (16 USC 470 et seq.). This study was conducted in satisfaction of the Guidelines for Implementation of CEQA (14 CCR Ch 3 §15000 et seq.), and NEPA implementing regulations, *Protection of Historic Properties* (36 CFR 800). Identification methods included: (1) records search and literature review of information archived with the California Historical Research Information System, Southeast Information Center; (2) a request for review of the Sacred Lands File with the California Native American Heritage Commission; and (3) a reconnaissance and limited field survey of the proposed project area of effect (APE).

Results of the records and literature research were negative; no historic or prehistoric cultural resources have been previously identified within the project APE. Previous cultural resource studies and surveys within a one-mile radius of the project APE have also proven negative for the presence of historic or prehistoric cultural resources. Reconnaissance and limited field survey of the current project APE resulted in no cultural resource discoveries. Based on available information, the proposed project is expected to have no effect on historic properties. However, there is some potential for the presence of buried prehistoric cultural deposits, and Native American monitoring of construction development grading is recommended. These results and recommendations are discussed below in this report.

Project Description

San Diego State University has proposed an Imperial Valley Campus Master Plan that includes development of a new 200-acre campus site located in the northeastern portion of the City of Brawley, Imperial County, California.

The area of potential effect (APE) identified for this undertaking is an approximate 210-acre parcel located on the north side of State Route 78, 1 mile east of State Route 111, and west of the Alamo River. As shown on the Alamo, California 7.5 minute Quadrangle, this APE occupies portions of Sections 25, 26, 35, and 36, Township 13 South, Range 14 East (San Bernardino Base & Meridian). A map of this location is provided as Enclosure 1.

This APE is currently used as farmland, located within the jurisdiction of Imperial County. The great majority of this acreage is under agriculture (bermuda grass); one single family residence, consisting of a single-wide mobile home and pole barn, are located in the southwestern corner of the project APE. Moorhead Canal and Levee marks the APE eastern boundary; and Darling Drain runs along the western boundary; one lateral of Wills Drain marks the APE northern limit, and a second courses north-south through the eastern one-third of the APE. The southern boundary of the APE is adjacent to State Route 78.

Resource Identification Methods

Mooney & Associates initiated this study with archival research conducted at the Southeast Information Center, Imperial Valley College Desert Museum (Enclosure 2). Review of literature for cultural resource research conducted within this one-mile radius revealed that four previous studies have been conducted within this study area. These studies include: resource inventory for a transmission line pole replacement project that includes a north-south route along Wills Drain passing through the eastern one-third of the project APE (Dolan 1998), a constraint-level (records/research) study for Southern California Gas Company Line 6902 South (Singer et al. 1993), and two California Department of Transportation historic property surveys; one for a set of 3 design alternatives for a proposed highway bypass (Crafts 1999), and another for a proposed construction detour across the Alamo River (Oxendine 1979).

Each of these previous studies included literature and records research, and all but one (Singer et al. 1993) included intensive archaeological field surveys. No recorded cultural resource sites have been identified within the current project APE or within a one-mile radius study area.

In addition to background literature research, correspondence was forwarded to the California Native American Heritage Commission, requesting a review of the Sacred Lands File and a list of appropriate Native American contacts for consultation concerning this proposed project APE. The Commission's records did not identify any significant cultural properties, but did identify a number of Native American contacts for additional consultation. Correspondence was forwarded to these contacts, and one response was received, resulting in a telephone conversation with Mr. Elliot (Chairperson, Manzanita Indian Reservation) expressing concern for the potential of buried cultural deposits in the regions located along the Alamo River. According to Mr. Elliot's comments, he is aware that many bands and tribes crossed the desert area regularly in pre-contact times, and his elders and others have spoken of their trips through the region. Correspondence with NAHC and other Native American contacts are provided in Enclosure 3).

A reconnaissance of the project APE and limited field survey was conducted by the author on 27 March 2002. No prehistoric or historic cultural resources were observed. Evidence observed and noted during the field survey suggest that the project APE has been intensively sub-soiled, and is underlain with agricultural drainage tiles. This intensive agricultural usage may have been sufficient to obliterate prehistoric resources that may have been present within the project APE, and may have destroyed all but the most substantive historic resources (e.g., structures).

Results

No archaeological or historic resources have been identified for the current project APE as a

result of this examination. Although response from the Native American Heritage Commission revealed no known cultural resources listed in the Sacred Lands Files for this project APE, previous experience for this portion of Imperial County suggest that it is not likely that Sacred Lands have been previously identified within the project APE or within the one-mile radius study area.

There were no surface indications of the presence of historic or prehistoric cultural resources observed during the archaeological survey. Nevertheless, correspondence with Mr. Elliott (Chairperson, Manzanita Indian Reservation) has identified some concern for the potential presence of buried, prehistoric cultural deposits in this region along the Alamo River. Based on this concern, it is recommended that a Native American monitor be present to observe initial grading of the project APE, to ensure proper treatment if and when any Native American cultural materials are unearthed.

Based on this identification study, it is expected that the current project will have no effect on historic properties. However, if any buried cultural deposits are inadvertently discovered during construction, development should be suspended and the discovery protected and evaluated for its potential eligibility for listing on the National Register of Historic Places or the California Register of Historical Resources.

If you have any questions concerning the study or this report, please do not hesitate to contact either myself or Mr. Richard Carrico at your convenience. Thank you.

Best regards,

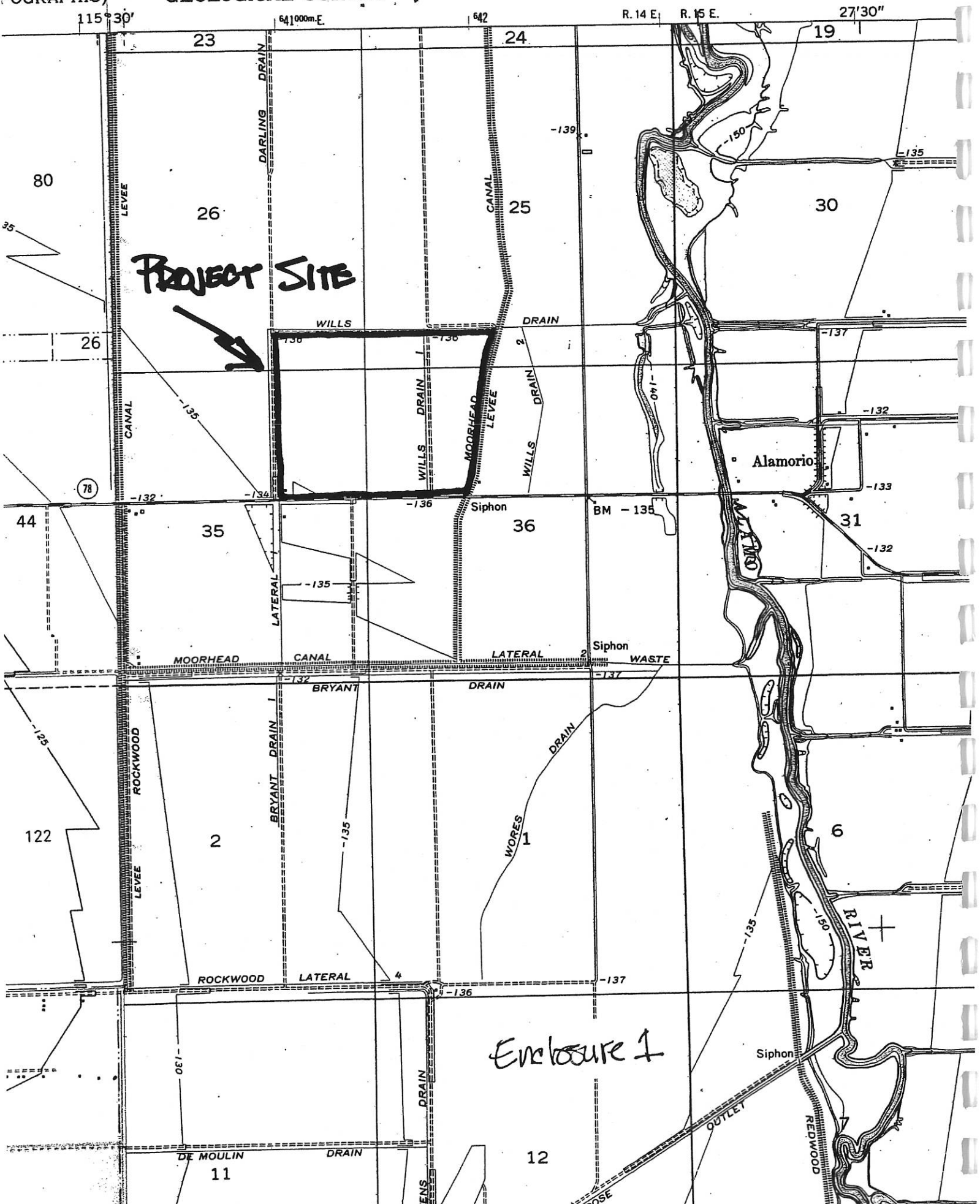
William T. Eckhardt
Senior Archaeologist

Encl: (1) Project Area of Potential Effect (APE) in relation to portions of the USGS
Alamorio and Brawley, Ca. 7.5 minute quadrangles
(2) Confirmation of Records Search
(3) Correspondence
(4) References Cited

cc (w/ encl): Coordinator, Southeast Information Center, Imperial Valley College Desert
Museum
Mr. Leroy Elliott, Chairperson, Manzanita Band of Mission Indians

ANGLE
IAL CO.
POGRAPHIC)

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



INVOICE
SOUTHEASTERN INFORMATION CENTER
P.O. Box 430
Ocotillo, CA 92259
760 358-7016 PHONE 760 358-7827 FAX

March 27, 2002

INVOICE NO. 0303

TO: William T. Eckhardt
Mooney & Associates
9903 Businesspark Ave.
San Diego, CA 92131-1120

On March 27, 2002 William Eckhardt came to the Southeast Information Center to perform a record search for the project # 9905-340. The project is located in Imperial County, California on the Brawley and Alamorio 7.5 quads. All base maps as well as historic maps and literature were searched.

| | |
|------------------------------------|-----------------|
| IC staff ½ hr @\$120.00 | \$ 60.00 |
| Record self-search 1 hr. @ \$80.00 | \$ 80.00 |
| Copies 13 pages @ \$0.15 | <u>\$ 1.95</u> |
| Total | \$141.95 |

I hereby certify all services invoiced have been duly performed and accepted by agency.

Please let us know if we can be of further assistance. Make checks payable to **Southeast Information Center.**

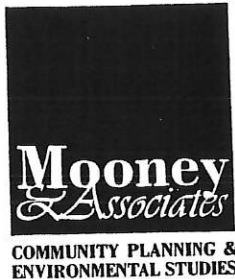
Sincerely:



Karen McNitt Collins
Assistant Coordinator
Southeast Information Center

Enclosure 2

12 April 2002



Mr. Rob Wood
Native American Heritage Commission
915 Capitol Mall
Room 364
Sacramento, California 95814

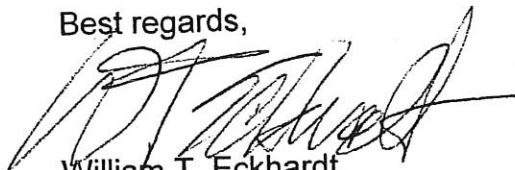
Re: Cultural Resource Identification Study for San Diego State University
Imperial Valley Campus, Brawley, California

Dear Mr. Wood:

The purpose of this letter is to request a review of your Sacred Lands files for the area described below. I am serving as the consulting archaeologist for the Board of Trustees of the California State University for the above referenced project. I have completed the records search, background research, and reconnaissance of the project area of potential effect. Any information that you can provide regarding Sacred Lands and Native American contacts will be appreciated.

Area of Concern: An approximate 210 acre parcel shown on the Alamo, California 7.5 minute Quadrangle, occupying portions of Sections 25, 26, 35, and 36, Township 13 South, Range 14 East (San Bernardino Base Meridian).

Best regards,



William T. Eckhardt

encl. Portion of the Brawley and Alamo, California 7.5 minute Quadrangles

STATE OF CALIFORNIA

Gray Davis, Governor

NATIVE AMERICAN HERITAGE COMMISSION

916 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
Fax (916) 657-5390
Web Site www.nahc.ca.gov



May 3, 2002

William T. Eckhardt
Mooney & Associates
9903 Businesspark Avenue
San Diego, California 92131-1120

RE: Proposed Cultural Resource Identification Study for San Diego State University Imperial Valley Campus, Brawley, Imperial County.

Sent by Fax: (858) 578-0573
Pages Sent: 2

Dear Mr. Eckhardt:

A record search of the sacred lands file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend other with specific knowledge. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4040.

Sincerely,

A handwritten signature in cursive script, appearing to read "Rob Wood".

Rob Wood
Environmental Specialist III

NATIVE AMERICAN CONTACTS
Imperial County
May 2, 2002

Ewiiapaayp Tribal Office
Harlan Pinto, Chairperson
PO Box 2250 Kumeyaay
Alpine, CA 91903-2
(619) 445-6315

Fort Yuma Indian Reservation - Quechan Tribe
Mike Jackson, Sr., President
PO Box 1899 Quechan
Yuma, AZ 85366
(760) 572-0213
(760) 572-2102 FAX

La Posta Band of Mission Indians
Gwendolyn Parada, Chairperson
PO Box 1048 Diegueno
Boulevard, CA 91905
(619) 478-2113

La Posta Band of Mission Indians
James Hill, Tribal Administrator
PO Box 1048 Diegueno
Boulevard, CA 91905
(619) 478-2113

Manzanita Band of Mission Indians
Leroy J. Elliott, Chairperson
PO Box 1302 Kumeyaay
Boulevard, CA 91905
(619) 766-4930
(619) 766-4930 Fax

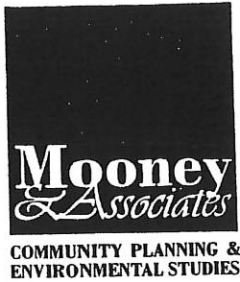
Campo Band of Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1 Kumeyaay
Campo, CA 91906
(619) 478-9046
(619) 478-5818 Fax

Kumeyaay Cultural Heritage Preservation
Paul Cuero
36190 Church Road, Suite 5 Diegueno/ Kumeyaay
Campo, CA 91906
(619) 478-9046
(619) 478-5818 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.6 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regards to the cultural assessment for the proposed Cultural Resource Identification Study for San Diego State University Imperial Valley Campus, Brawley, Imperial County.



