

Re: Olgaard Residence- Project Justification Letter
Site Address: 15365 Santella Court; APN: 527-09-036. Architecture & Site Application# S-18-052.

Date:
Feb 04, 2019

Dear Los Gatos Town Council Members

On behalf of Christian and Helen Olgaard, I am honored and pleased to present this new net zero energy use, sustainable (green) design project to the Town of Los Gatos. From the very beginning we worked with your knowledgeable planning and engineering staff who helped us understand the Los Gatos hill sides design guidelines and standards to preserve them in their natural state.

We consulted with your staff early on and met with them frequently. We were prepared by your staff for this arduous and strict compliance design review process. Our design team also had willing support of my clients to design a creative and an innovative, contemporary, sustainable home that reflects their lifestyle, and their desire to bring in the outdoor natural hillside environment to indoors in a seamless way. As a result of this collaborative process we had very minimal revisions to the overall original design concept and were able to create a home design that met all requirements without any exceptions.

The proposed single-family home, to be developed on a vacant lot has two-levels, 4 bedrooms, 4 1/2 baths and 3 car-garage, of 5,840 sf. allowable floor area and a 756 sf below grade (basement) space.

This project was unanimously approved following a thorough review by the Planning Staff, and has subsequently been appealed by Dr. David Weissman, questioning the Visibility Analysis data and methodology. This letter accompanies the submitted building plans and additional exhibits for the above referenced project, and contains descriptions of the property, the neighborhood, and how it complies with the Hillside Development Standards and Guidelines, specifically for Visibility Screening Analysis.

Visibility Screening Analysis Methodology

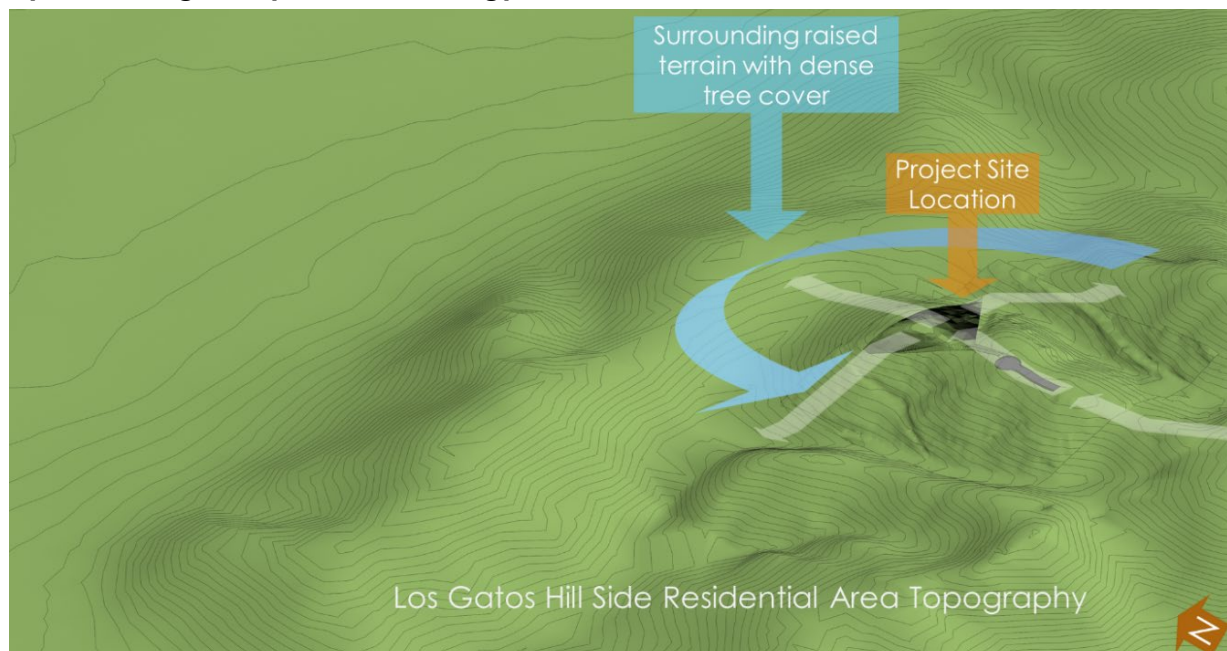


Figure 1 Site and Neighborhood Terrain was modelled based on topography drawings and Google Earth

