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# Tennis Published Newsletter, Construction

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# 'GREEN UP' YOUR TENNIS FACILITY

Being eco-friendly means more than just recycling cans and bottles.

For tennis facilities, there are plenty of ways to help save the planet. You recycle your aluminum cans and your newspapers. You eschew those plastic bags the grocery stores offer. You might even be one of those people who takes your Christmas tree to the landfill after the holidays, has it chipped and bagged, and then uses the mulch in your garden in the spring. And now you're getting ready to rehab your old tennis facility, or to construct a brand-new one.

So, what are you doing to save the planet? If you've never thought about sustainable construction, also known as green building, in terms that apply to your tennis facility, it's time you got up to speed. Today's facilities are earning bragging rights not just by having the latest and greatest design and amenities, but also by being environmentally friendly right down to the ground.

# **Reclaim Your Existing Court and Base**

Or maybe from the ground up. Two Massachusetts-based builders, Dave Marsden of Boston Tennis Court Construction Co. in Hanover, and designer Patrick Maguire of Stantec, located in Boston, recommend that those who want to revamp their asphalt courts think of pulverizing and recycling their old court bases, rather than tearing them out and

by Mary Helen Sprecher, Racquet Sports Industry



starting from scratch.

"Whenever possible, we try to reclaim an existing tennis court and base as opposed to removing and replacing the base materials," says Maguire. "Sometimes this works very nicely, but it can require augmenting the existing materials to ensure long-term construction. In addition to being friendly to the environment, it is also friendly to a client's budget and minimizes impacts on the project's neighbors by limiting construction traffic."

Maguire has also begun to investigate the use of porous asphalt for courts in the Northeast, which he says minimizes storm-water runoff and promotes groundwater infiltration.

#### Save on Water Use

Those who have soft, or fast-dry, courts are probably already using subsurface irrigation. If not,

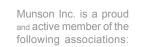
according to Marsden, it's time to start. "Subsurface irrigation can save 50 percent or more of expected water usage," he notes. "A constant supply of water within the court base is drawn up to the surface on an 'as needed' basis and gives the surface a more consistent supply of moisture. Less water is lost to wind and evaporation."

Subsurface irrigation is not new technology, says John Welborn of Charlottesville, Va.-based Lee Tennis, "but it does save on water usage." Lee recently introduced a hybrid surface that Welborn says "uses only a fraction of the water of a regular clay court and is playable without any water at all." Expect to hear more about this new product, and others, in the future.

# Court Color, Lighting, and Fencing

Other ways to "green up"

please see GREEN, page 2 -











## **RECENT PROJECT**

The Tennis and Track Division of Munson Inc. provided construction services for University School of Milwaukee.

Renovation included removing the existing fence, latex track surface, and asphalt. After the stone base was re-graded and field dimensions were laid out and confirmed to WIAA standards, the track was paved and then coated with a polyurethane surface. Black vinyl fence and some minor landscaping elements were installed. The D zone was reconfigured to eliminate the grass area between the field and the track, and the jump pits were rebuilt, with emphasis on improved drainage.

A tight schedule between spring and fall sports was required, but the project was completed in time for the football team's season opener.

## **Court & Track**

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## GREEN continued from page 1

courts – indoors and out? Think surface shade. "Color choice is an important factor to consider when resurfacing tennis courts indoors," says Bill Righter of Nova Sports USA in Milford, Mass. "If you choose lighter colors, less lighting may be required, which will help conserve on electricity."

Lighting has come a long way in the last few years, for both indoor and outdoor facilities. According to Bruce Frasure of LSI Industries in Cincinnati, "Incorporating more efficient lighting technologies in sports facilities can dramatically reduce energy consumption while delivering the same or better quality lighting. Short term, energy efficient tennis court lighting can be accomplished with higher performance fixtures with lower wattage lamps. Examples would be using 875-watt or 750-watt metal halide lamps instead of 1000watt. Longer term, developing technology such as solid-state light sources will provide longer life and dramatically improved luminous efficiencies over conventional light sources."

Updating the fence can also mean decreasing the amount of metal in use. "Instead of surrounding the court with 10-foot fencing, which has long been the standard," says Maguire, "we ask our clients to consider using 8-foot fencing. We also ask them to consider eliminating fencing along the majority of the sidelines or at a minimum, using 4-foot fencing if court separation is desired."

#### **Other Eco-Friendly Strategies**

When putting in amenities, include recycling containers for paper, as well as for bottles and cans – and for used tennis balls. The balls can be donated to schools, which use them on the bottom of chairs and desks to protect floors and minimize noise. Rehab hospitals, nursing homes and others can use them on patients' walkers. Animal shelters usually accept donation of anything that pets can chew on and play with (Note: Shelters also accept donations of old towels – something to remember when doing a sweep of your locker room's lost and found bin). Donate unclaimed clothing to (an appropriate) charity.