15 May 2002

Ralph Goff, Chairperson
Campo Band of Mission Indians
36190 Church Road, Suite 1
Campo, California 91906

Re: Cultural Resource Identification Study for San Diego State University Imperial
Valley Campus, Brawley, California

Dear Mr. Goff:

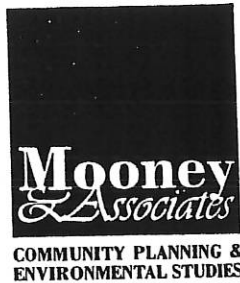
Mooney & Associates is under contract to perform a cultural resource identification study for the proposed development of a San Diego State University campus in central Imperial Valley, in Imperial County, California. This project area is located on State Highway 78, east of Brawley, near the west bank of the Alamo River (see the enclosed map). The purpose of this study is to identify whether sensitive cultural resources might be adversely impacted by proposed development within this project area.

Records and background studies were researched at the California Office of Historic Preservation regional repository (Southeast Information Center, Imperial Valley College Desert Museum), and a survey of the approximate 210 acre project area has been completed. Results of the records research and surface survey were negative. No recorded sites were located within the project area.

In April of this year, I wrote to the Native American Heritage Commission requesting whether the Sacred Lands File contained any information relating to cultural resources within the proposed project area. Those records did not indicate that any sensitive cultural resources are present. As a follow up to that letter, and as part of the environmental review process, I am writing to solicit your comments on the effects that this development may have on sites of sensitive Native American cultural value, and to ask whether you may have knowledge of cultural resources in this project area that might be adversely impacted by the proposed university campus development. If you have questions or would like to discuss the project, please contact me at 858.578.8964 during the day or at 858.487.1365 at home in the evenings. Thank you.

William T. Eckhardt
Senior Archaeologist

enclosure: Portions of the Brawley and Alamo, California 7.5 minute USGS maps



15 May 2002

Harlan Pinto, Chairperson
Ewiiapaayp Tribal Office
PO Box 2250
Alpine, California 91903-2

Re: Cultural Resource Identification Study for San Diego State University Imperial Valley Campus, Brawley, California

Dear Mr. Pinto:

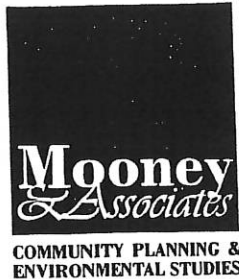
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William T. Eckhardt
Senior Archaeologist

enclosure: Portions of the Brawley and Alamorio, California 7.5 minute USGS maps



15 May 2002

Paul Cuero
Kumeyaay Cultural Heritage Preservation
36190 Church Road, Suite 5
Campo, California 91906

Re: Cultural Resource Identification Study for San Diego State University Imperial Valley Campus, Brawley, California

Dear Mr. Cuero:

Mooney & Associates is under contract to perform a cultural resource identification study for the proposed development of a San Diego State University campus in central Imperial Valley, in Imperial County, California. This project area is located on State Highway 78, east of Brawley, near the west bank of the Alamo River (see the enclosed map). The purpose of this study is to identify whether sensitive cultural resources might be adversely impacted by proposed development within this project area.

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William T. Eckhardt
Senior Archaeologist

enclosure: Portions of the Brawley and Alamorio, California 7.5 minute USGS maps



15 May 2002

Gwendolyn Parada, Chairperson
La Posta Band of Mission Indians
PO Box 1048
Boulevard, California 91905

Re: Cultural Resource Identification Study for San Diego State University Imperial
Valley Campus, Brawley, California

Dear Mrs. Parada:

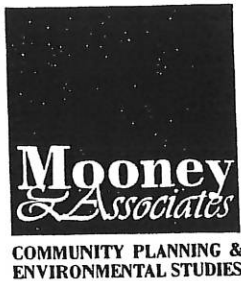
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William T. Eckhardt
Senior Archaeologist

enclosure: Portions of the Brawley and Alamorio, California 7.5 minute USGS maps



15 May 2002

Leroy J. Elliott, Chairperson
Manzanita Band of Mission Indians
PO Box 1302
Boulevard, California 91905

Re: Cultural Resource Identification Study for San Diego State University Imperial
Valley Campus, Brawley, California

Dear Mr. Elliott:

Mooney & Associates is under contract to perform a cultural resource identification study for the proposed development of a San Diego State University campus in central Imperial Valley, in Imperial County, California. This project area is located on State Highway 78, east of Brawley, near the west bank of the Alamo River (see the enclosed map). The purpose of this study is to identify whether sensitive cultural resources might be adversely impacted by proposed development within this project area.

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William T. Eckhardt
Senior Archaeologist

enclosure: Portions of the Brawley and Alamorio, California 7.5 minute USGS maps



15 May 2002

Mike Jackson, Sr., President
Fort Yuma Indian Reservation - Quechan Tribe
PO Box 1899
Yuma, Arizona 85366

Re: Cultural Resource Identification Study for San Diego State University Imperial Valley Campus, Brawley, California

Dear Mr. Jackson:

Mooney & Associates is under contract to perform a cultural resource identification study for the proposed development of a San Diego State University campus in central Imperial Valley, in Imperial County, California. This project area is located on State Highway 78, east of Brawley, near the west bank of the Alamo River (see the enclosed map). The purpose of this study is to identify whether sensitive cultural resources might be adversely impacted by proposed development within this project area.

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Thank you.

William T. Eckhardt
Senior Archaeologist

enclosure: Portions of the Brawley and Alamorio, California 7.5 minute USGS maps



15 May 2002

Mr. James Hill, Tribal Administrator
La Posta Band of Mission Indians
PO Box 1048
Boulevard, California 91905

Re: Cultural Resource Identification Study for San Diego State University Imperial
Valley Campus, Brawley, California

Dear Mr. Hill:

Mooney & Associates is under contract to perform a cultural resource identification study for the proposed development of a San Diego State University campus in central Imperial Valley, in Imperial County, California. This project area is located on State Highway 78, east of Brawley, near the west bank of the Alamo River (see the enclosed map). The purpose of this study is to identify whether sensitive cultural resources might be adversely impacted by proposed development within this project area.

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William T. Eckhardt
Senior Archaeologist

enclosure: Portions of the Brawley and Alamo, California 7.5 minute USGS maps

MEMORANDUM OF PHONE CONVERSATION

Date: 20 May 2002

From: Mr. Leroy Elliott, Chairperson, Manzanita Band of Mission Indians

To: William Eckhardt

re: Telephone conversation regarding identification of cultural resources for proposed SDSU Imperial Valley campus, Brawley, California

Received phone call from Mr. Elliott this morning, about 1145 hours. Mr. Elliott is concerned about potential buried cultural deposits in the region around the Alamo River. Many bands and tribes crossed this desert area regularly in pre-contact times, and his elders and others have spoken about their trips through the region.

Although there were no surface indications observed during the cultural resource investigation, Mr. Elliott asks whether the initial grading of the project might be monitored to ensure proper treatment if and when any Native American cultural materials are disturbed.

I asked Mr. Elliott to please send me a letter with his concerns. I expect the letter will be forthcoming. Either way, this is input to the cultural resource identification process, and will be incorporated into the findings and recommendations.

References Cited

Crafts, Karen C.

- 1999 Negative Archaeological Survey Report for the Proposed Brawley Bypass Project, State Routes 78 & 111, L11.6/L25.3 & 33.5/39.7, Imperial County, California. Unpublished manuscript on file at Southeastern Information Center, Imperial Valley College Desert Museum. Ocotillo.

Dolan, Christy C.V.

- 1998 A Cultural Resources Inventory of the M Transmission Line Pole Replacement Project, Imperial Irrigation District, Imperial County, California. Unpublished manuscript on file at Southeastern Information Center, Imperial Valley College Desert Museum. Ocotillo.

Oxendine, Joan

- 1979 Archaeological Phase I Survey Report, Proposed Construction Detour of Alamo River Bridge 58-118 East of Brawley, 11-Imp-78, PM 17.5. Unpublished manuscript on file at Southeastern Information Center, Imperial Valley College Desert Museum. Ocotillo.

Singer, Clay A, John E. Atwood, and Shelley Marie Gomes

- 1993 Cultural Resource Records Search for Southern California Gas Company Line 6902 South, Imperial County, California. Unpublished manuscript on file at Southeastern Information Center, Imperial Valley College Desert Museum. Ocotillo.

Enclosure 4

Appendix F

Acoustical Report



INVESTIGATIVE SCIENCE AND ENGINEERING, INC.

Corporate Office

3545 Camino Del Rio South, Suite E
San Diego, CA 92108-4003
Phone/Fax: 619-640-9379 / 619-640-0763
www.iseinc.ws

June 21, 2002

Ms. Carey J. Fernandes
Mooney and Associates
9903 Businesspark Avenue, Suite B
San Diego, CA 92131

**RE: SDSU IMPERIAL VALLEY CAMPUS MASTER PLAN PROJECT
ACOUSTICAL SITE ASSESSMENT – BRAWLEY/CALEXICO CA
ISE REPORT #02-050b**

Dear Ms. Fernandes:

At the request of Mooney and Associates, Investigative Science and Engineering (ISE) has performed an acoustical site assessment of the proposed SDSU Imperial Valley campus master plan projects located in Brawley/Calexico, California. The results of that survey, as well as predicted future noise levels at the project site, are presented in this letter report.

◆ INTRODUCTION AND DEFINITIONS

Existing Site Characterization

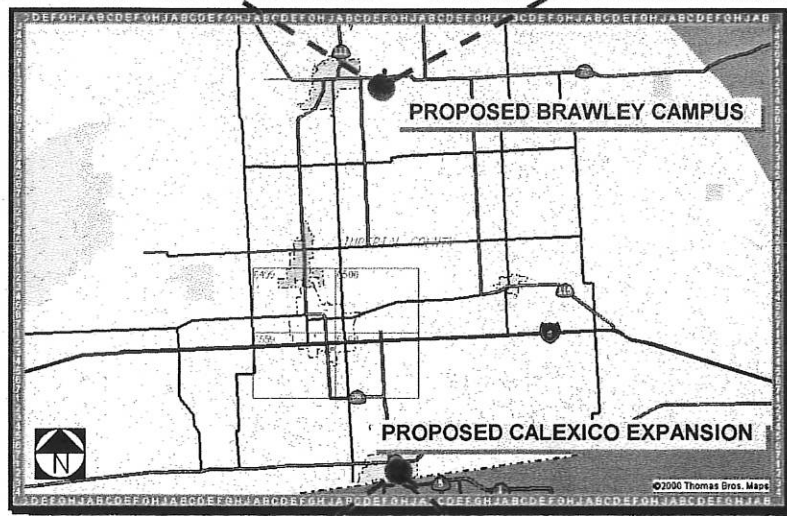
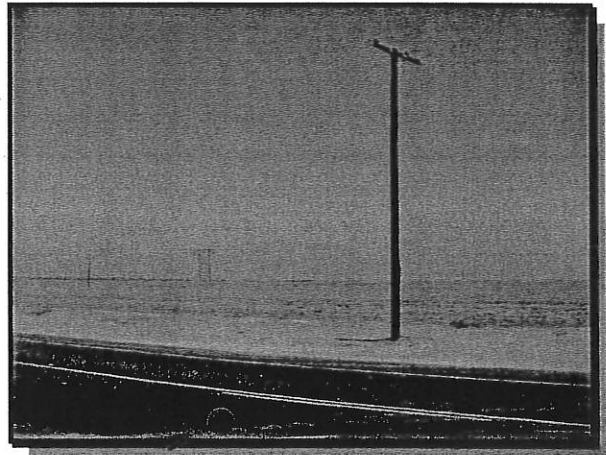
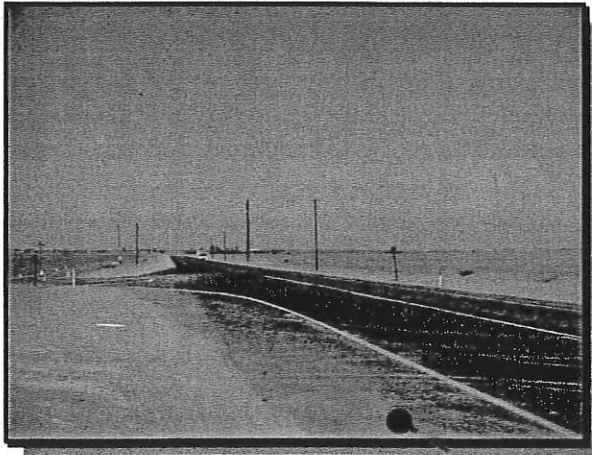
The proposed project sites consist of two development areas which are located within the existing San Diego State University Imperial Valley Campus (Calexico) located in the City of Calexico, and a new site (Brawley) in the northeast portion of the City of Brawley (refer to Figure 1).

The general boundaries of the Calexico campus are Heber Avenue to the West, 7th Street to the south, Sherman Avenue to the north, and Blair Avenue to the east. State Route 111 provides regional access to the Calexico campus from the north or State Highway 98 from the east and west. State Highway 78 bound the proposed Brawley campus site to the south, the Wills Drain to the west and north, and Moorhead Canal to the east. State Route 78 and State Route 111 provide regional access to this campus (refer to Figures 2a through -d).

Both facilities are located on state property, which is not subject to zoning laws, zoning ordinances, or local general plans. However, the campus of SDSU Calexico is located within the City of Calexico General Plan area, and the SDSU Brawley Campus is located within the County of Imperial General Plan area.



Figure 1: Project Vicinity Maps (Thomas Guide Page 6260, Grid F7, Page 6680, Grid G1)



Figures 2a through -d: Existing Project Area Configuration Photographs (ISE, 6/02)

Project Description

The proposed SDSU Imperial Valley Campus Master Plan project is intended to improve and enhance facilities on the existing Imperial Valley Campus (Calexico), and to increase education opportunities by adding a second campus in the northern part of the County (Brawley). The overall goal of this plan is to expand the educational offerings in the Imperial Valley. The proposed project would result in the addition of new classroom and administrative buildings on the Calexico campus (refer to Figure 3) to increase the full time enrollment (FTE) from 500 FTE to 850 FTE.

