The EIR projects a 60 month build out time including construction of all infrastructure improvements such as roads, sewers, utilities and building pads and construction of the homes themselves. If you look to comparable projects, the build out time may be substantially longer and the EIR must discuss this as a potential impact.

Oakmont IV in Glendale was started about in 1986 and took about 2-3 years to complete the grading, road building, sewers, utilities and grading of the pads. There was less grading that needed to be done in this project but the infrastructure improvements took longer. This may mean that the 9 and 19 months need to make this infrastructure improvements in Development Areas B and A respectively may be too short.

The applicant anticipates that all the homes will be built and completed in the next 51 to 41 months after the infrastructure is complete in Development Areas B and A respectively. However, if you look at comparable hillside developments, Oakmont IV in Glendale, had its infrastructure completed in 1988. This development consisted of 197 lots for hillside homes that would be in the expected price range that the applicant would be selling their lots to the public. Even 15 years after the infrastructure was completed, there are still vacant lots and they are still building homes there. The Canyon Hills Development is proposed to have 280 lots. This would mean that it would be expected for home construction to continue for another 15 years beyond the completion of the infrastructure on the project site. The build out time may actually be as long as 23 years especially if adverse economic conditions prevail during any portion of the build out period.

It would seem reasonable then that local residents could anticipate construction noise for the next 25 years. The EIR must be modified to reflect this possibility.

The Construction noise will be higher sometimes than the EIR indicates. Sometimes several machines may be working in tandem. The report does discuss the use that multiple machines and tasks may be occurring at the same time and in the same area on the project site to produce a much greater sound level than indicated. However, this does not include other construction site vehicles like pick-up trucks or passenger vehicles that may be performing a work related task while the other machines are operating. Also, the consultant has excluded discussing the noise impacts of trash trucks required to haul away debris created during the construction process. This will impact the noise levels and must be reflected in the EIR.

Also, the construction noise calculations grossly understate the potential noise from the construction site. Table IV.E-4 lists noise levels from various construction equipment. The table does disclose that these are at the low end of noise. However, if you refer to Appendix H, Exhibit I.1-1 in the Ove Arup & Partners noise consultants table, there is a great range of noise that these machines could produce. For example, Table IV.E-4 lists a tractor producing 77dBA noise. If you refer to the noise consultant's Exhibit, the same tractor could also produce a sound of 98 dBA at 50 feet. 98 dBA is a very loud sound and even at 500 feet, just one machine would be very noticeable.

The EIR must provide a range of likely noise impact from construction activities. This is what

would be expected in actual construction. The maximum expected noise using the combination of machines and their maximum noise output must be calculated and discussed in the EIR. Also, the average of the high and low range of the maximum expected noise using the combination of the machines needs to be calculated and discussed in the EIR. It is very misleading only to discuss the very lowest amount of noise produced by the construction equipment. This is a very unlikely scenario that the lowest amount of noise would be produced everyday on the construction site. The average of the high and low range of the maximum expected noise would normally be expected to occur on a typical day. The low range and high range would only be expected to occur occasionally. The EIR must be corrected to reflect the impacts of the average expected construction noise output and the maximum expected construction noise output.

CANYON HILLS DEVELOPMENT
NUMBER OF TRUCKS NEEDED & AMOUNT OF GRADING DONE

	DEVELOPMENT AREA A		DEVELOPMENT AREA B	
Amount of Grading with 20% Remedial Grading	4,080,000	cubic yds	1,452,000	cubic yds
No. of Dump Trucks Required- 90% Full*	302,222	truck trips	107,555	truck trips
Grading Time Period	19	months	12	months
No of Working Days in Grading Time Period **	410	days	260	days
Less Holidays Off	(15)	days	(10)	days
Days work stopped due to Adverse Weather	(32)	days	(20)	days
Total Project Work Days Available	363	days	230	days
Total Truck Trips per Day Required at Each Site	833	truck trips per day	468	truck trips per day
No of Trucks Required on Site Each Day if 27 trips per day****	31	Operating Trucks on Site	16	Operating Trucks on Site

No of Trucks Required on Site Each Day if 18 trips per day*****		Operating Trucks on Site		Operating Trucks on Site
	46		26	

* Assumes Dump Truck Capacity is 15 cubic yards
** Assumes working Monday-Friday during week, 5 working days per week
*** Assumes Work day is 9 hrs from 7am-5pm with 1 hr. off for lunch
**** Assumes it takes only 20 minutes for each truck to be filled, drive to drop off fill & return
***** Assumes it takes only 30 minutes for each truck to be filled, drive to drop off fill & return

