

Sunset - Popular Science Magazine's

House of Innovation

Smart House of the Future Features Netafim USA's Drip/Micro Irrigation Products to Maximize Landscape Beauty, While Using Less Water

PROJECT OVERVIEW

Since 1998, Sunset Magazine has created at least one Idea House each year to showcase the latest trends in home building, interior decor, and landscape design. This year Sunset, in a collaborative effort with Popular Science, created the House of Innovation to reveal just how technology and comfort may fuse to create a smart home.

Envision a home designed to take care of our most basic needs – alerting us to wake-up, reminding us to lock the door, advising us when to take our medicine and automatically adjusting climate controls based upon our individual preferences. As technology becomes more essential to everyday life, it will also become a more integral and intuitive component to our homes.

Built into an Alamo hillside overlooking Mount Diablo and San Ramon Valley in Northern California, this 6,500-square-foot, two-story home features five bedrooms, a theater, a library that opens into a dining area, an exercise room, a kids loft, an office, a three-car garage, a tech loft filled with prototypes not on the market and a lush, thoughtful landscape.

Interior designers chose elements to create comfort, ease maintenance, save energy and be stunningly beautiful. The landscape designer had the same goals in creating the lush landscape.

THE ISSUES BEING FACED

The sloping site of the House of Innovation has an unrivaled sense of place. The towering form of Mt. Diablo and the tawny-colored hills punctuated by live oaks have the postcard look of Northern California.

Designed by NUVIS Landscape Architecture and Planning of Costa Mesa, the plan divides the site into different zones and destinations. Some areas are meant for people, while others create a backdrop that responds to the challenges and unique weather patterns of this very western site. The plantings are not only good looking, but also water-conserving.

HOUSE OF INNOVATION SUMMARY

LOCATION

Alamo, California

DESIGNER

NUVIS Landscape Architecture and Planning, San Ramon, California

INSTALLER

Valley Crest, Calabasas, California

ISSUES TO ADDRESS

- House located in area with water restrictions water-efficient products are necessary
- Even application of water on lawn planned on sloping terrain
- Uniform application of water for vineyard planned on steep terrain
- Prevent water-waste through puddling, wind evaporation or overspray

NETAFIM PRODUCTS USED

- Techline CV® Pressure Compensating, Subsurface or On-Surface Dripperline
- Pressure Compensating On-Line Drippers
- SuperNet Flow Regulated Micro-Sprinklers

RESULTS

- A lush yet water-saving landscape that grows to maturity much faster, without wasting water.
- Netafim Techline CV Dripperline (subsurface or on-surface) delivers a slow, steady application of water. Water radiates throughout the soil, delivering water directly to the plant's roots – eliminating water-waste from puddling, wind evaporation or overspray.
- Netafim Techline CV and On-Line Drippers are pressure compensating. That means water is supplied in uniform applications even on the steepest slopes – from top to bottom.
- Netafim drip/micro products support sensible water use by using virtually every drop of water. This translates to Netafim products receiving an exemption when other forms of outdoor watering are being restricted or banned.



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THE NETAFIM SOLUTION

The single expanse of lawn is a No Mow Fescue. This fine textured grass with a distinctive look and feel is popular in areas that are difficult to mow or with restrictions on water use. To maximize on water conservation, but not compromise on plant health, growth and beauty, NUVIS installed Netafim USA's Techline® CV dripperline, using 0.6 GPH flow rate drippers spaced 12" apart and buried 6" deep beneath the ground's surface.

Techline CV subsurface irrigation was chosen primarily because it conserves water. "With subsurface irrigation, we expect to use 50 percent less water when compared to pop-up sprinklers, because water seeps into the root zone and isn't wasted through evaporation, wind or overspray," said Leslie Temple, Vice President of NUVIS. She added, "As an added bonus, when watering with Techline CV, landscapes can be irrigated during periods of drought and stay within the state water conservation guidelines."

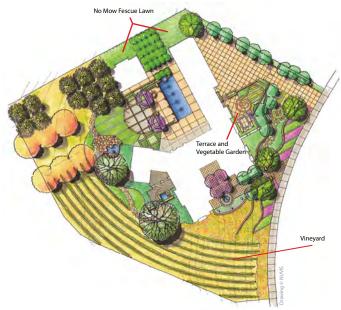
NUVIS also selected Techline CV dripperline because it is pressure compensating. That means each dripper supplies the same amount of water evenly across the sloping terrain, allowing for uniform coverage and a lush yet water-saving lawn.

One of the most visible destinations is the terraced vineyard planted on the slopes behind the home. The site where the grapes are grown is the steepest part of the site. To uniformly irrigate the grapes and reduce its demand for water, NUVIS installed Netafim's Pressure Compensating On-Line Drippers using 0.5 GPH flow rate. Constructed of polyethylene, the irrigation tubing with punched on drippers was hung on the wire trellis. These pressure compensating drippers slowly emit specified amounts of water and nutrients, at a low pressure, equally to every vine regardless of its location on the hill.

Orientation to the sun at different times of the day was a factor in creating some outdoor living areas. Early morning sun strikes the east facing side of the house – here the designers have placed a terrace and vegetable garden. For efficient use of water, the vegetable garden is irrigated with Netafim's flow-regulated SuperNet Micro Sprinklers.

Pathways notched into the hill encourage exploring the upper property. At the top of the hill, you can discover a 270-degree view that sweeps from Mt. Diablo to the east, south down a long valley – and west to the low mountain range over which the fog winds spill. From this vantage point you can also see how this thoughtful landscape plan not only settles the house into its site but makes it feel a part of the natural design of the region. Yet for all its forward-thinking concepts, the house inconspicuously blends into a neighborhood filled with custom homes.







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