David Frey has more than 45 years of experience in maintaining, renovating, designing and building all types of fields. He should be considered a “founding father” of STMA; Frey succeeded the legendary Harry C. Gill as STMA president from 1983-1985 when he was the head groundskeeper at the old Cleveland Stadium. He was involved in developing new types of mound clay, a powered device for field tarps, and using geotextiles for bench tarps and field protection. He currently owns Field Specialties, which builds and renovates natural grass fields. Here are some tips from the master:

**Tips from David Frey**

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**GRADE AND CONSISTENCY**

My approach to a football or soccer surface starts with the grade and consistency. Hopefully the surface was built with enough height to help the surface to drain. One rule of thumb is that you should be able to run at full speed and look over your shoulder and know the footing is consistent. Therefore, the grade might not be to specifications, but it should be consistent. The center of the field must not be lower than the sidelines. Bad or uneven grades would be reasons to rebuild the field. This

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In most cases for baseball, I find the first thing I change is to raise the height of home plate, usually about 4 inches.
has to do with safety and playability. If the grade is within reason both the drainage and grass cover can be fixed without rebuilding.

I like to see the grade slope to be about 1% from the center line at the most. Less than a ½% slope will develop low areas and there is not enough slope to move water through the grass. I do not like the surface to be lowered at the ends. It changes corner kicks and goal play in soccer and end zone play in football.

Let’s say the basic grades are good, but there are depressions or holes. Another possibility is to true up an existing surface using a sandy mix of more than 85% sand and a laser box to spread the material over the entire surface. Do not use topsoil as it will seal off the drainage. Straight sand is okay, but tougher to get the new seed to germinate. The grass from below will come through at some point if the layer is not too deep.

PERCOLATION

Okay, the grades are acceptable, but the field is worn and the complaint is poor drainage. There are several methods to increase percolation in a sports surface. Installation of sand slitting, or several of the new thin pipe materials serve to move water, and break up the compacted layers.

In my opinion, a drainage pipe installation in existing grass is not a good plan. Look at the process. First you trench the surface every 15 or 20 feet. Then you install pipe and backfill with either a sand or stone. The two problems that happen will be to get grass established over the trench and keep the grass during drought situations. If you add soil to establish the grass, the soil acts to seal off the drain. French drains along the perimeter are great to capture water off the surface. The same drains in foul territory can greatly solve water runoff problems from the surrounding areas of the diamond. I do not put drains under clay infields as the clay will not percolate and if you backfill with sand the ball bounce is inconsistent.

I am always amazed that schools balk at strong overseeding and fertilization programs. It is a low cost method to improve a surface. Compare that to the cost to seal the old parking lot each year. And do not forget the practice surfaces. Football players spend almost every day on the practice field and 1 day every 2 weeks on the playing surface.

Grass cover not only improves the surface appearance, it improves playability. Grass needs to be grown aggressively which means a good fertilization program needs to be in place. Compare that cost with the renovation cost. Do not try to seed into a well-established stand of grass, as the germination rate is very low. Remember that seed count is important. There is a big difference between ryegrass and the bluegrasses. My suggestion is 20% to 30% ryegrass in a blended mix in new seeding to help the bluegrass to get established. I do not recommend seeding any bluegrass into a stand that has rye as it cannot compete. Do not forget annual ryegrass for those seedings that have to happen now.