

sustainable

living  
lab

Christina Batteate  
Devin Denman  
Courtney Kettmann





This page intentionally left blank.



**Title Sustainable Living Lab**

Authors Christina Bateatte  
Devin Denman  
Courtney Kettmann

Date Submitted June 5, 2008

Grade A

  
Jeff Hook, AICP Senior Project Advisor

6.14.08  
date

William J. Siembieda, Ph.D, AICP  
CRP Department Head

date



This page intentionally left blank.

# Table of Contents

|   |    |
|---|----|
| Executive Summary .....                       | 1  |
| Section 1 Introduction .....                  | 3  |
| Section 2 Site Analysis .....                 | 6  |
| 2.1 Existing Surrounding Uses                 |    |
| 2.2 Existing Uses on Site                     |    |
| 2.3 Circulation and Access                    |    |
| 2.4 Man Made Hazards                          |    |
| 2.5 Contextual                                |    |
| 2.6 Housing                                   |    |
| 2.7 Safety                                    |    |
| 2.8 Conservation and Open Space               |    |
| 2.9 Cultural Heritage                         |    |
| Section 3 Opportunities and Constraints ..... | 13 |
| 3.1 Opportunities                             |    |
| 3.1 Constraints                               |    |
| Section 4 Case Studies .....                  | 15 |
| 4.1 Sweetwater Creek State Park               |    |
| 4.2 Crissy Field Center                       |    |
| 4.3 Twilight Drive-In                         |    |
| 4.4 Thoreau Center for Sustainability         |    |
| Section 5 Conceptual Planning .....           | 23 |
| 5.1 Initial Concept Plans                     |    |
| 5.2 Preliminary Concept                       |    |
| Section 6 Site Plan .....                     | 27 |
| 6.1 Site Plan Description                     |    |
| 6.2 Site Plan Specific Uses                   |    |
| Section 7 Section Elevations .....            | 33 |
| Section 8 Support Graphics .....              | 35 |
| 8.1 The Benefits of Modular Structures        |    |
| 8.2 Passive and Active Architecture Systems   |    |
| 8.3 3-D Massing Model                         |    |
| Section 9 Off-Site Design Elements .....      | 39 |
| 9.1 Prado Road Overpass and Interchange       |    |
| 9.2 Transit Stops                             |    |
| 9.3 San Luis Obispo Creek Flood Mitigation    |    |
| 9.4 Margarita Creek Bridge                    |    |
| 9.5 Bike trail Connection                     |    |



|  |    |
|--|----|
| Section 10 Feasibility Study .....                       | 43 |
| 10.1 Offices   |    |
| 10.2 Affordable Housing                                  |    |
| 10.3 Drive-In Rehabilitation                             |    |
| 10.4 Restaurant  |    |
| 10.5 Education Facilities                                |    |
| 10.6 Welcome Center                                      |    |
| <br>   |    |
| Section 11 Initial Environmental Study.....              | 47 |
| <br>   |    |
| Section 12 Implementation Plan .....                     | 49 |
| 12.1 Process   |    |
| 12.2 Subdivision Plan                                    |    |
| <br>   |    |
| Section 13 Bios .....                                    | 53 |
| <br>   |    |
| Section 14 References .....                              | 55 |
| <br>   |    |
| Section 15 Appendices .....                              | 57 |
| 15.1 Posters From Presentation                           |    |
| 15.2 LEED Checklist                                      |    |
| 15.3 Initial Environmental Study                         |    |
| 15.4 Noise Exposure and Noise Maps                       |    |
| 15.5 Secretary of Interiors Standards for Rehabilitation |    |
| 15.6 Mid-Higuera Enhancement Plan                        |    |

## List of Figures

|   |    |
|---|----|
| Figure 1.1 Existing Drive-In Screen .....                                       | 3  |
| Figure 1.2 Existing Drive-In Sign .....   | 3  |
| Figure 2.1 Existing Bus Stop on Prado Road .....                                | 5  |
| Figure 2.2 Site Analysis with images .....                                      | 6  |
| Figure 2.3 City of San Luis Obispo Zoning Map .....                             | 7  |
| Figure 2.4 City of San Luis Obispo Land Use Map .....                           | 7  |
| Figure 2.5 Community Noise Exposure .....                                       | 8  |
| Figure 2.6 General Plan Airport Noise Contours .....                            | 8  |
| Figure 2.7 General Plan Noise Contour Map .....                                 | 8  |
| Figure 2.8 Margarita Area Specific Plan .....                                   | 9  |
| Figure 2.9 Existing Bob Jones Bike Trail .....                                  | 9  |
| Figure 2.10 General Plan Bike Path Alternatives .....                           | 9  |
| Figure 2.11 Map of Powerlines and Powerplant .....                              | 10 |
| Figure 2.12 Airport Hazards Map .....   | 11 |
| Figure 2.13 Sunset Drive-In Projection Facility .....                           | 12 |
| Figure 2.14 Existing Projection Facility .....                                  | 12 |
| Figure 3.1 San Luis Creek Riparian Zone .....                                   | 13 |
| Figure 3.2 Opportunities and Constraints .....                                  | 14 |
| Figure 4.1 Example of Photovoltaics .....                                       | 15 |
| Figure 4.2 Photos of Visitor Center .....                                       | 15 |
| Figure 4.3 Children's Environmental Education .....                             | 16 |
| Figure 4.4 Example of Classroom and Lab Space .....                             | 16 |
| Figure 4.5 Rehabilitated Military Buildings .....                               | 16 |
| Figure 4.6 Rehabilitated Military Buildings .....                               | 17 |
| Figure 4.7 Example of Brochure .....  | 17 |
| Figure 4.8 Screen and Projection Room .....                                     | 18 |
| Figure 4.9 Use of grass surfaces .....  | 18 |
| Figure 4.10 Example of Tiered Parking .....                                     | 18 |
| Figure 4.11 Thoreau Center of Sustainability .....                              | 19 |
| Figure 4.12 Cafeteria inside Thoreau Center .....                               | 19 |
| Figure 4.13 Thoreau Center Art Gallery .....                                    | 19 |
| Figure 4.14 Case Study Matrix .....   | 21 |
| Figure 5.1 Initial Concept Plans .....  | 23 |
| Figure 5.2 Preliminary Concept Plan .....                                       | 25 |
| Figure 6.1 Final Site Plan .....  | 27 |
| Figure 6.2 Green Housing Community .....  | 27 |
| Figure 6.3 Agriculture Space .....  | 27 |
| Figure 6.4 Office Space .....   | 27 |
| Figure 6.5 Perspective of the Education Facility, Restaurant and Drive-In ..... | 27 |
| Figure 6.6 Final Site Plan with Call-outs .....                                 | 29 |
| Figure 7.1 Final Site Plan with Section Call-outs .....                         | 33 |
| Figure 7.2 Conceptual Section .....   | 33 |
| Figure 7.3 Section A .....  | 33 |
| Figure 7.4 Section B .....  | 33 |



|   |    |
|---|----|
| Figure 8.1 Possible Entrance Sign and Windmill .....      | 35 |
| Figure 8.2 Example of Hands-On Learning .....             | 35 |
| Figure 8.3 Treehouses Located Near Creek.....             | 35 |
| Figure 8.4 West View of Agriculture.....                  | 35 |
| Figure 8.5 Possible Office Space Unit .....               | 36 |
| Figure 8.6 Example of Pre-Fab Housing .....               | 36 |
| Figure 8.7 Passive and Active Architecture Examples ..... | 37 |
| Figure 8.8 Bird's Eye View- North West.....               | 37 |
| Figure 8.9 Bird's Eye View- South West.....               | 37 |
| <br>  |    |
| Figure 9.1 Future Prado Road Interchange .....            | 39 |
| Figure 9.2 Transit Locations.....                         | 40 |
| Figure 9.3 Possible Transit benches.....                  | 40 |
| Figure 9.4 Bridge Location.....                           | 41 |
| Figure 9.5 Modular Bridge Options.....                    | 41 |
| Figure 9.6 Example of Pricing for Pony Truss Bridge.....  | 41 |
| Figure 9.7 Existing Bob Jones Trail.....                  | 42 |
| Figure 9.8 Bob Jones Trail Locations.....                 | 42 |

## List of Tables

|  |    |
|--|----|
| Table 4.1 Case Study Matrix .....            | 21 |
| Table 6.1 Land Use Program.....              | 27 |
| Table 10.1 Office Space Program.....         | 43 |
| Table 10.2 Affordable Housing Program.....   | 44 |
| Table 10.4 Restaurant Program.....           | 45 |
| Table 10.5 Education Facilities Program..... | 45 |
| Table 10.6 Welcome Center Program .....      | 46 |



# Executive Summary

Following a request from the City of San Luis Obispo, the consultant has prepared a report that provides for the rehabilitation of the Sunset Drive-In while enhancing 50 acres surrounding the theater through a combination of development and preservation. The Sunset Drive-In is located on-site along US HWY101 and Prado Road in San Luis Obispo and has become a unique element to the City's history. The design of the project was created through detailed site analysis consisting of physical and contextual elements, studying similar cases, designing within the client program and city requirements, performing initial study and market feasibility analysis, and finally preparing an implementation plan. Those tools together helped to inform the consultant on an appropriate project for the site. This document is an expression of everything discovered about the site, incorporating its past, present, and future potential.

Through contextual research of the San Luis Obispo area the consultant recognized the need for affordable housing in the City; an addition was made to the program to include 40 affordable housing units on-site. The entire project will aim to be LEED certified by using sustainable building practices. The vision for the site is to create a space in San Luis Obispo that respects history and a sustainable future.

Before the vision for the Sustainable Living Lab can be carried out, the site will be subdivided into five separate parcels. Two of the parcels will be publicly owned and the remaining three will be privately owned. The two publicly owned parcels will be the visitor center as well as the agriculture parcel. The three parcels that will be left for private ownership are the Sunset Drive-In, non-profit office space, and affordable housing units.



Sustainable Living Lab Site Boundaries



The arrangement of landowners will aid in the phasing and construction process because not every parcel will be complete at the same time. Funding for the project will come from a variety of sources including support from the City of San Luis Obispo, Mills Act, available grants, non-profit contributions, and fund-raising.

*The Sustainable Living Lab client program includes:*

- 1) retention and rehabilitation of the Sunset Drive-In Theater**
- 2) offices for environmental non-profits**
- 3) a new restaurant**
- 4) a tourist information, cultural showman and convenience center**
- 5) classroom and lecture facilities**
- 6) organic vegetable and demonstration gardens**
- 7) public transit stop**
- 8) picnic areas with passive recreation facilities**
- 9) affordable housing (additional)**

## Section 1 Introduction

In the early 1950's Sunset Drive-In was the 'it' place. Vintage cars filled to the brim with family's, youngsters, and of course it was the ultimate spot to take a hot date. Fifty years later, the remains of this era have been kept alive by the few loyal baby boomers who hold sacred those sold out movie nights.

In this project we have made it our mission to return a sense of identity to the Sunset Drive-In. To create a gathering hub for the community, a place for local artists and musicians to perform either on screen or on stage. The Living Lab will serve as an educational facility showcasing the latest in eco-friendly design for school children and grown-ups alike. Utilizing a hands-on learning approach, on site agriculture will be surrounded by small modular stations that demonstrate specific sustainable practices.

Produce from the agriculture and community roof gardens will be used in the small organic restaurant, and waste from the restaurant will be composted and return to the grounds as soil. A Visitors Center will act as a gateway for tourists entering San Luis Obispo, and will house a plethora of information regarding local attractions within the Living Lab and throughout The City.

The need for non-profit office space and affordable housing within the City will be one of the Living Lab's main priorities. The modular office spaces will act as work clusters where standard office products

are bought in bulk (ie. paper) and shared amongst the non-profit community. The on-site housing will provide residence with the opportunity to work where they live, with special jobs set aside for the tenants. The idea is to bridge the gap between home and work and reconjure social interaction within these spaces.

Through smart design and green practice, the Sustainable Living Lab will employ the latest green building materials and technologies such as low emissions paint and post-consumer waste building products. More importantly the site is designed with over 50% open space featuring native foliage, and passive and active architecture techniques. The buildings are oriented on the site to gain full solar potential and multiple roofs will serve the dual purpose of providing garden space and cooling for the buildings as well.

With collaborative efforts from the City, community visionaries and professional consultants, this program will provide a needed creative outlook on the future of design in San Luis Obispo.

*“In creating this project the over-arching philosophy was to close the waste loop and to do so in a way that people could learn from.”*



Figure 1.1 // Existing Drive-In Screen



Figure 1.2 // Existing Drive-In Sign



## Section 2

# Site Analysis

### 2.1 Existing Surrounding Uses

The uses directly surrounding the Sunset Drive-In Site are a combination of public facilities and service commercial. The Sunset site is surrounded by development and therefore has great potential for future growth. Near the western most part of the site is the San Luis Obispo Water Treatment Plant. The water treatment plant is located on the opposite side of Prado Road. This is a large facility that treats the waste water for all of San Luis Obispo. Because its location is in close proximity to the Sunset Site at times odor from the plant can drift onsite which could be a potential constraint. The uses adjacent to the water treatment plant are primarily zoned public facility. San Luis Obispo's Prado Day Center is also located on the opposite side of Prado Road. The facility serves San Luis Obispo's homeless population and is a place to make phone calls, use computers, and shower. The Prado Day Center is open daily from 8:30am-4:30pm. The remainder of the uses surrounding the site includes Department of Motor Vehicles, small convenient store, and other service commercial buildings along Elks Road and South Higuera.

### 2.2 Existing Uses On Site

The Sunset Drive-In site has four different zoning designations including C/OS-5, C/OS-10, O-PD, and C-S-S. The majority of the site is allocated conservation open space. Currently, the site consists of the Sunset Drive-In Theater, a small mobile home park, a U-Haul rental facility, and operational agriculture and open space. The Sunset Drive-In facility has been part of the San Luis Obispo community for over 50 years. The Drive-In could potentially become a historic structure in San Luis Obispo if approved by the Historic Preservation Committee. The mobile home park includes 23 units located on Elks Road. San Luis Obispo County is drafting an ordinance that has specific requirements regarding the sale or conversion of mobile home parks since they are good source of affordable housing. The ordinance would protect the mobile home park's affordable housing stock which is much needed in the county (Santa Maria Times 4/28/08). The remainder of the site is used for non residential uses.



Figure 2.1 // Existing Bus Stop on Prado Road

### 2.3 Circulation and Access

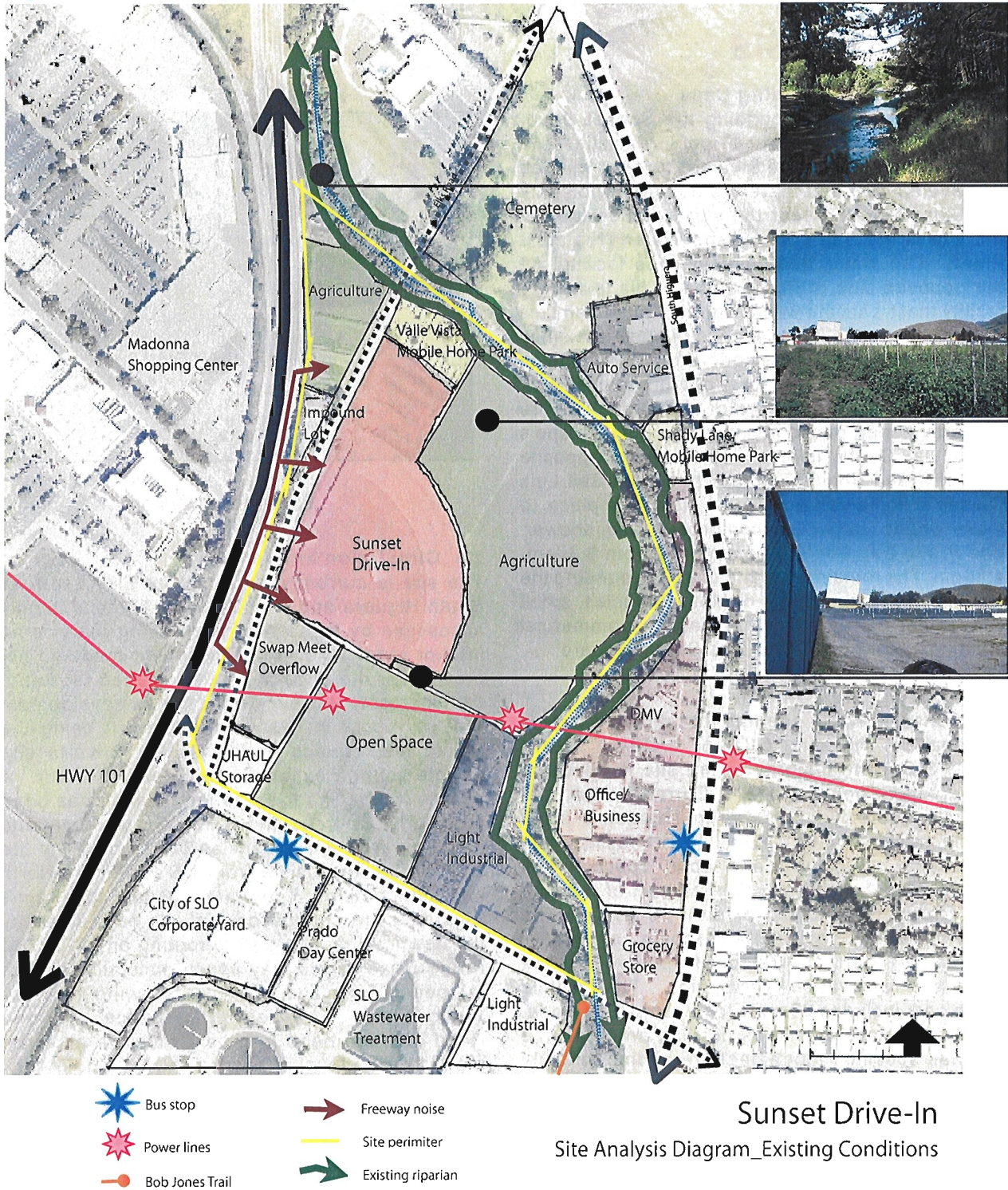
The site is currently accessed by Elks Lane via South Higuera and Prado Road. The site is only accessible by those two roads being there is no interior roadway on-site. These two roads do not provide for the level of service needed for future development. However, with any new development that will occur in this area whether it being the Dilidio Marketplace or the Sunset Drive-In site an interchange expansion will need to occur. A design for the Prado Road interchange has been created by Caltrans and is awaiting approval and funding. With the expansion of this roadway the site will be accessible from US HWY 101 North and Southbound. There are potential constraints regarding the congestion that will be created by the new interchange and re-routing on CA 227 to Prado Road. This may cause circulation issues for pedestrians and bicyclists needing to cross Prado Road. The pedestrian bridge at Prado Road will also need to be expanded to allow for the increased level of service.

### 2.4 Man Made Hazards

Additional constraints for development are the high voltage powerlines through a portion of the site owned by PG&E. These powerlines cause a constraint because they cannot be moved or placed underground because of their nature. A



Figure 2.2 // Site Analysis with images



setback is necessary surrounding the PG&E support structures due to the electromagnetic hazards associated with powerlines. With proper mitigation measures the powerlines will not cause harm to visitors to the site however remain an eyecore in the center of the project site.

**2.5 Contextual**

To better understand the site it was important to review City documents and other relevant development plans surrounding the area. To do this, the City's General Plan, the Airport Land Use Plan, The Margarita Area Specific Plan, the Mid-Higuera Enhancement Plan and the Broad Street Corridor Plan were reviewed. The following is a synthesis of these plans as they pertain to aspects of the contextual site analysis.

**2.5.1 Zoning and Land Use**

The Zoning Map shows the southwest corner of the site is designated O-PD, office planned development, the southeast corner, C-S-S, Service-Commercial with the Special Consideration overlay, and the northeast portion of the site is C/OS-10, Conservation/

Open Space (10-acre minimum parcel size) and the northwest C/OS-5 (5-acre minimum parcel size). The northern most part of the site is zoned C-S-S.

The Land Use element of the General Plan has designated the Sunset Drive-In Theater Area one of Special Use. It explains that the area should only be developed if flooding can be mitigated without significant harm to San Luis Obispo Creek. The Mid-Higuera Enhancement Plan outlines several measures that will reduce upstream flooding, which would also reduce downstream flooding. The Special Use designation also calls for attention to agricultural preservation requirements. Client program uses include agriculture that would address this issue. Finally the General Plan recommends that once these concerns are addressed the area would be suitable for government agencies' regional offices. While the client program does not include government offices, it does intend to offer non-profit office space and facilities for use by city, county and state educators.

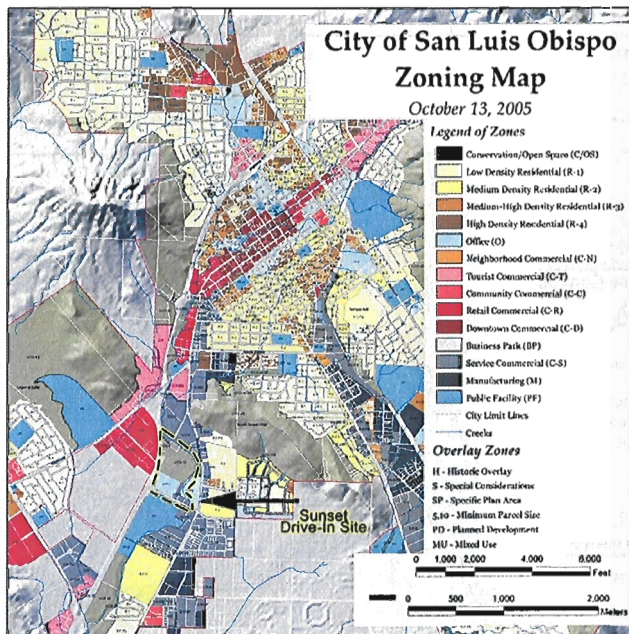


Figure 2.3 // City of San Luis Obispo Zoning Map

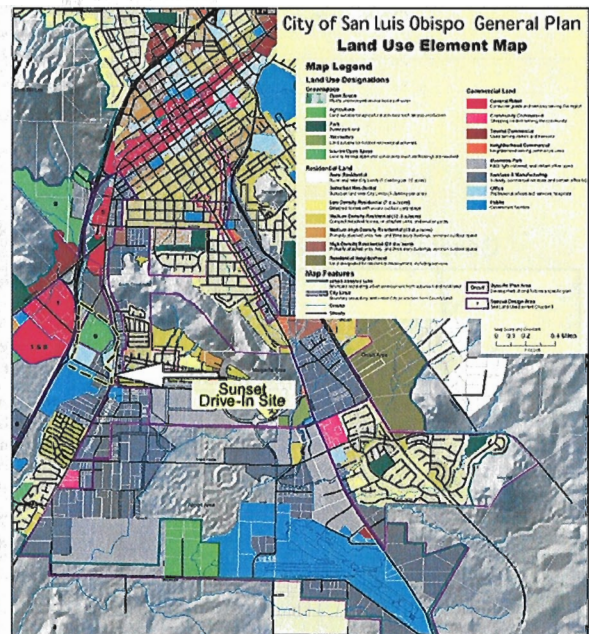


Figure 2.4 // City of San Luis Obispo Land Use Map



### 2.5.2 Noise

The Sunset Drive-In Site is subject to multiple sources of noise pollution. The City of San Luis Obispo prescribes acceptable noise thresholds for different types of developments. The chart below shows the types of uses and the acceptable noise levels in decibels for each use as designated in the General Plan. The client program includes residences, a theater, offices, school facilities, and parks, all of which have noise exposure restrictions. These factors will be important considerations during site design.

To the west Highway 101 creates a constant hum of passing cars. Decibel levels of 60 reach farthest into the site, with a smaller portion receiving 65 decibels and the smallest portion west of Elks Lane receiving 70 decibels of noise from the highway. The map below shows the decibel levels generated by the highway traffic throughout the site.

Just a few miles southeast is the San Luis Obispo Regional Airport which directs air traffic directly over the site. The southeastern corner of the site receives 60 decibel noise levels from passing planes. This noise level does not create any restrictions on use.

