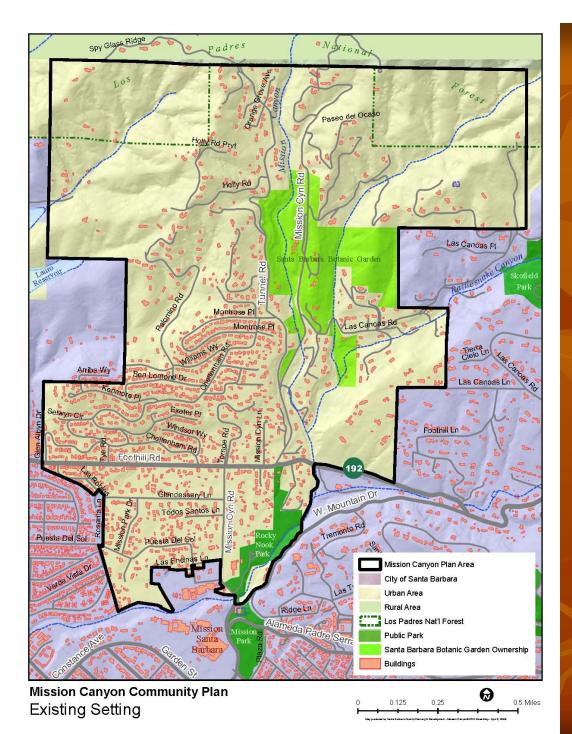
Friends of Mission Canyon

Santa Barbara Botanic Garden
Development Plan
Conditional Use Permit
Appeal

#1 - Defer Action Pending MCCP

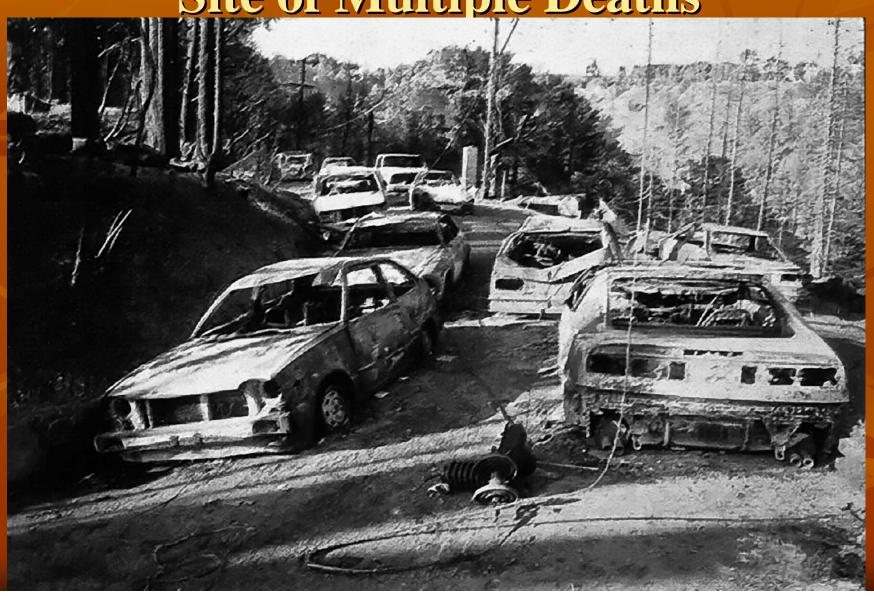
- Mission Canyon Community Plan
 - Comprehensive update to 24 year old Specific Plan
 - Update began in 2006
 - New policies initiated
 - DEIR to be released next month
 - Will be completed shortly



Mission Canyon

- MCCP Planning Area
- Botanic GardenThe BiggestLandowner
- Limited RoadwayNetwork

Oakland Hills Fire 1991 Site of Multiple Deaths



Professor Cova **Studied Emergency Evacuation** Capacity of Mission Canyon

Public Safety in the Urban–Wildland Interface: Should Fire-Prone Communities Have a Maximum Occupancy?

