Mercury vapor downlights mimic moonlight as its light filters down through the hemlock trees to create a soft light and shadow effect along the drive.

Moonlight falls gracefully on the lawn and gardens that surround the silhouette of a stately oak. Overhead, the illuminated branches of the oak and other nearby trees form a spectacular canopy. A warm breeze rustles through the leaves while shadows dance on the carefully groomed lawn.

Although romanticized advertising that conjures up romantic images like these may get carried away, it is fair to say that landscape lighting can enhance a property's appeal. Consider the yard an extension of the house. How much time would anyone spend at night in a room with no lighting?

Landscape features taken for granted in the daytime are more interesting at night with the play of light and shadow. The lighting evolves with the changing of the seasons and is different each night.

Lighting is an art; if it weren't, electricians would design all the lighting. But you shouldn't approach landscape lighting with your head in the clouds. Imagination and flowery linguistics take you just so far. Designers need to spend time in the field—day and night—and shouldn't be afraid to get their hands dirty.

Good designs result from experience, technical knowledge, a good eye for aesthetics, perseverance and good listening skills especially when the client is speaking. At its worst, designing landscape lighting is a frustrating, but rewarding job. At its best it is pure theatre in the back yard.

**More Than Path Lights**

What do we mean by landscape lighting? Do a dozen lights along a pathway constitute landscape lighting? Absolutely, but lighting pathways is just one facet. The designer must select for illumination those elements of the landscape that will create an aesthetically pleasing nighttime environment. These elements may include trees, shrubs, lawn, rock formations, hardscape, outdoor sculpture and architectural features.

Commercial and public areas involve greater light levels for function, safety, security and promotion they want to be seen. Residential properties are usually illuminated more subtly. Commercial lighting requires large, tamper-proof fixtures with longer lamp life to reduce maintenance, while residential fixtures are small and decorative.

Landscape lighting is expensive. The price should reflect costs associated with trenching and burying electrical wire, electrician's fees, fixtures and design. So don't develop an extensive plan if you have a budget for only one or two lights.

Develop a design that reflects the client's tastes and expectations. Many times a client will have an "I'll know if I like it when I see it" mentality. If the property is one with little lighting potential, you may be better off without the job.

Designing involves more than visiting the property and creating a plan. You should look at the property at night. Once the design is on paper, make sure that the installation crew thoroughly understands the plan.

Once you complete the job, walk the client through the lighting and have him or her evaluate the design. Re-lamping or re-aiming a fixture is an easy and inexpensive adjustment. Having to run new electrical lines is another matter.

**What It Costs**

Homeowners generally will feel comfortable spending about 1 percent of their home's value on landscape lighting. It's unrealistic to expect a homeowner to spend more on landscape lighting than they have spent on landscape plants.

Designs with a turnkey price of up to $5,000 will usually have low-voltage lights because of the savings on electrical and fixture costs. Designs that cost between $5,000 and $15,000 can utilize line voltage including H.I.D. (High Intensity Discharge) fixtures to create a range of dramatic lighting effects. But don't make frivolous choices that spend lots of money for small results, such as running power down a 500-foot drive for two 50-watt pier lights. Of course, if it's important to the client, then do it.

Until recently, million-dollar homes and estates have been the primary market for landscape lighting. These homes are usually on large lots and often secluded from any neighborhood or street lighting. They use lighting to address issues of security, safety and function. H.I.D. lighting is usually the most effective on properties with stately trees and sweeping lawns.
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Where To Begin?

The first step in a design is called the “discovery.” Visit the property before discussing it too much with the clients so that you don’t suggest anything that may not be workable on their property. Even the most general survey of a property will tell you what is feasible.

Determine your client’s expectations. Ask questions. Have they seen lighting they like? Have you shown them something you’ve done? Are they interested in security as well as aesthetics? What are they accustomed to?

Start from the place where your client will spend the most time viewing the lighting. This could be a terrace, a pool area, the drive or the front door.

Develop a sense of where you are going with the design. The approach may not be apparent at first. Spend time on a property to get a feel for it. A walk through the property can provide thoughts about the best opportunities for lighting and areas that might present problems.

Determine the primary viewing angles. Some plants are seen from many viewing angles, such as in a circular drive. Plants seen from multiple angles usually require putting fixtures below grade to avoid glare.