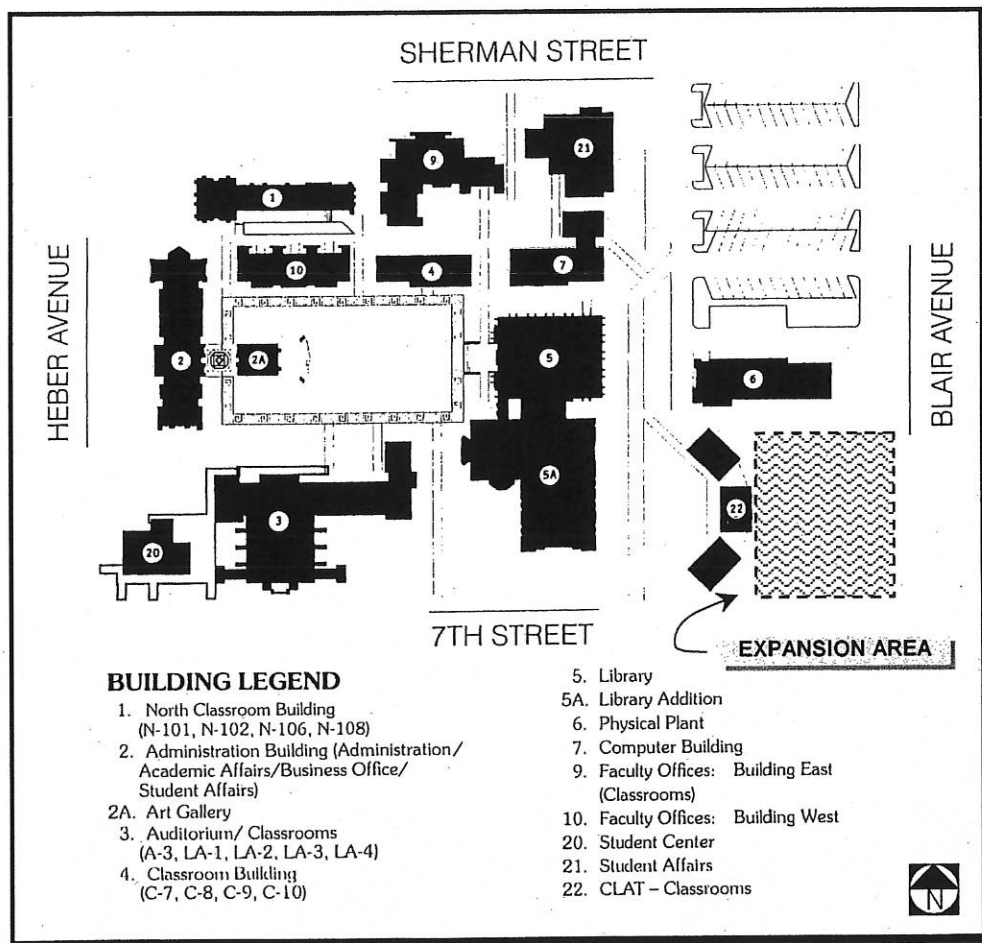
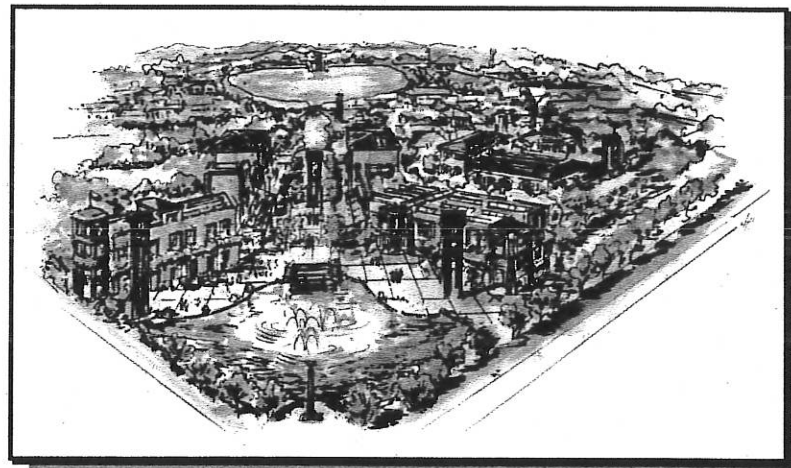
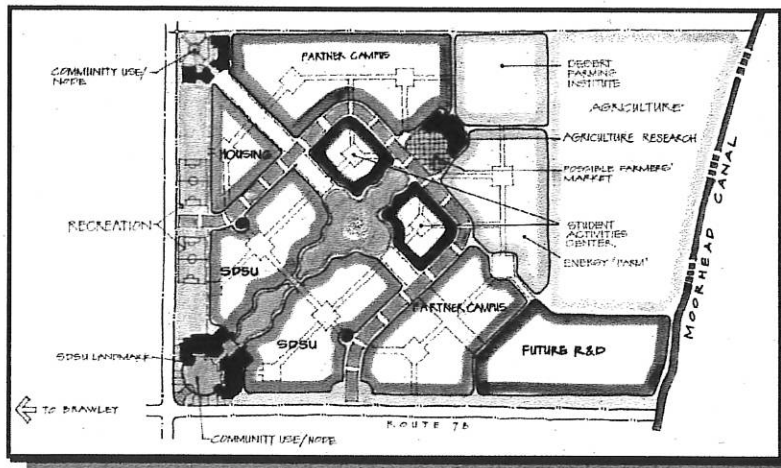


Figure 3: Proposed Calexico Campus Expansion Area (SDSU/ISE – 6/02)

The second new campus (Brawley) would result in the development of new classroom and administrative buildings to provide facilities for up to 850 FTE. The proposed site configuration and conceptual design of the new campus is shown below in Figures 4a and –b.



Figures 4a and -b: Proposed Brawley Campus Site Configuration (PDC – 5/02)

Acoustical Definitions

Sound waves are linear mechanical waves. They can be propagated in solids, liquids, and gases. The material transmitting such a wave oscillates in the direction of propagation of the wave itself. Sound waves originate from some sort of vibrating surface. Whether this surface is the vibrating string of a violin or a person's vocal cords, a vibrating column of air from an organ or clarinet, or a vibrating panel from a loudspeaker, drum, or aircraft, the sound waves generated are all similar. All of these vibrating elements alternatively compress the surrounding air on a forward movement and expand it on a backward movement.

There is a large range of frequencies within which linear waves can be generated, sound waves being confined to the frequency range that can stimulate the auditory organs to the sensation of hearing. For humans this range is from about 20 Hertz (Hz or cycles per second) to about 20,000 Hz. The air transmits these frequency

disturbances outward from the source of the wave. Sound waves, if unimpeded, will spread out in all directions from a source. Upon entering the auditory organs, these waves produce the sensation of sound. Waveforms that are approximately periodic or consist of a small number of periodic components can give rise to a pleasant sensation (assuming the intensity is not too high), for example, as in a musical composition. Noise, on the other hand, can be represented as a superposition of periodic waves with a large number of components.

Noise is generally defined as unwanted or annoying sound that is typically associated with human activity and which interferes with or disrupts normal activities. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, the perceived importance of the noise and its appropriateness in the setting, the time of day, and the sensitivity of the individual hearing the sound.

Airborne sound is a rapid fluctuation of air pressure above and below atmospheric levels. The loudest sounds the human ear can hear conformably are approximately one trillion times the acoustic energy that the ear can barely detect. Because of this vast range, any attempt to represent the acoustic intensity of a particular sound on a linear scale becomes unwieldy. As a result, a logarithmic ratio originally conceived for radio work known as the decibel (dB) is commonly employed. A sound level of zero "0" dB is scaled such that it is defined as the threshold of human hearing and would be barely audible to a human of normal hearing under extremely quiet listening conditions. Such conditions can only be generated in anechoic or "dead rooms". Typically, the quietest environmental conditions (extreme rural areas with extensive shielding) yield sound levels of approximately 20 decibels. Normal speech has a sound level of approximately 60 dB. Sound levels above 120 dB roughly correspond to the threshold of pain.

The minimum change in sound level that the human ear can detect is approximately 3 dB. A change in sound level of 10 dB is usually perceived by the average person as a doubling (or halving) of the sounds loudness. A change in sound level of 10 dB actually represents an approximately 90 percent change in the sound intensity, but only about a 50 percent change in the perceived loudness. This is due to the nonlinear response of the human ear to sound.

As mentioned above, most of the sounds we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies differing in sound level. The intensities of each frequency add to generate the sound we hear. The method commonly used to quantify environmental sounds consists of determining all of the frequencies of a sound according to a weighting system that reflects the nonlinear response characteristics of the human ear. This is called "A" weighting, and the decibel level measured is called the A-weighted sound level (or dBA). In practice, the level of a noise source is conveniently measured using a sound level meter that includes a filter corresponding to the dBA curve.

Although the A-weighted sound level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of sounds from distant sources that create a relatively steady background noise in which no particular source is identifiable. For this type of noise, a single descriptor called the Leq (or equivalent sound level) is used. Leq is the energy-mean A-weighted sound level during a measured time interval. It is the 'equivalent' constant sound level that would have to be produced by a given source to equal the average of the fluctuating level measured. For most acoustical studies, the monitoring interval is generally taken as one-hour and is abbreviated *Leq-h*.

To describe the time-varying character of environmental noise, the statistical noise descriptors L10, L50, and L90 are commonly used. They are the noise levels equaled or exceeded during 10 percent, 50 percent, and 90 percent of a stated time. Sound levels associated with the L10 typically describe transient or short-term events, while levels associated with the L90 describe the steady state (or most prevalent) noise conditions. In addition, it is often desirable to know the acoustic range of the noise source being measured. This is accomplished through the maximum and minimum measured sound level (Lmax and Lmin) indicators. The Lmin value obtained for a particular monitoring location is often called the *acoustic floor* for that location.

Finally, a sound measure employed by the State of California (and adopted by the CSU Trustees) is known as the Community Noise Equivalence Level (or CNEL) is defined as the "A" weighted average sound level for a 24-hour day. It is calculated by adding a 5-decibel penalty to sound levels in the evening (7:00 p.m. to 10:00 p.m.), and a 10-decibel penalty to sound levels in the night (10:00 p.m. to 7:00 a.m.) to compensate for the increased sensitivity to noise during the quieter evening and nighttime hours.

APPLICABLE SIGNIFICANCE CRITERIA

Exterior Noise Standards

Noise impact significance for the San Diego State University Imperial Valley Campus projects would fall under guidelines established by the California Department of Health Services, Office of Noise Control; Land Use Compatibility Guidelines dated 1987. This standard, which is based upon an earlier 1974 EPA document entitled, *"Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety"*, sets a maximum noise threshold of 70 dBA CNEL.

State of California CCR Title 24

The California Code of Regulations (CCR), Title 24, Noise Insulation Standards, states that single- and multi-family dwellings, hotels, and motels located where the CNEL exceeds 60 dBA, must obtain an acoustical analysis showing that the proposed design will limit interior noise to less than 45 dBA CNEL. An interior standard of 50 dBA CNEL is applied to schools and educational uses. Worst case noise levels, either existing or future, must be used for this determination.

ANALYSIS METHODOLOGY

Site Monitoring Procedure

Two Larson Davis Model 700 ANSI Type 2 integrating sound level meters were used as the data collection devices. The meters (denoted as ML's 1 and 2) were mounted to a tripod approximately five feet above the ground and were placed onsite at locations having a worst-case noise exposure. The monitoring locations are shown graphically in Figures 5a through -d.

- ① ML 1: Proposed Brawley Campus site frontage facing SR 78 (GPS 32° 58.727 x 115° 29.180, -118-ft MSL). Meter approximately 100 feet from roadway centerline.
- ② ML 2: Frontage of Calexico Campus facing Heber Drive (GPS 32° 40.320 x 115° 29.585, +0-ft MSL). Meter approximately 50 feet from roadway centerline.

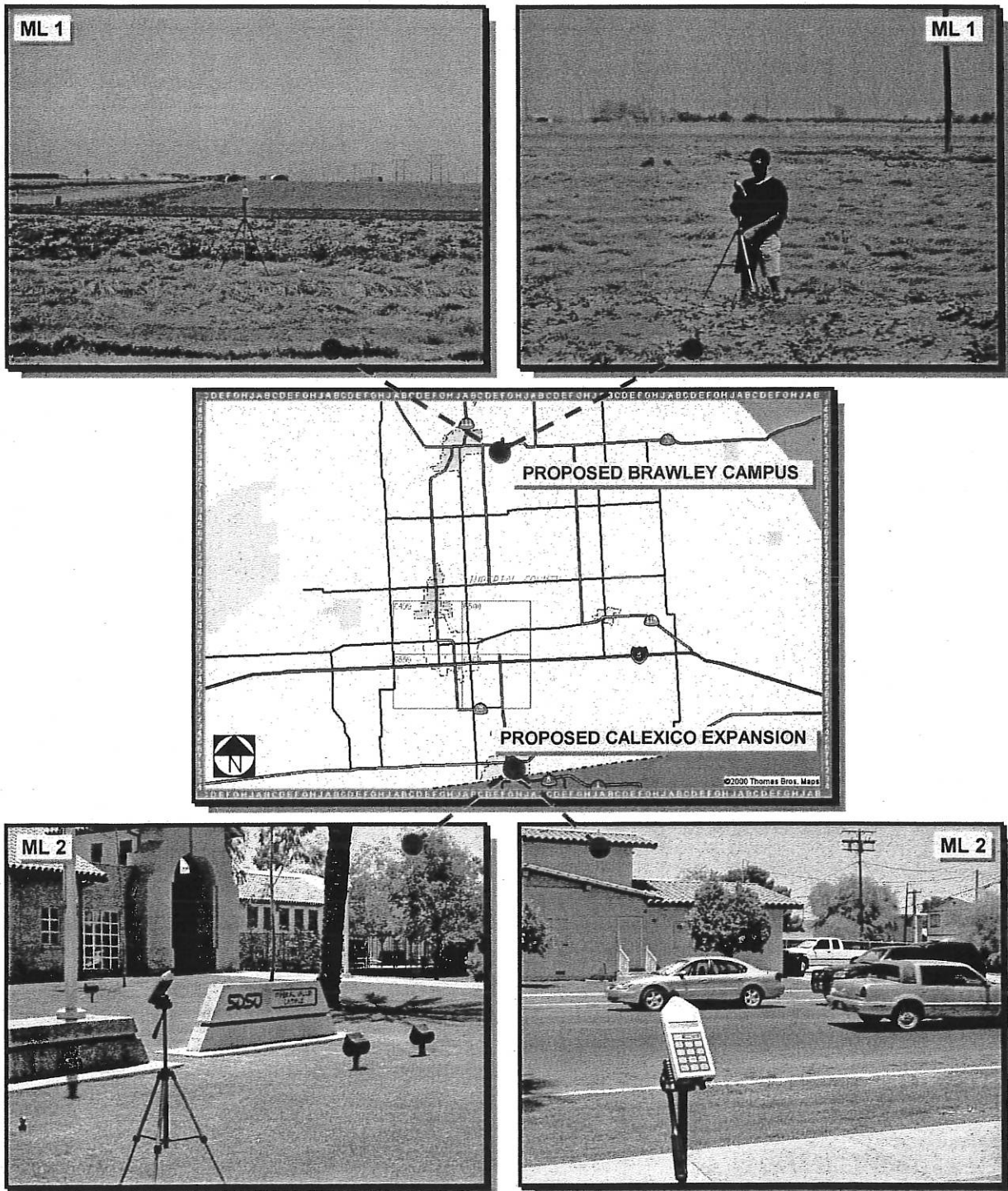
The measurements were performed on June 20, 2002 at 10:00 a.m. and 12:00 p.m. respectively during normal flow traffic conditions. All equipment was calibrated before testing at ISE's acoustics and vibration laboratory to verify conformance with ANSI S1-4 1983 Type 2 and IEC 651 Type 2 standards.