We have done an exhaustive study of the site, the surrounding topography, screening of the mature trees in the vicinity, and the visibility of the project from the viewing areas. Our initial studies with the computer model indicated that the project wouldn't be seen from Blossom Hill /LG Blvd intersection viewing area due to dense tree coverage. This fact was later confirmed by the subsequent pictures taken after the story-poles are installed. We then focused on our study on the Selinda Way/LG Almaden Rd. viewing area



Figure 2: "Sketchup" and Google Earth were used to configure the location and altitude of the View angles

We used primarily Revit (CAD software used typical for architectural design) to build the topography and the home design in 3D. We prepared the screening analysis from the guidelines and examples provided by the Planning department.

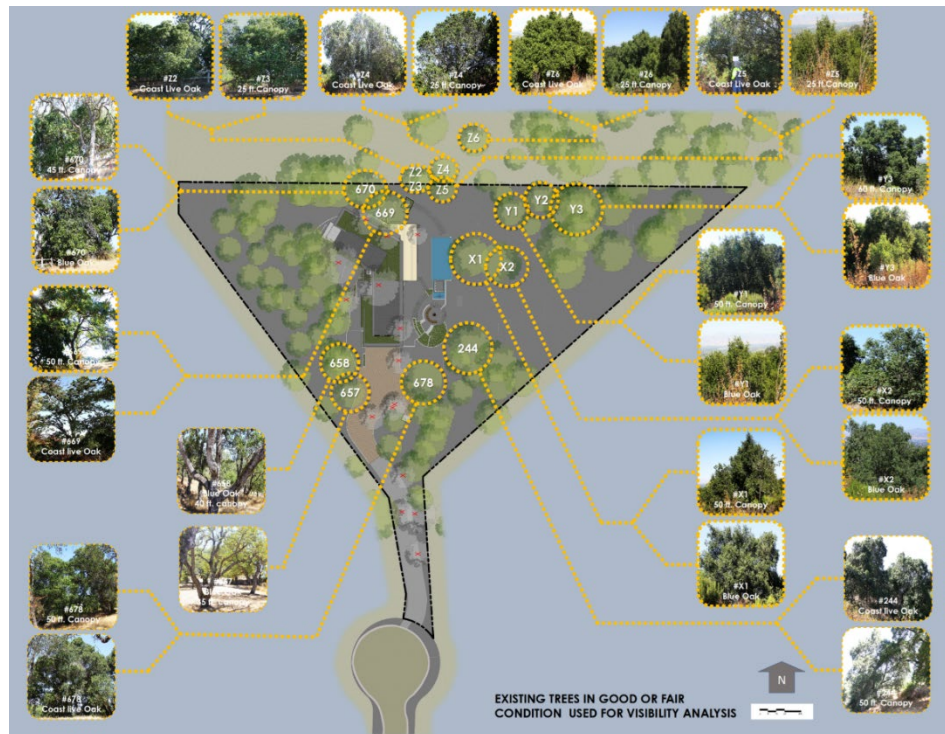


Figure 3: Existing trees were documented for size, health and location form survey drawings and arborist report

We modelled the topography based on data from our surveyor, neighborhood topography drawings from Davidan and Google earth's 3d model of the whole community. We also modelled the trees based on the Arborist's report, aerial pictures from Google earth/Bing Virtual 3d Earth and our site visits/ pictures documenting the tree size and location.

Based on that data we were able to find the precise angle of the observation viewpoint one would see the building elevation. We then calculated the surface area of the building elevation and all connected mass in front of the building (including site elements such as the outdoor seating area in front of the building).