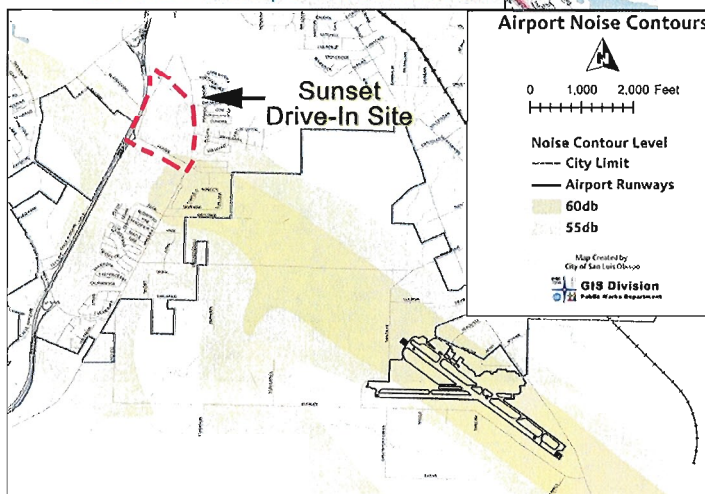
| LAND USE   | Community Noise Exposure<br>Ldn or CNEL, Db |    |    |    |    |    |
|--|---|----|----|----|----|----|
|  | 55  | 60 | 65 | 70 | 75 | 80 |
| Residences, Theatres, Auditoriums, Music Halls   |   |    |    |    |    |    |
| Motels, Hotels   |   |    |    |    |    |    |
| Schools, Libraries, Museums, Hospitals, Nursing Homes, Meeting Halls, Churches, Mortuaries |   |    |    |    |    |    |
| Playgrounds  |   |    |    |    |    |    |
| Office Buildings   |   |    |    |    |    |    |
| Neighborhood Parks   |   |    |    |    |    |    |

Figure 2.5 // Community Noise Exposure

**Key**

- ||||| Acceptable, Development may be permitted without specific noise studies or mitigation.
- ||||| Conditionally Acceptable, Development may be permitted if designed to meet noise exposure standards; a specific noise study is usually required.
- ||||| Unacceptable, Development with acceptable noise exposure generally is not possible.

Figure 2.6 // General Plan Airport Noise Contours



\* see appendices for larger images

Figure 4 - 1990 Noise Contours Southern Section of San Luis Obispo

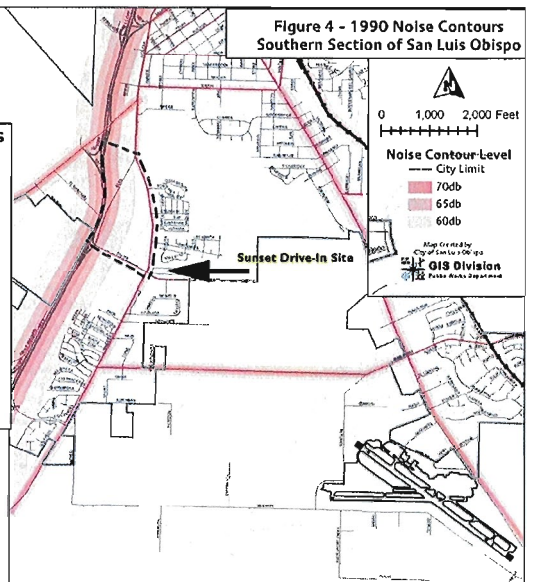


Figure 2.7 // General Plan Noise Contour Map



2.5.3 Circulation

2.5.3a Vehicular

In the coming years San Luis Obispo is expecting expansion and infill development south of downtown. Hinged on Dalidio-Madonna-McBride Area development, the Mid-Higuera Enhancement plan, and the South Broad Street Corridor Plan will be the Prado Road extension and overpass. Prado Road will be connected through to Broad Street to the east and to Los Osos Valley Road via a Highway 101 overpass and interchange. The overpass and extensions will allow Prado Road to become the northernmost cross-town connection in San Luis Obispo. The City will also ask the California Department of Transportation to designate Prado Road between Broad Street and Highway 101 as State Highway 227 (Circulation Element 9.1.2). This designation will redirect a large amount of traffic down Prado Road. The Sunset Drive-In Site, being adjacent to Prado Road and the Highway 101, may benefit from increased exposure and accessibility.

2.5.3b Bicycle and Pedestrian

The Circulation of the General Plan states that new development should facilitate walking, biking and the use of transit. Connectivity in streets and trails shall be designed in to the maximum extent possible. The development of the Margarita Area Specific Plan will lead to a logical connection with the site. This connection will link eastern San Luis Obispo from Broad Street all the way to Los Osos Valley Road. The development of the Mid-Higuera Enhancement Plan will create a connection to the site that will link Downtown San Luis Obispo to the Bob Jones Bike Trail that goes all the way to Avila Beach.



Figure 2.9 // Existing Bob Jones Bike Trail

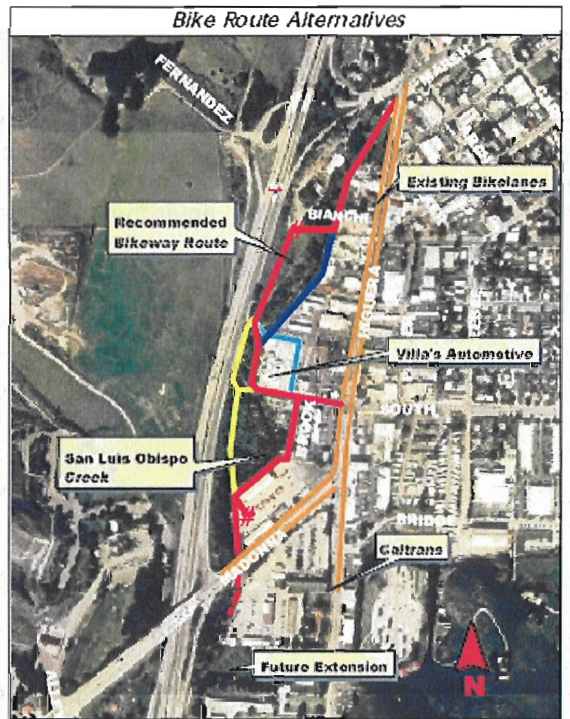


Figure 2.10 // General Plan Bike Path Alternatives

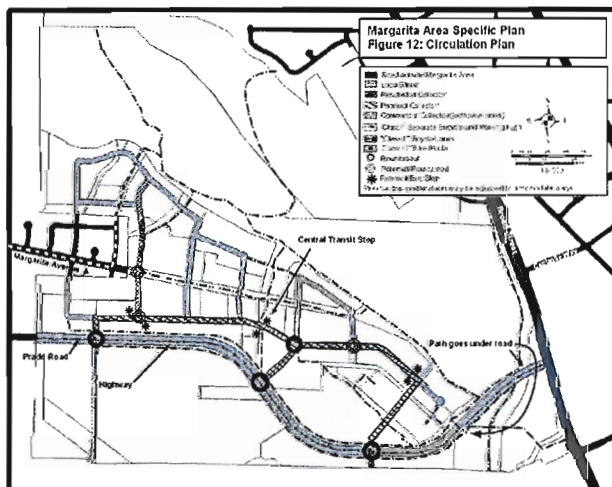


Figure 2.8 // Margarita Area Specific Plan



## 2.6 Housing

San Luis Obispo has a shortage of affordable housing. Goal 2 of the Housing Element states that the City “accommodate affordable housing production that helps meet the City’s Quantified objectives.” Mobile home parks have come into the spot light recently as they constitute a large number of affordable units in San Luis Obispo. The Mid-Higuera Enhancement plan makes a special note to protect mobile home owners. The City may not convert mobile homes in the Mid-Higuera district without providing relocation or new affordable housing. In light of the City’s need for affordable housing, the Valle Vista Mobile Home Park will remain on the Sunset Drive-In Site. The client program will also include an additional forty affordable housing units.

Goal 9 of the Housing Element addresses the City’s encouragement of housing that is “resource-conserving, healthful, economical... environmentally benign and recyclable when demolished.” The client program speaks directly to this principle. The forty new affordable housing units will reflect low-impact environmental and economic design.

## 2.7 Safety

The site is transected east to west by high-voltage power lines. Potentially harmful effects from electromagnetic fields (EMF’s), The California Department of Health Services has recommended that people and local governments should consider keeping schools, dwellings, and workplaces away from high-voltage power transmission lines (Safety Element GP). The Safety Element of the General Plan Policy 6.0 states that “Land-use decisions should avoid prolonged exposure of people to strong electromagnetic fields. Appropriate uses for areas under or next to high-voltage power transmission lines are agriculture, floodwater detention, roads, parking, materials storage, and parks and greenways with low-intensity use. Residential yards may be located along but outside of high-voltage power transmission line easements. School buildings and playgrounds, residential buildings, and work places should be set back from high-voltage power transmission lines.” The standard setback distance used the by the City is 80 feet. These considerations will be recognized in the design of the site.

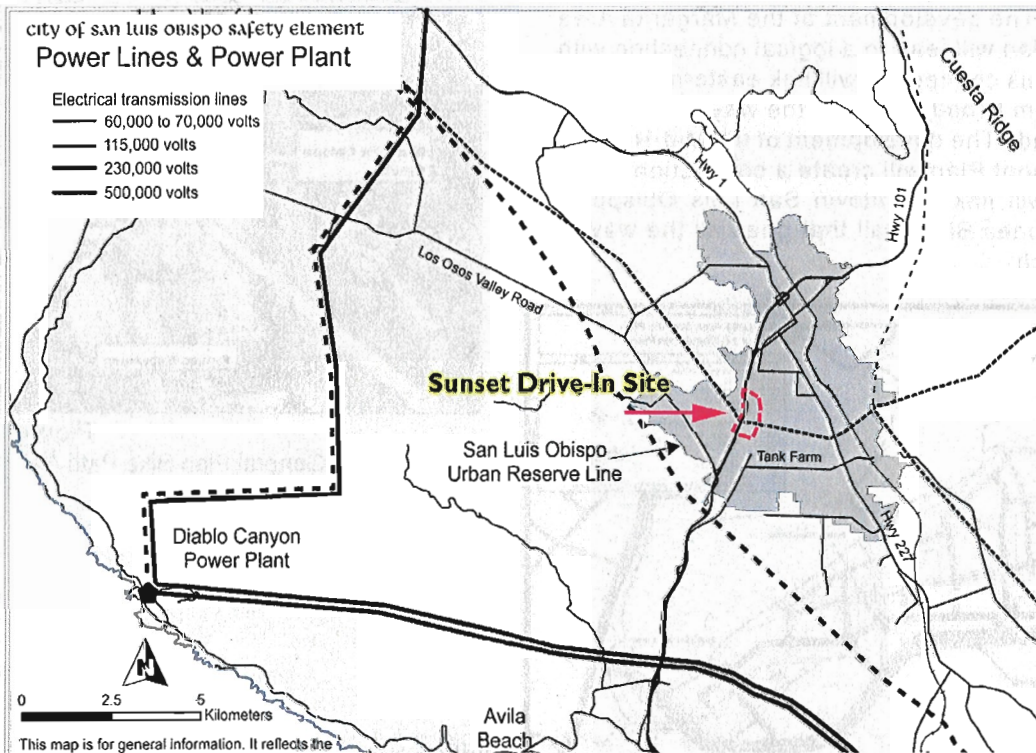
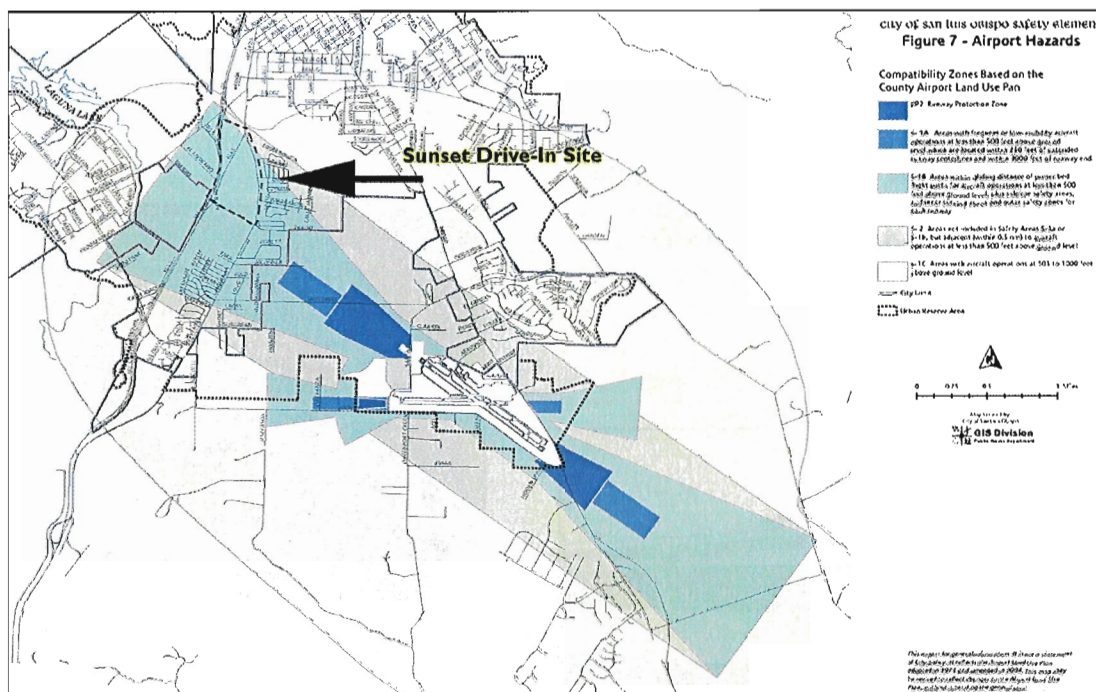


Figure 2.11 //  
Map of Power Lines and Power Plant

The City of San Luis Obispo General Plan Policy 7 states that development should be permitted only if it is consistent with the San Luis Obispo County Airport Land Use Plan. Prospective buyers of property that is subject to airport influence should be so informed. The site is located within the boundaries of the Airport Land Use Plan and is therefore required to provide sufficient space for an Airport Compatible Open Space

zone (ACOS) on site. An ACOS zone already exists very near the site, meeting the county's requirement. Regardless, the agricultural uses on the site will provide ample space meeting ACOS zone requirements (60x 1000 feet of level ground with no streets, parking lots, fences, trees, staked agriculture or buildings).

Figure 2.12 // Airport Hazards Map



**2.8 Conservation and Open Space**

Throughout the Conservation and Open Space element the City takes care to preserve San Luis Obispo's natural communities and open space. Numerous goals and policies are written to protect species and promote native California species in landscaping. The Open Space policies 8.5.1-6 ensure public access to open space and discourage its conversion. Even conversion to passive recreation is discouraged unless "it will not degrade or significantly impact open space resources and where there are no significant neighborhood compatibility impacts" (COS) The portion of the site zoned C/OS is actually in use as agriculture. The purported client program will

maintain some of the agriculture and change some of the space to passive recreation. Native plants will be used in the conversion from agriculture back to passive recreation space.

It is also a priority for the City that all new development be energy efficient, and that materials used be low impact and recyclable. The client outlines a number of building and design specifications that will meet the City's requirements. These specifications will be discussed further in the Conceptual Plan chapters of this report.



## 2.9 Cultural Heritage

Special care is prescribed for historic and cultural resources, such as the Sunset Drive-In, in the City's Conservation and Open Space element. The Sunset Drive-In is one of only a few functioning drive-in theaters remaining in the United States. Preservation of the Sunset Drive-In will satisfy a number of General Plan elements. In addition to the preservation of the drive-in, the client program intends to offer space for relocation of historic buildings and artifacts that were not able to remain in their original context. Through this the client program directly meets policy 3.6.6 for the City to "foster public awareness and appreciation of cultural resources by sponsoring educational programs, by helping to display artifacts that illuminate past cultures and by encouraging private development to include historical and archaeological displays where feasible and appropriate.



During rehabilitation of the Sunset Drive-In the Secretary of Interior's Standards for Rehabilitation should be consulted. Keeping with the Standards should ensure that the drive-in and other relocated buildings and artifacts be eligible for various forms of state, federal and private monies. A summary of the Standards can be found in Appendix #.



Figure 2.13 // Sunset Drive -In Projection Facility

Figure 2.14 // Existing Projection Facility

## Section 3

# Opportunities and Constraints

### 3.1 Opportunities

The Sunset Drive-In Site has a variety of opportunities for future development. These opportunities include the following:

#### 3.1.1 Visibility from HWY 101

The development will be visible to drivers on US HWY 101 for increased exposure to the project site.

#### 3.1.2 Re-routing of CA 227 on Prado Road

A major highway in San Luis Obispo will be re-routed once the Prado Road interchange is complete. This will increase the number of vehicles on S. Higuera and Prado Road thus furthering exposure to the site.

#### 3.1.3 52 acres of available land

52 relatively flat acres of land is available for development. Currently designated conservation open space and service commercial.

#### 3.1.4 Riparian Zone

Acts as a buffer from noise and congestion on S. Higuera Rd. Has potential to become creek pathway or biological education site.

#### 3.1.5 Bob Jones Trail-Bike Plan

Plans to continue the Bob Jones trail through the site to central San Luis Obispo. The current trail starts behind the San Luis Obispo Water Treatment Plant to Avila Beach.

#### 3.1.6 Unlimited access to reclaimed water

The water treatment plant is in close proximity to the site allowing for treated water to be used onsite for landscaping and open space.

#### 3.1.7 Influenced by the Dilidio Marketplace

The proposed Dilidio Marketplace project will be increased visitors to the Prado Road overpass and bring economic vitality



Figure 3.1 //  
San Luis Creek Riparian Zone

#### 3.1.8 Historic Drive-In Theater

One of the last remaining operational Drive-In theaters in California, bringing historical significance to the site

#### 3.1.9 View Sheds of Madonna Mountain and South Hills

Spectacular views of the Madonna Mountain and South Hills part of the Coastal Range in California

#### 3.1.10 Two bus stops within quarter mile of development- applicable for LEED certification

Bus stops within walking distance of the site to provide alternative modes of transportation.



### 3.2 Constraints

The constraints hindering the Sunset Drive-In site are minimal and with proper mitigation can be relieved. These constraints include the following:

#### 3.2.1 Noise from HWY 101

Noise from HWY 101 could pose potential difficulties for development. However, data from San Luis Obispo General Plan Circulation Element clearly shows that entire site is at or under 60dBs.

#### 3.2.2 Noise from take off lane for San Luis Obispo Airport

Overhead noise from planes could be a potential constraint for placement on housing

#### 3.2.3 PG&E high voltage power lines through site

Setback of at least 80ft is required around high voltage powerlines. Appropriate uses directly underneath powerlines are the following agriculture, floodwater detention, roads, parking, material storage, etc.

#### 3.2.4 SLO County Mobile Home ordinance

SLO County Mobile Home Conversion ordinance October 2005 reviewed again April 2008

#### 3.2.5 Proximity to Water Treatment Plant

Unpleasant smells from the Water Treatment Plant can be noticed at times on site depending on wind direction.

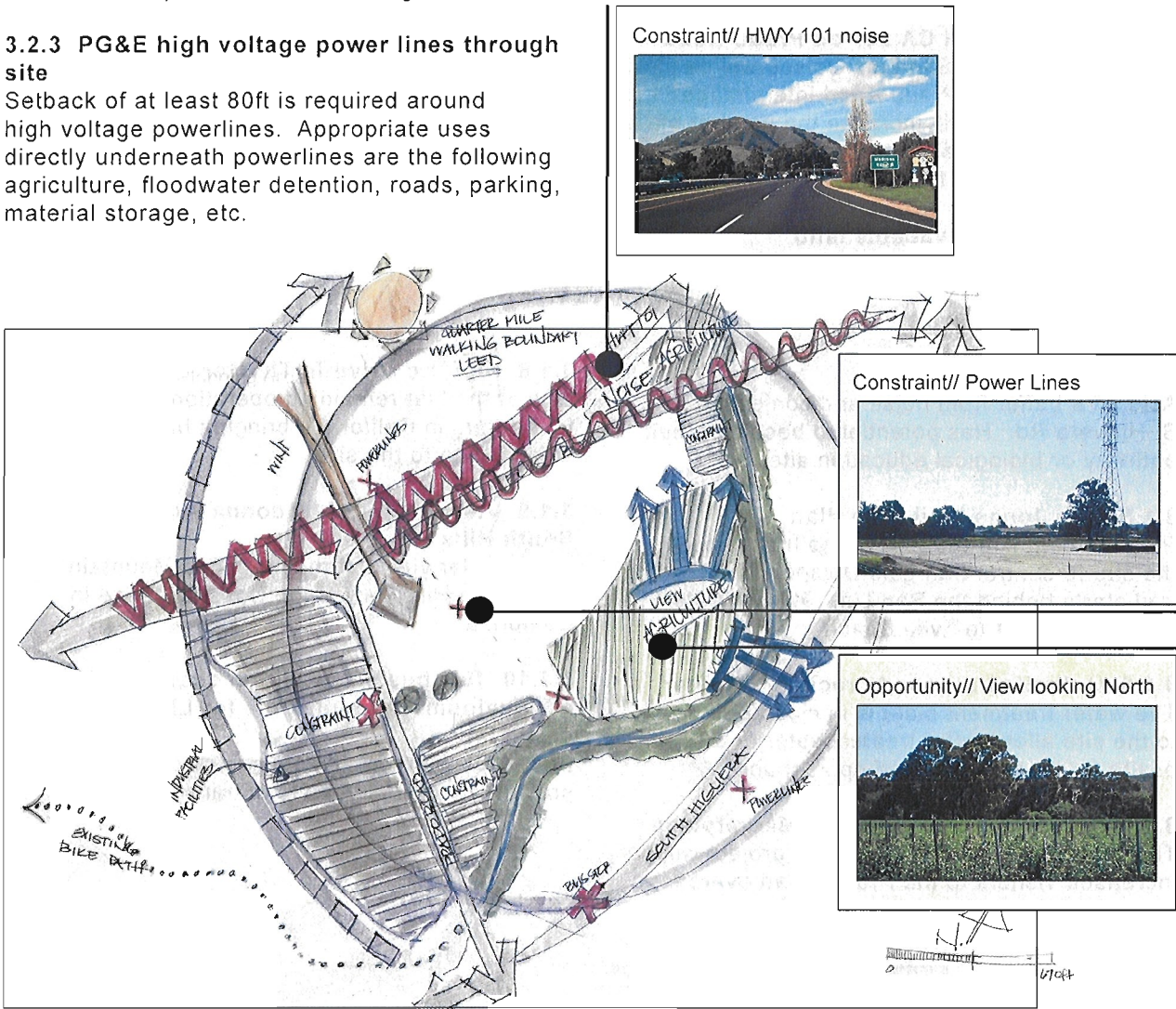


Figure 3.2 // Opportunities and Constraints

## Section 4

# Case Studies

## 4.1 Sweetwater Creek State Park, GA

### 4.1.1 Project Description

Sweetwater Creek State Park project which applies to the Sustainable Living Lab is located in Georgia. The state park features a unique visitor interpretive center and museum. The visitor center and museum was officially open in the summer of 2006. The center was built to platinum LEED certification standings featuring water run off recycling, green roofs, and photovoltaic panels. The center houses a museum with information about the history of Georgia, and native species and plants. The visitor center also has educational facilities such classrooms and labs inside. The building has currently not been reviewed for LEED certification because more buildings are being built in the surrounding area and the project is not considered complete.

The Sustainable Living Lab site will be geared towards progressive environmental techniques similar to the Sweetwater Creek project. All buildings will be built to LEED certification and the restoration of the drive in theater will preserve the historic integrity of the structures. The Sustainable Living Lab will offer education facilities and lab space to be used for children and families and can also be visited by local schools for field trips; these facilities will be modeled after Sweetwater Creek. Similar to Sweetwater Creek's recycling program each structure onsite will use water run off recycling, composting, and other sustainable recycling methods.

### 4.1.2 Lessons Learned

A project similar to Sweetwater Creek's interpretive center could do very well on the Central Coast. The center would act as an environmentally conscience education hub. Although the materials needed to build a LEED certified building are expensive there are ways of mitigating the budget. The Sweetwater Creek project decided to do very limited landscaping because the cost of materials was greater than expected. Because the Sustainable Living Lab site is large, the majority of the site will be left for native vegetation and open space.



Figure 4.1 //  
Example of Photovoltaics



Figure 4.2 //  
Photos of Visitor Center



## 4.2 Crissy Field Center, CA

### 4.2.1 Project Description

Crissy Field Center (CFC) is situated in the Presidio, a recently retired military base, in San Francisco California. In 1994, ownership of the Presidio was transferred to the National Park Service and Golden Gate National Parks Conservancy. In early 2000 the Presidio underwent renovation. The historic buildings were renovated to the highest environmental standards at the time. CFC serves an important purpose in fulfilling the sustainable renovation undertaken in the Presidio.