Construction Noise Impact Assessment Approach

Construction noise emission generators would consist primarily of haul truck activities such as concrete and other suppliers, graders and pavers, contractor vehicles, and ancillary operating equipment such as diesel-electric generators and lifts. Construction noise present at the project site was analyzed based upon anticipated construction vehicle requirements for the proposed development and anticipated daytime operational levels. Cumulative (i.e., worst case aggregate) levels were calculated for a range of expected noise emissions from the proposed equipment.

Traffic Noise Impact Assessment Approach

The *ISE Road Noise Model v1.0* Traffic Noise Prediction Model with California (CALVENO) noise emission factors (based on FHWA RD-77-108 and FHWA/CA/TL-87/03 standards) was used to calculate the increase in vehicular traffic noise levels along major servicing roadways due to the proposed San Diego State University Imperial Valley Campus projects based upon available trip generation levels of the major servicing roadway alignments identified in the project traffic study. The model assumed a 'hard-site' propagation rule (i.e., 3.0 dBA loss per doubling of distance (DD) between source and receiver), thereby yielding a representative worst-case noise contour set.



Figures 5a through -d: Ambient Noise Monitoring Locations (ISE, 6/02)

FINDINGS

Existing Ambient Noise Conditions

Testing conditions during the monitoring period were sunny with an average barometric pressure reading of 29.8 in-Hg, an average southwesterly wind speed of 2 to 5 miles per hour (MPH), and an approximate mean temperature of 117 degrees Fahrenheit. The results of the sound level monitoring are shown below in Table 1. The values for the equivalent sound level (Leq), the maximum and minimum measured sound levels (Lmax and Lmin), and the statistical indicators L10, L50, and L90, are given for each monitoring location. The observed existing dominant noise sources were clearly from the traffic along SR 78 (Brawley) and Heber Street (Calexico).

Noise levels on site were found to be consistent with the observed setting and local site topography. Currently, traffic noise at both project sites was found to be the major generator within the project study area. The values for the equivalent sound level (Leq-h) for both monitoring locations equated approximately 60 dBA. These levels were currently found to be below the exterior standards presented earlier in this report, and would be considered compatible with new development (*Source: State of California Office of Noise Control, Land Use Compatibility Matrix for Noise Environments, 1981*).

Background noise levels (i.e., L90 levels) were found to be much lower than their energy equivalent counterparts (e.g., Leq-h) indicating the relative dominance of the intermittent traffic noise. The acoustic floor for the sites was 36 dBA (Brawley) and 47.0 dBA (Calexico).

TABLE 1: Measured Ambient Sound Levels – Calexico/Brawley Campus Sites

| Site | Start Time | 1-Hour Noise Level Descriptors in dBA | | | | | |
|------|------------|---------------------------------------|------|------|------|------|------|
| | | Leq | Lmax | Lmin | L10 | L50 | L90 |
| ML 1 | 10:00 a.m. | 59.7 | 74.5 | 36.0 | 62.5 | 46.0 | 38.0 |
| ML 2 | 12:00 p.m. | 60.4 | 75.0 | 47.0 | 63.5 | 55.5 | 49.0 |

- ☐ ML 1: Proposed Brawley Campus site frontage facing SR 78 (GPS 32° 58.727 x 115° 29.180, -118-ft MSL). Meter approximately 100 feet from roadway centerline.
- ☐ ML 2: Frontage of Calexico Campus facing Heber Drive (GPS 32° 40.320 x 115° 29.585, +0-ft MSL). Meter approximately 50 feet from roadway centerline.

Measurements performed by ISE on June 20, 2002. Estimated Position Error (EPE) = 10 feet.

Construction Noise Emission Levels

Construction at the project site would typically occur between the hours of 7 a.m. and 3 p.m. Monday through Saturday in accordance with normal construction conventions. Construction activities would include grading, general site development, and finishing features such as landscaping for the Brawley campus site and a lesser degree of construction for the Calexico Expansion.

Several residences exist approximately 300 feet or greater from the edge of main construction activities associated with the Brawley site. The average point-source propagation loss between these receptors and the closest possible construction equipment would be approximately 16 dBA.

Table 2 identifies typical major equipment identified by ISE as being used during construction of similar-type projects within the San Diego / Imperial Valley area. The table identifies the expected equipment type, the duty cycle of each of the equipment components, and the expected 8-hour energy average noise level (over a given workday). Due to the operational nature of the equipment and the rural nature of the Brawley project site, no excessive noise levels are indicated. Therefore, no impacts are expected.

Construction associated with the proposed Calexico expansion would produce a lesser level of aggregate noise production. The exact nature of the expansion activities are unknown at this time, but are not expected to produce levels greatly in excess of the existing ambient levels. Therefore, no significant impacts are expected.

TABLE 2: Predicted Construction Noise Levels – Brawley Campus Site

| Equipment Type | Qty. Used | Duty Cycle (Hrs. / day) | Source Level @ 50 Feet (dBA) | Cumulative Effect @ 50 Feet (dBA Leq-8h) |
|--------------------------------------|-----------|-------------------------|------------------------------|--|
| Fork Lift – 175 HP | 2 | 4 | 75 | 75.0 |
| Off Highway Trucks | 9 | 4 | 75 | 81.5 |
| Tracked Loader | 1 | 4 | 70 | 67.0 |
| Tracked Tractor/Dozer | 2 | 4 | 75 | 75.0 |
| Scraper | 1 | 4 | 80 | 77.0 |
| Roller | 1 | 4 | 70 | 67.0 |
| Grader / Paver | 1 | 4 | 75 | 72.0 |
| Aggregate Sum @ 50 Ft. (Σ): | | | | 84.8 |
| Sum @ Receptor (Σ): | | | | 68.8 |

Source: EPA PB 206717, Environmental Protection Agency, 12/31/71, "Noise from Construction Equipment and Operations"

Duty cycle day is taken to be 8 hours.

Predicted Vehicular Noise Levels along Adjacent Roadways

The project sites are expected to have a total trip generation level of 830 ADT (Calexico) and 2,000 ADT (Brawley). The Calexico site currently has a full-time enrollment (FTE) of 500 students, which would generate an additional starting ADT level of 1,190. Thus the cumulative ADT would be 2,020, which is consistent with the expected utilization of the new Brawley campus. Thus, for the purposes of analysis, a cumulative ADT of 2,000 will be applied to both project campuses.

Existing traffic volumes in the vicinity of the Brawley project site are approximately 3,200 ADT. The noise level produced by this traffic volume would be 66.3 dBA CNEL for an assumed average travel speed of 55 MPH. The addition of the proposed Brawley project would increase noise levels to 68.3 dBA CNEL for a net increase of 2.0 dBA. This increase is below the accepted level of human detectability and would not produce noise levels in excess of the applicable significance criteria for the development of the proposed campus.

Similarly, the Calexico site would produce an additional 830 ADT to the existing traffic volumes observed (which approached an estimated 5,000 ADT based upon field observations performed by ISE). This project-related increase would range between 0.5 to 1.0 dBA CNEL based upon the predicted and observed volumes and would not constitute an impact. Aggregate levels would still fall below 65 dBA CNEL which is compatible for the proposed expansion use without acoustical mitigation.

CONCLUSIONS / RECOMMENDATIONS

Based upon the analysis, no construction-related noise impacts were found. No project-related exceedances or excessive noise levels were identified as part of the proposed project plans. No design mitigation is required as part of this project.

Should you have any questions regarding the above conclusions, please do not hesitate to contact me at (619) 640-9379.

Sincerely,



Rick Tavares, Ph.D.
Project Principal
Investigative Science and Engineering, Inc.

Cc: Jeremy Loudon, ISE

Appendix G

Air Quality Assessment



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June 20, 2002

Ms. Carey J. Fernandes
Mooney and Associates
9903 Businesspark Avenue, Suite B
San Diego, CA 92131

**RE: SDSU IMPERIAL VALLEY CAMPUS MASTER PLAN PROJECT
AIR QUALITY ASSESSMENT – BRAWLEY/CALEXICO CA
ISE REPORT #02-050a**

Dear Ms. Fernandes:

At the request of Mooney and Associates, Investigative Science and Engineering (ISE) has performed an air quality site assessment of the proposed SDSU Imperial Valley campus master plan projects located in Brawley/Calexico, California. The results of that survey, as well as predicted future air quality levels at the project site, are presented in this letter report.

INTRODUCTION AND DEFINITIONS

Existing Site Characterization

The proposed project sites consist of two development areas which are located within the existing San Diego State University Imperial Valley Campus (Calexico) located in the City of Calexico, and a new site (Brawley) in the northeast portion of the City of Brawley (refer to Figure 1).

The general boundaries of the Calexico campus are Heber Avenue to the West, 7th Street to the south, Sherman Avenue to the north, and Blair Avenue to the east. State Route 111 provides regional access to the Calexico campus from the north or State Highway 98 from the east and west. State Highway 78 bound the proposed Brawley campus site to the south, the Wills Drain to the west and north, and Moorhead Canal to the east. State Route 78 and State Route 111 provide regional access to this campus (refer to Figures 2a through -d).

Both facilities are located on state property, which is not subject to zoning laws, zoning ordinances, or local general plans. However, the campus of SDSU Calexico is located within the City of Calexico General Plan area, and the SDSU Brawley Campus is located within the County of Imperial General Plan area.

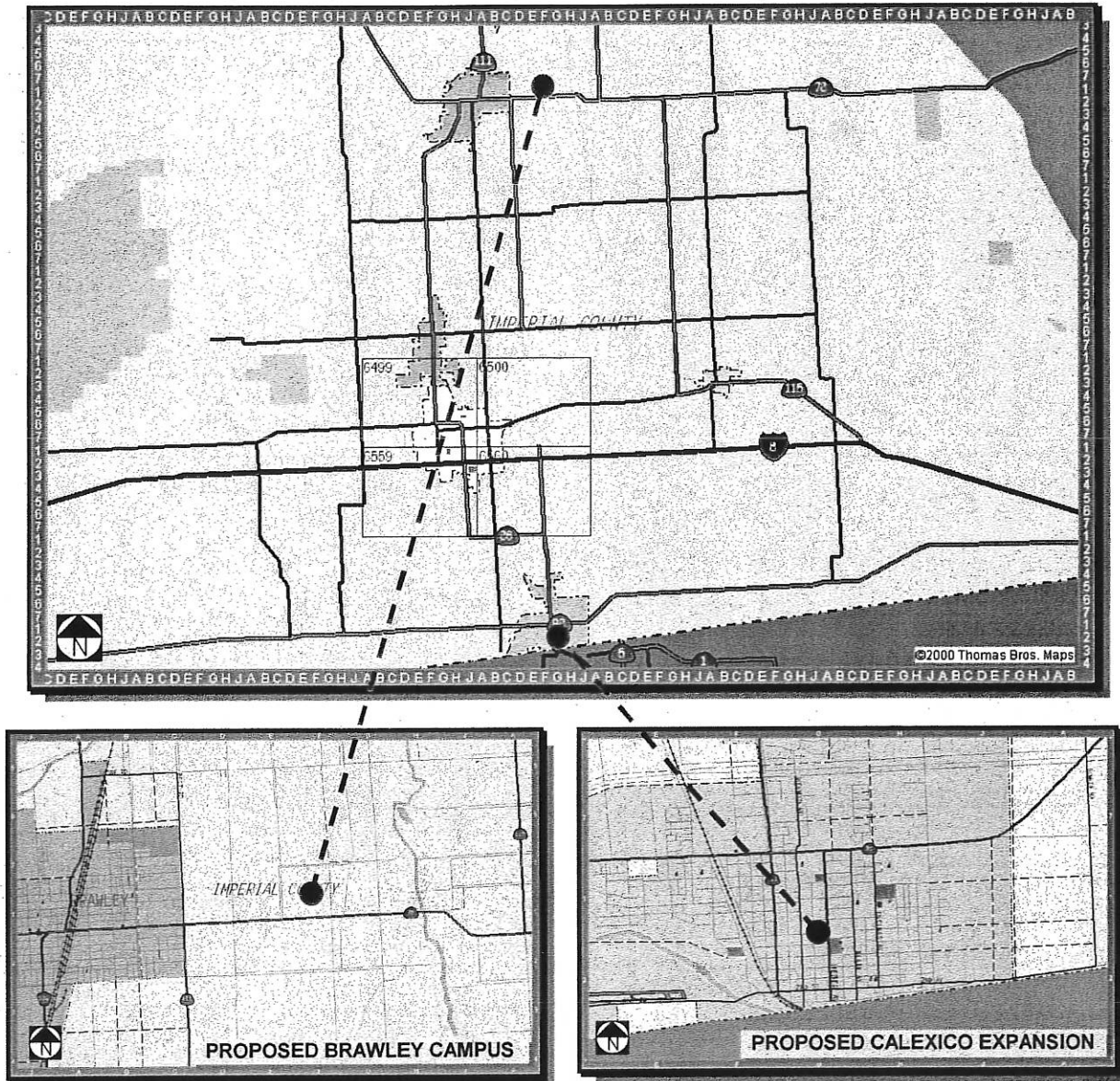
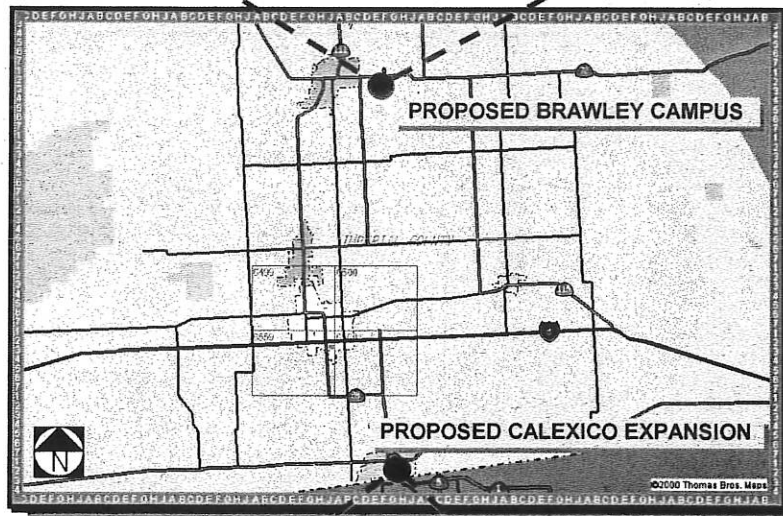
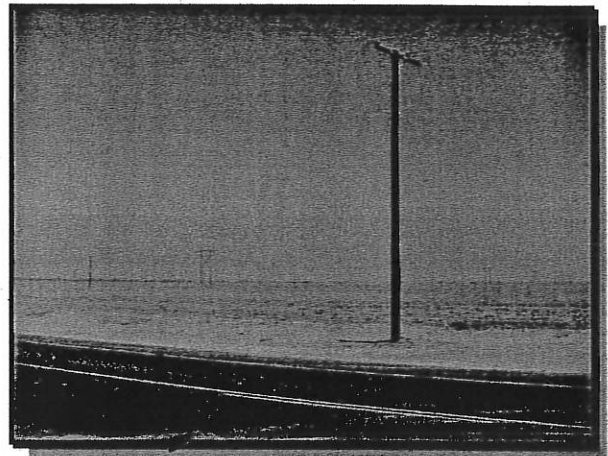
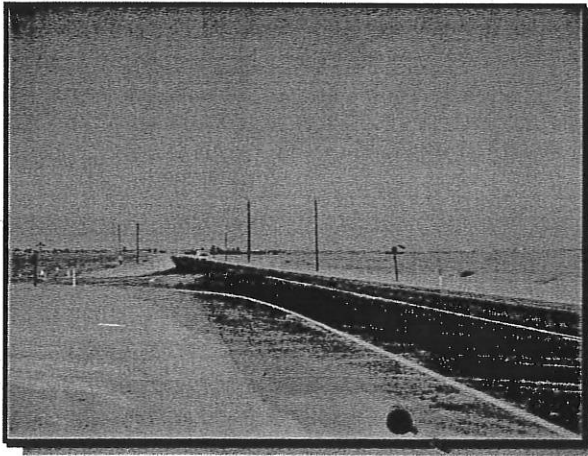


