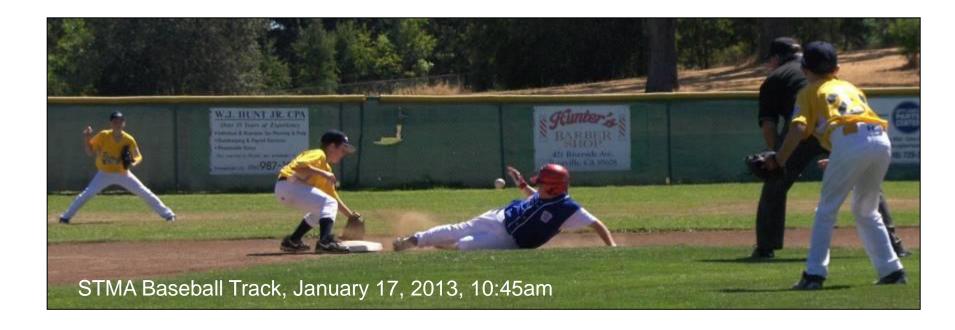
Baseball

Field Maintenance and Renovation

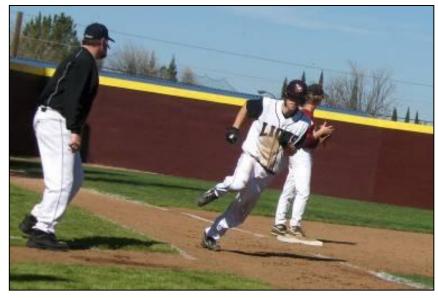
For Your K-16 Ball Parks... and With Limited Resources Tips / hints, mistakes to avoid, short cuts



Like a photographer anticipating where the action shot is going to be...

... so must the groundskeeper be:

anticipating what will happen with his sports field.





In this session I'm going to show you why:



- 1. these lessons-learned can improve the way you maintain your K-16 baseball fields and why
 - 2. these tips can save you time and money while helping the youth in your sports programs reach their fullest potential.

I'm the kind of guy who...

- Explores,
- Experiments,
- Exchanges ideas

In the past 10 years...

over 25 renovation projects,

1,000+ Q&A emails.

Here's the bottom line:

- I love doing this!
- And I love learning and sharing with others









This briefing: result of talking with attendees about how regular old youth fields could be evaluated and improved



We all want the youth on our sports fields to reach their fullest potential.



And we all want to get the most out of what we put into maintaining our ballparks.



But, The STRUGGLE...

- constraints of time, money, or knowledge,
- Some don't know where to start or what to do.



Not many would tackle a job like this...



However, you can create a ball field you can be proud of... and you'll be a hero to your community.



The solution:

- Evaluate your ballpark
- Create an action plan
- Keep your ballpark in tip top shape



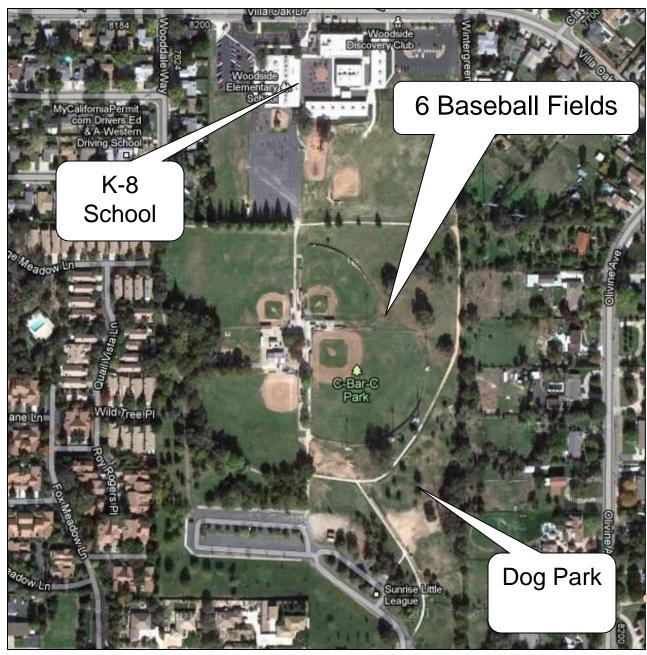
Here's what we're going to do:

- 1. Learn from 3 case studies (LL, HS, College),
- 2. See how you can create a better baseball experience,
- 3. Focusing on lessons learned, and continued challenges



First, the 81 Point Checklist for Evaluating...





