

## Theses and Professional Projects Abstracts

### Master of City and Regional Planning

#### City and Regional Planning Department, Cal Poly San Luis Obispo

For fulfillment of the Master of City and Regional Planning degree, the CRP department offers the student a choice between a final comprehensive planning studio, a thesis, or a professional project. The following abstracts represent the master's theses and projects approved during the 2012/2013 academic year; they are available from Cal Poly's Kennedy Library at: <http://digitalcommons.calpoly.edu/theses>.

#### **Greyfield Development in Vallejo, California: Opportunities, Constraints, and Alternatives.**

*Jonathan Peter Atkinson*

The regulatory framework and presence of underutilized commercial land make Vallejo, California ideal to facilitate greyfield development. The city has policies and programs that call for the redevelopment of underutilized commercial land. Springstowne Center, CVS Center, and Meadows Plaza are shopping centers that exemplify signs of maturation and/or decline. Since Meadows Plaza experienced the most decline out of the three shopping centers based on the amount of vacant square footage, this master's developed three conceptual alternatives for the revitalization of Meadows Plaza: (1) Adaptive Reuse; (2) Residential Development; and (3) Mixed-Use and Residential Development. The project concludes by recommending that Vallejo implement the Underutilized Commercial Land Conversion Program as outlined in the Housing Element of the Vallejo General Plan as a way to redevelop underperforming sites like Meadows Plaza and facilitate greater community revitalization.

<http://digitalcommons.calpoly.edu/theses/1037/>

#### **What Comes After the Boom? Baby Boomers in Santa Maria, California. A Market Study for People's Self Help Housing.**

*Elizabeth Anne Brighton*

This master's project has two parts: the introduction and background informing on affordable senior housing market study, and a market study prepared for People's Self Help Housing (PSHH). The introduction starts by providing current and future trends for seniors at the national and state levels. This includes discussion of the "Baby Boomer" age cohort and their rapid growth and potential impact to the housing market. The introduction describes challenges facing developers of affordable senior housing, such as type, location, and funding sources. Federal funding sources for affordable senior housing projects are briefly presented and their applicability to the project is explained. The stage is set for a market study to determine the feasibility of an affordable senior housing project in the Santa Maria/Orcutt market area.

<http://digitalcommons.calpoly.edu/theses/1065/>

#### **The Development of an Electronic Data Collection Tool and Comparison of the Electronic and Manual Methods of Land Use Inventory.**

*Wesley M. Catanzaro*

An important component of Planning Information Systems for municipal planning agencies is a comprehensive land use inventory that provides information on the location, distribution, and intensity of land uses throughout a community. This data is a necessary prerequisite for the informed creation of planning documents such as General Plans, Specific Plans, Housing Inventories, and Climate Action Plans. Planners may also wish to incorporate additional information at the parcel level, such as the number of housing or commercial units, building condition, and/or access and connectivity to adjacent streets. Because some of this information is best observed in the field, agencies require methods of collecting this data that will ensure data precision, accuracy, and consistency, while minimizing data collection and processing time. Electronic data collection tools that are compatible with Geographic Information Systems provide a potential solution that can facilitate these desired data collection parameters. This research illustrates the development of an electronic data collection tool that planning agencies may utilize within various planning efforts, and compares the efficiency of the tool to traditional "pen-and-paper" data collection methods in terms of time savings, reliability and consistency.

<http://digitalcommons.calpoly.edu/theses/1013>

#### **Urban Agriculture Stormwater Management in California Cities.**

*Rachel L. Cohen*

Cities in California are beginning to incorporate urban agriculture into their land use designations. However, it became evident that just because an urban farm was small, organic and provided certain benefits that it was not free from impacting its surroundings. As more urban agricultural ventures are established within cities, planners have to carefully consider their effects, such as stormwater pollution. This thesis utilizes two case studies, the cities of Oakland and San Diego, to examine the similarities and differences between each city's urban agriculture ordinances

and evaluate whether or not the cities have adjusted stormwater requirements in parallel with these ordinances. Interview responses and site visits in each city were analyzed and compared to expound upon the approaches each city engaged. Using the collected data and analysis as a base, a set of guidelines was created for managing stormwater runoff from urban agriculture.