According to the information providing in the EIR, the developer may need 8 to 12 times the equipment that is listed on Page IV.E-9 & 10 for Development Area A. In order to complete the grading in Development Area A in 19 months, it requires 833 on-site truck trips per day to haul dirt working every allowable weekday. This means that if each truck took 20 minutes to be filled, drive to an adjacent area to drop off the fill, and return back to be filled it would take 31 trucks operating 9 hours per day continuously to do this. If each truck took 30 minutes to be filled, drive to an adjacent area to drop off the fill, and return back to be filled it would take 46 trucks operating 9 hours per day continuously to do this. The equipment lists only indicate that 4 trucks are needed. Does this also mean that 8 to 12 times the number of support equipment are needed, so that instead of 8 scrapers, 64 to 96 are needed, instead of 2 Cat loaders, 16 to 24 are needed, and instead of 6 tractors, 48 to 72 are needed to complete the task in Development Area A???? Even if it takes 57 months to do the grading in Development Area A, about 3 to 4 times the number of trucks and other equipment will be needed. If the grading time is off substantially, then the project build date is incorrect and all the measurements of build out time and impacts in 2009 are incorrect and must be redone.

According to the information providing in the EIR, the developer may need 4 to 7 times the equipment that is listed on Page IV.E-9 & 10 for Development Area B. In order to complete the grading in Development Area B in 12 months, it requires 468 on-site truck trips per day to haul dirt working every allowable weekday. This means that if each truck took 20 minutes to be filled, drive to an adjacent area to drop off the fill, and return back to be filled it would take 16 trucks operating 9 hours per day continuously to do this. If each truck took 30 minutes to be filled, drive to an adjacent area to drop off the fill, and return back to be filled it would take 26 trucks operating 9 hours per day continuously to do this. The equipment lists only indicate that 4 trucks are needed. Does this also mean that 4 to 7 times the number of support equipment are needed, so that instead of 6 scrapers, 24 to 42 are needed, instead of 2 Cat loaders, 8 to 14 are needed, and instead of 4 tractors, 16 to 28 are needed to complete the task in Development Area B???? Even if it takes 36 months to do the grading in Development Area B, about 1 1/3 to 2 1/3 times the number of trucks and other equipment will be needed. If the grading time is off substantially, then the project build date is incorrect and all the measurements of build out time and impacts in 2009 are incorrect and must be redone.

This also means that the projected construction noise in the EIR is grossly understated. The EIR must be redone to account for this substantial increase in construction equipment. Otherwise, if

the EIR is not corrected, it will be useless as an impact mitigation planning tool.

The EIR really did not discuss the effects of the impact of airblasts and vibrations from blasting. However, in Appendix H, Pages 4 and 22, **the sound consultant indicates that existing residents by both Development Areas A and B could hear brief blast noise between 93 dB to 114 dB.** This would be a significant adverse impact. This is an increase of from 25 dB to 35 dB over the ambient noise level. This must be a finding in the EIR. The EIR does mention the possibility that blasting to level parts of the construction site is possible. The EIR must discuss whether blasting would cause property damage to adjacent existing structures or other property in proximity to the blast area. Additionally, the EIR should discuss the following mitigation measures or similar measures to mitigate the impact of blasting.

- When blasting occurs, the applicant must be required to give public notice of such an event a month in advance. This would give many sensitive receptors a chance to leave the area and not experience the effects of it. This would be a very helpful mitigation measure.

- The EIR must discuss the health hazards of noise and vibration in greater depth. This includes numbers of persons expected to become ill or injured as a result of noise and vibrations from the project.

I could not find the LEQV2 output files in Appendix J that were prepared by Linscott Law & Greenspan that discussed the traffic noise that would be generated from the operation of the development after construction ceases. These were found in Appendix H. The EIR references must be corrected to reflect the proper location of this information. Also, it is not clear what assumptions were used to compute the expected Mechanical noise levels that would be expected from the use of various machines that are part of the operational development. These would need to include use of air conditioners, heaters, yard maintenance equipment, and any other expected noise from the operational development. These assumptions and calculations must be included to determine if there would be an increase in 3 dBA noise level after the development is built.

The EIR does not discuss the significance of the impact of freeway noise on the development's residents after the development is built. Table IV.E-8 describes the impact on some project residents with and without sound walls. At receptor site 12 (R12), the sound does exceed the 3 dBA increase in noise level and according to Ove Arup & Partners noise consultant information found in Appendix H, Page I.2-3, this level of noise is what is considered "Normally Unacceptable". Thus this is a significant and unavoidable impact even after mitigation.