Thomas J. Cova¹

Abstract: Residential development in fire-prone wildlands is a growing problem for land-use and emergency planners. In many areas housing is increasing without commensurate improvement in the primary road network. This compromises public safety, as minimum evacuation times are climbing in tandem with vegetation and structural fuels. Current evacuation codes for fire-prone communities require a minimum number of exits regardless of the number of households. This is not as sophisticated as building egress codes which link the maximum occupancy in an enclosed space with the required number, capacity, and arrangement of exits. This paper applies concepts from building codes to fire-prone areas to highlight limitations in existing community egress systems. Preliminary recommendations for improved community evacuation codes are also presented.

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CE Database subject headings: Fire hazards; Evacuation; Access roads; Traffic capacity; Transportation safety; Codes; Public safety; Transportation engineering.

Introduction

Residential development in fire-prone wildlands is a growing problem for land-use and emergency planners. Easy access to recreation, penoramic scenery, and lower property costs are enticing people to build homes in areas that would otherwise be considered wildlands. This development steadily increased in the United States from the mid 1940s, although local growth rates varied according to economic, demographic, and amenity factors (Davis 1990). At the same time, decades of fire suppression has resulted in a record abundance of fuel in and around many developments (Pyne 1997). This led the Forest Service to recently identify thousands of communities near federal lands as "at risk" to large conflagrations (U.S. Forest Service 2001).

The area where residential structures and fire-prone wildlands intermix is called the urban-wildland interface or wildland-urban interface (Cortner et al. 1990; Ewert 1993; Fried et al. 1999). In much of this area, homes are being added as the primary road network remains nearly unchanged. This is not surprising, as interface communities are often nestled in a topographic context that prohibits the construction of more than a few exiting roads. It is generally too expensive to build a road into a canyon, or onto a hillside, from every direction. Also, residents prefer less access because it reduces nonresident traffic. A common road-network addition is a culdesac that branches off an existing road to add more homes.

Incremental planning in fire-prone areas has a number of adverse impacts (e.g., wildfire effects, open space decline), but the focus in this paper is evacuation egress. "Egress" is defined as a means of exiting, and it can be viewed as accessibility out of an area in an evacuation. When a wildfire threatens a community, residents generally evacuate in a condensed time either voluntarily or by order. In past urban wildfires with short warning time. limited egress has proven to be a problem ("Charing cross bottleneck was a big killer" 1991; Office of Emergency Services 1992). Sheltering-in-place is a competitive protective action when there is not enough time to escape or a homeowner wishes to remain behind to protect property, but it is much less tested than evacuation in wildfires. However given increasing housing densities in fire-prone areas without commensurate improvements in the primary road network, the case for sheltering-in-place is gaining ground. This leads to an important question: "How many households is too many?" Or alternatively, "What is the maximum occupancy of a fire-prone community?"

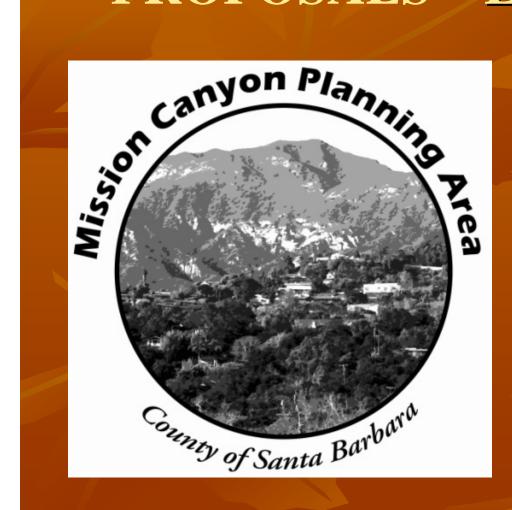
Maximum occupancies are well defined and enforced in building safety, and it is common to see the maximum number of
people allowed in an assembly hall posted clearly on the wall.
This concept has not been applied to community development in
fire-prone areas, although the broader terms of "access" and
"egress" appear in contemporary codes (National Fire Protection
Association 2002; International Fire Codes Institute 2003). Egress
standards are currently defined in terms of minimum exit-road
widths, or a minimum number of exits, without regard to how
many people might rely on the exits. This is less sophisticated
than building egress codes which link the maximum expected
occupancy of an enclosed space with the required number, capacity, and arrangement of exits (Coté and Harrington 2003). Building egress codes have been hard earned over nearly a century of
research, refinement, and loss of life (Richardson 2003).