CFC is not a primary school. It offers a wide range of educational opportunities to complement schools in the surrounding areas. CFC incorporates a media lab, resource library, arts workshop, science lab, gathering room and teaching kitchen. Hands-on interaction with the natural environment is a key component of CFC's mission. Children learn in the labs and then go outside and see how the environmental concepts they learned in the lab function in the real world. Classes and summer camps are offered in eco-friendly cooking, composting, gardening, urban ecology, science, and botany. Field trips and camping to satellite sites are also growing in popularity. "Every year, about 13,000 San Francisco students go camping and backpacking, do watershed restoration work and attend environmental leadership programs through the center" (SFGate 2007). The media lab is also proving to be a vital component of reaching out to tech savvy youth.

CFC also features an on-site café and bookstore whose profits support the educational programs. CFC also receives support from the Golden Gate National Parks Conservancy and National Park Service. The model being applied is an excellent way to support existing schools without creating a burdensome budget.



Figure 4.3 // Children's Environmental Education



Figure 4.4 // Example of Classroom and Lab Space



Figure 4.5 // Rehabilitated Military Buildings



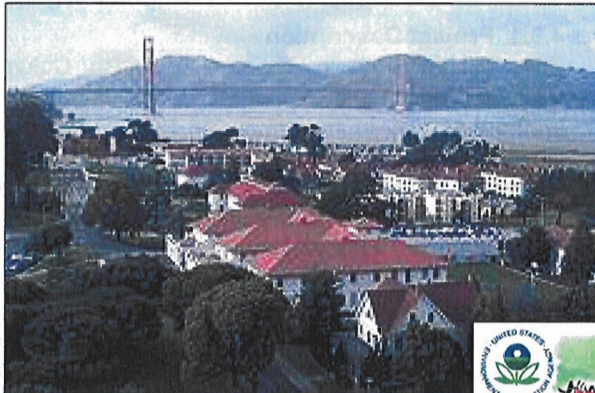


Figure 4.6 // Rehabilitated Military Buildings

Figure 4.7 // Example of Brochure



#### 4.2.2 Key Features

##### Media Lab

The Crissy Field Center is the multimedia hub for the Golden Gate National Recreation Area. The media lab allows visitors of all ages and park staff to interact with urban ecology in new ways and express what the environment means to them through digital photography, video production, and GIS technology.

##### Resource Library

##### Arts Workshop

Crissy Field Center program participants create amazing animations, digital stories, documentaries, and presentations. Over the years, we have collected their creations and through the magic of modern technology, we can stream them to you via the web.

##### Science Lab

The science lab, gathering room and teaching kitchen in addition to a café and bookstore. The Center is also a green business certified building and all proceeds from the cafe and bookstore support the Center's education programs.

#### 4.2.3 Lessons Learned

Crissy Field Center offers a wide variety of programs and amenities that connect the diverse population of the Bay Area to urban environmental issues. Their mission is to encourage new generations to become bold leaders for healthy communities, thriving parks, a more environmentally just society. With support from the state and national parks service, Crissy Field Center is able to offer a valuable complement to the average public education system. Their focus on the environment allows them to specialize in ways all-around institutions cannot. The Crissy Field Center is being recognized the world over as an effective model for reaching out to an increasingly environmentally disconnected youth. This model promotes exactly the principles that the Sustainable Living Lab purports to strengthen in San Luis Obispo.



## 4.3 Twilight Drive-In, Canada

### 4.3.1 Project Description

The Twilight Drive-In Theater in British Columbia, Canada is an innovative approach to traditional Drive-In theaters popular in the 1950s and 1960s. The Twilight Drive-In Theater has space for just under 500 cars and uses a combination of grass and concrete as parking surfaces. Cars visiting the site drive on the concrete surfaces to get to a parking spot. The vehicles park on a grass surface. The Sunset Drive-In site also incorporates a drive-in theater built in 1949 that will be restored using the Twilight Drive-In methodology. The project site will be completely sustainable thus the theater will aim to reduce runoff and disguise the parking that will be part of the project. Similar to the Twilight Drive-In the original Sunset Drive-In will use grass and pervious surfaces to mitigate these impacts. The Twilight Drive In was successfully restored in 2005 using support from the community.

A major element of the Twilight Drive-In project that this project will simulate is the grass surface. The grass will allow for rainwater to be retained onsite. The Twilight Drive-In also has a gradual incline that allows cars to park on a slope while watching the film at the theater. This element of the Twilight Theater will be exaggerated, creating a visually appealing design as well as a practical use.

### 4.3.2 Lessons Learned

The lessons learned from the Twilight Drive-In theater is that the elements that the Sunset Drive In theater is trying to emulate can be successful. The idea of using previous surfaces that cars can drive on is realistic. The Twilight Theater was so successful because of community support. The community wanted to see the theater restored therefore put time and money into the project.

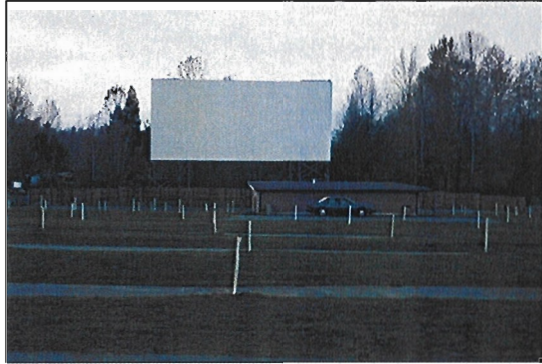


Figure 4.8 //  
Screen and Projection Room



Figure 4.9 //  
Use of grass instead of concrete



Figure 4.10 //  
Example of Tiered Parking

## 4.4 Thoreau Center for Sustainability, CA

### 4.4.1 Project Description

The Thoreau Center for Sustainability (TCS) is also located in the restored Presidio in San Francisco. It's vision to combine preservation of historic resources with creation of a center for a sustainable future. (\*source). Its twelve buildings (150,000 s.f.) house over sixty non-profits and businesses working for social justice, community education and development, public health and environmental stewardship. TCS was the pioneer quest in a "Multi-Tenant Non-Profit Center" by the group Tides Shared Spaces (\*source). This "Multi-Tenant Non-Profit Center" offers shared space at affordable rents allowing non-profits to collaborate and share costs. Meeting rooms and dining areas are used by all tenants, saving energy and space and costs.

By concentrating the groups a hub of social and environmental justice is created in the community. The model has been so successful that variations of it are popping up all over the country. Bringing non-profits and green organizations together into a shared space saves money while affording collaboration opportunities that strengthen the non-profits, the businesses who help them and the communities they serve.

### 4.4.2 Lessons Learned

The Thoreau Center is a vibrant hub within San Francisco. Grassroots groups provide an important civic functions that is better facilitated through the "Multi-Tenant Non-Profit" model. Organic coffee shops, and local art galleries host events. Innovative businesses like financial advisors, booksellers and solar panel sales companies complement the social justice and environmentalist non-profits. Places like the Thoreau Center for Sustainability inspire and mobilize.



Figure 4.11 //  
Thoreau Center for Sustainability



Figure 4.12 //  
Cafeteria inside Thoreau Center

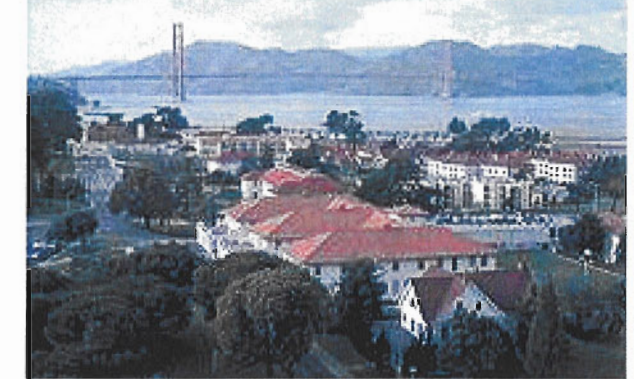


Figure 4.13 //  
Thoreau Center Art Gallery



Table 4.1//  
Case Studies Matrix  
(opposite page)

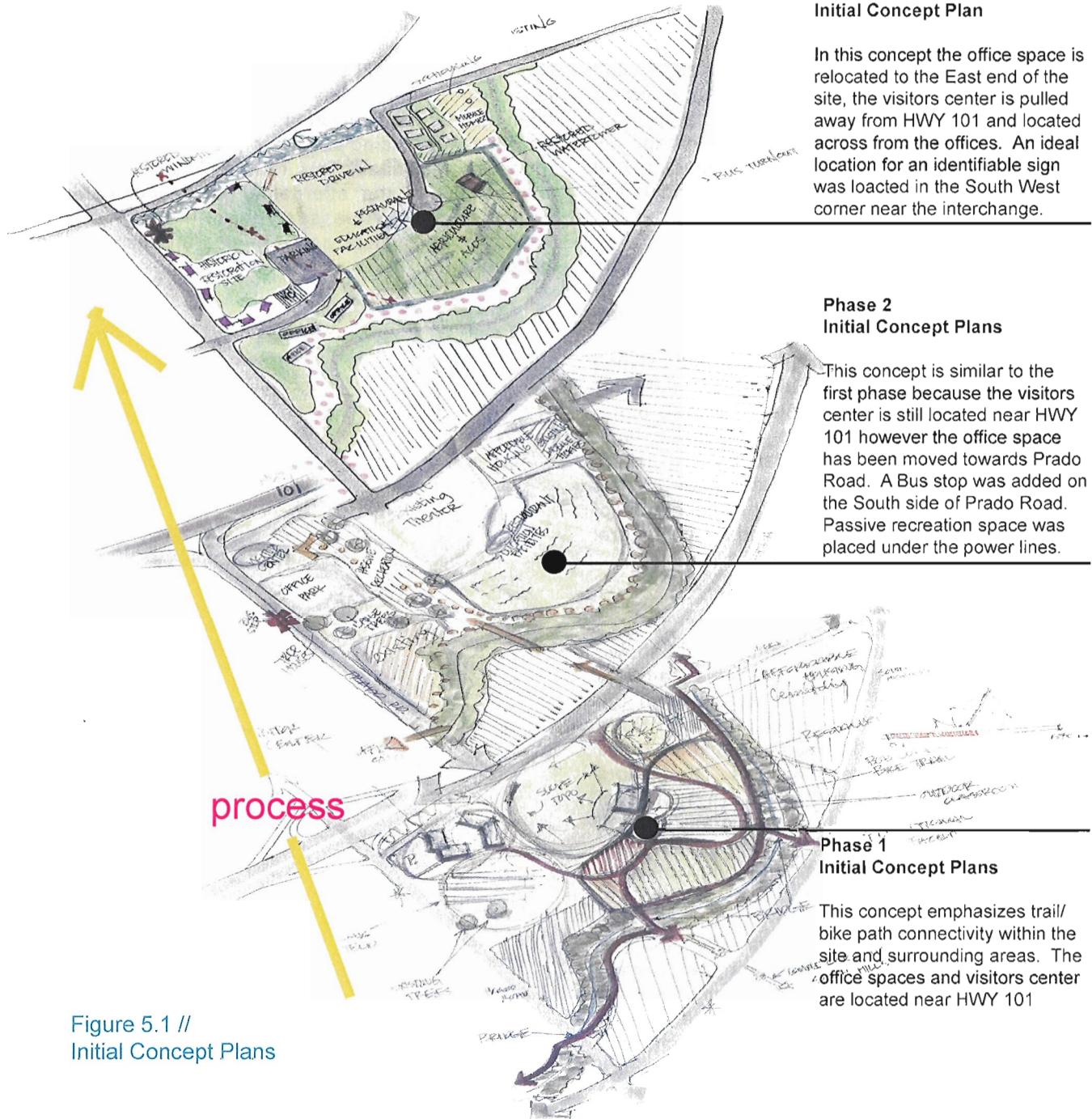
# Case Study Comparison Matrix



| CRITERIA  | CASE STUDY 01 CRISSY FIELD CENTER, S.F. CALIFORNIA  | CASE STUDY 02 SWEETWATER CREEK STATE PARK, GEORGIA   | CASE STUDY 03 TWILIGHT THEATER, CANADA   | CASE STUDY 03 THOREAU CENTER FOR SUSTAINABILITY, S.F. CALIFORNIA   |
|---|---|--|--|--|
| Project Description                                     | The Center incorporates a media lab, resource library, arts workshop, science lab, gathering room and teaching kitchen that hosts school aged children from the entire Bay Area. Hands-on interaction with the living environment is key to the site. Profits from an on-site cafe and bookstore support the Center's education programs. | Large state park that includes an intrepertive center and museum built to LEED platinum certification standings. The space offers educational facilities such as classrooms and lab space.   | Twilight Drive-In theater was restored to mimic a classic drive of the 1950s. The theater is a single screen theater with space for 424 cars. The restoration was done in 2005.  | The vision: combining preservation of historic resources with creation of a global center for a sustainable future. Its' 12 buildings house over 60 non-profits and businesses working for social justice, community education and development, public health and environmental stewardship. |
| Comparison points (site area, access, visibility, etc.) | Agricultural is combined with environmental education to bring disconnected urban youth into an understanding with nature. Historic rennovation is coupled with sustainability.   | Further research needed  | The Sunset Drive In will be modeled after the retrofitted Twilight Drive In. By using grass as the parking surface it is also plausible for outdoor events to be held in the same location such as concerts and outdoor plays. | The proposed office space on the Sunset Drive-In site will be modeled after the "Multi-Tenant Non-Profit Center" model pioneered by www.tidessharedspaces.org. Historic renovation and environmental reclamation were also used.   |
| Neighborhood History and Context                        | A former military base that sat dormant for many years until the sustainable rennovation was undertaken in early 2000. Some areas of the site were toxic and required extensive clean-up.   | The interpretive center is located within Georgia's busiest conservation parks. Over 2,500 acres is conserved within the park.   | The theater is located in Langley, British Columbia and is home to just over 100,000 people. The theater was feeling pressure to close but chose to restore because of community support                                       | The Center is located within the sustainable renovations of the hospital buildings in the former military base, Presidio S.F., CA.   |
| Socio-economic factors                                  | The Center has a unique income-generation scheme. The café and bookstore on-site generate proceeds for the center. The educational services offered by the center help inner city gain skills that may help them in the future.   | The Georgia state legislature provided 1.5 million, and donations of over \$350,000 was need to fund the project.  | Further research needed  | This "Multi-Tenant Non-Profit Center" offers shared space at affordable rents allowing non-profits to collaborate and share costs. For-profits are mixed with green businesses. By concentrating the groups a hub of social and environmental justice is created in the community.           |
| Governmental Actions                                    | In 1994 Presidio was transferred to the National Park Service. This changing of the guard was an innovative way to protect the Presidio's vast cultural and environmental heritage.   | Worked with the Georgia state legislature to help fund a portion of the project. Also the Engineering and Construction division for Georgia State parks formulated a budget for the project. | Funded solely by drive in owners.  | Co-funded by the National Park Service.  |
| Land Use Changes  | Formerly a military base, now a park and education hub.   | The interpretive center was built within a Georgia State park and therefore now land use changes were necessary.   | The drive-in was previously located on site, no land use changes.  | Formely a military base, now a park and green-business hub.  |
| Neighborhood Form                                       | Military base converted to national park trust. An elaborate network of trails, open space, recreation areas, meeting points, businesses and museums link the whole Presidio and Crissy Field.  | Within a state park  | Further research needed  | Military base converted to national park trust.  |
| Evolving Community Needs                                | As the popularity of Crissy Field programs grow, the Center has expanded to include satellite sites that offer more in-depth nature experiences.  | The intrepertive center was made possible by a group of community members that now call themselves "Friends of Sweetwater Creek." They maintain and manage the center.                       | Retrofitted because of support from the community.   | The "Multi-Tenant Non-Profit Center" model was pioneered in the Presidio. It has now been applied on various sites throughout the country, serving a vital grassroots need within the community.   |
| Environmental and Planning Issues                       | Some areas of the site were contaminated from military occupation and had to be cleaned up before the natural environment could be reclaimed.   | Focused on constructing a LEED certified building. Construction of center was expensive however did not face any planning issues.  | The theater chose to used pervious grass tiered parking to reduce run off.   | A main challenge was restoring the original buildings while renovating them to sustainable design standards.   |
| Lessons Learned   | Creating governmental trusts in collaboration with the park service can serve an important civic function.  | Financing a project of our size will be difficult. Also it is important to have community support to ensure productivity and completion.   | Using pervious surfaces for the drive in the project is able to retain water and reduce run off.   | Bringing non-profits and green organizations together into a shared spaces saves money while affording them collaboration opportunities that strenghtnen the non-profits, the businesses who help them and the communities they serve.   |



## Section 5 Conceptual Plans



### Phase 3 Initial Concept Plan

In this concept the office space is relocated to the East end of the site, the visitors center is pulled away from HWY 101 and located across from the offices. An ideal location for an identifiable sign was located in the South West corner near the interchange.

### Phase 2 Initial Concept Plans

This concept is similar to the first phase because the visitors center is still located near HWY 101 however the office space has been moved towards Prado Road. A Bus stop was added on the South side of Prado Road. Passive recreation space was placed under the power lines.

### Phase 1 Initial Concept Plans

This concept emphasizes trail/ bike path connectivity within the site and surrounding areas. The office spaces and visitors center are located near HWY 101

Figure 5.1 //  
Initial Concept Plans



### 5.1 Initial Concept Plans

Our first conceptual plans (phase 1,2,3) dealt with placement of land use and the connectivity between surrounding and proposed uses. These designs show a progression of site layout that take into consideration the first phases of our project which included site analysis and case studies. Throughout these initial designs we took into consideration the major constraints and opportunities on the site and designed around these issues in order to provide an optimum layout. Taking into consideration noise, wind, sun, available acreage, and existing creek and riparian areas our initial designs show a conceptual layout of where different land uses should be located to maximize the sites potential.

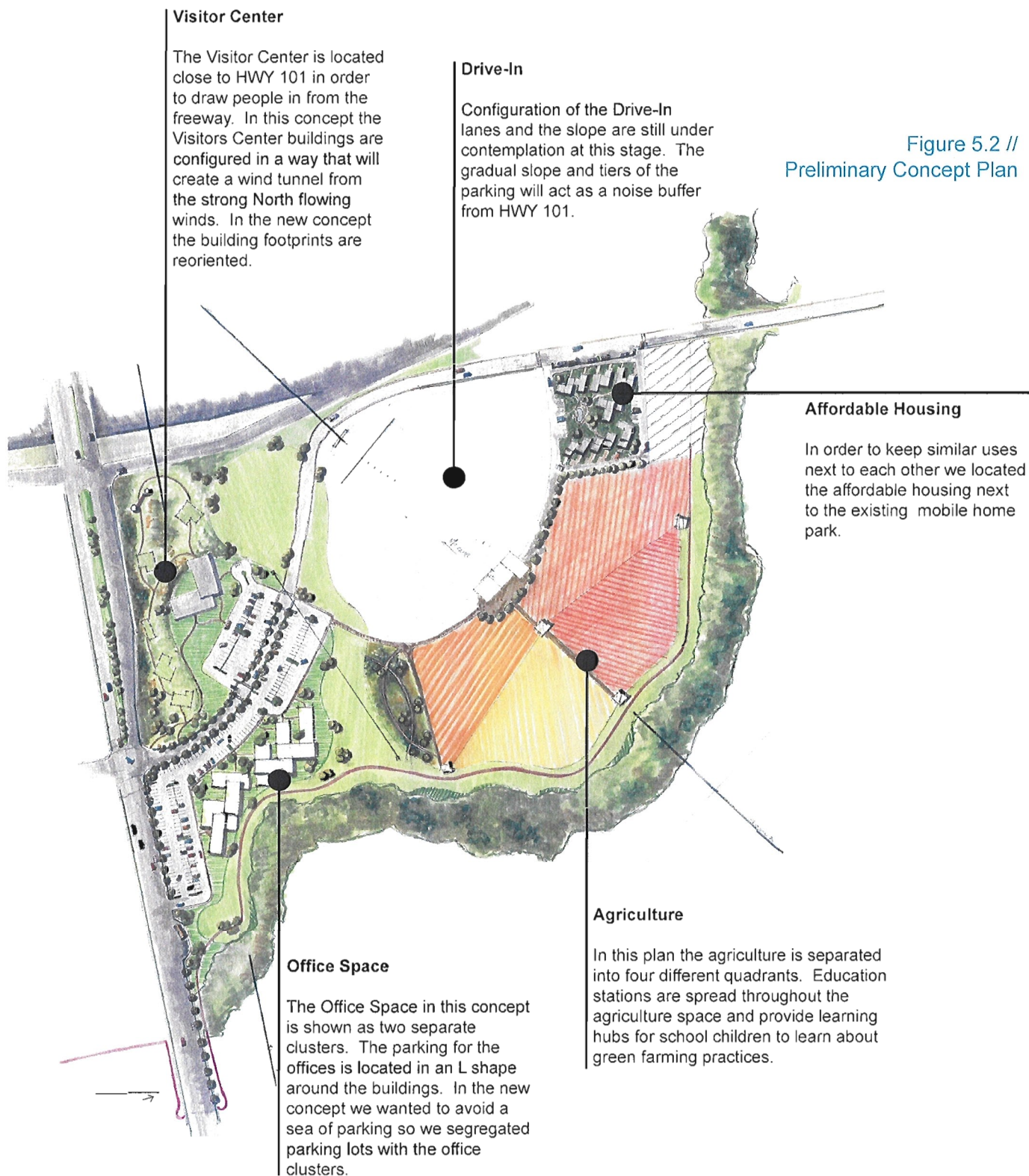
All three of these initial designs incorporate the bike trail along the creek and a pedestrian/bike bridge that connects the trail to Margaritta Street. Sunset Drive-In is rehabilitated in these plans with the use of pervious coverage over the existing parking area. This pervious surface not only minimizes runoff but it also acts as a noise buffer between the freeway and the agricultural land. In order to increase freeway visibility the visitors center and office spaces are located near the new interchange on Prado Road. The placement of new structures directly correspond to the natural elements the site is subjected to.

### 5.2 Preliminary Concept

The combination of our initial concepts are shown in the preliminary concept plan. In this plan Elks Road is used as the main connector within the site. The two parking lots shown off of Elks Road provide parking spaces for the Visitors center, office space, and passive recreation areas. The Visitors center is located in the south-western section of the site and surrounded by native grasslands to the South and passive recreation to the North. Behind the Visitors center meandering walkways connect areas set aside for future relocation of historic buildings. On the South-east corner of the site the modular office complex is separated into two clusters where each cluster will share common areas. To the North of the office complex open grass land is used for passive recreation. A strip of native foliage separates the passive recreation area with active agriculture. The crops will serve as a main source of food used in the on-site restaurant. Throughout the agriculture space four small modular structures will act as educational

stations that will showcase different sustainable practices. These different stations will coordinate with the education facility that is located to the West of the ag land. Above the education facility is the restaurant which will have outdoor patio space that can be used to watch movies playing at the drive in. In this plan the configuration of parking and slope for the drive-in is still being configured. This large space will provide parking for the drive-in the education facility and the restaurant. A small utilities road surrounds the rear perimeter of the drive-in providing access to the restaurant and education facilities. This road will also provide rear access to the affordable housing complex located on the North-east corner of the site. The existing mobile home park remains untouched in this concept.