Figure 1: Project Vicinity Maps (Thomas Guide Page 6260, Grid F7, Page 6680, Grid G1)



Figures 2a through -d: Existing Project Area Configuration Photographs (ISE, 6/02)

Project Description

The proposed SDSU Imperial Valley Campus Master Plan project is intended to improve and enhance facilities on the existing Imperial Valley Campus (Calexico), and to increase education opportunities by adding a second campus in the northern part of the County (Brawley). The overall goal of this plan is to expand the educational offerings in the Imperial Valley. The proposed project would result in the addition of new classroom and administrative buildings on the Calexico campus (refer to Figure 3) to increase the full time enrollment (FTE) from 500 FTE to 850 FTE.

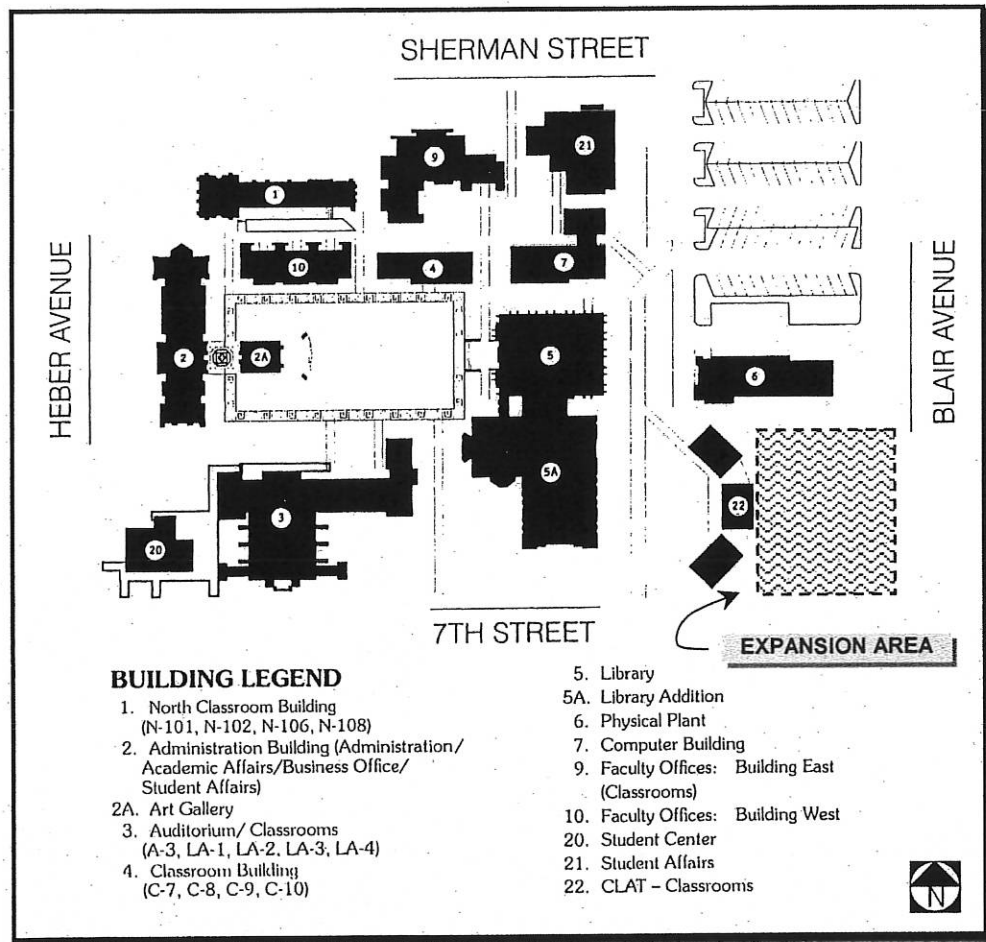
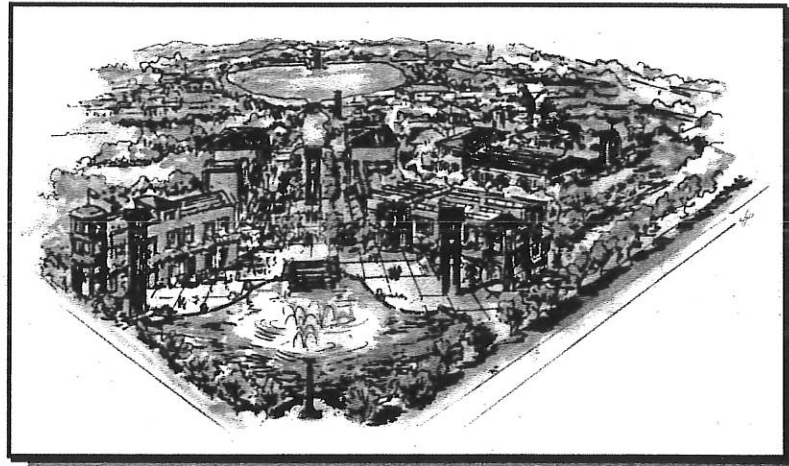
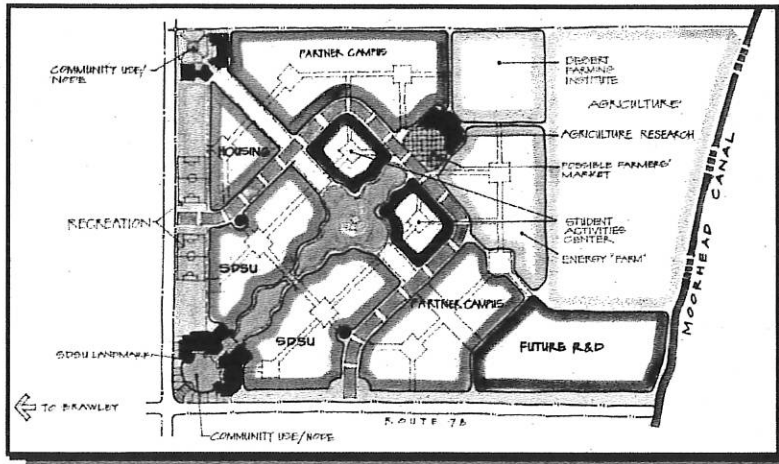


Figure 3: Proposed Calexico Campus Expansion Area (SDSU/ISE – 6/02)

The second new campus (Brawley) would result in the development of new classroom and administrative buildings to provide facilities for up to 850 FTE. The proposed site configuration and conceptual design of the new campus is shown below in Figures 4a and –b.



Figures 4a and -b: Proposed Brawley Campus Site Configuration (PDC – 5/02)

Air Quality Definitions

Air quality is defined by ambient air concentrations of specific pollutants determined by the Environmental Protection Agency (EPA) to be of concern with respect to the health and welfare of the public. The subject pollutants, which are monitored by the EPA, are Carbon Monoxide (CO), Sulfur Dioxide (SO₂), Nitrogen Dioxide (NO₂), respirable 10-micron particulate matter (PM₁₀), sulfates, lead, Hydrogen Sulfide (H₂S), Volatile Organic Compounds (e.g., vinyl chloride, etc.), and visibility reducing particles. Examples of sources and effects of these pollutants are identified below:

- ④ Carbon Monoxide (CO): Carbon monoxide is a colorless, odorless, tasteless and toxic gas resulting from the incomplete combustion of fossil fuels. CO interferes with the blood's ability to carry oxygen to the body's tissues and results in numerous adverse health effects. CO is a criteria air pollutant.

- ④ Oxides of Sulfur (SO_x): Typically strong smelling, colorless gases that are formed by the combustion of fossil fuels. SO_2 and other sulfur oxides contribute to the problem of acid deposition. SO_2 is a criteria pollutant.
- ④ Nitrogen Oxides (Oxides of Nitrogen, or NO_x): Nitrogen oxides (NO_x) consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with oxygen (O_2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility.
- ④ Ozone (O_3): A strong smelling, pale blue, reactive toxic chemical gas consisting of three oxygen atoms. It is a product of the photochemical process involving the sun's energy. Ozone exists in the upper atmosphere ozone layer as well as at the earth's surface. Ozone at the earth's surface causes numerous adverse health effects and is a criteria air pollutant. It is a major component of smog.
- ④ PM_{10} (Particulate Matter less than 10 microns): A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. PM_{10} also causes visibility reduction and is a criteria air pollutant.
- ④ Volatile Organic Compounds (VOC's, Reactive Organic Gasses, ROG): Hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOC's contribute to the formation of smog and/or may themselves be toxic. VOC's often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints.

The EPA (under the Federal Clean Air Act of 1970, and amended in 1977) established ambient air quality standards for these pollutants. This standard is called the National Ambient Air Quality Standards (NAAQS). The California Air Resources Board (CARB) subsequently established the more stringent California Ambient Air Quality Standards (CAAQS). Both sets of standards are shown in Figure 5 below. Areas in California where ambient air concentrations of pollutants are higher than the state standard are considered to be in "non-attainment" status for that pollutant.

| Pollutant | Averaging Time | California Standards | | Federal Standards | | |
|---|-----------------------------|---|---|--|-----------------------------------|--|
| | | Concentration | Method | Primary | Secondary | Method |
| Ozone (O ₃) | 1 Hour | 0.09 ppm (180 µg/m ³) | Ultraviolet Photometry | 0.12 ppm (235 µg/m ³) ^a | Same as Primary Standard | Ethylene Chemiluminescence |
| | 8 Hour | — | | 0.08 ppm (157 µg/m ³) | | |
| Respirable Particulate Matter (PM ₁₀) | Annual Geometric Mean | 30 µg/m ³ | Size Selective Inlet Sampler ARB Method P (8/22/85) | — | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | 24 Hour | 50 µg/m ³ | | 150 µg/m ³ | | |
| | Annual Arithmetic Mean | — | | 50 µg/m ³ | | |
| Fine Particulate Matter (PM _{2.5}) | 24 Hour | No Separate State Standard | | 65 µg/m ³ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | | | 15 µg/m ³ | | |
| Carbon Monoxide (CO) | 8 Hour | 9.0 ppm (10 mg/m ³) | Non-dispersive Infrared Photometry (NDIR) | 9 ppm (10 mg/m ³) | None | Non-dispersive Infrared Photometry (NDIR) |
| | 1 Hour | 20 ppm (23 mg/m ³) | | 35 ppm (40 mg/m ³) | | |
| | 8 Hour (Lake Tahoe) | 6 ppm (7 mg/m ³) | | — | | |
| Nitrogen Dioxide (NO ₂) | Annual Arithmetic Mean | — | Gas Phase Chemiluminescence | 0.053 ppm (100 µg/m ³) | Same as Primary Standard | Gas Phase Chemiluminescence |
| | 1 Hour | 0.25 ppm (470 µg/m ³) | | — | | |
| Lead | 30 days average | 1.5 µg/m ³ | AIHL Method 54 (12/74) Atomic Absorption | — | — | High Volume Sampler and Atomic Absorption |
| | Calendar Quarter | — | | 1.5 µg/m ³ | Same as Primary Standard | |
| Sulfur Dioxide (SO ₂) | Annual Arithmetic Mean | — | Fluorescence | 0.030 ppm (80 µg/m ³) | — | Pararosaniline |
| | 24 Hour | 0.04 ppm (105 µg/m ³) | | 0.14 ppm (365 µg/m ³) | — | |
| | 3 Hour | — | | — | 0.5 ppm (1300 µg/m ³) | |
| | 1 Hour | 0.25 ppm (655 µg/m ³) | | — | — | |
| Visibility Reducing Particles | 8 Hour (10 am to 6 pm, PST) | In sufficient amount to produce an extinction coefficient of 0.23 per kilometer—visibility of ten miles or more (0.07—30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70 percent. Method: ARB Method V (8/18/89). | | No Federal Standards | | |
| Sulfates | 24 Hour | 25 µg/m ³ | Turbidimetric Barium Sulfate-AIHL Method 61 (2/76) | | | |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 µg/m ³) | Cadmium Hydroxide STRactan | | | |

Figure 5: Ambient Air Quality Standards Matrix (after CARB/EPA, updated 1997)

APPLICABLE SIGNIFICANCE CRITERIA

Significance criteria for stationary and mobile source air quality impacts are based upon the approach recommended by the California Air Resources Board (CARB) and the Imperial County Air Pollution Control District (ICAPCD). The District establishes emission thresholds for determining the potential significance of a proposed action.