The purpose of this paper is to apply egress concepts drawn from building fire safety to community egress in fire-prone areas. Although these concepts and codes were originally developed for

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Note. Discussion open until January 1, 2006. Separate discussions must be submitted for individual papers. To extend the closing date by one month, a written request must be filed with the ASCE Managing Bditor. The manuscript for this paper was submitted for review and possible publication on October 7, 2004; approved on February 15, 2005. This paper is part of the Natural Hazards Review, Vol. 6, No. 3, August 1, 2005. @ASCE. ISSN 1527-69882005/9-99-108/\$25.00.

MCCP REQUEST FOR PROPOSALS – Evacuation Study



- 2. Prepare an Evacuation/Fire Hazards Analysis in accordance with CEQA.
- The Consultant will use traffic simulation modeling to estimate the time it would take to evacuate the Mission Canyon plan area under existing conditions and, with implementation of the MCCP, under future buildout conditions. Areas adjacent to the plan area and cumulative effects should be considered in the evacuation scenarios, if relevant. The model should include variables, such as number of vehicles leaving the neighborhood. Much of the Mission Canyon plan area was evacuated during the Tea Fire of November 2008 and the Jesusita Fire of May 2009. The Tea Fire in particular included residents of outlying areas using Mission Canyon area roads (Las Canoas, Mission Canyon and Foothill) for evacuation. Evacuation scenarios and lessons learned from these experiences should be considered when developing updated models and scenarios for the plan area.

MISSION CANYON COMMUNITY PLAN EIR TRAFFIC AND FIRE HAZARDS ANALYSIS STATEMENT OF WORK

November 25, 2009

2. Prepare an Evacuation/Fire Hazards Analysis in accordance with CEQA.

The Consultant will use traffic simulation modeling to estimate the time it would take to evacuate the Mission Canyon plan area under existing conditions and, with implementation of the MCCP, under future buildout conditions. Areas adjacent to the plan area and cumulative effects should be considered in the evacuation scenarios, if relevant. The model should include variables, such as number of vehicles leaving the neighborhood. Much of the Mission Canyon plan area was evacuated during the Tea Fire of November 2008 and the Jesusita Fire of May 2009. The Tea Fire in particular included residents of outlying areas using Mission Canyon area roads (Las Canoas, Mission Canyon and Foothill) for evacuation. Evacuation scenarios and lessons learned from these experiences should be considered when developing updated models and scenarios for the plan area.

MCCP Evacuation Study PROJECT SCHEDULE

- Task
- Notice to Proceed and Project Initiation
- Task 1: Baseline Traffic Impact Analysis
- Task 2: Traffic Simulation Modeling
- Task 3: Mitigation Measures
- Task 4: Documentation
 - First Draft Study Due February 5, 2010
 - Staff Comments to Consultant February 19, 2010
 - Response to Comments and Revised Draft March 5, 2010
- Task 5: Response to Public Comments on DEIR

Date

December 2009

Dec. 2009 – Feb. 2010

Dec. 2009 – Feb. 2010

February 2010

Jan. 2009 – March 2010

June 2010

Cova on Effect of Tourists on Community Occupancy and Evacuation

Facilities and attractions above and beyond residences are important because community occupancy may vary significantly when tourists and transients are drawn (Drabek 1996). Furthermore, transient knowledge of the environment (e.g., evacuation routes) can be very poor.

