In this third installment, we look at the many stylish design and build principles and products that can make your next kitchen project environmentally friendly. 

In the kitchen, begin by focusing on energy efficiency. Start with lighting — use the size and placement of windows and skylights to maximize natural day lighting (without compromising cabinet/storage space). Then add long-life, energy-efficient fluorescent or LED (light emitting diode) fixtures. Both types have come a long way technologically, hence providing good light output and color rendition without the historically annoying buzzing or flickering. Fluorescent fixtures come in both decorative general lighting (ceiling mounted, chandeliers, sconces and recessed cans) as well as task lighting (under cabinet, spot and pendant). An additional benefit is that these light sources operate cool, thus minimizing excess heat in the kitchen.

Next, look for energy-efficient appliances that sport the Energy Star label (go to energystar.gov for more information). Depending on the appliance type, dishwasher, refrigerator, etc, the Energy Star units use at least 30 percent less energy than their non-certified brethren. Cooking with gas is all the rage but you might be interested to know that natural gas (and liquid propane) cooktops and ranges are only 40 percent efficient, meaning for every 100 BTUs of heat output from your gas range you only reap the actual cooking benefit of 40 BTUs. Electric radiant is approximately 60 percent efficient and electric induction is approximately 80 percent efficient.

When selecting countertops, make durability and low maintenance your highest priority. Durable, low-maintenance surfaces such as quartz countertops (Caesarstone™, Silestone™, Zodiac™, etc.) are heat- and stain-resistant and require no toxic sealers. Compressed phenolic paper counters (Paperstone™ and Richlite™) are durable and fairly low-maintenance, requiring
periodic resealing with a nontoxic sealant. It is also possible to find beautiful countertops with recycled content, such as recycled glass terrazzo (IceStone™, Verazzo™ and Poulsbo-based Absolute Concrete Work’s SoundCrete). Another “concrete-like” product is Squak Mountain Stone™ that has 51.5 percent recycled content in the form of mixed waste paper, crushed glass and type F coal fly ash. It is also possible to find slabs of granite, marble, butcher block and stainless steel countertops at local resale/salvage yards such as Builder’s Bargains in Bremerton or Restore in Seattle.

Choose sinks, faucets and other plumbing fixtures that are made with high-quality finishes and components (ceramic vs. plastic disc in faucets and 16- to 18-gauge stainless in sinks) to minimize the need for caustic polishes and all too frequent replacements. With regards to water saving, consider installing a sensor-activated faucet or a pedal valve (very similar to what you have seen in your dentist’s or doctor’s office for decades), both of which allow for hands-free faucet operation, hence allowing you to wet your hands but soap up with the water off (there is a definite hygiene benefit to hands-free operation too). Aerated faucet heads are also good water savers because you will find it takes less time and water to clean a head of lettuce or your sink with the water jet action of the aerator.

One of my favorite items is an energy and water saver in one — the instant hot water dispenser. It saves water because most people run their kitchen faucet waiting for hot water to arrive before filling their stovetop tea kettle, and then they use the energy from their stove/cook top to heat the water. With an instant hot water dispenser, you receive 190-200 degree water instantly (hot enough to make good tea for most people except my British mother-in-law), thus no need to run excess water or the stove.

With regards to flooring, consider not only your home’s architectural style but also your lifestyle. As with all materials, make durability and low maintenance your highest priority. If your household is hectic, with people coming and going constantly, and if everyone and everything (pets, toys, sports equipment) is landing in the kitchen, then hardwood floors may not be the right material for your family...
because the protective finish on the wood floors may not hold up to your crew, inducing early aging and frequent refinishing.

If wood floors are a good choice, consider reclaimed or sustainably harvested flooring such as bamboo or plantation-grown lyptus; just remember to have them sealed with low-VOC finishes. Another consideration is sound. Tile and hardwood floors transmit sound while cork and linoleum floors, both of which are sustainable and low-maintenance materials (mild soap and water to clean or baby wipes if you are in a pinch), are both great sound absorbers, which is important for open-plan kitchens.

When it comes to cabinetry, there are three aspects to consider to ensure an environmentally friendly product. First is the cabinet box — most cabinet boxes are made of press board or plywood, both of which can have high levels of formaldehyde. Instead, look for formaldehyde-free pressboard, MDF (medium density fiber board) or Europly, all of which have substantially lower levels of formaldehyde. Very few production cabinet manufacturers are working with these materials for their boxes so it may be easier to work with a local custom cabinet maker (two exceptions are Neil Kelly Cabinets and Berkeley Mills Cabinets). Second, you want to look for plantation-grown or FSC certified wood for the cabinet doors and drawers. Lastly, make sure your cabinets are finished with a low-VOC finish.

I would like to reiterate that designing and building green is not an all or none proposition and that every little bit counts, so implement green design and materials where and when it makes sense for you, your home and the environment.

In the next installment, we will look at how to make your bathrooms and laundry room eco-friendly.