

# patio, walkway & path choices

MATERIAL	DESCRIPTION/TIPS	BENEFITS	DRAWBACKS
<p><b>Poured Concrete with Fly Ash</b></p> 	<p>Concrete is a mix of Portland cement, sand, and aggregate (gravel). Portland cement is created in an energy-intensive process, in which clay and limestone are mixed and heated to nearly 2700 degrees Fahrenheit, releasing large amounts of carbon dioxide (a greenhouse gas) along with toxic substances such as mercury, lead, and arsenic. Cement, activated by water, binds the concrete mix together, creating a long-lasting surface.</p> <p>Reduce the negative environmental impact of this landscaping material by using fly ash (a byproduct of coal-fired energy production) for up to 50% of the cement used in the concrete mix.</p> <p>Tips: Consider poured-in-place concrete only in applications where you're certain it will satisfy long-term functional and aesthetic needs-pavers and other moveable materials make a better bet for an adaptable landscape design. Using fly ash can increase concrete cure times; consult with a concrete supplier. Concrete mixes can also incorporate recycled products, such as crushed concrete, replacing a portion of the conventional aggregate. Use reusable concrete forms.</p>	<p>extremely durable even surface good for wheelchair and mobility-impaired accessibility</p>	<p>extremely energy-intensive to produce (for every ton of cement produced, approximately one ton of carbon dioxide is released!)</p> <p>impervious surface; increases storm water runoff</p> <p>impossible to reconfigure once poured</p>
<p><b>Broken Concrete</b></p> 	<p>Broken concrete from demolition projects is commonly available year-round, usually free if you can haul it yourself, or delivered for a fee. Broken concrete can be laid similar to stone or other pavers, to create a flagstone-like path.</p> <p>Tips: Look for broken concrete from sidewalk and pathway demolition projects so pieces are both light enough to move with relative ease and of roughly the same depth; this helps with laying the pieces.</p>	<p>extremely durable reusable; can be reconfigured</p> <p>rainwater can be absorbed between pieces of concrete, reducing runoff</p>	<p>uneven surface can be difficult for wheelchair travel</p>
<p><b>Permeable or Salvaged Concrete Pavers</b></p> 	<p>Concrete paving creates impervious surfaces that increase stormwater runoff. Look for interlocking concrete pavers in permeable designs that allow rain to seep between the pavers. Also consider installing conventional salvaged pavers to allow for rain infiltration.</p> <p>Tips: Salvaged concrete pavers are sometimes available at used building materials retailers or the Household Online Materials Exchange (see Resources on page 20). Manufacturers of permeable concrete paving systems recommend professional installation for proper functioning.</p>	<p>reusable; can be reconfigured</p> <p>extremely durable</p> <p>can allow water to filter into soil, reducing runoff</p>	<p>permeable pavers make a difficult do-it-yourself project; most manufacturers require professional installation</p>
<p><b>Recycled Glass Pavers</b></p> 	<p>Recycled glass is re-melted into forms, creating hefty, translucent pavers; can be laid similar to concrete pavers, or interspersed as accent pieces with traditional stone or concrete products. Due to their recycled content, glass pavers require roughly half the energy necessary to create new, similarly performing concrete pavers.</p> <p>Tips: Look for locally produced glass pavers to support the market for recycled glass products.</p>	<p>durable</p> <p>up to 100% recycled content</p> <p>energy-efficient manufacturing</p> <p>locally available</p> <p>reusable; can be reconfigured</p>	<p>uneven surface can be difficult for wheelchair travel</p>