# Section 6 Final Site Plan

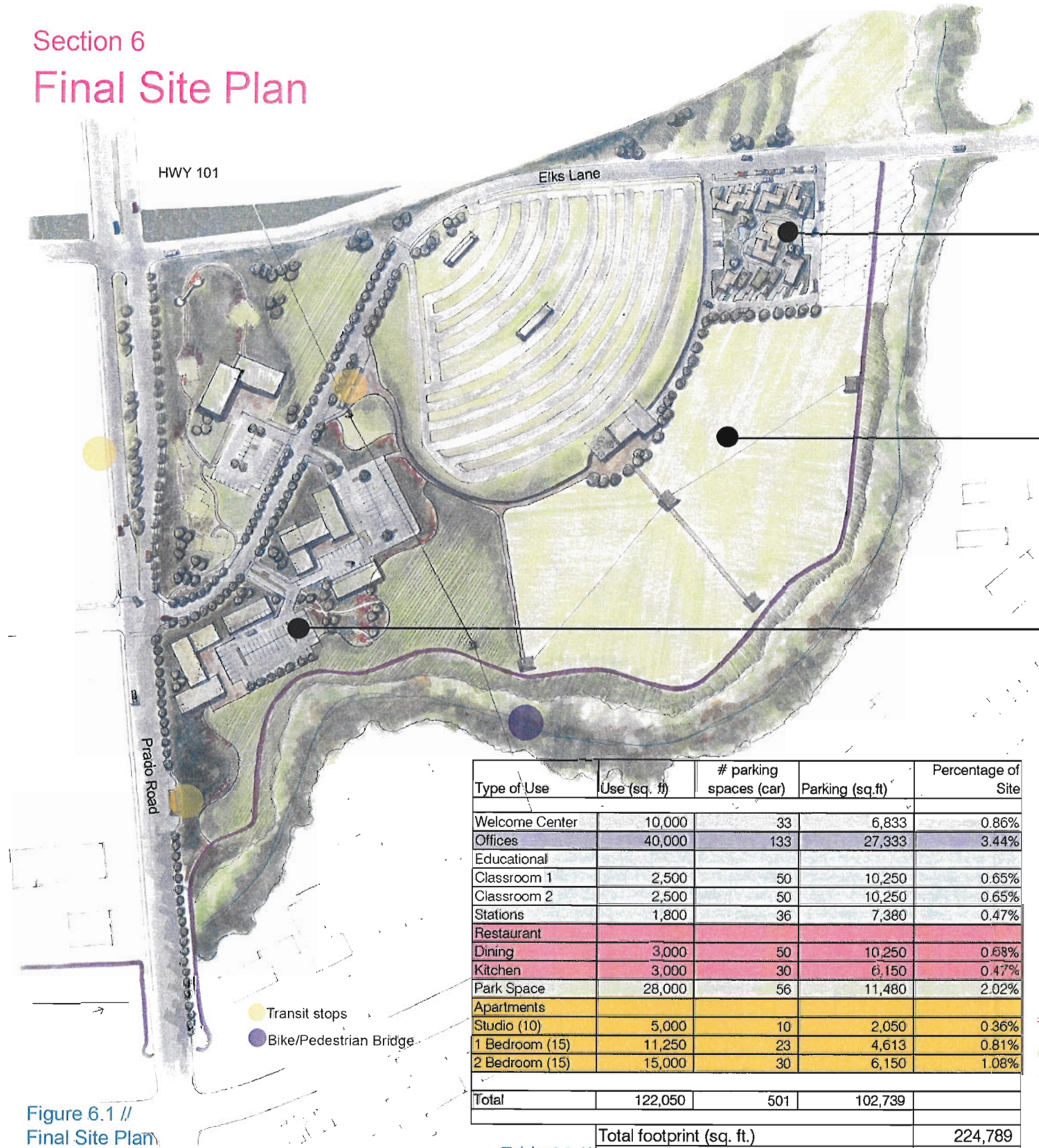


Figure 6.1 // Final Site Plan

| Type of Use    | Use (sq. ft.)  | # parking spaces (car) | Parking (sq.ft) | Percentage of Site |
|----------------|----------------|------------------------|-----------------|--------------------|
| Welcome Center | 10,000         | 33                     | 6,833           | 0.86%              |
| Offices        | 40,000         | 133                    | 27,333          | 3.44%              |
| Educational    |                |                        |                 |                    |
| Classroom 1    | 2,500          | 50                     | 10,250          | 0.65%              |
| Classroom 2    | 2,500          | 50                     | 10,250          | 0.65%              |
| Stations       | 1,800          | 36                     | 7,380           | 0.47%              |
| Restaurant     |                |                        |                 |                    |
| Dining         | 3,000          | 50                     | 10,250          | 0.68%              |
| Kitchen        | 3,000          | 30                     | 6,150           | 0.47%              |
| Park Space     | 28,000         | 56                     | 11,480          | 2.02%              |
| Apartments     |                |                        |                 |                    |
| Studio (10)    | 5,000          | 10                     | 2,050           | 0.36%              |
| 1 Bedroom (15) | 11,250         | 23                     | 4,613           | 0.81%              |
| 2 Bedroom (15) | 15,000         | 30                     | 6,150           | 1.08%              |
| <b>Total</b>   | <b>122,050</b> | <b>501</b>             | <b>102,739</b>  |                    |

| Table 6.1 // Land Use Program |           |
|-------------------------------|-----------|
| Total footprint (sq. ft.)     | 224,789   |
| Total site area (sq. ft.)     | 1,955,612 |
| Percentage of Site Built-Out  | 11.49%    |

Figure 6.2 // Green Housing Community



Figure 6.3 // Agriculture Space



Figure 6.4 // Office Space

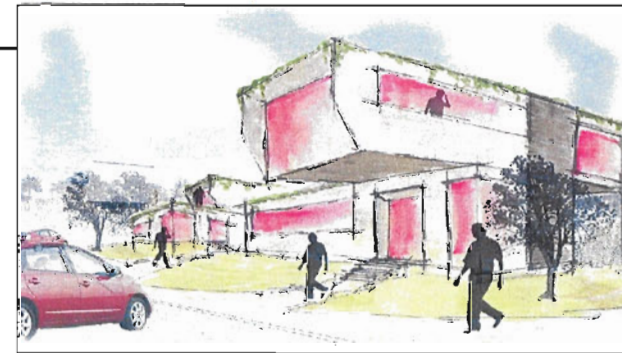


Figure 6.5 // Perspective of the Education Facility, Restaurant and Drive-In

### 6.1 Site Plan Description

Our final site plan is a continuation of our initial concepts and preliminary concept plan. From these studies we have concluded that this design utilizes the available space in the most efficient way. Elks Lane continues to dissect the plan acting as the main connector between Prado Road and South Higuera.

One of the major changes from our preliminary site design is the orientation of the buildings. In our prior concept many of the structures were located in a way that would create wind tunnels throughout the site. In our final concept all of the structures have been re-oriented in order to block prevailing north eastern winds. This also maximizes the amount of roof surface that can be used for photovoltaic panels.

#### The Program:

- 1) retention + rehabilitation of Sunset Drive-In
- 2) offices for environmental non-profits
- 3) a new organic restaurant
- 4) a tourist, cultural showman + convenience center
- 5) classroom + lecture facilities
- 6) organic vegetable + demonstration gardens
- 7) public transit stop
- 8) picnic areas with passive recreation facilities



leave blank

Figure 6.7 //  
Final Site Plan



**6.2 Site Plan Specific Uses**

**A. Welcome Center**

- 10,000 sq ft
- Located in the S.W. corner
- Provides information to the public about SLO and surrounding areas
- Sells local memorabilia, crafts, wine etc.
- Historic cultural resource displays
- Functioning windmill and welcome sign

What better first impression of San Luis Obispo than a 10,000 square foot Welcome Center. Situated amongst important historic artifacts against the backdrop of cutting-edge green facilities. Visitors can easily access the Welcome Center from US Highway 101. The Center will provide a space for guests to become better oriented with the City and be drawn into the site for a stroll along the creek or to have grab a bite to eat at the innovative organic restaurant. Visitors will immediately gain a sense of what San Luis Obispo once was and where it is going.



## B. Non-Profit Office Space

- 40,000 sq ft
- multi tenant mix of non profits and green businesses
- environmentally friendly-modular design (low cost)
- shared space=shared energy costs
- expanded networking opportunities
- nuture collaborative partnerships

The design concept for the non-offices comes from the unique Multi-Tenant Non-Profit Center pioneered in San Francisco CA. Non-profit organizations as well as green businesses are invited to rent space at the Sustainable Living Lab. Their simple efficient design allows them to be built and operated at an affordable cost. Non-profits and green business will share space which saves money and promotes collaboration that strengthens the organizations inside and the communities they serve on the outside.

## C. Drive-In

- 400,000
- Rehabilitate with grass retains stormwater
- Tiered design mitigates sound
- Preservation of historic cultural resource (Mills Act \$\$)
- Doubles as amphitheater
- Parking (500+ spaces) used by schools, restaurant and park space

The City has a vested interest "to foster public awareness and appreciation of cultural resources...by helping to display artifacts that illuminate past cultures." One of the few remaining and functioning remnants of the 1950's Drive-In era, Sunset Drive-In is a unique piece of San Luis Obispo and America's history. Rehabilitating the drive-in using grass and pervious surfaces will allow rainwater to be retained on site. The modified upward slope of the parking lot creates a barrier between US Highway 101 that makes for a quiet and peaceful experience along the creek.

## D. Restaurant

- 100 seat
- 6000 sf
- Uses fruit and veggies from agricultural operation
- Demonstrates ground to plate and back to ground again
- Dinner and movie experience (rooftop seating)
- All local meats, cheeses and wines
- Portion of proceeds support education facilities

A recent development in the sustainability movement has shifted from eating organic to eating local. This restaurant offers exclusively local dishes. Produce from the agricultural operations onsite are used. Local wines, cheeses and meats are mandatory. The students at the education center can see how food goes from the ground to the plate. In addition, the restaurant's compost is then returned to the agricultural operation. Proceeds from the restaurant also support the education center, finishing off the sustainable loop.

### E. Education Center

6800 sf of classrooms

Field trip destination

Media lab and outdoor labs

*(straw bale construction, agriculture/gardening, riparian biology, botany, composting, renewable energy)*

Can be co-funded by local and state municipalities

Supported by restaurants

Non-profits can aid in education outreach

The mission is “to encourage new generations to become bold leaders for healthy communities, thriving parks, and a more environmentally just society.” This center will offer interactive environmental education to a wide range of youth. Children learn in the labs and then go outside and see how the concepts they learned inside, function in the real world. The main education center is supported by the numerous education stations that offer specific lab learning in areas like straw-bale building, composting, riparian biology, gardening and recycling.

### F. Agriculture and Education Stations

300,000 sf

The organic agriculture operation comprises the majority of the site but serves a number of uses. The agriculture onsite will function as a demonstrative farm and garden. The agriculture will help to educate students about farming techniques and processes and where their food is coming from. The produce from the agriculture will then be used in the restaurant to continue the sustainable loop. The agriculture is also has a harmonious relationship with the creek. More than just a field of greens this agriculture feeds body and mind.

### G. Affordable Housing

Radiant Surface Heating

H2O reclamation

Living Roof

Solar

Roof gardens absorb stormwater runoff

Affordable housing is hard to come by in San Luis Obispo. Recently, the People's Self-Help Housing Corporation opened a 28-unit apartment complex. There were two-hundred qualifying applicants for the apartments. One-hundred seventy two families still need an affordable place to live. The apartments shown here are modular units meaning they can be bought and put on site for nearly half the price of custom designed units.





# Section 7 Sections and Elevations

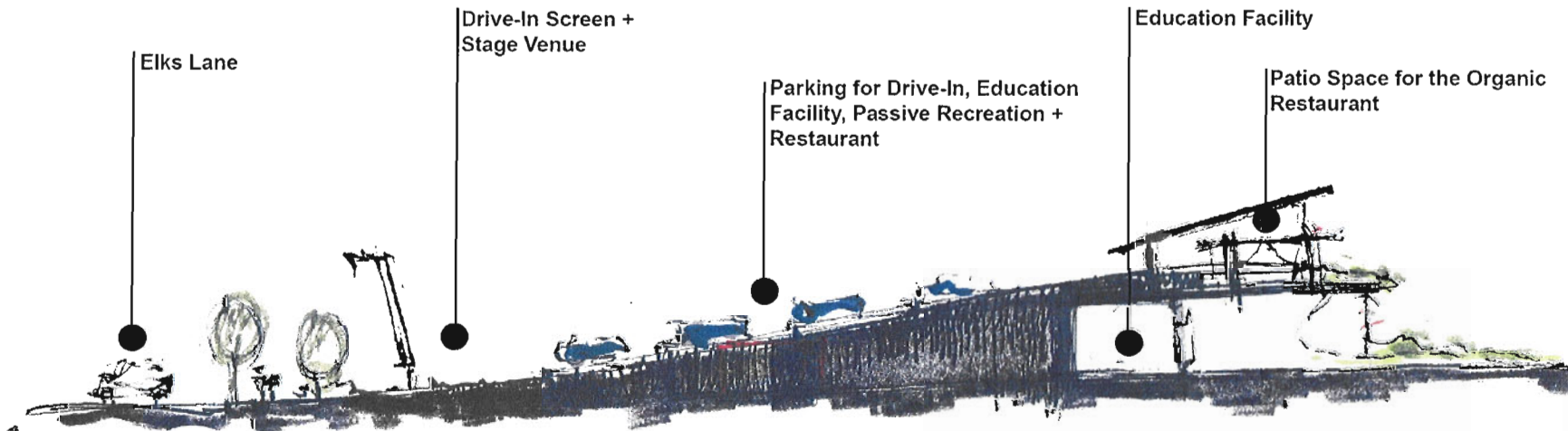


Figure 7.2 // Conceptual Section of Drive-In Restaurant and Education Facility

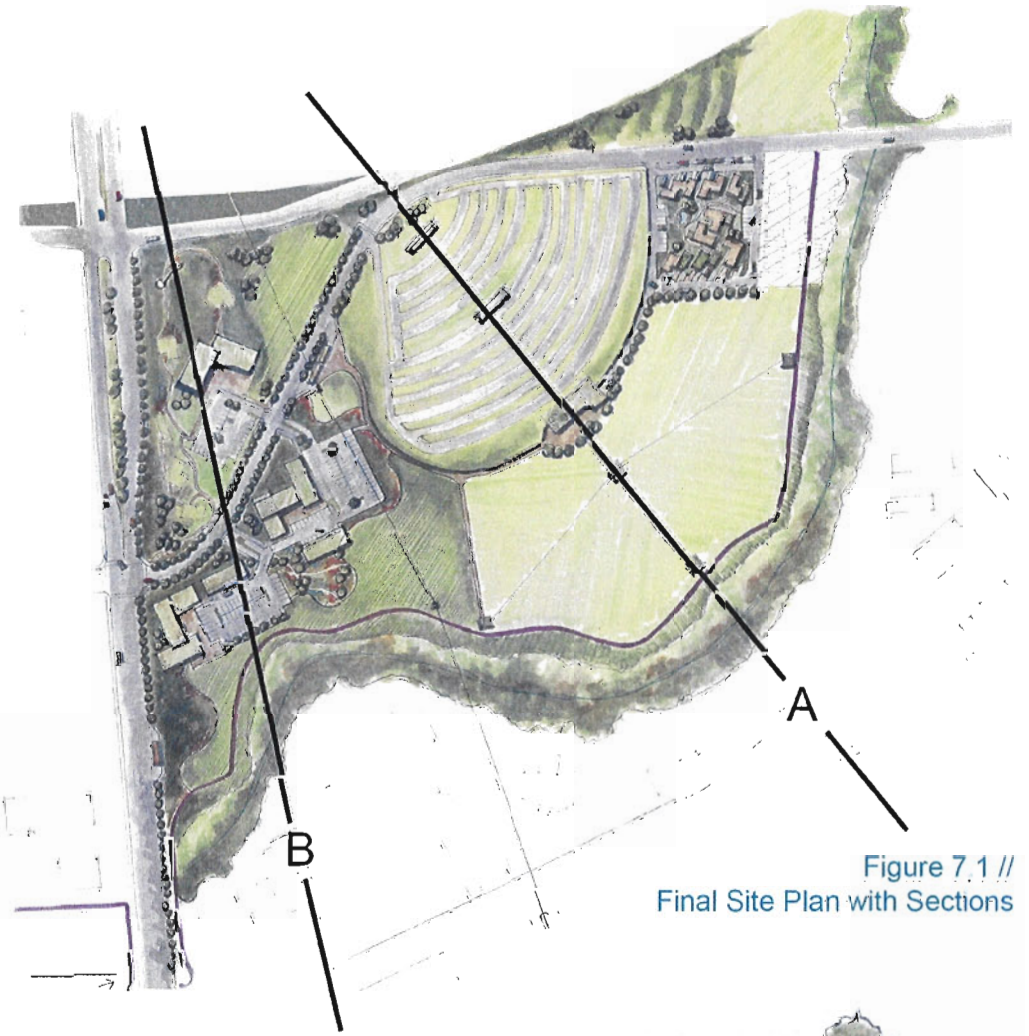


Figure 7.1 // Final Site Plan with Sections

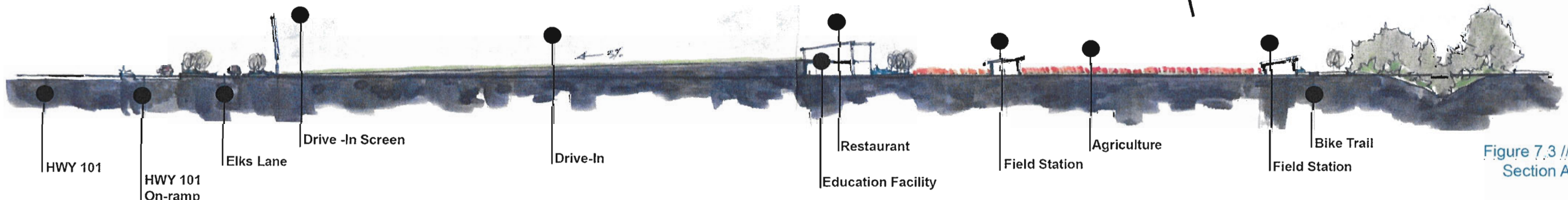


Figure 7.3 // Section A

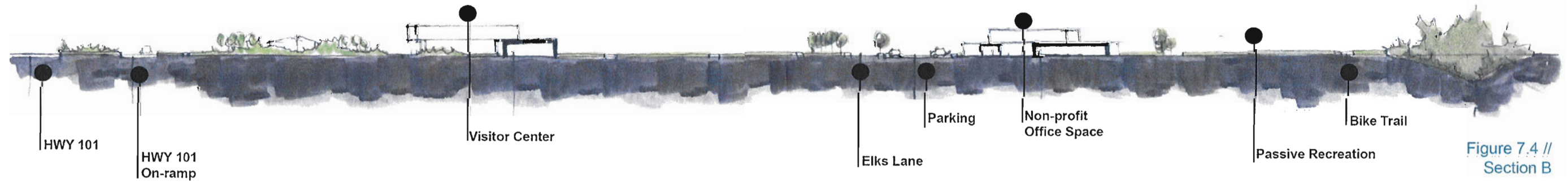


Figure 7.4 // Section B



leave blank

## Section 8 Support Graphics



Figure 8.1// Possible entrance sign and active demonstration windmill visible from HWY 101



Figure 8.2// Example of Hands-on Learning that will be provided throughout stations located in the agriculture space



Figure 8.4// West view of agriculture, facilities + drive-in

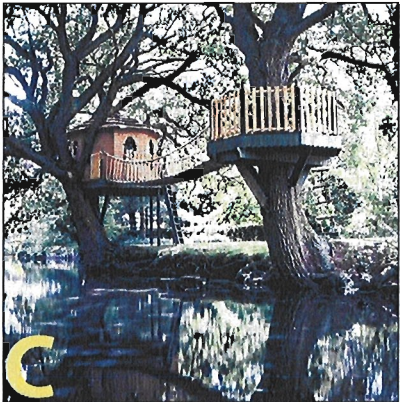


Figure 8.3// Tree houses located near the creek serve a dual purpose used for passive recreation and canopy species studies



### 8.1 The Benefits of Going Modular

Modular structures are more eco-conscious and cost effective than conventional construction. Because they are constructed in a factory, the amount of waste produced from construction is minimal and most all scraps can be reused or recycled within the factories. Also, the amount of energy spent in transporting materials to and from the site is nearly eliminated because everything is located within the facility, the only energy spent on travel is the final transport of the structure.

The Sustainable Living Lab will showcase the latest in modular structures. From a design aspect, there are many options for eco-friendly modulars that maintain a strong sense of cutting edge architecture. Using modular structures is an efficient alternative to conventional construction because it will reduce costs, reduce waste and energy expense, without taking away from good design.

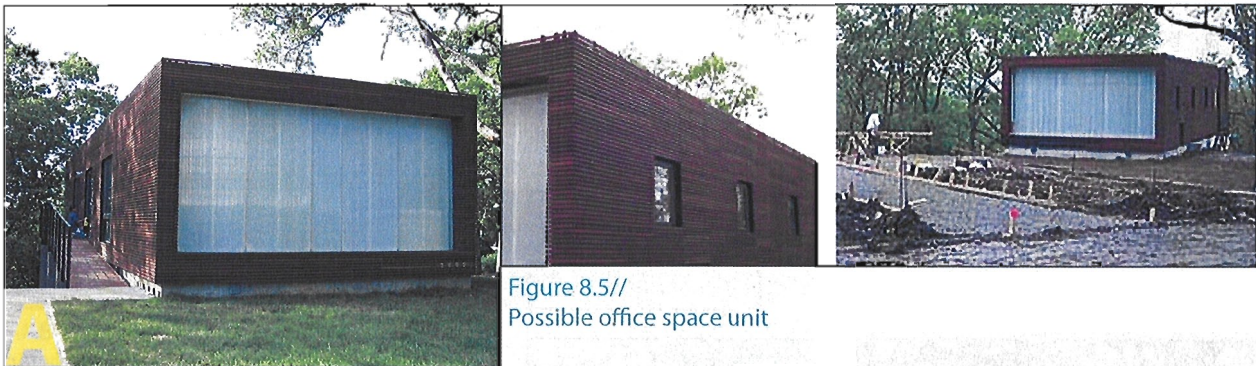


Figure 8.5// Possible office space unit

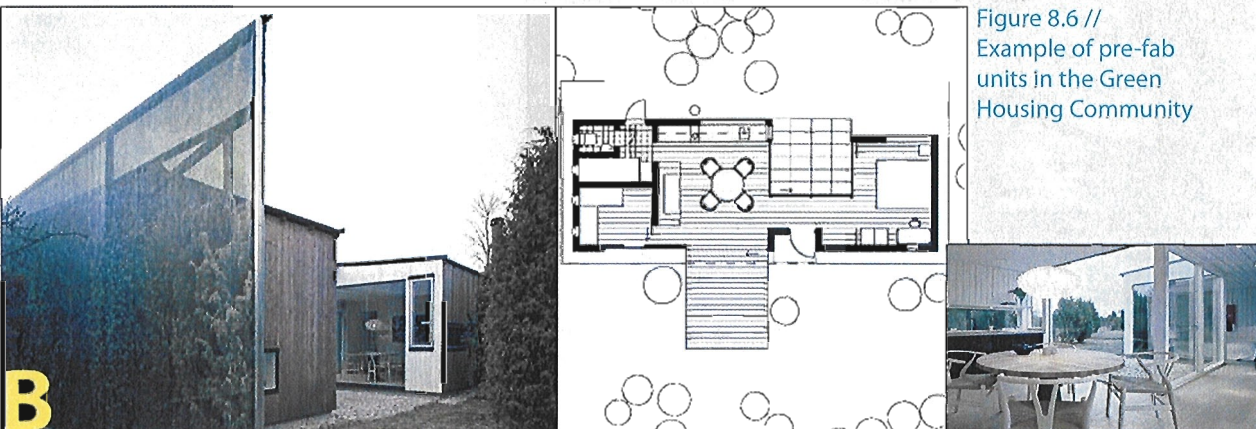


Figure 8.6 // Example of pre-fab units in the Green Housing Community

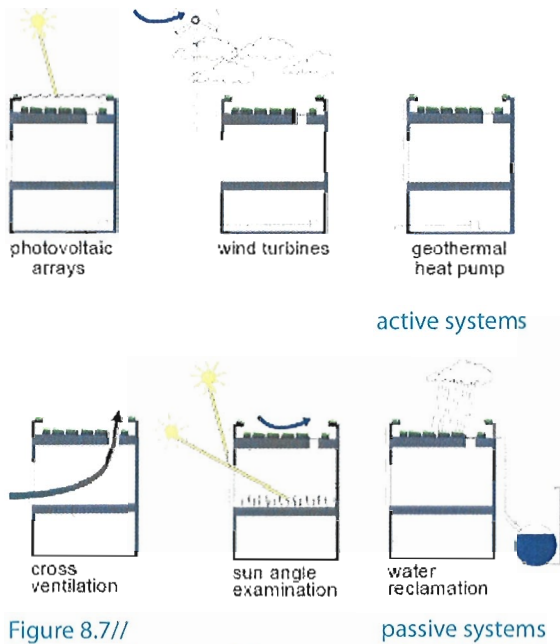


Figure 8.7//  
Passive and active architecture  
systems throughout site

### 8.2 Passive and Active Architecture Systems

There are many advantages to using passive and active architecture, throughout the site the most prominent resource is the sun. Therefore we have decided to utilize passive solar and active photovoltaic systems to take advantage of these. Passive solar heating is the most cost effective way to heat a building using the sun and building orientation. Through direct gain, sun enters a structure through south facing windows and is absorbed into immediate surfaces. At night, when the temperature outside drops below the temperature inside the heat from these surfaces is then admitted back into the interior environment. Active architectural features are things like solar panels, wind turbines, and geothermal heat pumps. A combination of passive and active architecture will be used through the Sustainable Living Lab.