Case Study #1



Profile of this complex

- Used by: K-18 LL, adult, school, and public.
- Jan November: Daily.
- Share maintenance with Park and Rec and little league – infields



Checklist Assessment

- Overused and overrun
- Inconsistent
 maintenance practices
 by all field users
- Drainage problems



Implementing improvements

- Better drags
- Adding dirt
- Consistent maintenance practices



 Be part of the overall budget planning and scheduling for field use

Key Lessons Learned



Turf & Irrigation



Mound & Home Plate



Communication



Tools & Equipment



Knuckle Heads

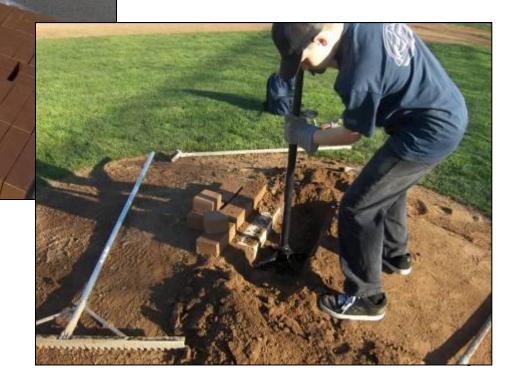


Infield Skin



Reinforce mound and batter boxes with unfired clay bricks

Premium mound bricks or 'green sticks' from the brick factory



But, what if you can't afford, or get, bricks/bags?



An alternative is to use mortar clay mix.

- Work it into the existing mound and home plate area.
- Dampen and tamp.





Tired of that bulky metal or pvc batter box frame?



A speedy way to make batter boxes is to insert corner markers



Another example of making and inserting batter box corner markers.





Rake smooth before & after use.

Then chalk or paint boxes.











Inserting a rubber mat under batter box if bricks don't hold up, lack of water, or overuse.

p.s. Some parks ban the use of metal spikes also.







Note these issues:

- Mowing clippings
- Lip control

Mounds rarely stay round due to BP and player use. I cut a path when I finally gave up on it.



Portable mounds... aren't.

And pitchers often landed on the edge.

So... we installed them backwards and put dirt in front for the pitcher to land on.

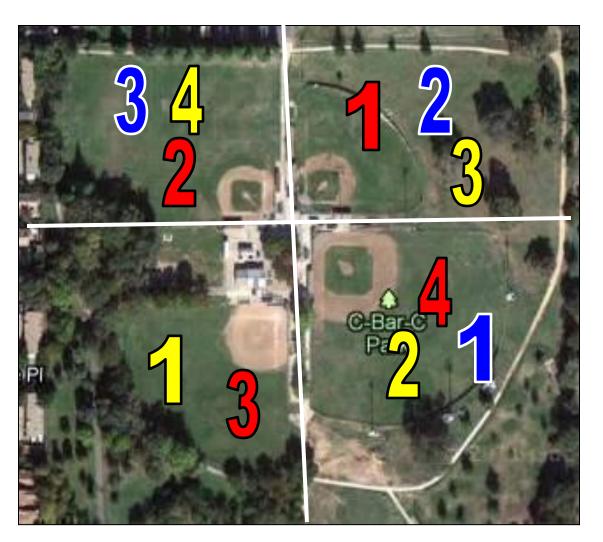
Communication / Coordination







Field numbering schemes





'... problem on field 2.'