The applicable standards for mobile sources are shown quantitatively in Table 1 below. The existing ambient conditions are compared for the with- and without project cases. If emissions exceed the allowable thresholds, additional analysis is conducted to determine whether the emissions would exceed an ambient air quality standard (i.e., the CAAQS values shown in Figure 5 above). Determination of significance considers both localized impacts (such as CO hotspots) and cumulative impacts. In the event that any criteria pollutant exceeds the threshold levels, the proposed action's impact on air quality are considered significant and mitigation measures would be required.

TABLE 1: Pollutant Threshold Levels per ICAPCD and U.S. EPA

| Pollutant | ICAPCD Thresholds (Pounds per Day) | Clean Air Act <i>de minimis</i> Levels (Tons per Year) |
|--|---------------------------------------|---|
| Carbon Monoxide (CO) | 550 | 100 |
| Oxides of Sulfur (SO _x) | 250 | 100 |
| Volatile Organic Compounds (VOC's) | 250 | 50 |
| Oxides of Nitrogen (NO _x) | 250 | 50 |
| Particulate Matter (PM ₁₀) | 100 | 100 |

Source: ICAPCD/CARB 1988; EPA 40 CFR 93, 1993

Under the General Conformity Rule, the EPA has developed a set of *de minimis* thresholds for all proposed federal actions in a non-attainment area for evaluating the significance of air quality impacts (shown for comparison as the last column in Table 1). It should be noted that the State (i.e., ICAPCD) standards are equal to, or more stringent than, the Federal Clean Air standards (a fact that can be verified through multiplication of the ICAPCD standards by 365 and dividing by 2,000). Development of the proposed SDSU Imperial Valley campus master plan projects would therefore fall under the stricter ICAPCD {state} guidelines.

In addition, existing (as of 9/7/93) and proposed fixed emission sources within the proposed project area are regulated according to *ICAPCD Rule 207, C.2.a, 1999*, which allows a maximum of 137 pounds per day of the criteria pollutants identified in

Table 1 above. Exceedances would result in a significant impact requiring mitigation using Best Available Control Technology (BACT).

Finally, the regulated state and federal identified airborne chemical toxics are identified in Table 2 below. These chemicals are commonly found in some pesticides used within the project vicinity.

TABLE 2: Exposure Levels for Hazardous Air Pollutants that Correspond to Potential Lifetime Cancer Risks of One in One Million (1:1,000,000)

| Compound | Benchmark Concentration (g/m ³) | Cancer Classification | Data Source |
|----------------------|---|-----------------------|----------------|
| 1,3-Butadiene | 0.0036 | Class B | U.S. EPA |
| Formaldehyde | 0.077 | Class B | U.S. EPA |
| Benzene | 0.13-0.34 | Class A | U.S. EPA |
| Perchloroethylene | 0.17 | Class B/C | California EPA |
| 1,4-Dichlorobenzene | 0.091 | Class C | California EPA |
| Carbon Tetrachloride | 0.067 | Class B | U.S. EPA |
| Chloroform | 0.043 | Class B | U.S. EPA |
| Chromium VI | 0.000083 | Class A | U.S. EPA |
| Methylene Chloride | 2.1 | Class B | U.S. EPA |
| Trichloroethylene | 0.5 | Class B/C | California EPA |

Sources: Environmental Protection Agency, Integrated Risk Information System (1999)
California EPA, Draft Air Toxic Hotspot Program Risk Assessment Guidelines (1997)

ANALYSIS METHODOLOGY

The analysis criteria for air quality impacts is based upon the approach recommended by the *South Coast Air Quality Management District's (SCAQMD) CEQA Handbook*. The handbook establishes aggregate emission calculations for determining the potential significance of a proposed action. In the event that the emissions exceed the established thresholds, air dispersion modeling may be conducted to assess whether the proposed action results in an exceedance of an air quality standard. This methodology has been adopted by ICAPCD.

Ambient Air Quality Data Collection

The California Air Resources Board monitors ambient air quality at approximately 250 air-monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Ambient air pollutant concentrations in the Salton Sea Air Basin are measured at 10 air quality-monitoring stations operated by the ICAPCD (refer to Figure 6). The nearest air quality monitoring stations in the vicinity of the proposed project sites are located within the City of Brawley (ARB Station ID 13693) approximately 2.9 miles from the proposed campus site and within the City of Calexico (ARB Station ID 13698) approximately 0.6 miles from the existing SDSU Calexico campus.

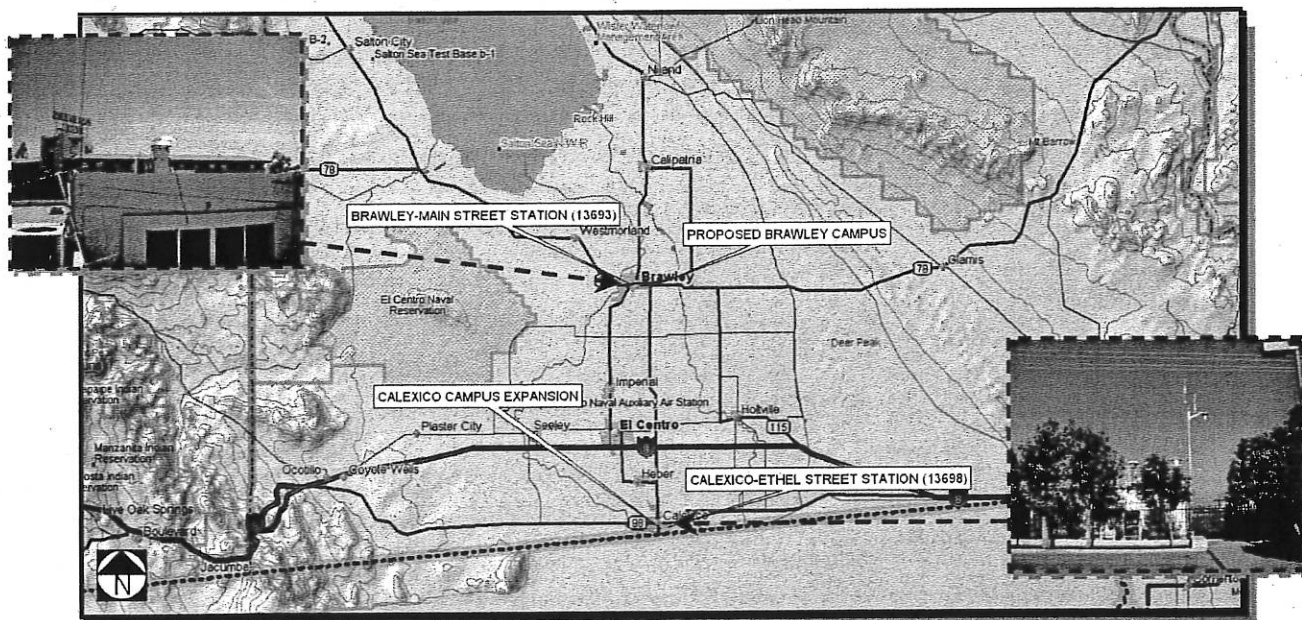


Figure 6: Ambient Air Quality Monitoring Station Location Map (AIRS 06-073-0005)

Due to the type of equipment employed at each station, not every station is capable of recording the entire set of criteria pollutants identified in Table 1. Periodic audits are conducted of each station in accordance with the U.S. Environmental Protection Agency's 40 CFR, Part 58, Appendix A protocol with all equipment traceable to National Institute of Standards and Technology (NIST) standards. The typical accuracy of the equipment is $\pm 15\%$ for gasses (such as CO, NO_x, etc.) and $\pm 10\%$ for PM₁₀.

Construction Air Quality Modeling

Construction pollutant emission generators would consist primarily of haul truck activities such as concrete and other suppliers, graders and pavers, contractor vehicles, and ancillary operating equipment such as diesel-electric generators and lifts. Construction emission generation levels were based upon EPA Report AP-42 for the various classes of diesel construction equipment. The aggregate emissions are calculated by multiplication of the respective emission factors by the number of equipment operating and the respective equipment duty cycle (i.e., amount of time operating in any given 8-hour period). These classifications of equipment represent worst-case pollutant emission levels as identified by the EPA. The generation rates are identified in Table 3 below.

TABLE 3: Construction Equipment Pollutant Generation Levels by Class

| Equipment Class | Generation Rates (pounds per hour) | | | | |
|--------------------------|------------------------------------|-------|-----------------|-----------------|------------------|
| | CO | VOC | NO _x | SO _x | PM ₁₀ |
| Fork Lift –50 HP | 0.180 | 0.053 | 0.441 | - | 0.031 |
| Fork Lift – 175 HP | 0.520 | 0.170 | 1.540 | - | 0.093 |
| Off Highway Trucks | 1.800 | 0.190 | 4.170 | 0.450 | 0.260 |
| Tracked Loader/Excavator | 0.201 | 0.095 | 0.830 | 0.076 | 0.059 |
| Tracked Tractor/Dozer | 0.350 | 0.120 | 1.260 | 0.140 | 0.112 |
| Scraper | 1.250 | 0.270 | 3.840 | 0.460 | 0.410 |
| Roller | 0.300 | 0.065 | 0.870 | 0.067 | 0.050 |
| Grader / Paver | 0.151 | 0.039 | 0.713 | 0.086 | 0.061 |

Source: U.S. EPA AP-42 "Compilation of Air Pollutant Emission Factors", 9/85

Aggregate Vehicle Air Quality Modeling

Motor vehicles emissions associated with the proposed project were calculated by multiplying the appropriate emission factor (in grams per mile) times the estimated trip length and the total number of vehicles. Appropriate conversion factors were then applied to provide aggregate emission units of pounds per day.

CARB estimates on-road motor vehicle emissions by using a series of models called the Motor Vehicle Emission Inventory (MVEI) Models. Four computer models, which form the MVEI are CALIMFAC, WEIGHT, EMFAC, and BURDEN. The CALIMFAC model produces base emission rates for each model year when a vehicle is new and as

it accumulates mileage and the emission controls deteriorate. The WEIGHT model calculates the relative weighting each model year should be given in the total inventory, and each model year's accumulated mileage. The EMFAC model uses these pieces of information, along with the correction factors and other data, to produce fleet composite emission factors. Finally, the BURDEN model combines the emission factors with county-specific activity data to produce to emission inventories. For the proposed project, the *EMFAC 2001 Model v2.08* of the MVEI was run using input conditions specific to ICAPCD region to predict vehicle emissions based upon worst-case (winter) year 2002 generation rates. The aggregate emission factors are provided as an attachment to this report.

Should aggregate vehicle emission levels exceed the applicable ICAPCD standards, a CO hotspot conformity analysis will be provided on all project-related roadway intersection links using the CALINE4 (California Line Source Emissions Model version 4) air dispersion model methodology in order to quantify future ultimate buildout CO concentrations within this portion of the project basin. CALINE4 is a Gaussian line dispersion model developed by Caltrans, which is used to predict localized carbon monoxide emissions from mobile sources. The model uses source strength, meteorological data, and site geometry to predict pollutant concentrations within 1,500 feet of the roadway. CALINE4 is the accepted model within the State of California.

Fixed Source Emissions Modeling

The proposed San Diego State University Imperial Valley Campus sites would not contain any fixed emission sources as defined by CARB (such as fireplaces, diesel generators, etc.). No fixed source modeling is required for this project.

Chemical Toxics Screening Survey

Finally, a simple screening assessment (disclosure) of typical airborne chemical toxics associated with adjacent/past agricultural activity was performed using the guidelines established by the State of California Office of Environmental Health Hazard Assessment and the EPA. The assessment focused on the determination of existing and past pesticide usage, applicable chemical toxicity, and recommendations for minimization of drift potential. It is noted that, according to EPA policy, the responsibility for pesticide application control and drift control is the sole responsibility of the agricultural use applying the pesticide.

FINDINGS

Existing Climate Conditions

Imperial Valley is a large, flat, agricultural area located in the in the southeast corner of California, between the Salton Sea (which lies to its north), the Anza-Borrego Desert State Park which lies to the west, the Chocolate Mountains which lie to the northeast, and the Mexican border which constitutes the its most southerly boundary line (refer to Figure 7). The physical valley itself extends south into Mexico where it is called the Mexicali Valley. The typical elevation of the subject area is approximately 50 feet below sea level.

The climate of Imperial County is characterized by hot, dry summers and mild, wet winters and is dominated by a semipermanent high-pressure cell located over the Pacific Ocean. This high-pressure cell maintains clear skies for much of the year. It also drives the dominated onshore circulation and helps to create two types of temperature inversions, subsidence and radiation, that contribute to local air quality degradation.

Subsidence inversions occur during the warmer months, as descending air associated with the Pacific high-pressure cell comes into contact with cool marine air. The boundary between the two layers of air represents a temperature inversion that traps pollutants below it. Radiation inversion typically develops on winter nights, when air near the ground cools by radiation, and the air aloft remains warm. A shallow inversion layer that can trap pollutants is formed between the two layers.

Within the project basin, the minimum and maximum average monthly temperatures range between 39° F and 108° F, respectively based upon National Weather Service records from 1927 to the present. Daily summer temperatures can reach over 120° F and daily winter temperatures can drop below the freezing point. Precipitation in the area averages roughly 2.5 to 3.0 inches annually, 90 percent of which falls between August to March. The prevailing wind direction is typically from the west-southwest, with an annual mean speed of 8 to 12 miles per hour (NOAA 2002). Sunshine is usually plentiful in the proposed project area but night and morning cloudiness is common during the spring and summer. Fog can occur occasionally during the winter.