Choose the property’s most outstanding features and its limitations. If it has many rock outcroppings, for example, you could use them as a motif for the design. If there are lots of tall oak trees, you need to decide if they are best suited for up-lighting, moonlighting or both.

Deciding What to Light

If You Can’t See It, Don’t Light It. It’s That Simple.

When you stand at the front door, what are the primary features that you see? Perhaps it’s a sugar maple in the front lawn, a planting, a rock ledge or a pond. Make sure you address it in your plan.

It’s a good idea to see a property at night. Often there’s a streetlight that you didn’t see or a 200-watt porch lamp that looked quite unassuming during the day.

You also must decide how much to light. If your clients have lived in the city most of their lives and find the darkness of the country a little scary, they may be better off with more lighting.

Designs for all seasons

On a 90-degree day in July it’s difficult to imagine what a property looks like in January. But your design must take this into account unless your client is at the property during (Continued on Page 19)
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only one season of the year.

Inincandescent lighting is fairly forgiving to the change of seasons. Its warmer tone looks fine on most tree bark. Metal halide and mercury vapor are whiter light sources and can create "hot-spots" on trunks and branches. This gives the design an amateurish look. There are several ways to overcome this.

Use lamps with lower lumens when designing in the summer so the winter effect is not overpowering. Use recesses in the lawn so the fixture is moved away from the tree trunk. Narrower beams are effective in reducing trunk glare. But this depends on the height and width of the tree canopy. Another effective means of reducing hot spots is to mount fixtures on the back side of the trunk (as viewed from the primary viewing angle). This has a dramatic effect because it highlights the form of the tree in silhouette. However, this only works when there is one viewing angle.

One pitfall to designing in winter is not doing enough pruning to allow the light to get through. A small twig near a lamp may look insignificant in the winter, but may completely block the light source in the summer.

Installation and Maintenance Issues

Avoid damaging a tree by mounting fixtures properly. Put them on a stand-off, which allows the tree at least 1 to 2 1/2 inches of growth before the tree will begin to make contact with the base of the fixture. It is usually best to staple wire to the trees with a notched staple gun using round wire. Flat wire has more surface area in contact with the bark and is more likely to grow into the tree. Stapling should be spread as wide as practical. This will enable the tree to push the wire off over time, which is much preferred to having it grow into the tree.

Do landscape lights cause trees to bloom early in spring? Do the lights fool the trees into thinking it is daylight at night? No. If this were the case there would be a lot of early blooms and probably plenty of dead trees next to street-lights.

Lighting Techniques

A landscape design may include several types of lighting:

* Downlighting: mounting a fixture in a tree and pointing it toward the ground.

* Moonlighting: downlighting that tree-climbers mount high in trees. The light is shielded and directed down through the branches of the tree so that shadow patterns are cast on the ground. The look simulates moonlight. Mercury vapor lamps usually are used for this because of their cool color and great dispersion.

* Uplighting: mounting a fixture at the base of a tree and directing the light through the tree's branches to illuminate the canopy. The fixture may be mounted on the trunk of the tree, on a limb, on the ground or recessed into the ground. You may need more than one fixture to illuminate the entire canopy, especially with a large tree. It's often better not to light the entire tree. Mount the fixture in such a way that there is no hot spot on the trunk.

Consider a plant's leaves when uplighting or downlighting. Not all plants have leaves that light equally well from above as they do from below. For example, silver maples light poorly from below because the undersides of the leaves look a milkish white.

Some trees are too big for uplighting, especially in heavily wooded areas where the tree has no branches on the main trunk for 40 feet or more. You can uplight these trees, but you need to determine if there is a view to the canopy. The viewing position must be far enough away so that viewers will actually see the canopy without craning their necks.

Here are a few other lighting effects you may wish to employ:

* Backlighting: lighting the background behind a tree or plant so that the tree appears in silhouette.

* Underwater lighting: used primarily in waterfalls and fountains. The light dances back and forth on the waterfall with the movement of the water.

* Mirror lighting: lighting a subject on the side opposite the viewing angle to create a mirrored reflection in water.

* Cross lighting: used on sculpture to create a sense of depth by having two lights, one placed on each side of the object.

* Vista lighting: creating a view in the distance, which pushes back the wall of darkness and creates a sense of depth. Don't light anything in the line of sight of this view that would distract the eye from the focal point in the distance.

* Grazing: placing the light source close to a surface with a lot of texture. This emphasizes the texture through dramatic shadows that reveal its unevenness. Grazing is used frequently on stonework.