<http://digitalcommons.calpoly.edu/theses/1015>

### **Effects of Transit-Oriented Development on Affordable Housing, Job Accessibility, and Affordability of Transportation in the Metro Green Line Corridor of Los Angeles (CA).**

*Audrey M. Desmuke*

The understanding of social and economic change in the Los Angeles Metro Green Line corridor and an analysis of current planning policies can help identify how future policies may generate more positive outcomes. This study evaluated the conditions of four one-mile radius areas around stations in the corridor by studying demographics, housing affordability, transportation affordability, and job accessibility between 2000 and 2010. Over this period the corridor has not yet developed to the standards of a location efficient environment. This study recommends the protection of vulnerable populations—such as the renter-occupied housing units—because they are more likely to make up core transit riders that need public transportation. Affordable housing near transit enables households to save money on both transportation and housing expenditures and works towards making the corridor more affordable. By understanding the three main variables in the context of social equity, a decision-maker can avoid the potential of negative gentrification and displacement, and promote economic viability in the corridor.

<http://digitalcommons.calpoly.edu/theses/988>

### **Addressing the Administration of Planned Developments: The Case of Arroyo Grande, California.**

*Matthew J. Downing*

The City of Arroyo Grande, California has a problem administering the regulations of five Planned Developments. This problem arises from these regulations showing in a 167-page appendix of the City's Development Code which includes the original approvals for the developments. It also includes amendments to those approvals that are only added to the appendix. Therefore, changes to the regulations governing the Planned Developments are not tracked. It takes staff considerable amounts of time to research answers when members of the public have questions regarding development in one of these Developments. Because of the numerous pages that must be read through to track the changes to one of the districts, there is no guarantee that the information presented to the inquirer is accurate. This can lead to issues when the rules are not consistently applied. The purpose of this project is to investigate an appropriate method to address this problem.

<http://digitalcommons.calpoly.edu/theses/948/>

### **San Luis Obispo Regional Transit Authority: Recommendations for Future Service Demand.**

*Alexander J. Fuchs*

This thesis explores the potential commuter demand for additional or express bus services provided by San Luis Obispo Regional Transit Authority (RTA) by focusing on Route 9, which operates between the North County and the Central County. Electronic survey instruments were created to collect data from non-riders in three major employers in San Luis Obispo County: California State University, San Luis Obispo (Cal Poly), the City of San Luis Obispo, and the County of San Luis Obispo. A link to one of the surveys instruments was included on San Luis Obispo Council of Government's (SLOCOG) e-newsletter to reach additional non-riders. Analysis of the survey data resulted in two recommendations to the RTA: (1) expansion of RTA Route 9 services, and (2) non-rider outreach programs.

<http://digitalcommons.calpoly.edu/theses/1011>

### **Financing Public Solar Projects: California Public Jurisdictions' Experiencing in Acquiring and Financing Solar Photovoltaic Installations.**

*Dana M. C. Hoffman*

More efficient technologies, state laws as well as environmental, social, and political pressures have contributed to placing solar acquisition on the agenda for California's public entities over the last half decade. As an alternative to outright purchase, a promising financing option made available to jurisdictions in recent years is ownership by a third-party provider (TPP) including various forms of Power Purchase Agreements (PPA's) and leasing. This thesis reviews solar acquisition practices in California over the last six years, comparing financing options through document analysis and feedback from staff. It finds that directly buying installations has provided a slight advantage in direct savings and overall satisfaction, but success generally depends upon the jurisdiction having secured upfront capital, usually from very low-interest loans or large grants. TPP projects have provided a good alternative to direct purchase, resulting in significant savings and positive reviews from jurisdictions, allowing them to invest in larger installation sizes, and to meet local policy goals or mandates. This thesis observes the limitations for installation sizing, impacts of siting on savings, tips for selecting a solar installer, the benefits of cooperative procurement arrangements, and the relative importance of existing and expired monetary incentives available for solar from 2006 through 2020.

<http://digitalcommons.calpoly.edu/theses/1045>

### **Historically-informed Development in the Civic Center South area of Downtown Los Angeles.**

*John Daniel von Kerczek*

The site of today's Civic Center in Downtown Los Angeles evolved gradually over the course of over 150 years before being dramatically transformed in the early to mid 20th century.