Which one is it?

- Park 'as-built' drawings
- Infield sprinkler stations
- Tournament Field Numbers

Posted at dugout doors... for a while

Dear coaches, players, and parents:

7 Ways To Keep Your Baseball Field Nice To Play On

- Rake the long way on base paths
 — not back and forth;
 Prevent lip build up that causes bad bounces or players tripping.
- Fill in holes on the mound and batter box;Prevent injuries to players & give them the best chance to excel.
- Don't pull the drag across grass edges or corners;
 Prevent lip build up and maintain a nice grass edge.
- Don't push puddle water onto the grass; push it out onto the dirt;
 Prevent high spots on the grass edge.; we can level out the dirt.
- Take care of shared tools we all use;See anything broken or missing? Let us know so we can fix it.
- Try not to dump too much chalk when making foul lines;
 Help keep our base paths clean; also requires less raking.
- 7. Don't know what to do?
 Ask another coach or board member. We can help you.

- Stress the importance of safety
- Constant flow of unknown contractors doing work on the facility
- Know emergency contacts











Infield Skin Maintenance

Don't over use the heavy spike drag.

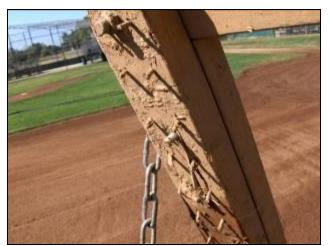
It scars the surface and loosens up too much dirt.





... but more than 2 out of 3 youth programs don't seem know what one is.

The single best thing you could build and use?







"I decided to build a nail drag.

Man, did it work great! Talk about turning a dry, hard infield into a reasonable playing surface! The parents and coaches all thought I brought in new dirt. This was last spring. This fall, someone else took the initiative and made a bolt drag.

Combined, these two items have made such a difference in our program it has to be seen to be believed.

On behalf of the 350+ players ages 5 to 12 let me say THANK YOU!!!""



Vary the drag patterns.

Here is spiral dragging overdone resulting in a bowl shape on the infield skin.



Spike dragging can dig up and churn up smaller weeds that grow during the off season or down time.

Major concern: a weed free infield skin





For thicker weed growth: use the sod cutter like a big hula hoe...







Dirt mixes and soil conditioners at this level...

 Crushed limestone, DG, crushed lava rock or bricks, and/or combinations of topsoil, clay, sand, etc. in all sorts of colors (whatever is available and cheap)

 And we turf managers may take soil conditioners for granted, but many youth programs don't use or know about these products.





Tools, Equipment, Supplies



... older equipment that dumps way too much chalk.





New equipment in use now.









A great way to haul bases and tools to each ball field.

The best all around connector to various drags.







Need to move a lot of water off the field?



45



Rubber mats help with often muddy dugout entrances to the field.

And it's always good to know exactly how to measure the location of the bases.

Measure from the back point of HP to back side of 1B and 3B

Measure from

Water



Hose vs. 'stick sprinkler'. Which gets used more?

Or just gets used at all?

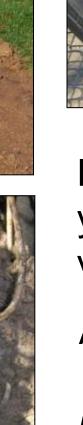




p.s. keep track of this!









Do you know where your underground valve boxes are?

Are they marked?

Previous slide: valve stuck 'on' for 5 hours.

- Steel risers = less maintenance
- Keep sprinkler adjustment tool handy







Turf Maintenance









Mow & aerate in one pass



What do you think? Mowing frozen grass.

Good or bad idea?

Sod: new or re-use old?



















Why start out the spring like this...

...when a little turf work in the late fall lets you start out like this?







The Big Ah-hah: Paint!











What?

They picked my ball park for a wedding?

This was one event I totally enjoyed preparing!