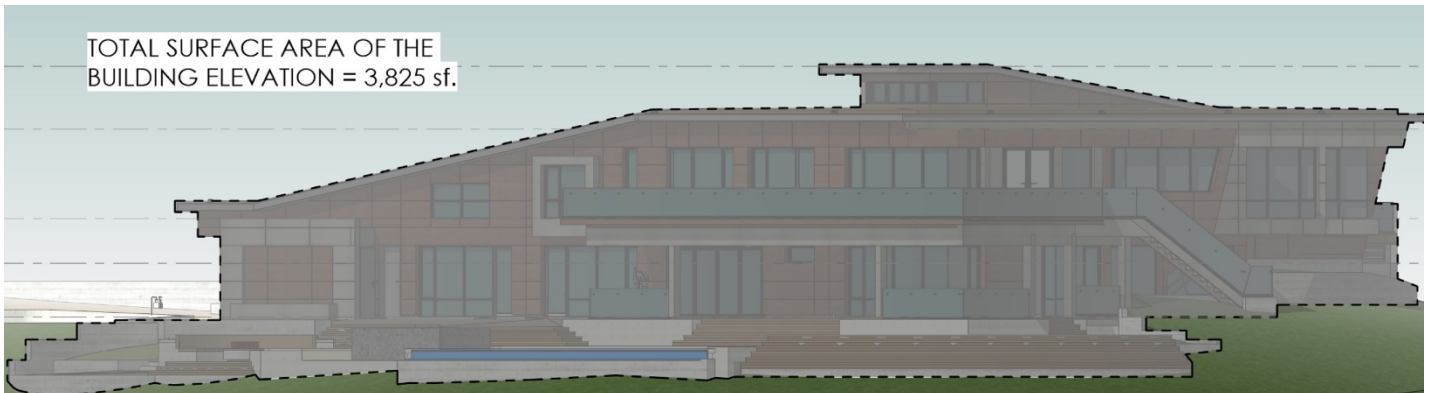


Figure 4: Elevation area (including all site elements) towards Selinda way/ L.G. Almaden Blvd. Viewing area

We then, superimposed the 3D rendering views of the model, on pictures taken from the Selinda Way observation area with a 300mm lens after the story poles were installed. With help of the story pole outlines, we were able to locate and superimpose the 3D-rendering of the home over 300mm lens pictures from the observation area.

Based on the pictures with tree screening we drew an outline of the area seen from the Selinda Way Observation area. We then deducted the visible building area, from the total area of the home elevation, to arrive at the data shown in our visibility/screening analysis.



Figure 5: Close up 3D Rendering (created in Revit) of the view from Selinda way/ L.G. Almaden Blvd. Viewing area

Total surface area of the building elevation = 3,825 sf. Area of Visible Home = 917 sf= 24%