Understanding how this area evolved and was redeveloped can help guide efforts to restore physical and historical continuity throughout the area. Specifically, this historical understanding can assist in identifying key opportunity sites within the area, such as Civic Center South, and in setting urban design goals for new development. Research for this thesis included an analysis of the area's historic development and a review of its current conditions. The historical analysis examined how the study area initially developed and how it was subsequently transformed through redevelopment. The review of current conditions examined recent and proposed development in and around the Civic Center South site and recent policies and regulations that are guiding new development within Downtown Los Angeles. This study ultimately provides an overview of the historic development context of the north end of Downtown Los Angeles as well as a review of the developments and regulations influencing development within that area today.

<http://digitalcommons.calpoly.edu/theses/781>

### **Joint Use Partnerships: Evaluating the Feasibility of a Joint Use Partnership between the City of San Luis Obispo and Cal Poly.**

*Kathryn S. Mineo*

As demand for additional athletic fields continues to increase, the City of San Luis Obispo is struggling to meet the recreation needs of the community. This project evaluated the feasibility of a joint use partnership with Cal Poly San Luis Obispo for the shared use of the University's underutilized Sports Complex, and made recommendations of strategies to address the City's recreation needs. This study reviewed current and professional academic literature on successful approaches to joint use partnerships; conducted case study analyses on two Cal Poly facilities; and worked with City and University officials to examine the issues associated with establishing joint use agreements between state universities and local municipalities. Because little research currently exists to inform joint use partnerships between these two entities, the opportunities for exploration are many. Of particular interest are the fields of local and state policy and financing methods.

<http://digitalcommons.calpoly.edu/theses/880>

### **Benchmarking San Luis Obispo's Municipal Energy Use: An Audit Implementation Plan.**

*Elizabeth Laura Pfafflin*

The process for meeting goals for energy reduction for buildings is often disorganized, cost-prohibited, and behind schedule. In order to meet these goals a jurisdiction must first establish a system for tracking and monitoring energy use, pinpointing areas in needs of improvements, and sharing this information with decision makers. Energy Star's Portfolio Manager benchmarking system provides a tool for public workers and building managers to meet these needs. The County of San Luis Obispo's climate action and energy reduction plan, titled the EnergyWise Plan (2011), sets a goal for the County's

municipal buildings to reduce their energy use by 20 percent from 2006 levels by the year 2020. This thesis uses the Portfolio Manager Tool to analyze the current energy use of the County's municipal buildings, pinpointing the areas most in need of further examination in order to meet the EnergyWise Plan's goal. The thesis concludes with an audit and retrofit implementation plan for the County's top energy users, as well as a set of recommendations to improve energy use.

<http://digitalcommons.calpoly.edu/theses/985>

### **A Conservation Plan for Reservoir Canyon Natural Reserve, San Luis Obispo, CA.**

*Brian M. Provenzale*

This thesis results in a conservation plan for the Reservoir Canyon Natural Reserve (RCNR) in San Luis Obispo, California. It is a professional project for the City of San Luis Obispo with the goal of eventual adoption by the City Council. The plan was motivated by City policy, which advises creating conservation plans for open spaces, and by a particular need to address management issues in RCNR that include plant and wildlife conservation, trail access, erosion, electrical utility easements, and other legal matters. The project consists of two main components: the conservation plan and a companion paper. The paper is an overview of the theory and best practices involved in conservation planning, and is meant to be complementary to the conservation plan. The Draft Reservoir Canyon Natural Reserve Conservation Plan, attached as an appendix, explains the conditions of the reserve and describes the goals and management strategies the City will employ.

<http://digitalcommons.calpoly.edu/theses/744>

### **How Land Use Regulations Inform Sustainable Development: A Look at Commercial Development in Bakersfield, California.**

*Darcy Marie Reed*

This research analyzes the relationship between local land use regulations and commercial development in the City of Bakersfield, California, specifically focusing on how the regulations are used to inform commercial development to be sustainable or not. This research contributes to similar research efforts through its contribution of the Sustainable Development Indicator Checklist, the tool used to measure sustainable development within the regulations as well as the built environment. Analysis of six case study locations falling under the C-B (Central Business), C-C (Commercial Center), and PCD (Planned Commercial Development) zone designations indicated the local land use regulations were not informing development to be particularly sustainable, mostly due to vague language, constraining language, and sometimes a combination of the two. Recommendations are made for how the City of Bakersfield can improve the land use regulations to be more pertinent to the process of informing future commercial development to be more sustainable.