CEQA - FIRE IMPACT

- No Class 1 Fire Impact ????
 - Project is intensifying visitation and use of extreme high fire hazard area with single emergency access
 - Windermere 1 access road, used CEQA Threshold based on Fire Frequency Found a Class 1 Impact since fire likely to occur during life of the project
 - Botanic Garden EIR generalized qualitative analysis relying on long-overdue infrastructure improvements (fire hydrants) and common sense operational changes (red flag day closures) but ignoring effect of intensification on ability to safely evacuate residents and visitors
 - Ignored Fire Frequency CEQA Threshold

Other CEQA Defects

- Ignored 'Ethnic' Impact based on Sacred Cultural Site
- Omitted analysis of neighborhood noise impacts from FPP's Mandatory Public Address System and Drills
- Downplayed Cumulative Development from Jesusita and Tea Fire rebuilds
- Ignored General Plan Policy Inconsistencies:
 - Secondary Access, Avoidance of Cultural Sites, Zoning

REQUEST: Finding Mission Canyon Is At Evacuation Capacity

■ Example Lotusland: "The intensity of use and hours of operation authorized under this revised CUP approaches the upper limit of project-generated traffic and onsite activity that can be found compatible with the surrounding area and not detrimental to the health, safety, comfort, convenience and general welfare of the neighborhood."

Finding Mission Canyon Is At Evacuation Capacity

■ Example Music Academy of West: "In granting this permit, the Board of Supervisors advises future decision-makers that based on the evidence in the record at this time, the operation and site development at the Music Academy have reached a maximum level able to be found consistent with the health, welfare, safety, and convenience of the neighborhood and the Board of Supervisors recommends that no further increase in use, density, or development be allowed."

Cova on Mission Canyon Hazard

Mission Canyon in Santa Barbara, Calf. also scored poorly for the same reasons. [] it is easy to identify neighborhoods [such as Mission Canyon] with equal or greater fire hazard than the 1991 Oakland–Berkeley fire case and a more constrained egress system.

UCSB Professor Church on Mission Canyon

■ The results suggest that without significant intervention policies, this neighborhood is at a significant risk of an evacuation disaster should a fast moving fire start close by.

 Source: Modeling Small Area Evacuation: Can Existing Transportation Infrastructure Impede Public Safety? VITAL, UCSB, 4/2002

Development Plan Issues

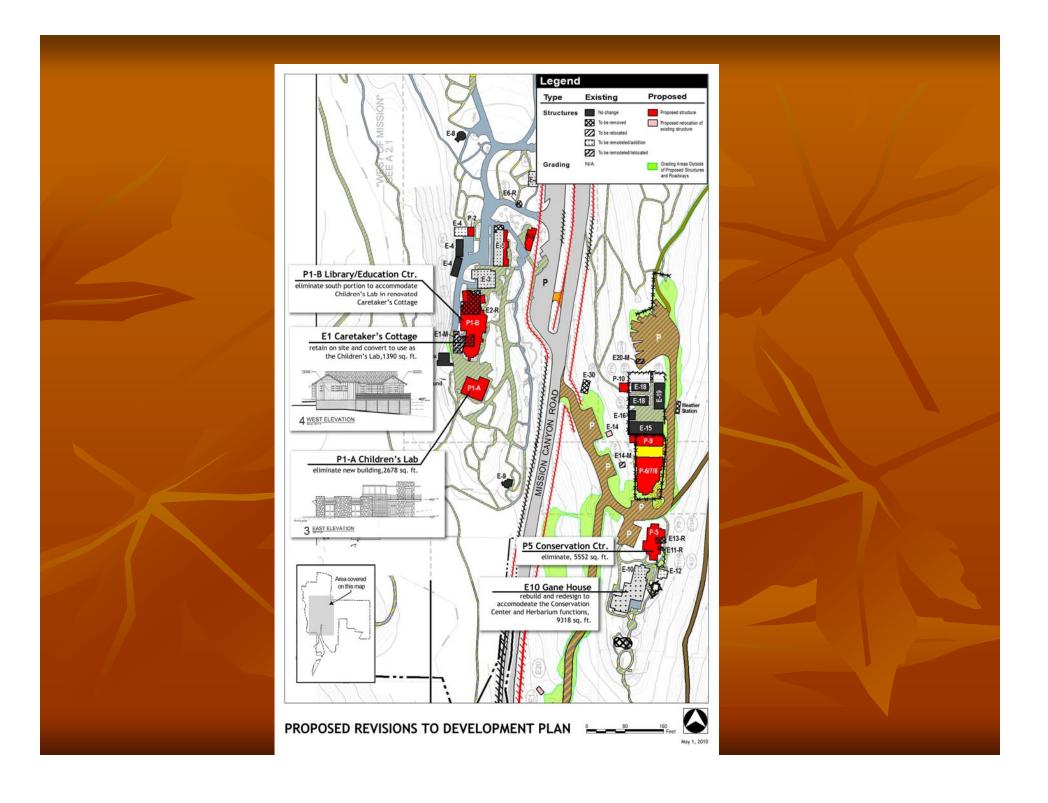
- Planned Before the Jesusita Fire
- 29,544 square feet of New Development
- 19 new Buildings
- Ten Year Construction Period