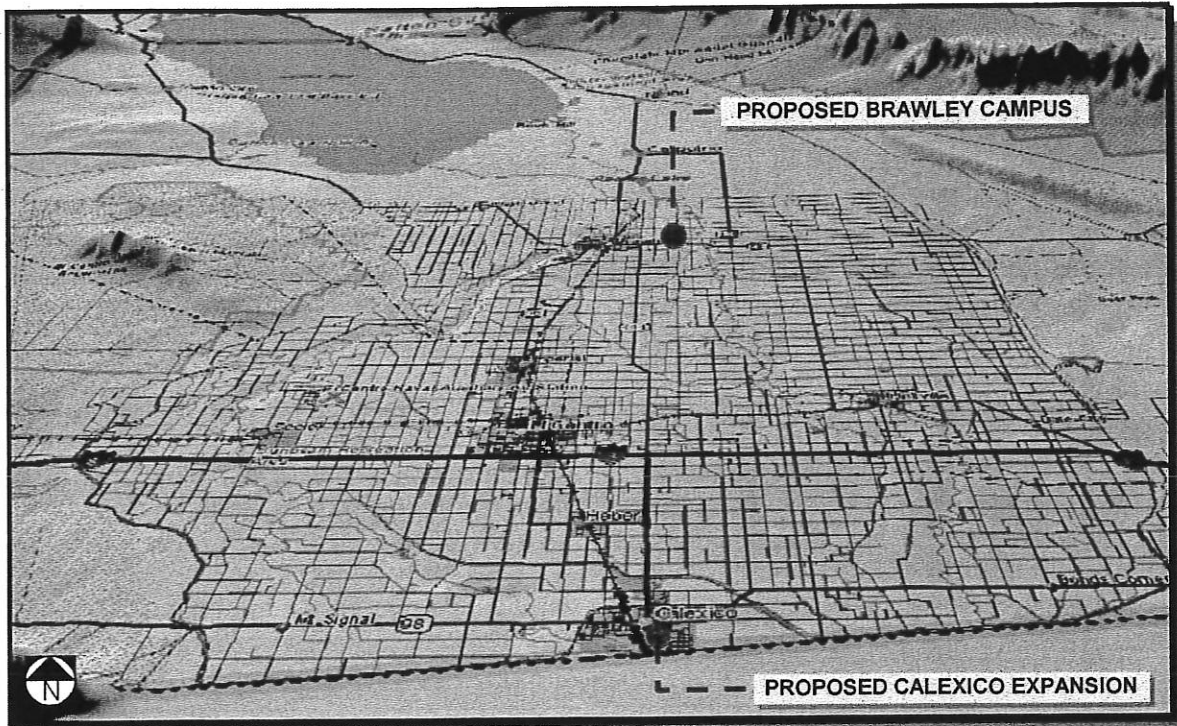


Figure 7: Project Vicinity Perspective Map (30 Degree Horizontal View Angle)

Existing Air Quality Levels

The project site is located in the south-central portion of the Salton Sea Air Basin. The Basin has a "transitional" nonattainment of federal standards designation for Ozone (O_3) and a "moderate" nonattainment status for PM_{10} . The Basin is in attainment of federal standards for CO , SO_2 , and NO_2 . Monitoring for lead was discontinued entirely in 1998. Tables 4a and -b below provides a summary of the highest pollutant levels recorded at the closest identified monitoring station for the last year available (2000 - 2001) based upon the latest data from ICAPCD.

Construction Air Quality Emission Levels

The estimated construction equipment exhaust emissions are provided below in Table 5 for the typical worst day construction activities associated with a school campus construction project similar to the proposed project (*Source: ISE 1999-2002*). Based upon these values, no significant air quality impacts are expected since levels would not rise above ICAPCD thresholds. No significant VOC emissions are expected. Additionally, these levels would fall below Federal impact thresholds for all criteria pollutant categories since the product of these levels times 365/2000 (to convert to tons per year) would still fall below the values shown in the last column of Table 1.

TABLE 4a: Ambient Air Quality Levels (Brawley Main Street Station: 2001)

| Pollutant | Averaging Time | State Standard | Federal Standard | 1999 - 2001 Maximum Concentration | No. Days Exceeding State Standards | No. Days Exceeding Federal Standards |
|------------------|----------------|----------------------|-----------------------|-----------------------------------|------------------------------------|--------------------------------------|
| PM ₁₀ | 24 hrs | 50 µg/m ³ | 150 µg/m ³ | n/a | n/a | n/a |
| | annual | 30 µg/m ³ | 50 µg/m ³ | 120 | 15 | 0 |

Source: California Air Resources Board / ICAPCD – 6/02
AIRS Station Code #06-025-0003, Elevation -125 ft MSL
n/a indicates data is not available, pphm = parts-per-hundred-million

TABLE 4b: Ambient Air Quality Levels (Calexico Ethel Street Station: 2000 - 2001)

| Pollutant | Averaging Time | State Standard | Federal Standard | 1999 - 2001 Maximum Concentration | No. Days Exceeding State Standards | No. Days Exceeding Federal Standards |
|------------------|----------------|----------------------|-----------------------|-----------------------------------|------------------------------------|--------------------------------------|
| Ozone | 1 hr | 9 pphm | 12 pphm | 16.9 | 17 | 5 |
| Carbon Monoxide | 1hr | 20 ppm | 35 ppm | n/a | n/a | n/a |
| | 8hrs | 9 ppm | 9 ppm | 15.5 | 7 | 7 |
| Nitrogen Dioxide | 1hr | 25 pphm | n/a | 19.2 | 0 | n/a |
| | annual | n/a | 5 pphm | n/a | n/a | n/a |
| Sulfur Dioxide | 1 hr | 0.25 ppm | n/a | n/a | n/a | n/a |
| | 24 hrs | 0.05 ppm | 0.14 ppm | 0.009 | 0 | 0 |
| | annual | n/a | 0.03 ppm | n/a | n/a | n/a |
| PM ₁₀ | 24 hrs | 50 µg/m ³ | 150 µg/m ³ | n/a | n/a | n/a |
| | annual | 30 µg/m ³ | 50 µg/m ³ | 437 | 53 | 3 |

Source: California Air Resources Board / ICAPCD – 6/02
AIRS Station Code #06-025-0004, Elevation +3 ft MSL
n/a indicates data is not available, pphm = parts-per-hundred-million

TABLE 5: Anticipated Construction Vehicle Emission Levels

| Equipment | Qty. Used | Duty Cycle (Hours / day) | Emissions in Pounds / Day | | | | |
|--|--------------|-----------------------------|---------------------------|---------------|-----------------|-----------------|------------------|
| | | | CO | VOC | NO _x | SO _x | PM ₁₀ |
| Fork Lift – 175 HP | 2 | 4 | 4.16 | 1.36 | 12.32 | 0.00 | 0.74 |
| Off Highway Trucks | 9 | 4 | 64.80 | 6.84 | 150.12 | 16.20 | 9.36 |
| Tracked Loader | 1 | 4 | 0.80 | 0.38 | 3.32 | 0.30 | 0.24 |
| Tracked Tractor/Dozer | 2 | 4 | 2.80 | 0.96 | 10.08 | 1.12 | 0.90 |
| Scraper | 1 | 4 | 5.00 | 1.08 | 15.36 | 1.84 | 1.64 |
| Roller | 1 | 4 | 1.20 | 0.26 | 3.48 | 0.27 | 0.20 |
| Grader / Paver | 1 | 4 | 0.60 | 0.16 | 2.85 | 0.34 | 0.24 |
| Total (Σ) | | | 79.36 | 11.04 | 197.53 | 20.07 | 13.32 |
| <i>Significance Threshold (SDAPCD)</i> | | | <i>550.00</i> | <i>250.00</i> | <i>250.00</i> | <i>250.00</i> | <i>100.00</i> |

Surface Grading Fugitive Dust Levels (PM₁₀)

Construction activities are also a source of fugitive dust emissions that may have a substantial, but temporary, impact on local air quality. These emissions are typically associated with land clearing, excavating, and construction of a proposed action. Substantial dust emissions also occur when vehicles travel on paved and unpaved surfaces and haul trucks lose material. Dust emissions and impacts vary substantially from day to day, depending on the level of activity, the specific operation being conducted, and the prevailing meteorological conditions. Wet dust suppression techniques, such as watering and/or applying chemical stabilization, would be used during construction to suppress the fine dust particulates from leaving the ground surface and becoming airborne through the action of mechanical disturbance or wind motion.

The proposed San Diego State University Imperial Valley Campus sites would have an unknown earthwork quantity since the final form of the expansion (Calexico) and campus construction (Brawley) is also not known. It is expected that the Brawley site would have the greatest amount of earthwork since final building pad elevations have not been established. For the purposes of analysis, a worst-case 10,000 cubic yards of earthwork will be assumed to occur over a typical grading period of 30 days. This level would be fairly consistent with construction projects of this type. Actual grading levels either above or below this amount can subsequently be scaled to the aforementioned assumed values to yield actual levels should they differ greatly from the levels utilized in this report.

Given a total earthwork rate of 10,000 cubic-yards of material (i.e., sand, dirt, and rock) per 30 day period equates to a total of 26,000 tons of material moved over the 30-

day period, or 866 tons per day. Approximately 60 percent of the material (by weight) would be capable of generating PM_{10} . Thus, for the purposes of analysis, the working weight per day will be taken as 0.6×866 tons or 520 tons. It is assumed that surface wetting will be utilized during all phases of earthwork.

Following the analysis methods identified in the *SCAQMD CEQA Handbook* for PM_{10} emissions from fugitive dust;

$$PM_{10} = 0.00112 * \left[\frac{(WS/5)^{1.3}}{(SMC/2)^{1.4}} \right] * ET$$

where, PM_{10} = Fugitive dust emissions in pounds,
 WS = Ambient wind speed,
 SMC = Soil Moisture Content,
 ET = Earthwork Tonnage moved,

Substituting for wet dirt conditions ($SMC = 0.5$) and a maximum wind speed scenario of 12 MPH ($WS = 12$) gives;

$$PM_{10} = 0.00112 * \left[\frac{(12/5)^{1.3}}{(0.5/2)^{1.4}} \right] * 520 = 0.02434 * 520 = 12.65$$

or, a level of 13 pounds per day. This level is below the 100 pounds per day threshold established by ICAPCD. Therefore, no significant fugitive dust impacts due to construction are anticipated.

Aggregate Vehicular Emission Levels

Motor vehicles are the primary source of emissions associated with the proposed project area. Typically, uses such as the proposed San Diego State University Imperial Valley Campus sites do not directly emit significant amount of air pollutants from onsite activities. Rather, vehicular trips to and from these land uses are the significant contributor.

The project sites are expected to have a total trip generation level of 830 ADT (Calexico) and 2,000 ADT (Brawley). Currently the Brawley site is unused and has an effective starting ADT of zero. The Calexico site currently has a full-time enrollment (FTE) of 500 students, which would generate an additional starting ADT level of 1,190. Thus the cumulative ADT would be 2,020, which is consistent with the expected utilization of the new Brawley campus. Thus, for the purposes of analysis, a cumulative ADT of 2,000 will be applied to both project campuses.

The calculated emission levels are shown below in Table 6. An average trip distance of 10 miles was assumed based upon the proposed service area that the new

and expanded campuses would yield (i.e., service areas within the Calexico and Brawley communities). A median speed of 55 mph was used consistent with observed average speed levels observed. A two- percent medium duty truck (MDT) vehicle mix was used.

TABLE 6: Predicted Trip Generated Emissions – Calexico/Brawley Campus Sites

| | | Aggregate Trip Emissions in Pounds / Day | | | | |
|---|--------------|---|-----------------------|-----------------------|------------------------|-------------|
| | ADT | CO | NO_x | SO_x | PM₁₀ | VOC |
| EMFAC Emission Rates (lbs/mile) | | | | | | |
| Automobiles | | 0.02680 | 0.00371 | 0.00001 | 0.00002 | 0.00164 |
| Trucks | | 0.04909 | 0.00692 | 0.00003 | 0.00004 | 0.00248 |
| Condition Examined (2,000 ADT per Campus Site) | | | | | | |
| Automobiles: | 1960 | 525.3 | 72.7 | 0.2 | 0.5 | 32.2 |
| Trucks: | 40 | 19.6 | 2.8 | 0.0 | 0.0 | 1.0 |
| Total: | 2,000 | 544.9 | 75.5 | 0.2 | 0.5 | 33.2 |
| Significance Threshold (SDAPCD): | | 550 | 250 | 250 | 100 | 250 |

Notes:

- o Based upon EMFAC 2001 emission factors (ICAPCD, Scenario Year 2002). Autos and trucks = 6000 pounds or less. Wintertime conditions (50 ~ F factors)
- o Assumed average trip of 10 miles. Median speed = 55 mph.
- o Results rounded to nearest 1/10 of whole value.

Based upon the findings, the project was found to be below ICPACD threshold levels for all criteria pollutants. No dispersion analysis would be required for the proposed project sites considered. We note that the project sites would also fall below Federal standards for these pollutants as well.

Chemical Toxics Screening Findings

Pesticides (herbicides, insecticides, fungicides) can leave a target application site in two forms: vapor (gas phase) and droplets (liquid phase). Vapor deposition is specific to each pesticide and accounts for the characteristic odor detectable at application sites. Spray droplets can move to off-target sites with wind or as the result of a temperature inversion or over-spraying into non-target areas. Typical issues associated with pesticide drift are:

- o **Droplet Size:** All spray application equipment will produce some small droplets that are able to drift. Spray nozzles that deliver a larger droplet size generally produce a lower proportion of small droplets. Some nozzle types are designed to produce more

uniform droplets with less production of smaller droplets. The larger the droplet size, the smaller the buffer zone (separation between application area and sensitive receptor) requirement. Applying pesticides with the water volumes recommended on product labels ensures product performance. Using reduced water volumes and compensating by using a smaller droplet size can present a drift hazard with less reliable product performance.

- **Wind:** In general, pesticide applications using boom application equipment (ground or air) should be terminated when wind speeds are above 10 MPH. Some labels will specify lower wind speed limits. Spraying when winds are blowing away from a protected area can offer additional protection – droplets do not drift upwind.
- **Boom Height:** The height of nozzles above the ground determines how much time droplets are exposed to air currents and to forces that will reduce droplet size. By lowering boom height, droplet drift can be reduced without further increasing droplet size or buffer distance.
- **Other Factors:** Higher temperatures (above 80 degrees F) and lower relative humidity can increase the risk of pesticide drift because of their effect on reducing droplet size through increased evaporation. This is especially important in the subject area where summertime temperatures routinely exceed 100° F. Larger droplets will be less affected by temperature and humidity changes.