<http://digitalcommons.calpoly.edu/theses/1044>

### **Circulator Shuttle Implementation Plan for the City of Pittsburg, California.**

*Justin Shiu*

This study examines how a shuttle system connecting major commercial nodes, public facilities, and residential locations can increase travel options and improve accessibility to key location in Pittsburg. A review of best practices and transit planning standards provides a means to determine the cost of such a service which are then applied to three alternatives for different shuttle route alignments: 1) a north-south route along Railroad Avenue only, 2) a north-south route along Railroad Avenue and an east-west route to Century Plaza, and 3) a north-south route along Railroad Avenue and an east-west route to Century Plaza that also links to Los Medanos College. Alternative 3 provides the greatest coverage, has the largest potential ridership, and provides access to other major destinations in the eastern half of the city. However, fiscal uncertainties suggest that it is prudent to select the least expensive alternative, Alternative 1, and slowly branch out the system over time. This would create opportunities for the shuttle system to expand with the future growth of central Pittsburg.

<http://digitalcommons.calpoly.edu/theses/900>

### **City of Los Angeles Cornfield Arroyo Seco Specific Plan: Parking Management Strategies.**

*Miriam L. Thompson*

This thesis examines the state of off-street parking in the Cornfield Arroyo Seco Specific Plan (CASP) area of the City of Los Angeles. The focus is on discovering relevant strategies to strengthen the plan's ability to reduce parking supply and demand. Research has shown a causal relationship between planning policies and the oversupply of parking. The imbalance between parking supply and demand in the City of Los Angeles has resulted in large tracts of land that are paved over by parking lots instead of more valuable land uses. Our data collection methods show that half of the major land uses in the area never reach optimal occupancy. The CASP does institute several progressive parking policies that are more stringent than the Los Angeles Municipal Code and it is the first plan in the city that does not include parking requirements. However a number of relevant parking management strategies could further strengthen the CASP. This thesis identifies the benefits of transit passes and parking cash-outs; two strategies that have potential to add another dimension to demand management, civic viability and contribute to the paradigm shift that is needed to mitigate our environmental impact.

<http://digitalcommons.calpoly.edu/theses/1018>

### **Baby Boomer Living: Designing a Modern Continuing Care Retirement Community.**

*Ryan Michael Wassum*

Among the innovative senior community models, the Continuing Care Retirement Community (CCRC) combines a variety of

unique residential options and comprehensive services that meet the needs of new and active retirees and aging seniors. Focusing on the Baby Boomer cohort in conjunction with a modified CCRC model, this project examines the current demographic and housing landscape for Baby Boomers and seniors, as well as assesses trending planning techniques and design elements to formulate an ideal senior living prototype for the 234 acre Sinclair Ranch in Chinese Camp, California. This project concludes with the identification of key trending planning and design elements to develop a state-of-the-art CCRC and a design Draft Plan for the Sinclair Ranch that captures both the characteristics of an innovative CCRC and the emergent desires stemming from the shifting senior landscape. With key design recommendations and proposed community features, the draft plan is intended to outline and guide the vision of the proposed development for the Sinclair Ranch CCRC.

<http://digitalcommons.calpoly.edu/theses/1070/>

### **Mid-Twentieth Century Residential Development in San Luis Obispo.**

*Allison Dean Zike*

San Luis Obispo's mid-century spanned the years beginning in the Great Depression and ending during the post-World War II housing boom. During this time the City grew in population and in size, adding several acres of land and thousands of single-family residential parcels. This research presents a chronological representation of the City's growth, as well as key events in the City's history. Residential development in the mid-century brought several new styles of architecture to the City including Mid-century Modern and Prairie homes among others. These architectural styles are detailed and presented in order to identify and guide the preservation of historic resources.

<http://digitalcommons.calpoly.edu/theses/757>