### 8.3 3-D Massing Model

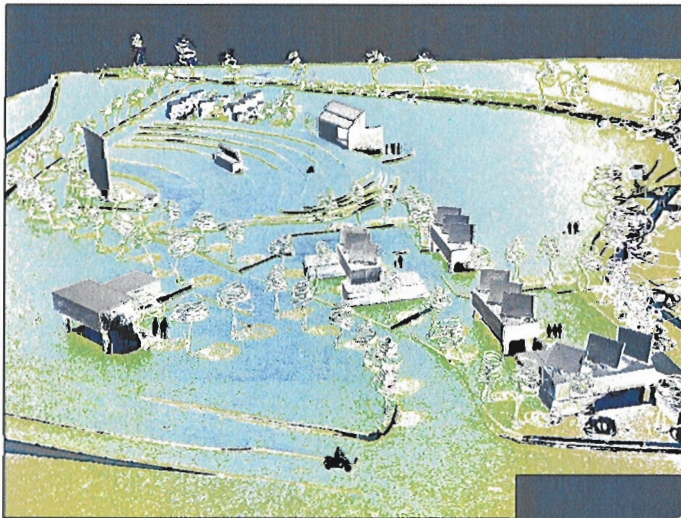


Figure 8.8 //  
Birds eye view of site  
looking North West



Figure 8.9 //  
Birds eye view of site  
looking South West



## Section 9 Off Site Design

### 9.1 Prado Road Overpass and Interchange

Prado Road is an integral connection between South Higuera and US Hwy 101. This road also links the southeast and southwest portions of the city together. The proposed Prado Road expansion will become a major thoroughfare for San Luis Obispo connecting Broad Street with Los Osos Valley Road. The proposed expansion is a mandatory prerequisite before development of the Sunset Site can begin. Caltrans has created a design for the interchange that the City will use once the interchange is appropriately funded. The design of the interchange widens the roadway to four lanes with an overpass. With the completion of the Prado Road Interchange, CA 227 will be re-routed to Prado Road. The new interchange will serve the South Higuera/Margarita neighborhoods as well as the Dilidio Project and Madonna neighborhoods.

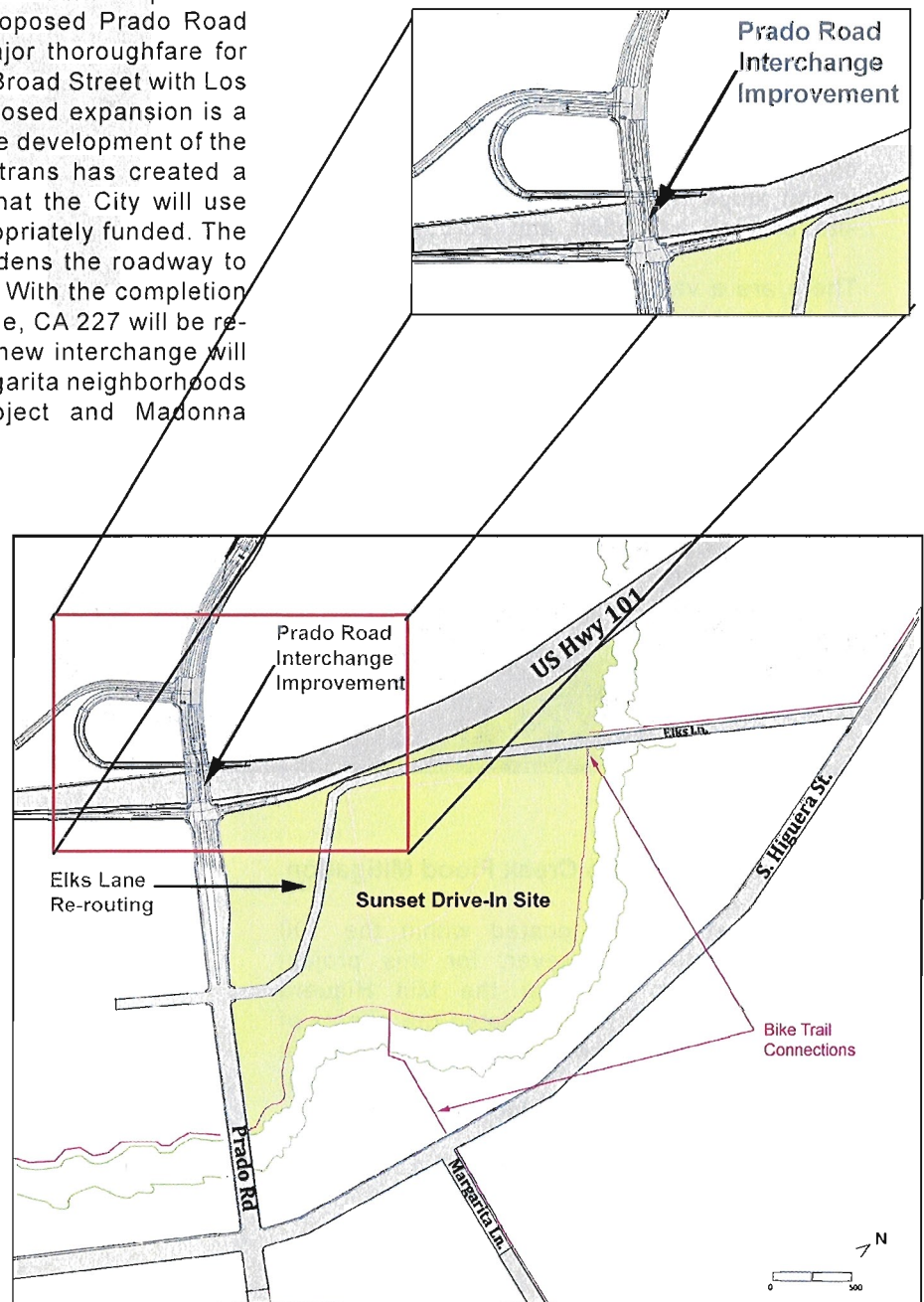


Figure 9.1//  
Future Prado Road  
interchange



## 9.2 Transit Stops

The Sustainable Living Lab aims to be the most environmentally conscience facility in the San Luis Obispo area. To assure the project is focusing on the environment, alternative modes of transportation will be encouraged when visiting the site. To promote this the development will include two additional transit stops other than the existing stop located on Prado Road. One stop will be located westbound on Prado Road adjacent to the site, while the other is located onsite on the Elks Lane interior Road. The transit stops will bring people to and from the site for work, education, and recreation.

There are a variety of transit stop designs that could possibly used onsite. The additional transit stops being incorporated into the Sustainable Living Lab project will include a sitting area and signage.



Figure 9.2//  
Transit Locations



Figure 9.3//  
Possible Transit Shelter + Benches

## 9.3 San Luis Obispo Creek Flood Mitigation

The Sunset Site is located within the 100 year floodplain. However, for this project the assumption was that the Mid Higuera Enhancement Plan had mitigated the affects of possible flooding. The Mid Higuera Enhancement Plan discusses the engineering measures that would need to be completed on the creek to mitigate the 100 year floodplain.



## 9.4 Margarita Creek Bridge

The Margarita Area of San Luis Obispo is a growing neighborhood with substantial influence on the Sustainable Living Lab development. To connect these two areas of town the Sustainable Living Lab is proposing a pedestrian bridge over San Luis Creek. The bridge will be located across the San Luis Creek directly aligned with Margarita Road, this trail extension will also provide access to the Bob Jones Bike Trail located onsite. The bridge will be modular in design and act as a linkage between the Sustainable Living Lab and Margarita Area. The proposed bridge would be a steel Roscoe Pony Truss Bridge that will require low maintenance.



Figure 9.4//  
Bridge Location

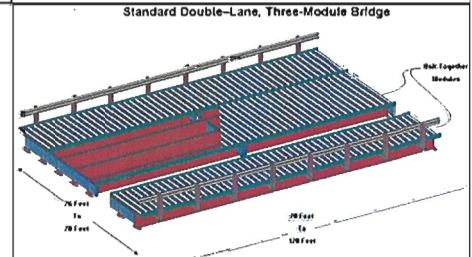
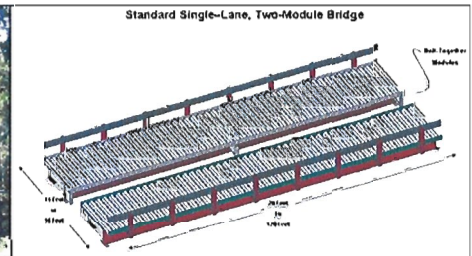


Figure 9.5//  
Modular Bridge Options

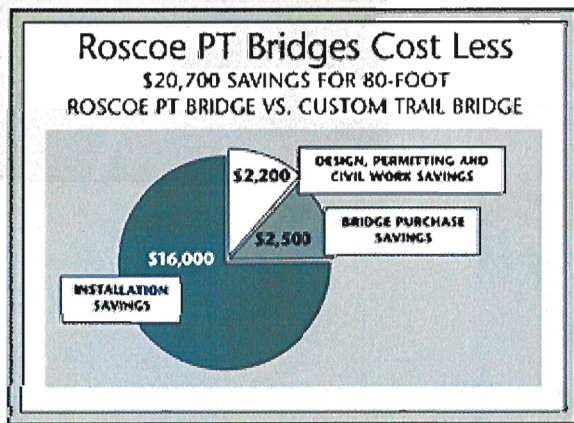


Figure 9.6//  
Example of  
Pricing for a Pony Truss bridge



### 9.5 Bike Trail Connection

The City of San Luis Obispo prides itself on the numerous bicycle routes and trails located throughout the city. One of the most prominent bike trails is the Bob Jones “City to the Sea” trail that goes from San Luis Obispo to Avila Beach. Currently, the Bob Jones trail ends near the San Luis Waste Water Treatment Plant. In the City’s General Plan there is information regarding the future expansion of the trail which would link Downtown San Luis to Avila Beach. The General Plan includes a few alternatives the city could take in extending the trail. Two of the alternatives locate the trail on the Sunset Site. The trail will be a suitable addition to the Sustainable Living Lab. The bike trail will be a two lane paved path located along the San Luis Creek.



Figure 9.8//  
Bob Jones Trail Locations

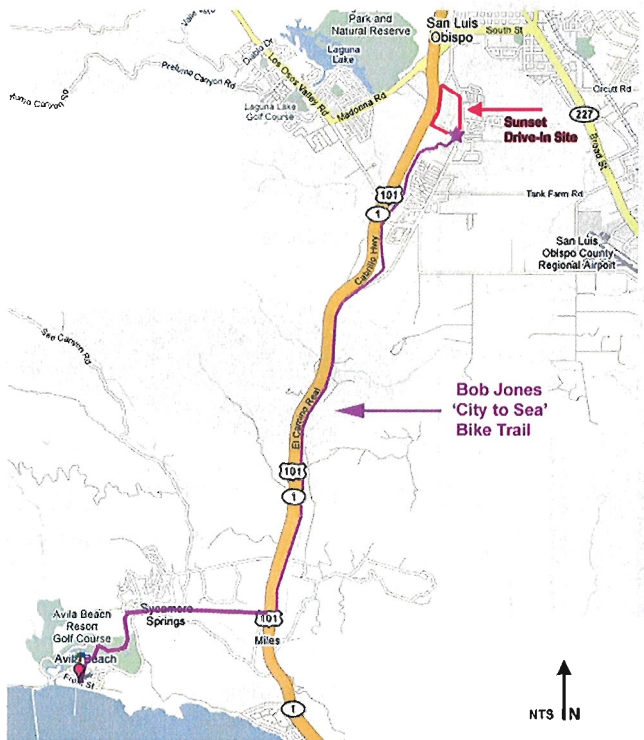


Figure 9.7//  
Existing Bob Jones Trail

## Section 10

# Feasibility Study

To conduct this study we broke our overall program into it's primary uses and conducted market feasibility studies for each. The methodology we employed was to a) define the characteristics of each use and b) identify key stakeholders and determine if benefits generated by demand would exceed the cost of construction. It is important to note that although one use may not be deemed feasible at this time, it may be outweighed by the benefits of other complimentary uses. As a result, a final decision to leave said use in the program is possible and part of overall feasibility of the project.

### 10.1 Offices

#### 10.1.1

|                            |                   |
|----------------------------|-------------------|
| Total Office Space         | 40,000 s.f.       |
| Average Construction Cost  | \$165.54 per s.f. |
| Average Rental Revenue     | \$2.00 per s.f.   |
| Total Cost of Construction | \$6,621,600       |
| Total Annual Lease Revenue | \$960,000         |
| Years of use before payoff | 6.89              |

Table 10.1//  
Office Space Program

\* Estimates from Reed Construction Data and ECOSLO 2008.

**10.1.2** The target users for these offices are non-profits, environmental and social organizations. To get an idea of what demand exists in the San Luis Obispo community we conducted interviews with such organizations. We discovered that there are over one-thousand non-profits alone in San Luis Obispo and less than half have a physical office space. Based upon interviews and case studies we found that non-profits need the least expensive office space as possible. The concept of 'shared space equals shared cost' is a driving factor in providing offices for non-profits. Local organizations such as ECOSLO, the Land Conservancy, Earth Day Alliance, California Native Plant Society, ECO-Brokers among many others expressed interest in the office space.



## 10.2 Affordable Housing

### 10.2.1

|                                 |                       |
|---------------------------------|-----------------------|
| Total Modular Space (studio)    | 10 units @ 500 s.f.   |
| Total Modular Space (1 bdrm)    | 15 units @ 750 s.f.   |
| Total Modular Space (2 bdrm)    | 15 units @ 1,000 s.f. |
| Average Construction Cost       | \$68 per s.f.         |
| Average Rental Revenue (studio) | \$300 per unit        |
| Average Rental Revenue (1 bdrm) | \$600 per unit        |
| Average Rental Revenue (2 bdrm) | \$900 per unit        |
|                                 |                       |
| Total Construction Cost         | \$2,125,000           |
| Total Annual Rental Revenue     | \$270,000             |
| Years of use before payoff      | 7.87                  |

Table 10.2//  
Affordable Housing Program

*\*Estimates from New Hampshire Modular Homes and Strickland 2008.*

**10.2.2** San Luis Obispo indeed has a shortage of affordable housing, making it a hot market commodity. A recent affordable housing project in San Luis Obispo had over 200 applicants for only 28 units. The People's Self-Help Housing Corporation now has a long waiting list of people and families with an income range of \$14,000-\$38,000 who are seeking housing. This is precisely the population our affordable housing would seek as renters.

## 10.3 Drive-In Rehabilitation

### 10.3.1

Rehabilitation of the Drive-In and upgrading the parking to a 2% grade permeable surface could cost between 1-5 million dollars.

\*Cost taken from Henderson Architects.

**10.3.2** The Drive-In is still in current use, receiving small numbers of visitors weekly. The addition of the restaurant and other amenities around the site, such as the restaurant, may increase the number of visitors to the Drive-In. Drive-In theaters are an endangered cultural resource in California. There are groups of people who travel across country just to be a part of a functioning drive-in theater. Hopefully, the rehabilitation will draw visitors from near and far to the site.

Revenue from the drive-in would not likely ever pay for the rehabilitation cost. Fortunately, the drive-in serves multiple purposes to the rest of the site. Its slight grade offers a sound barrier for the school and restaurant behind it. Its over five-hundred parking spaces provide parking for the restaurant, school and passive recreation areas. In this respect it is easier to see the benefits of undergoing rehabilitation of the Sunset Drive-In. As long as the Secretary of Interior's Standards for Rehabilitation are followed, state and federal money may also be available.

**10.4 Restaurant**

**10.4.1**

|                            |                    |
|----------------------------|--------------------|
| Total restaurant size      | 6,000 s.f.         |
| Average Construction Cost  | \$150 per s.f.     |
| Average Rental Revenue     | \$12,000 per month |
| Total Construction Cost    | \$900,000          |
| Total Annual Lease Revenue | \$144,000          |
| Years of use before payoff | 6.25               |

Table 10.4//  
Restaurant Program

\* Estimates from RestaurantOwner.com

**10.4.2** The restaurant would likely gain considerable profits from the offices and drive-in theater patrons. It is also intended to be integrated with the educational facility. Students will be able to see how crops grown on site are immediately converted into dinners. Composting and vegetable oil reuse would also be education stations. The integrated nature of the restaurant with the school could qualify it for a portion of the state and private funding given to the education facility. Additionally, the Margarita Area Specific Plan anticipates residential growth just to the east of the site. This new population would be likely patrons to the restaurant. The new Prado Road overpass and highway interchange also increase consumer accessibility to the site.

**10.5 Education Facilities**

**10.5.1**

|                                 |                     |
|---------------------------------|---------------------|
| Number of Students Served       | 87,000              |
| Total School size               | 6,800 s.f.          |
| Area per student                | 50 s.f.             |
| Number of students accommodated | 136                 |
| Average Construction Cost       | \$1,433 per student |
| Total Construction Cost         | \$194,888           |

Table 10.5//  
Education Facilities Program

\*Estimates from Best School Facilities, Children Now, Cuesta College, and White Hutchinson Leisure & Learning Group.

**10.5.2** There are over 51,000 children under the age of 17 in San Luis Obispo County. Cuesta College and Cal Poly add approximately 37,000 more students to the County. The educational facility will be accessible to groups of students from all schools in San Luis Obispo County. Using an approximation of 50 square feet per student, within a facility with 6,800 square feet means the educational facilities can accommodate 136 students. California spends approximately \$1,433 per student to construct a school. The total construction cost then would be \$194,888. With financial support from state and private school funding this project will likely pay for itself relatively quickly. Weekend programs could be offered that would generate additional income.



## 10.6 Welcome Center

### 10.6.1

|                           |                |
|---------------------------|----------------|
| Total Welcome Center size | 10,000 s.f.    |
| Average Construction Cost | \$145 per s.f. |
| Total Construction Cost   | \$1,450,000    |

Table 10.6//  
Agriculture Program

**10.6.2** The Welcome Center is intended to draw passer-bys from Highway 101. It is a City sponsored initiative that will generate income from sales of San Luis Obispo memorabilia. It could also sell will also redistribute visitors to other areas of the City generating income in other areas. Projected income generation from the Welcome Center alone is difficult to determine at this time.

## Section 11

# Initial Environmental Study

### Final Determination: *EIR Not Required, Mitigated Negative Declaration*

#### *Less Than Significant Impacts*

The analysis done for the Sustainable Living Lab shows minimal impacts will effect the environment and surrounding area. However, a mitigated negative declaration will be required to enforce mitigation of these possible impacts air quality, airport requirements, traffic, biological resources, and noise.

The potential effects on air quality must use mitigation measures to address impacts. The mitigation will primarily be used during construction as dust and particulate matter will be an issue of concern during this time. The Contractor will be instructed by the City to use specific mitigation measures. The following mitigation measures will be used such as wetting down surfaces and turning off construction equipment when not in use.

The Sustainable Living Lab is located within the Airport Land Use Plan and proper mitigation must be completed before furthering the development progress. The Sustainable Living Lab has an appropriate amount of space to suffice as an ACOS (Airport Compatible Open Space Plan) zone required by the Airport Land Use Plan. The ACOS will follow detailed guidelines available from the airport commission. The space available onsite is greater than the requirement of 60x1000 square feet mandatory element.

The impacts of traffic to and from the site will increase with the expansion of the Prado Road interchange. With the expansion and re-routing of CA 227 this area will become a main thoroughfare for San Luis Obispo. The interior road will also bring more vehicles to the site however the majority of those will be visitors or employees to the site. A new interchange will be placed at

Prado Road and the Elks Lane interior.

The biological resources of particular concern are located within the San Luis Obispo Creek's riparian zone. The riparian zone is especially sensitive because of the vegetation and wildlife inhabiting this area. Coastal Live Oak, Coastal Maple, Sycamore, and Willows are important tree species that grow in this riparian area and without proper mitigation there is a chance these species will not survive. Riparian corridors in general during development have strict stipulations from the city or county to protect these areas, it is especially significant in the Sustainable Living Lab project because a bike trail will be created along the creek. The bike trail is an expansion of the Bob Jones Trail and will use a cut and fill method to construct the expansion.

The site placement between US HWY 101 and Prado Rd. is not an ideal quiet spot. Any development interested in locating on site will need to mitigate noise for a particular use. The maximum exposure onsite is 65dB which according to the San Luis Obispo General Plan is acceptable for all planned uses onsite, including housing and educational facilities.





## Section 12

# Implementation Plan

### 12.1 Process

Before the phasing process begins an assessment will be performed to identify the need within the community for the project. This report will provide information regarding the projects feasibility and the necessity of development of non-profit office space, education facilities and affordable housing. A separate analysis would also be conducted on the Historic Preservation of Drive-In theaters throughout the nation. This report will determine the importance and feasibility of preserving Sunset Drive-In.

The City has some requirements that have to be met before the developer can proceed with construction. The requirements include the Prado Road Expansion and Overpass and the San Luis Creek Flood Mitigation. These two prerequisites will be considered Phase One and Phase Two. During the first phase the developer along with support from other projects and the City will fund the Prado Road expansion. The Prado Road expansion will widen the roadways surrounding the site and provide an overpass over US HWY 101. The second phase will mandate that the developer follow guidelines in the City's Mid Higuera Enhancement Plan to mitigate the 100 year floodplain onsite.

After the appropriate needs have been called out, the developable area will be subdivided into five parcels. These parcels include two public

owned properties and three privately owned properties. Financing for the public properties as well as the private properties will likely be funded through State Grants and donations. The non-profit offices and affordable housing will be eligible for additional funds through other non-profits organizations along with the Drive-In Theater which will be eligible for funding through the Mills Act.

Prior to any ground breaking all subdivisions are required to perform an initial environmental study to determine the potential environmental impacts on the existing site. Following the initial study an Environmental Impact Report will be performed, or, if potential impacts can be mitigated a negative declaration will be filed. The environmental study will focus on habitat disruption, soils, air quality, noise, circulation and other impacts that will be generated from development of the site.

Dependant upon the development timeline of the Sustainable Living Lab, the Prado Road interchange may still be under construction. Appropriate changes in initial site plans and construction times will need to be acknowledged in order to accommodate the new interchange.

### 12.2 Subdivision Plan

#### 12.2.1 Non-Profit Office Space

The developer will need to contact local/regional non-profits and form a list of potential occupants. The appropriate permits will need to be acquired through the City along with filing the development for LEED certification.

#### 12.2.2 Affordable Housing

The developer will be mandated to provide a high output of affordable housing units, because affordable housing is consistent with general plan goals the developer will qualify for easements and

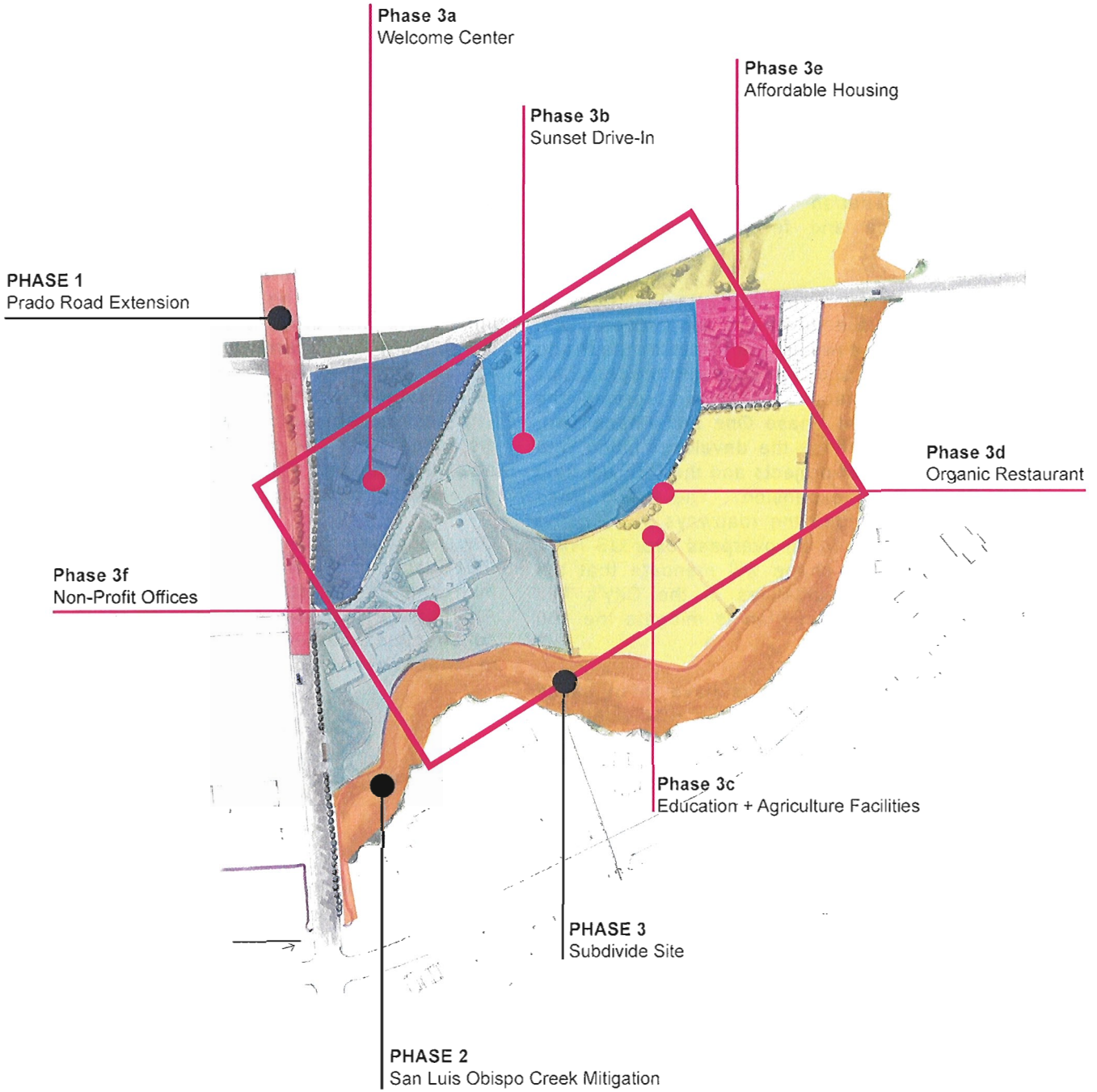
potentially could have some fees waived by the City. Potential residents will be interviewed and screened through People's Self-Help.