The noise levels must be measured at all receptor sites during the peak traffic times on the Foothill Freeway and La Tuna Canyon road. The noise levels during peak traffic times might exceed 67 dBA even after sound walls are built for significant periods of time. This would be in excess of Caltrans standards. Additional mitigation measures must be done if this is true including not building residences where sound levels after mitigation would exceed 67 dBA for

periods of 15 minutes or greater. If this is not done, it would pose a significant health risk to those residents that are exposed to constant excessive noise.

Also, in Appendix H, Pages 25 and 27 indicate that at Receptor Sites 10, 11 & 12, that the level of noise after mitigation exceeds Caltrans criteria of significant noise impact from highways. The sound at these 3 receptor sites exceed the 67 dBA criteria even after sound walls are built. The noise consultant recommends that these lots not be developed and homes not be built here as a mitigation measure. If this is not done then the noise impact on the development residents here is significant. The EIR must make this finding. This must be a conclusion of the EIR because there will be project residents after the development is built that are exposed to normally unacceptable levels of noise and thresholds of noise exceeding the test of significant.

The noise study was done utilizing manual counts of noise on September 12, 2002 which is actually Thursday and not Wednesday as noted by the Noise Consultant in Appendix H and September 13, 2002 which is Friday and not Thursday as noted by the Noise Consultant in Appendix H at five locations. Also the report indicates that 24 hour machine counts were conducted at two locations from September 13, 2002 which was Friday and not Thursday as noted by the Noise Consultant in Appendix H and Tuesday September 17, 2002.

The noise study at many locations is based on a very small population of readings. All the readings occurred in the fall months. There may be some variance in noise between spring, winter and fall months. Readings must be taken in other months of the year to eliminate seasonal noise variances. We believe that the noise readings that have been taken may not be accurate and represent the true noise levels found at those locations.

The number of readings taken is also not statistically significant because of amount of sample population is so small. The total population of readings that could be taken during a year would be 365 days except in a leap year. If you eliminate Saturdays and Sundays and observed Federal and State holidays assuming the holidays fell on a weekday instead of a weekend, you would eliminate 114 days from the possible population of observation days. If you also exclude non-school holiday period weekdays from the middle of June through the first week of September, Christmas-New Years Holiday period, Spring break holiday period, and an additional 5 weekdays that Los Angeles City Schools may not be in session due to administrative conference or workdays, another 77 days would be eliminated from the possible population of observation days. This would leave a possible population of 174 observation days.

If you take only 15 minute readings during the loudest times of the day for noise, between 7 am and 5 pm, a 10 hour time period per day, there would be 40 observation periods each day. This would mean that in any year, there would be 6,960 possible 15 minute observation times during business days at the busiest time of day.

The noise measurements at five locations were done only 15 minutes each for two days. The other locations were done for four consecutive days for 92.25 hrs at one location and 93.5 hrs at another location. This is about 4 days each. There are 278 observation days if you exclude non-

school holiday period weekdays from the middle of June through the first week of September, Christmas-New Years Holiday period, Spring break holiday period, and an additional 5 weekdays that Los Angeles City Schools may not be in session due to administrative conference or workdays, and holidays.

The sample size calculating software was provided by Creative Research Systems.

I did some same size calculations to determine the statistical significance of such small population samples. The noise measurements at the five locations were done only 2 fifteen minute periods from a possible 6,960 observation periods. The results calculated at a 95% confidence level indicates that the confidence interval is 69 with 2 measurement taken out of a population of 6,960. That means that the EIR consultant can be 95% confident that the noise measurements represent the actual noise during the busy times of day only 31 % to 100% of the time. With the confidence interval so large, there is a great chance that these results are not representative of the true noise levels. Since the confidence interval is so large, there is a great chance that with only 2 observations that the results do not reflect the actual area traffic for a typical work day.

If the EIR consultant chose 4 days out of the 278 observation days in a year, at a 95% confidence level, the confidence interval would be about 49. That would mean that if the EIR consultant measured the noise at the two locations only 4 days each year, he would be 95% confident that the noise survey represents the actual area noise 51% to 100% of the time. Though this confidence interval still is large, it would at least mean that the noise measurement would more likely than not be representative of the actual area noise for those two sites.

It seems apparent with the low number of observation periods that more observation periods must be done to validate that the noise measurements used in the EIR are accurate.

We have included an explanation of the terminology used and other factors involving sample size from the Creative Research Systems website.

