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20 November 2018

Terra VI Lodge Grading

Highway 120 Alterations

Alterations are proposed to be made to Highway 120 at the Sawmill Flat intersection to meet Caltrans requirements for sight distance, left turn lane and right turn pocket.

Achieving the sight distance requires the excavation of approximately 5,000 cubic yards of material from the existing cut bank on the North side of the highway.

Widening the highway to provide for the left turn lane, right turn pocket and associated tapers will be achieved by adding width to the North side of the highway to minimize the grading impact on existing terrain and minimize tree removal.

Site Mass Grading

Of the 64 acres +/- that make up the site, the area that will be mass graded for the buildings, roads and parking is approximately 11.5 acres (18%). The area affected by the installation of the primary septic system is an additional 1.4 acres +/-.

The mass grading involves the excavation of approximately 35,000 cubic yards of material in the vicinity of the hotel buildings in order to provide a level pad area and the placement of this material in low areas at the East end of the hotel, the cabin area, and in the vicinity of the Market. The cut and fill quantities are balanced on this project, avoiding the need for import or export of soil.

Retaining walls have been proposed throughout the site to reduce the impact of cut and fill slopes, reduce tree removal and minimize the grading footprint of the project.

Site Utilities

Potable water will be provided by water from 2 on site wells that will be treated and stored in appropriately sized tanks near the top of the knoll, approximately 80' above the hotel, providing gravity flow. The water system will be registered with the State of California and will be managed as a Public Water System.

Fire Flow for the buildings will be provided by the potable water storage tanks. The quantity of water storage and pressure of water supply will be designed in accordance with Tuolumne County requirements.

Water conveyance pipes will be routed under proposed roads to minimize impacts to native ground.

Waste water will be separated into black water and gray water and treated on site. The black water will be disposed of through an approved leach field system. The gray water is proposed to be treated, stored and re-used for on site landscape irrigation. Surplus gray water would be disposed of in the leach field system.

Electricity will be provided by PG&E and augmented by photovoltaic systems located on the roof of the hotel. The existing power lines that run through the area of development would be rerouted and placed underground. Transformers would be located at appropriate places based on future PG&E design requirements.

Phone and data service would also be installed underground within the area of improvement.

Propane tanks would be installed in the vicinity of the workshop and Caltrans sand storage building. This location is out of sight and a safe distance from any buildings and property lines. The storage volumes would be based on demand and refueling frequencies but is estimated to include multiple tanks in an area of approximately 30' x 30'. Propane would be piped underground to the various buildings on site.

Site Storm Water Management

Due to the topography of the surrounding area, there is very little storm water that runs on to this site. The areas of the site that drain towards the South converge at a 24" culvert that passes under the highway. While the increase in impervious surfaces on site will increase storm water runoff, it will be the intention of the drainage design to detain storm water on site during storm events and meter the outflow in order not to exceed the capacity of the existing culvert under the highway.

Roof drainage and landscape area drains will direct storm water underground to detention areas. Sheet flow from roads and parking areas will be captured in surface drainage swales which will also be directed to detention areas. Drainage swales and detention areas will be landscaped to incorporate them into the built environment in appropriate ways.

Tree Removal

Care has been taken in the design of this site to preserve as many as possible of the existing mature trees on the site. As a result of this effort there are only 6 trees impacted on the hotel site, and 4 trees impacted by the maintenance area. Within the Caltrans Right of Way, there are 29 trees that will be removed to allow for the road safety improvements.

Helipad

The proposed landing zone for emergency response helicopters has been proposed in a location that is easily accessible from Sawmill Mountain Rd and has an approach and departure that is clear of trees, buildings and overhead wires. This location will require review and approval by Caltrans who has jurisdiction over these facilities.

Maintenance area pad

The maintenance area has been located adjacent to the existing Caltrans sand storage building and will utilize the existing paved access that on the project property which is in a non-exclusive easement. Utilizing this existing encroachment on Sawmill Flat Rd allows the maintenance area to be removed from the guest area while reducing grading and eliminating the need for an additional road encroachment.