#### 12.2.3 Education Facilities

The City will need to review San Luis Obispo County and City facility needs and apply for appropriate State Funding. The facility will be County managed.



Figure 12.1 //  
Implementation Plan



**12.2.4 Sunset Drive-In Theater**

A detailed rehabilitation strategy consistent with Mills Act standards will be generated in order to receive compensation for the preservation of the Drive-In. Appropriate permits will need to be acquired for the multiuse stage at the base of the screen and a continuation of the Sunday Swap Meet permit.

**12.2.5 Organic Restaurant**

The developer will need to accept RFPs for potential restaurant ownership. Appropriate permits will need to be acquired through the City.



## Section 13

# Bios



Christina Batteate

**About Me:**

My passion for environmental and social justice got me into planning. This same passion has taken me around the world to volunteer on organic farms and with the United Nations. Some of this passion spills over into this project as well.

After graduation I plan to work for a few years before pursuing a master's degree in something that will help me live out my dream of making a positive impact on this little planet of ours. I will inevitably work overseas, helping promote sustainability in developing nations.

I love poetry, abstract art, foreign languages and dancing samba.



Devin Denman

**About Me:**

Upon graduation I plan on traveling the world on a sail boat. Once I run out of funds I will return home and conjure my next plan of action. After I have seen the many cultures of the globe I will take my experiences, move to a large city, and work for a snazzy design firm; one catch however, I will never work in a cubicle. Working in a cubicle is the equivalent to living in suburbia, Thus, I will avoid at all costs.

My interests include skating around San Luis Obispo on my quads, snowboarding in the winter, painting in the summer and sewing year-round.



Courtney Kettmann

**About Me:**

I am graduating from Cal Poly in Spring 2008 with a degree in City and Regional Planning. My plans for the future include traveling to Europe, returning home to live with my parents, and interning with the City of San Jose Environmental Services Department.



## Section 14

# References

- Airport Land Use Commission of San Luis Obispo County. (2005). Airport Land Use Plan for the San Luis Obispo County Regional Airport. Amended May 18, 2005. Retrieved April 15, 2008 from [https://secure.techxpress.net/sloairport.com/images/uploads/pages/File/ALUP\\_TXT.pdf](https://secure.techxpress.net/sloairport.com/images/uploads/pages/File/ALUP_TXT.pdf)
- Building Educational Success Together. (2008). *California State Profile*. Retrieved May 10, 2008. <http://www.bestschoolfacilities.org/best-home/stateprofile.asp?Mode=Home&State=CA>
- Children Now.org. (2005). *California County Data Book, San Luis Obispo*. Retrieved May 10, 2008. <http://publications.childrennow.org/assets/pdf/policy/cdb05/cdb05-sanluisobispo.pdf>
- City of San Luis Obispo Bicycle Transportation Plan, October 2003.
- City of San Luis Obispo (March 2001) Mid Higuera Street Enhancement Plan.
- City of San Luis Obispo (March 2001) Mid Higuera Street Enhancement Plan, San Luis Creek Flood Mitigation.
- City of San Luis Obispo. (2002). Community Design Guidelines.
- City of San Luis Obispo. (2005). *Chinatown Historic District Project Initial Study Environmental Checklist Form* (ER # 69-05). City of San Luis Obispo: Pam
- City of San Luis Obispo. (2005). *Zelman Development Plan Initial Study Environmental Checklist Form* (ER # 7-05). City of San Luis Obispo: Pam Ricci.
- City of San Luis Obispo. (October 2005). Margarita Area Specific Plan. <http://www.ci.san-luis-obispo.ca.us/communitydevelopment/download/masp.pdf>
- City of San Luis Obispo. (2006). Subdivision Regulations. Adopted March 2006.
- City of San Luis Obispo. (2007). Economic Development Department. *Rent rates in San Luis Obispo*. Retrieved May 8, 2008. <http://www.ci.san-luis-obispo.ca.us/economicdevelopment/demographics.asp>
- City of San Luis Obispo. (2007). General Plan. Last updated 2006 by City Council.
- City of San Luis Obispo. (2007). Zoning Regulations. Updated February 2007.
- Cuesta College. (2008). *General Characteristics*. Retrieved May 10, 2008. [http://www.stateuniversity.com/universities/CA/Cuesta\\_College.html](http://www.stateuniversity.com/universities/CA/Cuesta_College.html)
- Friends of Sweetwater Creek Park. (2008). Sweetwater Creek State Park. Retrieved April 16, 2008. <http://friendsofsweetwatercreek.org/>
- Golden Gate National Parks Conservancy. (2008) Crissy Field Center. Retrieved April 16, 2008. from [http://www.parksconservancy.org/our\\_work/crissy](http://www.parksconservancy.org/our_work/crissy)
- Henderson Architects. (2008). *Projects*. Retrieved May 10, 2008. <http://www.hendersonarchitect.com/pdf/Projects.pdf>
- National Parks Service. (2008). The Presidio of San Francisco. Retrieved April 16, 2008. <http://www.nps.gov/prsf/>
- New Hampshire Modular Homes. (2008). *Home plans and prices*. Retrieved May 8, 2008. <http://www.nhmodularhomes.com/prices.htm>
- The Secretary of the Interior. (2008). Standards for Rehabilitation. Retrieved April 25, 2008. <http://www.nps.gov/history/hps/tps/tax/rhb/stand.htm>



Thoreau Center for Sustainability. (2008) Retrieved April 16, 2008.  
from <http://www.thoreau.org/>

Twilight Drive-In Canada. (2008). Retrieved April 16, 2008.  
from <http://members.shaw.ca/twilightdrivein/>

Reed Construction Data. (2008). Construction Cost Increases for Office Building Categories. Retrieved May 8, 2008. <http://www.reedconstructiondata.com/news/2008/03/construction-cost-increases-for-four-office-building-categories/>

Restaurant Owner.com. (2008). *Blog entry*. Retrieved May 8, 2008. <http://www.restaurantowner.com/public/811.cfm>  
Roscoe Bridges. (2008). Roscoe Pony Truss Bridge Systems. Retrieved May 24, 2008.  
<http://www.roscoebridge.com/>

U.S. Census Bureau. (2006). *Average Manufactured Housing Sales Price San Luis Obispo*. Retrieved May 8, 2008. <http://www.census.gov/const/mhs/stavg06.pdf>

Personal interview with Christine Mulholland April 22, 2008

Phone interview with Alyson Nakasone of ECO-SLO



# Section 15 Appendicies

## Appendix 1 Poster A from Presentation on 6-05-08

### the sustainable Living Lab

**Our Purpose**  
*"In creating this project the overarching philosophy was to close the waste loop and to do so in a way that people could learn from."*

Following a request from the City of San Luis Obispo, the consultant has prepared a report that provides for the rehabilitation of the Sunset Drive-In while enhancing 50 acres surrounding the theater through a combination of development and preservation. The Sunset Drive-In is located on site along US HWY 101 and Prado Road in San Luis Obispo and has become a unique element to the City's history. The design of the project was created through detailed site analysis consisting of physical and contextual elements, studying similar cases, designing within the client program and city requirements, performing initial study and market feasibility analysis, and finally preparing an implementation plan. Those tools together helped to inform the consultant on an appropriate project for the site. This document is an expression of everything discovered about the site, incorporating its past, present, and future potential.

Through contextual research of the San Luis Obispo area the consultant recognized the need for affordable housing in the City; an addition was made to the program to include 40 affordable housing units onsite. The entire project will aim to be LEED certified by using sustainable building practices. The vision for the site is to create a space in San Luis Obispo that respects history and a sustainable future.



### The Program

- 1) retention + rehabilitation of the Sunset Drive-In Theater
- 2) offices for environmental non-profits
- 3) a new restaurant
- 4) a tourist, cultural showman + convenience center
- 5) classroom + lecture facilities
- 6) organic vegetable + demonstration gardens
- 7) public transit stop
- 8) picnic areas with passive recreation facilities
- 9) affordable housing (additional)



Perspective//  
Looking West towards the Boardwalk, Theater and Drive In



Conceptual Section//  
Section shows the slope of the Drive-In, the education facility and the Restaurant

### The Data

| Type of Use                         | User (sq. ft)  | # parking spaces (car) | Parking (sq. ft) | Percentage of Site |
|-------------------------------------|----------------|------------------------|------------------|--------------------|
| Welcoming Center                    | 10,000         | 30                     | 6,833            | 0.86%              |
| Office                              | 40,000         | 100                    | 27,250           | 3.41%              |
| Educational                         |                |                        |                  |                    |
| Classroom 1                         | 2,000          | 10                     | 10,250           | 0.66%              |
| Classroom 2                         | 2,000          | 10                     | 10,250           | 0.66%              |
| Lecture                             | 1,000          | 5                      | 7,380            | 0.47%              |
| Restaurant                          | 3,000          | 10                     | 10,250           | 0.66%              |
| Kitchen                             | 3,000          | 10                     | 8,150            | 0.47%              |
| Park Space                          | 28,000         | 40                     | 11,490           | 2.02%              |
| Playground                          |                |                        |                  |                    |
| Shaded TCH                          | 5,000          | 10                     | 2,050            | 0.30%              |
| Bicycleway (15)                     | 11,250         | 20                     | 4,010            | 0.81%              |
| Bicycleway (15)                     | 15,000         | 30                     | 6,150            | 1.00%              |
| <b>Total</b>                        | <b>122,050</b> | <b>501</b>             | <b>102,738</b>   |                    |
| <b>Total Footprint (sq. ft.)</b>    |                |                        |                  | <b>224,799</b>     |
| <b>Total site area (sq. ft.)</b>    |                |                        |                  | <b>1,955,612</b>   |
| <b>Percentage of Site Built-Out</b> |                |                        |                  | <b>11.49%</b>      |

Bird's Eye//  
Looking South West



Bird's Eye//  
Looking North West



City + Regional Planning Department    California Polytechnic State University    Spring 2008



Appendix 1 Poster B from Presentation on 6-05-08

**The Site**

**Key//**

- A. Entrance Sign
- B. Education Stations
- C. Canopy Hide-outs
- D. 40,000 sf LEED offices for NPOs
- E. Affordable Housing
- F. Picnic/passive recreation
- G. Rehabilitation of Sunset Drive-In
- H. 5,000 sf classroom facilities
- I. Public transit options
- J. 10,000 sf tourist center
- K. 48 seat restaurant

**Welcome Center**  
They will come to get oriented to the City and be drawn into the site for a stroll along the creek or to have a bite at the innovative organic restaurant.

**Offices**  
Bringing non-profits and green organizations together into shared space saves money and promotes collaboration that strengthens the non-profits and businesses inside and the communities they serve on the outside.

**Sunset Drive-In**  
One of the few remaining and functioning remnants of the 1950's Drive-In era, Sunset Drive-In is a unique piece of San Luis Obispo and America's history. With a green rehabilitation we tip our hat to the past and move bravely into the future.

**Education Center**  
The mission is "encourage new generations to become bold leaders for healthy communities, thriving parks, and a more environmentally just society."

**Creek-side Education**


**Agriculture**  
It feeds the restaurant. It teaches children where their food comes from. It has a harmonious relationship with the creek. It maintains a piece of California's agricultural heritage. More than just a field of greens this agriculture feeds body and mind.

**Affordable Housing**  
Recently, the People's Self-Help Housing Corporation turned away over two-hundred qualifying applicants for their 28 unit apartment complex. The leftover one-hundred seventy-two families still need a place to live.

**Restaurant**  
Patrons can see the path food takes from the ground to the plate and back to the ground again via compost. Think global, eat local.

Christina Balteza Devin Gezman Courtney Kestman

Appendix 2 LEED Certification Checklist



## LEED for New Construction v 2.2

### Registered Project Checklist

Project Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

---

| Yes | ? | No |   |                      |   |
|-----|---|----|---|----------------------|---|
|     |   |    | <b>Project Totals (Pre-Certification Estimates) 69 Points</b> |                      |   |
|     |   |    | Certified: 26-32 points                                       | Silver: 33-38 points | Gold: 39-51 points Platinum: 52-69 points |


---

| Yes | ? | No |                                    |   |          |
|-----|---|----|------------------------------------|---|----------|
|     |   |    | <b>Sustainable Sites 14 Points</b> |   |          |
| Yes |   |    | Prereq 1                           | <b>Construction Activity Pollution Prevention</b>                             | Required |
|     |   |    | Credit 1                           | <b>Site Selection</b>   | 1        |
|     |   |    | Credit 2                           | <b>Development Density &amp; Community Connectivity</b>                       | 1        |
|     |   |    | Credit 3                           | <b>Brownfield Redevelopment</b>   | 1        |
|     |   |    | Credit 4.1                         | <b>Alternative Transportation, Public Transportation</b>                      | 1        |
|     |   |    | Credit 4.2                         | <b>Alternative Transportation, Bicycle Storage &amp; Changing Rooms</b>       | 1        |
|     |   |    | Credit 4.3                         | <b>Alternative Transportation, Low-Emitting &amp; Fuel Efficient Vehicles</b> | 1        |
|     |   |    | Credit 4.4                         | <b>Alternative Transportation, Parking Capacity</b>                           | 1        |
|     |   |    | Credit 5.1                         | <b>Site Development, Protect or Restore Habitat</b>                           | 1        |
|     |   |    | Credit 5.2                         | <b>Site Development, Maximize Open Space</b>                                  | 1        |
|     |   |    | Credit 6.1                         | <b>Stormwater Design, Quantity Control</b>                                    | 1        |
|     |   |    | Credit 6.2                         | <b>Stormwater Design, Quality Control</b>                                     | 1        |
|     |   |    | Credit 7.1                         | <b>Heat Island Effect, Non-Roof</b>   | 1        |
|     |   |    | Credit 7.2                         | <b>Heat Island Effect, Roof</b>   | 1        |
|     |   |    | Credit 8                           | <b>Light Pollution Reduction</b>  | 1        |

| Yes | ? | No |                                  |   |   |
|-----|---|----|----------------------------------|---|---|
|     |   |    | <b>Water Efficiency 5 Points</b> |   |   |
|     |   |    | Credit 1.1                       | <b>Water Efficient Landscaping, Reduce by 50%</b>                   | 1 |
|     |   |    | Credit 1.2                       | <b>Water Efficient Landscaping, No Potable Use or No Irrigation</b> | 1 |
|     |   |    | Credit 2                         | <b>Innovative Wastewater Technologies</b>                           | 1 |
|     |   |    | Credit 3.1                       | <b>Water Use Reduction, 20% Reduction</b>                           | 1 |
|     |   |    | Credit 3.2                       | <b>Water Use Reduction, 30% Reduction</b>                           | 1 |

Powered by





## LEED for New Construction v 2.2 Registered Project Checklist

| Yes | ? | No |                                |  |
|-----|---|----|--------------------------------|--|
|     |   |    | <b>Energy &amp; Atmosphere</b> |  |
|     |   |    | <b>17 Points</b>               |  |

|     |          |   |          |
|-----|----------|---|----------|
| Yes | Prereq 1 | <b>Fundamental Commissioning of the Building Energy Systems</b> | Required |
| Yes | Prereq 1 | <b>Minimum Energy Performance</b>                               | Required |
| Yes | Prereq 1 | <b>Fundamental Refrigerant Management</b>                       | Required |

**\*Note for EAc1:** All LEED for New Construction projects registered after June 26, 2007 are required to achieve at least two (2) points.

|          |  |  |  |                |
|----------|--|--|--|----------------|
| Credit 1 |  |  | <b>Optimize Energy Performance</b>                         | <b>1 to 10</b> |
|          |  |  | 10.5% New Buildings or 3.5% Existing Building Renovations  | 1              |
|          |  |  | 14% New Buildings or 7% Existing Building Renovations      | 2              |
|          |  |  | 17.5% New Buildings or 10.5% Existing Building Renovations | 3              |
|          |  |  | 21% New Buildings or 14% Existing Building Renovations     | 4              |
|          |  |  | 24.5% New Buildings or 17.5% Existing Building Renovations | 5              |
|          |  |  | 28% New Buildings or 21% Existing Building Renovations     | 6              |
|          |  |  | 31.5% New Buildings or 24.5% Existing Building Renovations | 7              |
|          |  |  | 35% New Buildings or 28% Existing Building Renovations     | 8              |
|          |  |  | 38.5% New Buildings or 31.5% Existing Building Renovations | 9              |
|          |  |  | 42% New Buildings or 35% Existing Building Renovations     | 10             |
| Credit 2 |  |  | <b>On-Site Renewable Energy</b>                            | <b>1 to 3</b>  |
|          |  |  | 2.5% Renewable Energy                                      | 1              |
|          |  |  | 7.5% Renewable Energy                                      | 2              |
|          |  |  | 12.5% Renewable Energy                                     | 3              |
| Credit 3 |  |  | <b>Enhanced Commissioning</b>                              | 1              |
| Credit 4 |  |  | <b>Enhanced Refrigerant Management</b>                     | 1              |
| Credit 5 |  |  | <b>Measurement &amp; Verification</b>                      | 1              |
| Credit 6 |  |  | <b>Green Power</b>   | 1              |



## LEED for New Construction v 2.2 Registered Project Checklist

| Yes        | ? | No | <b>Materials &amp; Resources</b> |  | <b>13 Points</b> |
|------------|---|----|----------------------------------|--|------------------|
| <b>Yes</b> |   |    | Prereq 1                         | <b>Storage &amp; Collection of Recyclables</b>                           | Required         |
|            |   |    | Credit 1.1                       | <b>Building Reuse</b> , Maintain 75% of Existing Walls, Floors & Roof    | 1                |
|            |   |    | Credit 1.2                       | <b>Building Reuse</b> , Maintain 95% of Existing Walls, Floors & Roof    | 1                |
|            |   |    | Credit 1.3                       | <b>Building Reuse</b> , Maintain 50% of Interior Non-Structural Elements | 1                |
|            |   |    | Credit 2.1                       | <b>Construction Waste Management</b> , Divert 50% from Disposal          | 1                |
|            |   |    | Credit 2.2                       | <b>Construction Waste Management</b> , Divert 75% from Disposal          | 1                |
|            |   |    | Credit 3.1                       | <b>Materials Reuse</b> , 5%  | 1                |
|            |   |    | Credit 3.2                       | <b>Materials Reuse</b> , 10%   | 1                |
|            |   |    | Credit 4.1                       | <b>Recycled Content</b> , 10% (post-consumer + 1/2 pre-consumer)         | 1                |
|            |   |    | Credit 4.2                       | <b>Recycled Content</b> , 20% (post-consumer + 1/2 pre-consumer)         | 1                |
|            |   |    | Credit 5.1                       | <b>Regional Materials</b> , 10% Extracted, Processed & Manufactured      | 1                |
|            |   |    | Credit 5.2                       | <b>Regional Materials</b> , 20% Extracted, Processed & Manufactured      | 1                |
|            |   |    | Credit 6                         | <b>Rapidly Renewable Materials</b>                                       | 1                |
|            |   |    | Credit 7                         | <b>Certified Wood</b>  | 1                |

| Yes        | ? | No | <b>Indoor Environmental Quality</b> |   | <b>14 Points</b> |
|------------|---|----|-------------------------------------|---|------------------|
| <b>Yes</b> |   |    | Prereq 1                            | <b>Minimum IAQ Performance</b>                                      | Required         |
| <b>Yes</b> |   |    | Prereq 2                            | <b>Environmental Tobacco Smoke (ETS) Control</b>                    | Required         |
|            |   |    | Credit 1                            | <b>Outdoor Air Delivery Monitoring</b>                              | 1                |
|            |   |    | Credit 2                            | <b>Increased Ventilation</b>  | 1                |
|            |   |    | Credit 3.1                          | <b>Construction IAQ Management Plan</b> , During Construction       | 1                |
|            |   |    | Credit 3.2                          | <b>Construction IAQ Management Plan</b> , Before Occupancy          | 1                |
|            |   |    | Credit 4.1                          | <b>Low-Emitting Materials</b> , Adhesives & Sealants                | 1                |
|            |   |    | Credit 4.2                          | <b>Low-Emitting Materials</b> , Paints & Coatings                   | 1                |
|            |   |    | Credit 4.3                          | <b>Low-Emitting Materials</b> , Carpet Systems                      | 1                |
|            |   |    | Credit 4.4                          | <b>Low-Emitting Materials</b> , Composite Wood & Agrifiber Products | 1                |
|            |   |    | Credit 5                            | <b>Indoor Chemical &amp; Pollutant Source Control</b>               | 1                |
|            |   |    | Credit 6.1                          | <b>Controllability of Systems</b> , Lighting                        | 1                |
|            |   |    | Credit 6.2                          | <b>Controllability of Systems</b> , Thermal Comfort                 | 1                |
|            |   |    | Credit 7.1                          | <b>Thermal Comfort</b> , Design                                     | 1                |
|            |   |    | Credit 7.2                          | <b>Thermal Comfort</b> , Verification                               | 1                |
|            |   |    | Credit 8.1                          | <b>Daylight &amp; Views</b> , Daylight 75% of Spaces                | 1                |
|            |   |    | Credit 8.2                          | <b>Daylight &amp; Views</b> , Views for 90% of Spaces               | 1                |



## LEED for New Construction v 2.2 Registered Project Checklist

| Yes | ? | No |  |   |                 |
|-----|---|----|--|---|-----------------|
|     |   |    | <b>Innovation &amp; Design Process</b> |   | <b>5 Points</b> |
|     |   |    | Credit 1.1                             | <b>Innovation in Design:</b> Provide Specific Title | 1               |
|     |   |    | Credit 1.2                             | <b>Innovation in Design:</b> Provide Specific Title | 1               |
|     |   |    | Credit 1.3                             | <b>Innovation in Design:</b> Provide Specific Title | 1               |
|     |   |    | Credit 1.4                             | <b>Innovation in Design:</b> Provide Specific Title | 1               |
|     |   |    | Credit 2                               | <b>LEED® Accredited Professional</b>                | 1               |

Appendix 3 Environmental Study

**INITIAL STUDY  
ENVIRONMENTAL CHECKLIST FORM  
For ER # 43-07**

**1. Project Title:**

Sunset Drive-In Site

**2. Lead Agency Name and Address:**

City of San Luis Obispo, Planning Department  
919 Palm Street, San Luis Obispo, CA 93401

**3. Contact Person and Phone Number:**

Environmental Review: Jeff Hook, Senior Planner  
Phone: (805) 781-7168

Christina Batteate  
City and Regional Planning, California Polytechnic State University  
209-323-9986

Devin Denman  
City and Regional Planning, California Polytechnic State University  
949-307-7653

Courtney Kettmann  
City and Regional Planning, California Polytechnic State University  
408-205-8381

**4. Project Location:**

The project site is located at the intersection of Prado Road and US Highway 101.

**5. Project Sponsor's Name and Address:**

California Polytechnic State University  
City and Regional Planning  
San Luis Obispo, CA 93407



**6. General Plan Designation:**

The development area is designated office and open space in the General Plan Land Use Element. The proposed development will only need minimal zoning changes due to the proposed affordable housing complex.