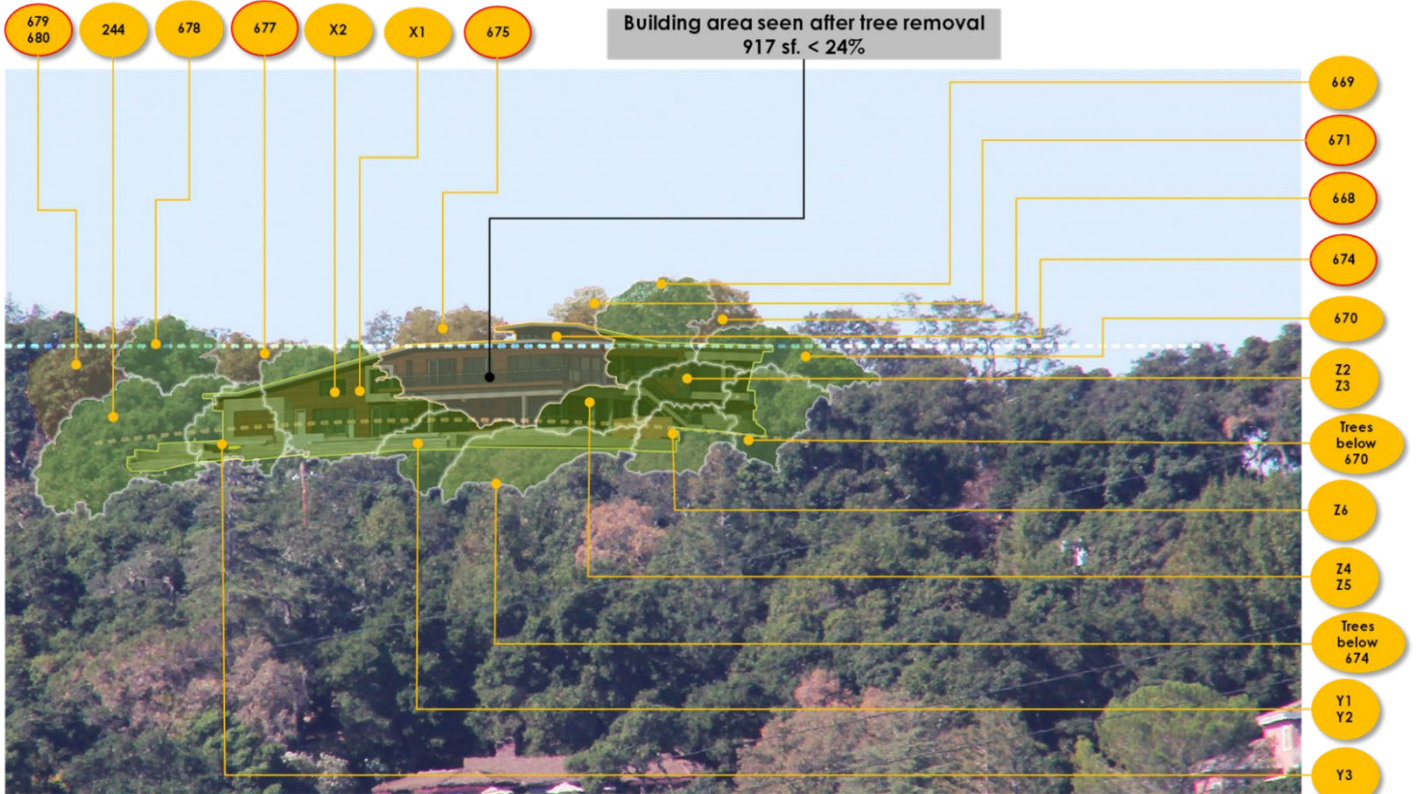


Figure 6: Home rendering superimposed on 300 mm lens view Selinda way/ L.G. Almaden Blvd. Viewing area

We provided all this information to the planning staff and they have crosschecked and validated the analysis. We followed the recent precedent set by the visibility analysis of the neighboring lot #10, given to us as an example by the city staff. As shown for project at lot #10, We show all the building mass area that would be visible from the viewpoint. This logically includes the mass of the outdoor seating area, in front of the building and **all site elements**. In a similar scenario, a project with a large visible area of site elements, should be included, to give an accurate calculation of visible home.

Analysis of Terrain Surrounding the Site

When we studied the cross section of the topography of the hillsides and the ridges from the Selinda Way/LG Almaden Rd., it became obvious why this project site wouldn't be seen from anywhere nearby. Due to a secondary ridge in front of the site, the home wouldn't be seen, unless the observer is a mile or more away. As shown in the illustration below, the view is blocked when an observer comes within a mile of the project.

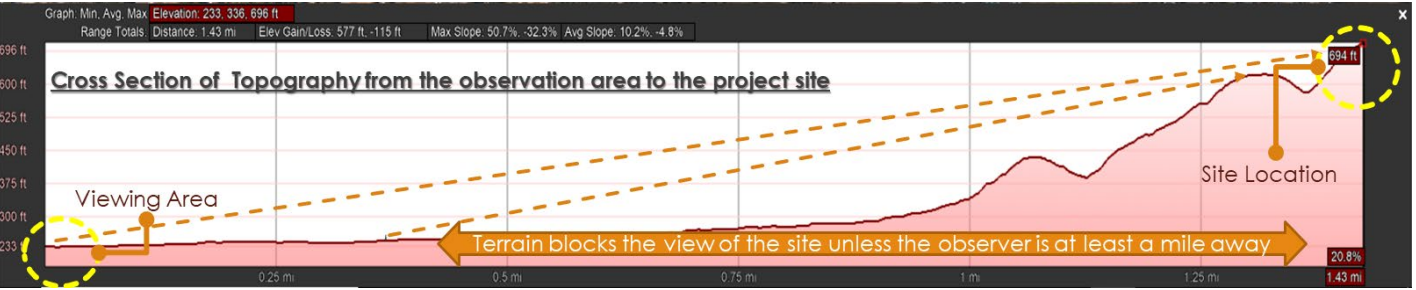


Figure 7: Terrain in front of the home blocks the view of the home from nearby

This picture below is taken from Selinda Way/LG Almaden Rd. intersection (about 1.5 miles away). The property is barely visible with a naked eye. So, unless the observer is at least a mile away from the site, it cannot be seen. Given that distance one cannot distinguish the home with a naked eye.