Typical pesticide compounds used within the project area are identified in Table 7 below. Each identified pesticide must be used in accordance with strict EPA guidelines and can only be purchased and applied by certified (licensed) applicators.

TABLE 7: Typical Chemical Toxics (Pesticides) Found in Project Area

| Pesticide | Trade Name | Typical Half Life | Hazard if Used Properly |
|--------------------|------------|--|-------------------------|
| Carbaryl | Bugmaster | 7 to 28 days – Soil 10 days – Water 14 days - Vegetation | No |
| Chlorobenzilate | Acaraben | 10 to 35 days – Soil Insoluble – Water 60 to 160 days - Vegetation | No |
| Chloropicrin | Metapicrin | 8 to 24 hours – Soil 20 days – Air | No |
| Methomyl | Agrinate | 14 days – Soil 7 days – Water 3 to 5 days - Vegetation | No |
| Methyl Bromide | Brom-O-Gas | 30 to 60 days – Soil 20 days – Water | No |
| Aluminum Phosphide | Fastphos | 1 day – Soil 1 day – Water | No |

TABLE 7 (cont.): Typical Chemical Toxics (Pesticides) Found in Project Area

| Pesticide | Trade Name | Typical Half Life | Hazard if Used Properly |
|-----------------|------------|---|-------------------------|
| Strychnine | Certox | n/a | No |
| Metam Sodium | n/a | n/a | No |
| Endosulfan | Afidan | 50 days – Soil 4 weeks – Water 3 to 7 days - Vegetation | No |
| Azinphos-methyl | Azimil | 5 to 20 days – Soil 2 days – Water 14 days - Vegetation | No |
| Paraquat | Crisquat | 1,000 days – Soil 30 days – Water | No |
| Lannate | Kipsin | n/a | No |
| Chlorothanil | Bravocarb | n/a | No |
| Myclobutanil | Sasthyne | n/a | No |

The following recommendations (per PIP-35 publication "*Reduce Pesticide Drift*", Clemson University, 1996) are aimed at surrounding agricultural uses within a specified buffer area or immediately upwind of the proposed Northeast Valley Middle/High School development area:

- Try to get good field-end coverage on initial spray runs; crossing the ends of fields which are bordered by trees or other obstacles usually means flying higher and increasing the chance of drift.
- Fly slowly. Fly low. Slow speeds are combined with lower pump pressures to produce larger droplets. Herbicides should be applied at a lower height than other pesticides.
- For fixed wing aircraft, don't use a whirl-plate, rather, use a 1/16 to 1/18 inch diameter orifice plate directed straight back.
- Be sure the positive shut-off is working properly, and *use it!*
- Nozzle orientation affects wind shear across the nozzle face, and subsequently droplet size. Use a nozzle orientation that will give the desired droplet size.
- Boom length should be no more than 75% of the wingspan of fixed wing craft, or of the rotor diameter on helicopters to reduce drift caused by wingtip and rotor vortices.
- Use Microfoil boom, Tru-Value boom or equivalent drift control system. See the pesticide label.
- When there is *any* possibility or concern of drift, use a drift retardant as a standard part of your spraying service. Using drift retardants can promote a positive environmental concern and help eliminate legal problems.

Again, it is noted that proper pesticide application and the elimination of all drift is the sole responsibility of the user. Given proper methods of application including strict

Ms. Carey J. Fernandes
SDSU Imperial Valley Campus Master Plan Project
Air Quality Assessment – Brawley/Calexico CA
ISE Report #02-050a
June 20, 2002
Page 21 of 25

adherence to manufacturers label recommendations, and the minimal half-lives of the chemicals used, no significant impacts are expected to the proposed Brawley campus (or Calexico expansion) sites.

◆ **CONCLUSIONS / RECOMMENDATIONS**

Based upon the analysis, no construction-related air quality impacts were found. No project-related exceedances or excessive concentrations of any criteria pollutants were identified under either State or Federal standards. No design mitigation is required as part of this project.

Should you have any questions regarding the above conclusions, please do not hesitate to contact me at (619) 640-9379.

Sincerely,



Rick Tavares, Ph.D.
Project Principal
Investigative Science and Engineering, Inc.

Cc: Jeremy Loudon, ISE

Attachments: EMFAC 2001 Emission Factor Tabulations

EMFAC 2001 Emission Factor Tabulations

Title : Imperial County APCD Avg 2002 Winter
Version : Emfac2001 Draft V2.08 Oct 17 2001 Release
Run Date : 06/18/02 16:47:37
Scen Year: 2002 -- Model Years: 1965 to 2002
Season : Winter
Area : Imperial County APCD Dis

Year:2002 -- Model Years 1965 to 2002 Inclusive -- Winter
Emfac2001 Draft Emission Factors: V2.08 Oct 17 2001 Release

District Average District Average Imperial County
APCD

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Total Organic Gases Temperature: 50F Relative Humidity: 40%

| Speed MPH | LDA | LDT | MDT | HDT | UBUS | MCY | ALL |
|--------------|-------|-------|-------|-------|--------|-------|-------|
| 5 | 3.668 | 3.492 | 5.217 | 5.714 | 26.503 | 6.955 | 3.974 |
| 10 | 2.537 | 2.458 | 3.649 | 4.171 | 17.425 | 5.488 | 2.783 |
| 15 | 1.840 | 1.812 | 2.673 | 3.157 | 11.944 | 4.532 | 2.041 |
| 20 | 1.400 | 1.396 | 2.049 | 2.472 | 8.534 | 3.917 | 1.566 |
| 25 | 1.116 | 1.125 | 1.643 | 1.998 | 6.357 | 3.544 | 1.255 |
| 30 | 0.931 | 0.948 | 1.379 | 1.665 | 4.936 | 3.355 | 1.051 |
| 35 | 0.813 | 0.834 | 1.210 | 1.428 | 3.994 | 3.323 | 0.918 |
| 40 | 0.743 | 0.767 | 1.110 | 1.260 | 3.369 | 3.444 | 0.838 |
| 45 | 0.710 | 0.737 | 1.066 | 1.142 | 2.962 | 3.736 | 0.799 |
| 50 | 0.711 | 0.741 | 1.071 | 1.063 | 2.713 | 4.241 | 0.795 |
| 55 | 0.745 | 0.779 | 1.127 | 1.016 | 2.590 | 5.037 | 0.827 |
| 60 | 0.817 | 0.856 | 1.240 | 0.997 | 2.575 | 6.262 | 0.900 |
| 65 | 0.939 | 0.985 | 1.430 | 1.005 | 2.669 | 8.147 | 1.026 |

Pollutant Name: Carbon Monoxide Temperature: 50F Relative Humidity: 40%

| Speed MPH | LDA | LDT | MDT | HDT | UBUS | MCY | ALL |
|--------------|--------|--------|--------|--------|---------|---------|--------|
| 5 | 28.542 | 35.319 | 56.493 | 59.600 | 135.629 | 52.406 | 36.177 |
| 10 | 22.917 | 27.731 | 41.616 | 40.106 | 90.134 | 43.016 | 27.823 |
| 15 | 19.085 | 22.664 | 32.264 | 28.433 | 63.296 | 37.172 | 22.380 |
| 20 | 16.403 | 19.199 | 26.261 | 21.233 | 46.969 | 33.815 | 18.734 |
| 25 | 14.495 | 16.806 | 22.392 | 16.701 | 36.828 | 32.381 | 16.256 |
| 30 | 13.142 | 15.172 | 19.971 | 13.835 | 30.513 | 32.644 | 14.583 |
| 35 | 12.216 | 14.121 | 18.618 | 12.071 | 26.713 | 34.646 | 13.511 |
| 40 | 11.651 | 13.559 | 18.147 | 11.094 | 24.711 | 38.719 | 12.932 |
| 45 | 11.428 | 13.462 | 18.514 | 10.740 | 24.154 | 45.566 | 12.812 |
| 50 | 11.570 | 13.867 | 19.806 | 10.955 | 24.946 | 56.477 | 13.183 |
| 55 | 12.156 | 14.888 | 22.267 | 11.777 | 27.222 | 73.727 | 14.152 |
| 60 | 13.344 | 16.754 | 26.370 | 13.347 | 31.389 | 101.378 | 15.937 |
| 65 | 15.418 | 19.873 | 32.958 | 15.952 | 38.242 | 146.828 | 18.934 |

Pollutant Name: Oxides of Nitrogen Temperature: 50F Relative Humidity: 40%

| Speed MPH | LDA | LDT | MDT | HDT | UBUS | MCY | ALL |
|--------------|-----|-----|-----|-----|------|-----|-----|
|--------------|-----|-----|-----|-----|------|-----|-----|

| | | | | | | | |
|----|-------|-------|-------|--------|--------|-------|-------|
| 5 | 2.556 | 3.198 | 3.671 | 28.500 | 12.753 | 1.209 | 4.923 |
| 10 | 2.229 | 2.759 | 3.296 | 23.787 | 11.133 | 1.260 | 4.211 |
| 15 | 1.994 | 2.451 | 3.044 | 20.575 | 10.190 | 1.314 | 3.718 |
| 20 | 1.826 | 2.236 | 2.882 | 18.436 | 9.680 | 1.369 | 3.381 |
| 25 | 1.709 | 2.090 | 2.786 | 17.104 | 9.466 | 1.426 | 3.163 |
| 30 | 1.632 | 1.998 | 2.743 | 16.422 | 9.470 | 1.483 | 3.037 |
| 35 | 1.587 | 1.950 | 2.743 | 16.311 | 9.653 | 1.542 | 2.992 |
| 40 | 1.571 | 1.940 | 2.783 | 16.755 | 10.007 | 1.602 | 3.021 |
| 45 | 1.581 | 1.966 | 2.859 | 17.799 | 10.548 | 1.663 | 3.125 |
| 50 | 1.618 | 2.027 | 2.977 | 19.557 | 11.324 | 1.725 | 3.315 |
| 55 | 1.682 | 2.129 | 3.141 | 22.233 | 12.427 | 1.786 | 3.609 |
| 60 | 1.780 | 2.279 | 3.364 | 26.163 | 14.018 | 1.849 | 4.040 |
| 65 | 1.919 | 2.490 | 3.664 | 31.882 | 16.382 | 1.912 | 4.661 |

Pollutant Name: Carbon Dioxide Temperature: 50F Relative Humidity: 40%

| Speed MPH | LDA | LDT | MDT | HDT | UBUS | MCY | ALL |
|--------------|----------|----------|----------|----------|----------|---------|----------|
| 5 | 1023.109 | 1182.861 | 1623.694 | 2109.161 | 2538.301 | 216.856 | 1221.761 |
| 10 | 773.763 | 894.804 | 1205.202 | 2010.051 | 1881.431 | 185.270 | 954.391 |
| 15 | 607.428 | 702.645 | 935.682 | 1951.523 | 1493.527 | 160.876 | 777.756 |
| 20 | 494.950 | 572.705 | 758.440 | 1915.886 | 1257.338 | 141.975 | 659.205 |
| 25 | 418.580 | 484.477 | 640.702 | 1893.739 | 1110.551 | 127.342 | 579.174 |
| 30 | 367.375 | 425.323 | 563.099 | 1879.941 | 1019.102 | 116.091 | 525.753 |
| 35 | 334.596 | 387.455 | 514.094 | 1871.638 | 964.073 | 107.581 | 491.673 |
| 40 | 316.213 | 366.218 | 486.976 | 1867.268 | 935.109 | 101.360 | 472.624 |
| 45 | 310.074 | 359.126 | 478.242 | 1866.061 | 927.112 | 97.119 | 466.316 |
| 50 | 315.479 | 365.371 | 486.809 | 1867.813 | 938.722 | 94.671 | 472.017 |
| 55 | 333.044 | 385.663 | 513.781 | 1872.822 | 971.920 | 93.936 | 490.397 |
| 60 | 364.821 | 422.373 | 562.695 | 1881.978 | 1032.606 | 94.948 | 523.675 |
| 65 | 414.702 | 479.997 | 640.342 | 1897.032 | 1132.380 | 97.867 | 576.069 |

Pollutant Name: Sulfur Dioxide Temperature: 50F Relative Humidity: 40%

| Speed MPH | LDA | LDT | MDT | HDT | UBUS | MCY | ALL |
|--------------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 0.016 | 0.018 | 0.028 | 0.167 | 0.084 | 0.005 | 0.030 |
| 10 | 0.012 | 0.014 | 0.022 | 0.165 | 0.073 | 0.004 | 0.026 |
| 15 | 0.009 | 0.011 | 0.018 | 0.164 | 0.067 | 0.003 | 0.023 |
| 20 | 0.008 | 0.009 | 0.015 | 0.163 | 0.063 | 0.003 | 0.021 |
| 25 | 0.007 | 0.008 | 0.013 | 0.163 | 0.060 | 0.003 | 0.020 |
| 30 | 0.006 | 0.007 | 0.012 | 0.163 | 0.059 | 0.003 | 0.019 |
| 35 | 0.005 | 0.006 | 0.012 | 0.163 | 0.058 | 0.003 | 0.019 |
| 40 | 0.005 | 0.006 | 0.011 | 0.162 | 0.057 | 0.003 | 0.018 |
| 45 | 0.005 | 0.006 | 0.011 | 0.162 | 0.057 | 0.003 | 0.018 |
| 50 | 0.005 | 0.006 | 0.011 | 0.163 | 0.057 | 0.003 | 0.018 |
| 55 | 0.005 | 0.006 | 0.012 | 0.163 | 0.058 | 0.003 | 0.019 |
| 60 | 0.006 | 0.007 | 0.012 | 0.163 | 0.059 | 0.004 | 0.019 |
| 65 | 0.006 | 0.008 | 0.014 | 0.163 | 0.060 | 0.005 | 0.020 |

Pollutant Name: PM10 Temperature: 50F Relative Humidity: 40%

| Speed MPH | LDA | LDT | MDT | HDT | UBUS | MCY | ALL |
|--------------|-------|-------|-------|-------|-------|-------|-------|
| 5 | 0.064 | 0.089 | 0.106 | 1.499 | 0.261 | 0.069 | 0.190 |
| 10 | 0.044 | 0.061 | 0.075 | 1.175 | 0.184 | 0.054 | 0.142 |