Continued challenges

- Volunteer turnover
- Coordination with LL, Parks, School
- The business of baseball – insurance, liability, funding, sustaining the program
- Security



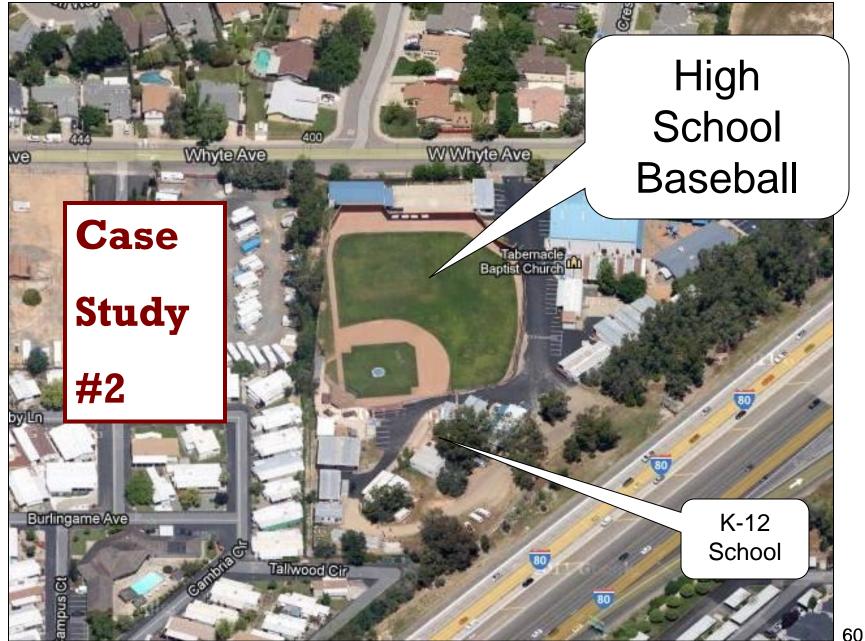












Profile of this complex

- K-12 school, high school baseball, fall football, general PE area
- Used Feb May baseball. Aug-Nov football.
- Few outside constraints
- League champs 10x, state champs 3x.



Assessment

- Under maintained turf and infield dirt
- Drainage and water coverage problems
- Inconsistent practices year round



Implementing changes

- Ongoing turf maintenance
- Adding baseball dirt regularly
- Maintenance during the off season



Key Lessons Learned

- Infield Skin and Turf Maintenance
- Know Your Facility
- Irrigation



And sometimes working hard is not good enough.

You have to be smart too.

Infield Skin Maintenance

Meaningful change requires 30+ yards of baseball dirt





The de-thatcher machine works great at removing shallow, thin weeds from the skin areas.

Broom drag after practices and games.

One pass. Walking.





Weed removal with the spike drag

What do you think? Is the jar test useful or useless?



Dirt mixes and soil conditioners at this level

Many use good clay / sand mixes or top soil / crushed brick mixes or combinations.



At this high school field:

- Mixed in a ton of calcined clay and then weekly added of a few bags. This helped get through wetter spring conditions and play high school games when many other ball fields were too wet to play.
- Used drying agents on mound and home plate areas.

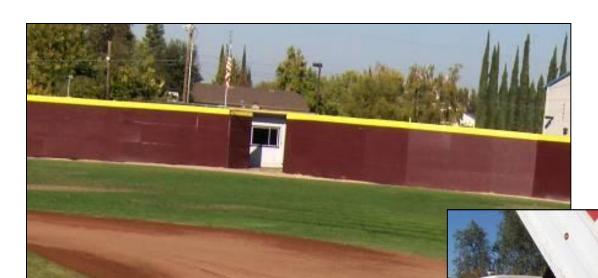








Know Your Facility



Understand access and restrictions



Know where your underground sewer covers are. Do NOT drive over them!

Surprise! Water pipe at surface; not underground.

Inspect and repair ASAP; do not wait - it will get worse.