- Jesusita Fire Burned
 - Gane House
 - Director's Cottage

Construction's Safety/Evacuation Impacts

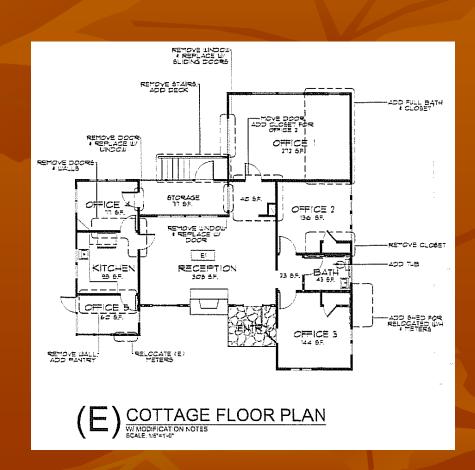
- Roadway Closures and Delays
- Increased risk of fire ignition
- Delayed Emergency Response Time

 When Operational, additional development increases response burden and compromises other response



E1 - Caretaker's Cottage

- Existing historical building on Landmarked portion of Garden
- 1,390 square feet
- Located near Manzanita Section
- Currently the Director's Office
- Proposed first for residence on Hansen site, then by Director's residence
- Kid sized & Lincoln Log motif

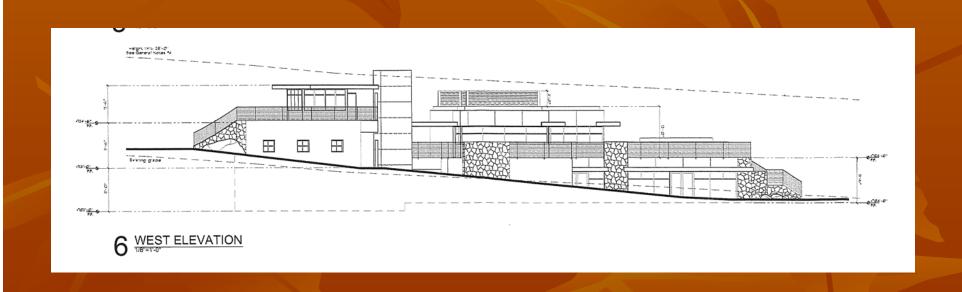


P1-A Children's Education Building

- Proposed in the current Manzanita Section
- 1,748 square foot footprint, 2 story
- Function: to
 accommodate children
 experiencing and
 learning at the Garden



Revise South end of P1-B Education/Library Total size 7,941 - reduce 50% = 3,970 Square feet