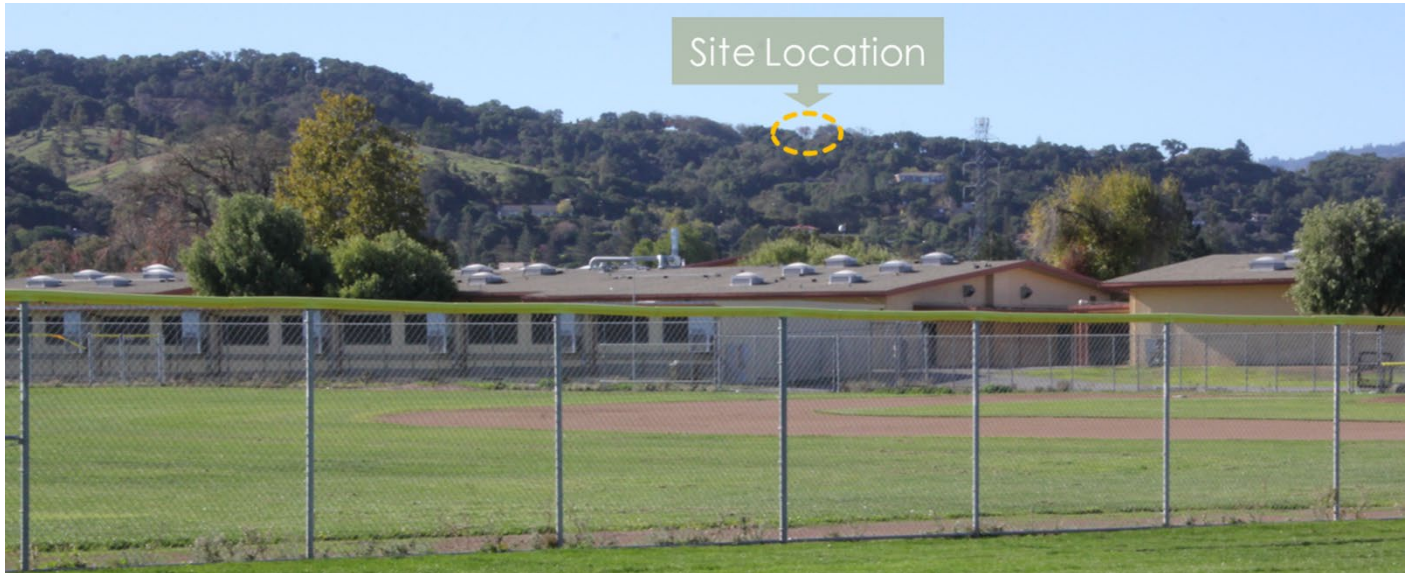


Figure 8: 50 mm lens view from Selinda Way/LG Almaden Rd. Proposed home is barely visible to most.

Not only does the project's visibility analysis comply with the Hillside Development Standards and Guidelines, it also for all practical purposes, wouldn't be seen (without a 300mm lens). Therefore, this home with low LRV surface material values, will have very little impact to the hillside views, from Selinda Way/LG Almaden Rd. viewing area.

Articulation of the Building Mass

This low-profile home with a linear horizontal building form follows the site contours and levels so that the structure appears integrated into the hill side. It reduces the appearance of a large mass, impact on existing grading and vegetation. Only a small portion of the roof extends beyond a height of 18feet (homes below 18 feet height wouldn't be considered as a visible home). This roof form acts as thermal chimney and lets the winter sun in. It is critical to the homes passive cooling in the summer and warming in the winter.