**7. Zoning:**

The Zoning Map shows the southwest corner of the site is designated O-PD, office planned development, the southeast corner, C-S-S, Service-Commercial with the Special Consideration overlay, and the northeast portion of the site is C/OS-10, Conservation/Open Space (10-acre minimum parcel size) and the northwest C/OS-5 (5-acre minimum parcel size). The northern most part of the site is zoned C-S-S.

**8. Description of the Project**

The Sunset Drive-In Site is currently used for a variety of land uses. The original Sunset Drive-In Theater from 1949 is located on site as well as a mobile home park, U-Haul storage yard, agriculture, and light industrial. The redevelopment of this site will restore the Sunset Drive-In while preserving its unique character, creating a walkable education facility that features self guided informative pathways, a small restaurant, and office space for local non profit green organizations.

**9. Surrounding Land Uses and Settings:**

The San Luis Obispo Creek runs onsite and all redevelopment will be directed away from the creek using the City's required 20 foot creek set back.

**10. Project Entitlements Requested:**

The project requests a partial re-zoning from C/OS-10 to R4 along Elks Road. This parcel of land will be developed for high density affordable housing.

**11. Other public agencies whose approval is required:**

Pacific Gas & Electric Company- review project in compliance with use restrictions in their 80 foot wide utility easement (overhead power lines).





**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

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

|   |                              |   |                               |   |                                    |
|---|------------------------------|---|-------------------------------|---|------------------------------------|
|   | Aesthetics                   |   | Geology/Soils                 |   | Public Services                    |
|   | Agricultural Resources       |   | Hazards & Hazardous Materials |   | Recreation                         |
| X | Air Quality                  |   | Hydrology/Water Quality       | X | Transportation & Traffic           |
| X | Biological Resources         |   | Land Use and Planning         |   | Utilities and Service Systems      |
| X | Cultural Resources           |   | Noise                         |   | Mandatory Findings of Significance |
|   | Energy and Mineral Resources | X | Population and Housing        |   |                                    |

**FISH AND GAME FEES**

|   |  |
|---|--|
|   | There is no evidence before the Department that the project will have any potential adverse effects on fish and wildlife resources or the habitat upon which the wildlife depends. As such, the project qualifies for a de minimis waiver with regards to the filing of Fish and Game Fees.              |
| X | The project has potential to impact fish and wildlife resources and shall be subject to the payment of Fish and Game fees pursuant to Section 711.4 of the California Fish and Game Code. The earlier initial study was circulated to the California Department of Fish and Game for review and comment. |

**STATE CLEARINGHOUSE**

|  |  |
|--|--|
|  | This environmental document must be submitted to the State Clearinghouse for review by one or more State agencies (e.g. Cal Trans, California Department of Fish and Game, Department of Housing and Community Development). The public review period shall not be less than 30 days (CEQA Guidelines 15073(a)). |
|--|--|





**DETERMINATION:**

On the basis of this initial evaluation:

|   |  |
|---|--|
| I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.   |  |
| I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made, or the mitigation measures described on an attached sheet(s) have been added and agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.  |  |
| I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.  |  |
| I find that the proposed project MAY have a “potentially significant” impact(s) or “potentially significant unless mitigated” impact(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. 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, because all potentially significant effects (1) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (2) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.  |  |

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Community Development Director



## EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the analysis in each section. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. The explanation of each issue should identify the significance criteria or threshold, if any, used to evaluate each question.
3. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 17, "Earlier Analysis," may be cross-referenced).
5. Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c) (3) (D) of the California Code of Regulations. Earlier analyses are discussed in Section 17 at the end of the checklist.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.





| Issues, Discussion and Supporting Information Sources | Sources | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------|--------------------------------|--|------------------------------|-----------|
| ER # 43-07  |         |                                |  |                              |           |

**1. AESTHETICS. Would the project:**

|   |  |  |  |  |   |
|---|--|--|--|--|---|
| a) Have a substantial adverse effect on a scenic vista?   |  |  |  |  | X |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, open space, and historic buildings within a local or state scenic highway? |  |  |  |  | X |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?   |  |  |  |  | X |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?   |  |  |  |  | X |

The project will have no adverse effects on the scenic vista; instead the project will focus on emphasizing the views surrounding the site to better blend with the surrounding.

**2. AGRICULTURE RESOURCES. Would the project:**

|   |  |  |  |  |   |
|---|--|--|--|--|---|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? |  |  |  |  | X |
| b) Conflict with existing zoning for agricultural use or a Williamson Act contract?   |  |  |  |  | X |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?  |  |  |  |  | X |

The nature of the project is to create an educational facility that preserves a variety of different uses. All agriculture uses will be retained onsite and in production. The farmland onsite is not considered prime or unique. However retaining agriculture onsite will benefit the community as well as the site.

**3. AIR QUALITY. Would the project:**

|  |  |  |   |  |   |
|--|--|--|---|--|---|
| a) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?   |  |  |   |  | X |
| b) Conflict with or obstruct implementation of the applicable air quality plan?  |  |  |   |  | X |
| c) Expose sensitive receptors to substantial pollutant concentrations?   |  |  | X |  |   |
| d) Create objectionable odors affecting a substantial number of people?  |  |  |   |  | X |
| e) 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 releasing emissions which exceed qualitative thresholds for ozone precursors)? |  |  |   |  | X |

Any impacts of air quality on the site will be temporary during the construction process. The Contractor will follow strict City guidelines to ensure that minimum effects will be felt onsite.

Consistent with Municipal Code Section 15.04.040 X. (Sec. 3307.2), all graded surfaces shall be wetted, protected, or contained in such a manner as to prevent dust or spill upon any adjoining property or street. The following measures shall constitute the project's dust management plan and shall remain in effect during all phases of project construction:

- a. Regular wetting of roads and graded areas (at least twice daily with complete coverage of all active areas);
- b. Increasing frequency of watering whenever winds exceed 15 mph;
- c. Cessation of grading activities during periods of winds over 25 mph;



| Issues, Discussion and Supporting Information Sources | Sources | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------|--------------------------------|--|------------------------------|-----------|
| ER # 43-07  |         |                                |  |                              |           |

- d. Direct application of water on material being excavated and/or transported onsite or offsite;
- e. Watering material stockpiles;
- f. Periodic washdowns, or mechanical street sweeping, of streets in the vicinity of the construction site; and
- g. Non-potable water is to be used in all construction and dust control work.

**4. BIOLOGICAL RESOURCES. Would the project:**

|  |  |  |  |   |   |
|--|--|--|--|---|---|
| a) Have a substantial adverse effect, either directly or indirectly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? |  |  |  | X |   |
| b) Have a substantial adverse effect, on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?  |  |  |  | X |   |
| c) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (e.g. Heritage Trees)?  |  |  |  |   | X |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?  |  |  |  |   | X |
| e) Conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?   |  |  |  |   | X |
| f) Have a substantial adverse effect on federally protected wetlands as defined in Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, etc.) through direct removal, filling, hydrological interruption, or other means?   |  |  |  |   | X |

- a). The project will not interfere with any native species or creek inhabitants during or after construction. According to the City's Informational Map Atlas there are no species of special interest of concern on the project site.
- b). The bike trail along the creek will be designed at a creek set back of 50 feet from the riparian zone to ensure proper mitigation.

**5. CULTURAL RESOURCES. Would the project:**

|  |  |  |  |   |   |
|--|--|--|--|---|---|
| a) Cause a substantial adverse change in the significance of a historic resource? (See CEQA Guidelines 15064.5)        |  |  |  | X |   |
| b) Cause a substantial adverse change in the significance of an archaeological resource? (See CEQA Guidelines 15064.5) |  |  |  |   | X |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?                |  |  |  |   | X |
| d) Disturb any human remains, including those interred outside of formal cemeteries?                                   |  |  |  |   | X |

Restoration of Sunset Drive In will enhance the area while preserving the cultural significance. The development will also provide space for historical buildings to be placed if they are in need of being removed from elsewhere in the city. These buildings will be retrofitted and used as educational learning tools within the sustainable living lab.

**6. ENERGY AND MINERAL RESOURCES. Would the project:**

|   |  |  |  |  |   |
|---|--|--|--|--|---|
| a) Conflict with adopted energy conservation plans? |  |  |  |  | X |
|---|--|--|--|--|---|



| Issues, Discussion and Supporting Information Sources | Sources | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------|--------------------------------|--|------------------------------|-----------|
| ER # 43-07  |         |                                |  |                              |           |

|  |  |  |  |  |   |
|--|--|--|--|--|---|
| b) Use non-renewable resources in a wasteful and inefficient manner?   |  |  |  |  | X |
| c) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State? |  |  |  |  | X |

All development on site will use sustainable principles to ensure energy efficiency and water retention. The site will use photovoltaics on all south facing structures as well as over the parking lots. Compostable toilets and water runoff recycling will be utilized in onsite buildings.

**7. GEOLOGY AND SOILS. Would the project:**

|   |  |  |  |  |   |
|---|--|--|--|--|---|
| a) Expose people or structures to potential substantial adverse effects, including risk of loss, injury or death involving:   |  |  |  |  | X |
| I. Rupture of a known earthquake fault, as delineated in the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault?            |  |  |  |  | X |
| II. Strong seismic ground shaking?  |  |  |  |  | X |
| III. Seismic-related ground failure, including liquefaction?  |  |  |  |  | X |
| IV. Landslides or mudflows?   |  |  |  |  | X |
| b) Result in substantial soil erosion or the loss of topsoil?   |  |  |  |  | X |
| 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 landslides, lateral spreading, subsidence, liquefaction, or collapse? |  |  |  |  | X |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?  |  |  |  |  | X |

According to City documents there are no major fault lines or fault of interest located on or near site that would pose potential damage to the site. Construction of buildings onsite will be held to the highest building standard for California.

**8. HAZARDS AND HAZARDOUS MATERIALS. Would the project:**

|  |  |  |  |  |   |
|--|--|--|--|--|---|
| a) Create a significant hazard to the public or the environment through the routine use, transport or disposal of hazardous materials?   |  |  |  |  | X |
| 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?                                |  |  |  |  | X |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?  |  |  |  |  | X |
| d) Expose people or structures to existing sources of hazardous emissions or hazardous or acutely hazardous materials, substances, or waste?   |  |  |  |  | X |
| e) 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, it would create a significant hazard to the public or the environment? |  |  |  |  | X |
| f) For a project located within an airport land use plan, or within two miles of a public airport, would the project result in a safety hazard for the people residing or working in the project area?                         |  |  |  |  | X |
| g) Impair implementation of, or physically interfere with, the adopted emergency response plan or emergency evacuation   |  |  |  |  | X |



| Issues, Discussion and Supporting Information Sources | Sources | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------|--------------------------------|--|------------------------------|-----------|
| ER # 43-07  |         |                                |  |                              |           |

|   |  |  |  |  |   |
|---|--|--|--|--|---|
| plan?   |  |  |  |  |   |
| 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 residents are intermixed with wildlands? |  |  |  |  | X |

**9. HYDROLOGY AND WATER QUALITY. Would the project:**

|  |   |  |  |  |   |
|--|---|--|--|--|---|
| a) Violate any water quality standards or waste discharge requirements?  |   |  |  |  | X |
| 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 for which permits have been granted)? |   |  |  |  | X |
| c) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide additional sources of runoff into surface waters (including, but not limited to, wetlands, riparian areas, ponds, springs, creeks, streams, rivers, lakes, estuaries, tidal areas, bays, ocean, etc.)?                                   |   |  |  |  | X |
| d) Substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation onsite or offsite?   | 4 |  |  |  | X |
| e) Substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial flooding onsite or offsite?   |   |  |  |  | X |
| f) 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?   |   |  |  |  | X |
| g) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?  |   |  |  |  | X |
| h) Will the project introduce typical storm water pollutants into ground or surface waters?  |   |  |  |  | X |
| i) Will the project alter ground water or surface water quality, temperature, dissolved oxygen, or turbidity?  |   |  |  |  | X |

The engineering has been complete to mitigate the impacts of a flood within the 100 year flood plain. The information regarding these improvements are located in the Margarita Area Specific Plan and the South Higuera Improvement Plan.

**10. LAND USE AND PLANNING. Would the project:**

|   |  |  |  |  |   |
|---|--|--|--|--|---|
| a) Conflict with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect? |  |  |  |  | X |
| b) Physically divide an established community?  |  |  |  |  | X |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plans?  |  |  |  |  | X |

The site will require a partial change in land use designation to accommodate proposed affordable housing units.

**11. NOISE. Would the project result in:**

|  |  |  |  |  |   |
|--|--|--|--|--|---|
| a) Exposure of people to or generation of "unacceptable" noise levels as defined by the San Luis Obispo General Plan Noise Element, or general noise levels in excess of standards established in the Noise Ordinance? |  |  |  |  | X |
|--|--|--|--|--|---|





| Issues, Discussion and Supporting Information Sources | Sources | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------|--------------------------------|--|------------------------------|-----------|
| ER # 43-07  |         |                                |  |                              |           |

|   |  |  |  |   |   |
|---|--|--|--|---|---|
| b) A substantial temporary, periodic, or permanent increase in ambient noise levels in the project vicinity above levels existing without the project?  |  |  |  | X |   |
| c) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?   |  |  |  |   | X |
| d) For a project located within an airport land use plan, or 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? |  |  |  |   | X |

There will be a minor, short-term increase in noise during construction period of the site.

The site is located within the Airport Land Use Plan and therefore will provide sufficient space for an ACOS zone on site. The following guidelines will be used to remain compatible with the County's requirement.

**Size** The minimum size of any Reserve Space area shall be 60 x 1000 feet. A size of 100 x 2000 feet or greater is suggested.

**Distribution** Reserve Space shall be distributed more or less evenly within each Aviation Safety Area in such manner as to provide effective mitigation of aviation safety hazards.

Arbitrary clustering of Reserve Space in isolated portions of any Aviation Safety Area is not acceptable.

**Topography Terrain** shall be level or gently rolling. Abrupt changes in slope (such as cliffs, bluffs, berms, ravines, creek beds) are not acceptable.

**Obstructions**

- There is no requirement for removal of rocks, but areas in which the presence of many large rocks or boulders would constitute a hazard to aircraft shall not be approvable as Reserve Space
- Within any given Reserve Space area, at least one area must exist which is a minimum of 60 x 1000 feet in size with maximum grade not to exceed 5%; which is free of all streets, roads, highways, parking lots, rights-of-way, vehicles, fences, light poles, trees, and fixed athletic equipment; and which is not overhung by pole-mounted light fixtures or by the canopies of nearby trees (or, in the case of new plantings, by the maximum anticipated canopies of trees at maturity). No above-ground utility poles or wires may be located within 500 feet of this 60 x 1000 foot area. In addition, the center 30 x 800 feet of this area is to be maintained free of curbs, gutters, planting areas, staked crops or plantings, and headstones. Illumination may be provided by bollard lights, so long as the height of each bollard is less than three feet and so long as no bollard lights are located within the center 30 x 800 foot area.
- Except within the 60 x 1000 foot area described above, fences are acceptable within Reserve Space areas, provided that they are of wire strand ("barbed wire") or chain link construction. Wood, concrete, concrete block, brick, or stone fences are not permitted.
- All light poles within the Reserve Space area shall be designed and colored in such a manner as to be easily visible from the air and shall be illuminated during all hours of darkness (although the level of illumination may, if desired, be reduced during non-business hours). The use of vertical banners or signs mounted to light poles is encouraged as a means to improve the visibility of these fixtures.
- Reserve Space areas shall be substantially free of structures Agricultural
- Grazing of cattle, sheep, goats, and the like is acceptable in Reserve Space areas. Specialized animal facilities (such as feedlots, poultry farms, hog farms) and barns or other structures are prohibited
- Cultivation of crops not requiring staking is allowed.
- Cultivation of staked crops is allowed, provided that, in any given Reserve Space area, at least one area exists which is a minimum of 30 x 800 feet in size and which is free of stakes as described above.
- Forestry and orchards are allowed, provided that, in any given Reserve Space area, at least one area exists which is a minimum of 60 x 1000 feet in size and which is free of intrusion by trees as described above.

| 12. POPULATION AND HOUSING. Would the project:   |  |  |  |   |  |
|--|--|--|--|---|--|
| a) Induce substantial population growth in an area, either directly (for example by proposing new homes or businesses) or indirectly (for example, through extension of roads or other |  |  |  | X |  |





| Issues, Discussion and Supporting Information Sources | Sources | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------|--------------------------------|--|------------------------------|-----------|
| ER # 43-07  |         |                                |  |                              |           |

|  |  |  |  |   |  |
|--|--|--|--|---|--|
| infrastructure)?   |  |  |  |   |  |
| b) Displace substantial numbers of existing housing or people necessitating the construction of replacement housing elsewhere? |  |  |  | X |  |

a) Proposed new housing developments will cause a potential impact on the surrounding area. With the creation of 32 medium density apartment units the site can expect more residents on site with greater traffic on Elks Rd.

b) With the widening of Prado Road due to the Prado Road extension existing homes will be inhabitable and therefore converted to a different use.

**3.17 Policies**  
 3.17.1 Residential developments should promote sustainability in their design, placement, and use. Sustainability can be promoted through a variety of housing strategies, including the following:  
 A. Maximize use of renewable, recycled-content, and recycled materials, and minimize use of building materials that require high levels of energy to produce or that cause significant, adverse environmental impacts.  
 B. Incorporate renewable energy features into new homes, including passive solar design, solar hot water, solar power, and natural ventilation and cooling.  
 C. Minimize thermal island effects through reduction of heat-absorbing pavement and increased tree shading.  
 D. Avoid building materials that may contribute to health problems through the release of gasses or glass fibers into indoor air.  
 E. Design dwellings for quiet, indoors and out, for both the mental and physical health of residents.  
 F. Design dwellings economical to live in because of reduced utility bills, low cost maintenance and operation, and improved occupant health.  
 G. Use construction materials and methods that maximize the recyclability of a building's parts.  
 H. Educate public, staff, and builders to the advantages and approaches to sustainable design, and thereby develop consumer demand for sustainable housing.  
 I. Demand for sustainable housing  
 J. City will consider adopting a sustainable development rating system, such as the LEED program.  
 3.17.2 Residential site, subdivision, and neighborhood designs should be coordinated to make residential sustainability work. Some ways to do this include:  
 A. Design subdivisions to maximize solar access for each dwelling and site.  
 B. Design sites so residents have usable outdoor space with access to both sun and shade.  
 C. Streets and access ways should minimize pavement devoted to vehicular use.  
 D. Use neighborhood retention basins to purify street runoff prior to its entering creeks. Retention basins should be designed to be visually attractive as well as functional. Fenced-off retention basins should be avoided.  
 E. Encourage cluster development with dwellings grouped around significantly sized, shared open space in return for City approval of smaller individual lots.  
 F. Treat public streets as landscaped parkways, using continuous plantings at least six feet wide and where feasible, median planters to enhance, define, and to buffer residential neighborhoods of all densities from the effects of vehicle traffic.  
 3.17.4 To promote energy conservation and a cleaner environment, encourage the development of dwellings with energy-efficient designs, utilizing passive and active solar features, and the use of energy-saving techniques that exceed minimums prescribed by State law.  
 3.17.5 Actively promote water conservation through housing and site design to help moderate the cost of housing.

**13. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision, or need, of new or physically altered government 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? |  |  |  | X |  |
|---------------------|--|--|--|---|--|





| Issues, Discussion and Supporting Information Sources | Sources | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------|--------------------------------|--|------------------------------|-----------|
| ER # 43-07  |         |                                |  |                              |           |

|   |  |  |  |   |   |
|---|--|--|--|---|---|
| b) Police protection?                             |  |  |  | X |   |
| c) Schools?                                       |  |  |  | X |   |
| d) Parks?   |  |  |  |   | X |
| e) Roads and other transportation infrastructure? |  |  |  | X |   |
| f) Other public facilities?                       |  |  |  | X |   |

With the increase of housing on site increased public services will be needed to accommodate residents. However, the increase in housing units will only have a minimum affect on public services because there is currently medium density housing located on site.

**14. RECREATION. Would the project:**

|   |  |  |  |  |   |
|---|--|--|--|--|---|
| a) Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? |  |  |  |  | X |
| b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?                     |  |  |  |  | X |

The project will not affect existing or planned parks or trails.

**15. TRANSPORTATION/TRAFFIC. Would the project:**

|  |  |  |  |   |   |
|--|--|--|--|---|---|
| a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?                                       |  |  |  | X |   |
| b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads and highways?  |  |  |  |   | X |
| c) Substantially increase hazards due to design features (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?                    |  |  |  |   | X |
| d) Result in inadequate emergency access?  |  |  |  |   | X |
| e) Result in inadequate parking capacity onsite or offsite?  |  |  |  |   | X |
| f) Conflict with adopted policies supporting alternative transportation (e.g. bus turnouts, bicycle racks)?  |  |  |  |   | X |
| g) Conflict with the with San Luis Obispo County Airport Land Use Plan resulting in substantial safety risks from hazards, noise, or a change in air traffic patterns? |  |  |  |   | X |

**Prado Road Improvements**

The City will ensure that changes to Prado Road (projects A.1, A.2, B.4 and C.1) and other related system improvements are implemented in a sequence that satisfies circulation demands caused by area development. The sponsors of development projects that contribute to the need for the Prado Road interchange (project C.1) will be required to prepare or fund the preparation of a Project Study Report for the interchange project. The Project Study Report shall meet the requirements of the California Department of Transportation.

a) New interchange and re-routing of CA 227 will greatly increase the traffic on Prado Road. The development of the Sunset Drive In site will also increase daily trips to the area because of job creation and recreational activities.

b) The project will also re-route Elks Lane through the Sunset Drive-In site from South Higuera to the Prado Road interchange. Increase in traffic is expected in and around the site.

**16. UTILITIES AND SERVICE SYSTEMS. Would the project:**

|  |  |  |  |  |   |
|--|--|--|--|--|---|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?  |  |  |  |  | X |
| b) Require or result in the construction or expansion of new water treatment, waste water treatment, water quality control, or storm drainage facilities, the construction of which could cause significant environmental effects? |  |  |  |  | X |



| Issues, Discussion and Supporting Information Sources | Sources | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------|--------------------------------|--|------------------------------|-----------|
| ER # 43-07  |         |                                |  |                              |           |

|  |  |  |  |  |   |
|--|--|--|--|--|---|
| c) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new and expanded water resources needed?   |  |  |  |  | X |
| d) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitment? |  |  |  |  | X |
| e) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?   |  |  |  |  | X |
| f) Comply with federal, state, and local statutes and regulations related to solid waste?  |  |  |  |  | X |

The project will not affect utility demand or amount of supplies.

**17. 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 or prehistory? |  |  |  |  | X |
| 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 the past projects, the effects of other current projects, and the effects of probable future projects)  |  |  |  |  | X |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  |  |  |  |  | X |

**18. EARLIER ANALYSES.**

Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063 (c) (3) (D). In this case a discussion should identify the following items:

- a) **Earlier analysis used.** Identify earlier analysis and state where they are available for review.
- b) **Impacts adequately addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
- c) **Mitigation measures.** For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions of the project.

**19. SOURCE REFERENCES.**

|    |  |
|----|--|
| 9. | City of San Luis Obispo, Land Use Inventory Database               |
| 9. | City of San Luis Obispo General Plan Conservation, May 2006.       |
| 9. | City of San Luis Obispo General Plan Housing Element, May 2006     |
| 9. | City of San Luis Obispo General Plan Land Use Element, May 2006    |
| 9. | City of San Luis Obispo General Plan Circulation Element, May 2006 |
| 9. | City of San Luis Obispo General Plan Open Space Element, May 2006  |
| 9. | City of San Luis Obispo General Plan Noise, May 2006               |
| 9. | City of San Luis Obispo General Plan Safety, May 2006              |





| Issues, Discussion and Supporting Information Sources | Sources | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------|--------------------------------|--|------------------------------|-----------|
| ER # 43-07  |         |                                |  |                              |           |

Attachments:  
Attachment 1: Vicinity Map

**REQUIRED MITIGATION AND MONITORING PROGRAMS**

**AIR QUALITY (Section 3)**

**1. Mitigation Measure:** Air quality could be a concern during the construction process. The mitigation will be temporary to alleviate issues associated with construction. The mitigations include that the City will monitor the Contractor on the following:

Wetting down dry or dusty surfaces to cut back on particulate matter.

All construction will be turned off when not in use to cut down on vehicle emissions.

**BIOLOGICAL RESOURCES (Section 4)**

**2. Mitigation Measure:** The City shall control the timing, sequence, and methods of construction, selection and maintenance of equipment, and the conduct of the contractor and workers. The City has the authority to stop the project if Contractor is not following the specified requirements listed in the mitigation measures.