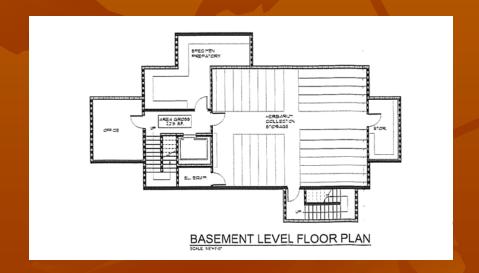


Building Proposal #1

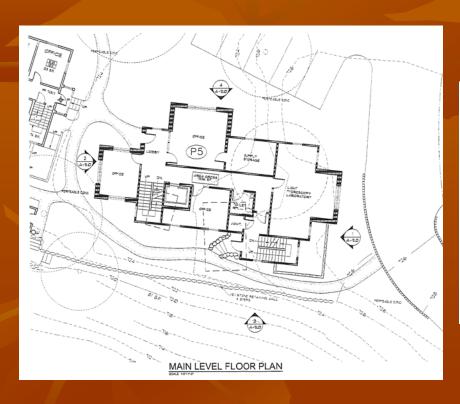
- Leave E1 Caretaker's Cottage in place
- Remodel and reuse for P1-A Children's Education Building
- Shorten P1-B Education/Library by 50%

P5 Conservation Center

- 5,552 Square feet
- Next to Gane House
- Herbarium, 4 offices, laboratory

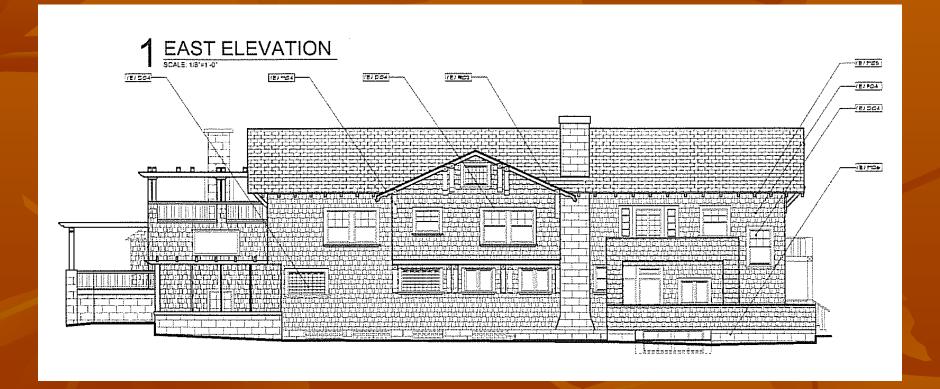


P5 Conservation Center Floor Plan - Offices





Gane House



Gane House

- 3 stories
- 9,318 square feet
- Unused basement over 3,000 ft
- Footprint in sensitive area already established