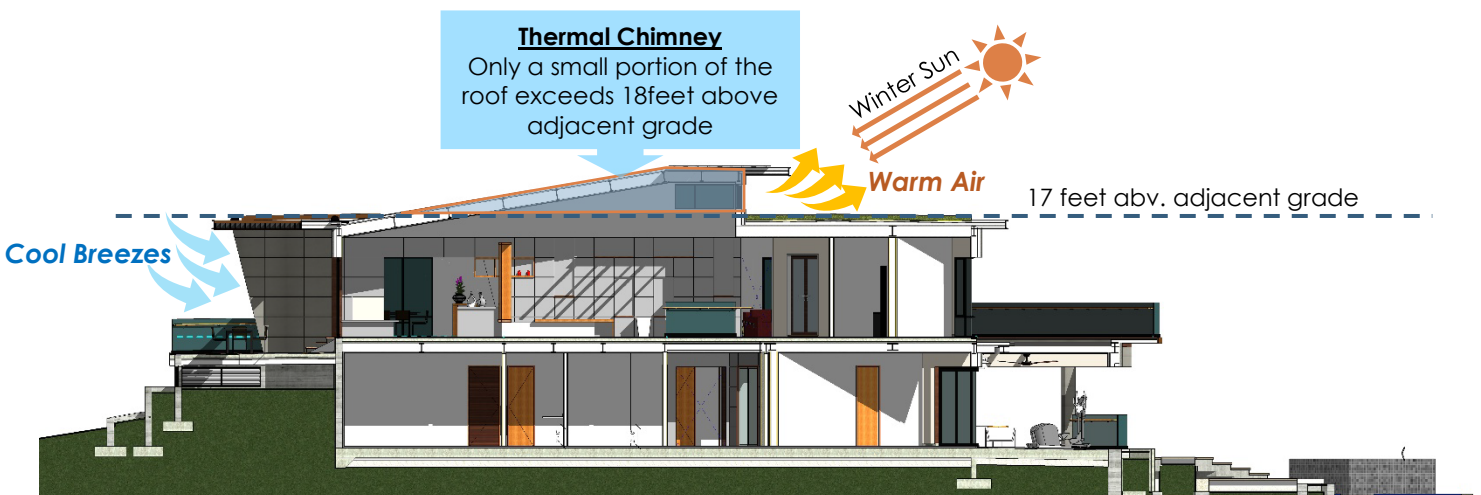


Figure 9: Passive Solar Design

Sustainable Net Zero Energy Design

The sustainable design features of this home include a net zero energy design and LEED certification.



Figure 10: Sustainable Net Zero Energy Design

- The landscape design includes planting 40 new mature California native trees in addition to contributing to the Town Tree Replacement Fund. Most of the landscaping is specified to be native Californian, deer resistant and drought tolerant.
- The design features a live green roof with integrated photovoltaic system, that filters rainwater and offset 100% of the anticipated home energy usage.
- The proposed home will run on only electric power (no gas use) to reduce fossil fuel use.
- A geothermal HVAC system utilizes the earth's constant temperature of 60° F to pre-heat or cool the water for the electric heat pump and domestic hot water.
- Among all other stringent requirements for the LEED certification we are considering rainwater harvesting and grey water system for landscape irrigation.
- Our current estimation of LEED V4 for Homes certification credits totaled 76.5 points, close to certification thresholds for LEED Gold or Platinum.

In other words the home design mitigates all the impacts of the development in terms of its size on the vegetation and grading, absorption of rain water into the ground, energy use, fire safety and visibility from the neighborhood, with a low profile, and low LRV value materials & finishes.

CONCLUSION

This design has been envisioned and developed from the beginning to enhance and elevate the natural beauty of the hill side environment. The home is designed to integrate into the land and become part of the harmonious natural order. The design closely follows Hillside Development Standards and Guidelines in its intent, scale, colors, massing and overall design without any exceptions.

It is unfortunate and ironic that Dr. David Weissman, chose to appeal an approval for the project's visibility analysis, for a home that will not be seen by most in the town. We request the City Council evaluate for project for all its virtues and for its seamless integration into the hillside community and the environment and approve the project.

Sincerely



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