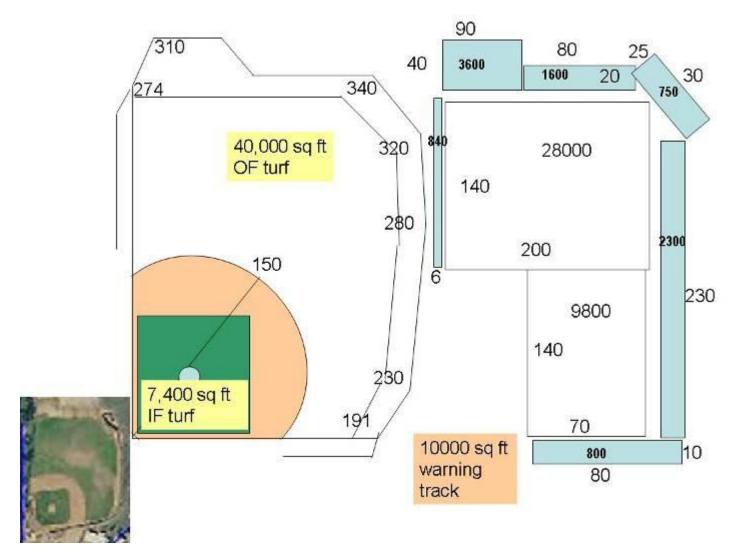




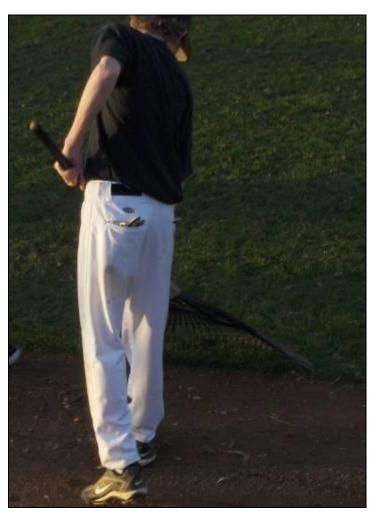


3

You must know your field's square footage for proper use of seed, fertilizer, and dirt.



Edge and Lip Maintenance





Plastic rake to remove stray dirt from grass edge.

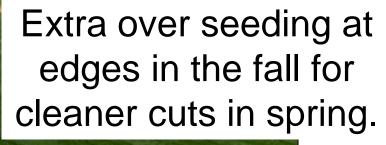
However, overzealous raking can result in a ledge forming... and a mowing problem – skin the grass edge.





7 yards of baseball mix used to level the grass edges.











Another way to eliminate slight lip build up.

Dig a small trench next to the edge, and then ...









... roll the turf to flatten the edge out toward the trench.



Flat & ready to edge.



Turf Maintenance



So... just how bad can it get?



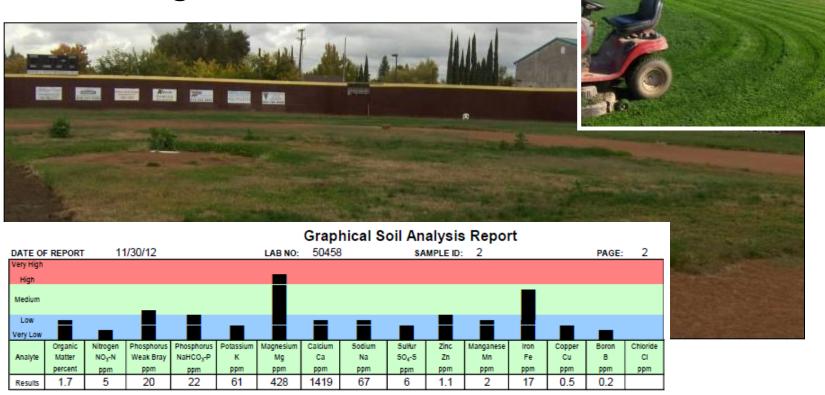


Sod cutter to the rescue restoring proper grass curve...

... so, can the sod cutter rescue the entire field?