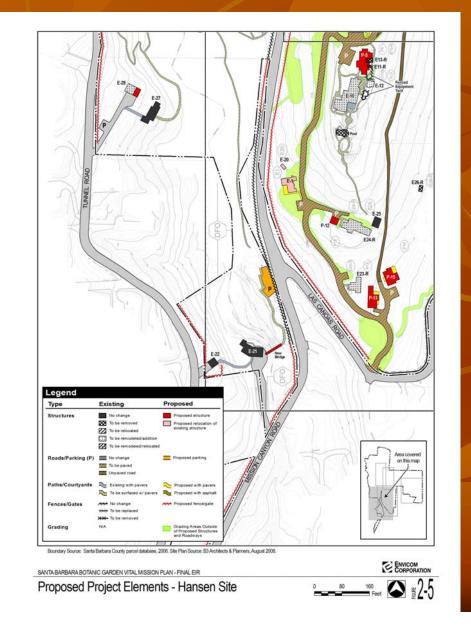
Building Proposal # 2

- Eliminate P5 Conservation Center
- Move P5 functions into Gane House

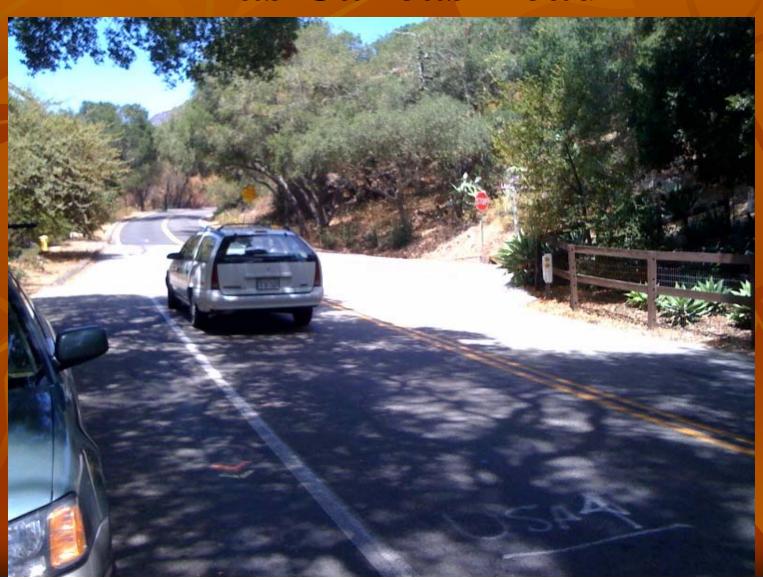
Other Development Plan changes

- Remove the chain link fences ugly and hazard to wildlife
- Eliminate Guild Studio Parking Lot
- Reject precedent-setting prospective use of Advanced Treatment System for Cavalli houses sewer was the EIR's mitigation measure
- Eliminate roadway and trenching in Hansen site unnecessarily affecting important cultural resources -

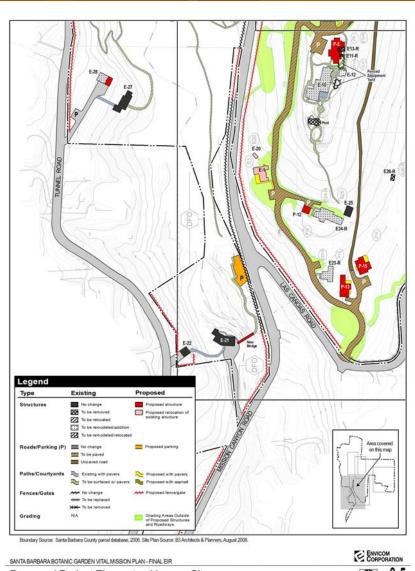
Parking Lot Across from Las Canoas Intersection



Proposed Parking Area Access at Las Canoas Road



Hansen Site



Proposed Project Elements - Hansen Site





Conditional Use Permit Strengthen # 63

- At any time caps, but base on evacuation capacity,
 or parking capacity 100 or 114
- annual maximum set at 85,000, no annual growth
- Eliminate festivals and Craft fairs, nighttime classes and events,
- Eliminate event shuttle busses, or if allowed, limit size to 31 feet and park south of Garden street
- Eliminate alcohol on site due to potential for furtive smoking in the bushes

Conditional Use Permit - Strengthen # 31

- Fire Protection Plan
 - Visitation Limits
 - Event Limits
 - Bus Restrictions
 - Evacuation plans and performance standards
 - Evacuation for all persons
 - Shelter in place decision-making, protocols
 - Fire Chief or NWS can call Red Flag Conditions

Strengthen Plans and Involve Public

- Construction Traffic Plan
- Construction Housekeeping Plan
- Event Traffic Management Plan
- Need public notification, comment, meeting and consideration of comments

Construction Phasing

- Rest Periods
 - Either 1 year off after each of 3 phases is complete
 - Or Westmont CUP formula

Utilities First

 First Phase of Construction should include all utilities in roadways before other phases may begin

MUNKUEN

The Santa Barbara Botanic Garden Invites you to the Annual Members Picnic



May 7th 4:30-7:30 p.m

Come enjoy a members only evening in the Garden

Music, Garden tours, Caricature artist, Crafts for kids, Food available for Purchase, Dessert on us!

RSVP By May 5

TIME: Open House Tours begin at 4:30. Picnic Starts at 5:30

May 7, 2009

Botanic Garden Event