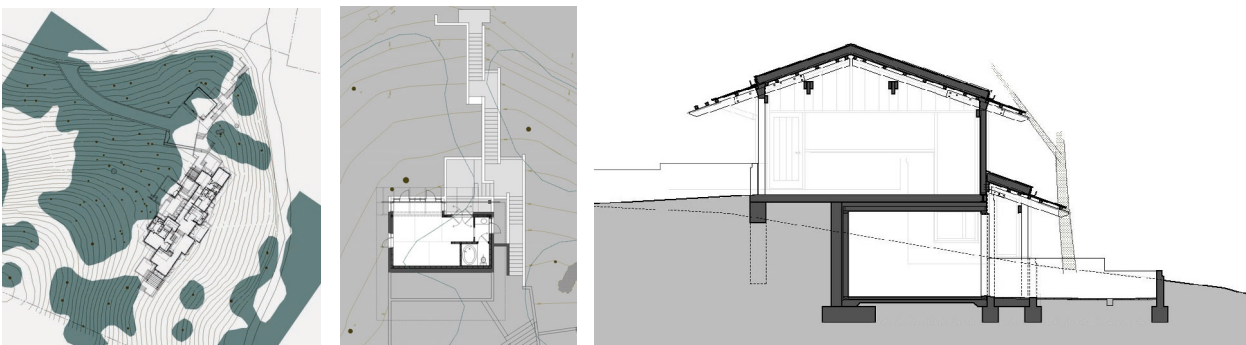




Shell Ridge Residence, Walnut Creek CA
Studio Urbis - Brent Hinrichs, Design Partner



SITE & PROGRAM

This project is designed as a series of building sections, set in terraces, moving up the fairly steep landscape slope so that the buildings sit within the grassland terrain and below the existing tree line of the many surrounding protected oaks. A garage and guest room building is located at a level part way up the hill from the road to the north, with the house set further up the slope aligned with the site contours in the direction of the southern light and landscape views. An integrated series of steps and terraces form the path from the garage elevation to ground floor level of the house.



MATERIALS & CONSTRUCTION

Retaining walls, built of integrally colored board formed reinforced concrete, are used to define both the building situation and the terraces in the steep site section of the landscape. The geotechnical requirements resulted in a combination of pier & grade beam construction and spread footings for the concrete walls. The wood wall framing is set within the concrete retaining wall and was designed on a 4' structural module. The wall construction system is a combination of standard 2x6 rough framing and finished wood frame panels set within the exposed 3x8 timber corner post and beam structure. The roof structure uses exposed 3x8 timber rafters with 3x3 wood purlins. A resawn plywood decking is used as an exposed roof diaphragm set on the purlins with a rigid insulation panel assembled above that.

Clear finished fiber-cement panels were installed as an exterior rain-screen to the wall surface; the stainless fasteners are left exposed and are set to the stud layout. Rough-sawn 3x3 wood battens and 1x boards were used for the exterior trim. The metal roofing, gutters and flashings were fabricated of a zinc coated steel stock. The extended roof overhangs are used for solar shading, and the guest room relies on natural cross ventilation. All of the doors, fixed and operable windows were directly set to the finished wood frame sections. Internally clear finished Douglas Fir was used for all trim. The natural gas-fired mechanical system provides hot water for the hydronic radiant slab floor and the domestic hot water, a mini-split heat pump was planned for cooling.