

# Field slopes

Can you comment on ideal grading of a full size soccer field? Information I've found so far indicates 1% or less grade across the width of the field. A landscape architect's design plan grading print for a new sports complex in our park has 1.5-% grade slope, sloping from center of the field toward the goals.

I know they should be as flat as possible and I think the slope should be from centerline of the field toward the sidelines. Any references you could suggest, or input from your experience would be very useful before they start moving dirt.

—Parks and Recreation Department  
Indiana

**Y**ou raise an interesting question, one that I had not heard before. I agree with your assessment but thought I should at least consider your architect's point of view. I did a quick search to see if I could find any athletic field construction reference that suggested a field be built with the slope toward the "narrow ends of the field" since I have never seen a field purposely designed to slope from the center toward the goals, without some slope to the sidelines. I could not find a recent reference suggesting a field layout as you described.

Everything that I found suggested that fields be sloped from the middle to the sidelines. This design is often called a "crowned" field. To provide a higher level of drainage, an additional crown may be installed starting about 20 to 30 yd. in from the endlines or endzone (e.g., turtle back or hipped-roof drainage designs). Sidelines may

or may not be level. These designs provide additional drainage without significantly altering the field's playing characteristics.

Most fields are crowned down the longitudinal axis of the field to promote drainage. If the soccer field is sand-based then a 1-% slope is more desirable than more. I would not want more than a 1.5% on a soccer field and then only if the soil is a heavier soil (poorer subsurface drainage). Soccer players prefer flat fields to minimize ball deflection as it rolls across the field surface. Most flat fields need an installed drain system within the field to prevent them from becoming too wet or to at least aid in water removal from the surface. Most flat fields are also built with a high percentage of sand in the profile to promote rapid movement of water through the profile.

## Potential problems

I see three potential problems to the design you mentioned. One, with most of the game played "down" the field, you would have a lot of "running up and down the hills" as players crossed sides and it would be harder for them to get a feel for ball speed.

Second, the water movement would be toward the goals which already has enough wear problems from play. Excessive wear in the goal mouths often leads to depressions that naturally hold excess water. The wetter the area, the more opportunity for increased damage. The goal mouth is no place for standing water.

Third, in the design you mentioned, the water would have a greater distance to move to be off the field. In addition, you would have a greater volume of water per given field surface area if the middle had to drain toward the goals rather than toward the sidelines.

The crown from center to goal is a poor idea unless the lay of the land dictates that to be the only option to minimize the amount of soil that needs to be moved and/or it is required for off-site water removal. Catch basins may alleviate that need if strategically placed to aid in water removal from a traditionally designed field with a longitudinal crown. This is the best time to address drainage, when the field is being designed and built.

**ST**



## Have Questions?

Send them to Grady Miller at the University of Florida, PO Box 110670, Gainesville, FL 32611, or email [glmi@ufl.edu](mailto:glmi@ufl.edu). Or, send them to Dave Minner at Iowa State University, 106 Horticulture Hall, Ames, IA 50011, or email [dminner@iastate.edu](mailto:dminner@iastate.edu).

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Affiliate Award for 2001 was National Mower and Turfco Mfg. Inc. The Award was in recognition of the company's long-standing and continuing support of STMA. The company is a long-term advertising supporter of STMA's publications; helps support the annual Conference; and continues to promote professionalism within the sports turf industry.

## New Board members

STMA announced its 2002 officers and board of directors at the Conference. Moving from President Elect into the position of President was Murray Cook, SPORTSTurf Services, Columbia, MD. The following officers were elected to a 1-year term: President Elect—Bob Campbell, CSFM, University of Tennessee, Knoxville, TN; Vice President (Commercial)—Monty Montague, LASTEC, Liston, IN; Secretary—Mike Trigg, CSFM, Waukegan Park District, Waukegan, IL; and Treasurer—Tim Moore, CSFM, Maryland National Capital Park & Planning Commission, Silver Spring, MD.

Boyd Montgomery, CSFM, Sylvania Recreation

Corporation, Sylvania, OH, representing sports turf managers of Parks and Recreation facilities, was elected to a 2-year board position. Re-elected to 2-year board positions were: Mike Andresen, CSFM, Iowa State University, Ames, IA, representing sports turf managers of College & University facilities; and Dr. Tony Koski, Colorado State University, Fort Collins, CO, representing those in Research, Extension and Teaching positions.

Continuing on the Board in the second year of their 2-year director positions are: Mark Razum, Colorado Rockies, Denver, CO, representing sports turf managers of facilities used by Professional teams; and Dave Rulli, Jeffco (Jefferson County) Stadium, Lakewood, CO, representing sports turf managers of other school facilities.

Vickie Wallace, Turf-Seed, Inc., Exeter, RI, was appointed by President Cook to fill the remaining year of the 2-year term as Board Representative of the Commercial membership vacated when Montague was elected as Vice President (Commercial).

Rich Moffitt, Moffitt and Associates and the St. Louis Zoo, St. Louis, MO, will serve in the Board position of Immediate Past President.

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**Virginia Sports Turf Managers Association:** For information, contact: Chapter Vice President, Randy Buchanan, County of Henrico Recreation and Parks, via e-mail: [buc06@co.henrico.va.us](mailto:buc06@co.henrico.va.us) or at tel. 804-261-8213.

**Wisconsin Sports Turf Managers Association:** For more information, call Richard Miller at 608-756-1150.

## Chapters On The Grow

**Las Vegas:** Plans for the formation of a Las Vegas Chapter also are moving forward. For more information, please contact Rod Smith, Grounds Manager/Cashman Center at e-mail: [rms@lvcva.com](mailto:rms@lvcva.com) or at tel. 702-386-7140.

**New York:** A chapter is forming in Central New York. The group will meet at 10:30 a.m. on the third Wednesday of each month at the National Soccer Hall of Fame. For more information, contact Kevin Meredith, National Soccer Hall of Fame, at e-mail: [Kevin@wpe.com](mailto:Kevin@wpe.com) or at tel. 607-432-2953.

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