

APPENDIX L

LAND USE DENSITY CALCULATIONS

**Greenbriar CLUP Analysis - Safety Zone Compliance
Overview**

8/15/2005

Greenbriar Land Uses Identified in CLUP	CLUP Compatibility*	Description
Single-family detached	Yes**	See "persons per hour detail"
Mulfi-family dwellings	Yes**	Same
Streets, roads and Highways	Yes*	
Light rail lines: passenger	Yes*	
Passenger terminals and stations	No	"Over-ride" needed
Parking lots	Yes*	
Grocery stores	Yes**	See "persons per hour detail"
Eating and Drinking	Yes**	Same
Miscellaneous Retail Trade	Yes**	Same
Neighborhood shopping centers	Yes**	Same
Neighborhood parks	Maybe	
Open space, natural and water areas	Yes*	

* As per the Sacramento International Airport CLUP, amended January 1994

** As per CLUP "concentration" guidelines - see attached analyses

Conclusion:

The Greenbriar project complies with the Sacramento International Airport CLUP in all instances except for the light rail station. The project complies with the spirit and intent of the CLUP as it relates to parks, by siting "Regional-serving" larger parks outside of the safety zone. However, park consistency with the CLUP may require some attention due to a footnote in the CLUP stating that the parks may not contain any "structured playgrounds, ballfields or picnic pavilions."

Greenbriar Safety Zone Densities - Summary

8/15/2005

25 Persons Per Acre Per Average Hour:

Gross Persons Within Safety Zone Per "Average Hour"	8368
Allowable Persons Within Safety Zone Per "Average Hour"	10125
Persons Per Acre Per Average Hour Within Safety Zone	21
Allowable Persons Per Acre Per Average Hour Within Safety Zone	25

50 Persons Per Acre Maximum:

Gross Persons Within Safety Zone At Any Given Time	12543
Allowable Persons Within Safety Zone At Any Given Time	20250
Maximum Average Persons Per Acre Within Safety Zone At Any Given Time	31
Maximum Allowable Average Persons Per Acre Within Safety Zone At Any Given Time	50

Greenbriar Safety Zone Densities - Persons per Hour

8/15/2005

25 Persons Per Acre Per Average Hour

Gross acreage within safety zone
 Allowable persons per acre per "average hour"
 Total allowable persons within safety zone ("on average")

405
 25
10125

Explanation
 per April 29 submission of "formal" development application
 per CLUP, page 36 and Appendix A-1

RESIDENTIAL

Assumptions:

Persons per household - single family detached*
 Persons per household - two-four-plex*
 Persons per household - 5-plex+ (apartments)*

number came from Jim McDonald, LRP - from historical 10-year City of Sac census info
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Calculations:

Single-family households - total # of persons
 Multi-family households - total # of persons

2099 total detached units x 2.86 (1119 LDR, 1005 MDR)
 225 total multi-family units x 1.9

Total Maximum Persons Occupying Residential Units
 Occupied an average of 75% of the day

For purposes of "averaging" - assume people at home 18 hours per day, on average

6431
4823

COMMERCIAL

Large Commercial Area:

Market	Area	Use	%	Area	Factor	Occ. Load
Market	65,000	Store	90%	58,500	30	1,950
Restaurant	22,300	Storage	10%	6,500	300	22
		Dining	80%	17,840	15	1,189
Shops	45,000	Kitchen	20%	4,460	200	22.3
		Store	85%	38,250	30	1275
		Storage	15%	6,750	300	22.5
Total Max Occupancy Load						4,481

"Factor" is population factor - persons per square foot maximums as set forth in Table 10-A of the 2001 California Building Code (2001 is current edition).
 Occupancy Load #s are "maximum" persons per square foot derived from CA Building Code

Not shown on "Conceptual Plan," but included here to be conservative and provide flexibility later.
 Only those commercial uses that fall within the safety line are analyzed in this section.

Meister Way Commercial:

Restaurant	14,000	Dining	80%	11,200	15	747
		Kitchen	20%	2,800	200	14
Shops	25,000	Store	85%	21,250	30	708
		Storage	15%	3,750	300	13
Office	15,000	Office	100%	15,000	100	150
Total Max Occupancy Load						1632
Total Maximum Persons Occupying Commercial Units						6112
Occupied for 14 hours per day						3545

"Conceptual Plan" shows 14,700 sf, more analyzed here to be conservative and provide flexibility later

For purposes of "averaging" - assume commercial units empty for 10 hours per day

PARKS**

Population totals attributable to parks have no noticeable impact on overall density evaluation, due to the siting of "Regional" parks outside of the safety line. See footnote below.

TOTAL PERSONS PER AVG HOUR WITHIN SAFETY ZONE
 TOTAL ALLOWABLE PERSONS WITHIN SAFETY ZONE

8368
10125

TOTAL PERSONS PER ACRE PER AVG HOUR WITHIN SAFETY ZONE
 TOTAL ALLOWABLE PERSONS PER ACRE PER AVG HOUR WITHIN SAFETY ZONE

21
25

50 Persons Per Acre Maximum

Gross acreage within safety zone
 Allowable persons
 Total maximum allowable persons within safety zone at any given time

per April 29 submission of formal development application

405
 50
 20250

RESIDENTIAL

Total Maximum Persons Occupying Residential Units	6431	per analysis above
COMMERCIAL		
Total Maximum Persons Occupying Commercial Units	6112	
PARKS*		
TOTAL MAXIMUM PERSONS WITHIN SAFETY ZONE AT ANY GIVEN TIME	12543	Population totals attributable to parks have no noticeable impact on overall density evaluation, due to the siting of "Regional" parks outside of the safety line. See footnote below.
TOTAL ALLOWABLE PERSONS WITHIN SAFETY ZONE	20250	
TOTAL PERSONS PER ACRE WITHIN SAFETY ZONE AT ANY GIVEN TIME	31	
TOTAL MAXIMUM ALLOWABLE PERSONS PER ACRE WITHIN SAFETY ZONE	50	

* Census data: I used the more conservative of two estimates on household population assumptions. The 2000 U.S. Census Bureau states that for the City of Sacramento, Total Average Household Size is 2.57 persons/house. The detail states that of that, "Owner Occupied" (probably a good surrogate for single-family detached) is 2.65 persons/house and "Renter Occupied" is 2.50 persons/house.

** Parks The only parks sited within the safety zone are neighborhood parks. In other words, people using those parks come primarily from within the project area and thus those population numbers are already captured in the analysis above. There will be no lighted ballfield "complexes" within the safety zone. While there is the potential for one or two ballfields on the 5 or 7 acre park, maximum "occupancy" on those fields would probably be 300 to 400 persons on the busiest days. Those numbers are not nearly large enough to make a difference in the overall calculation.