Watering – lessons learned



- Infrequent, deep watering is best
- Ensure adequate sprinkler coverage
- Soil test results indicate actions needed

Indications the infield turf is not level:

Undulations left from using a riding mower on soggy ground & the same circle mowing pattern.









Problems with weed killer:

- overspray and
- used on wet grass.



Why you should mark your sprinklers before you aerate.





One more approach to renovating the infield turf.



1. Kill it all with 25 gal of roundup



3. One week later



2. Mow short, aerate, heavy seeding



4. three weeks later

But... you have to stay off while the seed gets growing

And another approach to renovating the turf.











Filling in early season groundball hits.

Compost and seed mix.



Ah, yes, the paint!









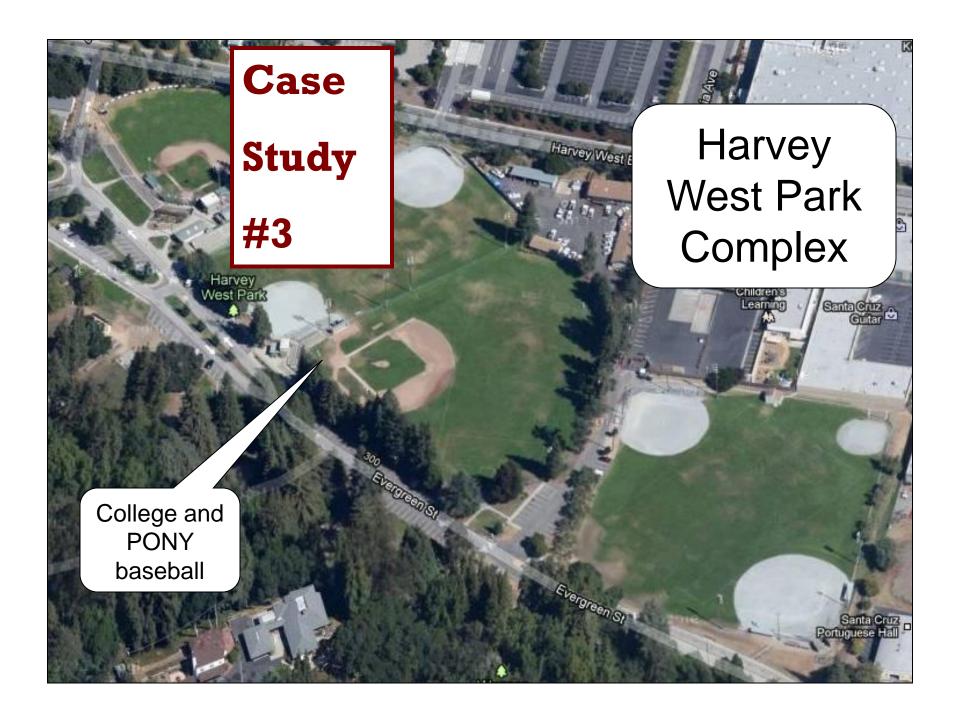
Continued challenges

- Year round care
- Well-water
 Irrigation: sand
 plugs sprinklers
- Poa
- Facility upkeep

p.s. frown on fall over seeding with annual rye; it does not match color of perennial rye and transitions out brown in spring and mats







Profile of this complex

- 13-18 PONY, college, adult baseball, public
- March November.
 Sports and public events.
- Most maintenance done by Park and Rec for a fee. Continual budget constraints.
- 37 inches of rain, Nov-April
- 50 yr old complex, but quite a nice setting.



Assessment

- Weak turf, lips
- Dirt = either powder or hard as rock
- Inconsistent / poor maintenance practices



60' diameter hump in middle of infield.

No ground balls bounced straight.