Is your snack bar selling sodas, coffee and other beverages in non-Earth-friendly plastic or Styrofoam cups, and food in Styrofoam boxes? Switch to paper cups and cardboard serving containers. Go with pump dispensers, rather than plastic packets, for condiments. Eating utensils and straws that are not individually packaged in plastic also will help eliminate waste.

Another way to reduce the load on the environment? Switch from selling bottled water to having water coolers. Other strategies for environmentally friendly design and operation include providing amenities that encourage alternative transportation. These might include sheltered bus-stop seating, bicycle racks, and preferred parking for carpool or hybrid vehicles.

please see GREEN, page 3 —



### What is post-tensioning and what are the advantages of posttensioned concrete tennis courts?

Post-tensioning is a method of reinforcing concrete with embedded steel strands which, when stretched after the concrete hardens (post-tensioned), impart additional tensile strength to the concrete.

Concrete slabs under tension are exceptionally durable and resistant to cracking and ground movement, making post-tensioned concrete tennis court construction a preferred choice for project owners seeking easy-to-maintain courts and long-term value.



Benefits of post-tensioned concrete tennis courts include: Increased resistance to crack development, slab settling, and slab heaving; controlled slope for better drainage; demonstrated longer service life and lower maintenance costs; and minimization or elimination of control joints. Due to these benefits, post-tensioned concrete tennis courts provide the most uniform playing surface available.

The biggest drawback of asphalt courts is not that they crack (all hard-surface courts ... even a post-tensioned concrete court ... can crack), but that cracks in asphalt courts continue to widen year after year, making them a hazard to players and providing ever-expanding entry-ways for water to cause subbase deterioration and other maintenance headaches. A key advantage with a posttensioned concrete slab is that it will not allow cracks to widen, but will keep them compressed to very thin lines. Asphalt courts can also develop low areas over time due to settling of the soil or base under the court surface. With a post-tensioned concrete slab, these low areas are bridged by the concrete slab and no settling occurs. A typical post-tensioned concrete tennis court has a service life of 40 to 50 years. A typical asphalt tennis court will provide only about one-third the service life of a post-tensioned concrete court.

Munson, Inc. has received state and national recognition for its post-tensioned concrete tennis court construction expertise and is featured in a series of online articles about concrete tennis courts. For more information about post-tensioned concrete tennis courts call Fred Kolkmann at 800.236.0340 or visit: www.concretenetwork.com/tennis-court.

## GREEN continued from page 2

#### Do An 'Eco-Survey'

Those who are building an all-new facility can lessen the physical and environmental impact by having a professional do an "eco-survey" before breaking ground. Find out whether the facility can be oriented in such a way as to preserve existing vegetation, ecologically-, historically- or culturally-sensitive areas, and/or wildlife habitats.

Look into minimizing excavation and storm-water run-off. Think about blending the facility with its surroundings by using traditionally available or natural materials. Landscaping also will be important in tying the facility into its surroundings. Avoid the use of invasive and non-native plants, and whenever

possible, try to keep from taking down mature trees.

Alex Levitsky of Global Sports & Tennis Design Group in Fair Haven, N.J., has made a checklist for eco-friendly facilities. At the point of demolition, Levitsky is asking questions about whether contractors are removing contaminates from the site to an appropriate location, and recycling the maximum amount of removed items. When installing sewers and sanitary systems, he is stressing the need for fixtures that are "miserly with water use." And in terms of surfaces, he wants to know whether the product is manufactured nearby.

#### **Tennis Facility as Teaching Tool**

Your green facility can be a teaching tool for users. Post information explaining the eco-friendly construction and maintenance, and encouraging use of the recycle containers. Put signs near the water cooler with statistics on how long it takes a plastic water bottle to disintegrate (250 years, according to some sources).

Yes, it's true that you have to break a few eggs to make an omelet. In new construction – and even in rehab jobs – a certain amount of disturbance to the area is unavoidable. Just remember it's possible to lessen the impact.

After all, when you make that omelet, even those eggshells can be composted.

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# **Solutions Served Up at Munson Tennis Court Seminar**



Munson Inc. will hold its nationally-acclaimed Tennis Court Seminar on Wednesday, March 17th, at the Radisson Hotel, 7065 North Port Washington Road, Glendale, Wisconsin, from 7:30 a.m. to 4:30 p.m.

Leading tennis court construction professionals will offer advice on how to build, maintain, and re-construct tennis courts successfully. Seminar sessions include new court construction, tennis court evaluation and maintenance programs, court repair best practices, court fencing, lighting, and accessories, and existing court renovation, reconstruction and retrofitting.

Anyone whose responsibilities include the care and maintenance of existing tennis courts, or the design, selection, or construction of new courts, is encouraged to attend, including architects, engineers, home builders, municipal and county officials, athletic directors, tennis coaches and teaching pros, parks department and private club personnel, university and high school grounds keepers, and other tennis court administrators and maintenance workers.

More information on speakers, topics, and feedback from previous seminar attendees is available at our web site: www.munsoninc.com.

The cost of the seminar is \$50 per person and includes handout materials, refreshments, and lunch. Register today by calling 800.236.0340. The seminar registration deadline is March 10th.

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