Sample Size Terminology

The **confidence interval** is the plus-or-minus figure usually reported in newspaper or television opinion poll results. For example, if you use a confidence interval of 4 and 47% percent of your sample picks an answer you can be "sure" that if you had asked the question of the entire relevant population between 43% (47-4) and 51% (47+4) would have picked that answer.

The **confidence level** tells you how sure you can be. It is expressed as a percentage and represents how often the true percentage of the population who would pick an answer lies within the confidence interval. The 95% confidence level means you can be 95% certain; the 99% confidence level means you can be 99% certain. Most researchers use the 95% confidence level. When you put the confidence level and the confidence interval together, you can say that you are

95% sure that the true percentage of the population is between 43% and 51%.

The wider the confidence interval you are willing to accept, the more certain you can be that the whole population answers would be within that range. For example, if you asked a sample of 1000 people in a city which brand of cola they preferred, and 60% said Brand A, you can be very certain that between 40 and 80% of all the people in the city actually do prefer that brand, but you cannot be so sure that between 59 and 61% of the people in the city prefer the brand.

Factors that Affect Confidence Intervals

There are three factors that determine the size of the confidence interval for a given confidence level. These are: sample size, percentage and population size.

Sample Size
The larger your sample, the more sure you can be that their answers truly reflect the population. This indicates that for a given confidence level, the larger your sample size, the smaller your confidence interval. However, the relationship is not linear (i.e., doubling the sample size does not halve the confidence interval).

Percentage
Your accuracy also depends on the percentage of your sample that picks a particular answer. If 99% of your sample said "Yes" and 1% said "No" the chances of error are remote, irrespective of sample size. However, if the percentages are 51% and 49% the chances of error are much greater. It is easier to be sure of extreme answers than of middle-of-the-road ones.
When determining the sample size needed for a given level of accuracy you must use the worst case percentage (50%). You should also use this percentage if you want to determine a general level of accuracy for a sample you already have. To determine the confidence interval for a specific answer your sample has given, you can use the percentage picking that answer and get a smaller interval.

Population Size
How many people are there in the group your sample represents? This may be the number of people in a city you are studying, the number of people who buy new cars, etc. Often you may not know the exact population size. This is not a problem. The mathematics of probability proves the size of the population is irrelevant, unless the size of the sample exceeds a few percent of the total population you are examining. This means that a sample of 500 people is equally useful in examining the opinions of a state of 15,000,000 as it would a city of 100,000. For this reason, The Survey System ignores the population size when it is "large" or unknown. Population size is only likely to be a factor when you work with a relatively small and known group of people (e.g., the members of an association).

The confidence interval calculations assume you have a genuine random sample of the relevant population. If your sample is not truly random, you cannot rely on the intervals. Non-random samples usually result from some flaw in the sampling procedure. An example of such a

flaw is to only call people during the day, and miss almost everyone who works. For most purposes, the non-working population cannot be assumed to accurately represent the entire (working and non-working) population.

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Also, the noise calculations on the project residents failed to take into account atmospheric conditions. If there are clouds or fog in the vicinity, these would reflect noise that would normally be dissipated into the atmosphere, back at the project residents. Many residents in the Crescenta Valley area will be able to tell you that freeway noise from I-210 is louder when those atmospheric conditions occur. When this happens, even if there are sound walls, many areas of the development may be subject to noise equal or exceeding 70 dBA. This level of noise would be considered Normally Unacceptable. There must be a discussion of this in the EIR because this condition is common in the winter and sometimes in the spring and fall when it is cooler. This condition is not a remote or uncommon occurrence.

There are additional areas concerning noise that the EIR must discuss. The EIR must be corrected to reflect the impacts of the average expected construction noise output and the maximum expected construction noise output.

Section IV. F ARTIFICIAL LIGHT AND GLARE

The EIR describes many vantage points that residents and road travelers can see no light from the project areas as there is no lighting currently in the project areas. The EIR should discuss what someone utilizing the public land that the Santa Monica Mountains Conservancy owns across the street from Development Area B. There is some possibility that there may be people that utilize this area at night. There are picnic tables and there are groups that conduct night hikes in local area trails. So, there would be impact on these people that use this public land and saw light from Development Area B.

The EIR states in several places that there currently is no light from the project area. On page IV.F-2 the EIR states, "Currently, there are no sources of lighting on the project site". The EIR also calculates the amount of time traveling on I-210 both in the East and West directions and La Tuna Canyon how much time an observer traveling on these roads would see darkness looking into the project areas. The EIR also discusses what current residents that surround the project area experience in terms of light from the project area. These residents since there is no light from the project area experience no light pollution.