Before... and after

















Improvement Project Sept 2004

Remove 2700 sq ft of sod

Remove 30 tons of dirt

Mix in 15 tons of topsoil, compost, and sand

Blend in 55 tons of clay and baseball dirt

Grass cut to professional specs

Roll turf and dirt flat & level

Build bullpens and a new infield mound

300 pounds of seed & fertilizer and top dress



Sept 9 & 10, 2004: cut & remove sod, remove 60' diameter hump in the middle of the infield, start to build the mound, level dirt, add topsoil and replace the sod











Sept 15 & 16, 2004:

blend all dirt areas with a tractor tiller, roll with 1 ton roller, spread seed and fertilizer, finish infield mound, lay new sod, finish bullpens, cleanup scraps























Sept 30, 2004: Remove rocks from dirt, roll grass with 100 lb lawn roller, first mowing





Oct 13, 2004:

Short mowing, flatten with 1-ton roller, top dress with sand, edging





Harvey West Park, Field 4, Santa Cruz, CA Home of Santa Cruz Pony League and Bethany College Baseball











Key Lessons Learned

- Facility Use Controls and Restrictions
- Equipment and Tools
- Maintenance Good and Bad
- Project Management keeping bosses informed about it



Note to groundskeepers:

A baseball field needs to 'look' like a baseball field.

Facility Use & Controls



Proposal not believed



Equipment off-limits





Some sour grapes with improvements



Surprise: squirrel poison shut down park access



Liability forms

Equipment and Tools



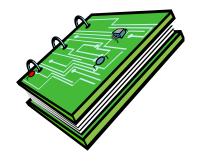
Need good equipment. And use it right.



Need large equipment, skilled operators, and strong backs for a job like this.



Bring tools.
Old equipment = many breakdowns.



Instruction manual is handy to have.

The Project



Think about 'what if...'



Rolling turf as well as dirt helped a lot.



Wet sand is hard to spread.





Sod and seed use combined well.

Mistakes with use of soil conditioner

Did use a calcined clay product...









However:

- Team did not nail drag it in and then,
- 2. Users dragged too fast; pushed it toward the outfield forming a large hump at the grass edge.

Project Management



Keep sprinklers off during the work.

Ensure access

Local support was key



Coordinate deliveries



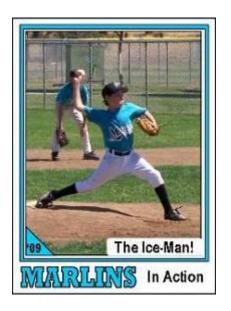
Don't under-estimate labor required



3 case studies & Lessons Learned

Will you create a better baseball experience for your players, coaches, and fans?







The crisis:

It's hard to get the job done given constraints on time, money, and skill.



But here's one answer:

Use these lessons-learned and basic practices to create a better baseball experience.



And the main point...

By improving the quality of the playing fields...

Your community's young athletes can reach their fullest potential and... you can be a hero!

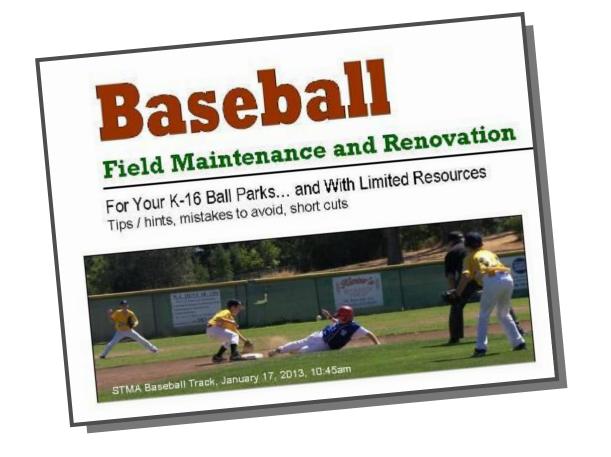




My Vision:

- Young people whose dream doesn't slip away due to a poor sports field, and
- Sports programs that help youth develop lifelong habits for success.





What sticks with you?

What can you use at your ball park?

Questions?
Comments?

Jim Reiner, Groundskeeper, Publisher, Editor baseballreiner@yahoo.com