**3. Mitigation Measure:** All development will occur at least 50ft away from the San Luis Creek riparian zone. This setback should guarantee the health of the creek during construction of onsite buildings.

**4. Mitigation Measure:** With the establishment of a creek path, development will be monitored by the Monitoring Biologist to ensure construction is not having an adverse affect on the natural environment. Because of the nature of the Bob Jones Bike Trail extension will run along the creek using cut and fill methods. This will require that the City Engineer monitor the process of the path construction to ensure safety of bikers and the environment.

**5. Mitigation Measure:** Areas and or species sensitive to vehicle emissions could be affected. Design of project clusters parking away from creek to lower any negative affects from vehicles.

**6. Mitigation Measure:** The City will provide orientation for the Contractor and all involved workers, to inform them of the biological conditions of the site, including sensitive species and area of particular concern. The City will also have a briefing with the Contractor to inform all workers of proper procedure while working near a creek bed. Topics to be covered include:

- a) No pets, camping, or other personal use of the project site will be allowed.
- b) Killing wildlife or destruction of dens, nests or pools is prohibited.



| Issues, Discussion and Supporting Information Sources | Sources | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------|--------------------------------|--|------------------------------|-----------|
| ER # 43-07  |         |                                |  |                              |           |

- c) All food-related trash items will be removed from the work site daily.
- d) Sightings, trappings, injuries or fatalities to identified sensitive species shall be immediately reported to the Monitoring Biologist.
- e) Protocol for encounter of sensitive species will be reviewed, and written handouts provided. Work areas, including earthwork, planting maintenance, and stockpile areas, shall be inspected daily before beginning work. Any wildlife species found will be removed by biologists or allowed to escape.

**7. Mitigation Measure:** Following the construction of all buildings native landscaping will be introduced to the site to encourage native species inhabitants. The majority of the site will be left for native landscaping and this step will be take after all construction of buildings and structures are complete.

**Monitoring Program (Mitigation Measures 2-6):** City Engineering staff will inspect the construction operations daily to verify conformance with specifications and mitigations.

The Natural Resources Manager will conduct periodic spot-check inspections to verify conformance with specifications and mitigations.

A qualified Monitoring Biologist will be retained during work which could affect sensitive habitat. The Monitoring Biologist will inspect the work site each day, coordinate compliance with biological mitigation requirements, and prepare a daily log to document the presence or absence of any sensitive species and actions taken.

**CULTURAL RESOURCES (Section 5)**

**8. Mitigation Measures:** The development will rehabilitate the original Sunset Drive-In however it will remain a functioning theater.

**9. Monitoring Measure:** The rehabilitation process will be done using the Secretary of Interior Standards for historically significant structures.

**POPULATION AND HOUSING (Section 12)**

**10. Mitigation Measure:** The development will introduce 40 new affordable housing units onsite. The City will need to determine if a zoning change will be appropriate for this proposal.

**Monitoring Program:** The proposal will be granted to allow medium density affordable housing onsite at the Sustainable Living Lab.

**11. Mitigation Measure:** The proposed 40 units will bring a less than significant amount of people onsite. The units are small ranging from studios to two bedrooms. The size of the units will limit the number of people living onsite.



| Issues, Discussion and Supporting Information Sources | Sources | Potentially Significant Issues | Potentially Significant Unless Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------|--------------------------------|--|------------------------------|-----------|
| ER # 43-07  |         |                                |  |                              |           |

**Monitoring Program:** Build the amount of units the City believes is appropriate for the site.

**12. Mitigation Measure:** The two existing residential units that will be removed will be compensated for their losses.

**Monitoring Program:** The City will offer the residents monetary compensation or will find a house for the residents of comparable value.

**TRANSPORTATION/TRAFFIC (Section 15)**

**13. Mitigation Measure:** Following the General Plan the applicant will expand the Prado Road interchange to a four lane arterial street. The expansion will change the applicant's lot lines.

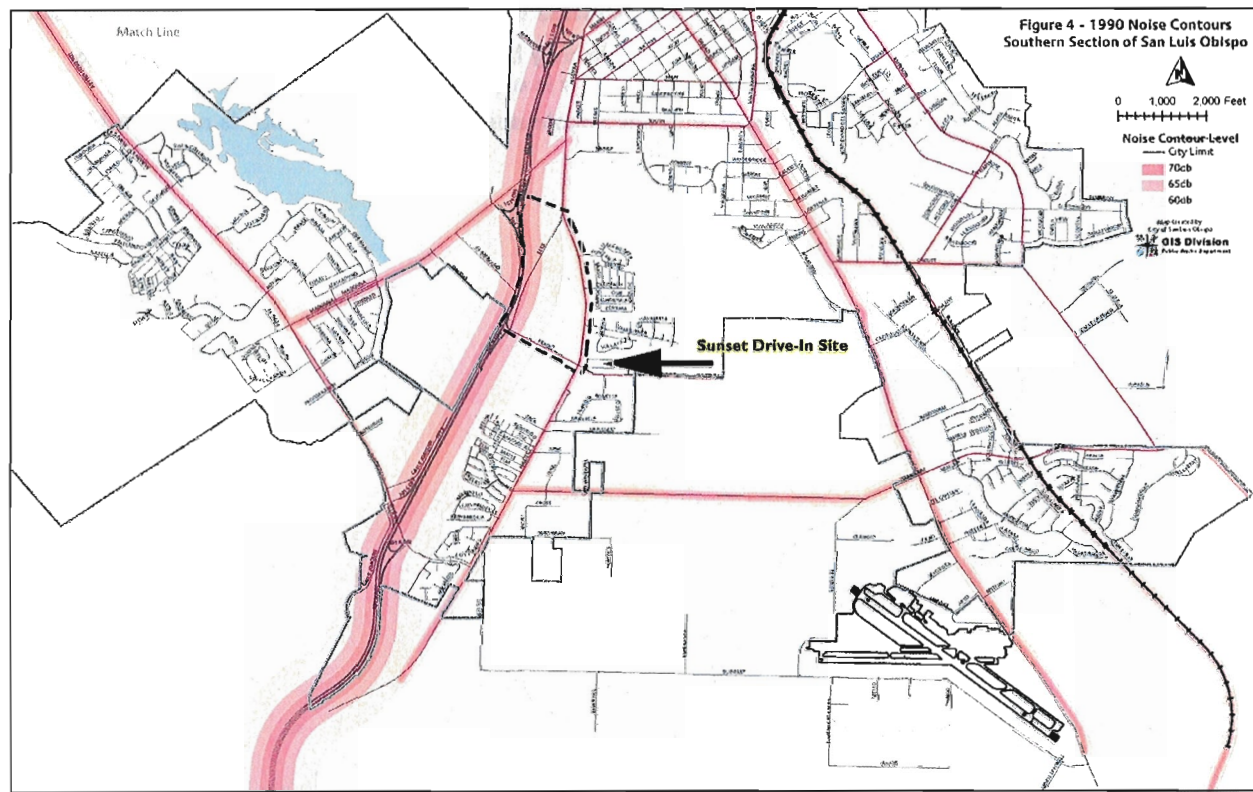
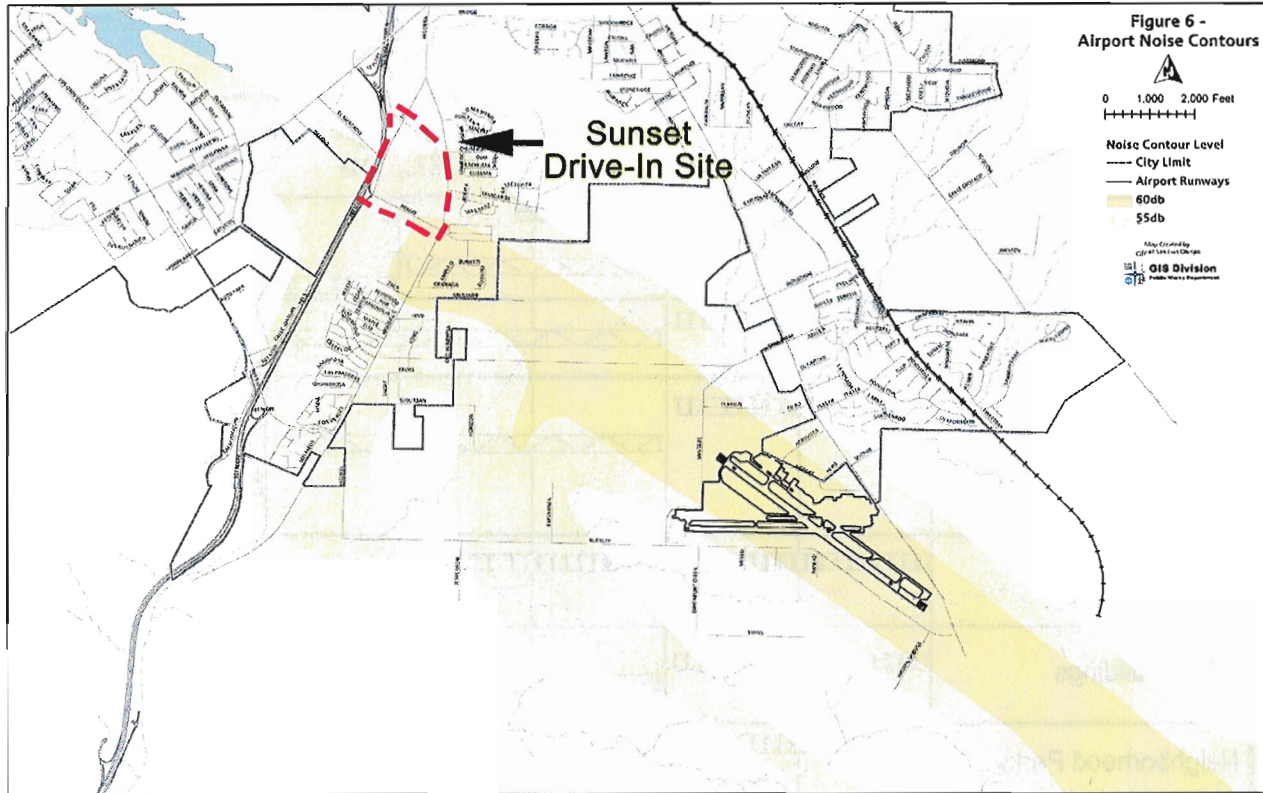
**Monitoring Measure:** Compliance with the General Plan Prado Road extension will be monitored by CalTrans and the City's Public Works Department.



Appendix 4 Noise Exposure and Noise Contour Maps

| LAND USE   | Community Noise Exposure<br>Ldn or CNEL, Db |    |    |    |    |    |
|--|---|----|----|----|----|----|
|  | 55  | 60 | 65 | 70 | 75 | 80 |
| Residences, Theatres,<br>Auditoriums, Music Halls  |   |    |    |    |    |    |
| Motels, Hotels   |   |    |    |    |    |    |
| Schools, Libraries,<br>Museums, Hospitals,<br>Nursing Homes, Meeting<br>Halls, Churches,<br>Mortuaries |   |    |    |    |    |    |
| Playgrounds  |   |    |    |    |    |    |
| Office Buildings   |   |    |    |    |    |    |
| Neighborhood Parks   |   |    |    |    |    |    |

- K** Acceptable, Development may be permitted without specific noise studies or mitigation.
- e** Conditionally Acceptable, Development may be permitted if designed to meet noise exposure standards; a specific noise study is usually required.
- y** Unacceptable, Development with acceptable noise exposure generally is not possible.





Appendix 5 Secretary of Interior Standards

**The Secretary of the Interior's Standards for Rehabilitation**  
**Introduction to the Standards**

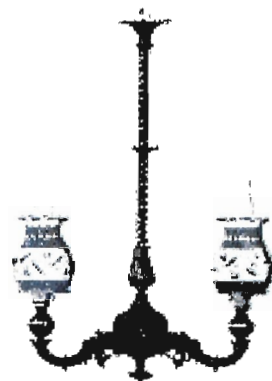
The Secretary of the Interior is responsible for establishing standards for all programs under Departmental authority and for advising Federal agencies on the preservation of historic properties listed in or eligible for listing in the National Register of Historic Places.

The **Standards for Rehabilitation** (codified in 36 CFR 67 for use in the Federal Historic Preservation Tax Incentives program) address the most prevalent treatment. "Rehabilitation" is defined as "the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values."

Initially developed by the Secretary of the Interior to determine the appropriateness of proposed project work on registered properties within the Historic Preservation Fund grant-in-aid program, the **Standards for Rehabilitation** have been widely used over the years—particularly to determine if a rehabilitation qualifies as a Certified Rehabilitation for Federal tax purposes. In addition, the Standards have guided Federal agencies in carrying out their historic preservation responsibilities for properties in Federal ownership or control; and State and local officials in reviewing both Federal and nonfederal rehabilitation proposals. They have also been adopted by historic district and planning commissions across the country.

The intent of the Standards is to assist the long-term preservation of a property's significance through the preservation of historic materials and features. The Standards pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and interior of the buildings. They also encompass related landscape features and the building's site and environment, as well as attached, adjacent, or related new construction. To be certified

for Federal tax purposes, a rehabilitation project must be determined by the Secretary to be consistent with the historic character of the structure(s), and where applicable, the district in which it is located.



As stated in the definition, the treatment "rehabilitation" assumes that at least some repair or alteration of the historic building will be needed in order to provide for an efficient contemporary use; however, these repairs and alterations must not damage or destroy materials, features or finishes that are important in defining the building's historic character. For example, certain treatments—if improperly applied—may cause or accelerate physical deterioration of the historic building. This can include using improper repointing or exterior masonry cleaning techniques, or introducing insulation that damages historic fabric. In almost all of these situations, use of these materials and treatments will result in a project that does not meet the Standards. Similarly, exterior additions that duplicate the





form, material, and detailing of the structure to the extent that they compromise the historic character of the structure will fail to meet the Standards.

### **The Secretary of the Interior's Standards for Rehabilitation**

The Standards (Department of Interior regulations, 36 CFR 67) pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompasses the exterior and the interior, related landscape features and the building's site and environment as well as attached, adjacent, or related new construction. The Standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Appendix 6 Mid-Higuera Enhancement Plan

**FLOOD HAZARD MITIGATION**

Many participants at the public workshops considered flood hazard mitigation issues the highest priority for the Enhancement Plan. The Mid-Higuera area lies in the recognized flood hazard zone of San Luis Obispo Creek. Short-term, minor flooding is common on some of the streets and private properties. Occasionally, the flooding is severe enough to stop traffic and cause substantial property damage. The causes of flooding, however, are complex — and, in large measure, lie outside of the Enhancement Plan area itself.

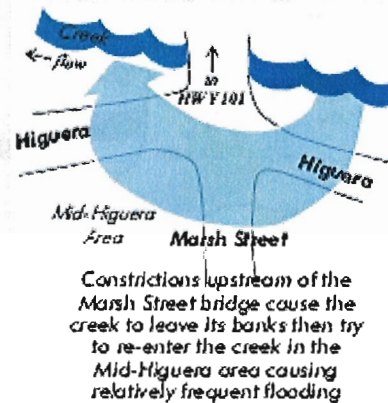


Figure 12

**Capacity problems**

The capacity of San Luis Obispo Creek just upstream of the Marsh Street bridge is constricted in several places. Thus, even in relatively frequent conditions (estimated to be about a “10-year” storm and runoff event\*), the creek overflows its banks at one or more locations upstream of the Marsh/Higuera streets intersection. Downstream of the intersection, the capacity of the creek is estimated to be substantially greater than that needed to accommodate a 10-year storm. Thus, floodwater leaving the banks above the Marsh Street bridge tries to re-enter the creek channel below the bridge in the Mid-Higuera area by flowing through the streets and over private properties along the creek. The most frequent flooding problem is not due to creek flow capacity within the area, but is caused mainly by upstream constrictions.

The capacity of the creek in the Mid-Higuera area, while greater than that of the reach just upstream of the bridge, is still considerably less than that of the creek channels and undercity culvert in the Downtown upstream of Nipomo Street. Thus, even in situations where the core of Downtown is spared from severe flooding, inundation can still occur between Marsh Street and Madonna Road.

In the so-called 100-year flood event, much of the Downtown and virtually all of Mid-Higuera would be impacted. During these relatively rare events, there is little the City can do in the Mid-Higuera area alone to alleviate widespread flooding. The City’s approach has been to focus on minimizing damage in these cases through such measures as requiring buildings to be “flood-proofed”, requiring flood insurance and by requiring that habitable portions of buildings be designed to be above the projected flood levels to meet FEMA regulations.

**Drainage studies and policies**

The flood issues in the Mid-Higuera area are part of a much larger regional problem involving the creek and its watershed. In 1999, the City embarked on Phase 2 of its Creek Management Plan. This work will first entail detailed engineering analyses which are expected to lead to new policies to reduce flood damage and recommended improvements to

\*A condition expected to occur on average once every 10-years.



the storm drainage system. The work must be regional in scope and will include the Mid-Higuera area.

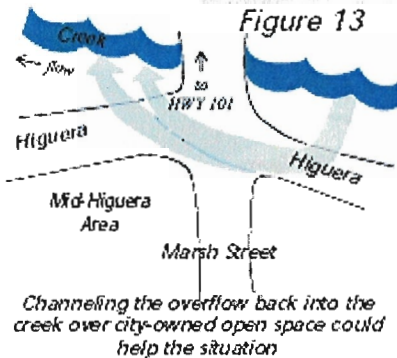
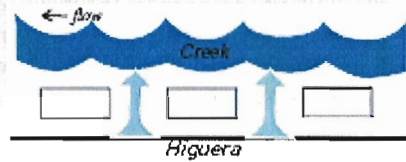


Figure 13

Reducing potential flood damage. As discussed above, the most common flooding occurs when the creek overflows upstream of the Marsh Street bridge then re-enters the creek through the Mid-Higuera area after flowing through the streets and over private properties. One idea for mitigating this problem is to channel the floodwaters over the City owned open space near the corner of Higuera and Marsh just below the Marsh Street bridge. The Enhancement Plan calls for the expansion of the existing public ownership in this area. It may be possible to redirect flows back into the creek over this property through grading and curb design modifications, so that more water can re-enter the creek here, before it affects private properties farther downstream.

Figure 14

In addition, new private development between Higuera Street and the creek should be designed with unobstructed flow channels between buildings, so that water can quickly reach the creek while minimizing damage.



Leaving unobstructed channels between buildings for flood waters could reduce flood damage in this area

Furthermore, new development should be designed so that the present amount of lot coverage by structures is not increased, and if possible, even reduced. Less lot coverage allows floodwaters to reenter the creek with less property damage. This can be accomplished, for example, by "going up," replacing single story buildings with 2 or 3 story buildings with smaller footprints. These site design improvements are incorporated into the Design Guidelines for the Mid-Higuera area.

### Other mitigation measures

Several other ideas have been discussed to help with flood hazard mitigation in the Mid-Higuera area. These will be evaluated in more detail during the Phase 2 Waterways Management Plan, with plan completion expected by 2002.

Increasing capacity immediately upstream. If constrictions above the Marsh Street bridge were relieved, flooding in the Mid-Higuera area would be less frequent. The area between Marsh and Nipomo Streets, however is largely urbanized and in most places there is little room for creek widening. Furthermore, and perhaps more significantly, awareness of the environmental value of creekways has made widening less attractive from a public policy perspective and less feasible from a regulatory standpoint.

**Increasing capacity of the Marsh Street bridge.** Some observers believe that during flooding, the Marsh Street bridge itself (and not upstream constrictions) limits the creek flow forcing the water over the banks and onto the streets. Some believe this has occurred only when substantial debris or other large objects get caught in the bridge, damming normal flows. Regardless, it is apparent that rocks and gravel have been deposited below the bridge reducing its capacity to some extent. Regulatory restrictions make deposition removal difficult. Thus, to many people, increasing the capacity of the Marsh Street bridge is an important flood hazard mitigation measure. Rebuilding this bridge would be very costly, however. The design would have to ensure that the freeway ramps that run over the bridge remain safe and functional and that the bridge still ties back to the street-level at the intersection of Marsh and Higuera Streets.

**Bypass channel.** Another idea for increasing the floodway capacity in the Mid-Higuera area is to create a bypass channel on public property between the creek and the freeway. The channel would be higher in elevation than the main creek bottom so that it would carry water only when the flow rises above normal. In effect, the channel functions like a creek widening – it increases the overall capacity for accommodating floodwater. The principal advantage to the bypass channel over widening is that this approach avoids most of the physical changes to the creek, thereby minimizing environmental disruptions. There are some significant issues, however, that require further analysis. First, downstream capacities need to be assessed (an increase in this reach may not alleviate flooding in the Mid-Higuera area if the capacity just downstream is constrained). Second, in some places, there is little room between the creek and the freeway for a channel. In these places, the creek itself would need to be widened – and subject to the same public policy and regulatory constraints noted earlier. Third, the cost of constructing and then maintaining the channel must be compared to the benefits to be realized and to other alternatives for flood hazard mitigations. The bypass option will be investigated in the Phase 2 of the San Luis Obispo Waterway Management Plan.

**Flood terraces.** Another way of increasing flood capacity is to create an area adjacent to the creek lower than Higuera Street that can serve as a “flood terrace” during flood events. Such a terrace would be kept free of significant buildings so that it could be inundated during floods with little damage to property and perhaps even enhancing riparian habitat value. A potential difficulty with this approach is coordination with upstream and downstream capacities, since requiring a terrace in a small area may not be effective if significant capacity problems remain elsewhere. The other major problem is cost. A terrace between Higuera and the creek would almost certainly require the public purchase of land or an easement on private property. The cost could be substantial and must be weighed against potential benefits and alternatives. This idea will also be evaluated in Phase 2 of the San Luis Obispo Waterway Management Plan.

**Cutting back creek banks.** Another idea is to cut back the tops of the creek bank at a slope. This increases overall capacity of the creekway. The cut back area could be planted



with native riparian vegetation, thereby increasing the overall habitat value. In some areas, this would involve removal of relatively recent fill material to expose creekbanks as they existed in the early 1900s.

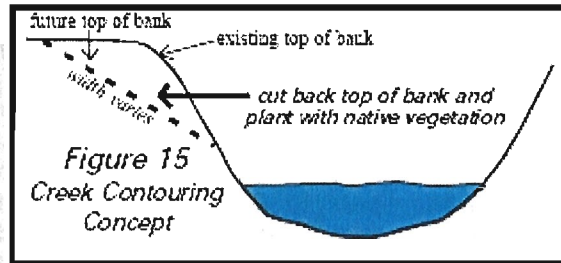


Figure 15  
Creek Contouring  
Concept

### *Meadow Creek*

In addition to problems with San Luis Obispo Creek, a portion of the plan area floods due to problems with the Meadow Creek/South Street channel. Water flowing west toward San Luis Obispo Creek becomes constrained because of alignment problems and culvert capacity limitations, resulting in inundation around the intersection of Higuera and Bridge Streets and in the Old Mission Cemetery. The likely solution is to realign the drainage system south of Bridge Street through the CalTrans property to a new inlet in San Luis Obispo Creek south of Madonna Road. Larger culverts under Higuera Street may be required as well.

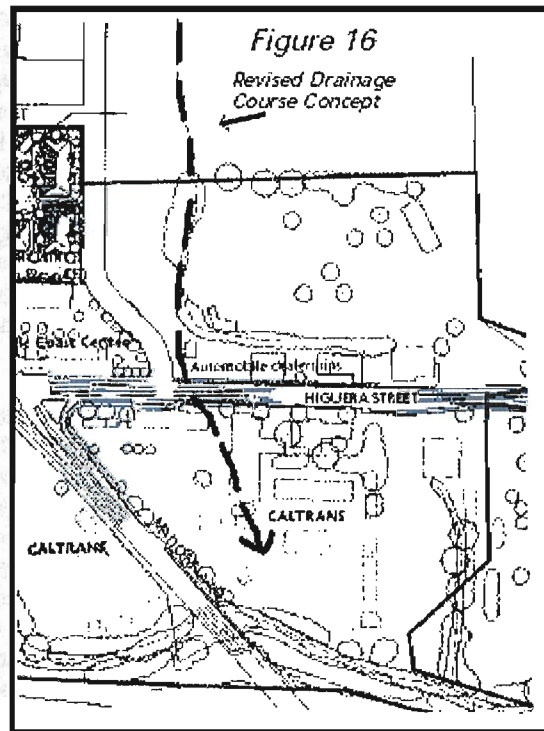


Figure 16  
Revised Drainage  
Course Concept

*Redevelopment of the CalTrans property must accommodate an improved drainage system. The best route and design must be based on an engineering analysis*