CEQA guidelines Section 15382 defines a significant effect on the environment as a substantial or potentially substantial, adverse change in any of the physical conditions with the area affected by the project. All area viewers, whether they are nighttime hikers, road travelers, nearby area residents, or wildlife that is also mentioned in the EIR see no light from the project area. No matter what mitigation measures are used unless the mitigation does not allow project residents the use of lights at night and no street lights are constructed and used will have a significant and unavoidable impact by artificial light and glare from the project. Since there is no light from the

project area now, any light would be a significant impact.

The EIR must be changed to reflect that even after mitigation, the impact of artificial light and glare from the project is significant and unavoidable after mitigation. If this conclusion in the EIR is not changed to reflect this, it would be very misleading to a user of the EIR.

Section IV. G LAND USE

According to Sunland-Tujunga Community plan, the implementation of the Land Use Map is the Zoning Ordinance. The Zoning Ordinance and the Zoning Map will identify specific types of land use, intensity of use and development standards applicable to specific areas and parcels of land within the community.

The Community Plan further states in the section on Plan Consistency the following.

Each Plan category indicates the corresponding zones permitted by the Plan unless further restricted by the Plan text, footnotes, adopted Specific Plans or other specific limitations on discretionary approvals. The Plan recognizes that achieving the full residential densities and the commercial and industrial intensities depicted on the Plan map will not occur due to Plan restrictions and economic limitations.

For each plan category, the Plan permits all identified corresponding zones, as well as those zones which are more restrictive, as referenced in Section 12.23 of the Los Angeles Municipal Code (LAMC). Any subsequent action that modifies the Plan or any monitoring review that results in changes to the Plan must make new Plan consistency findings at the time of the decision.

City actions on most discretionary projects require a finding that the action is consistent or in conformance with the General Plan. In addition to the required general finding, decision-makers acting on certain projects in the Plan area shall refer to each of the applicable additional findings that the Plan identifies as programs in Chapter 3 of the Plan. To further substantiate the consistency findings, decision makers may cite other programs, policies or objectives which would be furthered by a proposed project. In addition, Chapter 5 of the Plan requires a decision maker to make a finding of conformance with applicable design standards for discretionary projects.

The Community Plan further discusses what all new developments in the area must achieve.

Residential land use patterns vary greatly according to local conditions in the areas which comprise the Sunland-Tujunga-Lake View Terrace-Shadow Hills-East La Tuna Canyon Community Plan. Topography, population characteristics, housing markets, age of housing and degree of existing development have a great influence on the density of development throughout the community. Much of the existing density in the community was established by natural controls such as topography, large amounts of existing available land and infrastructure.

There have been varying degrees of pressure for development in the Plan area. Some new development has been inconsistent with existing development. Some areas have experienced development pressure for higher density housing.

The proposed development must fulfill a number of objectives and policies to be consistent with the Community Plan. The EIR must discuss how the project does or does not meet these objectives and policies. We are listing some of the important Community Plan Land Use objectives and policies below.

GOAL 1 *A SAFE, SECURE, AND HIGH QUALITY RESIDENTIAL ENVIRONMENT FOR ALL ECONOMIC, AGE, AND ETHNIC SEGMENTS OF THE COMMUNITY.*

Objective 1-3 To preserve and enhance the varied and distinct residential character and integrity of existing single and multi-family neighborhoods.
Policies
1-3.1 **Consider factors such as neighborhood character and identity, compatibility of land uses, impacts on livability, impacts on services and public facilities, impacts on traffic levels, and environmental impacts when changes in residential densities are proposed.**
Program: **The decision-maker should adopt a finding which addresses these factors as part of any decision relating to changes in planned residential densities.**
1-3.2 Seek a high degree of architectural compatibility and landscaping for new infill development to protect the character and scale of existing residential neighborhoods.
Program: The Plan includes Design Guidelines which establish design standards for residential development to implement this policy.
1-3.3 **Preserve existing views of hillside and mountainous areas.**
Program: **Retention of the low density rural character of the community and height limitations, scenic highway designations, implementation of the Citywide Hillside Ordinance and the 15% Slope Density Ordinance will contribute to the preservation of these views.**

Objective 1-6 To limit residential density and minimize grading in hillside areas.
Policies

1-6.1 Ensure the availability of adequate sewers, drainage facilities, fire protection services and facilities and other public utilities to support development within the hillside areas.

Program: A decision-maker should adopt a finding which addresses the availability of these services and utilities as part of any decision relating to hillside residential development.

1-6.2 **Consider the steepness of the topography and the suitability of the geology in any proposal for development within the Plan area.**